

Service Manual



VM700A Video Measurement Set 070-8165-03

Warning

The servicing instructions are for use by qualified personnel only. To avoid personal injury, do not perform any servicing unless you are qualified to do so. Refer to the Safety Summary prior to performing service.

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EC Declaration of Conformity

We

Tektronix Holland N.V.
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The Netherlands

declare under sole responsibility that the

VM700A

meets the intent of Directive 89/336/EEC for Electromagnetic Compatibility.
Compliance was demonstrated to the following specifications as listed in the Official Journal of the European Communities:

EN 50081-1 Emissions:

EN 55022 Class B Radiated and Conducted Emissions

EN 50082-1 Immunity:

IEC 801-2 Electrostatic Discharge Immunity

IEC 801-3 RF Electromagnetic Field Immunity

IEC 801-4 Electrical Fast Transient/Burst Immunity

High-quality shielded cables must be used to ensure compliance to the above listed standards.

Standards Compliance

The VM700A complies with the following safety standards:

- Underwriters Laboratories: UL1244 — Second Edition—*Standard for Electrical and Electronic Measuring and Testing Equipment*
- Canadian Standards Association: C22.2 No. 231 Series—M89—*CSA Safety Requirements for Electrical and Electronic Measuring and Testing Equipment*
- American National Standard: ANSI/ISA—S82—1988—*Safety Standard for Electrical and Electronic Test, Measuring, Controlling and Related Equipment*
- International Standard: IEC 348—Second Edition—*Safety Requirements for Electronic Measuring Apparatus*

The VM700A complies with the following regulatory standards:

- U.S. EMI: FCC Rules, Part 15, Subpart J, Class A

Preface

This is a service manual for the VM700A video measurement set. The VM700A is a multi-function television test and measurement device that performs the functions of a waveform monitor, vector scope, automatic measurement set, and noise measurement set on acquired television signals. The user may select a display of numeric values to confirm the quality of the signal path, or may select graphic displays for more detailed analysis.

Contents of the Manual

This manual contains the following sections:

1. **Specification** - Lists the major specifications of the VM700A and the Option 01 and Option 11 measurements. Other option specifications are contained in the associated Option User Manuals.
2. **Operating Information** - Introduces the VM700A, describes its major features, and the controls and connectors of the instruments.
3. **Theory of Operation** - Contains functional circuit descriptions of the VM700A's circuit boards to aid in understanding the instrument for servicing.
4. **Verification and Adjustment**- Procedures for verifying the operation of the VM700A and adjustments to return the VM700A to specification after a board exchange.
5. **Maintenance** - Customer service information and illustrated, step-by-step procedures for removing and replacing the field-replaceable assemblies of the VM700A.
6. **Troubleshooting and Diagnostics** - Contains information to help you troubleshoot the VM700A and replace faulty circuit boards or other defective system components.
7. **Replaceable Electrical Parts List** - The replaceable electrical parts are listed by assembly and circuit component number.
8. **Diagram and Circuit Board Illustrations** - Schematic diagrams and circuit board illustrations are supplied to assist in circuit repairs.
9. **Replaceable Mechanical Parts List** - Exploded views and lists of the replaceable mechanical parts are provided to aid in locating a replacement part.

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General Safety Summary

Review the following safety precautions to avoid injury and prevent damage to this product or any products connected to it.

Only qualified personnel should perform service procedures.

Injury Precautions

Use Proper Power Cord. To avoid fire hazard, use only the power cord specified for this product.

Avoid Electric Overload. To avoid electric shock or fire hazard, do not apply a voltage to a terminal that is outside the range specified for that terminal.

Avoid Overvoltage. To avoid electric shock or fire hazard, do not apply potential to any terminal, including the common terminal, that varies from ground by more than the maximum rating for that terminal.

Avoid Electric Shock. To avoid injury or loss of life, do not connect or disconnect probes or test leads while they are connected to a voltage source.

Ground the Product. This product is grounded through the grounding conductor of the power cord. To avoid electric shock, the grounding conductor must be connected to earth ground. Before making connections to the input or output terminals of the product, ensure that the product is properly grounded.

Do Not Operate Without Covers. To avoid electric shock or fire hazard, do not operate this product with covers or panels removed.

Use Proper Fuse. To avoid fire hazard, use only the fuse type and rating specified for this product.

Do Not Operate in an Explosive Atmosphere. To avoid injury or fire hazard, do not operate this product in an explosive atmosphere.

Product Damage Precautions

Use Proper Power Source. Do not operate this product from a power source that applies more than the voltage specified.

Use Proper Voltage Setting. Before applying power, ensure that the line selector is in the proper position for the power source being used.

Provide Proper Ventilation. To prevent product overheating, provide proper ventilation.

Do Not Operate With Suspected Failures. If you suspect there is damage to this product, have it inspected by qualified service personnel.

Symbols and Terms

Terms in this Manual. These terms may appear in this manual:

Safety Summary



WARNING. Warning statements identify conditions or practices that could result in injury or loss of life.



CAUTION. Caution statements identify conditions or practices that could result in damage to this product or other property.

Terms on the Product. These terms may appear on the product:

DANGER indicates an injury hazard immediately accessible as you read the marking.

WARNING indicates an injury hazard not immediately accessible as you read the marking.

CAUTION indicates a hazard to property including the product.

This symbol may appear in the Manual.



Static-Sensitive Devices

Symbols on the Product. The following symbols may appear on the product:



DANGER
High Voltage



Protective ground
(earth) terminal



ATTENTION
Refer to
manual

Service Safety Summary

Only qualified personnel should perform service procedures. Read this *Service Safety Summary* and the *General Safety Summary* before performing any service procedures.

Do Not Service Alone

Do not perform internal service or adjustments of this product unless another person capable of rendering first aid and resuscitation is present.

Disconnect Power

To avoid electric shock, disconnect the main power by means of the power cord or, if provided, the power switch.

Use Caution When Servicing the CRT

To avoid electric shock or injury, use extreme caution when handling the CRT. Only qualified personnel familiar with CRT servicing procedures and precautions should remove or install the CRT.

CRTs retain hazardous voltages for long periods of time after power is turned off. Before attempting any servicing, discharge the CRT by shorting the anode to chassis ground. When discharging the CRT, connect the discharge path to ground and then the anode. Rough handling may cause the CRT to implode. Do not nick or scratch the glass or subject it to undue pressure when removing or installing it. When handling the CRT, wear safety goggles and heavy gloves for protection.

Use Care When Servicing With Power On

Dangerous voltages or currents may exist in this product. Disconnect power, remove battery (if applicable), and disconnect test leads before removing protective panels, soldering, or replacing components.

To avoid electric shock, do not touch exposed connections.

X-Radiation

To avoid x-radiation exposure, do not modify or otherwise alter the high-voltage circuitry or the CRT enclosure. X-ray emissions generated within this product have been sufficiently shielded.

Section 1: Specifications

Section 1: Specifications

Physical Characteristics

Table 1-1: Physical Characteristics

Characteristic	Description
Dimensions (WxHxD)	19.0 x 8.75 x 21.9 (483mm x 222mm x 556mm)
Weight	45 lb (20 Kg)

Power Requirements

Table 1-2: Power Requirements

Characteristic	Description
Mains Voltage	87 to 137 VAC (115 VAC nominal)
	174 to 250 VAC (230 VAC nominal)
Mains Frequency	47 to 63 Hz
Power Consumption	250 Watts

Environmental

Operating Temperature Range: 0°C to 50°C ambient.

PAL Measurement Specifications

This section lists the specifications for each PAL measurement. The accuracies shown for measurements with averaging capabilities assume the default averaging factor of 32.

All accuracies shown for measurements with “relative mode accuracy” assume that an averaging factor of 256 was used to create the reference.

Measure Mode Specifications

Table 1-3: Bar Line Time

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Bar Level (b1 or Back Porch)	300 mV to 1.4 V	±0.5%	±0.2%
Sync Level	50 mV to 600 mV	±0.5%	±0.2%
Sync to Bar Top	350 mV to 2 V	±0.5%	±0.2%
Sync/Bar Ratio	10% to 125% (100% nominal)	±0.5%	±0.2%
Bar Tilt (Rec 569)	0 to 20%	±0.2%	±0.1%
Line Time Distortion (Rec 567)	0 to 20%	±0.2%	±0.1%
Bar Width	10 μ s to 30 μ s	±100 ns	NA

Table 1-4: Bounce

Measurement	Range	Accuracy
Peak Deviation	0 to 50%	±1%
Settling Time	0 to 10 sec	±100 msec

Table 1-5: Burst Frequency

Measurement	Range	Accuracy
Burst Frequency	±100 Hz	±0.5 Hz

Table 1-6: Chrominance to Luminance

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Chrominance to Luminance Delay	±300 ns	±5 ns	±1.0 ns
Chrominance to Luminance Gain Ratio	0 to 160%	±1.0%	±0.1%

Table 1-7: Chrominance Noise

Measurement	Range	Accuracy
AM Noise	20 to 80 dB	1 dB (20 to 60 dB)
PM Noise	20 to 70 dB	1 dB (20 to 60 dB)

Table 1-8: Chrominance Non-Linearity

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Chrominance Amplitude	0 to 100%	$\pm 1.0\%$	$\pm 0.5\%$
Chrominance Phase	0 to 360°	$\pm 1^\circ$	$\pm 0.2^\circ$
Chrominance to Luminance Intermodulation	-50 to +50%	$\pm 0.2\%$	$\pm 0.2\%$

Table 1-9: Color Bar

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Luminance Level	0 to 700 mV	± 3.5 mV	$\pm 0.2\%$
Chrominance Level (excluding gray and black)	0 to 700 mV	$\pm 1.0\%$ of nominal	$\pm 0.2\%$
Chrominance Phase	$\pm 180^\circ$	$\pm 0.5^\circ$	$\pm 0.1^\circ$

Table 1-10: Differential Gain and Phase

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Differential Gain (Minimum, Maximum, Peak)	0 to 100%	$\pm 0.3\%$	$\pm 0.03\%$
Differential Phase (Minimum, Maximum, Peak)	0 to 360°	$\pm 0.3^\circ$	$\pm 0.03^\circ$

Table 1-11: Frequency Response and Group Delay

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Frequency Response to 5 MHz	40 dB	1.0 dB	0.3 dB
to 6 MHz	40 dB	2.0 dB	0.6 dB
Group Delay to 5 MHz	1.0 μ s	20 ns	5 ns
to 6 MHz	1.0 μ s	40 ns	10 ns

Table 1-12: Horizontal Blanking

Measurement	Range	Absolute Mode Accuracy
Blanking Start	0.1 to 4.2 μ s	\pm 50 ns
Blanking End	6.8 to 12.2 μ s	\pm 50 ns
Blanking Width	6.9 to 16.4 μ s	\pm 50 ns

Table 1-13: Horizontal Timing

Measurement	Range	Absolute Mode Accuracy
Burst Level	80 to 600 mV	\pm 1%
Horizontal Sync Rise and Fall Time	80 ns to 1 μ s	\pm 10 ns
Horizontal Sync Width	1 to 8 μ s	\pm 10 ns
Burst Width	1.4 to 3 μ s	\pm 25 ns
Sync to Burst Start	5 to 8 μ s	\pm 25 ns
Sync Level	75 to 600 mV	\pm 0.5%

Table 1-14: Incidental Carrier Phase Modulation

Measurement	Range	Accuracy
ICPM (requires zero carrier pulse and the quadrature output of the demodulator on Channel C)	0 to 90°	\pm 1.0°

Table 1-15: Jitter

Measurement	Range	Absolute Mode Accuracy
Jitter (2 Field)	±20 ms	±10 ns
Jitter Long Time	±20 ms	±10 ns

Table 1-16: K-Factor

Measurement	Range	Absolute Mode Accuracy
2T Pulse K-Factor	0 to 10% Kf	±0.3%
KPB	-10 to +5% KPB	±0.3%
Pulse to Bar Ratio	10 to 125%	±0.7%
Pulse Half Amplitude Duration (HAD)	100 to 500 ns	±5 ns

Table 1-17: Line Frequency

Measurement	Range	Accuracy
Line Frequency	±3%	±0.1%
Field Frequency	±3%	±0.1%

Table 1-18: Luminance Non-Linearity

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Luminance Non-Linearity	0 to 100%	±0.4%	±0.2%

Table 1-19: Multiburst

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Multiburst Flag Amplitude	0 to 700 mV	±0.5%	NA
Packets 1-5 (0.5, 1.0, 2.0, 4.0, 4.8 MHz)	-40 to +6 dB	±0.1 dB	±0.03 dB
Packet 6 (5.8 MHz)	-40 to +6 dB	±0.2 dB	±0.06 dB

Table 1-20: Noise Spectrum

Measurement	Range	Absolute Mode Accuracy
Unweighted Signal-to-Noise (5 MHz Low Pass)	-20 to -80 dB	±0.4 dB (20 to 60 dB) ±1.0 dB (60 to 70 dB)
Luminance Weighted Signal-to-Noise (5 MHz Low Pass and Unified Weighting)	-20 to -80 dB	±1.0 dB (20 to 60 dB) ±2.0 dB (60 to 70 dB)
Chrominance Weighted Signal-to-Noise	-20 to -80 dB	±1.0 dB (20 to 60 dB) ±2.0 dB (60 to 70 dB)

Table 1-21: SCH Phase

Measurement	Range	Absolute Mode Accuracy
SCH Phase	±90°	±5°

Table 1-22: Vertical Blanking

Measurement	Range	Absolute Mode Accuracy
Equalizing Pulse Width	80 ns to 1 µs	±10 ns
Broad Pulse Width	80 ns to 1 µs	±10 ns
Vertical Blanking Field 1	19 to 30 lines	NA
Vertical Blanking Field 2	19 to 30 lines	NA

Auto Mode Measurements

Table 1-23: Line Blanking Timing Measurements

Measurement	Range	Accuracy
Colour Burst Duration	6 to 13 cycles (10 cycles nominal)	±0.1 cycle
Front Porch Duration	0.5 to 3 µs (1.5 µs nominal)	±20 ns
Line Blanking	9 to 16 µs (12 µs nominal)	±50 ns
Line Sync Rise and Fall Times	120 to 300 ns 300 ns to 1 µs	±15 ns ±30 ns

Table 1-23: Line Blanking Timing Measurements (Cont.)

Measurement	Range	Accuracy
Line Sync	1.4 to 6.6 μ s (4.7 μ s nominal)	\pm 10 ns
Sync-to-Start of Burst	2.2 to 8 μ s (5.6 μ s nominal)	\pm 20 ns
Burst Duration	1.4 to 3 μ s	\pm 25 ns
SCH Phase	\pm 90°	\pm 5°

Table 1-24: Field Blanking Timing Measurements

Measurement	Range	Accuracy
Equalizing Pulse Duration	1.4 to 20 μ s (2.35 μ s nominal)	\pm 10 ns
Broad Pulse Separation	1.4 to 20 μ s (4.7 μ s nominal)	\pm 10 ns

Other Timing Measurement

Table 1-25: Bar Rise Time

Measurement	Range	Accuracy	ITS Element	Standard
Bar Rise Time	120 to 300 ns 0.3 to 1.0 μ s	\pm 20 ns \pm 30 ns	B2	Measured from 10% to 90% points

Table 1-26: Amplitude and Phase Measurements

Measurement	Range	Accuracy	ITS Element	Standard
Average Picture Level	0 to 200%	\pm 3%		
Sync Amplitude Error	+100 to -50% (300 mV nominal)	\pm 0.3% of nominal	Live picture area	CCIR Rec. 569
Sync Amplitude Error (with Sound-in-Sync)	+100 to -50% (300 mV nominal)	\pm 0.3% of nominal	Last broad pulse in field	CCIR Rec. 569
Burst Amplitude Error	+80 to -50% (300 mV nominal)	\pm 1.0%	Live picture area	CCIR Rec. 569
Chrominance Reference Amplitude Error	-80 to +50% (300 mV nominal)	\pm 1.0%	D2	CCIR Rec. 569

Table 1-26: Amplitude and Phase Measurements (Cont.)

Measurement	Range	Accuracy	ITS Element	Standard
Luminance Bar Amplitude Error	± 30 to -70% (700 mV nominal)	$\pm 0.3\%$	B2	CCIR Rec. 569
Luminance Bar Amplitude	200 to 900 mV	± 2.2 mV	B2	
Luminance Bar Amplitude (% of carrier)	0 to 90% of Maximum Carrier	$\pm 0.3\%$	B2 and Zero Carrier	
Residual Carrier (Bar Top)	0 to 90% of Maximum Carrier	$\pm 0.3\%$	B2 and Zero Carrier	
Blanking Level	0 to 90% of Zero Carrier	$\pm 0.2\%$	Live picture area	CCIR Rep. 624-1
Chrominance-Luminance Gain Inequality	$\pm 75\%$ of bar amplitude	$\pm 1.0\%$	G1 or G2	CCIR Rec. 569
Chrominance-Luminance Delay Inequality	± 300 ns (0 ns nominal)	± 5 ns	F or G1 or G2	CCIR Rec. 569
Sync/Bar Rel. 3/7	20 to 110%	$\pm 0.5\%$	B2	CCIR Rec. 569
Sync to Bar Top	0.5 to 2 V	$\pm 0.5\%$	B2	CCIR Rec. 569
C/L Gn Err (using modulated Pulse)	$\pm 50\%$	$\pm 1\%$	F	
Sync Amplitude	75 to 600 mV	± 2.1 mV		
Burst Amplitude	75 to 600 mV	± 3 mV		
Burst Amplitude Difference		$\pm 2\%$		
Burst Quadrature Error		$\pm 1^\circ$		
Differential Gain (Peak and p-p)	0 to $+100\%$ (0% nominal)	$\pm 0.3\%$	D2	CCIR Rec. 569
Differential Phase (Peak and p-p)	0 to 360° (0° nominal)	$\pm 0.3^\circ$	D2	CCIR Rec. 569

Table 1-27: Frequency Response Measurements

Measurement	Range	Accuracy	ITS Element	Standard
Multiburst Flag Amplitude	20 to 130% of bar (60% nominal)	$\pm 0.5\%$	C1	CCIR Rec. 567
Multiburst Amplitude	0 to 200% of flag (100% nominal)	$\pm 1.5\%$ of flag ($\pm 2.5\%$ of 5.8 MHz packet)	C2	CCIR Rec. 567

Table 1-28: Waveform Distortion Measurements

Measurement	Range	Accuracy	ITS Element	Standard
Baseline Distortion	50% of bar	±0.3%	B1	CCIR Rec. 569
2T Pulse/Bar Ratio Error	+25 to -90% (0% nominal)	±0.5%	B1	CCIR Rec. 569
2T Pulse K-factor	0 to 10% Kf (0% Kf nominal)	±0.3% Kf	B1	CCIR Rec. 569
Bar Tilt (End Points)	0 to +40% (0% nominal)	±0.2%	B2	CCIR Rec. 567
Bar Tilt (Peak-to-Peak)	0 to +40% (0% nominal)	±0.2%	B2	CCIR Rec. 567
Line Time Distortion	0 to 40% of bar	±0.2%	B2	CCIR Rec. 560
Bar Tilt (Rec 569)	0 to 40% of bar	±0.2%	B2	CCIR Rec. 569
Field Time Distortion	0 to 35%	±0.5%	Field Square Wave	
Chrominance-Luminance Intermodulation	±50% (0% nominal)	±0.2%	G1 or G2	CCIR Rec. 569
Luminance Non-linear Distortion	0 to 50% (0% nominal)	±0.4%	D1	CCIR Rec. 569

Table 1-29: Low Frequency Error

Measurement	Range	Accuracy	Standard
Low Frequency Error (Reported as: CCIR LF Error 50–550 Hz LF Error 10–1000 Hz LF Error)	0% to 25% (0% nominal)	±0.8%	CCIR Rec. 569

Table 1-30: Noise Measurements

Measurement	Range	Accuracy	Standard
Unweighted SNR (567)	26 to 60 dB 61 to 70 dB	±1.0 dB ±2.0 dB	Measured on one quiet line per CCIR Rec. 567
Luminance Weighted SNR (567)	26 to 60 dB 61 to 70 dB	±1.0 dB ±2.0 dB	Measured on one quiet line per CCIR Rec. 567
Chrominance Weighted SNR	26 to 60 dB 61 to 70 dB	±1.0 dB ±2.0 dB	Measured on one quiet line per CCIR Rep. 637–2
Periodic SNR	26 to 60 dB 61 to 70 dB	±1.0 dB ±2.0 dB	Measured on one quiet line per CCIR Rep. 637–2

Table 1-30: Noise Measurements (Cont.)

Measurement	Range	Accuracy	Standard
Unweighted SNR (569)	26 to 60dB 61 to 70 dB	± 1.0 dB ± 2.0 dB	Measured on one quiet line per CCIR Rec. 569
Luminance Weighted SNR (569)	26 to 60 dB 61 tp 70 dB	± 1.0 dB ± 2.0 dB	Measured on one quiet line per CCIR Rec. 569

Table 1-31: Incidental Carrier Phase Modulation (ICPM)

Measurement	Range	Accuracy
ICPM (requires zero Carrier Pulse and the quadrature output of the demodulator on Channel C)	0 to 30°	$\pm 1.0^\circ$

NTSC Measurement Specifications

This section lists the specifications for each NTSC measurement. The accuracies shown for measurements with averaging capabilities assume the default averaging factor of 32.

All accuracies shown for measurements with "relative mode accuracy" assume that an averaging factor of 256 was used to create the reference.

Table 1-32: Bar Line Time

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Bar Level	50 to 200 IRE	±0.5%	±0.2%
Sync Level	20 to 80 IRE	±0.5%	±0.2%
Sync to Bar Top	70 to 280 IRE	±0.5%	±0.2%
Sync/Bar Ratio	10% to 125% (100% nominal)	±0.5%	±0.2%
Bar Tilt (Rec 569)	0 to 20%	±0.2%	±0.1%
Line Time Distortion (Rec 567)	0 to 20%	±0.2%	±0.1%
Bar Width	10 μ S to 30 μ S	±100 ns	NA

Table 1-33: Bounce

Measurement	Range	Accuracy
Peak Deviation	0 to 50%	±1%
Settling Time	0 to 10 sec	±100 msec

Table 1-34: Burst Frequency

Measurement	Range	Relative Mode Accuracy
Burst Frequency Error	±100 Hz	±0.5 Hz

Table 1-35: Chrominance-to-Luminance Gain and Delay

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Chrominance to Luminance Delay	± 300 ns	± 5 ns	± 1.0 ns
Chrominance to Luminance Gain Ratio	0 to 160%	$\pm 1.0\%$	$\pm 0.1\%$

Table 1-36: Chrominance Frequency Response

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Reference Amplitude	0 to 100 IRE	$\pm 1\%$	$\pm 0.5\%$
Frequency Response	0 to 100 IRE	$\pm 1\%$	$\pm 0.5\%$

Table 1-37: Chrominance Noise

Measurement	Range	Absolute Mode Accuracy
AM Noise	20 to 80 dB	± 1 dB (20 to 60 dB)
PM Noise	20 to 70 dB	± 1 dB (20 to 60 dB)

Table 1-38: Chrominance Non-Linearity

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Chrominance Amplitude	0 to 100%	1.0%	0.5%
Chrominance Phase	0 to 360°	1°	0.2°
Chrominance to Luminance Intermodulation	50 to 50%	0.2%	0.2%

Table 1-39: Color Bar

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Luminance Level	0 to 100 IRE (0 to 714.3 mV)	±0.5 IRE	±0.2%
Chrominance Level (excluding gray and black)	0 to 100 IRE (0 to 714.3 mV)	±1.0% of nominal	±0.2%
Chrominance Phase	±180° of nominal	±0.5° of nominal	±0.1°

Table 1-40: SMPTE Color Bar Nominal Values

Color	LUM (mV)	Chroma P-P (mV)	Phase (degrees)
Yellow	494.6	444.2	167.1
Cyan	400.4	630.1	283.4
Green	345.9	588.5	240.8
Magenta	256.7	588.5	60.8
Red	202.2	630.1	103.4
Blue	108.1	444.2	347.1

Table 1-41: Differential Gain and Phase

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Differential Gain	0 to 100%	±0.3%	±0.03%
Differential Phase	0 to 360°	±0.3°	±0.03°

Table 1-42: Frequency Response and Group Delay

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Frequency Response	±40 dB	±1.0 dB	±0.3 dB
Group Delay	±1.0 μs	±20 ns	±5 ns

Table 1-43: Horizontal Blanking

Measurement	Range	Absolute Mode Accuracy
Blanking Start	0.1 to 4.2 μ s	\pm 50 ns
Blanking End	6.8 to 12.2 μ s	\pm 50 ns
Blanking Width	6.9 to 16.4 μ s	\pm 50 ns

Table 1-44: Horizontal Timing

Measurement	Range	Absolute Mode Accuracy
Burst Level	10 to 80 IRE	\pm 0.5%
Horizontal Sync Rise and Fall Time	80 ns to 1 μ s	\pm 10 ns
Horizontal Sync Width	3 to 7 μ s	\pm 10 ns
Burst Width	6 to 13 cycles	\pm 0.1 cycles (FCC) \pm 0.5 cycles (RS-170A)
Sync to Burst Start (RS-170A)	4 to 10 μ s	\pm 150 ns
Sync to Burst End (FCC)	4 to 10 μ s	\pm 25 ns
Front Porch	0.1 to 3.5 μ s	\pm 10 ns (FCC) \pm 10 ns (RS-170A)
Sync to Setup	8.8 to 13.0 μ s	\pm 10 ns
Breezeway (FCC)	0.1 to 5 μ s	\pm 25 ns
Sync Level	20 to 80 IRE	\pm 0.5%

Table 1-45: Incidental Carrier Phase Modulation

Measurement	Range	Absolute Mode Accuracy
ICPM (requires zero Carrier Pulse and the quadrature output of the demodulator on Channel C)	0 to 90°	\pm 1.0°

Table 1-46: Jitter

Measurement	Range	Absolute Mode Accuracy
Jitter (2 Field)	\pm 20 μ s	\pm 10 ns
Jitter Long Time	\pm 20 μ s	\pm 10 ns

Table 1-47: K-Factor

Measurement	Range	Absolute Mode Accuracy
2T Pulse K-Factor	0 to 10% K _f	±0.3%
K _{PB}	-10 to +5% K _{PB}	±0.3%
Pulse to Bar Ratio	10 to 125%	±0.7%
Pulse Half Amplitude Duration (HAD)	100 to 500 ns	±5 ns

Table 1-48: LineFrequency

Measurement	Range	Absolute Mode Accuracy
Line Frequency	±3%	±0.1%
Field Frequency	±3%	±0.1%

Table 1-49: Luminance Non-Linearity

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Luminance Non-Linearity	0 to 100%	±0.4%	±0.2%

Table 1-50: Multiburst

Measurement	Range	Absolute Mode Accuracy	Relative Mode Accuracy
Reference Flag or Packet Amplitude	30 to 130 IRE	±1%	NA
Other Packets ¹	-40 to +6 dB	±0.1 dB	±0.03 dB

¹ Total Harmonic Distortion on packets must be ≤46 dB.

Table 1-51: Noise Spectrum

Measurement	Range	Absolute Mode Accuracy
Unweighted Signal-to-Noise Ratio (5 MHz Low Pass)	-20 to -80 dB	±0.4 dB (-20 to -60 dB) ±1.0 dB (-60 to -70 dB)
Weighted Signal-to-Noise Ratio (5 MHz Low Pass and Unified Weighting)	-20 to -80 dB	±1.0 dB (-20 to -60 dB) ±2.0 dB (-60 to -70 dB)

Table 1-52: SCH Phase

Measurement	Range	Absolute Mode Accuracy
SCH Phase	$\pm 90^\circ$	$\pm 5^\circ$

Table 1-53: Vertical Blanking

Measurement	Range	Absolute Mode Accuracy
Equalizing Pulse Width	80 ns to 1 μ s	± 10 ns
Serration Pulse Width	80 ns to 1 μ s	± 10 ns

Auto Mode Measurements

Table 1-54: RS-170A Horizontal Blanking Interval Timing Measurements

Measurement	Range	Accuracy	Test Signal
Color Burst Width	6 to 13 cycles	± 0.1 cycles	Horizontal Blanking
Front Porch Duration	0.5 to 2 μ s	± 20 ns	Horizontal Blanking
Horizontal Blanking Width	6 to 30 μ s	± 50 ns	Horizontal Blanking
Horizontal Sync Rise and Fall Time	80 to 120 ns 120 to 300 ns 300 ns to 1.0 μ s	-10 to +30 ns ± 20 ns ± 30 ns	Horizontal Blanking
Horizontal Sync Width	1 to 8 μ s	± 10 ns	Horizontal Blanking
SCH Phase	$\pm 90^\circ$	$\pm 5^\circ$	Horizontal Blanking
Sync to Setup	5 to 18 μ s	± 20 ns	Horizontal Blanking
Sync to Start of Burst	4 to 8 μ s	± 140 ns (0.5 cycles) ± 20 ns	Horizontal Blanking

Table 1-55: RS-170A Vertical Blanking Interval

Measurement	Range	Accuracy	Test Signal
Equalizing Pulse Width	1 to 20 μ s	± 10 ns	Vertical Blanking
Serration Width	1 to 20 μ s	± 10 ns	Vertical Blanking
Vertical Blanking Width	19 to 29 lines	-0.1 to +0.2 lines	Vertical Blanking

Table 1-56: FCC Horizontal Blanking Interval Timing Measurements

Measurement	Range	Accuracy	Test Signal
Breezeway Width	0.2 to 3.5 μ s	\pm 25 ns	Horizontal Blanking
Color Burst Width	6 to 13 cycles	\pm 0.1 cycles	Horizontal Blanking
Front Porch Duration	0.5 to 2 μ s	\pm 10 ns	Horizontal Blanking
Horizontal Blanking Width	6 to 30 μ s	\pm 10 ns	Horizontal Blanking
Horizontal Sync Rise and Fall Time	80 to 120 ns 120 to 300 ns 300 ns to 1.0 μ s	-10 to +30 ns \pm 20 ns \pm 30 ns	Horizontal Blanking
Horizontal Sync Width	1 to 8 μ s	\pm 10 ns	Horizontal Blanking
Sync to Setup	5 to 18 μ s	\pm 20 ns	Horizontal Blanking
Sync to End of Burst	6 to 15 μ s	\pm 20 ns	Horizontal Blanking

Table 1-57: FCC Vertical Blanking Interval Timing Measurements

Measurement	Range	Accuracy	Test Signal
Equalizing Pulse Width	25 to 100% of nominal horizontal sync pulse width	\pm 0.3%	Vertical Blanking
Serration Width	1 to 20 μ s	\pm 10 ns	Vertical Blanking
Vertical Blanking Width	19 to 29 lines	-0.1 lines to +0.2 lines	Vertical Blanking

Table 1-58: Amplitude and Phase Measurements

Measurement	Range	Accuracy	Test Signal
Average Picture Level (APL)	0 to 200%	\pm 3.0%	Full Field
Bar Top	0 to 90% of Maximum Carrier	\pm 0.1%	FCC/NTC-7 Composite
Bar Amplitude	0 to 200 IRE	\pm 0.3 IRE	FCC/NTC-7 Composite
Chrominance to Luminance Delay (Relative Chroma Time)	\pm 300 ns	\pm 5 ns	FCC/NTC-7 Composite
Chrominance to Luminance Gain (Relative Chroma Level)	0 to 160%	\pm 1%	FCC/NTC-7 Composite
Differential Gain	0 to 100%	\pm 0.3%	FCC/NTC-7 Composite
Differential Phase	0 to 360°	\pm 0.3°	FCC/NTC-7 Composite
Luminance Non-linear Distortion	0 to 50%	\pm 0.4%	FCC/NTC-7 Composite

Table 1-58: Amplitude and Phase Measurements (Cont.)

Measurement	Range	Accuracy	Test Signal
Relative Burst Gain	±100%	±0.3%	FCC/NTC-7 Composite
Relative Burst Phase	±180°	±0.3°	FCC/NTC-7 Composite
Burst Amplitude (% of sync)	25 to 200% of sync	±1.0%	Horizontal Blanking
Burst Amplitude (% of Bar)	10 to 80% of Bar (10 to 80 IRE when Bar is not used)	±0.4% (±0.4 IRE)	Horizontal Blanking
Sync Amplitude (% of Bar)	20 to 80% of Bar (20 to 80 IRE when Bar is not used)	±0.3% (±0.3 IRE)	Horizontal Blanking
Blanking Level	0 to 90% of Maximum Carrier	±0.2%	Horizontal Blanking
Sync Variation	0 to 50% of Maximum Carrier (0 to 50% of Bar when Zero Carrier is not used and 0 to 50 IRE when Zero Carrier and Bar are not used)	±0.3% for Zero Carrier (±0.3% for Bar and ±0.3 IRE for no Zero Carrier and no Bar)	Horizontal Blanking
Blanking Variation	0 to 50% of Maximum Carrier (0 to 50% of Bar when Zero Carrier is not used and 0 to 50 IRE when Zero Carrier and Bar are not used)	±0.3% for Zero Carrier (±0.3% for Bar and ±0.3 IRE for no Zero Carrier and no Bar)	Horizontal Blanking

Table 1-59: Frequency Response Measurements

Measurement	Range	Accuracy	Test Signal
Multiburst Flag Amplitude	0 to 90% of Maximum Carrier (20 to 130% of Bar when Zero Carrier is not used and 20 to 130 IRE when Zero Carrier and Bar are not used)	±0.5% for Zero Carrier (±0.5% for Bar and ±0.5 IRE for no Zero Carrier and no Bar)	FCC Multiburst or NTC-7 Combination
Multiburst Packet Amplitudes	0 to 100% of Flag	±1% of Flag	FCC Multiburst or NTC-7 Combination

Table 1-60: Incidental Carrier Phase Modulation

Measurement	Range	Accuracy	Test Signal
ICPM (requires Zero Carrier Pulse and the quadrature output of the demodulator on channel C)	0 to 30°	±1.0°	FCC or NTC-7 Composite

Table 1-61: Color Bar Measurements

Measurement	Range	Accuracy	Test Signal
Color Bar Amplitude Errors	±100% of nominal	±1.0%	FCC Color Bars
Color Bar Phase Errors	±180° from nominal	±0.5°	FCC Color Bars
Color Bar Chrominance to Luminance Gain Ratio	0 to 200% of nominal	±2%	FCC Color Bars

Table 1-62: Out-of-Service Measurements

Measurement	Range	Accuracy	Test Signal
Field Time Distortion	0 to 40%	±0.5%	Field Square Wave

Table 1-63: Waveform Distortion Measurements

Measurement	Range	Accuracy	Test Signal
Line Time Distortion	0 to 40% of Bar	±0.2%	FCC or NTC-7 Composite
Pulse to Bar Ratio	10 to 125%	±0.7%	FCC or NTC-7 Composite
Short Time Waveform Distortion (IEEE 511)	0 to 25% SD	±0.5% SD	NTC-7 Composite
Chrominance Non-linear Gain Distortion	5 to 35 IRE (20 IRE chroma) 45 to 160 IRE (80 IRE chroma)	±0.4 IRE	NTC-7 Combination
Chrominance Non-linear Phase Distortion	0 to 360°	±1.0°	NTC-7 Combination
Chrominance to Luminance Intermodulation	±50 IRE	±0.2 IRE	NTC-7 Combination
2T K-Factor	0 to 10% Kf	±0.3% Kf	FCC or NTC-7 Composite

Table 1-64: VIRS Measurements

Measurement	Range	Accuracy	Test Signal
VIRS Setup (Reference Black)	-20 to +130% of Bar (-20 to +130 IRE when Bar is not used)	$\pm 0.2\%$ (± 0.5 IRE when Bar is not used)	VIRS
VIRS Chrominance Reference Amplitude	0 to 200% of burst amplitude (0 to 80% of Bar when burst is not used and 0 to 80 IRE when burst and bar are not used)	$\pm 1\%$ ($\pm 0.1\%$ when burst is not used and ± 1 IRE when burst and bar are not used)	VIRS
VIRS Chrominance Phase Relative to Burst	$\pm 180^\circ$	$\pm 0.5^\circ$	VIRS
VIRS Luminance Reference	30 to 100% of Bar (30 to 100 IRE when bar is not used)	$\pm 0.2\%$ (± 0.2 IRE)	VIRS

Table 1-65: Signal-to-Noise Ratio Measurements

Measurement	Range	Accuracy	Test Signal
Unified Unweighted SNR	26 to 60 dB 61 to 70 dB	± 1.0 dB ± 2.0 dB	Quiet Line
Unified Luminance Weighted SNR	26 to 60 dB 61 to 70 dB	± 1.0 dB ± 2.0 dB	Quiet Line
NTC 7 Unweighted SNR	26 to 60 dB 61 to 70 dB	± 1.0 dB ± 2.0 dB	Quiet Line
NTC 7 Luminance Weighted SNR	26 to 60 dB 61 to 70 dB	± 1.0 dB ± 2.0 dB	Quiet Line
Periodic SNR	26 to 60 dB 61 to 70 dB	± 1.0 dB ± 2.0 dB	Quiet Line

Section 2: Operating Information

Section 2: Operating Information

The VM700A Video Measurement Set is a multi-function television test and measurement device with an easy to use interface. The VM700A performs the functions of a waveform monitor, vectorscope, automatic measurement set, and a noise measurement set on acquired television signals. Signals can be broadcast or from test equipment. The user may select numeric value displays to confirm signal path quality, or graphic displays for more detailed analysis.

The VM700A can be operated directly using the front panel or remotely using one of the RS-232C ports on the rear panel.

Automatic Video Measurements

Auto mode makes standardized video measurements automatically, including those specified in the RS-250B/EIA-250C, NTC-7, and RS-170A video signal standards. These measurements can be compared with user-selectable limits. The VM700A generates a caution or alarm message if a measurement falls outside the selected limits. Reports can be formatted and printed at user-scheduled times.

Digital Waveform/Vectorscope

For detailed waveform analysis, you may display the actual signal and take additional measurements manually. In Waveform mode, cursors are available to aid in measuring time, frequency, and amplitude. These cursors allow precise location of 10, 50, and 90 percent points on any transition.

You may expand the waveform display around any vertical or horizontal point. Since the data is digitized, the display remains bright at all expansion factors. The axes automatically expand with the waveform, so all units are correct as displayed.

The Vector mode provides the normal vectorscope display. The vectors may be rotated or expanded, with the rotation angle and gain values displayed numerically on the screen.

A unique “Find Colorbars” feature searches all video for colorbars and displays the vectors it finds. Select Line in both Waveform and Vector modes can be used to quickly specify any line for display or automatic measurement if the proper signal type is being measured.

Graphic Displays of Measurements

Measure mode provides graphic displays of measurements such as noise spectrum, group delay, and K-factor, for adjustment or closer analysis of the measurement. Most measurements can be made relative to a stored reference to

minimize or eliminate signal source errors. Most measurements have averaging to reduce the effects of random noise.

Picture Mode

You may quickly verify the signal source using the picture mode display and select any line on the picture for viewing in the waveform or vector displays.

User-Programmable Functions

You can define a sequence of operations as a new function. For example, the measurements to be made on a transmitter demodulator video output could be identified with a function labeled DEMOD. A user would select this function to make all measurements and provide a printout.

Hardcopy

All information on screen may be printed on printer supporting PostScript¹ or 24-pin Epson² graphics via the standard RS-232C interface. Automatic measurement results can be printed on most ASCII printers using the same interface.

Remote Operation

The VM700A can be operated from a remote terminal via its RS-232C ports to monitor unattended transmission systems, or to put systems under computer control.

White Phosphor CRT (Option 74)

This option provides a display module with a white phosphor CRT instead of the standard green phosphor when a new instrument is ordered with Option 74 from the factory. All the display module adjustments are the same as those for the standard CRT.

VM700A Controls and Connections

This is a description of the VM700A front panel controls and rear panel connections. The VM700A can be operated directly using the front panel or remotely using one of the RS-232C ports on the rear panel.

Front Panel Controls

The front panel (shown in Figure 2-1) consists of a touch screen and a 20-button keypad with a control knob.

¹ PostScript is a registered trademark of Adobe Systems, Inc.

² Epson is a registered trademark of Epson Corp.

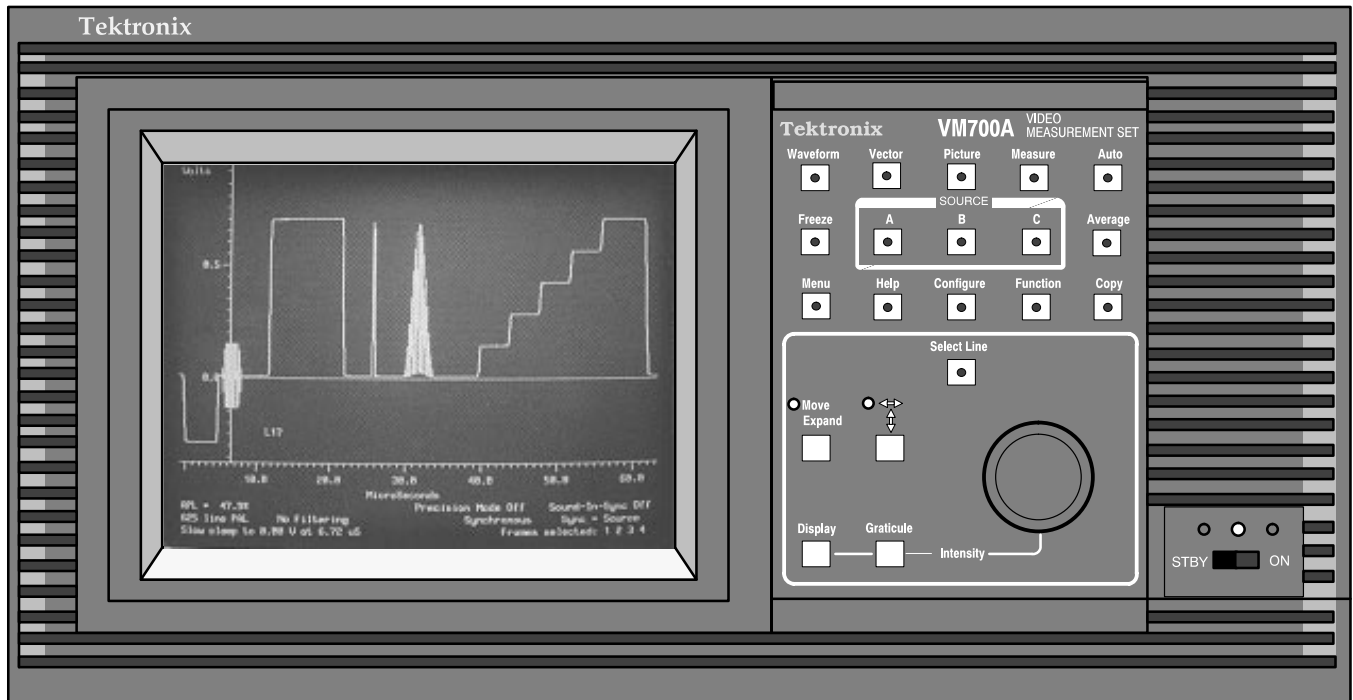


Figure 2-1: The VM700A front panel

Touch Screen The display (CRT) area of the VM700A features a touch screen for input. The touch screen displays input waveform signals, the digital vectorscope, a low-quality television picture of the input signal, graphic measurement displays, and automatic measurement results. Most of these modes include the line number of the video line being displayed. Many operations are performed by touching soft keys (shown as labeled rectangles) at the bottom of the touch screen. Other areas of the screen may display currently selected measurement parameters. When applicable, selection values are changed by rotating the large control knob.

Keypad The keypad (shown in Figure 2-2) contains three five-button rows, plus an additional five buttons associated with the control knob.

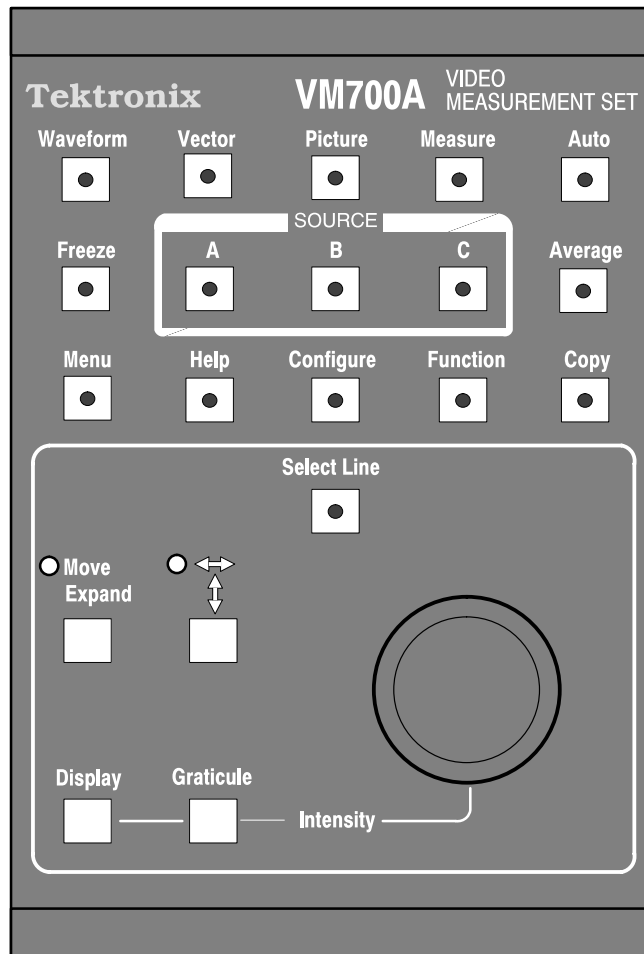


Figure 2-2: VM700A keypad

Manual and Auto Operational Modes. The top row of buttons controls the operational modes, which are the major functions. The VM700A has five operational modes: four manual modes and Auto mode. The VM700A operates in one of these modes whenever it is powered on. The manual modes are Waveform, Vector, Picture, and Measure. The power-on default mode is Waveform.

The manual modes perform the specified operation and provide a graphic display with digital readouts and status information. Auto mode makes measurements automatically and provides a tabular listing of the measurement results. Reporting of measurement results can be performed in either mode. Parameters such as clamping, sync source, and the displayed line (system line) are common for all the manual modes of operation. However, *manual mode parameters do not carry over to Auto mode*. Parameters for both Auto mode and the manual

modes are set through the directory and file structure accessed through the Configure button.

Freeze, Source Selection, and Average Functions. The second row in the keypad contains the Freeze button, the input channel selection buttons (grouped as SOURCE A, B, and C), and the Average button.

Freeze When you select Freeze, acquisition of the signal is halted. The display can be moved, expanded or contracted, as described below under Control Knob, but the display is not updated.

Source Selection For all operational modes, one of the input sources is always selected. For some of the manual modes, an input source can be inverted. In Waveform and Vector modes, an inverted source can be the sole input or it can be added to another input. In Measure mode, an inverted source can only be added to another source.

Source Invert To invert a single source, press and hold the source button approximately one second, until the instrument beeps. When a source is inverted, the LED on the source button flashes. To invert a second source and add it to another, press and hold the normal source and while holding it, quickly press and release the inverted source. The LED on the inverted source will flash.

Average The Average button enables uncorrelated or random noise reduction on the signal in Waveform and Vector modes and averaging of the signal in Measure mode. The amount of noise reduction (up to 30.10 dB) is set with the Noise soft keys. The number of averages (up to 256) is set with the Average Num soft keys.

Support Functions. The third row in the keypad contains support functions: Menu, Help, Configure, Function, and Copy. All of these functions except Copy are toggled on and off, either by pressing the button twice (i.e., turned on by pressing once, and off by pressing again), or by selecting a different operational mode in the top row.

Menu The Menu button displays a menu of soft keys across the bottom of the touch screen. In some cases, touching a softkey displays a further submenu of soft keys.

Help Pressing the Help button activates the Help function. When Help is activated, pressing a button or selecting a softkey displays a brief explanation of that button's softkey and function. When the Help function is active, all buttons and soft keys except Help lose their normal function and the LED on the Help button flashes. Pressing the Help button a second time turns off the Help function.

Configure and Function

The Configure and Function buttons and their uses are described in the user documentation.

Copy

The Copy button sends a copy of the display (in user-selectable 24-pin Epson or PostScript format) to the VM700A print spooler to queue for printing. The LED in the Copy button flashes as long as the copy remains in the spooler. To delete the copy from the spooler, press the Configure button while the Copy LED is flashing and select the Cancel Copy softkey. This softkey only appears when a copy is pending in the spooler. To print the spooled copy, a suitable printer must be attached to one of the VM700A serial ports.

Control Knob

The action of the control knob depends on its assignment for the current mode of operation. For example, in Waveform mode, rotating the control knob affects horizontal or vertical movement of the display or horizontal or vertical expansion of the display, depending on the selections of the Move/Expand button and the “left/right/up/down” button. In Auto mode, rotating the control knob scrolls through the list of measurements. When a user-configurable parameter is selected for changing, the control knob is rotated to make the change. The specific functions of the control knob in each mode are described in the relevant sections of the user documentation.

Display and Graticule Intensity Control. To change the intensity of either the display or the graticule, hold down the appropriate button (Display or Graticule), and rotate the control knob.

Select Line. The Select Line button changes the function of the control knob from the default Move/Expand action to line selection. The LED in the Select Line button is on when Select Line is active. To scroll through the field line by line, press the Select Line button and rotate the control knob. Depending on the operational mode, a menu of soft keys may also appear. The Select Line soft keys and the specific control knob functions are described in the relevant sections of the user documentation.

Rear Panel and Connections

The rear panel (shown in Figure 2-3) includes the line voltage and switching module, line voltage selector, fuse holder, a cooling fan, the signal input connectors, and the data ports.

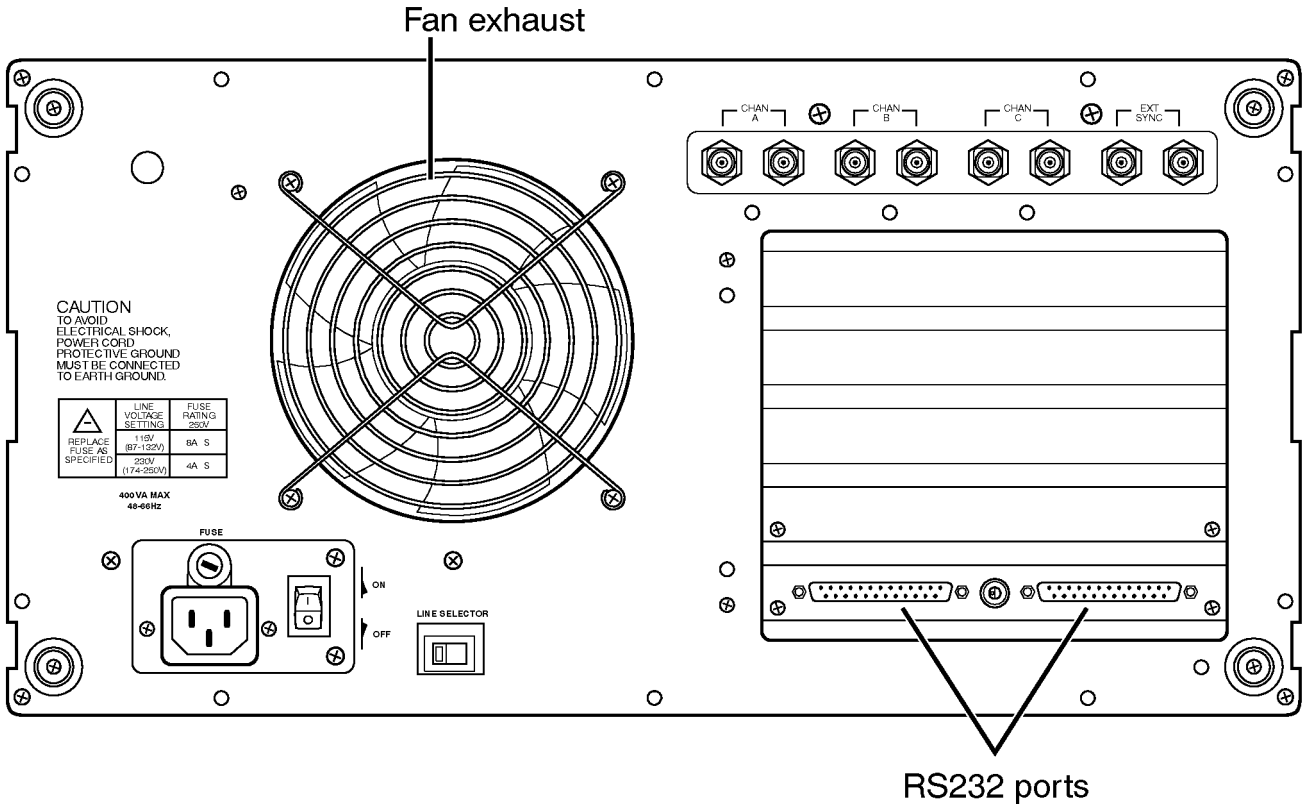


Figure 2-3: VM700A Rear Panel

The following paragraphs briefly describe each of the rear panel features.

Line voltage and switching module

Includes the connector and filter for line input voltage, the line fuse, and the main power switch.

Line voltage selector

Selects either 115 or 230 VAC line input voltage.



CAUTION. If you intend to operate the VM700A from a line voltage other than the voltage configured at the factory, you must replace the installed fuse with a fuse of the correct rating. See the label on the VM700A rear panel for fuse rating information. Operating the VM700A with the wrong fuse can result in severe damage.

Exhaust fan

Circulates air to internal components.

Signal inputs³

Connections for Channel A, B, and C signal inputs to the VM700A.

External sync

Allows connecting the VM700A to an external sync source.

RS-232 ports

Connect the VM700A to a printer for printing displayed data, screens, and logging information. The RS 232 ports also enable the VM700A to be accessed remotely via a terminal or a PC. VM700A remote access configuration and commands are discussed in the user documentation.

Equipment/Signal Sources Required

Most measurements supported by the VM700A are performed on the television signal. The signals may be either off-the-air broadcast or looped-through programming signals. For testing the VM700A, the signal source may be provided by an appropriate test signal generator. In most cases, the VM700A needs a video signal in a specific format (NTSC or PAL) to perform a meaningful measurement.

The VM700A sampling clock may also be driven from an external sync source. In Waveform mode, any signal can be displayed as long as it can be phase locked to the external sync source.

³ The signal inputs and the external sync connector are loop-through connections that must be terminated in 75Ω when they are not used.

Section 3: Theory of Operation

Section 3: Theory of Operation

This section describes the operation of the VM700A. The section first describes the VM700A system, then details each circuit board at the block level. Block diagram illustrations accompany the appropriate text.

NOTE. *In the discussion of the signals throughout the circuit description, logic signals that are asserted (true) when low are indicated in several manners. The notation most used in this text is (TRUE_LOW) where parentheses are around the logic signal name. Another method is to precede the signal name with a slash /TRUE_LOW, and a third method is $\overline{\text{TRUE_LOW}}$.*

Overview of The VM700A System

The video signal enters the VM700A analog input board (A1) through one of three high-impedance loop-through connectors. After it buffers and clamps the input signal and selects a channel, the A1 board passes the signal to the A4 filter switch board where analog filtering (signal conditioning) occurs. After filtering the filter switch board returns the video signal to the A1 board for analog processing (offset, gain, and dither are dynamically applied). The signal then passes to the analog-to-digital (A/D) converter board (A3) where it is digitized.

NOTE. *The A/D Converter board in the VM700A Video Measurement Sets manufactured after April 1996 is a new version. The functional operation is the same, and the new assembly is directly replaceable for the older A3 assembly in the event a board exchange repair is ever needed.*

The A2 genlock board uses an external sync or the sync from one of the three video input channels to create a sampling pulse synchronized (genlocked) to the incoming sync pulses. A two-stage, 10-bit, analog-to-digital flash converter digitizes the video signal. After digital conversion, the differential ECL data is clocked to the controller board (A8) where it is converted to single-ended TTL. The TTL data is passed to acquisition memory (on the acquisition memory board, A7).

NOTE. *The A7 and the A8 circuit boards have been replaced by the combined acquisition/controller board, A18, in later manufactured instruments. A yet newer design of the A18 board is now in use for manufacturing and for circuit board replacement repairs after July of 1996.*

Besides converting ECL data to single-ended TTL, the controller board also handles the following analog processing hardware functions: clamping, input selection, sync source, filter selection, offset, gain, dither, and genlock.

The data acquisition board (A7) stores acquired data and with the controller board controls data acquisition patterns. The memory on the data acquisition board (acquisition memory) consists of static RAM accessible by the CPU during data acquisition (the memory appears to be dual ported).

The CPU board (A5) contains a 68020 microprocessor, 68881 floating-point unit, real-time clock, and two RS-232C ports.

The EPROM/NVRAM board (A6) stores application programs. This board also stores system and configuration files created by the user.

The display memory board (A9) converts acquired data to video and drives the VM700A display. This board contains a 68008 microprocessor that controls the touch-panel, control knob, and keyboard interfaces to the 68020.

Analog Input Board (A1)

The analog input board performs input selection and applies bias, clamping, offset, gain, and dither to the input video before digital conversion. This board also contains a calibration DAC (digital-to-analog converter) that is automatically switched into the signal path to ensure accuracy. A block diagram of the A1 circuit board is shown in Figure 3-1.

Loop-Through Inputs and Input Buffers

The video channels and the external sync input have independent high-impedance loop-through inputs. Video channels are buffered to maintain high input impedance.

Mode Control

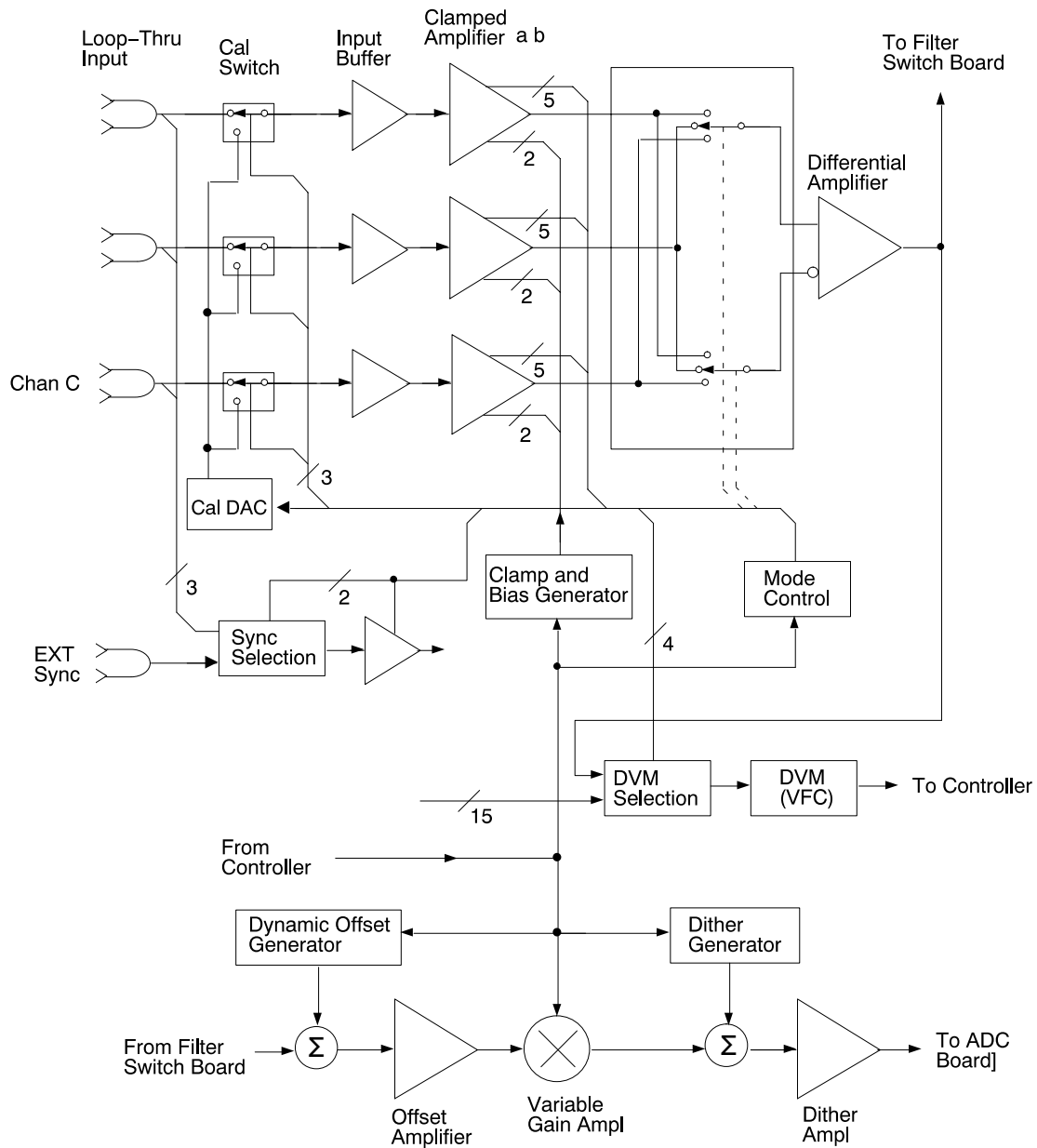
From the controller board the mode control block passes or decodes instructions for controlling clamped amplifiers, sync selection, channel selection, calibration DAC/cal switch operation, and the DVM selection.

Clamped Amplifiers

The clamped amplifiers (there are three, one for each channel) can either DC couple or DC restore (clamp) the video signal. Clamping is applied before channel selection to allow independent clamping of video signals that are synchronous but mis-timed relative to each other. The bias level for each channel is summed with the buffered video just before clamping.

Clamp and Bias Generator

The clamp and bias generator supplies the analog clamp and bias voltages to each clamped amplifier. This device is an 8-bit octal DAC, but only six outputs are used.



^aPossible channel selection combinations in hardware:
A, B, C, A ± B, A ± C, B ± C, ± A, ± B.

^aPossible front panel selections (using hardware and software):
A, B, C, A ± B, A ± C, B ± C, B ± A, C ± A, and C ± B.

Figure 3-1: Analog input board (A1) block diagram

The DAC receives its data and address information from the controller board. The 3 address bits enable the appropriate DAC output (clamp or bias for channels A, B, or C) while the 8 data bits are converted to the actual clamp or bias voltage.

Channel Selection	Output from the clamped amplifiers is fed to a switching matrix that enables the user to select various combinations of input channels.
Differential Amplifier	<p>The differential amplifier combines the differential output of the switching matrix and produces a single-ended video output signal which is passed, via coaxial cable, to the filter switch board. After being filtered (if filtering is needed) the video signal returns to the analog input board for offset, gain, and dither processing.</p> <p>On the analog input board an acquisition description supplied by the application (mode) dynamically applies dynamic offset, programmable variable gain, and dither to the input video.</p>
Dynamic Offset Generator and Offset Amplifier	Eight data bits from the controller board drive the dynamic offset generator DAC and provide a dynamic offset range of -1.28 to $+1.27$ volts in 10-mV steps. This offset is summed with the video signal to keep the signal centered in the dynamic range of the analog-to-digital converter (ADC). The video signal with offset applied is buffered by the offset amplifier and passed to the variable gain amplifier.
Variable-Gain Amplifier	The variable gain amplifier is a multiplying DAC programmed to yield $0-7.75$ X gain (in $1/4$ X steps) to the video signal. This improves measurement accuracy by using the optimal dynamic range of the ADC.
Dither Generator and Dither Amplifier	<p>Six bits of dither data from the controller board can be converted to 64 analog levels (usually, only the first 32 levels are used) to effectively increase the resolution of the 10-bit ADC. This is the same as an 8-LSB range in $1/8$-LSB steps. The typical dither pattern is shown in Figure 3-10.</p> <p>The dither amplifier buffers the processed video signal before passing it to the ADC board where it is digitized.</p>
Calibration DAC	The calibration DAC is a precision digital-to-analog converter used for gain compensation over the analog signal path (including the analog-to-digital converter). A calibration switch on each input channel couples the calibration signal onto the signal path at regular intervals. The output of the ADC provides calibration information that is stored in a look-up table. The VM700A uses the look-up table information to maintain its luminance accuracy specification without the need for periodic readjustments.
Sync Selection	<p>The VM700A gets sync from one of two sources:</p> <ul style="list-style-type: none">■ Directly from the channel A, B, or C loop-through inputs

- From the external sync loop-through input

To maintain a high impedance level for the video loop-through inputs, the sync selection buffers the selected signal. Following the sync selection is an amplifier that returns the video to the nominal one-volt level required by the sync stripper circuitry on the genlock board.

The sync stripper needs a negative-going (inverted) sync pulse. To enable the instrument to lock to inverted video, the amplifier following the sync selection can be programmed to invert the (inverted) video selected as the sync source (push down the front panel SOURCE A/B/C button for about one second to invert the video).

NOTE. *Video appears on the display in whatever orientation (inverted or non-inverted) it appears at the input connector. When you push the SOURCE A/B/C button only the video used as the sync source is inverted.*

DVM Selection and DVM

The DVM measures the average picture level (APL). Because deriving APL from the digitized video signal would mean acquiring a large quantity of data, the VM700A measures an analog average where the video exits to the filter switch board. This analog average is converted to a frequency output and sent to the controller board where it is read by a counter. The counter output is read by applications that furnish the APL readout on the display.

Fifteen other inputs to the DVM selection block are selected by two multiplexers. The selections include:

- Outputs of the clamped amplifiers
- Offset Amplifier
- Dither Amplifier
- Calibration DAC
- Video from the filter switch board
- Analog ground
- Clamp levels for channels A, B, and C
- TEMPSENSE from a thermistor
- +REF output from the precision voltage reference (not shown on the block diagram)

The Genlock Board (A2)

The genlock board sends a constant frequency sampling strobe to the analog-to-digital converter board. The genlock board was designed to work with the NTSC, PAL, PAL-M, and PAL-N video standards, but present application firmware supports only the NTSC and PAL standards. The sampling strobe may be generated by one of four methods, or modes (the first three are used by existing firmware applications):

- The strobe may be phase locked to the incoming video signal (synchronous sampling mode), to force 910 (NTSC), 1135 (PAL), 909 (PAL-M), or 917 (PAL-N) samples per line. This is mode 1 operation.
- The strobe may be phase locked to an internal 20.25 MHz temperature-controlled crystal oscillator (TCXO) and divided to NTSC or PAL line rates (asynchronous sampling mode). This method is used when the user wants to have 910/1135/909/917 samples per line, but it is more important to have constant, known intervals between samples than knowing where the samples are taken relative to the video. This method of generating the sampling strobe avoids errors that could be caused by the unstable signals typically found in VCRs. This is mode 2 operation.
- When timing measurement precision is most important the strobe may be exactly 20.25 MHz. This eliminates the small timing errors inherent in phase-locked loop systems. This is mode 3 operation.
- The strobe may be injected by an external generator if greater precision is required than is available from the internal 5 parts-per-million TCXO reference. This is mode 4 operation.

Sound-In-Sync Filter

The sound-in-sync filter reduces the level of the audio signal placed on the horizontal sync pulse. In some countries the sync stripper that follows this filter won't operate properly if audio is present on the sync pulse. In the configuration mode a menu selection engages this filter.

Sync Stripper

The sync stripper removes all chrominance and luminance information from the baseband composite video signal, but leaves the horizontal and vertical sync information.

One-Shot

The output of the sync stripper is fed through a single-shot multivibrator to isolate the phase-locked loop from signal irregularities. Without this protection echoes from improperly terminated video lines could falsely re-trigger the coarse phase comparator. The output of the one-shot, a horizontal line-rate signal, is fed to the phase-lock source multiplex as one of the input selections to the phase-locked loop.

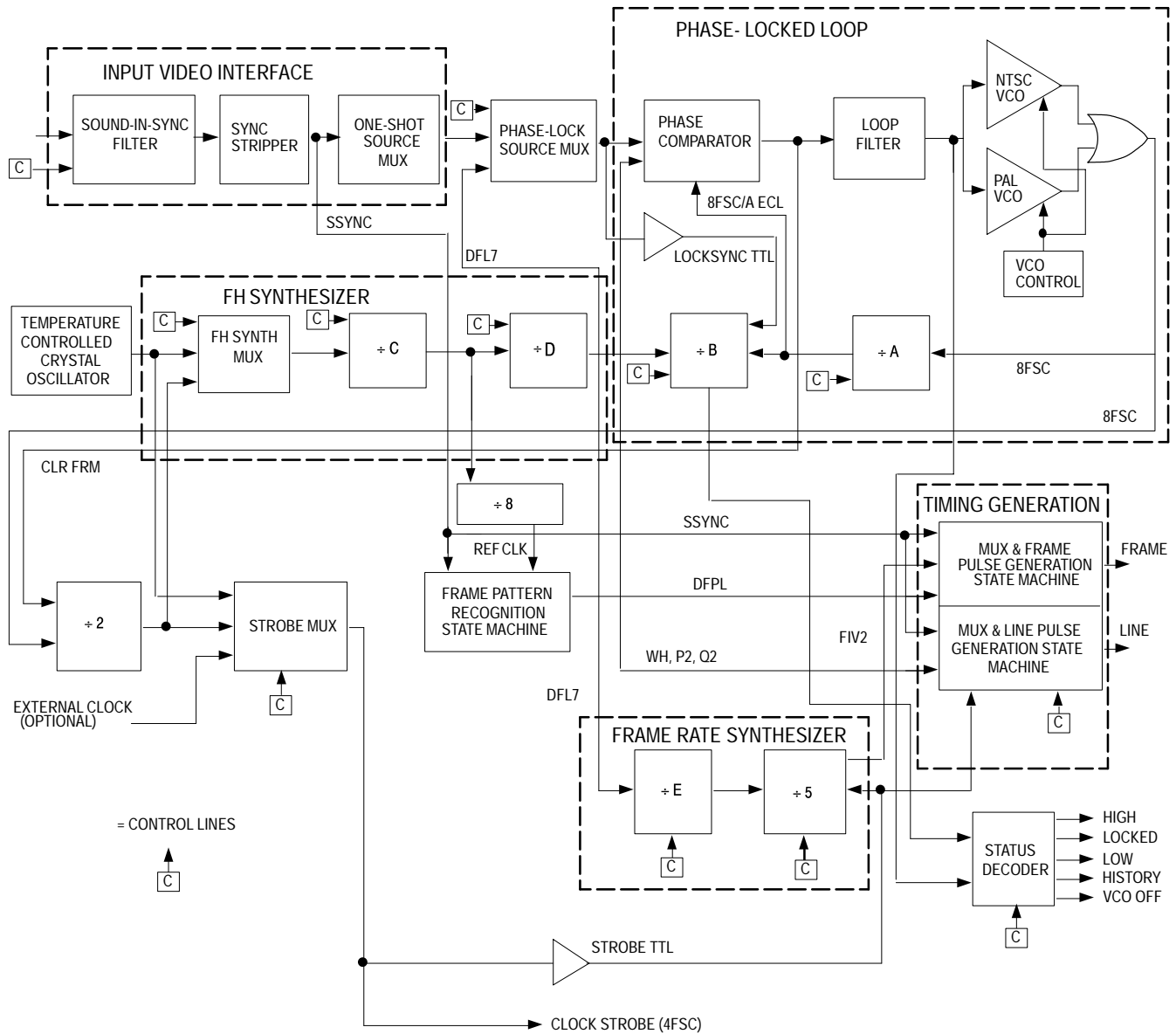


Figure 3-2: Genlock board (A2) block diagram

Temperature Compensated Crystal Oscillator (TCXO)

The TCXO provides a 20.25 MHz output that is divided to either an NTSC or PAL line-rate frequency and routed to the phase lock source multiplex as one of the input selections to the phase-locked loop. The VM700A uses this phase-locked loop input selection for asynchronous sampling.

FH Synthesizer

The first divider in the FH synthesizer, ÷C, is used as a timing reference generator for the frame pattern recognition state machine. The remaining

circuitry divides the TCXO frequency and creates a horizontal line-rate signal during asynchronous operation.

Timing Reference Generator Mode. When used as a timing reference generator in the synchronous sampling mode, the FH synthesizer mux selects the 4FSC (four times the sub-carrier frequency) output from ÷2 as the input to ÷C. ÷C divides by eight (for NTSC, PAL-M, PAL-N) or six (for PAL). This signal is again divided by 8 before reaching the frame pattern recognition state machine.

When used as a timing reference generator in the asynchronous sampling mode, the FH synthesizer mux selects the TCXO output as the input to ÷C. ÷C divides by nine for all video standards. As in the synchronous sampling mode, this signal is again divided by 8 before reaching the frame pattern recognition state machine.

FH Synthesizer. To create a horizontal line-rate signal for asynchronous operation, ÷C always divides by nine, dropping the signal frequency to 2.25 MHz. The ÷D output divides the 2.25 MHz by 143 (for NTSC and PAL-M), or 144 (for PAL or PAL-N), resulting in 15,734 kHz or 15,625 kHz signals, respectively. The ÷C output is divided by eight and used as a timing reference for the frame pattern recognition state machine.

FH Synthesizer Multiplex. This mux is an ECL wire-OR gate rather than a conventional hardware multiplexer.

Phase Lock Source Multiplex

The phase lock source mux selects the input to the phase-locked loop. The two inputs to this mux are the horizontal line rate signals from the input video interface and the FH synthesizer. The output of this mux is an input to ÷B, which compares the phase lock source mux output (after it is converted to TTL levels) with its own output. This comparison changes the divide ratio of ÷B when the phase comparator is in coarse correction mode.

Phase-Locked Loop

Phase Comparator. The phase comparator operates in either coarse or fine phase correction mode, depending on these two inputs:

- The output of the phase lock source mux (a line-rate pulse)
- The output of the phase-locked loop feedback circuit, ÷B.

The output of ÷B is a window that contains the centered leading edge of the line rate pulse.

The mechanism for coarse phase correction is performed by both the phase comparator and ÷B. When the line-rate pulse is not in the window, ÷B (which is also a gray code up/down counter) changes its divide value. To run the gray code up/down counter, ÷B compares the phase lock source mux output (after it is converted to TTL levels), with its own output. Besides changing the ÷B divide ratio to bring the pulse into the window, the phase comparator also sends a

relatively large signal to change the VCO output frequency. When the pulse is again in the window, the fine comparison mechanism takes over and $\div B$ locks to a static divide ratio.

When the line-rate pulse is not centered, but is still in the window, the fine comparator sends a small compensating voltage. The amplitude and polarity of this voltage depends on the pulse's position from the center of the window. The compensating voltage changes the VCO output frequency until the pulse is again centered in the window. The loop filter's low band-width mode filters the voltage spikes caused by the comparator changing its output level.

Loop Filter. The loop filter performs variable band-width filtering on the phase comparator output. When the phase comparator output is stable, the loop filter operates in a narrow-bandwidth mode supplying uniform input to the voltage controlled oscillator (VCO).

However, a large input signal switches the loop filter to a wide-bandwidth mode and allows the VCO output to change rapidly. The rapidly changing VCO output allows the phase-locked loop to quickly re-acquire lock.

NTSC/PAL VCO (Voltage Controlled Oscillator). When its input is (nominally) 0 volts (the phase-locked condition) the output of the VCO is a square wave at eight times the sub-carrier frequency. This signal is divided by $\div A$ and $\div B$ to obtain a line-rate window for input to the phase comparator. When the phase-locked loop is unlocked, the error-correction voltage sent from the phase comparator and loop filter changes the VCO output frequency to re-acquire phase lock.

+A. +A divides the 8FSC output of the VCO by five (NTSC or PAL), seven (PAL-N), or nine (PAL-M).

+B (Gray Code Up/Down Counter). The +B gray code up/down counter divides the output of $\div A$ by two, and also divides by 107 (PAL-M), 128 (PAL-N), 182 (NTSC), or 227 (PAL). The output of $\div B$ is a line-rate window used by the phase comparator.

When the phase comparator is in the coarse comparison mode, the gray code up/down counter increments or decrements as necessary to change the window frequency and acquire phase lock. The gray code count changes the 182/227/107/128 factor by one, which changes the overall 8FSC divide factor up or down by 10 (for NTSC or PAL), 18 (for PAL-M), or 14 (for PAL-N).

$\div 2$ Frequency Divider

The $\div 2$ reduces the 8FSC VCO output to four times the sub-carrier frequency (4FSC) and ensures a 50-percent duty cycle output to the strobe multiplex.

Strobe Multiplex

The three inputs to the strobe mux are the output from the TCXO, the 4FSC output of the ÷2, and the optional external clock. The input actually selected becomes the strobe that clocks the quantizers on the ADC board. After being converted from ECL to TTL, the output of the strobe mux clocks the frame and line generation state machines and the ÷5.

Divide by 8

To use the FH synthesizer as a counter, the output of ÷C is divided again by ÷8. The frame pattern recognition state machine uses this clock signal to reduce the number of states necessary between vertical intervals.

Frame Pattern Recognition State Machine

The frame pattern recognition state machine uses one of two algorithms (described below) to enable the mux and frame pulse generation state machine. If the frame pattern recognition state machine is disabled the output of the frame-rate synthesizer enables the mux and frame pulse generation state machine.

Odd field recognition, the default algorithm used by the frame pattern recognition state machine, identifies vertical serration pulses and the transitions to equalizer pulses. After it identifies five NTSC or four PAL equalizing pulses (ignoring the first pulse), the frame pattern recognition state machine waits slightly less than half of a line before it opens a window (asserted low) for the mux and frame pulse generation state machine. The first line sync pulse of the odd fields falls within the window and triggers a frame pulse.

All field recognition (or block recognition), the second algorithm used by the frame pattern recognition state machine, also identifies the vertical serration pulses. But instead of identifying the transitions to equalizer pulses this algorithm searches for the first occurrence of a normal 4.7 ms line sync pulse and opens a window approximately one line later (when the next sync pulse is expected). During all fields, line sync falls into the window and triggers the generation of a frame pulse at a field rate (in this case).

Frame Rate Synthesizer

When the frame pattern recognition state machine is not used the ÷E and ÷5 divide the line-rate output of the FH synthesizer to a frame rate. In this case the output of the frame rate synthesizer enables the mux and frame pulse generation state machine. The ÷E divides by 105 (for NTSC or PAL-M; $5 \times 105 = 525$) or 125 (for PAL or PAL-N; $5 \times 125 = 625$). The frame rate synthesizer is not used by current existing firmware applications.

Timing Generation

MUX and Frame Pulse Generation State Machine. The mux and frame pulse generation state machine selects one of the following as its enable input:

- The frame pattern recognition state machine output (DFPL, in Figure 3-2).
- The frame rate synthesizer output (FIV2).

When a line sync pulse occurs while the window from either source is asserted, the state machine generates a one-clock-cycle frame pulse at the same time as the next positive-going edge of the clock (4FSC).

MUX and Line Pulse Generation State Machine. The mux and line pulse generation state machine operates much like the mux and frame pulse generation state machine, but there is no qualifying window.

Status Decoder

The status decoder shows the state of the phase-locked loop and whether or not the loop has been unlocked since status was last checked.

When lit, two amber LEDs (separated by a green LED) indicate that the phase-locked loop is unlocked. One LED indicates that the output of the VCO is being pulled high, the other that it's being pulled low. The green LED indicates phase lock. A red LED, when lit, indicates that phase lock has been unlocked since the status of the phase lock was last checked. Checking the phase lock status resets the red LED.

When lit, a third amber LED indicates that neither VCO is operating. This LED indicates mode 3 or mode 4 operation (referencing to a crystal source or to an external strobe signal, respectively) or a malfunction.

Mode 3 and mode 4 operation are described in the first part of the genlock board discussion.

The Analog-to-Digital (ADC) Board (A3) (Old Version)

This ADC board has been replaced by a later designed ADC board. Newer manufactured Video Measurement Sets have the new board installed. The new board may also be used as direct replacement when a board exchange repair is made.

The ADC board uses a 10-bit dual flash converter running at four times the subcarrier rate (the ADC board can run at sampling frequencies from DC to about 35 Ms/s (megasamples per second), but the actual sampling rate is controlled by the genlock board).

The differential ECL data line outputs of the ADC board are converted to TTL levels on the controller board, then stored in acquisition memory on the data acquisition board (or on the combined acquisition/controller board, A18).

Line and frame pulses and digitized data from the genlock board are clocked through a series of latches to preserve their timing relationship. Figure 3-3 shows a block diagram of the ADC board.

Signal Conditioning

Incoming video passes through the anti-aliasing filter to remove signal components above the Nyquist frequency (2 times the subcarrier frequency: 7.16 MHz for NTSC or 8.86 MHz for PAL). The filtered video is then buffered to drive the

video delay line and the first equalization stage. The video delay line compensates for the propagation delay experienced by the video passing through the first 5-bit flash ADC and the 6-bit DAC. Both signals arrive simultaneously at the differential summing amplifier, effectively increasing the system's throughput rate.

Analog-to-Digital Conversion

The 32-level quantization of the first 5-bit ADC input analog signal is supplied to an error-correction look-up table PROM. The PROM uses the quantization to generate the five most-significant bits (MSBs) of the 10-bit digital signal output by the ADC board. This 5-bit word is also applied to the 6-bit DAC to generate a coarse replica of the original analog video signal.

The differential summing amplifier subtracts this coarse replica signal from the delayed input analog signal. The resulting difference signal is multiplied by eight and sent to the second quantization stage consisting of two additional 5-bit flash analog-to-digital converters arranged in a stacked configuration.

The second quantization stage converts the difference signal to a 6-bit word. Four of the 6 bits make up the least significant bits (LSBs) of the output 10-bit word, while the two remaining MSBs are used for error correction.

Voltage Reference Generators. To make circuit boards interchangeable and to allow more accurate calibration, the ADC board contains its own special-purpose power supplies. These supplies include precision voltage references for the 5-bit ADCs and the DAC. These power supplies incorporate Kelvin sensing to cancel the effects of contact resistance in the quantizer IC sockets.

Pipeline Buffers

These buffers provide the necessary isolation for the raw digitized data from the digital circuitry of the data pipeline storage and correction.

Data Pipeline Storage and Correction

Storage. Storage refers to the latches that temporarily store the data before it is clocked through to the error correction look-up table PROM by pulses from the timing generation block.

Error Correction. Error correction for the inherent analog errors that are associated with quantizers (DC offset, drift, dynamic gain, etc.) is provided for the first quantizer.

The two MSBs from the second quantization stage determine if the five bits from the first stage were perfect, or in error by ± 1 first stage LSB. The error correction look-up table PROM then adds 1 to (or subtracts it from) the output of the first stage (or does nothing if no error was detected). This produces an error-corrected word which makes up the six MSBs of the 10-bit ADC board output. The four LSBs from the second quantization stage are added to this word to produce the final 10-bit output.

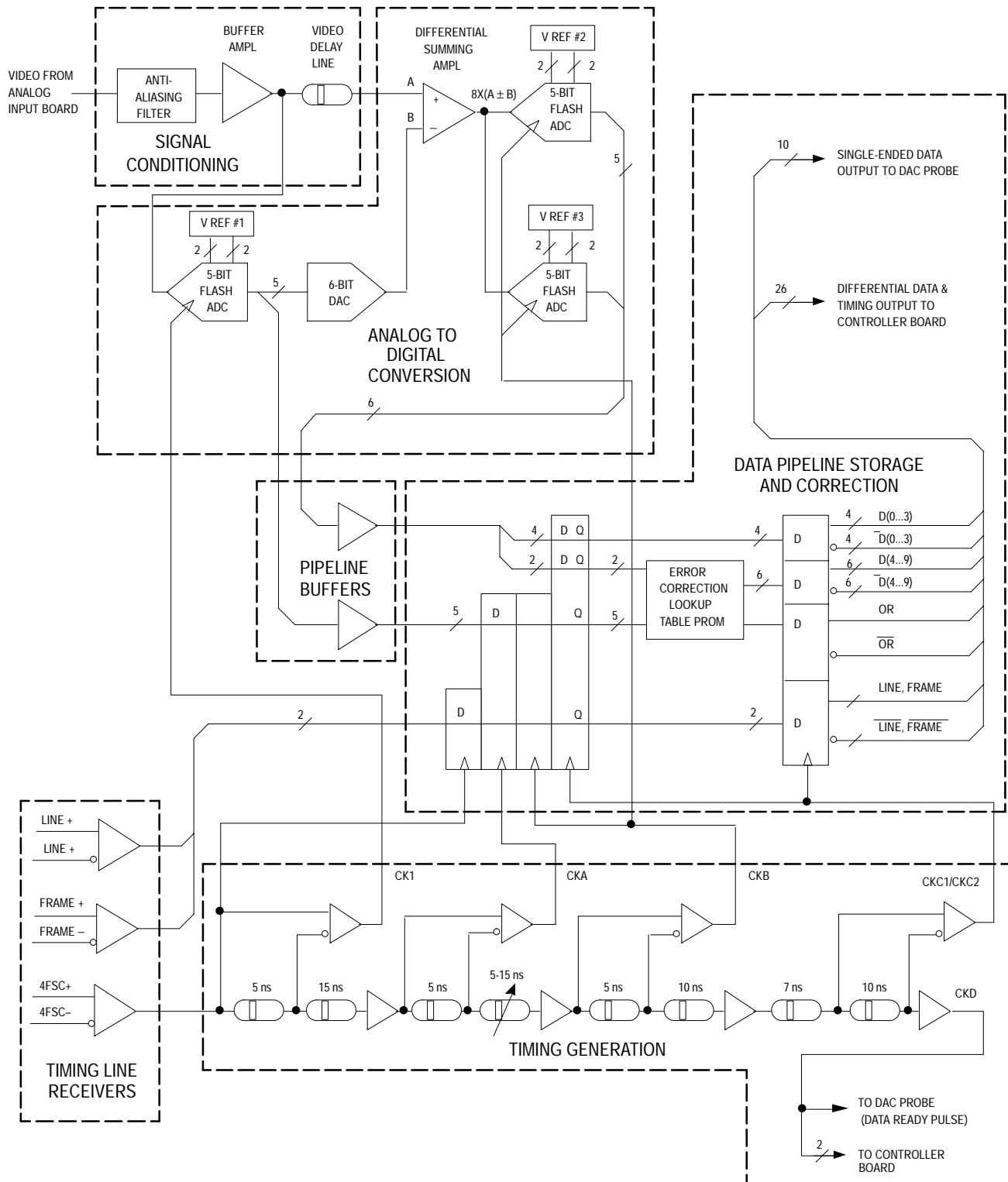


Figure 3-3: ADC board (A3) block diagram (old design)

Timing Line Receivers These buffers provide a single-ended output of the differential LINE, FRAME, and 4FSC signals received from the genlock board.

Timing Generation A series of discrete delay lines and buffers provide clean timing signals (derived from 4FSC) to the quantizers and the data pipeline. These timing signals clock the 10-bit data and the LINE and FRAME signals synchronously through the data pipeline.

The output of the timing generation block also includes:

1. Timing signals sent to the controller board to keep track of the digitized data.
2. A data ready pulse (clock pulse) for the DAC probe output (a connector used to factory test the ADC).

The Analog-to-Digital (ADC) Board (A3) (New Version)

The following describes the operation of the later designed ADC board. It is a direct replacement for the older A3 assembly. See the electrical replaceable parts list for assembly part numbers and effective serial numbers. A block diagram of the new design ADC board is shown in Figure 3-4. A schematic diagram and component level parts list is not provided in this manual.

+5 V and -5.2 V Regulators The +5 VA regulator provides a low-noise +5 V power source for the A/D converter and the signal conditioning operational amplifier. A simple 3-terminal regulator on the +15 V supply develops the +5 V source. Total current is typically 130 mA, max is 200 mA.

The -5.2 VA source is a negative boost switching regulator producing low-noise -5.2 V for the A/D converter and the signal conditioning operational amplifier. Total current is typically 320 mA, maximum is 425 mA.

Power to the digital ECL (-5VD) logic components is supplied by the -5.2 V supply from the main power supply of the instrument through an additional filter circuit.

Signal Conditioning Amplifier The signal-conditioning amplifier is a buffer between the anti-aliasing filter and the A/D Converter. The operational amplifier has 75 Ω input impedance, adjustable gain, and adjustable response. It has low distortion with 150 Ω output loading and operates between the +5 V and -5.2 V supplies. Its low impedance output directly drives the A/D Converter. An RC compensation network corrects for the small rolloff of the anti-aliasing filter at 5 MHz.

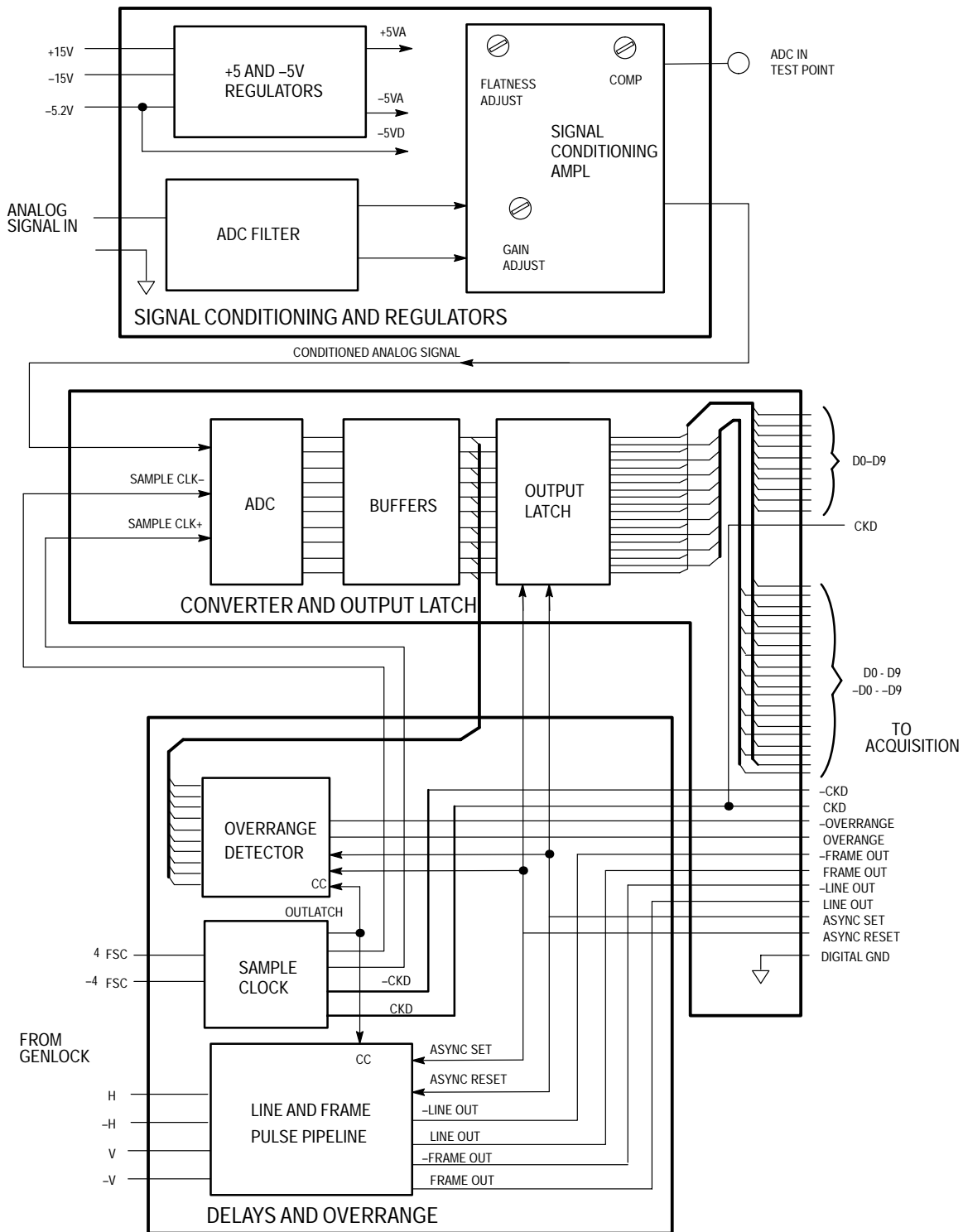


Figure 3-4: A/D Converter block diagram

A/D Converter	The A/D converter is a 12-bit monolithic converter. It has a dynamic voltage input range of ± 1 V and a conversion rate of 20 Megasamples per second. The clock and output samples are at ECL levels. The output is delayed by three clock cycles by the three-pass architecture of the A/D converter.
Buffer	The buffer is composed of 12 ECL buffers, one for each output line from the A/D converter. They are located close to the A/D Converter to minimize loading on the converter outputs and unlocked to minimize delays.
Output Latch	The output latch supplies differential drive for the cable transporting the data to the acquisition/controller. The latch is set and reset by ASYNC_SET and ASYNC_RESET from the acquisition/controller board. It is clocked by the OUT_LATCH clock derived from the 4FSC signal.
Line and Frame Pulse Pipeline	H-sync and V-sync from the GenLock board are applied to the Line and Frame Pulse Pipeline. The pipeline is a series of flip-flops that delays the frame and line sync by the same amount as the A/D converter delays the video.
Overrange Detector	The Overrange detector checks to see if the eight most-significant bits of the 10-bit samples are either all 1's or all 0's. If either event occurs, Overrange is asserted for that sample.
Sample Clock	The 4FSC (four times the subcarrier frequency) signal from the GenLock board is used to develop the sample clocks (SAMPLE CLK and -SAMPLE CLK) to the ADC and the acquisition clocks (CKD and -CDK) for the acquisition/controller board. The clocks to the acquisition system are connected through a 36-pin ribbon cable along with 10-bit data from the A/D converter and the Frame Out and Line Out signals.

Filter Switch Board (A4)

The filter switch board performs analog filtering of the video signal. Filtering is performed by one of four filters mounted as daughter boards on the main circuit board (five filters on newer filter switch boards). The video signal is intercepted on the analog input board just after channel selection and then returned for analog processing (offset, gain, and dither). Figure 3-5 shows the filter switch board block diagram.

On early filter switch boards, the filters include: high pass, low pass, differentiated step, and low-frequency noise. On newer filter switch boards, the filters include: NTSC band width limit, Chroma bandpass, IEEE low pass, differentiated step, and low-frequency noise.

Filter Select and Control

The controller board provides inputs to the filter select and control block. After decoding, these inputs select and control the desired filter. Note that only the low-frequency noise filter has controllable characteristics. This block also requests a six-bit filter ID from the filter in each slot and transmits it to the controller board.

The filter select and control block provides three types of outputs:

1. Filter selection, (FSEL[0..5]).
2. Filter poll, a request for filter I.D. (FPOLL[1..5])
3. Filter control, ID/CTRL[0..5], used only by the low-frequency noise filter.

When FPOLL [1..5] requests a filter I.D. (FPOLL1 requests filter type in slot 1, etc.), the filter places its six-bit I.D. on the ID/CTRL[0..5] lines. The I.D. is relayed to the controller board. FIL3, from the controller board, is not decoded by the filter select and control block, but when asserted, switches the output amplifier from unity gain to eight-times gain.

Slot 0 Slot 0 is the straight-through path of the filter switch board; it has no connectors for mounting a filter. In place of a filter, a resistor network provides a small amount of signal attenuation. The loss of each filter (in slots 1-5) is adjusted to match the loss from the resistance in slot 0.

When control line FSEL0 is asserted, the switches at both ends of slot 0 close and place slot 0 in the signal path.

Slots 1-5 Slots 1-5 accommodate the four plug-in filters. Of the eight control lines bused to slots 1-5, one is the FPOLL[1..5] line, and the remaining seven are the ID/CTRL[0..6] lines (see the description above).

Like the resistor network in slot 0, the filters in slots 1-5 are selected by control lines FSEL1 through FSEL5.

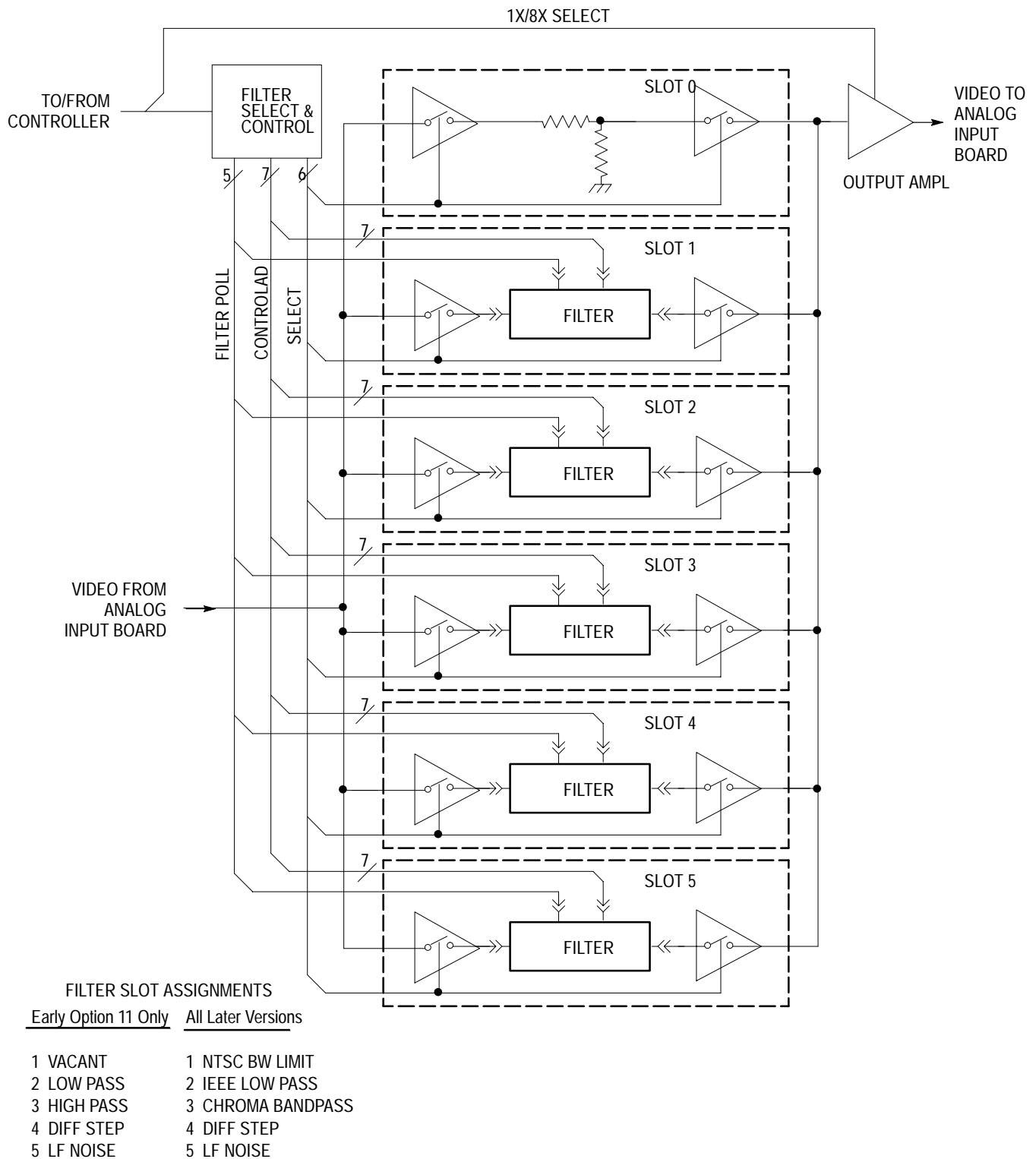


Figure 3-5: Filter switch board (A4) block diagram

The only filter with controllable parameters is the low-frequency noise filter. The -3 dB point on this filter can be set to 1 kHz, 7.5 kHz, 10 kHz, or 15 kHz by ID/CTRL5 and ID/CTRL6.

Output Amplifier The output amplifier provides the 75 Ω drive needed for the input to the analog input board. When the controller board asserts FIL3 the output amplifier switches to eight-times gain.

CPU Board (A5)

The central processing unit on the CPU board is a Motorola 68020 microprocessor running at 16.67 MHz. A Motorola 68881 floating point unit (FPU) processes floating-point instructions. The microprocessor and the FPU sit on a CPU bus that includes the 32 data lines, 32 address lines, and control lines from the 68020. All other buses on the CPU board are 8 bits wide. Figure 3-6 shows a block diagram of the CPU board.

CPU Clock The CPU clock is a 33.3 MHz crystal oscillator divided by two to create the clock for the 68020 and 68881.

The CPU is divided into six main sections, with each section connected to the CPU bus by a buffer.

System Bus A buffer connects all 32 data and address lines and the appropriate control lines from the CPU bus to the system bus. The A6 EPROM/NVRAM, A7 data acquisition, A8 controller, and A9 display memory boards all interface with the A5 CPU board through the system bus.

Forced Instructions The forced instruction mode causes the microprocessor to become a counter. In this mode the microprocessor reads instructions from the data bus one byte at a time. This mode lets you verify that the main CPU bus is functional.

The forced instruction circuitry writes a bit pattern to the CPU bus that the microprocessor interprets as a "move quick" instruction. The pattern is also used as data. The forced instruction requires 8 bits to perform (it uses the same 8 bits for both halves of the 16-bit instruction word), instead of the 16 bits required for a NO-OP (NO OPERATION) instruction.

Closing the CPU board's section "F" DIP switch (moving the switch to the Up position) enables the forced instruction mode. In this mode normal operation is disabled and the board is in diagnostic mode.

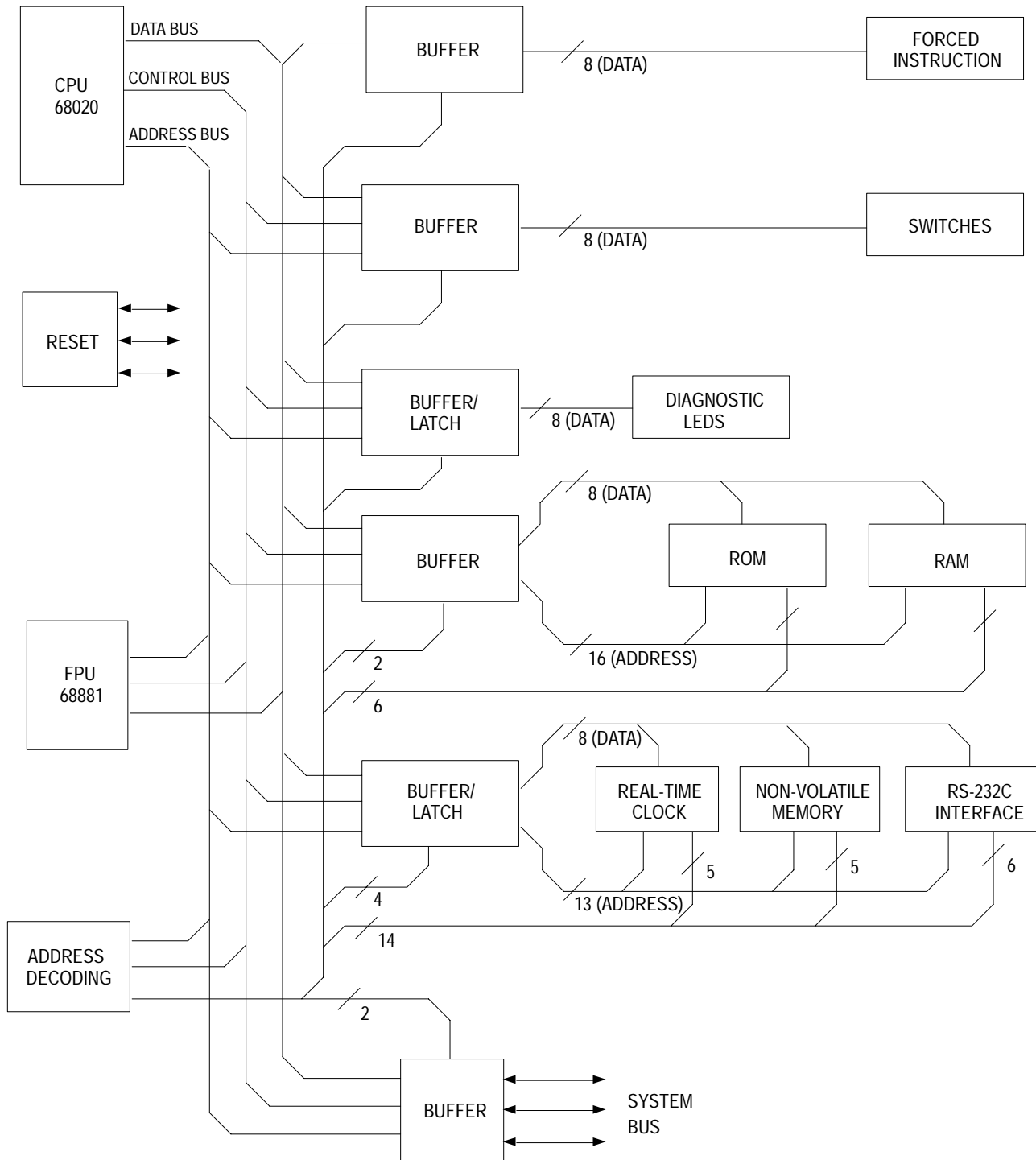


Figure 3-6: CPU board block diagram

All on-board buffers are connected to data lines 24 through 31, the lines used by 8-bit buses. If these data lines are functioning in a way that won't allow the move quick instruction, the 68020 fails to count properly, or won't count at all. As long as the 68020 can count properly and receive DSACK, the system continues to run, counting the address lines. The lower 16 address lines change state quickly and are easy to observe with an oscilloscope. The next 8 lines change state more slowly, and the top 8 change state so slowly that they are impractical to check with this method.

The forced instruction mode also modifies the decoding of the on-board ROM and RAM. The ROM and RAM are decoded more frequently, allowing easier observation of their data lines. The ROM and RAM data buffer (not the ROM and RAM) is disabled by forced instruction mode

The remainder of the system is disabled in this mode, to make it easier to get the ROM and RAM section running. Once ROM and RAM are working, on-board diagnostics are available.

ROM and RAM

The on-board ROM and RAM are both 8 bits wide and consist of 1 memory device each. The ROM (boot ROM) is 512 Kbits (64K by eight bits) and contains on-board diagnostics. The RAM is 64 Kbits (8K by eight bits). The ROM and RAM provide the initial start-up information for the CPU. The CPU initially executes instructions at address zero, the starting address of the boot ROM. On-board RAM at address 00020000 (hex) is used for data storage.

Under normal operation (after the boot sequence is complete) the CPU executes instructions contained in EPROM on the EPROM/NVRAM board. System RAM on the display memory board is then used for data storage.

Switches

The CPU board contains one six-section DIP switch. The first section, the forced instruction mode switch (F), is not routinely read by the CPU. The Auto-Reset switch (A), cache disable switch (C), and the MODE switches are read through the buffer during normal operation. The information in Table 3-1 describes the function of each section of the switch.

Table 3-1: CPU Switch Functions

Switch	Function
F	Forced Instruction
A	Auto-Reset Disable
C	Cache Disable
MODE 000	Normal operation
MODE 001	Forced touch screen calibration
MODE 010	Factory use only

Table 3-1: CPU Switch Functions (Cont.)

Switch	Function
MODE 011	Factory use only
MODE 100	Password enable
MODE 101	Forced touch screen calibration and Password enable

Other lines are read through the same buffer as the switches. These include:

- NVMENABLE** Indicates whether the non-volatile memory devices throughout the instrument may be written to.
- POWERFAIL** Notifies the CPU of an impending power failure.
- OVERTEMP** Indicates that the power supply is about to be shut down by its temperature sensing circuitry. There is a short time delay between the assertion **OVERTEMP** and the time the supply actually shuts down.

The switches are read at address 00030000 (hex).

LEDs Eight green LEDs on the CPU board are written by software and could potentially be used for diagnostic purposes. The diagnostic LEDs are written to at the same address as the DIP switches, 00030000 (hex).

On-Board Peripherals The CPU has three on-board peripherals: a real-time clock, non-volatile memory, and an RS-232C interface with two ports. These peripherals have more intricate timing requirements than other circuitry on the board, and the decoding and timing circuitry deal with these needs.

Real-Time Clock. The real-time clock provides time and date for printouts, reports, and stored references in measure mode.

If the on-board non-volatile memory is disabled the real-time clock can be read but not written to. Data from the clock is not read directly, but is read from a latch. The oscillator for the clock is referenced to the +5 V supply. The status of the +5 V supply is monitored at the 3.7 V lithium battery that provides the real-time clock backup power when instrument power is off. When the negative side of the battery drops below ground, the clock switches to the battery for power.

The real-time clock is at address 00050000 (hex).

Non-Volatile Memory. Non-volatile memory stores RS-232C port setup information, touch screen calibration factors, and CRCs (cyclic redundancy checks) for the touch-screen circuitry.

When high, the NVMENABLE (non-volatile memory enable) line on the system bus enables VM700A non-volatile memory to be written. If the line is pulled low by an external hardware switch, non-volatile memory is effectively write-protected. J248 on the A11A2 main interface right board (one of three boards of the mother board assembly) and a plugged hole in the rear panel of the instrument (for a 9-pin D connector) allow disabling write to non-volatile memory by pulling the NVMENABLE line low.

The non-volatile memory is at address 00040000 (hex).

RS-232-C Interface. The RS-232C interface consists of a DUART (dual asynchronous receiver/transmitter), a PAL to control timing and prevent data bus conflicts, and an RS-232C driver for each of the two serial communications ports. Lines from the drivers to the rear panel serial ports are filtered to reduce EMI.

The RS-232C interface is at address 00060000 (hex).

EPROM/NVRAM Board (A6)

The A6 EPROM/NVRAM board provides 4 or 5 Mbytes of program storage in the FLASH EPROM array (depending the number of memory parts loaded in the memory sockets). The board also provides 1 Mbyte of data storage in the nonvolatile memory array. The nonvolatile memory stores user-created configuration files and various system files. Figure 3-7 shows the EPROM/NVRAM board block diagram.

Previous versions of the A6 board provided only 256 Kbytes of NVRAM memory. Servicing of the 1 Mbyte A6 Memory board is the same as the 256 Kbyte memory board. The physical board layout is slightly different in the area of the NVRAM memory chips (1 megabyte in eight, 128 X 8 memory chips) to accommodate the larger size and pin arrangement of the memories. An earlier version of the A6 board was provided with non-FLASH EPROM parts. Diagrams and circuit board illustrations for all three versions are provided in the Diagrams section of this manual.

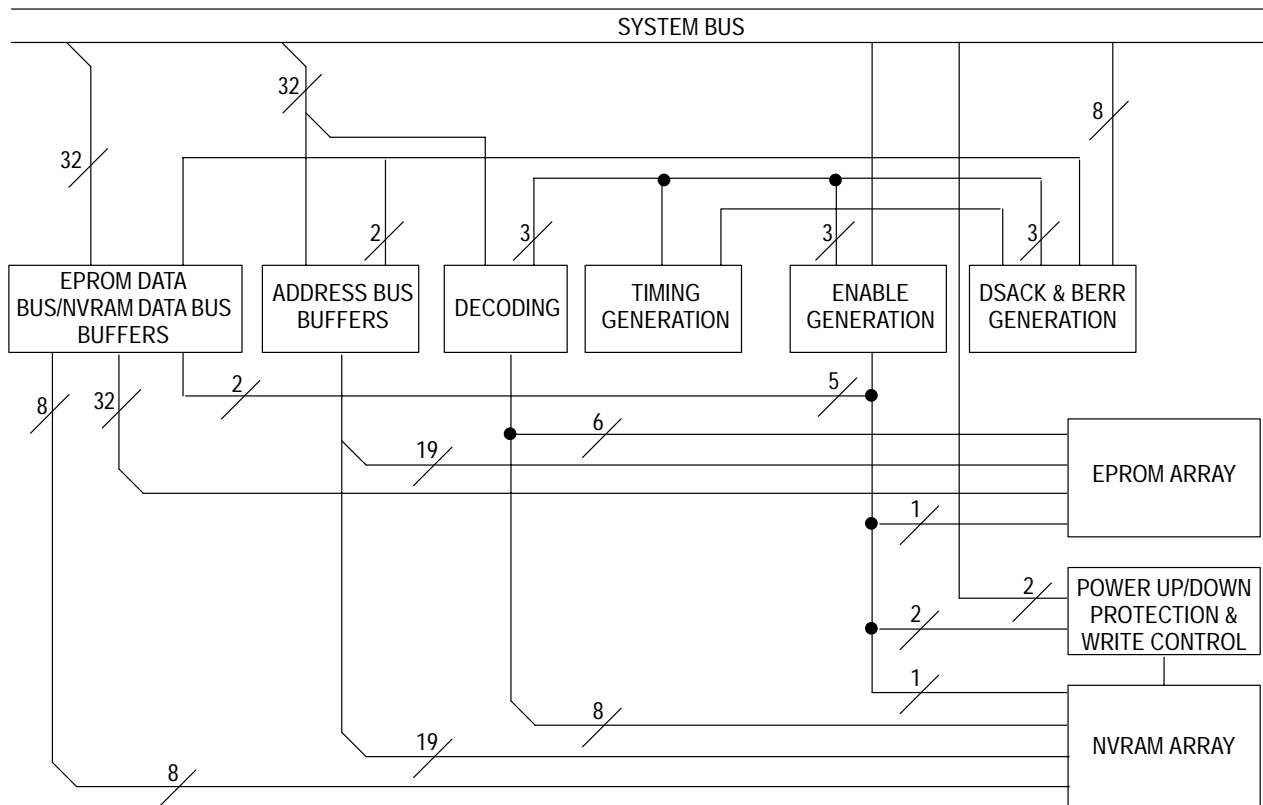


Figure 3-7: EPROM/NVRAM board (A6) block diagram

Data and Clock Inputs

Data enters the board via a 34-way connector, and consists of 16 data wires (D0-D15 on pins 2-17) and a clock wire (pin 32). Data entering the board must be stable for at least 10 ns before and after the clock's rising edge.

In the clock duty cycle the clock must be high for at least 5 ns, and low for at least 6 ns. U36B and U37 reshape the input clock, giving a 25-ns high pulse in each clock duty cycle. This reshaping gives the FIFO (first in/first out) dual-port RAM ICs the required write and chip-select pulse widths for input clock rates of up to 20 MHz.

FIFO Input

Sixteen-bit wide data at up to 20 MHz enters the dual-port RAM FIFO (U40-47) where it is demultiplexed to 32 bits at 10 MHz. The reshaped clock drives a GAL gray-code counter (U39) programmed to give a clock/2 output on pin 12 and the inverse on pin 14. When it is low, pin 12 writes to U40 through U43, and pin 14 does the same for U44 through U47.

The board is connected to the system bus (68020) and uses all data and address lines and the appropriate control lines. Separate buffers for each ROM and NVRAM array buffer data onto the bus. The EPROM array buffer is output-only onto the bus and is read 32 bits wide. The NVRAM array is read or written eight bits wide with bidirectional buffering.

Address Bus Buffers

These buffer the least-significant address bits (A0 through A18) for the NVRAM array, and 19 address lines (A2 through A20) to the EPROM array. Because the EPROM array is addressed in 32-bit words, the two least-significant bits are not used.

The data bus from the EPROM array is a 32 bit bus. If the CPU needs only a single byte or a 16-bit word from the EPROM array, it still receives a 32-bit word (long word) and sorts the desired byte or word from the 32-bit long word (the 68020 does this automatically).

The data bus from the NVRAM is an 8-bit bus. Two read/write cycles are required for the CPU to get a 16-bit word, or four read/write cycles to get a long word from the NVRAM array.

Decoding

Decoding determines which (if any) EPROM set or NVRAM to access. When the address on the system bus is on the board but outside the location of the EPROM or NVRAM arrays, the board generates a bus error (BERR) signal.

Timing Generation

Timing generation supplies the timing needed to access the EPROM and NVRAM arrays. When an access to the EPROM array begins, so does a timing cycle. At the end of an appropriate access time, a DSACK (Data transfer and Size ACKnowledge) signal is generated. The same is true of the NVRAM array.

In both cases, timing signals for enable generation are produced to prevent bus conflicts with other boards.

Enable Generation Enable generation provides output enables for the EPROM and NVRAM arrays. With the appropriate timing these enables prevent data conflicts on the board's internal bus.

DSACK and BERR Generation **BERR Generation.** When the address on the system bus is on the board but decodes to a location outside the valid address range of the EPROM or NVRAM arrays, a bus error (BERR) signal is generated. The hardware cannot tell if an EPROM is missing or failed, so an access in either of these situations does not produce BERR.

After an address strobe to the board occurs, the bus error generation circuitry waits approximately 100 ns and checks for EPROMSEL (EPROM SElect) or NVSEL (NVRAM SElect) output to be true. If neither are true, then the address is outside a valid address range and a BERR is generated.

BERR is also generated if there is an attempt to write to a valid NVRAM address while the NVMLOCKED signal is asserted.

If the SYSRESET (SYSTEM RESET) line is pulled low when an access occurs (this should not occur under normal circumstances), the write-enable lines to the NVRAMs are inhibited and BERR is not generated.

DSACK Generation. If either a ROMSEL or NVSEL output is true when checked at the end of 100 ns, DSACK generation is enabled. Actual assertion of DSACK_n is at a time appropriate to the speed of the memory devices being used.

When the EPROM array is accessed, both DSACK0 and DSACK1 are asserted, indicating to the CPU that the access is 32-bits wide. When the NVRAM array is accessed, only DSACK0 is asserted, indicating to the CPU that the port being accessed is only 8-bits wide. For more information on how DSACK is used, refer to Motorola's *MC 68020 User's Manual*.

Power Up/Power Down Protection and Write Control **Write Control.** The NVMENABLE (Non-Volatile Memory ENABLE) line on the system bus enables VM700A non-volatile memory to be written as long as it is high. If the line is pulled low by an external hardware switch, the non-volatile memories are write-protected. J248 on the A11A2 main interface right board and a plugged hole in the rear panel of the instrument (for a 9-pin D connector) allow the user to disable writing to non-volatile memories by pulling the NVMENABLE line low. NVMENABLE is buffered and becomes NVMLOCKED.

Power Up/Power Down Protection. Power up/power down protection prevents a write-enable from being asserted while TTL logic levels fluctuate during power-up or power-down. During power-down, CMOS logic prevents writing to

non-volatile memory until TTL levels drop to about 2 V. When TTL levels are 2 V or lower, the memory devices will not respond to input.

Data Acquisition Board (A7)

The data acquisition board is a programmable data interface between the ADC board and the 68020 microprocessor on the controller board. ECL-level data from the ADC board is sent to the controller board where it is converted to TTL levels, then passed to the data acquisition board. The controller board can be programmed to recognize data sequences and generate signals to the data acquisition board, telling it when to perform various tasks. Figure 3-8 shows a block diagram of the data acquisition board. This board and the Controller board (A8) have been replaced by a single Acquisition/Controller board (A18) in currently manufactured VM700s and for board swap repairs of either A7 or A8.

On the transition to pin 12 low, a gray count from pins 15 through 18 of U39 changes to the next count, so the gray count counts at half the input clock rate. Two 16-bit writes can occur at each count address.

The gray count drives the write-address bus of the dual-port RAM ICs. The WE-2 input on each RAM IC is driven from the reshaped clock.

FIFO Output

Device U48 resamples the FIFO gray code write address on the read clock, while U49 (a PROM) generates the FIFO output read address. Device U49 also generates these signals:

- Next read address on pins 9-13
- FIFO overflow on pin 14
- FIFO Has Data (FHD) (true=High) on pin 16 and its complement (NFHD) on pin 15
- FIFO Almost Full (FAF) signal on pin 17

The FAF signal goes low when FIFO occupancy is greater than or equal to 10 (in the range 0-15). The FHD signal goes high when FIFO occupancy is greater than or equal to 2 (in the range 0-15).

A FIFO Read Count Enable (FRCE) signal goes low to allow the FIFO read pointer to increment. When FIFOCLR goes low, it clears the FIFO by setting the read pointer equal to the write pointer, and also forces the FHD and NFHD lines high (not mutually inverted), FAF low, and FIFO overflow high (false).

When FHD goes high it allows the state machine to run. When FIFOCLR goes high NFHD also goes high to stop FRCE from spuriously incrementing the read pointer (U35 pins 5 and 6).

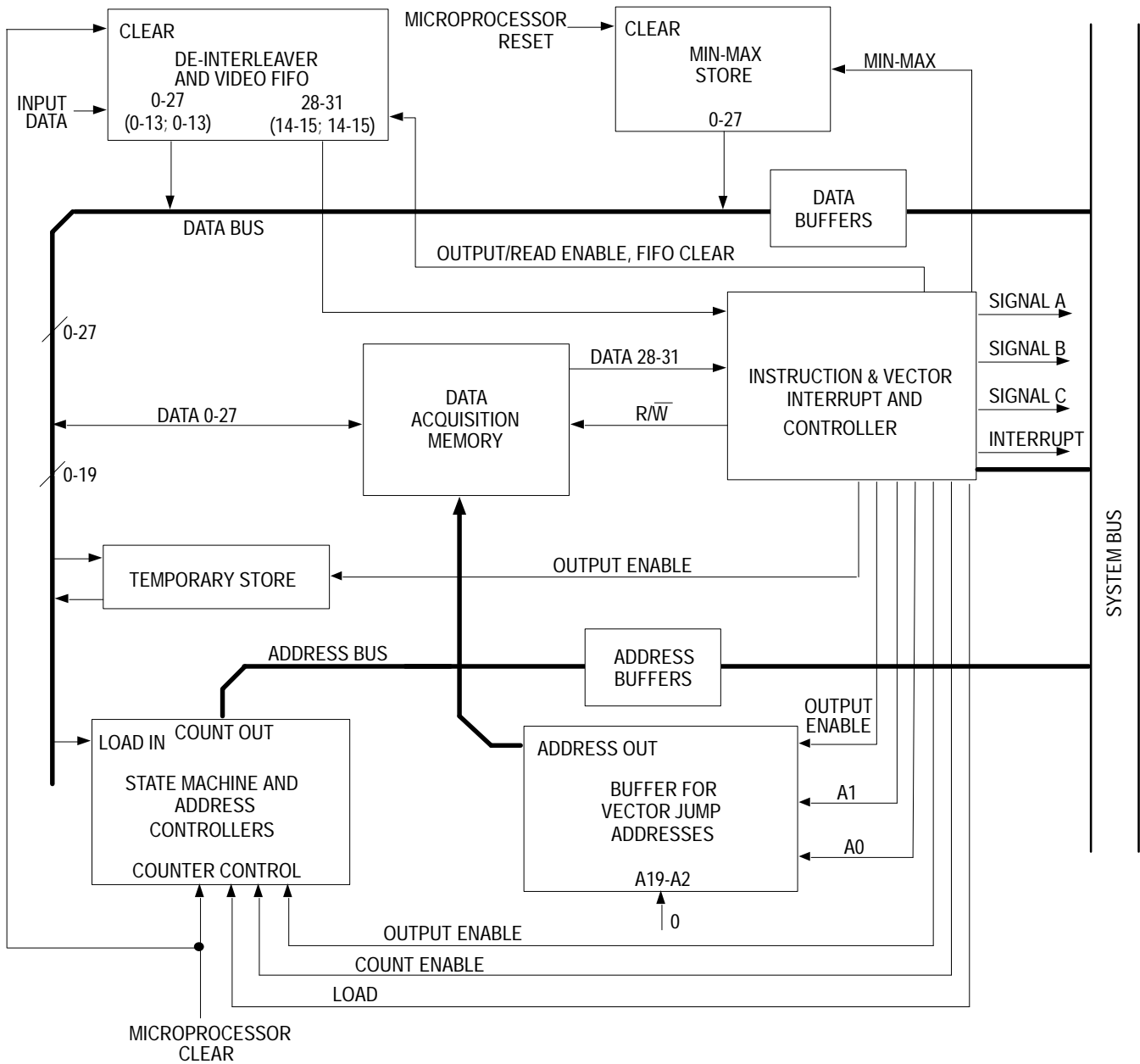


Figure 3-8: Data acquisition board block diagram

State Machine

This synchronous state machine includes a microcode instruction interpreter (U14 through U17). This interpreter reads data bits RD28-31 to the state machine as microcoded instructions. The interpreter also reads the FIFO trigger signals for vector interrupts (FT00-03). The state-machine program counter (a 20-bit counter, U7-U11) is also the address to write data to acquisition memory from the FIFO.

The address is fed to acquisition memory via U3-4. The outputs of U3-U4 are usually enabled onto the memory address bus. However, U1-U2 can be enabled by the microcode interpreter to generate the special vector interrupt addresses.

U1-U2 have their inputs tied low except for pins 2 and 3 of U1; these are driven from the microcode interpreter. When a 68020 microprocessor access is granted, the state-machine is halted by gating the clock, and U5-6 are enabled to send the required read/write address to acquisition memory.

The temporary store (U12-U13) can be enabled onto the data bus from the microcode interpreter. The data bus also goes to the load inputs of the counters U7-U11. The clear inputs to the counters are not driven from the microcode interpreter, but rather from a specially decoded 68020 address that allows the user to clear the state-machine for a new acquisition.

When it is high, the state-machine disable signal (SMDIS) disables state-machine access to the memories (on pin 1 of U1-U4) and disables data bus access with U18, without affecting the state-machine state.

The microcode interpreter is prevented from reading false instructions when the outputs of U1-U2 are enabled.

Main Clock

The main board clock is U20, a TTL-output compatible crystal oscillator running at 11.000 MHz. To get the correct clock shape for the acquisition RAM write pulses, the clock is shaped by U21-U22 to go high for 20 ns in each cycle on pin 7 of U21. Pin 6 of U21 is (CK).

Inverted by the clock gates U23, (CK) provides the state-machine clock and r/(w) mode selection for the bottom 28 acquisition RAM data bits (R/WLS28) and the top 4 bits (DR/W) separately. This clock arrangement allows the state-machine to simultaneously write to the bottom 28 bits of the acquisition memory and read instructions from the top 4 data bits.

Microprocessor Interface

Because the acquisition board has its own 11 MHz clock, it is independent of the CPU microprocessor. The advantage of this independence is that if different microprocessor clock rates are used it doesn't affect the operation of the acquisition board as long as the board meets bus timing requirements.

But the microprocessor interface is asynchronous into the acquisition board. Interface circuits allow read and write requests to be synchronously interfaced to the board clock.

Any 32-bit address causes U25 pin 19 to go low if its top 8 bits match the setting of SW1 (DIPSW). In the CPU access cycle, \overline{AS} goes low shortly after, latching the pin-19 signal into U33a. Pin 7 \overline{Q} then goes high, latching the address into U5-U6 (on ACLK), and also latching the r/(w) line from the microprocessor into U32a. There is now a r/(w) access request signal high on U33 pin 6 and a read/write select occurring slightly later on U32 pin 6.

Because of the delay, if the r/\overline{w} access request and read/write select signals are immediately re-sampled, an access request could be sampled with an invalid $r/(w)$ select. For this reason the access request signal is delayed 45 ns by clocking it on (CK) (derived from pin 6 of U21 into U33B). Both signals are then re-sampled: r/\overline{w} by U30:D0, and ACCESS by U32B (a JK flip-flop that sets an access service request). Device U31 is an array logic device programmed to handle access logic.

If the access request is granted, pin 18 goes high and clears the request on the next clock period at pin 14 of U32B. Simultaneously, U30 pin 14 goes low. On the following clock period U30 pin 15 (AOE) goes low, disabling the state-machine clock on U32 pin 13 and selecting pins 2-5 to feed pins 4-7 (respectively) of U24. These signals come from a delayed version (through U30:D7) of the r/\overline{w} signal, allowing the microprocessor 32-bit-wide read/write accesses to the acquisition memory for one clock period.

Control lines on U26-U29 allow bidirectional access to the memory from the microprocessor data bus. U26-U29 are latched bidirectional interface ICs that accept data from B-A (CBA) on a falling \overline{DS} signal (through U19C) or latch from A-B (CAB) from U31 pin 17 through U30:D2. U31 drives the output enables (GAB, \overline{GAB}) separately.

The state-machine clear signal is decoded on a write access with A23 high on U31 pin 3. SMCCLR goes low one clock period later. U48:D5-7 are a SMCCLR pulse extender from 1-4 clock pulses because IC31 is programmed as a flip-flop that is reset when its pin 8 goes low.

The DSACK0-1 signals are driven from U34, a specially programmed array logic device. When pins 2-3 (for DSACK0-1) go low, these signals pull the DSACK lines low, but when are set high they pull the DSACK lines high until they reach a logic-high state. The DSACK0-1 signals then go open-circuit on the DSACK bus.

Pins 2-3 are pulled high when the \overline{DS} signal is high from the processor, pulling the (CLR) signal low on U21B pin 15. When the \overline{DS} line goes low, the J input to U21B is high, so the state of U21B remains unchanged.

When the access granted signal on U31 pin 18 goes high (this event is delayed by one clock period through IC30:D1) a clock period later, the \overline{Q} output of U21B goes low and pulls the DSACK signals low. The signals are asynchronously reset when \overline{DS} goes high again, completing the handshake cycle.

NOTE. All clock-period delays used in this circuit are required for operation. These must not be changed for any reason.

Data Acquisition Memory The acquisition board accepts 16k x 4 static RAMs with 55 ns (or lower) access times, and with industry standard pinout. The memory may be of any static type (as long as it is fast enough) with up to 20 total address bits and 32 data bits, where the top 4 data bits can have r/\bar{w} control independent of the bottom 28 bits.

The chip-select control (U38) selects the 32-bit-wide bank according to the most significant 3 address bits above the individual device address range.

Min-Max IC The Min-Max IC (U383) holds the FIFO minimum and maximum data until it is read, then it restarts. This IC also samples frame/line sync and overflows.

Controller Board (A8)

The controller board performs these functions:

- Controls the VM700A analog front end
- Receives and processes digitized data from the ADC board and passes it to acquisition memory
- Controls acquisition patterns

Figure 3-9 shows a block diagram for the controller board.

Bus Buffers All 32 data lines and the required control and address lines from the system bus are buffered on this board. Many of the data and address lines are buffered on the board a second time before being used to drive multiple devices.

Address Decoding Address lines A20-A31 are decoded into 7 control signals. These address lines and the control lines buffered from the system bus direct the operation of the controller board.

Analog Input Board Interface. This block (not on the block diagram) is an extension of main address decoding. It performs the following functions:

- Enables the controller board DVM block
- Clocks four control registers on the analog input board (the mode control and DVM selection blocks)
- Latches 12 bits of data into the calibration DAC (located on the analog input board)
- Loads eight bits of data into each register of the bias and clamp level octal DAC (located on the analog input board).

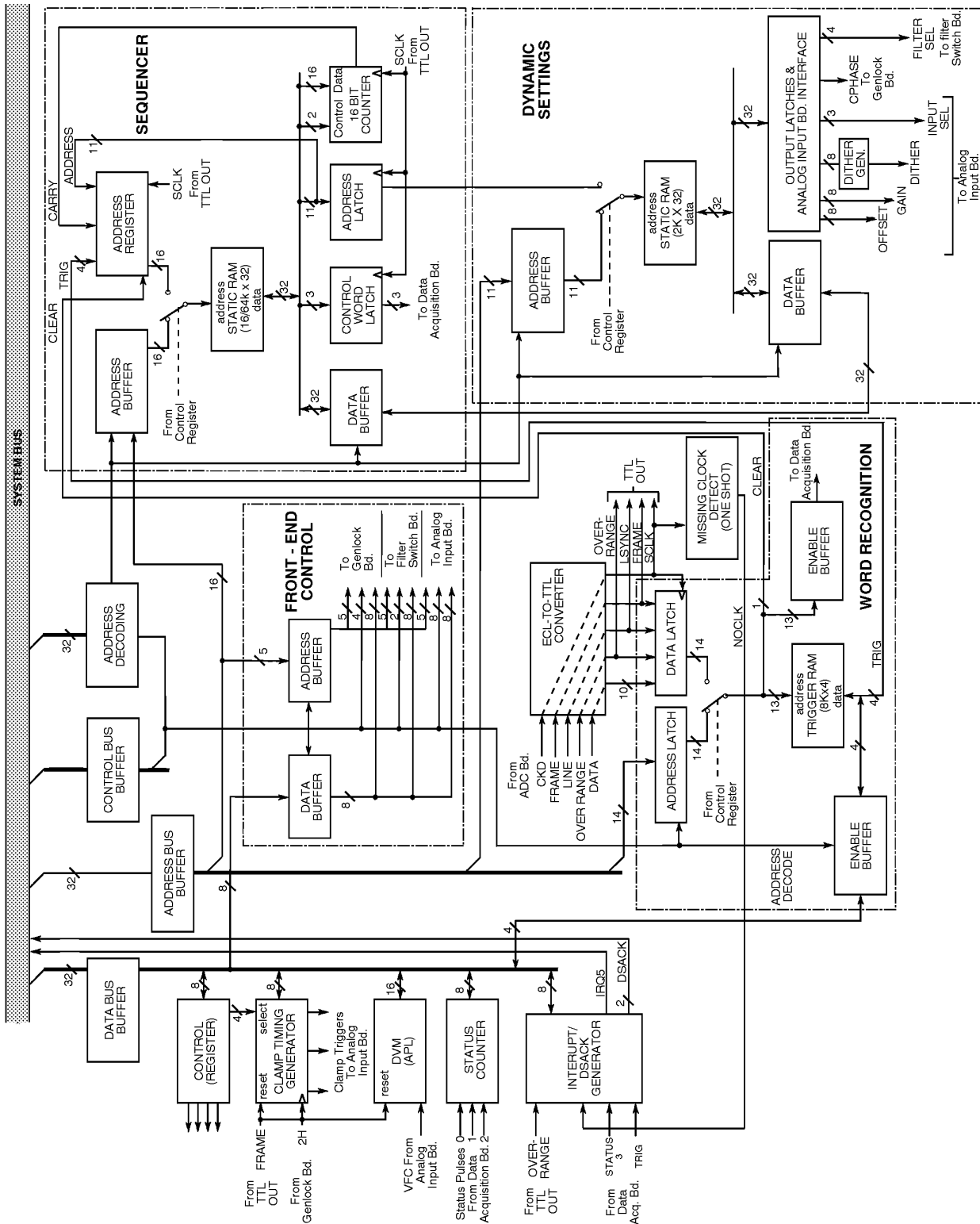


Figure 3-9: Controller board block diagram

Control Register	The control register reads eight bits from the controller board data bus. Four of these bits control the clamp timing generator. Two bits are used to set the ADC board's diagnostic mode. One of the two remaining bits sets the mode of the word recognizer, and the other sets the mode of the sequencer and dynamic settings circuitry.
Clamp Timing Generator	<p>An EPROM stores 16 patterns selected by the four bits from the control register. The selected pattern provides gating for input signal clamping and the DVM. The gating information is fed to a PAL that drives a triple timer/counter. The ATRIG, BTRIG, and CTRIG outputs from the triple-timer/counter drive a one-shot multivibrator on the analog input board. Trigger pulses are generated for each line where clamping is to be applied. These pulses determine the point on a line where clamping begins; other control lines on this board control circuitry on the analog input board that sets the clamp level and duration.</p> <p>The FRAME and 2H signals (from the ADC board via the ECL-to-TTL converter and from the genlock board, respectively) provide timing information to the EPROM.</p>
DVM (APL)	The analog input board converts an analog average of the selected channel's input video level to a frequency output. The DVM is a 16-bit counter enabled by the gating pattern from the clamp timing generator. The DVM is reset every frame by the FRAME pulse.
Status Counter	This triple-timer/counter counts status pulses from the data acquisition board. The status pulses may be used by applications to indicate events occurring in an acquisition pattern.
Interrupt/DSACK Generator	<p>This block generates DSACK (data transfer and size acknowledge) for most of the slower devices on the controller board and generates interrupt request IRQ5.</p> <p>Two lines on the data acquisition board (INT and STATUS3) generate the interrupt request. The microprocessor then reads an 8-bit register to determine the interrupt source.</p>
Front-End Control	The previously buffered data and address lines are buffered again and sent to the front end of the instrument, along with buffered control lines and address decodes. These lines, through a separate connector to each board, control the operation of the analog input board, the genlock board, and the filter switch board.
ECL-to-TTL Converter	The differential ECL signals from the ADC board, D0–D9, FRAME_OUT, LINE_OUT, CKD (Clock Data) and OVERRANGE are converted to single-ended TTL outputs before being used by the controller board.

Missing Clock Detector The missing clock detector is a one-shot multivibrator that sends the signal NOCLK if no clock transitions are detected for approximately one microsecond. The NOCLK bit indicates that clock is missing so the application can respond appropriately.

Word Recognition The word recognition circuitry is used by applications to identify bit patterns in the digitized data. It also sends digitized data from the ADC board to the FIFO (first-in, first-out) circuitry on the data acquisition board.

Data and Address Latches. The data from the ADC board is latched into the data latch and clocked out by SCLK, re-synchronizing the data to the clock signal. The microprocessor loads an address latch with 14 bits of address. A bit from the control register, TRUN, can switch the trigger RAM input from data latch output (normal operation) to address latch output. Switching trigger RAM input to address latch output allows the microprocessor to access the trigger RAM. The microprocessor then writes a 4-bit pattern into the trigger RAM through the 4-bit enable buffer.

One of the 14 bits from the data or address latch clears the address register in the sequencer. The other 13 bits (10 bits of data, over-range, FRAME, and LSYNC) are sent to the trigger RAM and an enable buffer, which sends the data to the data acquisition board.

4-Bit Enable Buffer. When enabled by the appropriate control lines, the microprocessor writes patterns (before an acquisition) into the trigger RAM through the 4-bit enable buffer.

Trigger RAM. The trigger RAM performs the actual word recognition. When the microprocessor writes an appropriate 4-bit-wide pattern into the trigger RAM (from the 4-bit enable buffer), the four output bits change when certain ranges of input data (identified by bit pattern) occur. The output is four bits of the 16-bit input to the sequencer.

Input data that causes output bit changes includes (but is not limited to) sync, active video, tape drop-out, and zero carrier pulse.

Sequencer (State Machine) Sequencer output drives the dynamic settings circuitry and sends control bits to the data acquisition board. These control bits cause the program counter on the data acquisition board to jump to preset addresses.

As with the word recognition circuitry, the static RAM for the sequencer is loaded with program information from the microprocessor and used as program memory. A bit from the control register (SRUN) enables address and data buffers of the system bus to have access to static RAM.

Address and Data Buffers. When the address buffer is enabled, the static RAM can be read and written by the microprocessor from the data buffer before starting the sequencer.

Address Register. The normal input to static RAM is the 16 bits from the address register. The four TRIG bits, the OVERFLOW bit, and 11 bits (out of 32) from the output of static RAM comprise the 16-bit input to the register. The TRIG bits are the output of trigger RAM. The 11 address bits are the 11 LSBs from the output of the sequencer static RAM that are also fed through an address latch to the dynamic settings static RAM as its normal input. (Nine of these bits are used in current hardware; the other two are reserved for future expansion.)

Static RAM. The 32-bit word output of the static RAM memory block goes to a number of circuits when the sequencer is running. Eleven bits of the output are fed to an address latch. The same 11 bits are also routed to the address register as the program counter. Sixteen bits of the output are fed as data to the 16-bit counter, while two more bits provide counter control.

16-Bit Counter. Sixteen of the 32 bits output by the sequencer static RAM are used as data by this counter. The two control bits determine the count direction and whether the counter is to be loaded with the 16 data bits or is to hold the current count. When the counter overflows, the CARRY bit is returned to the address register. The CARRY bit can be used to count samples, lines, frames, or whatever the application needs to count.

Address Latch. The 11 bits received by the address latch are clocked through to the dynamic settings static RAM. These are the same 11 address bits that are returned to the address register from the output of the sequencer static RAM, but delayed one clock cycle.

Control Word Latch. This latch holds a three-bit control word issued to the data acquisition board. These control bits cause the program counter on the data acquisition board to jump to preset addresses.

Dynamic Settings

This circuitry sends additional front-end control data to the Analog Input, Genlock, and Filter Switch boards. The key requirement for this block is that its outputs must be able to change rapidly, because offset, gain, dither, input selection, and filter selection may change many times during a single line of video.

The dynamic settings static RAM can be accessed by the CPU anytime, even during an acquisition. The same control bit (SRUN) that disables the sequencer static RAM determines if the microprocessor access requires synchronization.

Dither Generator. Six of the eight bits sent to the dither generator are used as data and the remaining two are for control. The dither generator's four control states are: clear, sequence to the next dither level, hold the current level, or load a custom six-bit dither value.

Figure 3-10 shows the dither generator's pre-defined, built-in dither waveform sequence.

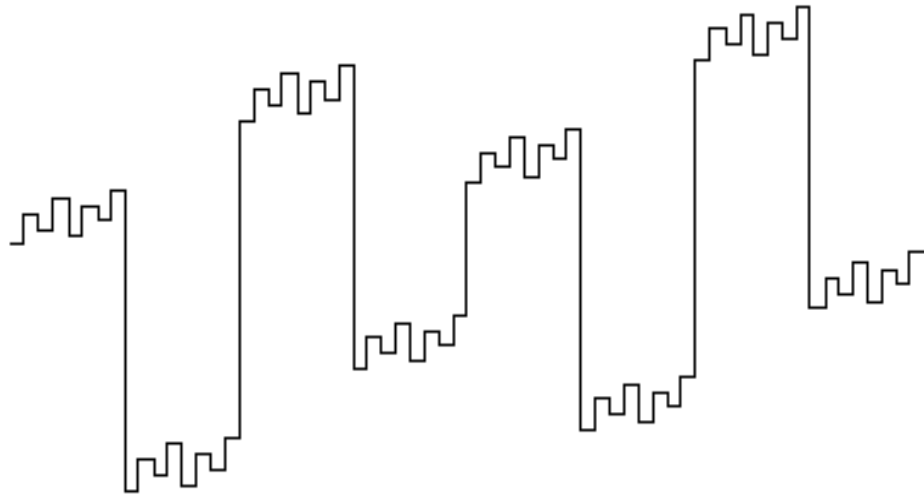


Figure 3-10: Dither generator's 64-step dither waveform

Address and Data Buffers. When the dynamic settings address buffer is enabled the CPU can read or write the dynamic settings static RAM from the dynamic settings data buffer. This can occur while the sequencer is running.

Static RAM. Static RAM input from the CPU may be buffered or it may be connected to the 11-bit output from the sequencer address latch. The 11-bit output from the sequencer allows for different dynamic output settings for each step of the sequencer program.

Output Latches and Analog Input Board Interface. The 32 bits of output latches are divided this way:

- Eight offset bits
- Eight gain bits
- Eight bits to drive a dither generator
- Three bits of input selection control
- The CPHASE bit inverts the clock phase on the genlock board to allow sampling midway between previous samples.
- Four bits control filter selection on the A4 filter switch board

Display Memory Board (A9)

The display memory board contains both the video display circuitry and instrument system RAM. This board also contains the front panel and touch screen microprocessor (and its associated support circuitry), a Motorola 68008. Figure 3-11 shows a block diagram of the display memory board.

Address Decoding This block performs coarse address decoding (fine decoding is performed where the decoded signals are needed).

Bus Buffers All 32 data lines and some address and control lines from the system bus are buffered as they enter the board.

Video Display Generator **Video Control Register.** The video control register controls the video window displayed on the CRT. Of 2048 lines of video in video memory, 480 can be displayed at one time. The value in the video control register determines where the first line (of the 480) is located in video memory. This line can be anywhere in the 2048 lines of video memory because the video can wrap from the end of memory to the beginning, if desired.

Video Address Counter. The video address counter counts video lines for the video RAM address generator. Vertical sync pulses reset the value of the counters to the value in the video control register. The count increments by one each time the video address counter receives a horizontal sync pulse. The output of this counter is the address to the video RAM address generator.

Video RAM Address Generator. The video RAM address generator multiplexes the three types of video RAM accesses; refresh, video, and CPU access. All video RAM accesses are through this block and require decoding before they can be used by the video RAM.

Video RAM Selector. The video RAM selector controls the enabling and disabling of the individual memory devices in the video RAM. Because these devices are slow, the video RAM selector disables one device while the next is being read and the third is being enabled. This scheme significantly increases the output speed of video RAM.

Video RAM. The video RAM is dual-port dynamic video RAM. Each memory device is 64K by 4 bits. Each row of eight devices stores data for one of the two bit planes. Pixels are clocked out of the two rows in parallel, but 32-bit access by the CPU can be performed independently on either row.

Video RAM is accessed in three ways: refresh, video, and CPU. The refresh access simply takes the refresh address generated by the dynamic RAM controller's timing/arbitration logic and places it on the video RAM address lines. A video access is a video RAM data transfer (a multiplexed address). First the rows and then the columns supplied by the video address counter are fed into the video RAM.

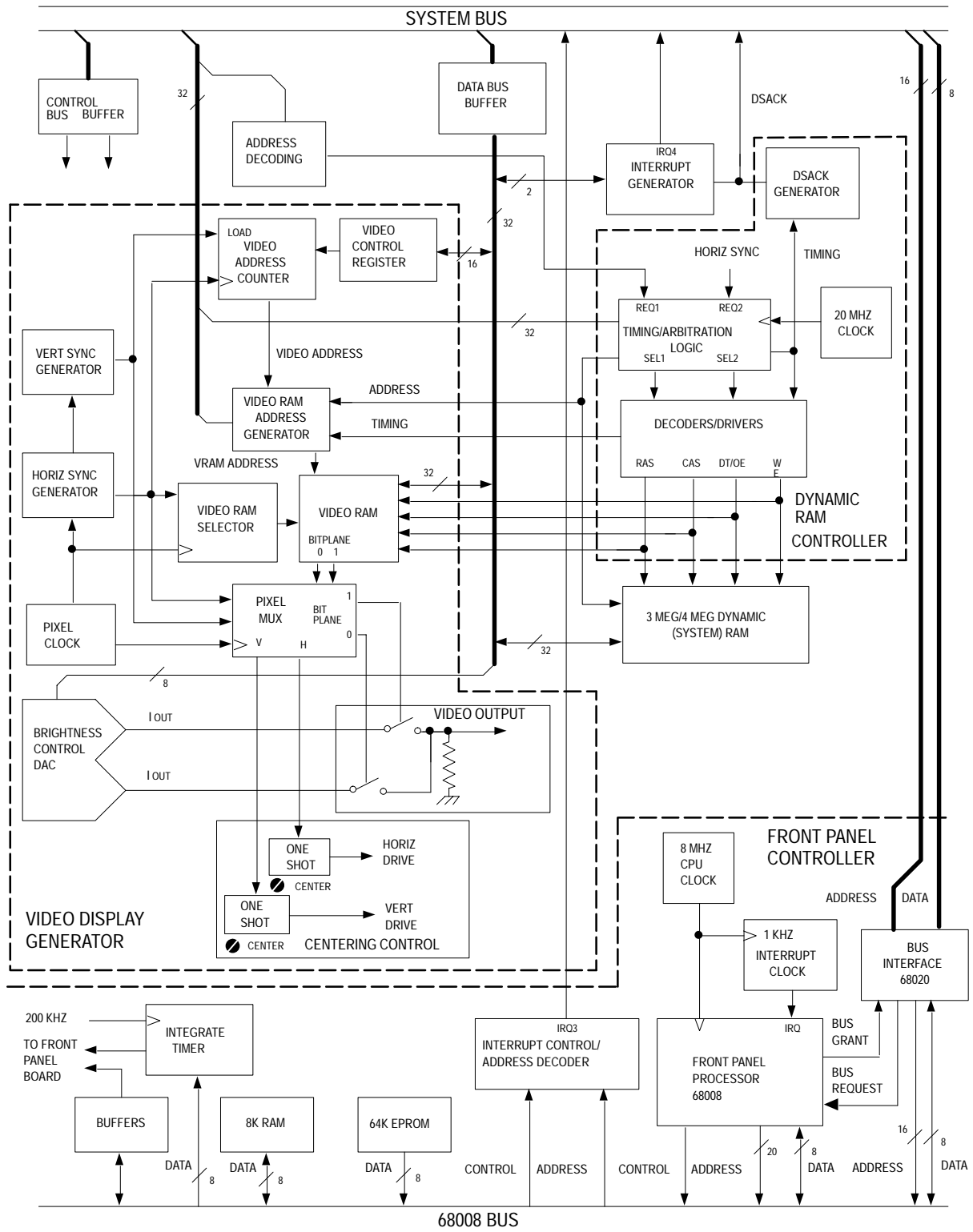


Figure 3-11: Display memory board block diagram

Microprocessor access is also a multiplexed operation. In this case, the system bus address lines supply the row and column information. The microprocessor has a 32-bit parallel access to video RAM. The output port of video RAM provides two 8-bit data streams (one for each bit plane) to the pixel multiplexer.

Pixel Clock, Horizontal and Vertical Sync Generators. The pixel clock is a 25 MHz oscillator that is divided by the horizontal sync generator to the 30.6 kHz horizontal scan rate. The horizontal sync pulse is asserted during the horizontal blanking interval.

The 30.6 kHz horizontal sync pulse is divided to exactly 60 Hz by the vertical sync generator. The vertical sync pulse is asserted during the vertical blanking interval.

Besides supplying the horizontal and vertical drive for the CRT display, vertical sync also resets the video address counter to the value in the video control register. Horizontal sync increments the count of the video address counter. It also issues a data transfer request to the dynamic RAM controller.

Pixel Multiplexer. The pixel multiplexer receives the two, 8-bit data streams and converts them into serial data streams corresponding to the two bit planes on the display.

Brightness Control DAC. The brightness control DAC (an 8-bit dual DAC) sets the brightness level for each bit plane. Writing an 8-bit word to the DAC sets current levels that drive the video output circuitry. The current outputs are switched on and off by the pixel multiplexer.

Video Output. The video output circuitry multiplexes the switched currents from the brightness control DAC into a single current source, which becomes the video signal. Should the same pixel in both bit planes be on simultaneously, the brighter of the two pixels receives priority. The video signal is sent to the monitor through a cable with 150 Ω impedance to ground.

Centering Control. The vertical and horizontal drive signals are derived from the vertical and horizontal sync pulses. These sync pulses are passed through one-shot multivibrators to the monitor assembly. Centering is accomplished by varying the transitions of the one-shots.

Interrupt Generator. Every vertical sync pulse generated creates an interrupt request, IRQ4. Vector mode uses this interrupt to switch video windows every frame to prevent flashing or streaking on the display.

The interrupt generator also generates DSACK from all registers on the board except DRAM.

Dynamic RAM Controller

20 MHz Clock. The 20 MHz clock provides timing for the timing/arbitration logic block. It is also divided to 76 KHz to supply the refresh clock.

Timing/Arbitration Logic. The heart of this block is a dual-port dynamic RAM controller. By handling requests from two processors, this controller allows dynamic RAM to be used as dual-port RAM. It also generates the necessary timing signals and handles the refresh timing and address multiplexing for the system dynamic RAM. Address multiplexing for the video RAM is performed by the video RAM address generator.

Instead of two processors accessing standard dynamic RAM, this implementation uses a processor and a video generator (and support circuitry) to access dual-port dynamic video RAM.

Microprocessor address decode enters the block as REQ1, horizontal sync as REQ2. Every horizontal sync pulse causes another data transfer in the video RAM. An internal shift register in video RAM receives data from the RAM array. The data is then shifted out as a line of video.

The dual-port dynamic RAM controller IC (with its internal refresh counter) synchronizes REQ1 and REQ2 to the 20 MHz clock and allows only one type of request at a time.

Decoders/Drivers. The decoders/drivers decode and route the signals from the timing/arbitration logic to the appropriate block of memory.

Here are the ways this block handles RAM accesses:

- Refreshes all RAM simultaneously
- Transfers data to both rows (bit planes) of video RAM simultaneously
- During any microprocessor read or write access, decodes the rows of RAM (decodes one of two rows of video RAM or one of four rows of system RAM)

During a microprocessor write access, additional decoding determines which of the four bytes will be written. The CPU can write from one to four bytes into memory at a time, so the decoders/drivers must decode the number of bytes to be written and enable only the appropriate number of RAM ICs for that data.

DSACK Generator. The DSACK generator provides the rapid signal generation needed to run the dynamic video RAM and dynamic system RAM with a minimal number of wait states. This DSACK generator is much faster than the DSACK generator in the interrupt controller.

System RAM

System RAM consists of 3 MBytes of dynamic RAM, but for future expansion the circuit board's capacity is 4 MBytes. Currently, 24 of the possible 32 one-megabit devices are installed on the circuit board.

Each memory device is 256K by 4 bits, so eight are required to fill the 32 bit bus. Each row provides one MByte of RAM.

Front Panel Controller

CPU Interface. The CPU interface consists of buffers and timing circuits that bridge the CPU system bus with the front-panel processor bus. The CPU sends an address that is decoded by the CPU interface as a bus request. When the front panel processor completes its current instruction, it issues a bus grant and surrenders the bus. The CPU interface hardware then connects the CPU to the front-panel processor bus so it can read or write the program execution RAM (8K RAM). When the read/write is complete, the bus request is removed after a 1 microsecond time-out. After removal of the bus request the 68008 continues to execute its program.

Front Panel Processor. This microprocessor controls the A10A1 front panel board and A10A2 keypad board, and interfaces those circuits with the CPU. The CPU clock provides the 8 MHz reference for the front-panel processor.

1 kHz Interrupt Clock. This clock (actually 976.5625 Hz) generates 1 millisecond interrupt requests to the 68008. This interrupt is derived from the 8 MHz CPU clock and is used for timing and debouncing of the push buttons on the A10A2 keypad board.

Interrupt Controller/Address Decoder. Four address lines are decoded to select various devices on this board that are on the front-panel processor bus. This block also generates interrupt request IRQ3 to interrupt the CPU when needed.

64K EPROM/8K RAM. The 64K EPROM stores the programs that the 68008 runs. The 8K RAM provides space for program execution.

Although the 8K RAM is not dual-port RAM, the bus arbitration employed yields that effect. Either the front-panel processor or the CPU, through the CPU bus interface, can access this RAM.

Buffers. The eight data lines, four address lines, and a few control lines are buffered before being sent to the A10A1 front panel board.

Integrate Timer. The integrate timer provides varying width pulses to the integrator on the A10A1 front panel board. The integrator circuitry scales the input to an ADC to use most of the available dynamic range without over driving the ADC. This provides accurate identification of a “touch” location.

The integrate timer block consists of a divider and a counter. A 200 kHz clock (CLK200) from the A10A1 front panel board is divided into 80- μ s pulses that are counted by the counter. The front-panel processor loads an 8-bit value into the counter. The counter always counts to 255. The actual integrate time is varied by loading the counter with a different starting value.

The front-panel processor also uses the integrate timer’s counter output as a hardware timer for some operations to eliminate dependence on software timing loops.

Front Panel Board (A10A1)

The front panel board decodes input from the control knob and touch screen and relays push button and LED information to and from the A10A2 keypad board.

The front panel board's connector to the display memory board contains most of the lines of the 68008 bus, including lines for relaying push button and LED information to and from the keypad board. Additional lines for power and the signals INTEGRATE and CLK200 are provided. Figure 3-12 shows a block diagram for the front panel board.

Address Decoder Four bits of address information are decoded into various enable lines for both the front panel board and the keypad board.

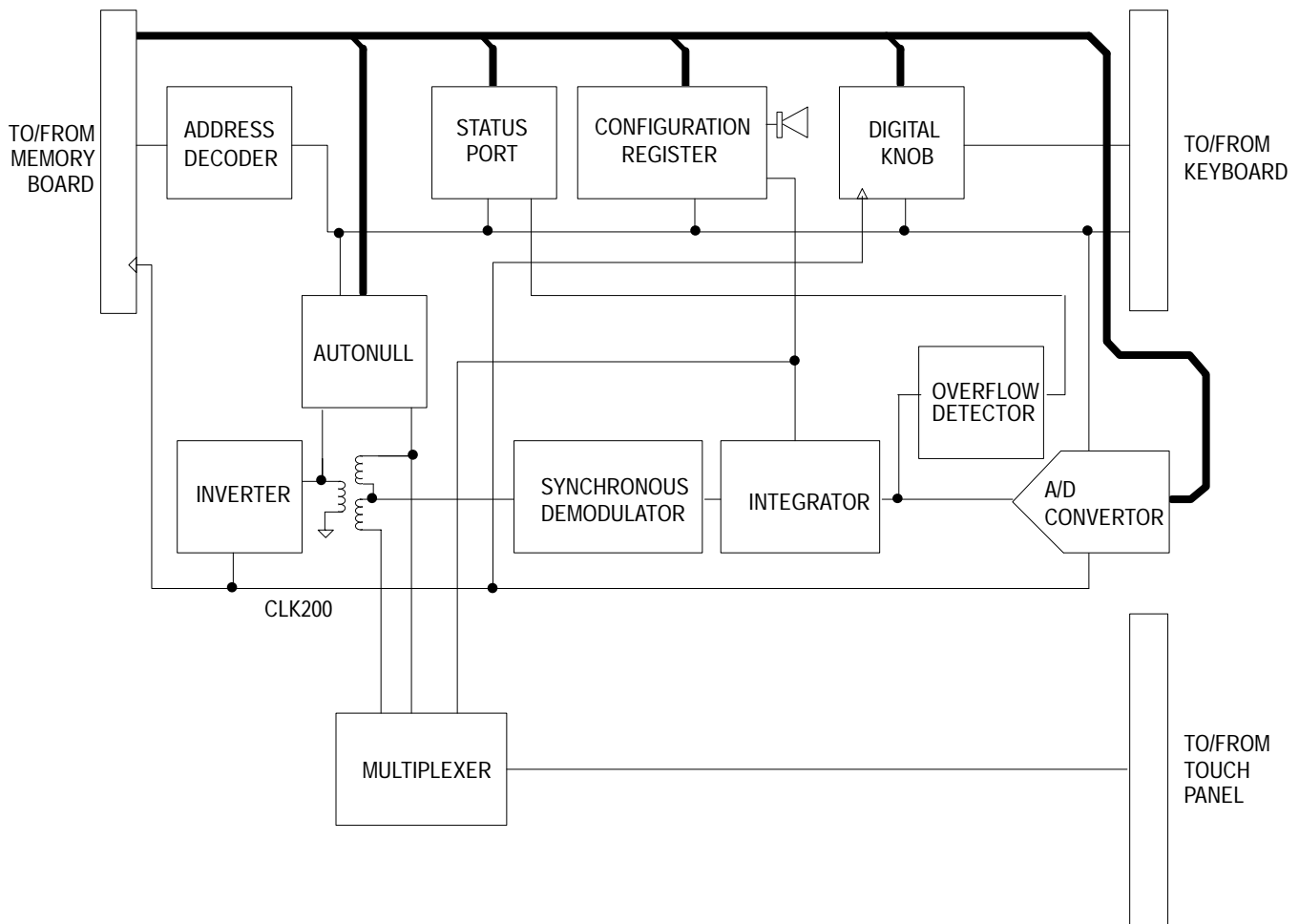


Figure 3-12: Front panel board block diagram

Status Port Three inputs concerning the status of some touch-screen related hardware (INTEGRATE, ADCBUSY, RAIL) are enabled on the data bus when the address decoder asserts STATUS.

INTEGRATE asserted indicates that an integration is in progress and ADCBUSY indicates that a conversion is in progress. RAIL indicates that the integrator has reached the limit at which the A/D converter will overflow, causing the current integration to abort.

Configuration Register The 68008 writes to the configuration register. The outputs are BEEP, which drives the instrument's beeper and various lines that control touch screen operation.

Control Knob Encoder The control knob is mounted on the keypad board and transmits two bits of gray-code data to the control knob block. Because these gray-code bits are 90° out of phase, the direction of knob travel can be determined. The encoder produces 50 pulses per 360° rotation of the control knob, and therefore 200 transitions/counts per revolution. An encoder PAL and an eight-bit up/down counter converts each 360° clockwise rotation of the control knob into 200 counts up and each counterclockwise rotation into 200 counts down. The count is enabled on the data bus by KNOB0.

Driver An oscillator in the driver produces a 199 kHz square wave called CLK200. CLK200 is used by the A/D converter, control knob encoder, and the integrate timer on the display memory board.

A 199 kHz sine wave output from the same oscillator drives a power amplifier that delivers a 6-volt peak sine wave to the input of a transformer. The center-tapped output of the transformer provides an in-phase and out-of-phase component of the driver output used in determining the location of a touch to the touch screen.

Synchronous Demodulator The synchronous demodulator converts ac at the center tap of the transformer to double-ended DC. A diode clamp in the synchronous demodulator provides static protection for the VM700A internal circuitry.

Integrator When the screen is not being touched the integrator converts the double-ended output of the synchronous demodulator to a single-ended output, then integrates the signal for 20 milliseconds. The conversion and integration provides noise reduction and gain to the small voltage present. The signal is scaled and offset so the output from the integrator varies between 0 and 5 volts DC, the range of the A/D converter.

- Overflow Detector** The overflow detector monitors the output of the integrator. If the integrator output is outside the 0 to +5 volt DC range, the overflow detector generates the RAIL signal. This indicates the current integrate cycle should be terminated, as the signal would be outside the range of the A/D converter.
- When the overflow detector generates the RAIL signal, firmware controlling the integrate timer on the display memory board reduces integrate time by half. This reduces the output of the integrator to within the A/D converter range. Firmware then multiplies A/D converter output by two (as many times as it was halved) to determine actual current through the touch screen.
- A/D Converter** The A/D converter transforms the 0-5 volt DC output of the integrator into a 10-bit digital word. CONVERT starts the conversion process and READADC places the converted output on the data bus. Both are asserted by the address decoder. During conversion the A/D converter sends ADCBUSY to the status port. ADCBUSY prevents enabling the converter's output before it completes a conversion.
- Multiplexer** The multiplexer handles the complex switching of the in-phase and out-of-phase outputs of the transformer to the left, right, top, and bottom of the touch screen. For a brief discussion of touch screen operation see the section titled *Touch Screen Fundamentals*.
- To protect VM700A circuitry from static discharge 24 pairs of clamping diodes are tied directly to the lines coming from the touch screen.
- The multiplexer also drives an LED that indicates the state of the touch screen by its flash frequency. A 2 Hz flash rate indicates the touch screen is attempting to restart, but can't bring the balanced modulator (transformer) into balance. A 10 Hz flash rate indicates normal operation with no one touching the screen. When the touch screen is touched, the LED glows steadily (actually, it flashes at 50 Hz).
- Auto-Null Circuit** Component variances typically cause the balanced modulator to be unbalanced when the screen isn't touched. The Auto-Null circuit performs a coarse balance on the balanced modulator (transformer) by applying a variable capacitance to its out-of-phase side. The 68008 microprocessor drives an 8-bit DAC, whose output varies the charge on the capacitor. Fine balance of the balanced modulator is provided by firmware.
- Touch-Screen Fundamentals** The touch screen and the transformer in the driver block (see the previous discussion titled *Driver*) form a balanced modulator. With no pressure on the touch screen, the center tap of the transformer is at 0 volts. A finger touching the screen upsets the balance and current flow through the finger is sensed at the transformer center tap. The synchronous demodulator converts the current to a

voltage, and then demodulates the voltage by multiplying it by the output of the driver block. The result is a voltage proportional to the current through the finger. This measurement is taken four times to determine the X and Y coordinates of the touch.

Because certain factors vary the amount of current flow through the finger (touch pressure and location, moistness of skin), two Z-axis measurements (one for X, ZX and one for Y, ZY) are taken to determine the amount of current flow for the touch, independent of its position. These are factored into the X and Y readings to obtain the absolute coordinates of the touch. The complex switching required to make these readings is performed by the multiplexer (see the previous discussion titled *Multiplexer*).

Keypad Board (A10A2)

The VM700A front-panel push buttons, LEDs, and the control knob are connected to the keypad board. The keypad board is connected to the front panel board through a flex cable that carries power, the 68008 data bus, enable signals from the front panel board's address decoder, and two bits of data from the control knob. Figure 3-13 shows the keypad board.

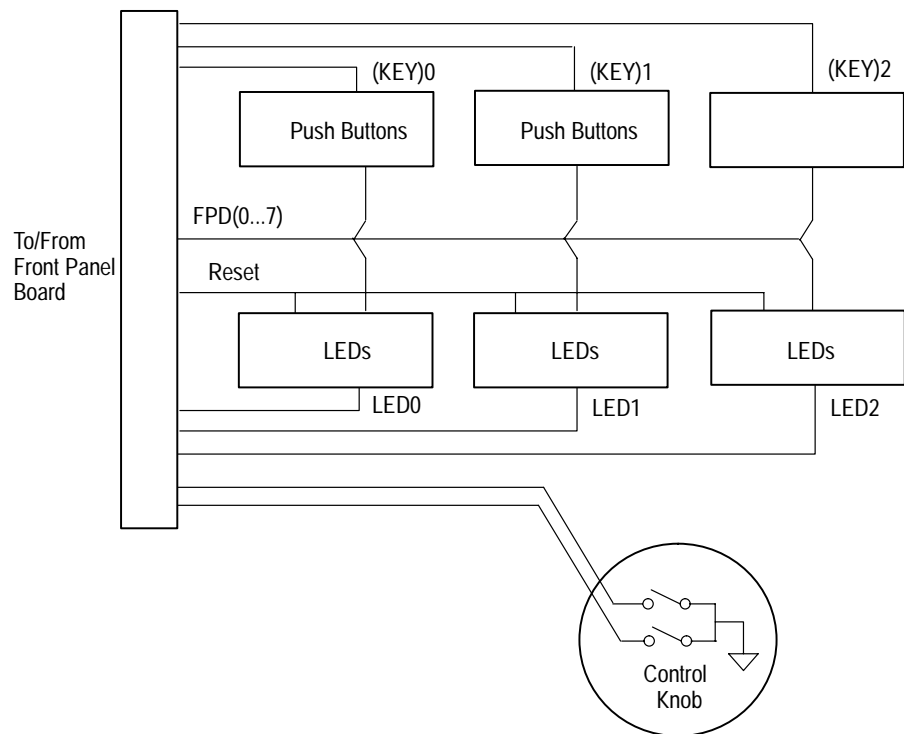


Figure 3-13: Keypad board (A10A2) block diagram

Control Knob The control knob is a mechanical switch with conductive plastic contacts. One terminal of the switch is grounded and the other two lines are connected to circuitry on the front panel board that decodes the knob's output.

Push Buttons The front panel push buttons are momentary contact, single-pole, single-throw switches divided into two groups of eight and one group of four. The push buttons drive three 8-bit buffers, which are read by the 68008 (enabled by KEY[0..2]). Firmware provides contact debouncing.

LEDs The front panel LEDs are driven by three 8-bit latches. The 68008 writes bit patterns into the latches, turning on the appropriate LEDs.

Picture Monitor (A14)

The Picture Monitor produces the visual display of the VM700A. It has vertical and horizontal deflection circuitry to drive the trace on the raster-scan CRT, a video amplifier, the high voltage circuitry, and the CRT in a complete assembly. A simplified block diagram is shown in Figure 3-14.

Video Amplifier The Video Amplifier amplifies the incoming video signal to levels necessary to drive the CRT cathode. A input circuit formed by emitter-follower Q379, common-base amplifier Q395, and a second emitter-follower, Q297, provides impedance matching and current drive to the output video amplifier. In the output video amplifier (a cascode circuit), the video signal is inverted by Q284, a common emitter circuit. Its output current directly drives a common base amplifier, Q280, whose output drives the CRT cathode. As the input video signal is increasing in amplitude, the inverted video signal drives the cathode negative with respect to its +55V reference level thereby causing the beam current to increase.

+12 V and + 5 V Supplies The incoming +12 V is filtered by a pi filter formed by C350, L230, and C335 to provide the +12 V supply. A second +12 V (+12 V₁) is obtained through R295. That voltage is applied to a 5 V zener diode, VR365, through R368 to supply the +5 V source.

Vertical Deflection The vertical deflection circuit provides the drive current to the vertical deflection yoke. A free-running oscillator circuit, U193, produces a ramp signal and an amplified vertical deflection signal. The basic frequency of the oscillator is set to 60 Hz by the adjustment of R195, the VERT HOLD potentiometer. The length of the ramp signal, and consequently the vertical synchronization, is set by the V Sync signal.

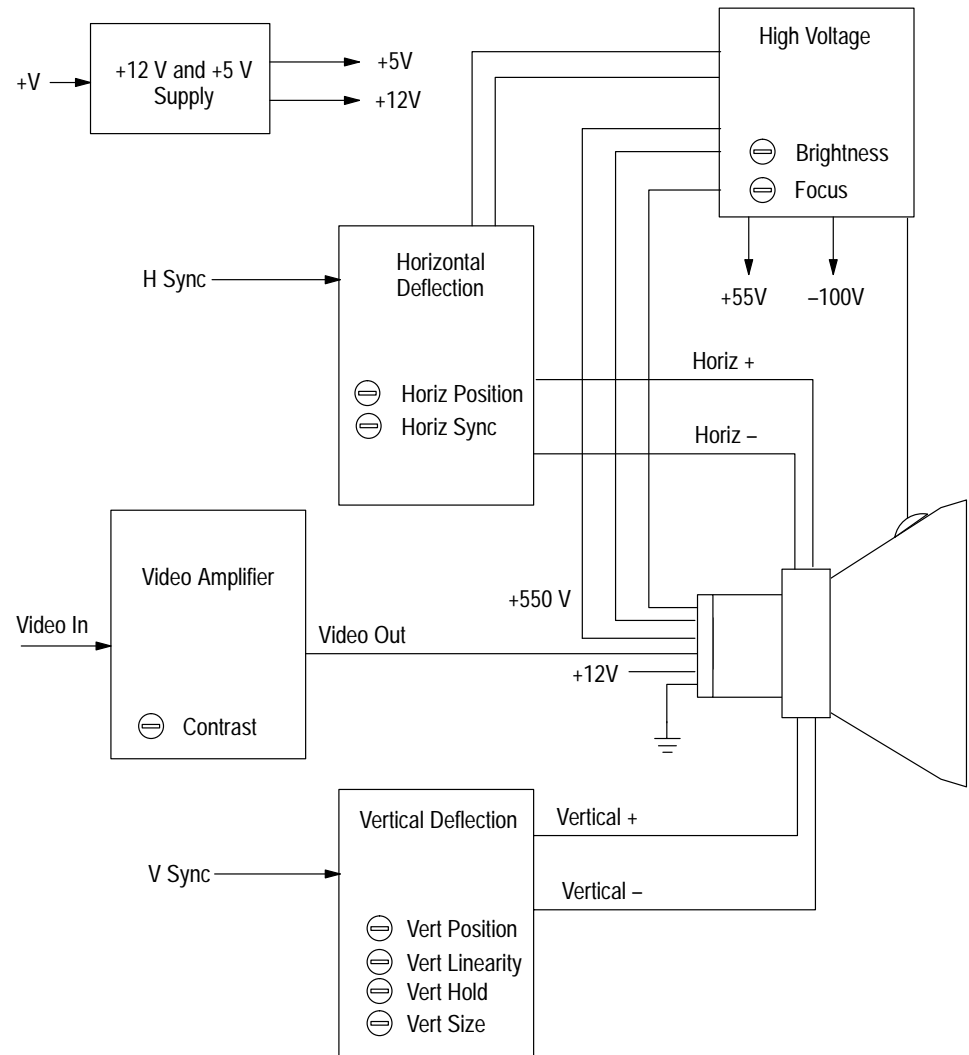


Figure 3-14: Picture Monitor simplified block diagram

When the V Sync is received, the vertical ramp is terminated, and a new one begins. The RAMP OUT, pin 1, signal is applied to the AMP IN, pin 10, for amplification to drive the vertical deflection yoke. The output of U193 at pin 10 is inverted from the original ramp. Yoke current is sensed by R71. Pin 10 of U193 is the summing node for the input of the ramp operational amplifier and the ramp output is on pin 4. The vertical height of the display is set by the adjustment of R176, the Vert Size potentiometer. Vertical position is set by R181 which sets the DC level of the vertical deflection yoke to produce an offset that centers the display vertically.

A portion of the RAMP OUT signal from pin 1 is fed back through a shaping circuit to the RAMP GEN input on pin 12. The shape of the ramp fed back is

adjustable by R183, the Vert Lin potentiometer, to set the vertical linearity of the raster.

Blanking Amplifier. Blanking between vertical sweeps is produced by the blanking amplifier, Q174. In the interval between ramps, the level of the vertical deflection signal from U193, pin 4, rapidly rises toward +30 V to retrace the beam back to the vertical starting point. That rise is seen by Q174 via C262, and the transistor quickly saturates. The negative pulse at the collector of Q174 is AC coupled via C164 to the control grid of the CRT to cut off the beam current between vertical deflection ramps. In the output of the blanking amplifier, R68, the BRIGHTNESS adjustment, sets the level of beam current between blanking pulses.

Spot Eliminator. An additional circuit formed by CR164, CR163, C67, and R160, produces an extra bias to the control grid to positively cut off beam current during turn on of the VM700A. The pulse at turn on is transitory as the power supplies turn on. As the +55 V and -100 V voltage supplies come up, the voltage at the junction of CR164 and R160 biases on CR164. The charging current through C67 adds a negative biasing pulse to the control grid. At the voltages stabilize and C67 becomes charged, current through CR164 stops, and the extra bias pulse is terminated.

Horizontal Deflection

The horizontal deflection circuit provides the drive current to the deflection yoke. H Sync from pin 6 of J170 is applied to a sync inverter, Q340, through Jumper JP360. The inverted horizontal sync signal is applied to the Sync In input, pin 3, of U160, a PLL (phase-locked loop) circuit that produces the horizontal deflection signal. The frequency of the loop is synchronized to the incoming H Sync signal after setting the correct frequency with the Horiz Sync control, R261.

Further amplification of the signal is done by Q146 and Q118 to provide the necessary levels to drive the horizontal deflection yoke. Transformer coupling through T140 from Q146 to the base of Q118 provides DC isolation between the two circuits. At the collector of Q118, the horizontal retrace pulses have a amplitude of approximately 320 V. The nearly constant voltage level between the retrace pulses produces a ramp of current to the horizontal deflection yoke. Diode CR120 prevents the collector of Q118 from going negative on overshoots from the deflection yoke. The other side of the horizontal deflection yoke is AC referenced to ground through L300 (a saturable reactor), L12 (the Horizontal Width adjustment), and C17. Diode CR19 catches negative overshoots of the horizontal deflection signal.

A circuit from the output of Q118 to the SAW IN input of U160, pin 4, provides feedback to the PLL circuit. The Horiz Position control, R153, in the feedback path, is adjustable to fine position the active picture area within the raster scanned width.

+20 V Boost Supply. A circuit composed of CR152, CR320, C238, C239, C60, R142, and a winding (pin 1 to pin 3) of T220 (in the high voltage supply) boosts the +12 V source to +20 V to supply the collector voltage for Q146.

High Voltage

The high voltage supply provides the CRT anode voltage, the focus voltage, and the +55 V and –100 V sources. Drive to T220, the high voltage transformer, is provided through a set of taps on the multitap primary winding.

The CRT anode voltage and the –100 V supply are taken from separate secondary windings in the transformer. A diode internal to the transformer module rectifies the high voltage for the CRT. That voltage is also referenced to ground internally in the transformer module. The –100 V winding is rectified by CR125 and capacitively filtered by C65.

Focus Voltage and Dynamic Focus. The output of the +550 V winding of T220 is rectified by CR236 and filtered by an RC pi filter composed of C127, C148, and R235. The +550 V is applied directly to grid G2 of the CRT and through R49 to the FOCUS pot. The main focus voltage of about +100 V is set by FOCUS pot R66 through a DC restorer circuit composed of C58, CR55, R57, and R53. Dynamic focusing, to optimize edge focusing of the CRT, is applied from a series resonant LC circuit formed by L105 and C110 off the –100 V winding of T220. The dynamic focusing waveform approximates a negative-going parabola between the pulses of the winding output voltage. That waveform is ac coupled through C42 to the focus voltage. The dynamic focusing waveform is shaped by the adjustment of L105 to produce the best edge focus in conjunction with the setting of the FOCUS pot for best overall focus.

Trace Rotation

The Trace Rotation circuit drives a separate deflection coil on the neck of the CRT. That winding produces a magnetic field that permits adjustment to horizontally level the raster. Differential deflection voltage is produced by the circuit formed by U90A and U90B. A voltage reference of +6 V is provided by a voltage divider formed by R86 and R88. That reference is applied to the non-inverting input of U90B. The adjustable voltage from the trace rotation potentiometer, R96, is applied to the non-inverting input of U90A. When the amplifiers are balanced, no current flows through the trace rotation coil.

When the trace rotation pot is adjusted to unbalance the two amplifiers, the output of U90B at pin 7, is driven to return the balance to that amplifier. That change is coupled through R91 to the inverting input of U90A to produce an equal change in the opposite direction at pin 1, thereby producing a current through the trace rotation coil. Reversing the position R96 causes current in the opposite direction in the trace rotation coil. The overall adjustment range for trace rotation is approximately $\pm 3.4^\circ$. Diodes CR78, CR79, CR92, and CR99 are clamping diodes on the outputs of the amplifiers that catch transient spikes from the trace rotation coil.

Power Supply (A15)

The power supply assembly is a Tektronix-made module that is a direct replacement for the OEM power supply assembly previously supplied. It is completely compatible with all previous VM700 and VM700A instruments, mechanically and electrically, and may be used as a repair replacement for the OEM power supplies.

The new supply is an inverter switching supply composed of a primary rectifier, the inverter switching circuit, 12 V and 15 V regulators, alarm sensing circuitry that monitors for overvoltage, overcurrent, and over temperature conditions, and the alarm logic circuitry that shuts down the inverter switching circuitry in the event of a problem. A simplified block diagram is shown in Figure 3-15.

Power Supply Block Circuit Description

Input Power Rectifier

The Input Power Rectifier receives the mains AC voltage and rectifies it to provide the drive power to the inverter switching circuitry. A line voltage switch sets the supply to operate on a nominal voltage of either 115 VAC or 230 VAC. On 230 V operation, the primary rectifier acts as a full-wave bridge rectifier; for 115 V operation, the primary rectifier is configured as a full-wave voltage doubler. The primary bridge rectifier is protected by the mains line fuse and surge suppressors. A mains line filter at the input of the power supply reduces conducted and radiated EMI from and to the VM700A. Additional components in the rectifier output provide line filtering and common-mode noise rejection for further reduction of conducted electromagnetic interference. Input surge current and overvoltage protection components are included in the input rectifier circuit to prevent major component damage in the event that incorrect line voltage is applied to the AC input.

Housekeeping Power Supply

A second power supply provides the housekeeping (or keep-alive) power source. This supply provides power to the logic circuitry that controls the power supply STBY/ON logic circuitry. It is supplied via a transformer that is wired with the power line switch to provide the correct voltage to the primary for either line voltage. The rectifier for the housekeeping supply is full-wave and its output is capacitive filtered. The secondary voltage is regulated by a 3-terminal regulator. Both sides of the transformer secondary are fused with self-healing fusing devices. One of the sensing signals (LINE SENSE) to the power supply logic circuitry is developed from the secondary of the housekeeping supply transformer.

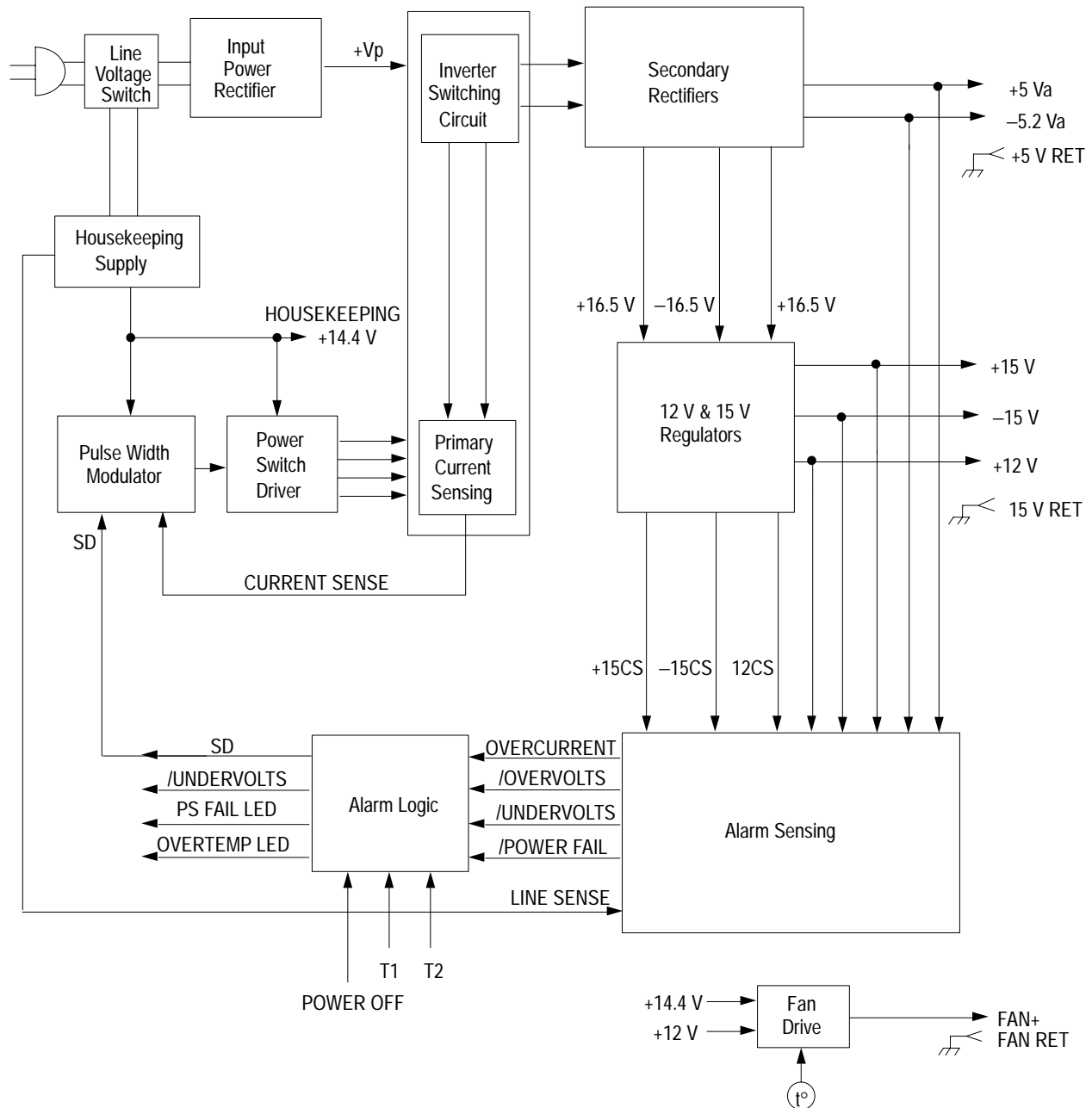


Figure 3-15: Simplified block diagram of the power supply

Inverter Switching Circuit

This circuitry comprises the Pulse Width Modulator, the Switching Transistor Drivers, the Switching Transistors, and the Secondary Rectifiers and Filters.

Secondary outputs of the power transformer are full-wave rectified and filtered to provide +5 V, -5 V, +16.5 V, and -16.5 V. The +16.5 V and -16.5 V are further regulated to produce the +15 V and -15 V supplies to the VM700A and the +12

V display module power. The source voltage for the Fan Drive circuit is also provided by the +12 V supply.

+12 V and 15 V Regulators The +12 V and the + and –15 V regulators are similar in operation. The +12 V regulator is operating with more head room than the + and –15 V regulators, and the circuitry is modified to adjust for that difference. Each regulator is a combined operational amplifier and FET current pass element with a feedback loop to the operational amplifier from the output voltage.

Alarm Sensing The Alarm Sensing circuitry looks at the various supply voltages to check for undervoltage, overvoltage, overcurrent, and power fail conditions. The status of these conditions are the signals fed to the Alarm Logic circuitry.

Alarm Logic Each of the alarm sensing outputs is monitored by the Alarm Logic circuitry. That circuitry also monitors the temperature sense signals. Depending on the state of the sense signals, the Alarm Logic circuitry can issue a shutdown signal (SD) to the Pulse Width Modulator (PWM) to stop the power supply from operating. The Alarm Logic circuitry also drives the Over Temp LED and PS Fail LED front-panel indicators as feedback to the user of the existing problem.

Fan Drive A separate Fan Drive circuit provides a temperature-related drive voltage to the fan. As the temperature rises, the fan is driven faster to compensate for the rise. The temperature sensing element for the voltage control is mounted on the 5 V power supply heat sink.

Power Supply Detailed Circuit Description

The power supply is a current-mode controlled, multiple output inverter operating at a frequency of 100 kHz. The inverter is driven by a preregulator. The outputs are regulated by pulse-width modulating the preregulator. The power supply is monitored for undervoltage, overvoltage, overcurrent, and over temperature conditions. Use diagrams 1 and 2 for assembly A15 to follow the detailed circuit description.

Input Power Rectifier The AC mains voltage is applied to the input power rectifier through a Line Filter (FL1), Fuse F1, and the Master Power Switch (S1) on the rear panel of the instrument. A bleeder resistor, R1, is placed across the input filter to discharge the filter capacitors when AC power is removed. The inrush of turn-on current is controlled by surge suppressor RT1, and RV1 and RV2 protect the input circuitry from a major overload in the event that an incorrect mains voltage is applied when the power supply is set to operate on 115 VAC. A spark gap device, E3, also acts to protect the circuitry that follows it by firing and causing the input fuse to open in the event of a major overvoltage.

115V/230V Switching (S2). The Line Selector switch, S2, converts the power supply from a bridge rectifier for 230 V operation to full-wave doubler for 115 V operation.

When the Line Selector is set for 230 VAC operation, diode bridge CR1 is a conventional bridge rectifier. For 115 VAC operation, the top 2 diodes of CR1 and filter capacitors C3 and C4 act as a full-wave voltage doubling circuit. The rectified voltage is applied across both C3 and C4 on alternate half cycles of the input voltage. The output voltage is then taken across them in series so the output voltage is the sum of the voltages across each capacitor. Bleeder resistor R5, across the filter capacitors, drains the capacitor charge when power is removed.

A neon indicator, DS1, lights when the primary power is up. Common-mode EMI filtering of the rectified voltage is provided by L2, C6, C7, C8, C9, and C10. Resistors R8 and R9 provide damping for the inductance of L2. The output voltage for either 115 V or 230 V operation is approximately 300 VDC.

The switching action of S2 also switches the primary winding of T1 to produce the same voltage output from the secondary winding for either line voltage position. For 115 V operation, the two primary windings are in parallel, and for 230 V operation the two windings are in series.

Jumper J13 may be pulled to disconnect the input rectifier from the switching power supply. This permits a service person to determine if the input rectifier circuitry is functioning correctly without the load.



CAUTION. Jumper J13 is for testing purposes only. Troubleshooting should be attempted only by an experienced service person.

Pulse-Width Modulator (PWM) and Control Circuits

PWM U8 is a pulse-width modulated, current-mode controller that drives the preregulator stage. The preregulator is controlled by the output of the +5 V supply. This makes +5 V the regulated output; the other voltages (–5 V, –16.5 V, and +16.5 V) are set by the turns ratio of T2. The PWM uses the +5 V output voltage and information about the current in L3 to control pulse-width modulation of the preregulator. On pins 8 and 9 of U8, C39 and R18 set the frequency of operation at approximately 100 kHz. Pin 2 of U8 is a +5 V \pm 5 mV voltage reference.

The +5 V output of the supply is divided to 2.5 V by R41 and R42 and applied to the error amplifier that is internal to U8 at pin 6 (– pin). Pin 5, the + pin of the error amplifier, is the reference voltage for the error amplifier. The regulating point for the +5 V output is set by R39, a variable potentiometer, that adjusts the reference voltage on pin 5. Compensation and feedback for the error amplifier is provided by R50 and C42.

The current information from L3 is applied as a trapezoidal-type waveform to U8 at pin 4. Transistor Q13 adds a small portion of the timing ramp on pin 8 to the current signal at pin 4 to improve noise immunity and to set the PWM correctly for current-mode operation. Both these signals, the +5 V feedback at pin 6 and the current signal with the added ramp at pin 4, must be present for U8 to work properly.

The shutdown signal (SD) applied to pin 16 of U8, is used to turn off the Pulse-Width Modulator. The SD signal is developed by the Shutdown Gate, U26B, in the Alarm Logic circuitry. The signal is high when the power STBY/ON switch is in STBY and for a number of irregular conditions of the power supply (overvoltage, over temperature, or overcurrent).



CAUTION. Jumper J10 is for testing purposes only. It may be pulled to eliminate the SD signal for testing of the PWM during troubleshooting, but this also eliminates all the shutdown control by the control logic circuitry. Troubleshooting should be attempted only by an experienced service person.

By design, the voltage level required to shut off the PWM is low compared to the high logic level from the Shutdown gate. A diode clamping circuit formed by R43 and CR17 prevents the SD level from exceeding the forward bias drop of the diode, about 0.6 V. Capacitor C43 bypasses fast transients from the SD input.

Power Switch Driver

The pulse-width modulated outputs of PWM U8 are at pins 11 and 14. The output pulses are buffered by the high-current FET driver device, U11, whose output pins 12 and 13 drive the primary of T4. The secondaries of transformer T4 drive the gates of the pulse-width modulated switching FETs, Q8 and Q10.

The leading edges of the pulses from U8, pins 11 and 14, are also used to trigger comparator U7A. The comparator output clocks U10A, a D-type flip-flop configured as a toggling circuit that changes state with clock. This circuit is used to produce the 50% duty cycle pulses which are also buffered by U11. These outputs drive the primary of T5 which, in turn, drives the gates of inverter switching FETs Q2 and Q3.

Inverter Switching Circuit

Preregulator. The preregulator consists of T4, Q8, Q10, L3, CR9, C23, and C24. Parallel FET transistors, Q8 and Q10 are driven alternately, each at a 50 kHz rate. The gates of Q8 and Q9 are driven by the PWM, U8, through FET driver U11 and pulse transformer T4.

Current Sensing. Transformer T3 and transistors Q11 and 12 form a current sense circuit that functions to sense the current in the step-down inductor L3. This circuit provides a scaled-down replica of the switching FET current to pin 4 of PWM U8.

Inverter. The inverter consists of T2, Q2, and Q3. FET transistors Q2 and Q3 are also driven alternately, each at 50 kHz, and provide a 50 kHz switching rate to the primary of T2. They are not pulse-width modulated, but driven at a 50% duty

cycle, through pulse transformer T5. Drive to the pulse transformers, T4 and T5, is supplied by U11, a high-current FET driver device. The inverter is driven in a one-half bridge configuration. Capacitors C23 and C24 divide the full voltage at L3 by half, and the voltage across each capacitor is alternately applied to the primary winding of transformer T2 through the switching action of Q2 and Q3. This configuration produces a self-correcting circuit action that equalizes the positive and negative voltage swings seen by the primary of T2 and keeps T2 out of saturation.

Secondary Rectifiers and Filtering

The approximately 180 V, square-wave voltage across the primary winding of switching transformer T2 is stepped down in two center-tapped secondaries to provide drive to the ± 5 V and ± 16.5 V rectifier and filter circuits. The 16.5 V secondary has two + outputs developed, one to drive the +12 V Series-Pass Regulator and the other to drive the +15 V Series-Pass Regulator.

Each of the secondary output voltages is full-wave rectified and filtered using choke input filter sections. The +5 V output uses two L-sections; the others use a single L-section filter. A crowbar circuit on the -5.2 V output, composed of silicon-controlled rectifier (SCR) Q130 and Zener diode VR130, will fire in the event of a problem with the regulating circuitry that causes an overvoltage condition to occur. If the -5.2 V exceeds about -6 V, SCR Q130 fires and loads the power supply to shut it down.

+12 V and 15 V Regulators

The +12 V Series-Pass Regulator (U12A and Q16) and the +15 V and -15 V Series-Pass Regulators (Q17, Q19, Q18, Q20, U5, and U6) are very similar circuits.

+12 V Regulator. This complete linear regulator circuit, operational amplifier U12A, and series-pass element Q16, may be viewed as an operational amplifier circuit with R64 acting as the feedback resistor and R65 as R_{IN} . The closed loop gain of the circuit is then set by the ratio of the resistor values. Operational amplifier U12A has its non-inverting input pin supplied via the feedback resistor from the output of the series-pass element (the regulated +12 V). A 5 V reference voltage developed by U5, a band-gap reference device, is applied to the inverting input of U12A, pin 2. The output level of U12A then follows the feedback voltage and is non-inverted at this point.

The inversion occurs in the series-pass element, a P-channel FET. With reduced loading of the supply, an increasing voltage from U12A decreases the conduction of the pass element, Q16, thereby reducing the output voltage. With more loading, the output voltage would tend to decrease, and the operational amplifier output also decreases. This increases conduction in the series-pass element to counter the decreasing output voltage by supplying more current to the load.

From pin 1 of U12A there is a frequency response limiting feedback circuit formed by C640 and R640 back to the inverting input of the operational amplifier, pin 2.

+ and -15 V Regulators. The + and -15 V regulator pass elements, Q17 and Q19, are complementary, with Q17 being a P-channel FET and Q19 an N-channel FET. In the +15 V regulator, which operates just like the +12 V regulator circuit, U6A is referenced to the +5 V developed by U5. Operational amplifier U6B is referenced to ground. In both, the feedback signal from the output voltage is still applied to the non-inverting input of the amplifiers. With reduced loading of the supply, an increasing voltage (more positive on the +15 V or more negative on the -15 V) decreases the conduction of the pass elements thereby reducing the voltage. With more loading, the output voltage would tend to decrease and the operational amplifier output will cause the pass elements to increase conduction to counter the decreasing output voltage.

Overcurrent Sensing. Each of the regulators has a current sensing resistor and circuit to provide overcurrent information to the Alarm Sensing circuitry. In the +12 V regulator, that resistor is R63. The total current to the +12 V load passes through R63. Resistors R645 and R644 offset the emitter voltage of Q560 to a level that accounts for the nominal voltage drop across the sensing resistor, R63, and the diode drop of CR260. Diode CR260 in the base circuit of Q560 provides thermal compensation to the bias circuit. If the voltage drop across the resistor becomes excessive (too much current), Q560 becomes forward biased, and the high +12CS signal is applied to the Alarm Sensing circuitry. Like circuitry in the + and -15 V regulators senses overcurrent in those supplies and produces the +15CS and -15CS signals to the overcurrent comparators in the Alarm Sensing circuitry.

Alarm Sensing

LED Indicators. LED indicators (DS2 through DS6) are placed on the input voltage side of the Power Supply Supervisor, U16. These indicators provide a quick visual check to see if the expected input voltages to U16 are present if troubleshooting of the power supply ever becomes necessary.

Power Supply Supervisor. The Power Supply Supervisor, U16, monitors the power supply voltages and the LINE SENSE input. If any of the voltages do not meet the expected level (over or under), the Power Supply Supervisor outputs the appropriate alarm signal (/OVERVOLTS, /PWR FAIL, and /UNDERVOLTS). Each of the positive voltages is monitored on a separate input. A resistive voltage divider sets the input voltage at 2.5 volts. The -5.2 and -15 V supplies are combined at the input to an internal inverter circuit. The output of the inverter circuit is then monitored at pin 14 of U16.

The LS input of U16, pin 5, monitors the LINE SENSE signal from the housekeeping supply. That line also has diode-OR'ed signals from the Shutdown Logic Gate input and the PWM regulation detector. Any of those signals going low causes the Power Supply Supervisor to output the /PWR FAIL signal to the main instrument to warn it that power failure is imminent.

The supervisor also develops a voltage reference from pin 3. That voltage is used for the reference voltage in the overcurrent comparators and the power reset comparator.

The width of the valid range (tolerance) of input voltages is set by the voltage on pin 1 (LTH) to be 8%.

Power Reset Comparator. When the power supply is going down, it is important that the memory devices in the VM700A are not written with random data as the voltage decreases. There are two signals generated from the Alarm Sensing circuitry to aid in producing an orderly shutdown of the processor and memory devices. These two signals are /PWR FAIL, a warning that the power supply is going down, and /PWR RESET, a signal that prevents further writing as the voltage continues falling to the off state. The /PWR FAIL signal is developed by the Power Supply Supervisor, U16, immediately as the power is turned off. The /PWR RESET signal is developed by comparator U20B as the voltage decreases to the point that an /UNDERVOLTS signal is generated by the Power Supply Supervisor. The time delay between the two events permits the processor to shutdown while the voltage level is still high enough to permit proper operation.

When the voltage is coming up, it is also important that the memory devices in the instrument are not written to randomly. The Power Reset Comparator has an RC timing circuit on its non-inverting input that prevents the /PWR RESET from going high for a period of time after the undervoltage condition is removed (see Figure 3-16). The delay permits the power supply voltage to stabilize before the processor is permitted to start operating.

Overcurrent Comparators. The outputs of the + and -5 V overcurrent comparators (U21A and B) and the +12, +15, and -15 V overcurrent comparators (U30A and B) are diode-OR'ed together (through CR 46 – CR 50) to produce a single input to the overcurrent alarm logic circuit. Any individual supply that is overloaded causes a shut down of the power supply through the shutdown logic circuitry.

The +12 and +15 V overcurrent comparator (U30A) and the -15 V overcurrent comparator (U30B) are referenced to the V_{REF} output of U16, pin 3. The two halves of U30A and U30B are mirrored, so both comparator circuits produce a low output in an overcurrent condition of the monitored supply. The +12CS signal and the +15CS signal from the regulators are also diode-OR'ed at the input of U30A by CR84 on the +15CS signal line and by CR88 on the +12CS signal line. These two signal lines are pulled down to ground through R85 when neither current sense signal is active. The -15CS signal line is pulled up to the +14.4 V housekeeping source through R87 when that signal line is inactive.

The + and -5 V overcurrent comparators take their inputs from both sides of the current sensing resistors in the supply outputs. The voltage difference is very small, so some conditioning circuitry is required to set up the correct comparator operation. These two circuits are also mirrors of each other. The -5 V circuit is described, but the +5 V circuit operates in the same manner.

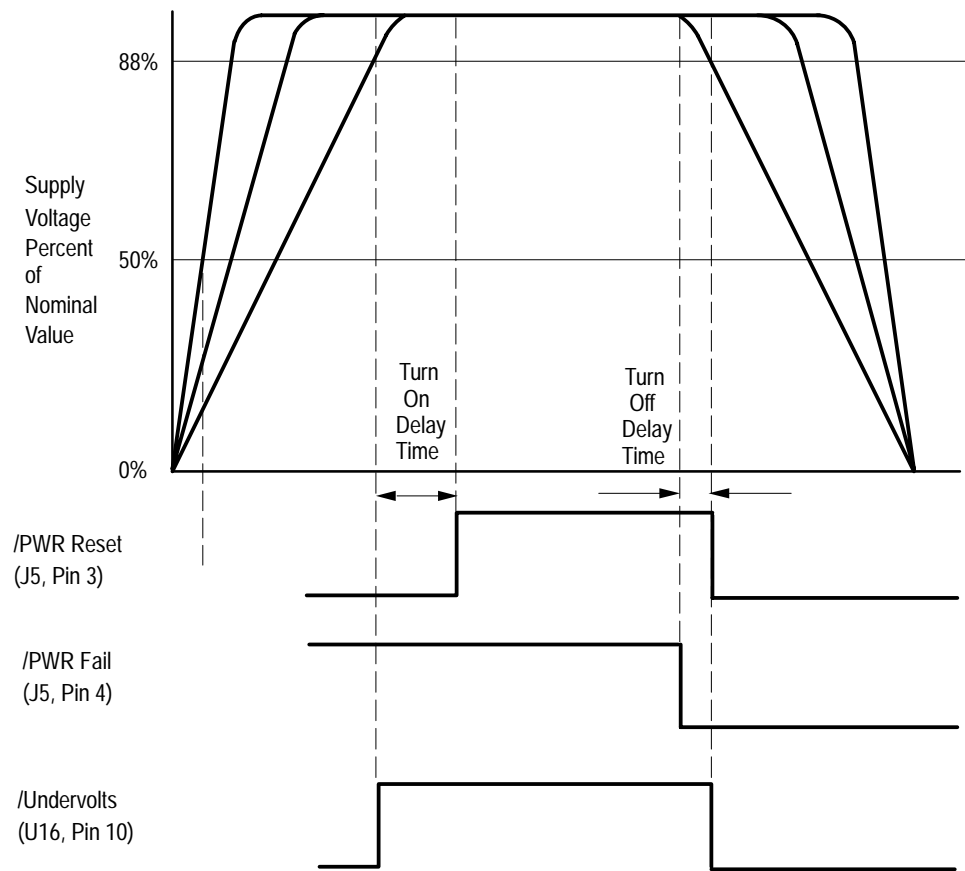


Figure 3-16: PWR FAIL and PWR RESET timing

The voltage across R28 in the -5 V supply (-5.2 V_i to -5.2 V_o) appears across the input of U21B attenuated by R124 and R122. Capacitor C81, across the input pins to U21B provides noise suppression. Zener diode VR3 sets a voltage across R122 and R124 in series. That produces a voltage at the junction of R124 and R122 that is slightly higher (less negative) than the -5.2 V_i input. (The -5.2 V_i comes from the regulated supply end of the current sense resistor.) As load on the -5.2 V supply increases, the -5.2 V_o side of the sense resistor becomes less negative, approaching the voltage level set on the non-inverting input of U21B. If the current rises to the point that -5.2 V_o exceeds that level, comparator U21B switches to a low output and forward biases CR46 to send the overcurrent alarm to the alarm logic circuit.

Fan Drive

The variable-speed fan is powered from a thermally controlled $+12$ to $+30\text{ V}$ supply. A graph of the fan drive voltage versus the temperature is shown in Figure 3-17. Temperature sensing is done by RT5, a thermistor mounted on the 5 V heat sink. There are provisions for two additional temperature sensing elements in the main instrument, but those are not used at present. Thermistor RT5 has a negative temperature coefficient, so as the temperature rises, the

voltage at the junction of R136 and RT5 decreases. When the temperature gets high enough that the voltage biases on CR51, the input to U24A begins to follow the temperature changes. The three temperature sense inputs are diode-OR'ed at the non-inverting input of U24A, a voltage follower operational amplifier. The highest sensed temperature controls the input to U24A by biasing off the diodes that have a higher voltage on their cathodes.

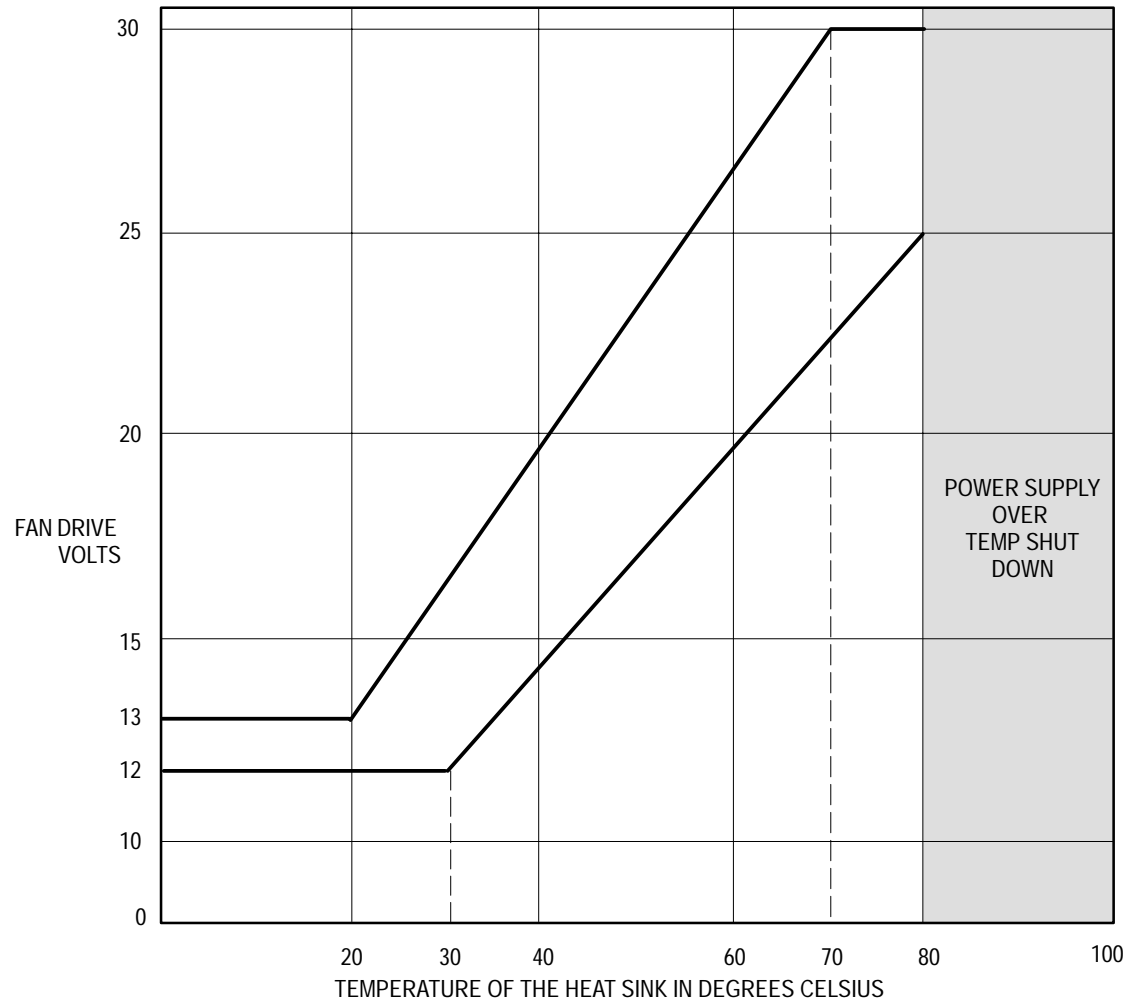


Figure 3-17: Fan drive voltage versus temperature

The output of U24A is summed with the voltage feedback from the output of the fan power supply. The feedback signal varies the output switching signal from U25, a Pulse-Width Modulator. Without the temperature feedback through R140, the feedback through R141 sets the output voltage to minimum, at about +12 V. The added temperature feedback modifies that provided from the fan drive circuit to vary the duty cycle of the drive signals to Q24 in proportion to the

temperature. The output of U24A decreases as the temperature increases, so the feedback voltage at pin 2 of U25B decreases. This makes the Pulse-Width Modulator output turn Q24 on for longer periods of time to increase the drive voltage to the fan.

The Fan Drive circuit, composed of Q24, L13, CR56, and C91, is a boosted power supply to produce the variable drive voltage to the fan. The pulse width modulator and Q24 are powered from the +12 V supply, but the boosted voltage to the fan can be up to 30 VDC. When Q24 conducts, energy is stored in the magnetic field of L13. As Q24 shuts down, the energy must be returned to the circuit. The voltage on the anode of CR56 increases due to the inductive rise and the diode is biased on.

The energy is rapidly transferred to C91 and CR56 becomes reverse biased to remove the inductor from the circuit. Until the next pulse of energy from L13, the stored charge of C91 supplies the drive voltage to the fan. The Pulse-Width Modulator and feedback circuit controls the fan drive voltage within a range of +12 to +30 VDC. If Q24 remains off, the voltage on C91 will reduce to below the +12 V supply and CR56 will again become forward biased through L13, so the minimum output drive voltage to the fan is approximately +12 VDC.

Jumper J12 is a servicing jumper. When it is removed, the ground reference to the feedback input is removed, and the PWM shuts off. The fan drive then reduces to minimum.



CAUTION. Jumper J12 is for testing purposes only. It may be pulled to eliminate the feedback signals from the input of U25. Troubleshooting should be attempted only by an experienced service person.

Alarm Logic

The temperature sensing elements also provide input to the Over Temp Indicator Comparator, U22A, and the Over Temp Shutdown Comparator, U22B. The over temperature indicator circuit provides an advance warning that the temperature is too high, in advance of an actual over temperature shutdown.

Over Temperature Comparators. Resistors R145, R146, and R147 set up slightly different references to the two comparators. When the voltage at the common inputs to the two comparators drops to about 5.4 V, the output pin of comparator U22A will drop and DS10, the internal over temperature LED is turned on. That low is inverted by U28E and applied to the front-panel over temperature LED (located next to the front-panel STBY/ON switch) to turn it on. The user will then have a visual indication that an over temperature condition exists.

If the temperature continues to rise, the voltage on the inputs to the two comparators continues to decrease. At about 4.4 V, the power supply temperature is high enough that a shutdown is necessary. At that point the output of U22B goes low and sends the over temperature alarm to U26A in the shutdown logic

circuitry. Negative-logic NOR gate U26A (any low in gives a high out) also has the /OVERVOLTS signal from the Power Monitor, U16, as an input.

Shutdown Logic. A high output from U26A due to either an overvoltage condition or an excessive over temperature condition fires SCR Q25 and applies a low to the shutdown gate U26B and the PS FAIL LED gate U26C. Once fired, the SCR latches the circuit in the shutdown state until the power supply is completely turned off to remove the +14.4 V housekeeping voltage.

The Shutdown Logic gate, U26B, has an input from U26A that is the combined overvoltage and over temperature shutdown signal; an input from U28A that is the overcurrent shutdown signal, combined from all the overcurrent sensing circuits; and an input from U28D from the front panel STBY/ON switch. Any of these inputs going low generates a high SD signal to the Pulse-Width Modulator to turn off the switching signals to the Inverter FETs.

Overvoltage Indicator. If an overvoltage condition exists, the /OVERVOLTS signal from U16 is applied to both U26A as input to the shutdown logic circuit and to an overvoltage indicator circuit. The /OVERVOLTS signal is inverted by U28C to fire SCR Q26. When that device fires, the overvoltage indicator LED, DS8 turns on to assist in troubleshooting an error condition in event of a power supply overvoltage problem. The SCR ensures that the indicator will remain on until the power supply is completely turned off to remove the +14.4 house-keeping supply voltage.

Overcurrent Comparator. The overcurrent comparator, U20A, is referenced at 2.5 V from U16, pin 3. That reference is applied to the inverting input of U20A, so under normal conditions, the output of U20A is at ground. The OVERCURRENT signal is therefore low, and the output of inverter U28A is high. The overcurrent LED will be off, and both the PS FAIL LED gate, U26C, and Shutdown gate, U26B, will have a high signal on the overcurrent input pins.

The overcurrent signal input to U20A is formed by combining the outputs of the individual power supply overcurrent comparators. When an overcurrent condition on any power supply is detected, the common anode side of diodes CR47 through CR50 is pulled low. That low charges C86 through R132 to forward bias Q23. The delay provided by the time constant of C86-R132 prevents an overcurrent condition from being generated by the current inrush when the power supply first turns on.

When the voltage on C86 reaches the forward bias point of Q23, that transistor turns on, and its collector voltage rises to the +14.4 V level. This forward biases CR89 to immediately charge C85 to that same level. The output of comparator U20A then goes up to the +14.4 V housekeeping voltage level. That is inverted by U28A, and the overcurrent indicator, DS9, turns on. That low from U28A also causes a shutdown to be generated from U26B to turn off the PWM, U8, and a high output from U26C, the PS FAIL LED gate. The high from U26C biases on Q27 to supply current to the front panel PS FAIL LED indicator (located near the STBY/ON switch).

When the PWM shuts down, the overcurrent signal from the individual power supplies will be removed, but the shut down signal must not be removed from the PWM for a short period of time. This is done by the time it takes C85 to discharge through R89 and R124. While C85 charged rapidly through CR89 for an overcurrent condition, that diode is reversed biased when the overcurrent condition goes away, and discharges more slowly to a level that causes the comparator to again switch its output low. That delay is how long the PWM remains off before it tries to restart. When an overcurrent condition exists, the PWM tries to run as C86 charges up and shuts down while C85 discharges. The difference between the two times (run to off) is about 1:5 and the overcurrent indicator LED, DS9, will blink.

STBY/ON Switch Circuit. The front-panel STBY/ON switch controls the POWER OFF logic signal to the shutdown circuitry. The master power ON/OFF switch to the power supply is located on the rear panel of the instrument. When the front-panel STBY/ON switch is in the ON position, the POWER OFF signal line is pulled low. This low is inverted by U28D and applied to the Shutdown Logic Gate, U26B, to allow the PWM to start operating if no other shutdown condition exists.

With the STBY/ON switch is in the STBY position, the POWER OFF control line is pulled high by R262 back to the +14.4 V supply. This high is inverted by U28D, and U26B applies a SD signal to the PWM that prevents it from outputting drive signals to the inverter switching FETs.

Also, with the POWER OFF control line high, diode CR259 is forward biased by the high POWER OFF signal. This removes the /UV LED signal as a control signal from the PS FAIL LED gate so the front-panel PS FAIL LED does not turn on with the STBY/ON switch in the STBY position.

Power Supply Failure Warning. A second output developed from U28D is the /POFF signal. A low /POFF signal forward biases CR201 in the LINE SENSE input signal line to the Power Supply Supervisor, U16, to pull the line sense input (pin 5) of that device low. The Power Supply Supervisor then outputs the /PWR FAIL signal to the main instrument to provide immediate warning that the power supply is going down. Another input to this same signal line is the RDETECT signal via CR48 from the PWM, U8. This signal detects when the PWM is out of regulation and also causes the Power Supply Supervisor to issue the power failure imminent signal to the main instrument. This warning to the main instrument also occurs when the master power ON/OFF switch is turned off.

Data Acquisition/Controller Board (A18)

The combined Data Acquisition/Controller board (A18) is a direct hardware replacement for the two separate boards (A7 Data Acquisition and A8 Controller) used in earlier VM700A instruments. The new board is installed in all new manufactured VM700A Video Measurement Sets. It may also be retrofitted in previously manufactured instruments as hardware upgrades are installed. When A18 is installed, it is nominally placed in the board slot previously used for the Controller board (A8).

A redesigned version of the Data Acquisition/Controller board (A18) is now in use. The board has all the functionality of the previous A18 circuit board in a surface-mounted component design circuit board. The new design is also a direct replacement for both the older version of the A18 circuit board and as a replacement for the two separate circuit board, A7 and A8. A circuit diagram and replaceable electrical parts list for the new design are not provided. In the following circuit description, the functions described are the same, but the specific component circuit numbers called out are not used in the new design of the Acquisition/Controller board.

Acquisition Introduction

The acquisition portion of the board is a programmable data interface between the ADC board and the CPU microprocessor. ECL-level data from the ADC board is sent to the ECL-TTL converter then passed to the data acquisition section. The controller state machine can be programmed to recognize data sequences and generate signals to the data acquisition section, telling it when to perform various tasks. Figure 3-18 shows a block diagram of the data acquisition section of the Acquisition/Controller board.

Video Data and Clock Inputs

Data from the ADC board enters the Acquisition/Controller board via J1, a 34-pin connector. The inputs are differential ECL-levels, and the inputs are terminated by 100 Ω resistors. ASYNC-SET and SYNC-RESET are outputs controlling the ADC board.

FIFO/Demultiplexor

The FIFO (first in/first out) consists of register files U59 and U70 and a controlling device U60. The controller makes the synchronous register files (U59, and U70) behave as a FIFO file.

Acquisition Data In. This video data bus input is fed into the inputs of both U59 and U70, and written to the address set on WA0-3 bus on a CLK rising clock edge if /WE is low. The write enable, /WE, for both U59 and U70 is driven from WC1 a divide-by-2 counter in U59. The WC0 output from U59 provides the /WRITE signal to U60.

Acquisition Clock. If the data and /WE and WA0-3 are stable 8 ns before, and 2 ns after the rising edge of this clock, register files U59 and U70 will behave correctly.

Acquisition Data Bus. This bus may be driven and read by many devices in the acquisition section. Mostly, data is read from the FIFO register files (U59 and U70) into the static RAM (U71-U86).

Clock In. This master clock input (RCLK on U60) increments the FIFO read pointers in U60. All occupancy signals output from U60 are timed from this clock (synchronized on the rising edge).

Occupancy Out. This collection of signals gives the Acquisition Control section information about whether the FIFO register files are empty, half-full, or have overflowed.

Control In. These signals (from Acquisition Control) dictate when to increment the read pointers, and when to clear the FIFO. Also, the output enable (OE) signal on U59 and U70 controls enabling the register files onto the acquisition data bus.

Acquisition Control

This block consists of U58, DL62, and U63. It is the control and timing center of the Acquisition system. It handles static RAM access arbitration, CPU dual-porting, state-machine instruction interpretation, CPU handshaking, the real-time control, FIFO control, Min-Max control, static RAM control and address sequencing for these RAM.

CPU Handshake. The CPU handshake is handled in U58, which takes in all the CPU controls signals (/AS, /DS, R//W, /SYSRESET) and the board address (/BDSSEL) decoded from U63, and signals back to U63 when to generate DSACKS

CPU Control Data. These four signals control latching of data into bidirectional latches U64 through U67. They enable the latched data either to the CPU data bus or the acquisition data bus.

FIFO Occupancy. These signals from U60 (S3, S4, and S5 on pins 5, 6, and 14 respectively) in the FIFO tells Acquisition Control U58 to disable CPU accesses to the static RAM when the RAM is too full and to resume accesses when the FIFO is empty. The S3 signal tell the CPU that the FIFO is half full and S4 tells the CPU that the FIFO has data (one or more). If a FIFO overflow occurs (STATUS3, S5), an interrupt to the CPU is generated. The overflow condition should never occur.

FIFO Control. The FIFO Control signals control the output of data in the FIFO register files onto the Acquisition Data bus. They clear the FIFO when needed and increment the FIFO read pointer as the FIFO data is output.

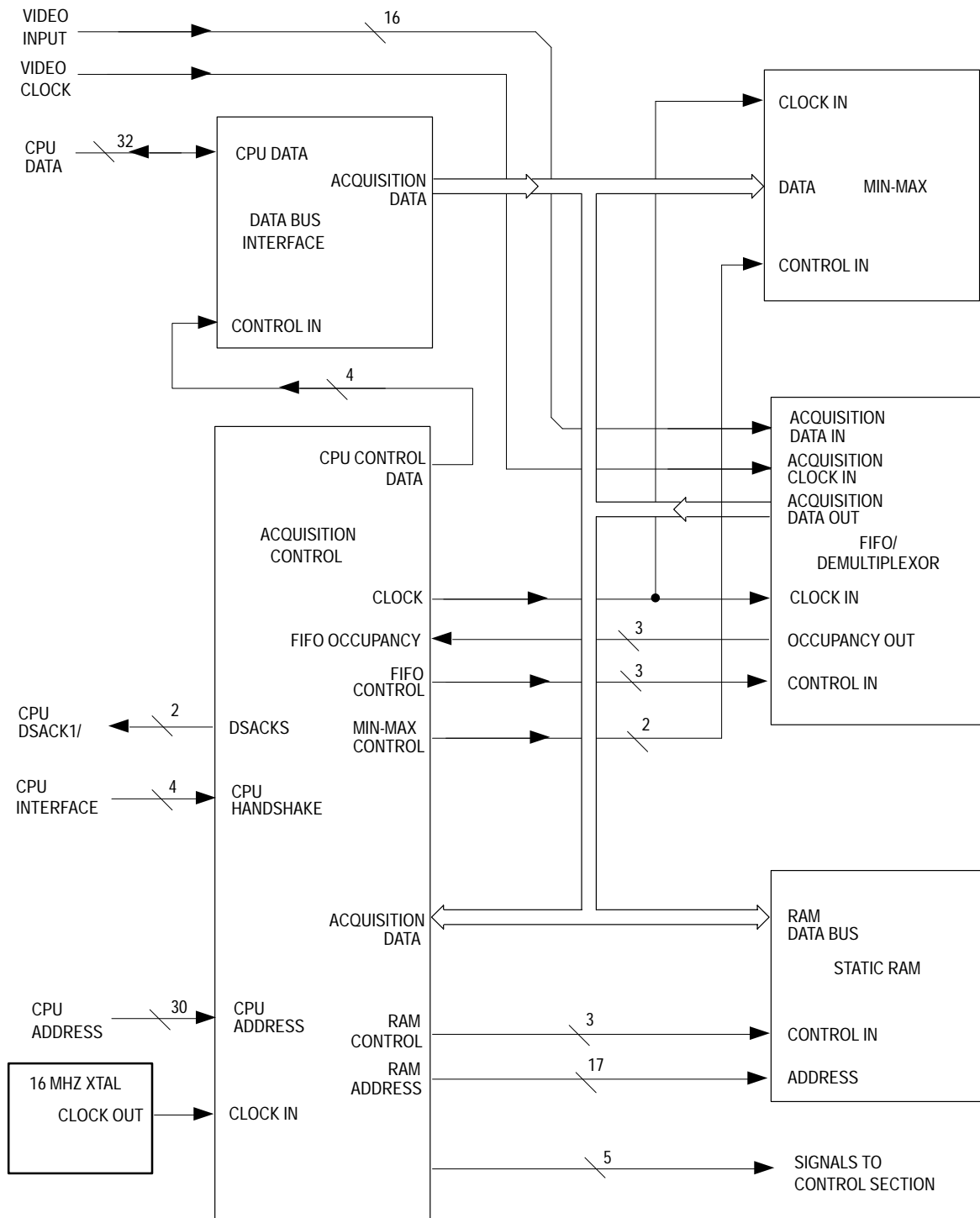


Figure 3-18: Acquisition circuitry block diagram

MIN-MAX Control. These signals control when to allow data to be read by the Min-Max application specific integrated circuit (ASIC) device and when to read and/or clear data accumulated by the Min-Max ASIC.

RAM Control. The RAM control signals timing of the static RAM /CS (chip select) strobe, the /WE states for DATA (0–27), and the /WE for DATA (28–31). DATA (28–31) carry the acquisition state machine instructions.

RAM Addresses. The Acquisition Control section is also an address sequence generator for acquisition storage address control. It also passes the CPU address in a CPU access cycle.

Acquisition Data. This port takes in data from the acquisition bus as addresses used in GOTO looping instructions or interrupts, and outputs real-time control signals or temporary register contents.

Signals to Control Section. These signals are used to establish when an acquisition or a part of an acquisition is completed. A FIFO overflow, if one should ever occur, and the main controller clock from DL62 are part of the information grouped in these signals.

Acquisition Clock

The acquisition control clock circuit, Y1, is a TTL-output compatible crystal oscillator running at 16.000 MHz. Various delayed versions of it are derived by DL62. The clocks are used in the acquisition ASIC (U58) for accurate timing of the control activities. One clock output is fed to the controller section.

Data Bus Interface

Because the Acquisition/Controller board has its own 20 MHz clock (it is independent of the CPU microprocessor) the CPU microprocessor interface is asynchronous into the acquisition section of the board. The data bus interface controls connection between the CPU data bus and the acquisition data bus to allow static RAM accesses.

Data Acquisition Memory (Static RAM)

The acquisition memory consist of sixteen, 64 K x 4 bit fast (25 ns or lower access times) static type RAM in two rows of eight devices, with 17 total address bits and 32-bit-wide data bus. The acquisition controller selects one of the 2 banks of 8 static RAM (U71 through U78 or U79 through U86) by decoding the most-significant bit of the address bus in U87.

Min-Max ASIC

The min-max ASIC (U61) keeps a running record of the minimum and maximum video data read from the FIFO, as well as latching whether a line or frame pulse or an over- or under-flow has occurred. Reading the Min-Max results resets the circuit to begin a new accumulation.

Controller Introduction

The controller portion of the board performs these functions:

- Controls the VM700A analog front end
- Receives and processes digitized data from the ADC board and passes it to acquisition memory
- Controls acquisition patterns

Figure 3-19 shows a block diagram for the controller circuitry.

Bus Buffers

All 32 data lines and the required control and address lines from the system bus are buffered on this board. Many of the data and address lines are buffered on the board a second time before being used to drive multiple devices.

Controller ASIC

The majority of the control logic and high speed logic functions are incorporated into the controller ASIC (application specific integrated circuit). The controller now has new functionality for DVM and clamp gating. The controller handles CPU interfacing, DVM and clamp counter gating control, bus routing control, DVM counting, and some of the buffers that handle data flow.

Address Decoding

Address decoding is handled by GAL U63 as is the decoding for the Acquisition section of the board.

Output Latches and Analog Input Board Interface

This block (U54, U55, U52 U53, and U56) controls the dynamic gains, offsets, input selections, and dither. The dither counter is implemented in PAL U56 and octal D flip-flop U53. The output signals from this block are fed directly to the Analog boards in the top compartment of the instrument. They perform the following actions:

- Enables the controller board DVM block in U8.
- Loads four control registers within U8 (the mode control and DVM selection blocks)
- Latches 12 (as 8 + 4) bits of data into the calibration DAC (located on the analog input board) via U26 (controlled from U8).
- Loads 8 bits of data into each register of the bias and clamp level octal DAC (located on the analog input board) via buffer U26 and the controlling signals from U8.

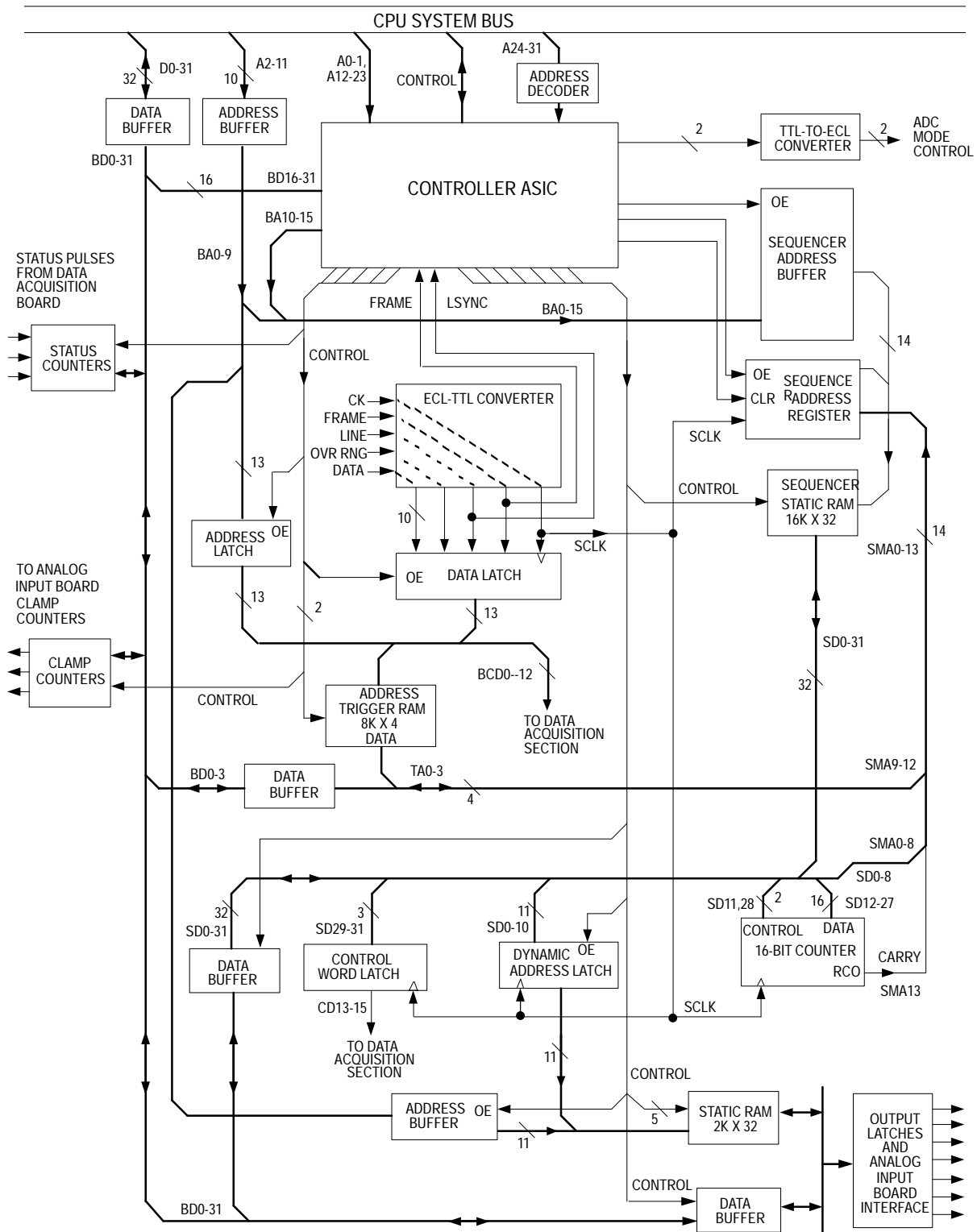


Figure 3-19: Controller section block diagram

Clamp Counters	Sixteen patterns, selected by the four bits from the control register, are stored in U8. The selected pattern provides gating for input signal clamping and the DVM. The gating information drives a triple timer/counter, U6. The ATRIG, BTRIG, and CTRIG outputs from the triple-timer/counter drive a one-shot multivibrator on the analog input board. Trigger pulses are generated for each line where clamping is to be applied. These pulses determine the point on a line where clamping begins; other control lines on this board control circuitry on the analog input board that sets the clamp level and duration.
Status Counter	The triple timer/counter, U7, counts status pulses from the acquisition section of the board. The status pulses may be used by applications to indicate events occurring in an acquisition pattern.
ECL-To-TTL Conversion	The differential ECL signals from the ADC board (D0–D9, FRAME_OUT, LINE_OUT, CKD, and OVERRANGE) are converted to single-ended TTL outputs by U9, U10, U11, U12, and U13 before being used by the Acquisition/Controller board. A TTL-to-ECL conversion of OLS and PSR from U8 to ECL levels is done via U19. These signals (Sync Reset and Async Set) control the modes of the ADC board so that it either outputs all ones or zeros or does conversion operations.
Data and Address Latches onto the BCD₀₋₁₂ Bus	<p>The data from the ADC board are latched into the data latches (U15 and U16) and clocked out by SCLK, re-synchronizing the data to the clock signal. Controller ASIC U8 loads address latch U20 with 10 bits of address. Three additional bits (BCD₁₃₋₁₅) are added from U8 to complete the address. Bits from the control register, /RUN and /STOP, can switch the trigger RAM input from data latch output (normal operation) to address latch output. Switching the trigger RAM input to the output of the address latch allows the CPU microprocessor to access the trigger RAM. The microprocessor then writes a 4-bit pattern into the trigger RAM through a 4-bit enable buffer, U18.</p> <p>The 13 bits (10 bits of data plus over-range, FRAME, and LSYNC) are sent to the trigger RAM and to the data acquisition sections of the board.</p>
Trigger RAM	<p>The trigger RAM (U17) performs the actual word recognition. When the microprocessor writes an appropriate 4-bit wide pattern into the trigger RAM (from the 4-bit enable buffer, U18), the four output bits change when certain ranges of input data (identified by bit pattern) occur. The output is four bits of the 16-bit input to the sequencer.</p> <p>Input data that could be programmed in U17 to trigger sequences may include sync, tape dropout, zero-carrier pulses, etc.</p>
Sequencer (State Machine)	Sequencer outputs drive the dynamic settings circuitry and send control bits to the data acquisition board. These control bits cause the program counter on the data acquisition board to jump to preset addresses.

As with the word recognition circuitry, the sequencer static RAM is loaded with program information from the CPU microprocessor. A bit from the control register (SRUN) in U8 enables address and data buffers of the system bus to have access to static RAM.

Sequencer Address and Data Buffers (U27, U8, and U22–U25). When the address buffer is enabled, the sequencer static RAM can be read and written by the microprocessor from the data buffer before starting the sequencer.

Address Register. The normal input to static RAM is the 16 bits from the sequencer address register (U28 and U29). The four TRIG bits, the 16-bit counter CARRY bit, and 11 bits (out of 32) from the output of static RAM comprise the 16-bit input to the register. The TRIG bits are the output of trigger RAM. The 11 address bits are the 11 LSBs from the output of the sequencer static RAM that are also fed through an address latch, U41 and U42, to the dynamic settings static RAM as its normal input (nine of these address bits are used in current hardware; the other two are reserved for future expansion.)

Static RAM. The 32-bit word output of the static RAM memory block (U30 through U37) goes to a number of circuits when the sequencer is running. Eleven bits of the output are fed to an address latch. The same 11 bits are also routed to the address register as the program counter. Sixteen bits of the output are fed as data to the 16-bit counter, while two more bits provide counter control. Three other of these bits provide signalling to the acquisition section of the board.

16-Bit Counter. Sixteen of the 32 bits output by the sequencer static RAM are used as data by the 16-bit counter (U38 and U39). The two control bits determine the count direction and whether the counter is to be loaded with the 16 data bits or is to hold the current count. When the counter overflows, the CARRY bit is returned to the address register. The CARRY bit can be used to count samples, lines, frames, or whatever the application needs to count.

Dynamic Address Latch. The 11 bits received by this address latch (U41 and U42) are clocked through to the dynamic settings static RAM (U44 through U47). These are the same 11 address bits that are returned to the address register from the output of the sequencer static RAM, but delayed one clock cycle.

Control Word Latch. The control word latch (U43) holds a three-bit control word issued to the data acquisition section of the board. These control bits cause the program counter in the data acquisition section of the board to jump to preset addresses.

Dynamic Settings

This circuitry sends additional front-end control data to the Analog Input, Genlock, and Filter Switch boards. The key requirement for this block is that its outputs must be able to change rapidly, because offset, gain, dither, input selection, and filter selection may change many times during a single line of video.

The dynamic settings static RAM (U44 through U47) can be accessed by the 68020 anytime, even during an acquisition. The same control bit (SRUN) that disables the sequencer static RAM determines if the microprocessor access requires synchronization.

Six of the eight bits sent to the dither generator implemented in U53 and PAL U56. These six bits are used as data; the other two are for control. The dither generator's four control states are:

- clear,
- sequence to the next dither level,
- hold the current level, and
- load a custom six-bit dither value.

Figure 3-20 shows the pre-defined dither waveform sequence built into the dither generator.

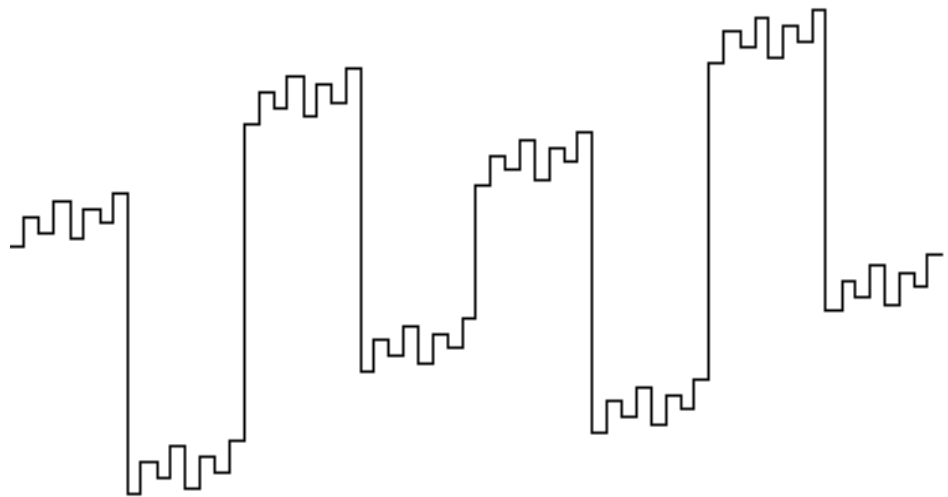


Figure 3-20: Dither generator 64-step dither waveform

When the dynamic settings address buffer is enabled, the CPU (a 68020) can read or write the dynamic settings static RAM from the dynamic settings data buffer (U48 through U51). This can occur while the sequencer is running. Address buffers for the CPU access are implemented by U57 and part of U8.

The CPU (68020) can be given access to the dynamic settings static RAM or the static RAM addresses may be connected to the 11-bit output from the sequencer address latch. The 11-bit output from the sequencer allows for different dynamic output settings for each step of the sequencer program.

The 32 bits of output latches are divided this way:

- Eight offset bits
- Eight gain bits
- Eight bits to drive a dither generator
- Three bits of input selection control
- The CPHASE bit inverts the clock phase on the genlock board to allow sampling midway between previous samples.
- Four bits control filter selection on the A4 filter switch board

Microprocessor access is also a multiplexed operation.

The DSACK generator within U8 provides the rapid signal generation needed for a minimal number of CPU wait states. This DSACK generator is much faster than the DSACK generator in the interrupt controller.

Option 48 GPIB Interface Board (A19)

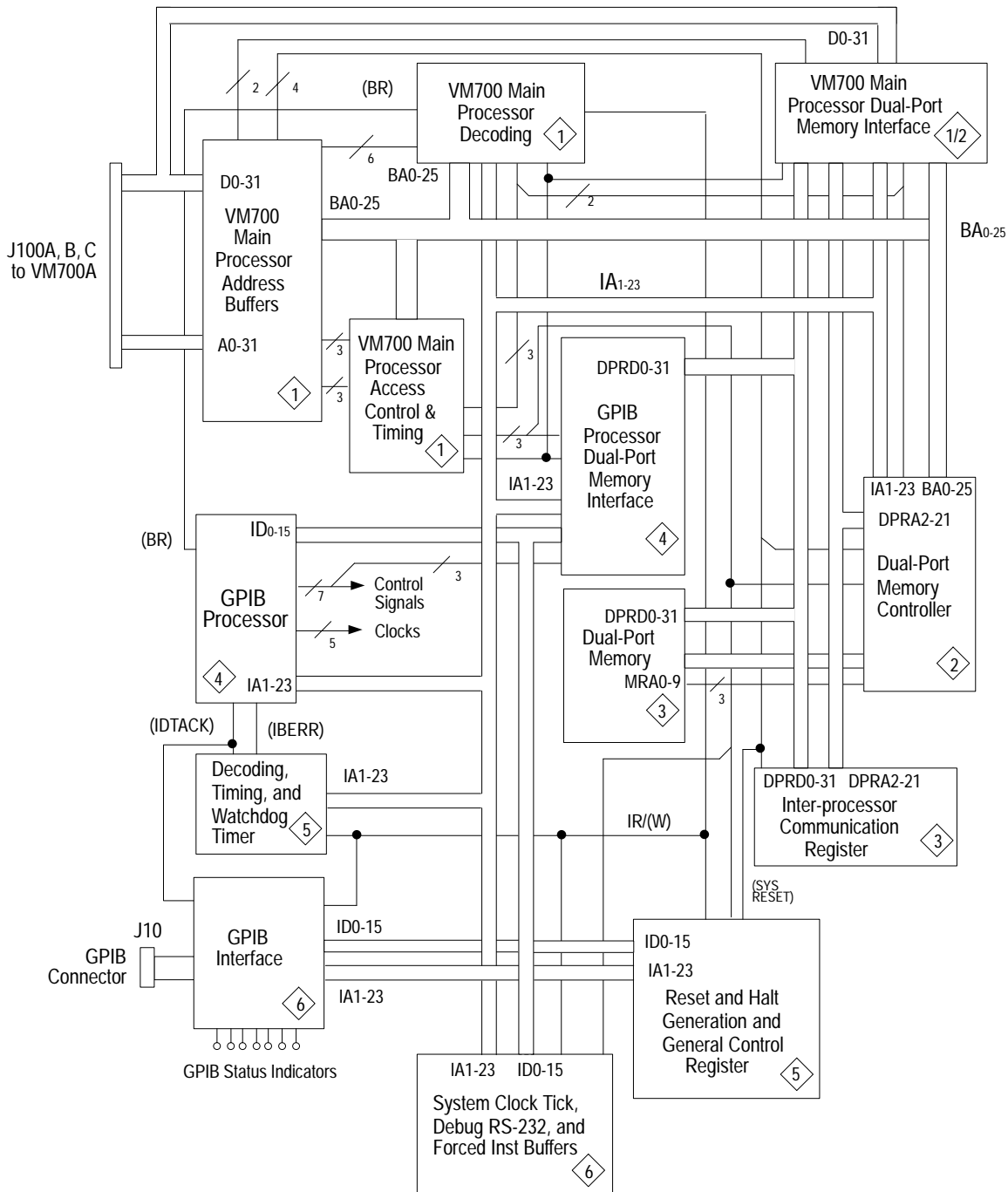


Figure 3-21: Simplified block diagram of the VM700A GPIB interface option board

Introduction

The GPIB Interface Board (A19) contains a GPIB processor, a GPIB controller, Dual Port RAM, and additional circuitry to handle communication between the GPIB processor and the VM700A processor and communicate with remote devices via the GPIB bus. Figure 3-21 shows the functional blocks and bus interconnections of the GPIB board. Figure 3-22 shows the installed location of the A19 circuit board in a fully optioned instrument.

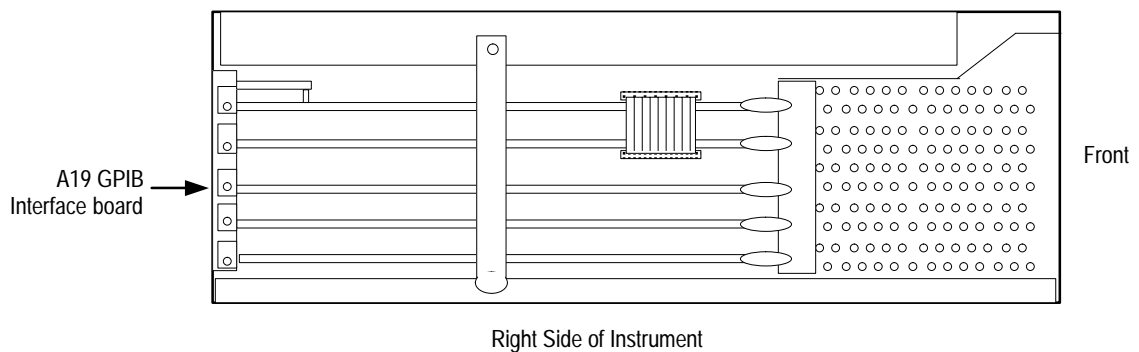


Figure 3-22: GPIB board location in the VM700A

The GPIB processor tracks the state of the GPIB, handles attention messages, and performs protocol conversions. It is a separate processor that is loosely coupled to the main processor in the VM700A by interrupts and shared memory. The shared memory and the inter-processor communications register (IPC register) are accessible by either processor and are used to communicate between the processors. Besides the shared memory spaces, the GPIB processor has some private RAM space that is not directly accessible by the VM700A processor.

The private RAM space is used by the GPIB processor as stack space to hold local variables and intermediate results. Another section of the memory space is the program RAM area. It is treated as ROM space by the GPIB processor and cannot be written to by the GPIB processor. The operating code for the GPIB board is stored in the ROM of the VM700A. On initialization, a copy of that code is loaded into the program RAM space of the GPIB processor by the VM700A processor.

It is not possible for the two processors to access the shared memory at the same time. Either one or the other processor can access the shared RAM space or the IPC register. Both the shared RAM and the IPC register share the same controlling hardware. The Dual Port RAM controller has arbitration circuitry that controls accesses to the shared memory space to prevent contention. When both processors are accessing the shared space, this circuitry alternates accesses so neither processor blocks the other from the shared memory space.

The GPIB processor has no memory cache so it gets its program instructions from the program RAM space. Most of the remaining access time, the GPIB processor is doing reads and writes to and from the shared and private RAM space. It is important that the VM700A processor not be blocked from accessing the shared space so it may communicate with the GPIB processor. When the VM700A processor request access, the Dual Port RAM controller grants it access. However, as long as both processors are making accesses, they will be alternated so that the GPIB processor is not blocked. An exception to this is when either processor is doing a read-modify-write cycle (RMC). During such a cycle, the processor making the access has control and the other is blocked for the duration of the cycle. After the RMC is completed, the other processor is granted access if it is requesting it.

During normal operation, communications between the two processors take place via the shared RAM and the IPC register. The IPC register allow either processor to set an interrupt flag to the other processor. When an interrupt occurs, the inter-processor communication is written to buffer then the other processor is interrupted to let it know a message is ready. When the interrupt has finished, the interrupted processor accesses the data to complete the communication.

A second type of access occurs in the debug mode. There is a debug window that allows the VM700A processor to see all 16 Mbytes of the 24-bit addresses of the GPIB processor. The GPIB processor has only 23 address lines with A0 being the missing one. That A0 address bit is controlled by an upper and lower data strobe to make the correct byte selection. The address space is divided into different areas, and each of these spaces use only a portion of the available addresses for active memory. Attempting to read or write to unused addresses in any of the memory divisions will cause a bus error. Access by the VM700A processor through the debug window halts the GPIB processor. The GPIB processor relinquishes control of its address bus and the VM700A processor takes control. The GPIB processor memory decoding circuitry is used by the VM700A processor to see the address space so the debug window can be used to test most of the GPIB hardware. An exception to this is the GPIB processor interrupts. The VM700A processor has no means to see or handle interrupts to the GPIB processor.

The GPIB interface is composed of the GPIB controller, U200, the DIO and Interface buffers, U199 and U201 respectively, the GPIB control logic PAL, U203, and the GPIB status PAL, U207. The GPIB controller handles the bus handshake, and transfers data into and out of the GPIB interface board via the two buffers. Data coming into the GPIB processor via the bus are interpreted, and any that are for the VM700A are sent on to the VM700A processor through the Dual Port memory communications path.

VM700A to GPIB Interface

Main Processor Address Buffers	The address buffers (U103, U104, U105, and U106) buffer the address and other selected control signals from the VM700A to the GPIB board. The buffered addresses are on the BA (0–25) bus.
IA Bus Buffers	These bus buffers, U107, U108, and U109 take bits BA1 through BA23 from the buffered address bus and connect them to the internal 60101 processor address bus IA bus (1–23). This circuitry allows debug access through the window into the GPIB board. This access is not used during normal operation of the GPIB board.
Block Select Switch and Identity Comparator	The block select switch must currently be set for the upper four bits 0 and the lower two to 1. The top six bits of the GPIB hex board base address are 0C (or 0000 11 in binary). Comparator U100 compares the upper six bits of the board address as set by the block select switch with the upper six bits from the VM700A address bus. The output signal on bin 19, the $\overline{\text{BLOCK}}$ signal (active low), is asserted whenever any address within the 64 Mbyte address space of the GPIB board is accessed. The $\overline{\text{BLOCK}}$ signal line must go low to enable the address decoding circuitry.
VM Decoders	<p>Decoders U110 and U111 are used for accesses to the shared dual-port RAM and to the IPC register (inter-processor communications register). This is a different path than is accessed by U107, U108, and U109.</p> <p>The high addresses are decoded by U110, VMDECODH and the low addresses are decoded by U111, VMDECODL. Decoder U111 produces only one output, the low register address (LOREGADR) signal to U110. This signal permits decoding of the IPC register addresses all the way down to the end and avoid multiple image addresses for that register. Decoder U110 produces three output signals. These signals are a bus request output BR, a RAM chip enable (VMCERAM), and a register select (VMREGSEL).</p> <p>The bus request signal (BR) goes to U505, the window control device to let it know that the VM700A is requesting a window access to the 68010 bus.</p> <p>For access to the RAM (VMCERAM) is asserted. This accesses either the dual ported area or the program area of the RAM. When accessing the IPC register, (VMREGSEL) is asserted. This register is used to assist in handling communications between the VM700A processor and the GPIB processor.</p>
Window Control	The window control device (WINDOWCTL, U505) is only involved in window accesses. The bus request line going to the GPIB processor also goes to U505 and the DSACKCTL PAL U115. After the bus request line is asserted and the

bus grant line is also asserted when IDTACK, IBERR, and the address strobe (as read from pin 18) are all high, U505 knows that the GPIB processor has relinquished control of the bus. The window control device then can assert address strobe, upper and lower data strobes (at the appropriate times), and can also assert window enable, (WNDENABLE), to turn on U107, U108, and U109 to put the address from the VM700A on the internal address bus, IA (1–23). The GPIB processor bus does not have a 0 bit; the upper and lower data strobes are used to select the byte.

The (WNDENABLE) strobe also turns on the data bus buffer/registers.

DSACKCTL PAL

When (IDTACK) is received by the DSACKCTL PAL, U115, DSACK is asserted back to the VM700A processor. Depending on whether the access is a window access (16-bit) or an access to the IPC register, the shared RAM or the Program RAM (all treated as a 32-bit data), the DSACKCTL device will assert either the (WDDSACK), for 16-bit data or the LWDSACK, for 32-bit data, signal. Data selector U113 selects the appropriate signal lines to be asserted back to the VM700A processor.

If a bus error occurs, the bus error signal IBERR passes through U115 and appears on the GPBERR signal line to be passed back through U113 to the VM700A processor.

A simple RC delay circuit is built into the DSDLYOUT1 and DSDLYOUT2 signal lines back to their respective inputs on U115. The (ENABLEDS) strobe to enable U113 is asserted as soon as access has begun, and it remains asserted after the address strobe is unasserted because of the time delay on DSDLYIN2 going high. (LWDSACK), (WDDSACK), and (GPBERR) all go high as soon as the VM700A address strobe (AS) goes high. The built-in delay of the DSDLYIN2 signal going high prevents U113 from being disabled immediately. This pulls the (DSACK 0), (DSACK 1), and (BERR) lines actively high for about 40 ns to return them to the level they need to be at before U113 is turned off.

VM Buffer Control

The VM buffer control device, U126, selects the appropriate outputs to enable based on the input signal states. It controls the direction and timing of data flow between the two data busses.

Data Bus Buffer/Registers

These devices (U122, U123, U124, and U125) are bidirectional octal bus drivers that are used to communicate data between the VM700A processor and the GPIB processor. Direction, enabling, and data clocking is controlled by U126 the VMBUFCTL PAL. They can be used to transfer either 16-bit words or 32-bit long words as needed for the access being made. When not enabled, the outputs are tri-stated. Either real time data or latched data can be transferred between the connected busses as determined by the control signals from U126.

Dual-Port Memory Controller and Interface

Dual-Port Read Address Selector **Data Selector (U134).** This device provides 4 bits of the dual port RAM address for selecting between the portions of the RAM to access.

DRAMMAP (U601). The RAM is divided into three parts and two different sizes of memory may be used. The address inputs are remapped by U601 for the processor accesses to RAM.

Mapped Addressing Address data is available long before it is really needed. This is done so that the data can be accessed more quickly. The selection of where the data is going is done late in the access process. When the selection has been determined, the DRAM controller, U130, asserts either (SEL1) or (SEL2). These are asserted very late in the access time, so the addresses have to be available at the selected chip within nanoseconds. The (SEL2) signal is applied to the \bar{A}/B inputs of the dual-port address selectors to switch them to the correct address input lines. The timing of this selection process is critical, and the addresses selectors are very fast. Ringing in the signals lines due to the fast transients between the data selectors and U130 is damped by the addition of RC501 and RC502 on the DPRA bus lines.

When (SEL1) is asserted, the VM700A processor is making a RAM access; (SEL2) is asserted for GPIB processor accesses.

Decoder Latch This device, U602, decodes the input addresses from the VM700A and GPIB board processors into the appropriate format. There are four bits output from each side of the decoder: LTCHVB0–3 and LTCHGB0–3 (latch VM700A byte flag and latch GPIB byte flag, respectively). These outputs are applied to U138 in parallel to provide the fastest possible access times to the selected devices after (CASEN) is asserted. The selected data from U130 as must be passed through U138 as soon as it is available.

Two other outputs from U602 are the LTCHVMRD and LTCHGPRD signals. These signals must be held stable for the VM700A or the GPIB accesses. The (RAMWE) and (RAMOE) signals are derived by U138 from the byte flag and read bits. If no byte flags are asserted, the access is to the IPC register, and the (IPCREGEN) bit is asserted. For an IPC register access, neither the (VMCERAM) bit or the (GPCERAM) bit will be asserted at the inputs of U602.

DRAMCNTL This device, U138, converts the (CASEN) line into 1 of 4 CAS signals: (RAMCAS) 0–4, and buffers the RAM write enable and RAM output enable lines: (RAMWE) and (RAMOE). There are eight memory parts to be driven by the (RAMWE) and (RAMOE) signals. For byte reading or writing, one or more pairs of RAM devices are accessed at the same time.

DPAssist/PLCC

The DPAssist device, U507, is used to support the operation of the DRAM controller, U130.

The 33.333 MHz clock provided by Y501 goes to the DRAM controller, U130, and the dual-port assist IC, U507. The 33.333 MHz clock is used in U130 to provide the timing for DRAM accesses. Its frequency is determined by the speed of the RAMS, and permits the use of 100 ns DRAMS within the required time limits for RAM access and data settling.

The RCLK (refresh clock) output of U507 on pin 24 is a divided down version of the 33.333 MHz clock.

Once an access has been completed, and the processor with access relinquishes the bus, the other processor has preference and it will get the next DRAM or IPC register cycle if it is requesting it. DRAM and IPC registers accesses use the same processor cycle and occur in the same address space, so are equivalent cycles even though they accessing different device. DPAssist does not assert a request for the other processor if an RMC (read-modify-write cycle) is occurring. Every read access by the GPIB processor, U162 (diagram 3_{A19}) is assumed to be an RMC until the (IAS) line goes back high at the end of the cycle.

Dual-Port Memory and Inter-Processor Communication Register

DRAM

The address and data lines to the DRAM devices (U142, U143, U144, U149, U145, U146, U147, and U148) are damped by series RC packages on the bus lines. The data lines, DPRD bus (0–31), are also pulled up to + 5 V through pull-up resistor packages. The damping on the DRAM address lines prevents them from ringing.

IPCOM Register

The IPCOM register (U504) implements all the functions of the inter-processor communications register. The applied clock, CLK10 MHZ, is used to form the internal clocks within U504. Register enable and read or write signals control the activity of the register. When the (IPCREGEN) signal is asserted, it means that a read or write to the register can occur. The (IPCREAD) and (IPCWRITE) strobes contain timing information controlling when to start and end the activity (read or write). The (IPCWRITE) strobe occurs later than (IPCREAD) to permit data to stabilize before a write is attempted. The (SEL1) and (SEL2) strobes tell which processor has been granted IPC access. Within the register, the GPIB processor can set or reset only certain bits. The VM700A processor also can only set or reset certain bits. Some bits may be set by one processor and only cleared by the other processor.

One example of how this function is used is that the GPIB processor may mask its interrupt bits so that when a critical section of code is being performed the VM700A processor can be prevented from interrupting. The VM700A processor can recognize that it is prevented from access, but it cannot clear the GPIB interrupt mask bits.

The remaining bits of the register may be set, reset, or cleared in similar fashion by the processors as needed to maintain smooth communications between the two processors.

DPRA 2 determines which of the two addresses are being accessed. It determines if the “read it or set it” or “read it or clear it” location is being accessed. Reading the bits can be done when the DPRA 2 line is either low or high, but it can only be set by writing to the bits when DPRA 2 is low and can only be cleared by writing to the bits when DPRA 2 is high. Two different resets are provided, (GPRESET) and (SYSRSET). The (GPRESET) permits only certain of the bits to be reset to clear the GPIB processor while (SYSRSET) initializes everything.

Outputs of U505 include the register done line (IPCREGDONE). This signal is sent back to the DPASSIST PAL (diagram 2_{A19}) to indicate that the activity being done by the IPCOMM register is finished. On a read cycle, the (IPCREGDONE) signal is returned quickly as data is merely placed on the bus and the bit is asserted. On a write cycle, some extra time is involved in getting the data clocked and latched before the (IPCREGDONE) line is asserted.

Other signals are RAMSIZE, going to the address decoding circuitry, and the program protect (PPROTECT) signal, also to the decoding circuitry. The (PPROTECT) line, when asserted, prevents the VM700A processor from writing to the program RAM. When the line is cleared, the VM700A processor can write to the program RAM. The RESETGP and HALTGP outputs go to the interrupt circuit of the GPIB processor. That processor may be reset, thereby clearing everything, or it may be just halted by the VM700A processor, after which it can resume where it left off in its operation.

Two interrupt request signals (IPCIRQ) to the GPIB processor and (IRQ1) to the VM700A processor are also output from U504. Within the IPC register there is a mask bit used to mask the interrupt bits appropriately. The VM700A processor has control over the mask bit for the (IRQ1) signal. The GPIB processor sets the (IRQ1) bit, and VM700A clears the interrupt request. Conversely, the GPIB processor has control of the mask bit for the (IPCIRQ) output. The VM700A processors sets the (IPCIRQ) bit and the GPIB processor clears it.

Inverter U509A inverts the output of the VMIRQ pin of U504 to obtain the correct logic for the (IRQ1) interrupt request signal to the VM700A processor.

GPIB Processor and Dual-Port Memory Interface

GPIB Processor

The GPIB processor is used in the standard processor configuration. All of its 23 address lines and 16 data lines and several control lines go through damping resistors that eliminate overshoot ringing. Each of the address and data lines are also pulled up to the +5 V supply through pull-up resistor packages.

20 MHz Clock

The clock circuit is a self-contained reference frequency source with an output frequency of 20 MHz. That is output as the DELAYCLK signal to U505 (diagram 1_{A19}) and U606 (diagram 5_{A19}). The 20 MHz clock is divided twice. In U164A it is divided to produce the CLK10MHZ and (CLOCK10MHZ) clocks and the ACKCLK. That 10 MHz is divided once more by U164B to produce the 5 MHz GPIBCLK signal for use by the GPIB Interface (diagram 6_{A19}).

Interrupt Control

The Interrupt Control PAL looks at address lines IA1–IA3 and IA16–IA19 and at the function code lines IFC0–IFC2 from the GPIB Processor. The PAL decides if an interrupt acknowledge cycle is in progress. If it is not (or if a forced instruction is not taking place), nothing further happens at the outputs of U605. If an interrupt acknowledge cycle is taking place, the (VPA) line is asserted back to the GPIB processor. During an interrupt, when the GPIB Processor does an interrupt acknowledge access, if the VPA (valid peripheral address) bit is asserted, the processor does an auto vector based on the state of the IPL0–IPL2 lines.

The CPU space cycles for the GPIB processor are identified by the value on address lines IA16 – IA19 during a cycle. An interrupt acknowledge cycle has a function code of 111, all three function code bits (IFC0–IFC2) are high, and the CPI space type field (IA16–IA19) is 1111. The interrupt control PAL recognizes these bit states and looks at address bits IA1–IA3 to determine the interrupt level that is being acknowledged by this cycle. All interrupt levels including the highest level, the (NMI), are acknowledged by the assertion of the (VPA) signal line to tell the GPIB processor to auto vector to the appropriate interrupt vector. For a NMI, the (NMICLR) bit is also asserted to clear the hardware causing the NMI. (NMI is used for engineering purposes only).

Forced Instruction Mode (FINST). This feature is used in troubleshooting. In normal operation, the (FINST) bit is pulled high. With a jumper installed on J101, everything else is taken off the bus. The (FINST) line is inverted in U605 for application to the RESET/REQUEST device, U610 (diagram 5_{A19}). All response to interrupts is also disabled. A piece of psuedo data is asserted on the data bus, and the processor goes into a continuous count cycle that exercises all the address lines. Address lines can then be easily checked for stuck bits.

GPIB Buffer Control

PAL U158 controls the buffers that interface between the GPIB processor, the Dual-Port Memory, and the IPC register. The interface buffers can either gate the data straight through or they can latch the input data and output it in a later cycle. Access to all 32 bits of the buffer at the same time is not done. Since the GPIB processor data bus is only 16 bits wide, accesses are to the upper 16 bits or the lower 16 bits or one of the 8 bit bytes of the upper or lower 16 bits.

These buffers are used not only for access to the Dual-Port Memory and the IPC register, but when the VM700A does a window access for debug purposes, these buffers are used to wrap the lower 16 bits to the upper 16 bits. The VM700A processor accesses 16-bit data on data lines 31–16, so to access the lower 16 bits,

the data has to be wrapped to the upper 16 data lines. When the VM700A processor performs a debug write to the Dual-Port Memory, the lower 16 bits are written through U156 and U157 unto the GPIB processor data bus, then back through U154 and U155 to the lower 16 bits of the Dual Port Memory. The upper 16 bits are written to the Dual-Port Memory directly through the data buffers of the VM700A processor.

Decoding, Timing, Watchdog Timer, Reset & Halt Generation, and Control Register

Decoding The main decoding occurs in PAL U608. The Decode Zero PAL (U607) eliminates images from the memory space. The (ZREGLO) line is asserted when all zeros are present on the address lines looked at by the PAL. The (Z17TO6) line is asserted when bits 6 through 17 of the addresses are all zero. These output along with the other inputs applied to the main decoder, U608, permit decoding to access the RS-232 debug interface (U611, diagram 6_{A19}), the GPIB controller (U200, diagram 6_{A19}), and the general control register (U609) without images. Figure 3-23 shows the GPIB board address allocation as seen by the GPIB processor.

When the VM700A processor is making an access through the debug window, it is asserting the address on the internal address bus (IA1–IA23). The VM700A processor accesses are made through the same hardware as the GPIB processor uses for its accesses. With exception of a few data paths, the GPIB processor hardware can be thoroughly checked by the VM700A processor. Figure 3-23 is a map of the GPIB board address space allocation as seen by the VM700A processor.

Acknowledge and Watchdog Timer

Watchdog Timer. This device has a 10 μ s timer used to time the how long the address strobe and data strobe are asserted. If a data acknowledge (IDTACK) does not happens within 10 μ s after these strobes are asserted, the watchdog timer times out and generates a bus error (IBERR). This time out prevents accesses that don't access any device from causing a system hang.

Acknowledge. The acknowledge part of U606 creates acknowledgements for a number of devices or events that do not create their own. One of these for example is the (QUIKEND) signal. When a register access is done, it is very fast, so the (QUICKEND) signal is asserted to tell U606 to assert the data acknowledgement (IDTACK) line right away.

When accesses to the control register or RAM are made, these accesses take some time to finish. The acknowledgement portion of U606 waits for the (CREDONE) or GPACCEND lines, respectively, to become true before the miscellaneous data acknowledgement line (MISCDT) is asserted. The feedback from the right side of R610 (IDTACK) back to the DTACK input of U606 permits the signal on pin 3 to be viewed not as the level at pin 18, but as the

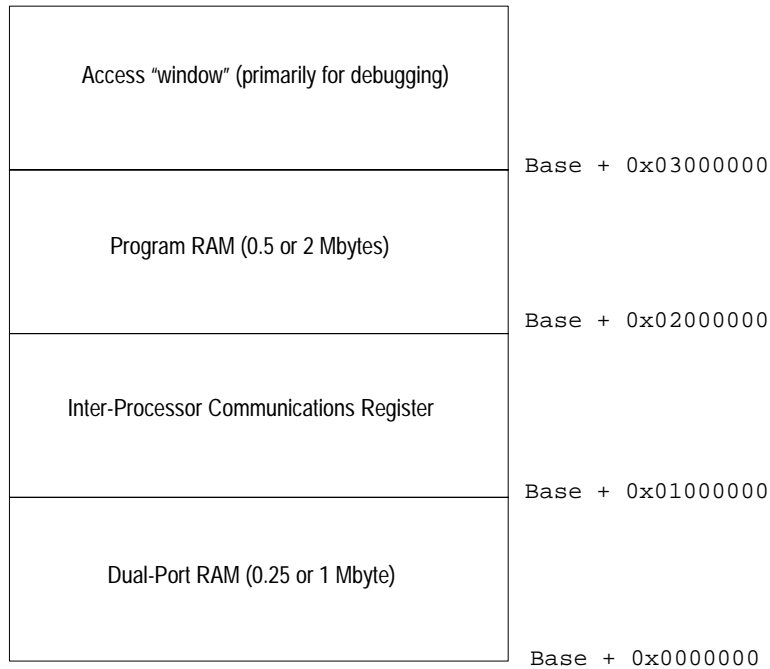
actual level of the (IDTACK) line. Depending on the current flow through R610, these two levels may be close to the same or somewhat different.

	0xf00000
	0xe00000
	0xd00000
Private RAM (0.25 or 1 Mbyte)	0xc00000
	0xb00000
	0xa00000
	0x900000
Dual-Port RAM (0.25 or 1 Mbyte)	0x800000
Inter-Processor Communication Reg (U504)	0x700000
	0x600000
	0x500000
GPIB Controller (U200)	0x400000
General Control Register (U609)	0x300000
RS-232 Interface (U611)	0x200000
	0x100000
Program RAM (0.5 or 2 Mbytes)	0x000000

Figure 3-23: GPIB board address space allocation as seen by the GPIB processor

Control Register

This register (U609) accesses in the same manner as the IPC register. It is normally only accessible by the GPIB processor, but the VM700A can access this register via the debug window. This register controls the group execute trigger (GET) and handles the BYTEIO input which is the DMA request bit from the GPIB device. The BYTEIO bit provides a means to easily determine if a byte input or output request is pending at the GPIB interface.



"Base" is the address of the board on the VM700A bus (set by Block select switch S100)

Figure 3-24: GPIB board address space allocation as seen by the VM700A processor

The CLKTICK input from the DUART (U611, diagram 6_{A19}) is used to generate system timing. It is a square-wave signal that sets a register bit on the rising edge. This asserts the CTICKIRQ output (nominally a 60 Hz clock tick) to the GPIB processor via the RESET/REQUEST device, U610.

Accesses to the Control Register are enabled by the CRSELECT bit from the main decode PAL. The IR/(W) bit controls reading or writing to the register and the IA2 address line is used to control the choice of either setting register bits or resetting them on a write. Some of the bits are either read only or can be set only under special circumstances.

Reset/Request

Reset. In the schematic, the top half of U610 provides the reset function. Timing of the various internal functions is provided by the (CLK10MHZ) clock signal. Reset must be set for at least 132 clock cycles to make sure the GPIB processor is completely reset. If the RESETGP signal is asserted momentarily, the (GPRESET) along with the (CPURESET) and (CPUHALT) lines will be asserted for 136 clock cycles. To fully reset the GPIB processor, both (CPURESET) and (CPUHALT) have to be asserted. (CPUHALT) remains asserted for a slight period of time after (CPURESET) is removed to meet the requirements of the GPIB processor.

If (SYSRSET) is asserted, it asserts a complete GPIB reset, and the (GPRESET), (CPUHALT), and (CPURESET) lines are all asserted.

The GPIB processor can execute a reset instruction. This instruction asserts only the (CPURESET) line from the GPIB processor which is then read by U610 (pins 23 and 24 of U610 are both bidirectional). If (CPURESET) from the GPIB processor is asserted, it is passed to pin 26 to become the (GPRESET) signal that resets only the GPIB board; the GPIB processor is not reset.

If the GPIB processor is halted because of a failure of some type on the GPIB processor bus, a halt without an assertion of the HALTGP input will cause U610 to assert reset on the GPIB processor to restart the operation in an attempt to get the GPIB board going again. For troubleshooting purposes, this auto reset may be disabled by placing a jumper across the pins of J602. With this jumper in place, whenever a failure halt occurs, the auto-reset is disabled so that the halted state may be examined to attempt to locate the reason for failure.

Request. The request portion of U610 is an interrupt priority encoder. The interrupt requests are coded onto the three interrupt priority lines back to the GPIB processor with the highest priority interrupt present being passed to the GPIB processor. The profiling NMI (non-maskable interrupt) has the highest priority and IPCIRQ has the lowest priority. If the forced instruction (FINST) line is asserted, the priority encoding onto the (IPL)0–(IPL)2 lines is disabled.

GPIB Interface, System Clock, Debug RS-232, and Forced Instruction Buffers

GPIB Controller

The GPIB controller (U200 and U166A), with the assistance of U203, transfers data into and out of the GPIB board and handles the GPIB handshaking over the interface bus. PAL device U203 takes care of the unusual timing of events required of the GPIB controller. The 10 MHz ACKCLK signal (acknowledge clock) is applied to U166A, a highly metastable resistant D flip-flop. The D input to U166A is always high through pull-up resistor R183. From U203, the ACKDLYOUT signal holds the flip-flop cleared as long as that signal is low. When it goes high, the flip-flop clocks a 1 out to the ACKDLYIN input of U203. This provides part of the timing required for accesses to the GPIB Controller.

DUART and RS-232 Debug

This device (U611) is a DUART (dual asynchronous receiver/transmitter). The RS-232 portion of the device is used during the development stage of the circuit board for debugging purposes. On production circuit boards, the RS-232 and baud rate jumper connectors are absent. Other parts of U611 perform circuit functions in normal operation of the option board. The built-in timer in the part develops the system clock, CLKTICK, for the operating system. Outputs OP5 and OP6 control two of the GPIB status indicators on the rear panel circuit board. Output OP7, via inverter U102C, provides the SC control bit to both U207 and U201. In U207, the SC bit is used to control the SYS CTL LED indicator. It switches U201, one of the GPIB interface device, between either

being able to assert the REN and IFC line, in the case where the GPIB board of the VM700A is the system controller, or just being able to receive the REN and IFC assertions from another system controller.

Forced Instruction Buffers

These buffers (U612, U613) are hard wired with the forced instruction code on the input pins. When enabled by the (FINSTEN) line being asserted, the forced instruction word is placed on the 16-bit ID0–15 data bus. The data is a MOVE QUICK instruction to the GPIB processor which has the same affect as a NOP (no operation) command. It is used to increment the GPIB processor through its address lines for debugging purposes. The address lines can then be checked to make sure none are stuck.

GPIB Bus Interface and Filters

The common-mode filters (FL101 and FL102) on the GPIB data and handshake lines reduce the EMI to acceptable levels. Data is handled by GPIB bus interface U199 and the handshake signals are handled by GPIB bus interface U201. These interfaces are bidirectional for passing the signals to and from the GPIB controller U200.

GPIB Status LEDs

The GPIBSTAT device, U207, drives the LED status indicators on the rear panel of the GPIB interface board. The (LSTN), (TALK), (SREQ), and (CACT) (controller active) bits are all derived from the various control and handshake lines coming from the GPIB controller. The REM LED is driven by a signal from the DUART. Pin OP6 (REMOTE) drives the REM LED on the rear panel of the GPIB board. Pin OP5 (LOCKED) of U611 drives the LOCK LED indicator. Figure 3-25 shows the rear panel and status LED arrangement for the circuit board.

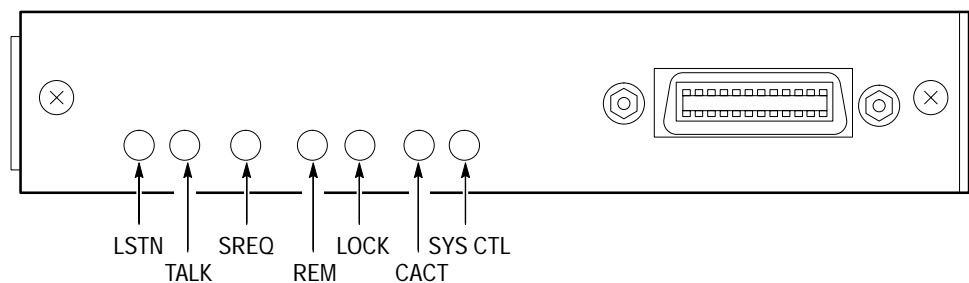


Figure 3-25: GPIB rear panel arrangement

Section 4: Verification and Adjustment Procedure

Section 4: Verification and Adjustment Procedure

The procedures in this section are of two types: verification and adjustment. The procedures in the first part of this section are done with the covers on the VM700A to verify its operation and may be used to determine the need for readjustment. After a board exchange, certain adjustments may be needed to compensate the overall system performance. Follow the directions found in the adjustment procedures part of this section when readjustment is needed. The instrument's performance to published specifications is verified by other methods during a factory calibration.

Power-up Diagnostics

Hold down the Auto hardkey when you power up the instrument. After about 5 seconds, release the Auto hardkey. This runs the full set of internal diagnostics. Check that all tests pass as they run. If a test fails, refer to the appropriate text in Section 6 for further actions you can take to determine which board or boards may be at fault.

To check for soft errors (possible intermittent operation), enter the Configure files and set the Diagnostic Selection file to run all diagnostics. If you see a Diagnostic Errors file, either use the Delete soft key to erase it (if it is not needed), or check it for the last error saved and note its time for reference. Select Measure mode by pressing the Measure hardkey, then set the diagnostics to loop continuously (DiagsLoop).

NOTE. *This equipment requires a 20 minute warm-up period before starting the verification procedures. The instrument must be powered on for at least 20 minutes.*

Run the diagnostics while you let the VM700A warm for 20 minutes before starting the verification checks (the diagnostics can be looped as long as desired to more rigorously check for intermittent errors). Use the Abort Diagnostic soft key to halt diagnostic looping. Return to the Configure menu and check the Diagnostic Errors file for new errors. See the Diagnostics information in Section 6 of this manual for more information on the diagnostics tests and their operation.

Test Equipment Required

The test equipment needed to perform the verification and adjustment procedures is shown in Table 4-1. The specific pieces of equipment required to perform a procedure are shown at the beginning of that procedure. Note that the Gain-Phase analyzer is required for the extended adjustment procedure only.

Table 4-1: Test Equipment Required for Verification and Adjustment

Equipment	Minimum Specification	Purpose	Example
Video amplitude calibration fixture (VAC) with TM500 or TM5000 series power module	Square wave 0.0 mV to 999.9 mV peak; accuracy 0.05%, resolution 0.1 mV	Reference standard for amplitude verification	Tektronix 067-0916-00
Leveled sine-wave generator	75 Ω output impedance; output flat within ± 0.025 dB ($\approx 0.3\%$) to 6 MHz	Measure sine wave, filter flatness adjustment	Hewlett-Packard 3336C Sine-wave generator with option 005 ¹
Television signal generator	NTSC, full field and burst capability, accurate to ± 1 Hz	NTSC test signal source	Tektronix TSG-170A or equivalent
Television signal generator	PAL, full field and burst capability, accurate to ± 1 Hz	PAL test signal source	Tektronix TSG-271 or equivalent
Frequency counter	External reference capability or ratio A/B, 8-digit display	Adjust the GenLock VCO	Tektronix DC 503A or equivalent
Test oscilloscope	Horizontal timing to 5 ns/div, 0.5 V/div, trigger slope selector, and auto level triggering.	Adjust the ADC clock pulse width.	Tektronix 2465B or equivalent
Digital multimeter	DC Volts range, 20 mV to 200 V; 3-1/2-digit display	Adjust the GenLock VCO, adjust CalDac	Tektronix DM 502A or equivalent
Coaxial cable, 2 required	75 Ω impedance, high-quality noise free; 1-meter length	Signal interconnections	Tektronix part number 012-0074-00
Termination	75 Ω precision, BNC connectors	Signal termination	Tektronix part number 011-0102-01
Alignment tool	Non-metallic, flat-blade	Adjust potentiometers and capacitors	Tektronix part number 003-1364-00
Screwdrivers	Pozidriv 1X and 2X	Remove and replace cover panel screws	
Gain-phase analyzer	75 Ω impedance	Extended flatness adjustment	Hewlett-Packard 4194A Impedance/Gain-Phase analyzer
Feed-through termination	75 Ω impedance, BNC connectors	Signal termination	Tektronix part number 011-0055-01
Adapter, 2 required	BNC female to SMB male snap-on connector	Signal interconnections for extended flatness adjustment	Omni/Spectra part number 3280-2224-00 ²

¹ The flatness accuracy required of the leveled sine-wave generator is only to the bandwidth needed to perform the VM700A verification and adjustments. It is not specified to be that flat over the entire bandwidth of the generator.

² Omni/Spectra is a MACOM company: 140 Fourth Avenue, Waltham, MA 02254, USA or 77 Milford Road, Reading, Berks., RG1 8LG, England. The example connector is a distributor part.

System Verification Procedures



CAUTION. *If the results yielded by the verification procedures in this section are within the limits specified, further calibration and adjustment is not necessary and is not recommended. Adjusting the VM700A unnecessarily (for example, to get a “better” reading on a calibration result that is within limits) can introduce errors into a functional instrument.*

Procedure 1: Measure Squarewave Procedure

This procedure checks the amplitude accuracy of the instrument. An externally applied precision reference signal is used to check the complete signal path through the instrument.

Test Equipment Required

- Video amplitude calibration fixture (VAC). Tektronix 067-0916-00.
- Coaxial cable, 75 Ω high-quality noise free; 1-meter length. Tektronix 012-0074-00.

Procedure: Measure Squarewave

1. Connect the VAC to channel A of the VM700A (leave the input unterminated).
2. Set the controls of the VAC for NTSC, +LUM, and 700.0 mV.
3. On the VM700A, press the Measure key, the Diags soft key (if not already in Diagnostics mode), and the Measure Squarewave soft key.
4. Check the VM700A for a reading of 700 mV \pm 2.1 mV.

NOTE. *If the voltage measured in step 4 is out of the specified limits, go to Adjustment Procedure 5: Adjusting the Calibration DAC. If the VM700A TV Standard (NTSC or PAL) firmware version is earlier than 2.04, contact Tektronix service support (see If You Need Customer Services for further information).*

5. Move the test signal and select the appropriate channel to repeat the check for channel B and channel C.
6. Disconnect the VAC from the VM700A.

Procedure 2: Measure Sinewave Procedure

This procedure is to be used as a check for proper VM700A system level adjustment. It checks the frequency response flatness over the instrument's operating range.

Test Equipment Required

- Leveled sine-wave generator, 75 Ω output impedance, output flat within ± 0.025 dB ($\pm 0.3\%$) to 6 MHz. Example: HP 3336C with option 005.
- Termination, 75 Ω precision BNC. Tektronix 011-0102-01, or equivalent.
- Coaxial cable, 75 Ω high-quality noise free; 1-meter length. Tektronix 012-0074-00.

Procedure: Measure Sinewave

1. Connect the leveled sine-wave generator output to the VM700A channel to be tested (start with channel A). Terminate the channel loop-through output connection in 75 Ω .
2. Set the leveled sine-wave generator for 50 kHz at an output level of 500 mV into 75 Ω .

NOTE. If the example leveled sine-wave generator is being used, the output level should be set for -3.81 dBm.

3. Press the Measure hardkey, then, if necessary, display the VM700A Diagnostics directory by pressing the Diags soft key. In diagnostics, run the sine-wave measurement application by pressing the Measure~Sinewave soft key.
4. After the measurement application has initialized, turn Averaging on by pressing the Average hardkey until the Average hardkey light is lit. When the display stabilizes, press the Freeze hardkey. The Delta Amp reading should remain at 0. If the Delta Amp reading changes, press the Freeze key again, as many times as needed, until the Delta Amp reading remains at 0. This is now the reference to which all other measurements are compared.
5. Set the leveled sine-wave generator for a frequency of 4.43 MHz; do not change the output level.
6. To speed up the response to the frequency change, toggle the Average hardkey off, then back on again after the display has re-stabilized.
7. Check that the amplitude is within $\pm 0.5\%$ (Delta Amp of $\pm 0.5\%$ or less) of the 50 kHz reference level stored in step 4.

8. Set the leveled sine-wave generator for 5.8 MHz; do not change the output level.
9. Again, to speed up the response to the frequency change, toggle the Average hardkey off, then back on again after the display has re-stabilized.
10. Check that the amplitude is within $\pm 0.55\%$ of the reference level stored in step 4.
11. Change the TV Standard parameter from PAL to NTSC by pressing the XY Arrow hardkey. Change the filter selection from No Filter to the NTSC bandwidth limiting filter by pressing the Move/Expand hardkey until the filter displays NTSC BW Lim.
12. Return the leveled sine-wave generator to 50 kHz; do not change the output level.
13. To speed up the response to the frequency change, toggle the Average hardkey off, then back on again after the display has re-stabilized.
14. Check that the amplitude is within $\pm 0.5\%$ of the reference level stored in step 4.
15. Reset the leveled sine-wave generator for 3.6 MHz; do not change the output level.
16. To speed up the response to the frequency change, toggle the Average hardkey off, then back on again after the display has re-stabilized.
17. Check that the amplitude is within $\pm 0.5\%$ of the reference level stored in step 4.
18. Change the Filter parameter from NTSC BW Lim to Chroma BP by pressing the Move/Expand hardkey. Don't change the settings on the leveled sine-wave generator.
19. To speed up the response to the filter change, toggle the Average hardkey off, then back on again after the display has re-stabilized.
20. Check that the amplitude is within $\pm 0.5\%$ of the reference level stored in step 4.
21. Change the TV standard parameter to PAL by pressing the XY Arrow hardkey.
22. Change the leveled sine-wave generator frequency to 4.43 MHz; do not change the output level.
23. To speed up the response to the frequency change, toggle the Average hardkey off, then back on again after the display has re-stabilized.

24. Check that the amplitude is within $\pm 0.5\%$ of the reference level stored in step 4.
25. Repeats steps 1 through 7 for channel B and channel C.
26. Disconnect the test equipment from the VM700A.

NOTE. *If the response on channel A is out of limits, go to Adjustment Procedure 2, Adjusting Filter Flatness.*

If either channel B or channel C does not pass but channel A does, the Analog input board may need replacement. Check with your nearest Tektronix representative or factory service for assistance and board replacement information.

Procedure 3: Measuring the Burst Frequency

This procedure checks the calibration of the internal oscillator using a signal source of known frequency.

NOTE. *To successfully run this procedure, the internal oscillator of the VM700A must be completely stable. Power on the VM700A at least 20 minutes before performing this procedure.*

Test Equipment Required

- Television signal generator with full field and burst capability, accurate to ± 1 Hz. Tektronix TSG-170A or equivalent.
- Coaxial cable, 75 Ω high-quality noise free; 1-meter length. Tektronix 012-0074-00.
- Termination, 75 Ω precision BNC. Tektronix 011-0102-01 or equivalent.

Specification Checked

Burst frequency accurate to ± 10 Hz using the internal frequency reference.

NOTE. *The frequency of the signal generator used must be accurate to ± 1 Hz to ensure a valid limit check reference on the burst frequency measurement.*

Procedure: Measuring the Burst Frequency

1. Disconnect all signal inputs from the VM700A.
2. Press the Measure hardkey and touch the Video soft key, if necessary, to recall the Video measurement menu.

3. Touch the Burst Frequency soft key. With no signal applied, the VM700A displays a warning message that tells you to check the signal source because a signal cannot be found. The burst frequency measurement starts automatically after 3 seconds (the Loss of Sync indicator blinks).
4. Press the Menu hardkey and touch the Reference soft key in the menu display.
5. Touch the Zero Set soft key to set the measurement reference for the internal oscillator.
6. Connect the signal generator (full field and burst) to the channel A input (terminate the loop through with a 75 Ω BNC termination).
7. Check that the burst frequency measurement is 0 ± 10 Hz using the internal frequency reference.

NOTE. *If the measurement result obtained is outside of the specification limits, go to Adjustment Procedure 1: Adjusting the Genlock Board's Voltage-Controlled Oscillator.*

System Adjustment Procedures

After a board replacement, certain adjustments may be needed to compensate the overall system performance. The procedures in this section may be used to make those adjustments.

NOTE. *These procedures are not complete board level adjustments. Most of the factory adjustments are made during testing before the boards are assembled into the VM700A. The adjustments given here are those used to verify and adjust the instrument at the system level.*

Procedure 1: Adjusting the Genlock Voltage-Controlled Oscillator (VCO)

This procedure verifies the VM700A genlock VCO by comparing it to a frequency standard. If the genlock VCO requires adjusting, this procedure also describes the adjustment process.

Test Equipment Required

- Signal generator. Tektronix TSG-170A or equivalent for NTSC or Tektronix TSG-271 or equivalent for PAL. Both signal generators are needed for dual-standard instruments.
- Frequency counter with external reference or Ratio A/B. Tektronix DC 503A or equivalent.

- Digital voltmeter with 3-1/2-digit display. Tektronix DM 502A or equivalent.
- Termination, 75 Ω precision BNC. Tektronix 011-0102-01.
- Coaxial cables, 75 Ω high-quality, noise free BNC; 1-meter length, 2 each. Tektronix 012-0074-00.
- Non-metallic, flat-blade adjusting tool. Tektronix 003-1364-00.



CAUTION. *This procedure requires access to a radio-frequency standard signal. If you do not have access to a radio-frequency standard signal, do not attempt to adjust the frequency of the VM700A genlock crystal oscillator.*

Specification Checked

Genlock VCO: within ± 5 Hz of a radio-frequency standard 1 MHz signal when checked with the following procedure. Single standard instruments, either NTSC or PAL, need only one VCO checked. For dual-standard instruments both must be checked.

Procedure: Verifying the Genlock Voltage-Controlled Oscillator

1. Connect a radio-frequency standard 1 MHz signal to the external reference input of the frequency counter (channel B of the example counter).
2. Connect the subcarrier output of the appropriate video signal generator (NTSC or PAL) to the signal input of the frequency counter (channel A of the example counter).
3. Using the suggested frequency counter, the ratio of the channel A to channel B signal is used to determine when the frequency of the test signal is adjusted correctly. Adjust the signal generator until the frequency counter displays the exact TV standard subcarrier frequency for the VCO being checked (3.579545 MHz for NTSC or 4.43361875 for PAL).
4. Connect the composite video output of the signal generator to the VM700A channel A input (terminate channel A with the 75 Ω termination).
5. With the VM700A powered off, remove the three top cover holding screws (found at the rear of the instrument) and slide the top cover panel back enough to expose the genlock board (just behind the CRT module). Power on the instrument and allow it to warm for 20 minutes if not already warmed up.
6. For dual-standard instruments, select either NTSC or PAL mode, as needed for the VCO being checked. This may be done by pressing the Measure hardkey then the Video~Standard soft key to identify the applied composite

video signal source. Then press the Waveform hardkey to return to the Waveform mode. Selecting the TV standard in this manner is temporary, and the configuration returns to match that set in the Video Source file at the next power up. Alternately, you may use the Configure menus to set the Video Source file for the TV standard you have applied to the channel.

7. Connect the DVM plus lead to TP 322 on the Genlock board and the minus lead to chassis ground. Check that the voltage is about 0 V ($0\text{ V} \pm 25\text{ mV}$). The VM700A must be locked to the external input signal.



CAUTION. *If the VM700A meets the limits described, skip step 8 and go to step 9. Adjusting the VM700A unnecessarily (for example, to get a “better” reading on a calibration result that is within limits) can introduce errors into a functional instrument.*

8. Adjust the VCO adjusting screw for the TV standard you are checking (either NTSC or PAL) for a DVM reading as close as possible to 0 V ($0\text{ V} \pm 25\text{ mV}$). The VCOs are located in metal housings on the Genlock board near the back of the Display Monitor (CRT) (see Figure 4-1).

NOTE. *If your instrument is a dual standard instrument, check both VCOs before continuing with step 9.*

9. Disconnect the DVM from the VM700A and reinstall the instrument covers.
10. Disconnect all signal inputs from the VM700A, then wait 5 minutes while the internal temperature of the instrument stabilizes.
11. Press the Measure hardkey and touch the Video soft key, if necessary, to recall the Video measurement menu.
12. Touch the Burst Frequency soft key. With no signal applied, the VM700A displays a warning message that tells you to check the signal source because a signal cannot be found. The burst frequency measurement starts automatically after 3 seconds (the Loss of Sync indicator blinks).
13. Press the Menu hardkey and touch the Reference soft key in the menu display.
14. Touch the Zero Set soft key to set the measurement reference for the internal oscillator.

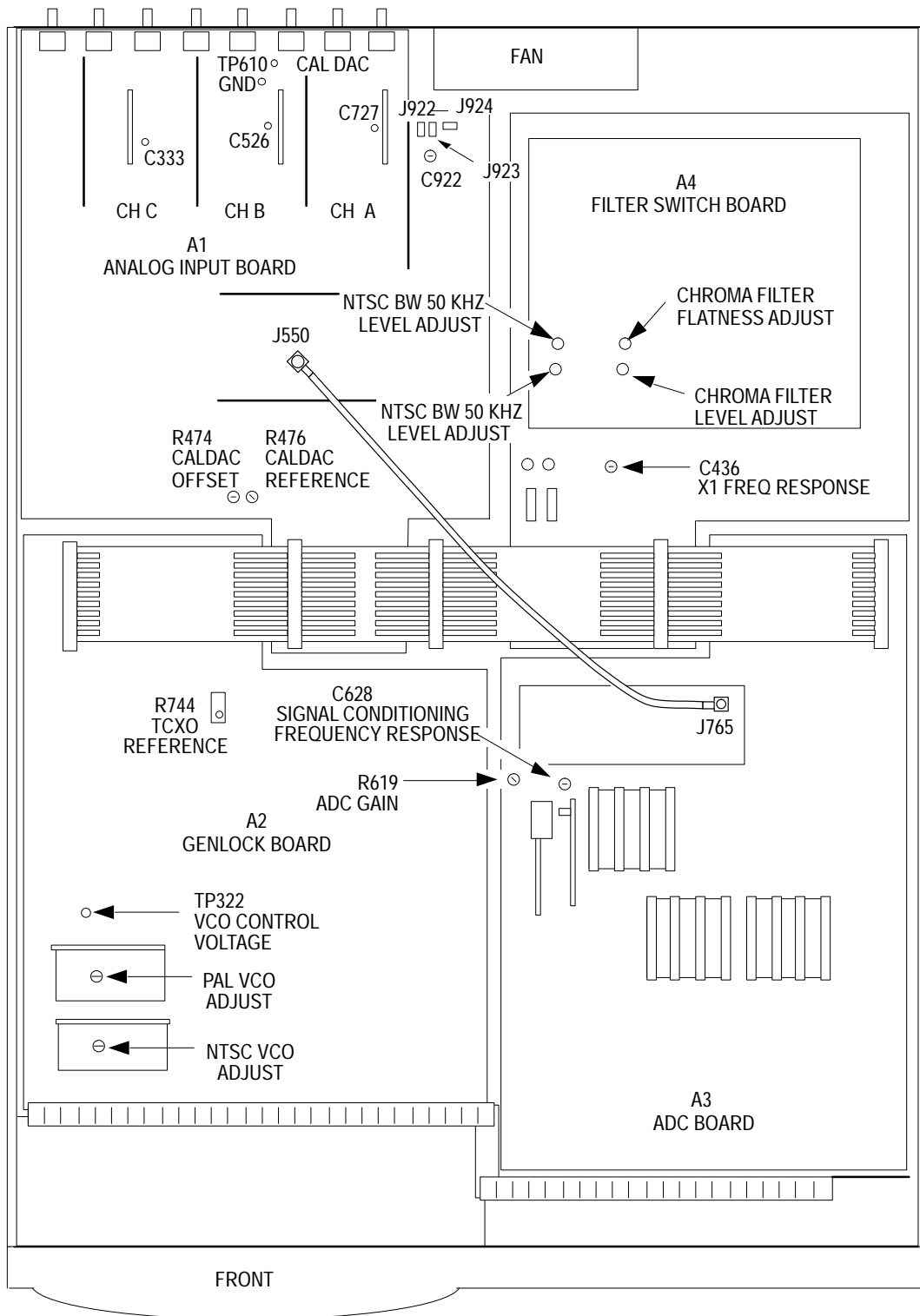


Figure 4-1: Adjustment locations from top view

15. Connect the signal generator (full field and burst) to the channel A input (terminate the loop through with a 75 Ω BNC termination).
16. Check that the burst frequency measurement is 0 ± 10 Hz using the internal frequency reference. Do this procedure for NTSC and PAL TV signals if the VM700A is a dual standard instrument.



CAUTION. *If the VM700A meets the limits described, skip step 17. Adjusting the VM700A unnecessarily (for example, to get a “better” reading on a calibration result that is within limits) can introduce errors into a functional instrument.*

17. If adjustment is needed, slide the top cover back enough to expose the Genlock board and quickly adjust R744, TCXO REFERENCE, on the Genlock board to set the Burst Frequency measurement to zero. Slide the top cover back on the VM700A. After 5 minutes, check the Burst Frequency measurement again to verify that it remains within tolerance.

NOTE. *If you performed this procedure after getting out-of-limit results from Verification Procedure 3 (Measuring the Burst Frequency), return to Procedure 3 now.*

Procedure 2: Adjusting Filter Flatness

This procedure is used to adjust the frequency response flatness over the operating range of the VM700A after a board exchange repair or after it is determined that the flatness is out of tolerance by doing the Measure Sinewave check procedure.

Test Equipment Required

- Leveled sine-wave generator, 75 Ω output impedance, output flat within ± 0.025 dB ($\approx 0.3\%$) to 6 MHz. Example: HP 3336C with option 005.
- Termination, 75 Ω precision, Tektronix 011-0102-01, or equivalent.
- Coaxial cable, 75 Ω high-quality noise free; 1-meter length. Tektronix 012-0074-00.

Procedure: Adjusting Filter Flatness

1. Set the leveled sine-wave generator for 50 kHz at 500 mV into 75 Ω .

NOTE. *If the example leveled sine-wave generator is being used, the output level is set to -3.81 dBm.*

2. Connect channel A of the VM700A to the leveled sine-wave generator and terminate the channel A loop-through output connection in 75 Ω .

3. Press the Measure hardkey and move to the VM700A Diagnostics directory by pressing the Diags soft key if necessary. In the Diagnostics directory, run the sine-wave measurement application by pressing the Measure~Sinewave soft key.
4. Once the measurement application has initialized, turn Averaging on by pressing the Average hardkey until the Average hardkey light is on. When the display stabilizes, press the Freeze hardkey. The Delta Amp reading should remain at 0. If the Delta Amp reading changes, press the Freeze key again, as many times as needed, until the Delta Amp reading remains at 0. This is now the reference to which all other measurements are compared.
5. Set the leveled sine-wave generator for 4.43 MHz; do not change the output level setting.
6. To speed up the response to the frequency change, toggle the Average hardkey off, then back on again after the display has re-stabilized.
7. Check that the change in amplitude is within $\pm 0.5\%$ of the 50 kHz reference level stored in step 4. If the amplitude is in tolerance skip to step 8. If Averaging is not off, turn it so you can see response changes. Adjust C628 on the ADC board (or C57, MID FREQ, on the new design ADC board) to bring the flatness at 4.43 MHz into specification (approximately $\pm 0.02\%$ or less difference when compared to the 50 kHz reference).
8. Set the leveled sine-wave generator for 5.8 MHz, but do not change the output level setting.
9. If Averaging is on, speed up the response to the frequency change by toggling the “Average” hardkey off, then back on again after the display has re-stabilized.
10. Check that the amplitude is within $\pm 0.55\%$ of the reference level stored in step 4. If it is in tolerance skip to step 11.

If the amplitude is out of tolerance, you can try the adjustment of step 7 again to set the amount of change (Delta Amp) to the positive side of the tolerance (i.e. nearer the +0.02% limit) as a compromise. You may also need to start the procedure all over again to re-establish the reference level (it may have drifted slightly from when you first acquired it).

You should next determine if the problem is only on one channel or on all channels. If only one channel is involved, the Analog Input board may need the flatness adjustments for the input channels done (that procedure is described in the Extended Adjustment Procedure later in this section). If all channels are involved, the ADC board may need adjustment or repair (part of the Analog Input board is also a single-channel signal path, but the ADC board is the most likely problem area when all channels are affected). The flatness adjustment of the ADC board is also described in the Extended Adjustment Procedure as part of the system frequency response adjustments.

- 11.** Change the TV standard parameter from PAL to NTSC by pressing the XY Arrow hardkey. Change the filter selection from No Filter to NTSC Band-Width Limiting Filter by pressing the Move/Expand hardkey until the filter displays NTSC BW Lim.
- 12.** Return the leveled sine-wave generator to 50 kHz; do not change the output level setting.
- 13.** Let the display stabilize.
- 14.** Adjust the NTSC BP filter 50 kHz Level adjust on the Filter Switch board so that the change in amplitude (Delta Amp) is within $\pm 0.02\%$ of the reference level stored in step 4. See Figure 4-1 for the adjustment locations.
- 15.** Reset the leveled sine-wave generator for 3.6 MHz; do not change the output level setting.
- 16.** Let the display stabilize.
- 17.** Adjust the NTSC BP Filter Flatness adjust on the Filter Switch board so the change in amplitude (Delta Amp) is within $\pm 0.02\%$ of the reference level stored in step 4.
- 18.** Change the Filter parameter from NTSC BW Lim to Chroma BP by pressing the Move/Expand hardkey. Don't change the settings on the leveled sine-wave generator.
- 19.** Let the display stabilize.
- 20.** Adjust the Chroma Filter Level adjust, so that the change in amplitude (Delta Amp) is within $\pm 0.02\%$ of the reference level stored in step 5.
- 21.** Change the TV standard parameter to PAL by pressing the XY Arrow hardkey.
- 22.** Change the leveled sine-wave generator frequency to 4.43 MHz, but do not change the output level setting.
- 23.** Let the display stabilize.
- 24.** Adjust the Chroma Filter Flatness adjust, so that the change in amplitude (Delta Amp) is within $\pm 0.02\%$ of the reference level stored in step 4.
- 25.** Disconnect the cables and test equipment from the VM700A.

Procedure 3: Adjusting ADC Gain

The ADC gain is auto-calibrated during normal VM700A operation. This check and adjustment should only be done as part of a board exchange repair to set the adjustment to a nominal setting for auto-calibration.

Test Equipment Required

- Non-metallic, flat-blade adjusting tool. Tektronix 003-1364-00.

Procedure: Adjusting ADC Gain

1. Press the Measure key, then the Diags and the ADC Gain Adjust soft keys.
2. The VM700A should display $100\% \pm 3\%$.



CAUTION. *If the VM700A meets the limits described, skip step 3. Adjusting the VM700A unnecessarily (for example, to get a “better” reading on a calibration result that is within limits) can introduce errors into a functional instrument.*

3. If the number displayed is outside the tolerance range, remove the top cover of the VM700A and carefully adjust R619, ADC Gain, on the ADC board (A3) to bring the number to 100%.

NOTE. *The ADC board has been redesigned. Later versions of the ADC board have different circuit numbers. Use the alternate step 3 adjustment for the newer circuit board.*

Alternate Step 3. If the number displayed is outside the tolerance range, remove the top cover of the VM700A and carefully adjust R21, ADC Gain, on the ADC board (A3) to bring the number to 100%. See Figure 4-5 for the adjustment location.

NOTE. *The following adjustment procedure is not required for the older design ADC board or the newest version of the ADC board. An unlabeled potentiometer that had been added to the ADC circuit board was removed for the newest version. The circuit number for this potentiometer is R110.*

Procedure 4: Clock Pulse Width Adjustment for ADC Boards with R110.

If potentiometer R110 is not on your ADC board, skip this adjustment. See Figure 4-5 for the location of the potentiometer.

Procedure: Adjusting the ADC Clock Pulse Width

1. Press the Measure key, then the Video and the V_Blank soft keys. This sets the sample clock to 20.25 MHz.

2. Connect oscilloscope CH 1 probe ground (using a short lead) to TP17 GND. Connect the probe tip to TP12 (CLK). See Figure 4-5 for test point and adjustment locations.
3. Set the oscilloscope controls:

CH 1 VOLTS/DIV	0.5 V/DIV
CH 1 Input Coupling	1 M Ω DC
CH 1 Trace	ON
A SEC/DIV	5 ns/div
Trigger SOURCE	CH 1
Trigger LEVEL	AUTO LVL
Trigger SLOPE	+ (plus)
Cursors	TRACK
Cursors Δt	28 ns
4. Vertically center the waveform, and adjust the horizontal position to place the rising edge of the positive clock pulse at a convenient major division on the horizontal axis. You may use the cursors set for a Δt of 28 ns to assist in making the check and adjustment (if needed).
5. Check the ADC clock pulse width (measured between the 50% points on the rising and falling edges of the waveform) for a pulse width of 28 ± 0.5 ns.
6. If the pulse width is not correct in step 5, adjust potentiometer R110 for a positive pulse width of 28 ± 0.5 ns.

NOTE. You can cause the ADC to lock up if you adjust the clock pulse too far out of the adjustment range, especially too narrow. If this should occur, adjust the clock pulse for the correct width and recycle the power to the VM700A to restore correct operation.

Procedure 5: Adjusting the Calibration DAC (CalDAC)

This procedure adjusts the calibration DAC. Run this procedure by selecting it with the soft key in the Diags directory. Follow the directions displayed on the VM700A screen for adjusting the Analog Input board (A1) amplitude and offset voltages.

Test Equipment Required

- Digital voltmeter with 3-1/2-digit display. Tektronix DM 502A or equivalent.
- Non-metallic, flat-blade adjusting tool. Tektronix 003-1364-00.

NOTE. The CalDAC adjustment procedure is available only on VM700A video measurement sets running firmware version 2.04 and later.

Run this procedure only if Verification Procedure 1 (Measure Squarewave) yields incorrect results. Adjusting the VM700A unnecessarily (for example, to get a “better” reading on a calibration result that is within limits) can introduce errors into a functional instrument

Procedure: Adjusting the CalDAC

1. Press the Measure button and the Diags soft key.
2. Press the CalDAC adjustment soft key.
3. Remove the VM700A top cover and connect the digital voltmeter to TP610 on the analog input board (A1).
4. Adjust R474, CalDac Offset, on the Analog Input board for -1.2793 V.
5. Press the C button.
6. Adjust R476, CalDac Reference, on the Analog Input board for 0.0000 V.
7. Press the C button.
8. Check for a $+1.2777$ V (± 0.001 V) reading at TP610.
9. Press the Measure button to exit the CalDAC procedure.
10. Power off the VM700A and replace the top cover.

NOTE. If you performed this procedure after getting out-of-limit results from Verification Procedure 1 (Measure Squarewave), return to Procedure 1 now.

Procedure 6: Adjusting the Display

This procedure adjusts the display after a monitor or Display Memory board (A9) replacement. The replacement monitor, when supplied by Tektronix, has been aligned for proper operation in the VM700A, but Trace Rotation (a monitor control) and vertical and horizontal centering (adjustments on the Display Memory board) may be needed to align the replacement display. If the Display Memory board is replaced, usually only the horizontal and vertical centering (step 4) may need readjustment. The final procedure is to set the power-up display intensity and calibrate the touch screen.

Test Equipment Required

- Non-metallic, flat-blade adjusting tool. Tektronix 003-1364-00.

Procedure: Display Monitor Adjustment

1. Power off the instrument, disconnect its power cord, and remove the left- and right-side covers.
2. Reconnect power to the VM700A, power it on, and let it complete its power on initialization. The waveform graticule is the default display at power on.
3. Look at the lower left corner of the waveform graticule. It should form a 90° right angle. If not, adjust the Trace Rotation control (located on the left side of the monitor chassis) to level the waveform graticule trace across the screen.
4. Check the display's horizontal and vertical centering. If display positioning is not satisfactory (off center or horizontal folded back), adjust the appropriate control (Horiz or Vert Centering, located beneath the side retainer plate on the A9 Display Memory board, right side of the VM700A, see Figure 4-2) to align the display on the CRT.
5. If the power-on display intensity is not satisfactory, adjust the brightness level. This adjustment is located on the bottom of the CRT display module.

NOTE. The power-up brightness level seldom needs adjustment in normal operation.

6. Power off the VM700A. Press and hold the Configure button while powering on the instrument.

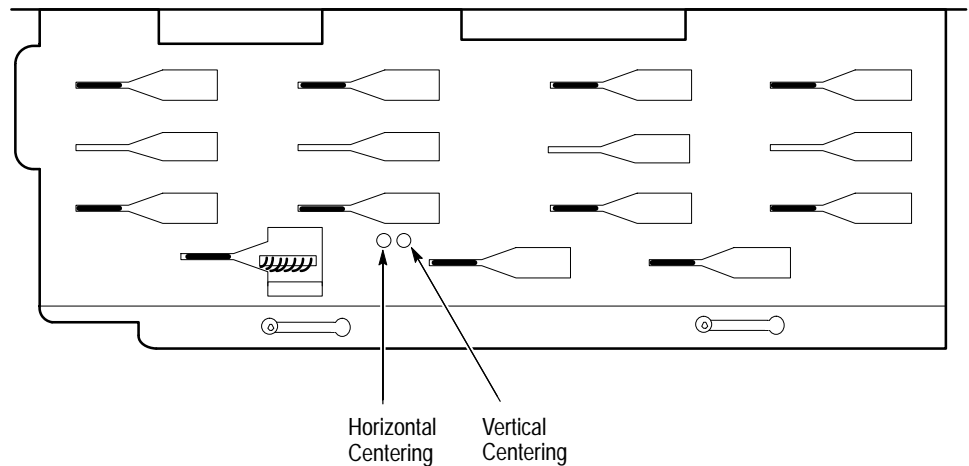


Figure 4-2: Display monitor centering adjustments

7. After about 3 seconds the VM700A displays the touch screen calibration display.

- 8.** Follow the displayed directions to complete the calibration. When the calibration is finished, the VM700A goes through the power up sequence.
- 9.** Power off the VM700A and replace all cabinet covers and retaining screws.
- 10.** Hold the Auto button in and power on the instrument. This runs the full set of diagnostics at power on. Check that the instrument passes all diagnostic tests.

Extended Adjustment Procedure

Procedure 1: Adjusting the Frequency Response

After a board exchange in the analog input section of the instrument, the analog system may need readjustment. This procedure first checks the overall system response. If the verification checks fail, the system may need readjustment. The adjustments provided are to compensate the system frequency response after a board replacement; they are not complete board level adjustments. Use the adjustments only as necessary to return the instrument to specification.

NOTE. *This procedure requires precision test equipment to make the needed measurements for alignment. If you do not have the required test equipment, we recommend that you have the adjustment procedure done at the factory. Contact your nearest Tektronix representative for information.*

Test Equipment Required

- Gain-phase analyzer, 75 Ω output impedance. Example: Hewlett Packard 4194A Impedance/Gain-phase analyzer.
- Coaxial cable, 75 Ω high-quality, low-noise BNC; 1-meter length, 2 each. Tektronix 012-0074-00.
- Termination, 75 Ω feed-through BNC. Tektronix 011-0055-01.
- Termination, 75 Ω precision BNC. Tektronix 011-0102-01.
- Female-to-female adapter BNC. Tektronix 103-0070-00.
- Adapter, snap-on SMB male to BNC female, 2 each. Example: Omni/Spectra part number 3280-2224-00.
- Non-metallic, flat-blade adjustment tool. Tektronix 003-1364-00.

Specifications Checked

- Analog board frequency response: flat within 30 mdB to 8 MHz when checked with setup described.
- System frequency response: flat within 30 mdB to 6 MHz when checked with setup described.

Procedure: Checking the Frequency Response

1. Remove the VM700A top cover to access the adjustments.
2. Set the controls on the gain-phase analyzer as needed. For the example gain-phase analyzer, the controls are set as shown in the following gain-phase analyzer setups.

Gain-Phase Analyzer Setup

Control	Setting
A-max	200 mdB
A/div	30 mdB
Function	GainPhase
Sweep	Log
Osc Level	300 mVolts
Start Freq	100 kHz
Stop Freq	20 MHz
Marker	8 MHz
Output	Dual
Input Ref	75 Ω , 0 dB
Input Test	1 Meg, 20 dB

3. In the VM700A Diagnostics mode (press Measure, then Diags), run the sine-wave measurement application by pressing the Measure~Sinewave soft key.
4. Disconnect the cable connecting the Analog Input board to the ADC board (J550 to J765) and remove it from the VM700A.
5. Connect an SMB-to-BNC adapter to a 75- Ω BNC cable, attach a 75- Ω feed-through termination, and connect it to the test channel input connector of the gain-phase analyzer.
6. Connect a second SMB-to-BNC adapter to a 75- Ω BNC cable and connect the BNC end of the second cable to the dual output connector of the gain-phase analyzer.
7. Connect the two cable adapters on the ends of the BNC cables together using the cable removed from between the Analog Input and ADC boards. Normalize the cables and the gain-phase analyzer to remove the cable effects from the measurement (see the gain-phase analyzer operator's manual for the procedure to normalize the cables).
8. Disconnect the SMB cable and the SMB-to-BNC adapter from the BNC cable going to the output of the gain-phase analyzer and connect that cable to the VM700A channel A input (terminate channel A with a 75- Ω termination).
9. Connect the input of the gain-phase analyzer to J550 on the Analog Input board via the SMB cable, SMB-to-BNC adapter, and BNC cable just normalized.
10. Bypass the Filter Switch board by removing the cables from J922 and J923 on the Analog Input board and connecting the jumper (removed from J924) between J922 pin 2 and J923 pin 2.

11. Check that the frequency response for channel A is flat within 30 mdB peak-to-peak (one major division on the example test equipment display) to 8 MHz.

NOTE. This bandwidth may reduce to 7 MHz with no penalty in the accuracy of the automatic measurements. The 8 MHz bandwidth is a factory calibration requirement to reduce the long-term aging effects of new components on flatness.

12. Check the frequency response for channels B and C.



CAUTION. If the VM700A meets the limits described in steps 11 and 12, skip steps 13 and 14 and go to step 15. Adjusting the VM700A unnecessarily (for example, to get a “better” reading on a calibration result that is within limits) can introduce errors into a functional instrument.

13. If the channel A frequency response is outside the limits specified in step 11, adjust C727 (you can also adjust C922 if necessary) to bring it into specification (see Figure 4-1). A modification of the circuitry added an additional adjustment (R929) to the assembly. If your board has been modified as indicated in Figure 4-3, use the following procedure to adjust the flatness.

Normally, the necessary flatness is obtained by adjusting only C922 as the replacement board has been pretested and adjusted. If you cannot achieve the necessary flatness by adjusting C922, adjust C922 for best flatness, then adjust R929 to improve the response curve. These adjustments are interactive and may have to be repeated several times to achieve the correct response curve.



CAUTION. Adjusting C922 (or R929) affects all three channels equally. If you need to adjust C922 (or R929), you will have to re-check that all channels meet the flatness specification. Some adjustments may have been slightly compromised in the factory calibration so that all the channels fall within specification. If an adjustment is done to optimize one channel, it may push one or both of the others out of limits.

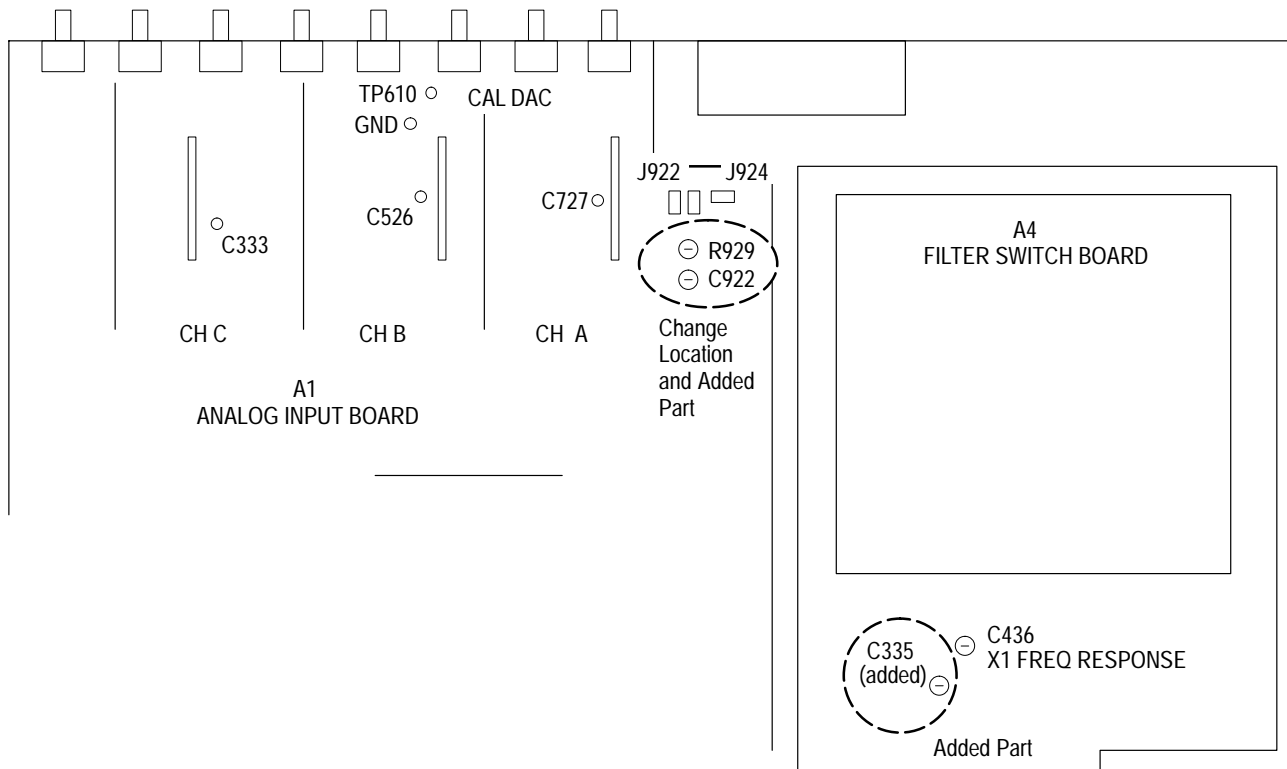


Figure 4-3: Adjustment locations changes

14. If the channel B and channel C frequency responses are outside the limits specified in step 11, adjust C526 for channel B and C333 for channel C (be sure to connect the cable and termination to the appropriate input channel connectors and select that channel as the signal source).
15. Reinstall cables and jumpers removed in step 10 to their original positions, but leave the SMB cable between the Analog Input board and ADC board disconnected.
16. Set the marker on the gain-phase analyzer to 6 MHz and check that the frequency response is flat within 30 mdB peak-to-peak.

NOTE. If the VM700A meets the limits described in step 16, skip step 17.

17. If the frequency response is outside the limits specified in step 16, adjust C436 on the filter switch board to bring it into specification. Re-verify that all channels meet specification after adjusting C436. NOTE: A later modification adds an additional R and C series compensation network in parallel. If the additional network is on your board, the capacitor (designated C335), may also require adjustment to attain the proper response curve

limits. Adjustment of C436 and C335 are interactive and may need to be repeated several times if adjustment is needed.

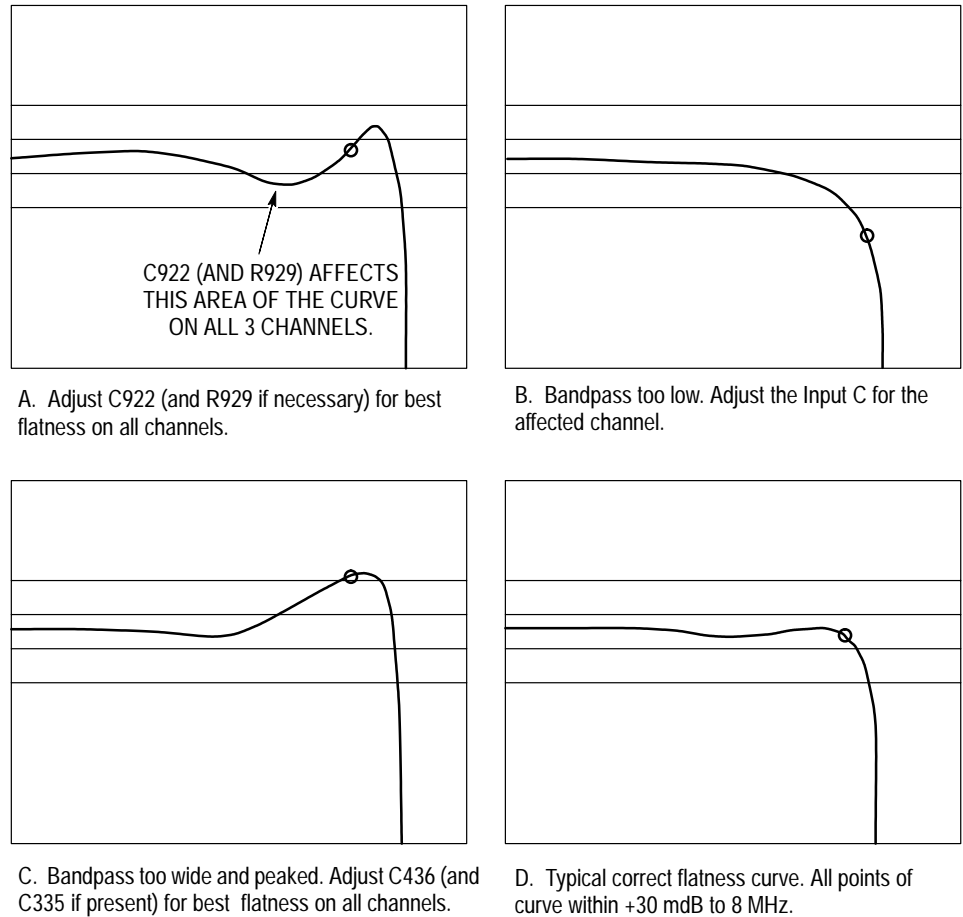


Figure 4-4: Example gain-phase analyzer flatness waveforms for the VM700A

NOTE. *If your VM700A has a new design ADC board installed or you are installing a new design ADC board for a module-exchange repair, use the following steps to check and adjust its flatness.*

18. Reconnect the SMB cable between Analog Input board and the ADC board, and connect the gain/phase input cable to J2 on the ADC board.
19. Set the controls on the gain-phase analyzer as needed. For the example gain-phase analyzer, the controls are set as shown in the following gain-phase analyzer setups.

Gain-Phase Analyzer Setup

Control	Setting
A-max	-1.95 dB
A/div	30 mdB
Function	GainPhase
Sweep	Log
Osc Level	300 mVolts
Start Freq	100 kHz
Stop Freq	20 MHz
Marker	5.8 MHz
Output	Dual
Input Ref	75 Ω , 0 dB
Input Test	1 Meg, 20 dB

- 20.** Check that the frequency response is flat with 1 division (30 mdB) up to 5.8 MHz on the gain/phase analyzer.
- 21.** If the frequency response is not flat within 30 mdB, adjust C57 (the MID FREQ adjustment) and R22 (the HIGH FREQ adjustment) as needed to obtain the correct response. See Figure 4-5 for the adjustment locations.
- 22.** Power off the VM700A. Disconnect the test cables.
- 23.** Re-install the instrument covers. Hold the Auto button in and power on the instrument. This runs the full set of diagnostics at power on. Check that the instrument passes all diagnostic tests.

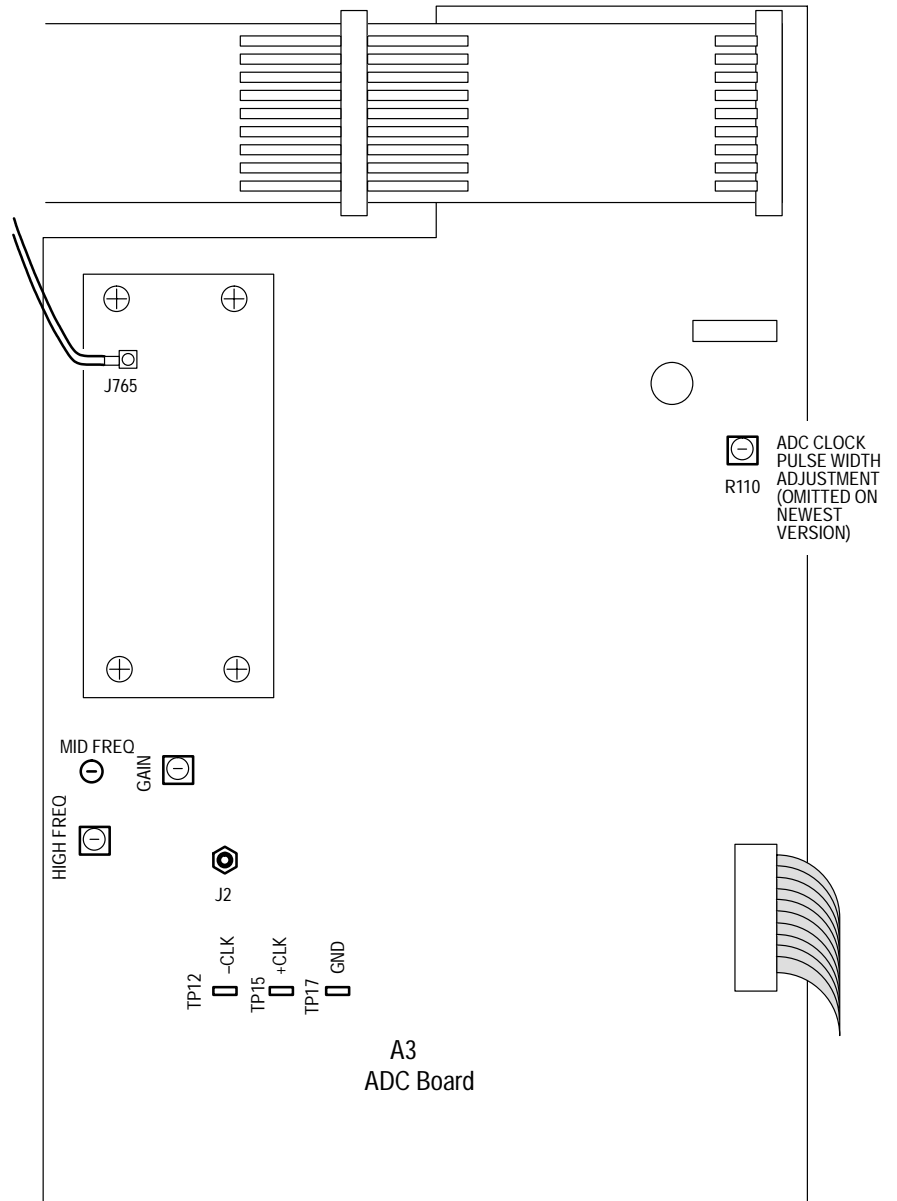


Figure 4-5: New design ADC board adjustment locations

Section 5: Maintenance

Section 5: Maintenance

This part contains general procedures for the care and maintenance of the VM700A. It also describes how to remove and replace circuit boards and other components and how to obtain customer services when you need them. The material in this section is designed to guide you through board and module replacement, but not component repair. If the instrument does not function properly, troubleshooting and corrective measures should be taken immediately to prevent additional problems.



CAUTION. *The following procedures should be performed only by qualified service personnel. Performing these procedures incorrectly could damage the instrument. Refer all repair and replacement procedures to a qualified service technician.*

Preventive Maintenance

Preventive maintenance consists of cleaning, visual inspection, performance checking, and, if needed, readjustment. The VM700A requires little periodic maintenance. The preventive maintenance schedule established for the instrument should be based on the environment in which it is operated and the amount of use. Under average conditions, scheduled preventive maintenance should be performed every 12 months of operation.



CAUTION. *Cleaning and general care of the VM700A should be performed only when the instrument is powered off and the power cord removed from electrical mains.*

Tools Required

- Clean, non-abrasive cloth.
- Non-abrasive liquid glass cleaner.
- Isopropyl alcohol.
- Static free vacuum cleaner with small brush attachment.

Cleaning

The instrument should be cleaned often enough to prevent dust or dirt from accumulating. Dirt acts as a thermal insulating blanket that prevents effective heat dissipation, and can provide high-resistance electrical leakage paths between conductors or components in a humid environment.

- Exterior** Clean the dust from the outside of the instrument by wiping with a soft cloth. You may use a brush to remove dust from around the selector buttons, knobs, and connectors. Hardened dirt may be removed with a cloth dampened in water that contains a mild detergent or non-abrasive glass cleaner. Abrasive cleaners should not be used.
- CRT** Clean the crt touch screen with a soft, lint-free cloth dampened with glass cleaner.
- Interior** Use low-pressure dry air to remove accumulated dust and dirt (high-velocity air can damage some parts). Hardened dirt or grease may be removed with a cotton swab or pipe cleaner dampened with isopropyl alcohol. Abrasive cleaners should not be used. If the circuit board assemblies must be removed for cleaning, follow the instructions in the removal and replacement procedures of this section.

After cleaning, allow the interior to thoroughly dry before applying power to the instrument.



CAUTION. Do not allow water to get inside any enclosed assembly or component. Do not clean any plastic materials with organic cleaning solvents, such as benzene, toluene, xylene, acetone, or similar compounds, because they may damage the plastic.

The Touch Screen and the Front Bezel Air Filters. When the touch screen of the VM700A becomes dirty through normal use, clean it by carefully applying a small quantity of glass cleaner and wiping the screen dry with the clean, non-abrasive cloth.

At regular intervals, inspect the front bezel air filters for accumulated dust.

NOTE. You can better see the filters through the air intake slots if you shine a bright light on the front of the instrument.

When you see accumulated dust on the front bezel air filters, carefully vacuum the front of the instrument to remove it.

Visual Inspection

After cleaning, carefully check the instrument for defective connections, damaged parts, and improperly seated transistors, integrated circuits, or circuit boards. The remedy for most visible defects is obvious; however, if heat-damaged parts are discovered, determine the cause of overheating before replacing the damaged part, to prevent additional damage.

Periodic checks of the transistors and integrated circuits are not recommended.

Static-Sensitive Components

This instrument contains electrical components that are susceptible to damage from static discharge. Static voltages 1 kV to 30 kV are common in unprotected environments. Table 5-1 shows the relative static discharge susceptibility of various semiconductor classes.

Table 5-1: Static Susceptibility

Relative Susceptibility Levels ^a	Voltage
MOS and CMOS	100 - 500 V
ECL	200 - 500 V
Schottky Signal Diodes	250 V
Schottky TTL	500 V
HF Bipolar Transistors	400 - 600 V
JFETs	600 - 800 V
Linear microcircuits	400 - 1,000 V (est.)
Low-Power Schottky TTL	900 V
TTL	1,200 V

^a Voltage equivalent for levels (voltage discharged from a 100 pF capacitor through a 100 Ω resistance).

Observe the following precautions to avoid damage:

1. Minimize handling of static-sensitive components.
2. Transport and store static-sensitive components or assemblies in their original containers, on a metal rail, or on conductive foam. Label any package that contains static-sensitive components or assemblies.
3. Discharge the static voltage from your body, by wearing a wrist grounding strap, while handling these components. Servicing static-sensitive assemblies or components should be done only at a static-free work station by qualified personnel.
4. Nothing capable of generating or holding a static charge should be allowed on the work station surface.
5. Keep the component leads shorted together whenever possible.
6. Pick up the components by the body, never by the leads.
7. Do not slide the components over any surface.
8. Avoid handling components in areas that have a floor or work surface covering capable of generating a static charge.

9. Use a soldering iron that is connected to earth ground.
10. Use only special antistatic, suction, or wick-type desoldering tools.

Corrective Maintenance

NOTE. *No user repair should be attempted during the warranty period. Module service and exchange should be performed only by qualified service personnel.*

Obtaining Replacement Parts

Replacement parts are available through the local Tektronix, Inc. field office or representative.

Changes to Tektronix instruments are sometimes made to accommodate improved components, as they become available, and to improve circuit performance. Therefore, it is important to include the following information when ordering parts:

1. Part Number
2. Instrument Type or Number
3. Serial Number
4. Modification or Option Number (if applicable)

If a part has been replaced with a new or improved part, the new part will be shipped (if it is a direct replacement). If the part is not directly replaceable, the local Tektronix field office or representative will contact the customer concerning any changes. After any repair, circuit readjustment may be required.

Servicing the VM700A Video Measurement Set consists of isolating faults by performing diagnostic and troubleshooting functions and then replacing defective modules. For information on troubleshooting the VM700A, see *Diagnostics and Troubleshooting*.

Table 5-2 lists the VM700A modules that may be exchanged or purchased. Notice that some older boards are now obsolete and have been replaced by new assemblies.

Table 5-2: Sold or Exchanged VM700A modules and other parts

Part No.	Module	Sold Outright	Exchanged
671-0535-xx	Analog input board (A1)	x	x
672-1294-xx	Genlock board (A2)	x	x
672-1296-xx	ADC board (A3)	x	x
672-1295-xx	Filter switch board (with filters) (A4)	x	x
671-1051-xx	CPU board (A5)	x	x
672-1321-xx	NTSC EPROM board (A6)	Obsolete	x
671-2675-xx	4 Meg Flash EPROM board (A6)	x	x
671-3543-xx	5 Meg Flash EPROM board (A6)	x	x
671-1306-xx	Data Acquisition board (A7)	Obsolete	x
671-0534-xx	Controller board (A8)	Obsolete	x
671-1911-xx	Acquisition/Controller board (A18)	x	x
671-0533-xx	Display memory board; Std. (A9)	x	x
671-2607-xx	Camera Opt./Display Memory (A9)	x	x
672-1299-xx	Front Panel board (A10)	x	x
672-1298-xx	Motherboard (A11)	x	x
672-0072-xx	OEM CRT Display assembly (A14)	Obsolete	x
657-0098-xx	Tektronix Green Display assy. (A14)	x	x
657-0099-xx	Tektronix White Display assy. (A14)	x	x
119-2630-xx	OEM Power supply assembly (A15)	Obsolete	x
119-4258-xx	Tektronix Power supply assy. (A15)	x	x
671-0111-xx	On-off switch assembly (A16)	x	
671-2337-xx	GPIB Interface board (A19)	x	x
671-0695-xx	Main filter switch board	x	
671-0714-xx	High-pass filter	x	
671-0715-xx	Low-pass filter	x	
671-0716-xx	Low-frequency noise filter	x	
671-0748-xx	Differential-step filter	x	
671-0110-xx	Video delay	x	
671-0500-xx	NTSC anti-alias filter	x	
119-2616-xx	Fan and attachment clips	x	x
344-0452-xx	Fan attachment clips	x	
174-1163-xx	Ribbon cable, on-off assembly	x	
174-1165-xx	75 Ω coaxial cable to Genlock board	x	
174-0843-xx	50 Ω coaxial cable to ADC board	x	

Customer Services

For service, parts, module exchange, returns, or technical support, call the Tektronix Hotline between 8:00 AM and 5:00 PM Pacific Time, Monday through Friday at this phone number:

1-800-TEKWIDE (1-800-835-9133)

Hotline personnel will direct your inquiry to the proper support group.

Circuit Board Jumper Settings

The default jumper and switch settings for each of the circuit boards in the VM700A are found in Table 5-3. The majority of the settings are used for factory testing, but some are set for various hardware configurations. The normal settings are provided here in the event that a jumper or switch setting is changed during a board replacement or a maintenance procedure.

Table 5-3: VM700A Factory Default Jumper and Switch Settings

Board	Jumper or Switch No.	Purpose	Description	Default
A1 Analog	J555	Factory Test	Output null	2,3
	J924	Factory Test	Output null 1	1,2
	J955	Factory Test	Output null 2	None or 2,3
A2 Genlock	J318	Factory Test	Control voltage disable	1,2
	J573	Factory Test	Decoded frame disable	1,2
	J779	Factory Test	Coarse correction defeat	1,2
A3 ADC	J246	Factory Test	Error correction disable	2,3
A4 Filter Switch	J712	Factory Test	Input null	2,3
A5 CPU	J307, J308	Baud rate setting	See user manual	Both On
	S405	FAC mode	See service manual	All down
A6 EPROM (672-1321-xx)	S196	Factory Set	Block select	1,3,4,5 Open 2,6 Closed
A7 Acquisition	S941	Factory Set	Board Address	4,5 Open 1,2,3,6,7,8 Closed

**Exchanging VM700A
Modules**

If you call for a VM700A module exchange, you must supply the instrument serial number, the firmware version number (accessed by pressing the Configure button), and the module's complete part number to ensure receiving the correct replacement. If the module you request is in stock, it will usually be sent to you the same day.

After you receive the replacement module, the faulty module must be returned immediately to Tektronix via prepaid common-carrier freight. Use the packaging material from the replacement module and the furnished shipping label to prepare the faulty module for shipment. Ship the faulty module to:

Tektronix Inc.
Measurement Business Division
Module Exchange Center M/S 78-593
PO Box 500
Beaverton, Oregon 97077-0500

Tektronix charges a standard fee for each out-of-warranty module exchanged. This fee will be quoted when you request the exchange module. If the faulty module is not received at the above address within 30 days of your request of an operating exchange module, the full catalog price of the module will be invoiced.

Your module is not eligible for exchange if:

1. The module is damaged during repair attempts by personnel other than Tektronix Representatives.
2. The module is damaged through improper use or connection to incompatible equipment.
3. The module has been modified by the customer.
4. The module has been modified to the customer's specifications by Tektronix.

In these cases Tektronix invoices the full catalog price of a replacement module. Call your local Tektronix field office for further information.

**Customer Service Outside
the U.S.**

Customers outside the United States should contact their local Tektronix sales subsidiary or distributor for details on servicing the VM700A.

Removing and Replacing Instrument Cover Panels

Most VM700A circuit boards may be accessed for servicing by first removing three sheet-metal panels that cover the top and two sides of the instrument. Removing the keypad board assembly (and other display and control components) from the front of the instrument also requires removing the instrument's bottom cover panel.

The four cover panels are positioned with slotted corner extrusions and fastened with screws to the instrument rear panel. Removing each cover panel requires removing its fastening screws on the rear panel and sliding the panel toward the rear of the instrument and off the tracks. Replacing each cover panel is the reverse of the removal procedure.



WARNING. *This instrument contains hazardous voltages. Before removing covers or performing disassembly/reassembly procedures, always shut off instrument power at the rear-panel switch and disconnect the power cord from electrical mains. Failure to do this could result in dangerous electrical shock.*

Use the following procedures to remove and replace the VM700A cover panels.

Tools Required

- Pozidriv® screwdriver, 1X.

Removing and Replacing a Cover Panel

1. Remove the screws at the rear edge of the instrument cover panel.
2. Remove the panel by sliding it carefully to the rear of the instrument and off its tracks (see Figure 5-1).
3. Set the panel aside.

Replace the cover panel by guiding it onto its tracks, sliding it all the way to the front of the instrument, and installing the screws.

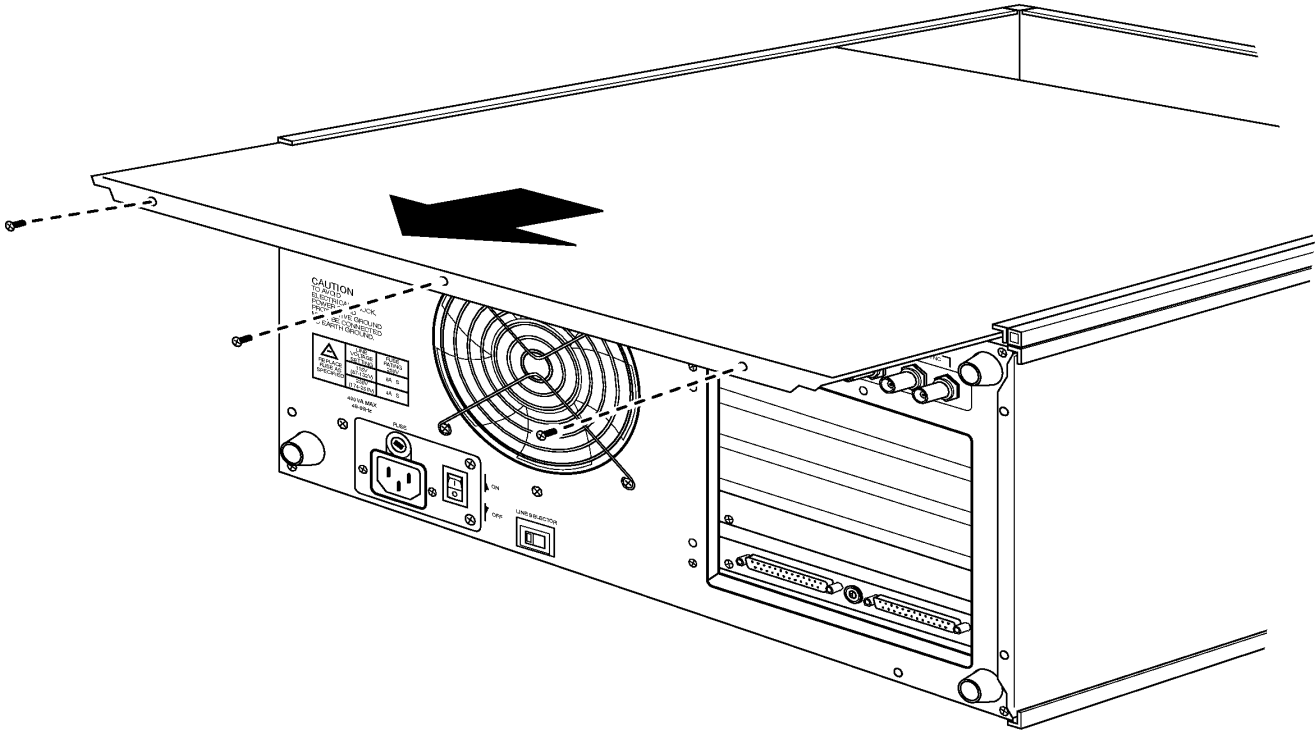


Figure 5-1: Removing a cover panel

Locating the Major VM700A Components

As you face the front of the VM700A (in its operating position), the CPU (A5) and EPROM/NVRAM (A6) boards are located in the left-side card cage. The controller (A8), data acquisition (A7), and display memory (A9) boards are located in the right-side card cage. The analog section boards (analog input A1, genlock A2, ADC A3, and filter switch A4) are mounted, with screws and standoffs, on a bulkhead under the top cover panel (see Figure 5-2).

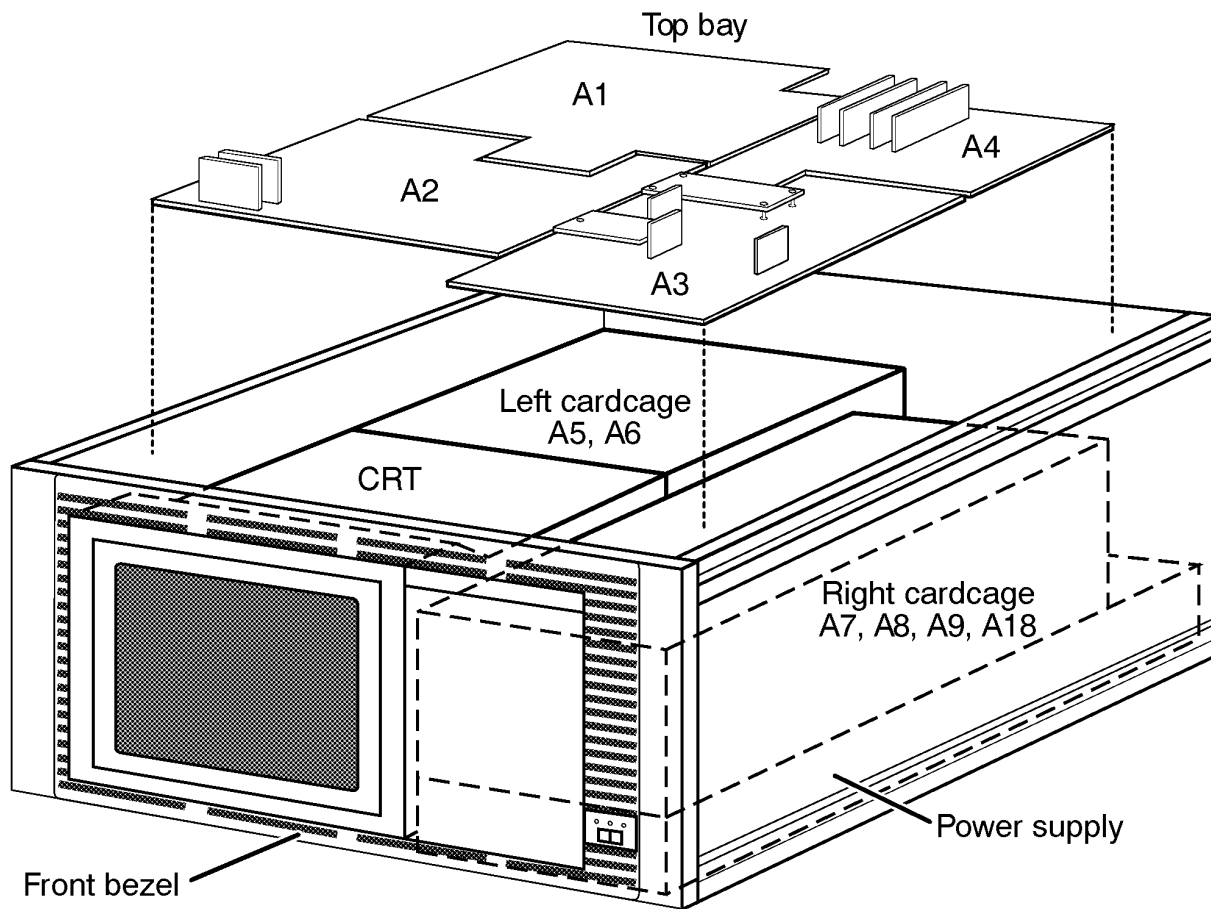


Figure 5-2: Major assemblies of the VM700A

Removing and Replacing the CPU and EPROM/NVRAM Boards

You may use these procedures to remove and replace both boards. To remove these boards you must first remove the left side cover and carrying handle and the retainers and screws holding the boards in the card cage.

Tools Required

- Flat-blade screwdriver, $\frac{3}{16}$ or $\frac{1}{4}$ inch blade.
- Pozidriv screwdriver, 1X.

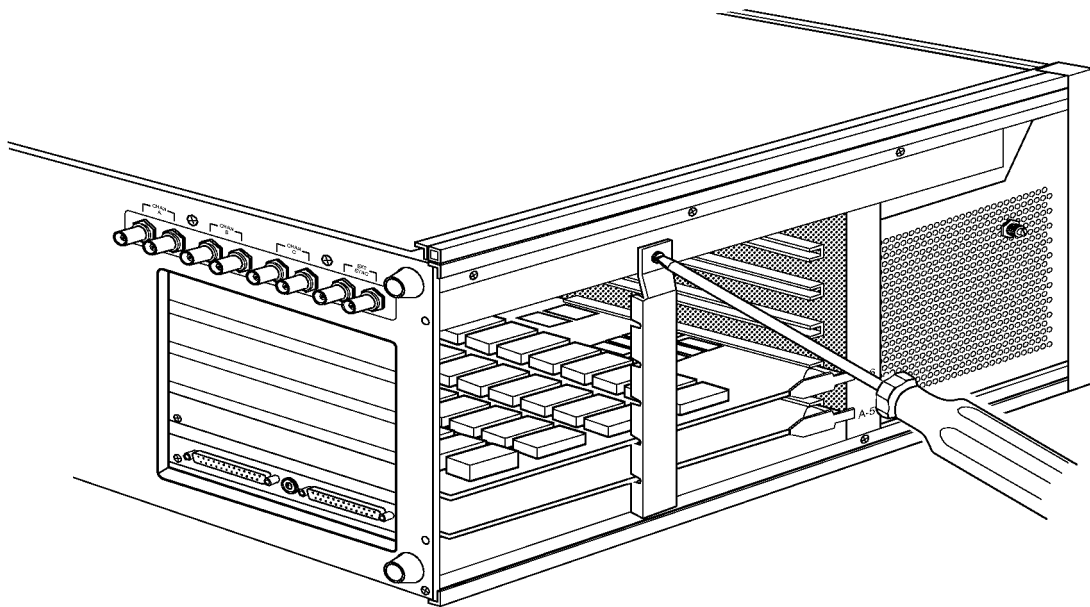


Figure 5-3: Removing the card cage center support

Removing the Board

4. Remove the left side cover panel (see *Removing and Replacing a Cover Panel* for more information).
5. Remove the retaining screw from the card cage center support and remove the center support from the card cage (see Figure 5-3).
6. Remove the circuit board retaining screw from the appropriate circuit board.

NOTE. It may also be necessary to remove or loosen the circuit board retaining screw immediately above the one retaining the circuit board you are removing.

7. Unplug the board using the ejector tab and remove the board from the card cage.

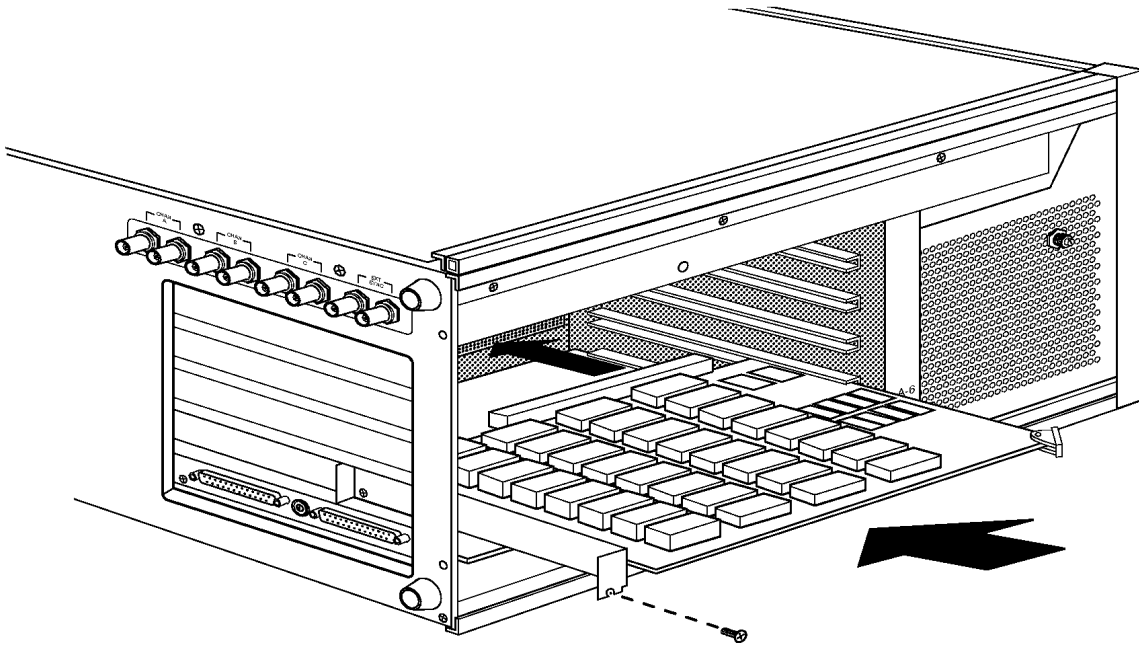


Figure 5-4: Installing a board in the card cage

Replacing the Board

1. Guide the board onto the card cage track and slide it into the card cage connector (see Figure 5-4).
2. Align the circuit board connector pins with the card cage connector and seat the board in the connector.
3. Replace the circuit board retaining screw.
4. Replace the circuit board center support and screw.
5. Replace the carrying handle cover and screws (see *Removing and Replacing a Cover Panel* for more information).

Removing and Replacing the Controller, Data Acquisition, and Display Memory Boards

As you face the front of the VM700A (in the operating position), the controller (A8), data acquisition (A7), and display memory (A9) boards are located in a card cage on the right side. To remove these boards you must first remove the right side cover and the card cage retainer. You must also disconnect one or more cables from each board. The following procedures explain how to remove these boards.



WARNING. *This instrument contains hazardous voltages. Before removing covers or performing disassembly/reassembly procedures, always shut off instrument power at the rear-panel switch and disconnect the power cord from electrical mains. Failure to do this may result in dangerous electrical shock.*

Tools Required

- Flat-blade screwdriver, $\frac{3}{16}$ or $\frac{1}{4}$ inch blade.
- Pozidriv screwdriver, 1X.

Gaining Access to the Right Side card cage

Remove the instrument cover (see *Removing and Replacing a Cover Panel* for more information) and card cage retainer to expose the controller, data acquisition, and display memory boards for removal.

1. After removing the cover panel loosen (but do not remove) two screws on the front of the card cage retainer (see Figure 5-5).
2. Slide the retainer carefully to the left, until the screw heads clear the slots, and remove it.

Removing the Controller Board (A8)

The controller board occupies the card cage top slot (slot A8). To remove this board you must first disconnect five ribbon cables.

1. Spread the cable ejector tabs to disconnect each cable from the board.
2. Applying pressure to the board's ejector tabs, remove the board from the card cage.

Replacing the Controller Board

1. Guide the board onto the card cage track and slide it into the card cage connector.
2. Ensuring that it aligns with the card cage connector, press firmly to seat the board in the connector.

3. Reinstall each of the five cables, ensuring that they are firmly seated in the board connectors.
4. Replace the card cage retainer and instrument cover (see *Replacing the card cage Retainer and Instrument Cover* for more information).

Removing the Data Acquisition Board (A7)

The data acquisition board (A7) usually occupies the second slot of the card cage. Before removing this board you must disconnect a ribbon cable.

1. Spread the cable ejector tabs to disconnect the cable.
2. Apply pressure to the board's ejector tabs and remove the board from the card cage.

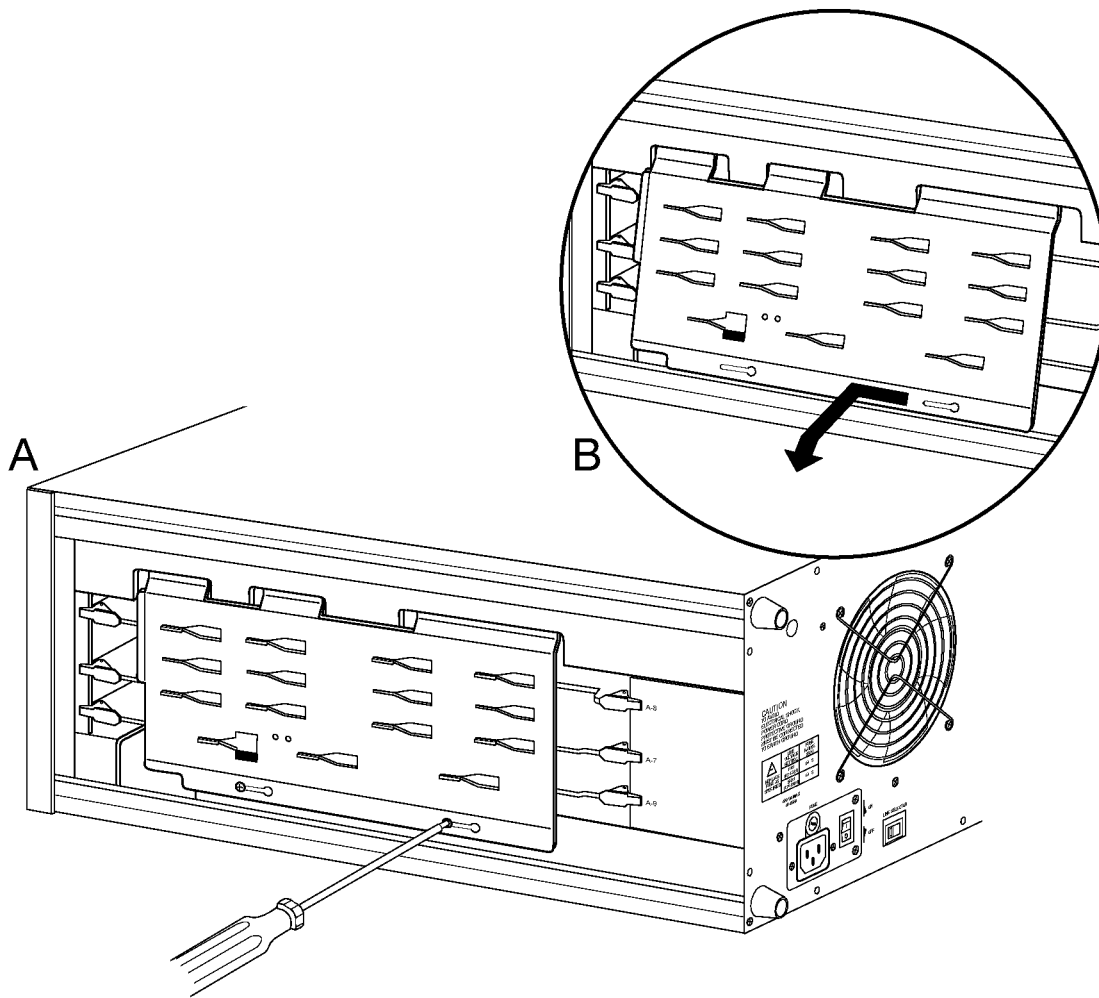


Figure 5-5: Loosening the screws on the right card cage retainer

Replacing the Data Acquisition Board

1. Guide the board onto the card cage track and slide it into the card cage connector.
2. Ensuring that it aligns with the card cage connector, seat the board in the connector.
3. Reinstall the cable, ensuring that it is fully seated in the board connector.
4. Replace the card cage retainer and instrument cover (see *Replacing the card cage Retainer and Instrument Cover* for more information).

Removing the Display Memory Board (A9)

The display memory board occupies the bottom slot in the card cage (slot A9). Before removing this board you must disconnect two cables.

1. Spread its cable ejector tabs to disconnect the larger of the two cables.
2. Disconnect the smaller cable by carefully pulling on its connector to separate it from the board.
3. Apply pressure to the board ejector tabs and remove the board from the card cage.

Replacing the Display Memory Board

1. Guide the board onto the card cage track and slide it into the card cage connector.
2. Ensuring that it aligns with the card cage connector, seat the board in the connector.
3. Reinstall the cables, ensuring that they are fully seated in their board connectors.
4. Replace the card cage retainer and instrument cover (see *Replacing the card cage Retainer and Instrument Cover* for more information).

Replacing the card cage Retainer and Instrument Cover

You may use the following procedure to replace the card cage retainer and the instrument cover.

1. Replace the card cage retainer by first inserting its upper tabs through the chassis slots. Complete the installation by guiding the retainer slots carefully over the circuit board locator tabs.
2. When the screw heads extend through the slotted holes, lock the card cage retainer in position by sliding it to the right.
3. Tighten the retaining screws.
4. Replace the instrument cover (see *Removing and Replacing a Cover Panel* for more information).

Removing and Replacing the Analog-Section Boards

The analog section consists of the A1, A2, A3, and A4 circuit boards. Located in the top bay of the VM700A, these circuit boards may be accessed by first removing the instrument top cover panel. Removing and replacing these boards also requires removing the right side cover panel and card cage retainer to disconnect and replace various cables.

Because of cable routing, analog-section boards must be removed in a specific order. For example, to remove and replace the analog input board, the filter switch board must first be removed. The following procedures are organized for proper analog-section board removal and replacement.

Tools Required

- Pozidriv screwdriver, 1X, 2X.

Removing and Replacing the Filter Switch Board (A4)

Removing and replacing the filter switch board consists of removing the instrument top and right-side covers, removing a flat cable assembly, disconnecting two wires and a cable, and removing the screws holding the board in position. With the screws removed the board may be lifted from the VM700A chassis and set aside. Replacing this board is the reverse of the removal procedure. You may use the following procedures to remove and replace the filter switch board.

Removing the Filter Switch Board

1. Remove the instrument top and right-side covers (see *Removing and Replacing a Cover Panel* for more information).
2. Disconnect the power bus cable at its five connectors, remove and set it aside (see Figure 5-6).
3. Remove the wire connecting A4 J915 to A1 J922 at the J922 end only.
4. Remove the wire connecting A4 unmarked to A1 J923 at the J923 end only.
5. Remove the card cage retainer (see *Gaining Access to the Right Side card cage* for information on how to perform this procedure).
6. Remove the cable from its connector at J221 on the controller board (A8).
7. Remove the five board retaining screws.
8. Carefully lift the board from the VM700A chassis and set it aside.

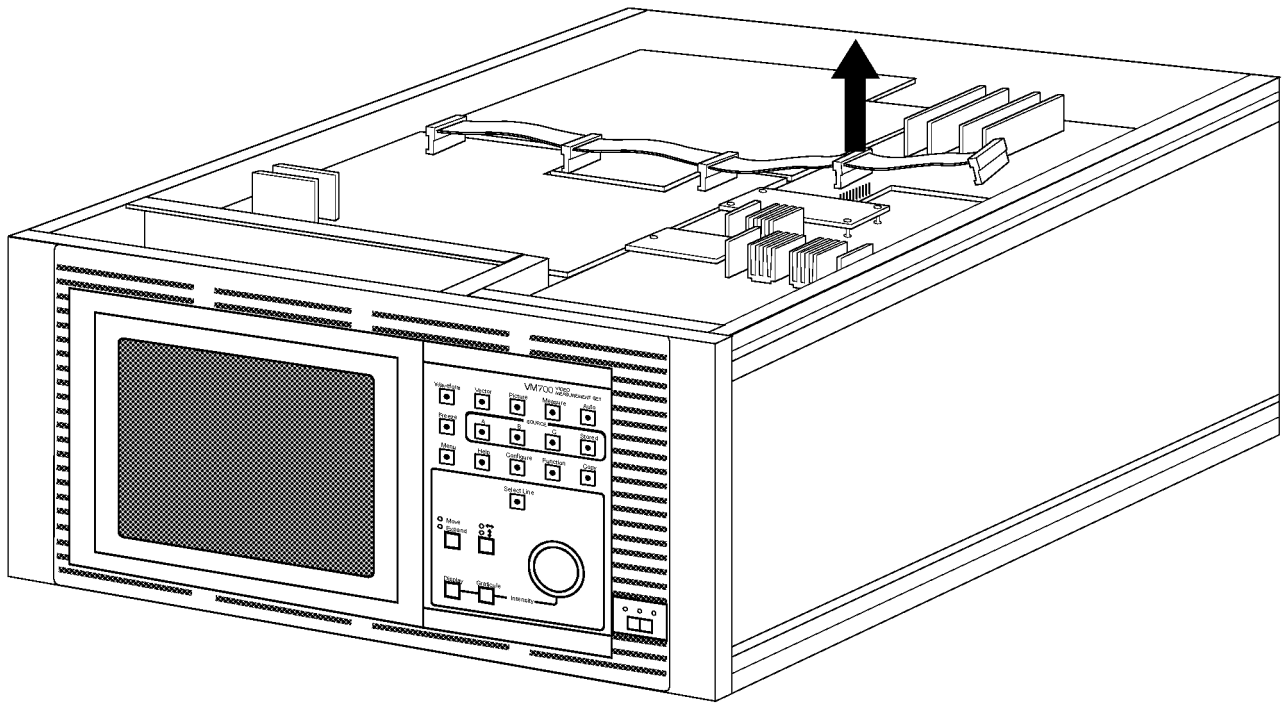


Figure 5-6: Disconnecting the power bus cable

Replacing the Filter Switch Board

1. Hold the insulator sheet against the board to prevent folding and place the board in the chassis and onto its bulkhead standoffs (be sure the cable extends out the side of the chassis).
2. Install the five board retaining screws.
3. Install the cable on its connector at J221 (on the controller board).
4. Install the power bus cable on its five connectors.
5. Install the right-side card cage retainer (see *Replacing the card cage Retainer and Instrument Cover* for information on how to perform this procedure).
6. Replace the wire connecting A4 J915 to A1 J922.
7. Replace the wire connecting A4 unmarked to A1 J923.
8. Replace the instrument top and right-side covers (see *Removing and Replacing a Cover Panel* for more information).

Removing and Replacing the Analog Input Board (A1)

Removing and replacing this board consists of removing the filter switch board, removing two wires and a ribbon cable, and removing the board's retainer screws. With the screws removed the board may be lifted from the VM700A chassis and set aside. Replacing the board is the reverse of this procedure. You may use the following procedures to remove and replace the analog input board.

Removing the Analog Input Board

1. Remove the filter switch board (see *Removing the Filter Switch Board* for more information).
2. Disconnect the wire at J132 and the shielded cable at J550 and move them aside.
3. Disconnect the ribbon cable at J325 on the controller board (the second cable from the right).

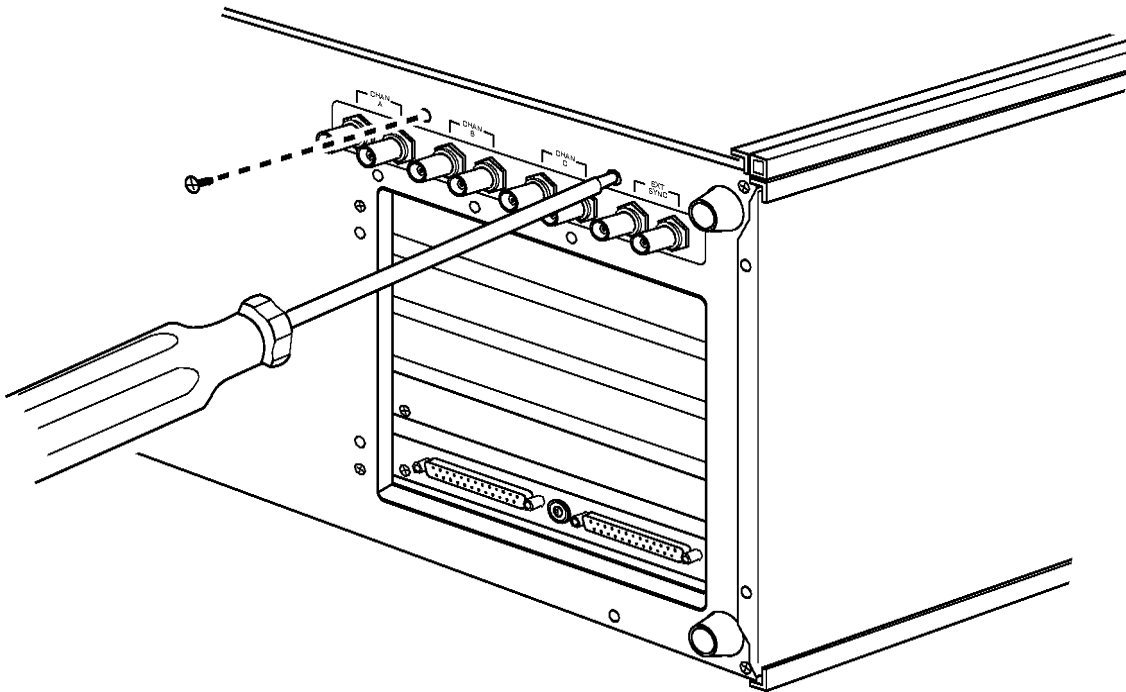


Figure 5-7: Removing the attachment screws from the analog input board's signal input connector plate

4. At the back of the instrument remove the screws holding the signal input connector to the instrument rear panel (see Figure 5-7).
5. Remove the eight board retaining screws (seven on the perimeter and one in the center) and carefully lift the board from the VM700A chassis.

Replacing the Analog Input Board

1. Carefully place the board in the VM700A chassis by guiding the signal input connectors through the slot in the rear panel and positioning the board on its bulkhead standoffs. Make sure the ribbon cable extends through the slot in the right side of the chassis.
2. Replace the eight board retaining screws and the screws holding the signal input connector to the instrument rear panel.
3. Connect the ribbon cable at J325 on the controller board.
4. Connect the wire at J132 and the shielded cable at J550.
5. Replace the filter switch board (see *Replacing the Filter Switch Board* for more information).
6. Replace the instrument top and right-side covers (see *Removing and Replacing a Cover Panel* for more information).

Removing and Replacing the ADC Board (A3)

Removing and replacing the ADC board consists of removing the instrument top and right-side covers, disconnecting three flat cable assemblies, disconnecting a shielded cable, and removing the screws holding the board in position. With the screws removed the board may be lifted from the VM700A chassis and set aside. Replacing this board is the reverse of the removal procedure.

You may use the following procedures to remove and replace the filter switch board.

Removing the ADC Board

1. Remove the instrument top and right-side covers (see *Removing and Replacing a Cover Panel* for more information).
2. Disconnect the flat 10-conductor cable between J111 and J195 (on the genlock board). We recommend that you remove the connector at the genlock-board end (J195) because it's easier to access.
3. Disconnect the shielded cable between J765 (located on the ADC board's filter board) and J550 on the analog input board (see Figure 5-8).
4. At the controller board (right side of the instrument), disconnect the cable at J828.
5. Disconnect the power bus cable at its five connectors, remove and set it aside.
6. Remove the five board retaining screws and carefully lift the board from the VM700A chassis.

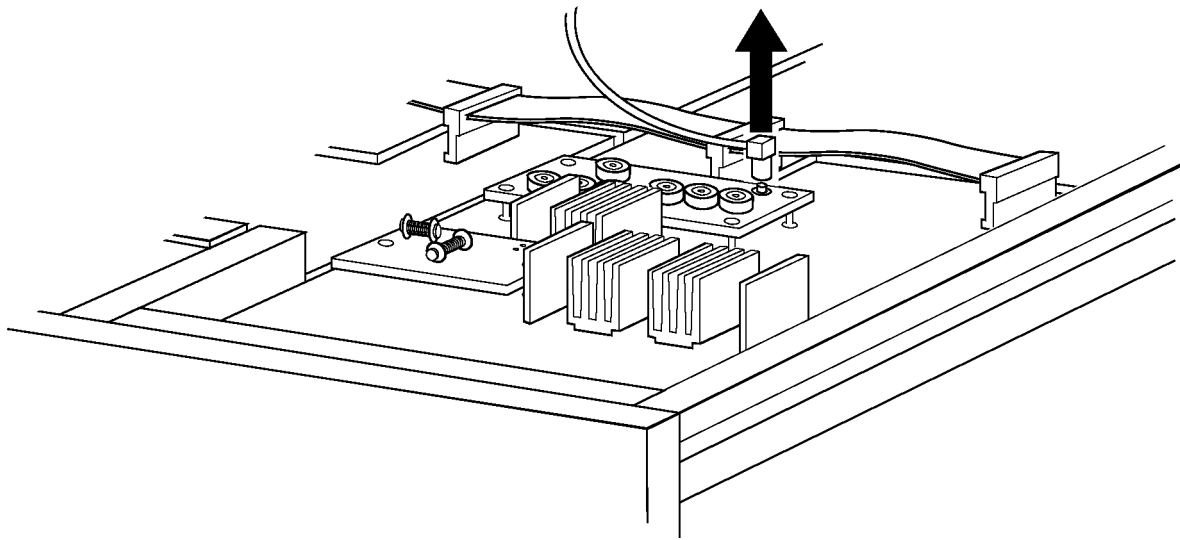


Figure 5-8: Disconnecting the shielded cable at J765

Replacing the ADC Board

1. Hold the insulator sheet against the board to prevent folding and carefully place the board in the chassis and onto its bulkhead standoffs (be sure the cable extends out the side of the chassis).
2. Install the five board retaining screws.
3. Install the cable on its connector at J828 (on the controller board).
4. Install the flat 10-conductor cable at J195 (on the genlock board).
5. Install the shielded cable at J765 (on the ADC board's filter board).
6. Install the power bus cable at its five connectors.
7. Install the right-side card cage retainer and instrument cover (see *Replacing the card cage Retainer and Instrument Cover* for information on how to perform this procedure).
8. Replace the instrument top and right-side covers (see *Removing and Replacing a Cover Panel* for more information).

Removing and Replacing the Genlock Board (A2)

Removing the genlock board consists of removing the VM700A top and right-side cover panels, removing the ADC board, disconnecting a flat cable and a wire, and removing seven screws. With the screws removed the board may be lifted from the VM700A chassis and set aside. Replacing this board is the reverse of the removal procedure.

You may use the following procedures to remove and replace the genlock board.

Removing the Genlock Board

1. Remove the instrument top and right-side covers (see *Removing and Replacing a Cover Panel* for more information).
2. Remove the ADC board (see *Removing the ADC Board* for more information).
3. Disconnect the flat 10-conductor cable between J111 (on the ADC board) and J195. We recommend that you remove the connector at the genlock-board end (J195) because it's easier to access.
4. Disconnect the wire at J914.
5. Remove the seven board retaining screws and carefully lift the board from the VM700A chassis.

Replacing the Genlock Board

1. Place the board carefully on its hardware standoffs, ensuring that the ribbon cable is positioned with its connector through the slot in the right side of the instrument chassis.
2. Install the seven board retaining screws.
3. Connect the wire at J914.
4. Connect the flat 10-conductor cable between J111 (on the ADC board) and J195.
5. Replace the ADC board (see *Replacing the ADC Board*) for more information.
6. Replace the instrument top and right-side covers (see *Removing and Replacing a Cover Panel* for more information).

Removing and Replacing Plug-In Filter Modules

Four small plug-in filter modules (five on later filter-switch boards) are mounted vertically in a slotted housing on the filter switch board. On the VM700A, these modules occupy slots 2-5 (slots 1-5 on later filter-switch boards) of the filter housing.

Removable anti-alias and video delay filter modules are mounted on the ADC board. Each of these modules are retained with screws and standoff hardware.

Filters modules on both boards may be removed and replaced without removing the boards from the VM700A. This section describes removing and replacing plug-in filter modules on the filter switch and ADC boards.

Removing and Replacing Plug-In Filters on the Filter Switch Board

1. Remove the instrument top cover (see *Removing and Replacing a Cover Panel* for more information).

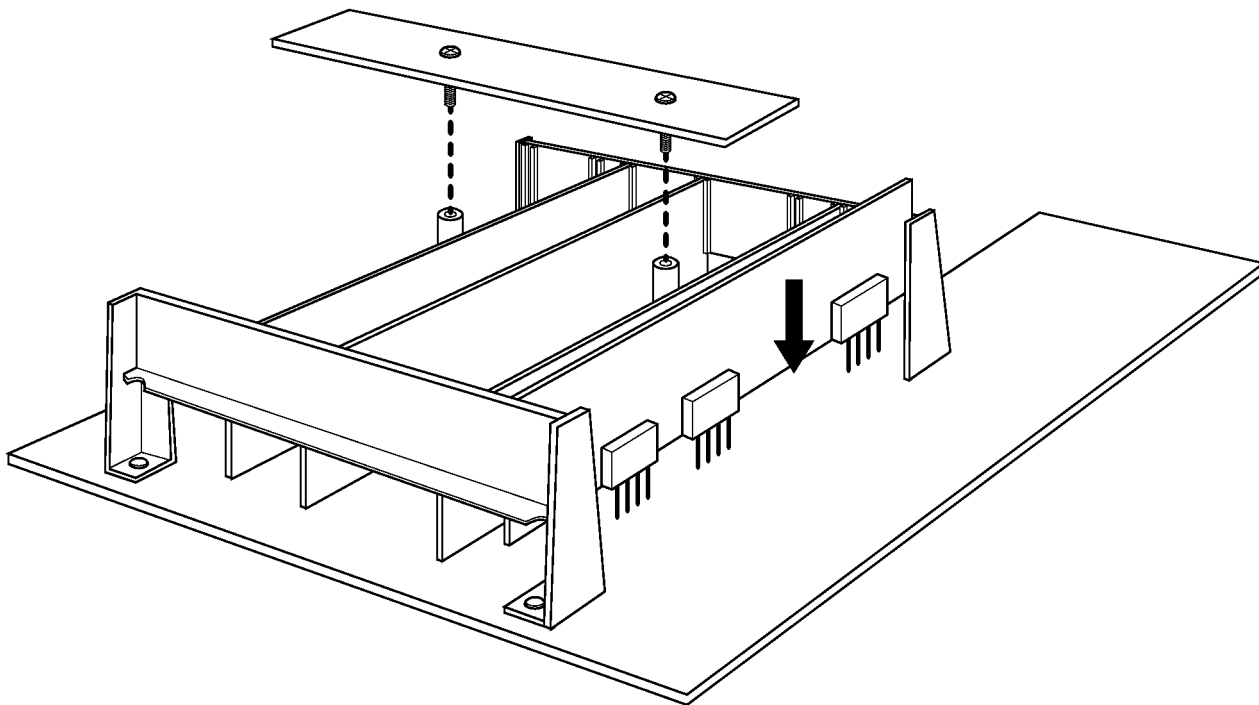


Figure 5-9: Plug in filter modules on early filter switch boards

2. Remove the retaining clamp from the plug-in filter housing by removing two screws as shown in Figure 5-9 (on later filter switch boards, remove the retaining cover by removing the 4 screws, as shown in Figure 5-10).

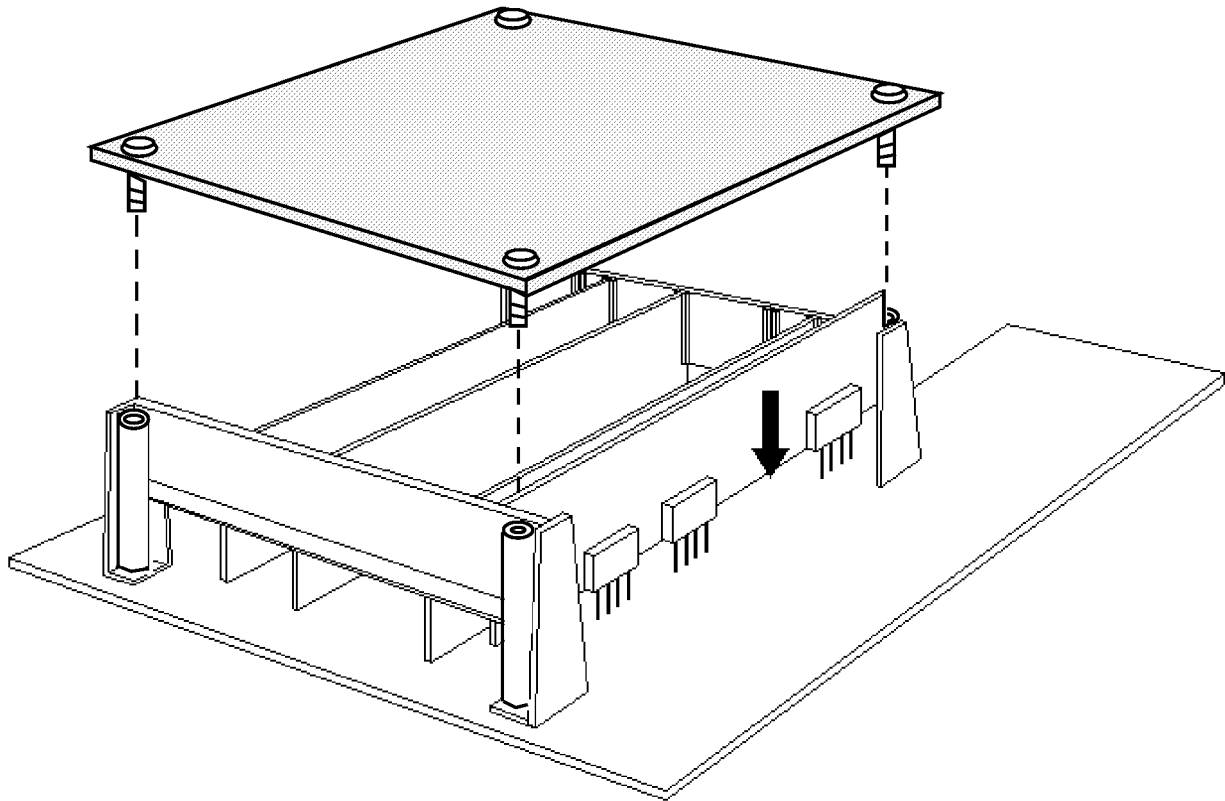


Figure 5-10: Plug in filter modules on later filter switch boards

3. Carefully remove the filter board from its housing by pulling it straight up and off its connectors.

NOTE. The position of the VM700A filters in the slots depends on the ship date of the instrument. On the early filter switch board, the filters include: high pass, low pass, differentiated step, and low-frequency noise. On later filter switch boards, the filters include: NTSC bandwidth limit, Chroma bandpass, IEEE low pass, differentiated step, and low-frequency noise.

Replacing the filter-board is the reverse of the above procedure.

Removing and Replacing Plug-In Filters on the ADC Board

1. Remove the instrument top cover (see *Removing and Replacing a Cover Panel* for more information).
2. If you are removing the anti-alias filter module (location shown in Figure 5-11), remove the shielded cable from its connector at J765.



CAUTION. *Magnetic fields can alter inductor settings. Do not use magnetic tools to perform the following step.*

3. Remove the filter-module retaining screws.

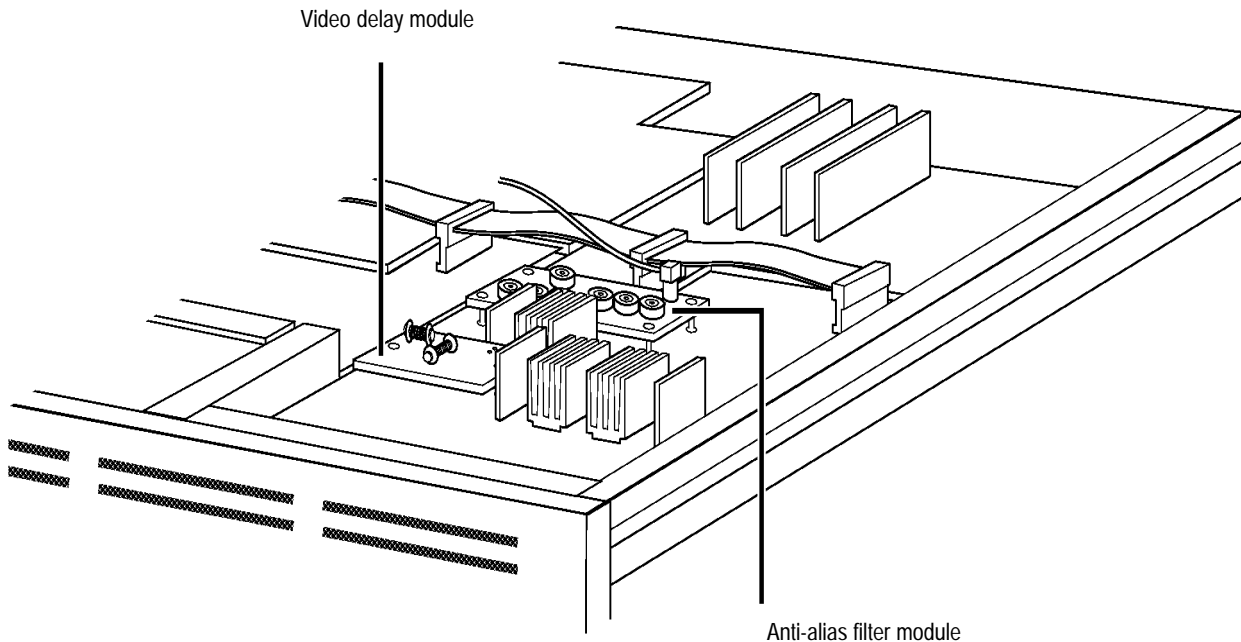


Figure 5-11: Filter modules on the ADC board

4. Lift the filter module away from the ADC board.

Replacing the filter module is the reverse of the above procedure.



CAUTION. *When replacing the filter module, carefully guide its pin connectors onto the mating pins of the ADC board. Make sure the connectors align with the pins before pushing the module down on the standoff.*

Removing and Replacing Display and Control Components

This section describes removing and replacing the VM700A components responsible for instrument display and user interface. These components include the CRT assembly, the touch panel, and the keypad board assembly. Removing and replacing these components requires first removing the instrument cover panels, the CRT bezel, and (to remove the keypad board assembly) the right side card cage retainer.

The following procedures describe removing and replacing these VM700A components.

Tools Required

- Flat-blade screwdriver, $\frac{3}{16}$ or $\frac{1}{4}$ inch blade.
- Combination wrench or nut driver, $\frac{3}{16}$ inch.
- Pozidriv screwdriver, 1X, 2X.

Removing and Replacing the CRT Bezel

1. Remove and replace the instrument cover panels (see *Removing and Replacing a Cover Panel* for more information).

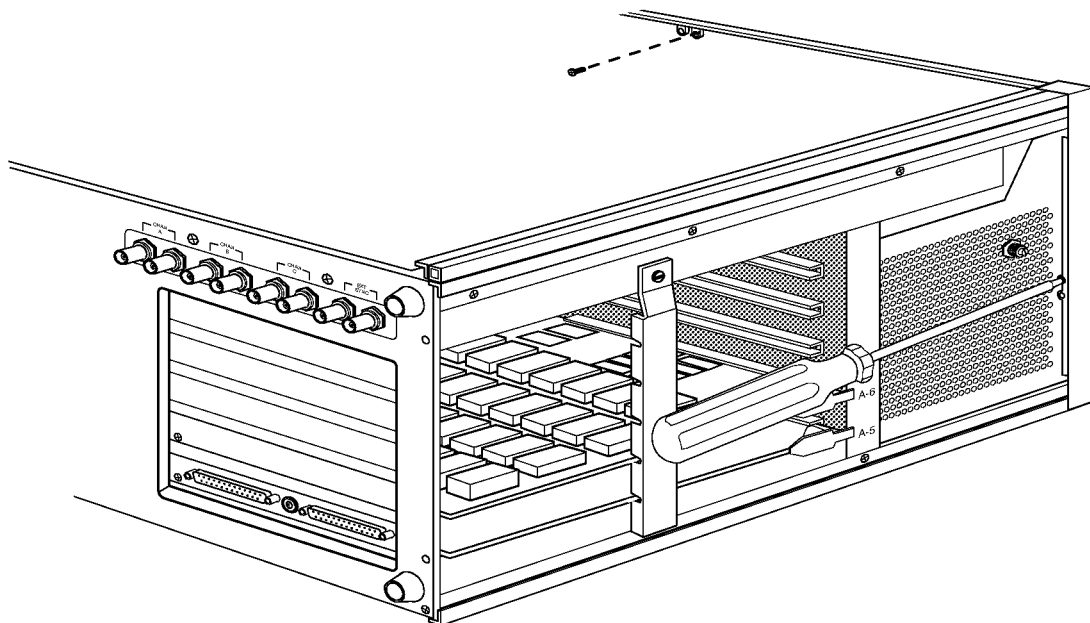


Figure 5-12: Locating the bezel retaining screws

2. Remove the four screws holding the bezel to the front frame (see Figure 5-12).
3. Carefully separate the bezel from the frame and disconnect the 5-conductor cable from the ON/STDBY switch.
4. Lift the bezel away from the instrument and set it aside.

CRT bezel replacement is the reverse of the above procedure.



CAUTION. Use care in tightening the bezel retaining screws. The threaded bezel inserts can be stripped from the bezel if the screws are over-tightened.

Removing and Replacing the ON/STDBY Switch

1. Remove and replace the CRT bezel (*see Removing and Replacing the CRT Bezel* for more information).
2. From the circuit side of the ON/STDBY switch remove the two nuts holding the switch assembly to the bezel.
3. Separate the switch and its front plate from the bezel.

ON/STDBY switch replacement is the reverse of the above procedure.

Removing and Replacing the Keypad Board Assembly

1. Remove the CRT bezel (see the above procedure for more information).
2. Remove the right side card cage cover (*see Gaining Access to the Right Side card cage* for more information).
3. Disconnect the cable at J822 on the display memory board.
4. Remove the flat-head screws holding the keypad board assembly bracket to the VM700A front frame (see Figure 5-13).
5. Carefully separate the keypad board assembly from the instrument.
6. On the back of the keypad board assembly, remove the touch panel connector at J933 and the ground wire attached to the standoff.
7. Remove the keypad board assembly and set it aside.

Keypad board assembly replacement is the reverse of the removal procedure.

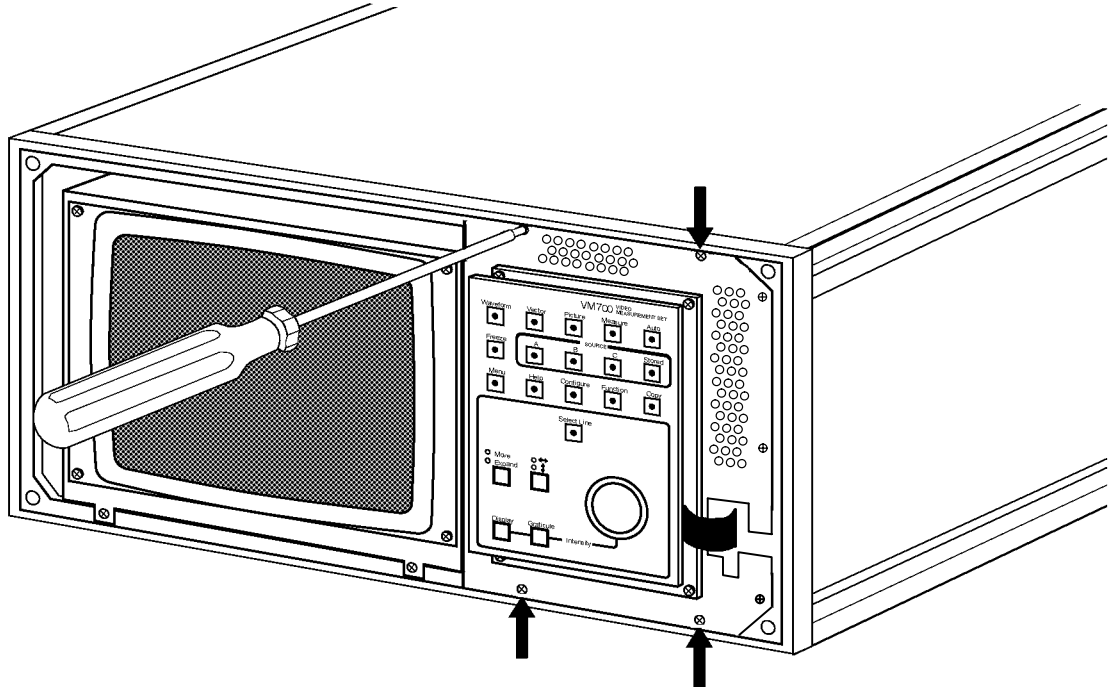


Figure 5-13: Removing the retaining screws from the keypad board

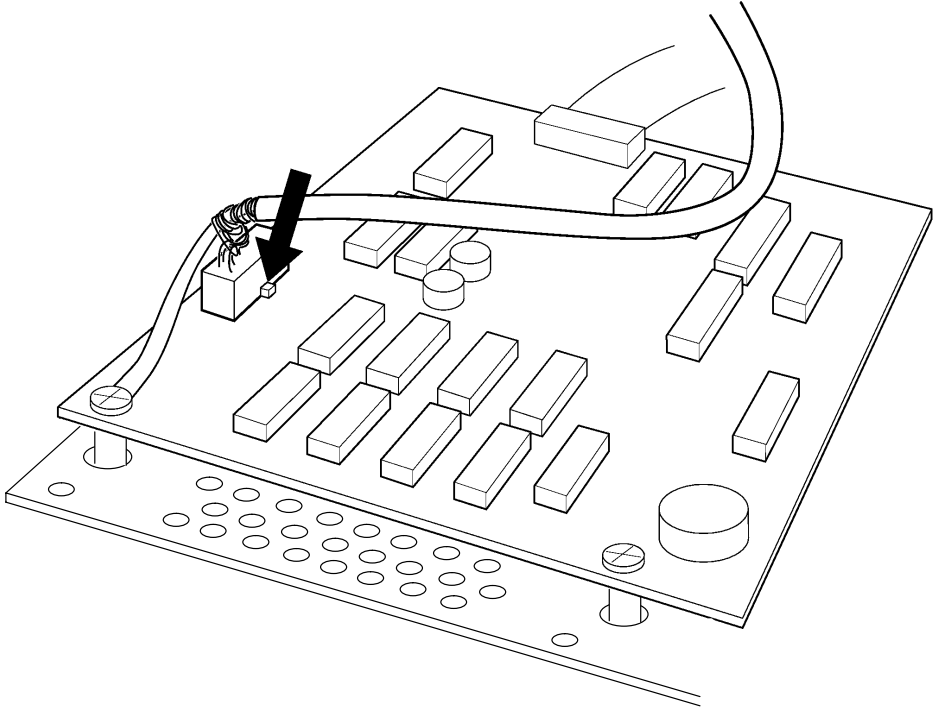


Figure 5-14: Orienting connector J933 for installation on the keypad board



CAUTION. When reinstalling connector J933 on the keypad board assembly, orient the connector with its key facing the center of the board (see Figure 5-14). Any other connector orientation is incorrect and could cause component failure on instrument power up.

Removing and Replacing the CRT Touch Panel

1. Remove the CRT bezel (see *Removing and Replacing the CRT Bezel* for more information).
2. Remove the keypad board assembly (see *Removing and Replacing the Keypad Board Assembly* for more information).

NOTE. It is not necessary to remove the ground wire on the keypad board assembly if you are removing just the CRT touch panel.

3. Remove the four flat-head screws, lift the CRT touch panel away from the CRT, and set it aside.
4. Touch panel replacement is the reverse of the removal procedure.

Removing and Replacing the CRT Assembly

1. Remove the CRT bezel (see *Removing and Replacing the CRT Bezel* for more information).
2. Remove the right side card cage cover (see *Gaining Access to the Right Side card cage* for more information).
3. Remove the keypad board assembly (see *Removing and Replacing the Keypad Board Assembly* for more information).
4. Remove the CRT touch panel (see step 4 of the above procedure for more information).

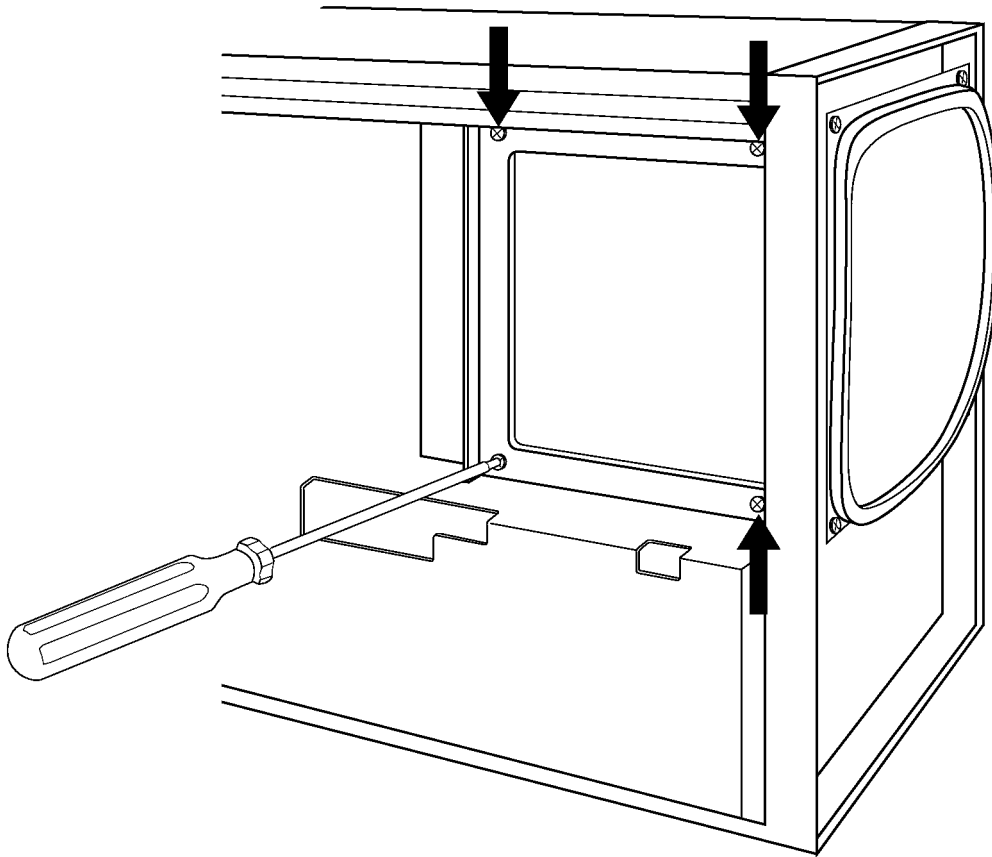


Figure 5-15: Removing the CRT assembly retaining screws

5. Position the instrument on its right side and remove the four screws holding the CRT assembly to the VM700A chassis (see Figure 5-15).
6. Slide the CRT assembly out of the chassis enough to remove the 10-wire connector at the rear.
7. Remove the CRT assembly from the VM700A chassis and set it aside.

CRT assembly replacement is the reverse of the above procedure.

Removing and Replacing Power, Interconnect, and Cooling Components

This section describes how to remove and replace the power supply, the main interconnect board, and the cooling fan.

Tools Required

- Flat-blade screwdriver, $\frac{3}{16}$ or $\frac{1}{4}$ inch blade.
- Pozidriv screwdriver, 2X.
- Combination or open-end wrench, $\frac{11}{32}$ inch.
- Small wire cutters.

Removing and Replacing the Power Supply

The power supply is located on the right side of the VM700A, below the right-side card cage. You may remove the power supply by first removing the cover panels of the VM700A (see *Removing and Replacing a Cover Panel* for more information) and turning the instrument upside down. The following procedure describes removing and replacing the power supply.



WARNING. *This instrument contains hazardous voltages. Before removing covers or performing disassembly/reassembly procedures, always shut off instrument power at the rear-panel switch and disconnect the power cord from electrical mains. Failure to do this could result in dangerous electrical shock.*

NOTE. *The power supply is field removeable for replacement only; it is not a field-serviceable unit.*

1. Position the VM700A with its bottom facing up and remove the wires and connectors from the power supply.

NOTE. *The connections are labeled on the power supply. We suggest that you tag each wire with a label as you remove it, for easy replacement later.*

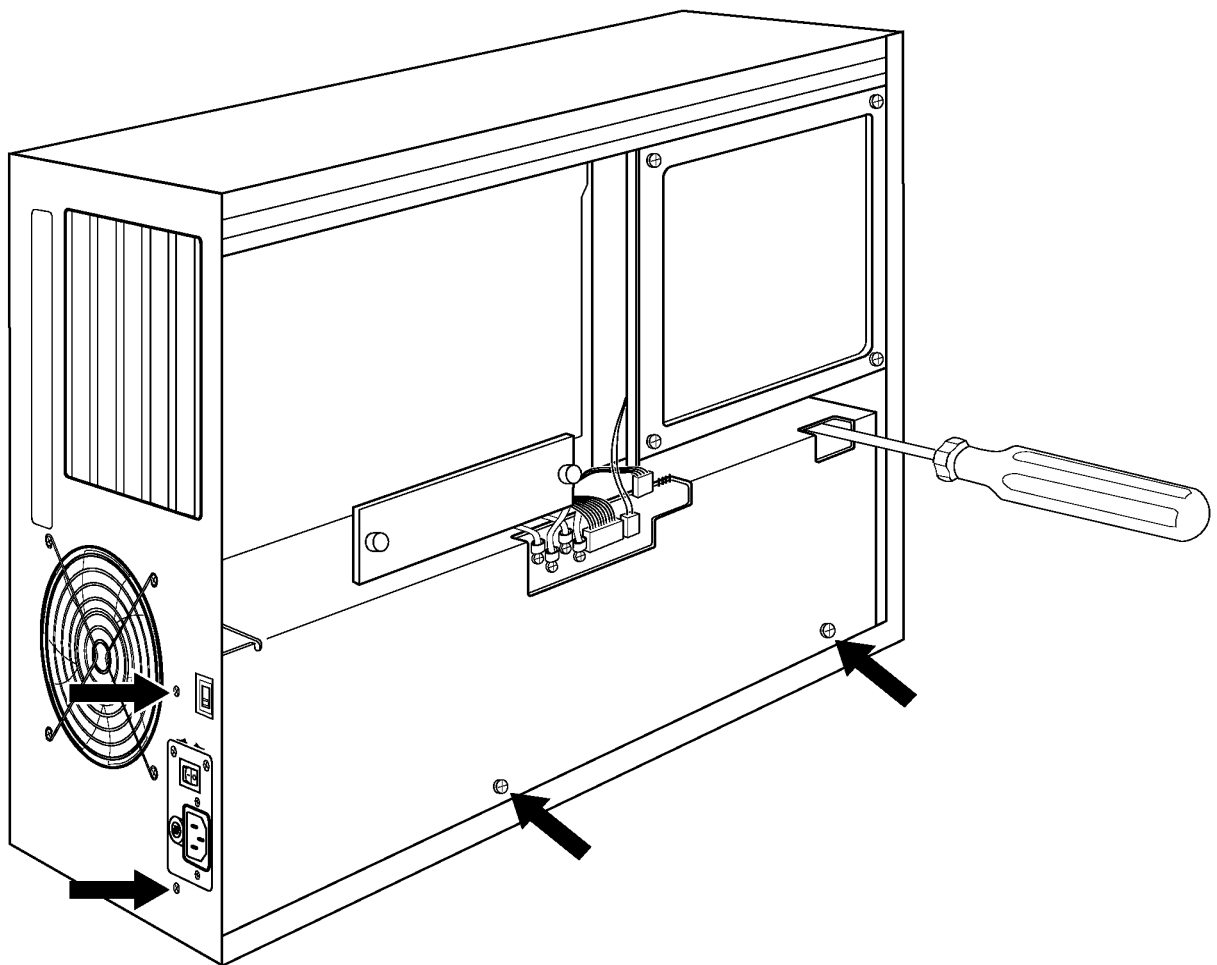


Figure 5-16: Removing the power supply retaining screws

2. From the bottom of the instrument, remove attaching screws (one screw must be accessed through a slot in the power supply housing). See Figure 5-16 for the location of the bottom power supply attaching screws (there are two more on the rear panel).
3. At the rear panel, remove more screws.
4. Move the power supply to clear the corner rail overhang and, holding the wires aside, carefully lift it straight up and out of the VM700A chassis.

Power supply replacement is the reverse of the removal procedure.



CAUTION. *When replacing the power supply, make sure the replacement power supply's line voltage switch is set to the correct line voltage. If the line voltage switch is not set correctly the VM700A and the power supply could be severely damaged.*

Removing and Replacing the Main Interconnect Assembly

The main interconnect assembly consists of three circuit boards assembled with connectors, screws, and spacers. This assembly is replaced as a unit.

All VM700A circuit boards in the two card cages plug into the main interconnect assembly. Removing and replacing this assembly requires removing the boards from the card cages, removing wires and attaching screws, and lifting the main interconnect assembly from the instrument. The following procedure describes removing and replacing the main interconnect assembly.

1. Remove the CPU and EPROM/NVRAM boards from the left card cage (see *Removing and Replacing the CPU and EPROM/NVRAM Boards* for more information).
2. Remove the controller, data acquisition, and display memory boards (see *Removing and Replacing the Controller, Data Acquisition, and Display Memory Boards* for more information).
3. From the top of the instrument, disconnect the power bus cable at its five connectors, remove and set it aside.
4. From the bottom of the instrument, remove the connectors and terminal wires between the power supply and the main interconnect assembly.
5. Inside the left card cage, remove the six screws holding the main interconnect assembly to the card cage back panel (see Figure 5-17).

NOTE. *The main interconnect assembly retaining screws are easier to remove if you first place the instrument on its right side and then use a long-shank screwdriver (allowing more hand clearance) to remove them.*

6. With the instrument placed upside down, carefully push the power supply wiring aside and move the main interconnect assembly up and out of the chassis.

Main interconnect assembly replacement is the reverse of the above procedure.

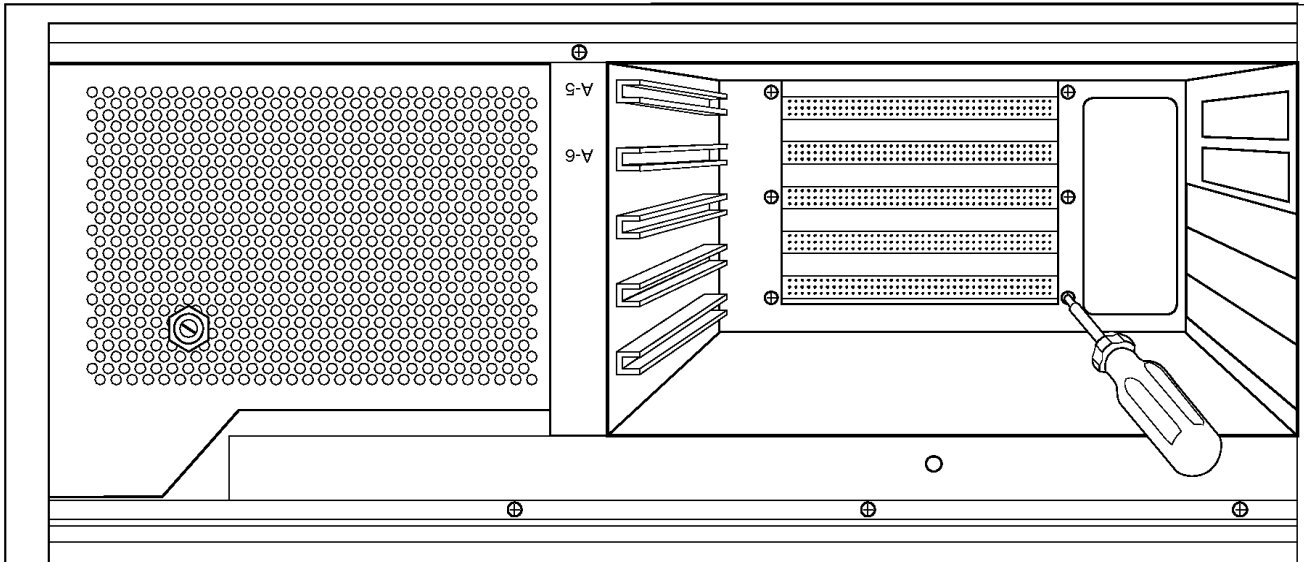


Figure 5-17: Removing the main interconnect board assembly retaining screws from inside the left card cage

Removing and Replacing the Cooling Fan

Removing and replacing the cooling fan requires removing the top and bottom cover panels (see *Removing and Replacing a Cover Panel* for more information), removing the power supply, and removing the harness retainers that attach the fan's wire harness to the bottom of the left card cage.

NOTE. On some VM700As, retainer clips are used with the cooling fan mounting screws instead of threaded nuts. On these VM700As it is not necessary to remove the power supply to gain access to the cooling fan.

With these items removed, the cooling fan and its guard can be removed by removing the retaining screws and nuts. The following steps describe removing and replacing the cooling fan.



WARNING. This instrument contains hazardous voltages. Before removing instrument covers to perform disassembly/reassembly procedures, always shut off instrument power at the rear-panel switch and disconnect the power cord from electrical mains. Failure to do this may result in dangerous electrical shock.

1. Turn the instrument upside down and remove the power supply (see *Removing and Replacing the Power Supply* for more information).
2. With cutters, remove the plastic retainers holding the fan wire harness to the bottom of the left card cage.

3. Remove the screws and nuts holding the cooling fan and separate the fan and its finger guard from the back panel.

NOTE. We suggest that you remove the two screws accessible from the bottom first. Then, turn the instrument right-side up, remove the remaining two screws, and carefully lift the fan clear of the instrument.

Cooling fan replacement is the reverse of the above procedure.

VM700A Rack Mounting Instructions

Unpackaging When unpack aging the VM700A for installation, keep the shipping carton and packaging material. If returning the VM700A for repairs should become necessary, you will then have packaging available that will provide adequate protection from the USPS or UPS.

Power Requirements The VM700A will operate with line frequencies from 47 to 63 kHz, over two line voltage ranges. The low voltage range is from 90 VAC to 132 VAC; 115 VAC nominal. The high voltage range is from 180 VAC to 250 VAC; 230 VAC nominal.



WARNING. For your protection and to avoid damage to the instrument, shut the instrument off before removing or replacing any circuit boards, connectors, or jumpers.

Changing the Ling Voltage Range and Fuse

The voltage range selection switch and fuse holder are located on the lower left corner of the rear panel of the VM700A.

The VM700A is shipped from the factory set for 115 VAC operation. If this setting must be changed to 230 VAC, simply set the voltage range selection switch to the 230 V position to operate in the high voltage range. The 8 A fast-blow fuse provides the proper protection in the low voltage range and must be replaced with a 4 A fast blow fuse for operation in the high voltage range. (With the Tektronix-manufactured power supply, identified by a push-button ON/OFF switch on the rear panel, the fuse values are 6 A and 3 A, respectively, rather than 8 A and 4 A.)

NOTE. If you wish to use Password protection for your user-definable configuration, DIP switch settings on the A5 CPU board must be changed. Section 3 of the Operator's Manual/, *Configuring the VM700A*, contains a detailed description of how Password operates.

Rack Mounting

The VM700A fits in a standard 19-inch rack and is shipped with the necessary hardware for rack mounting. Spacing between the front rails of the rack must be at least 17-3/4 inches to allow clearance for the rack slides.

Rack slides conveniently mount in any rack that has a front-to-rear rail spacing between 15-1/2 and 28 inches. Six inches of clearance between the rear panel of

the VM700A and the rear rack panel is required for connector space and to provide adequate air circulation.

The rack slides consist of two assemblies, one for each side of the rack. Each assembly consists of three sections, as shown in Figure 5-18. The stationary section of each rack slide attaches to the rack rails. The chassis section mounts on the VM700A and is installed at the factory. The chassis section slides into the intermediate section, which in turn slides into the stationary section.

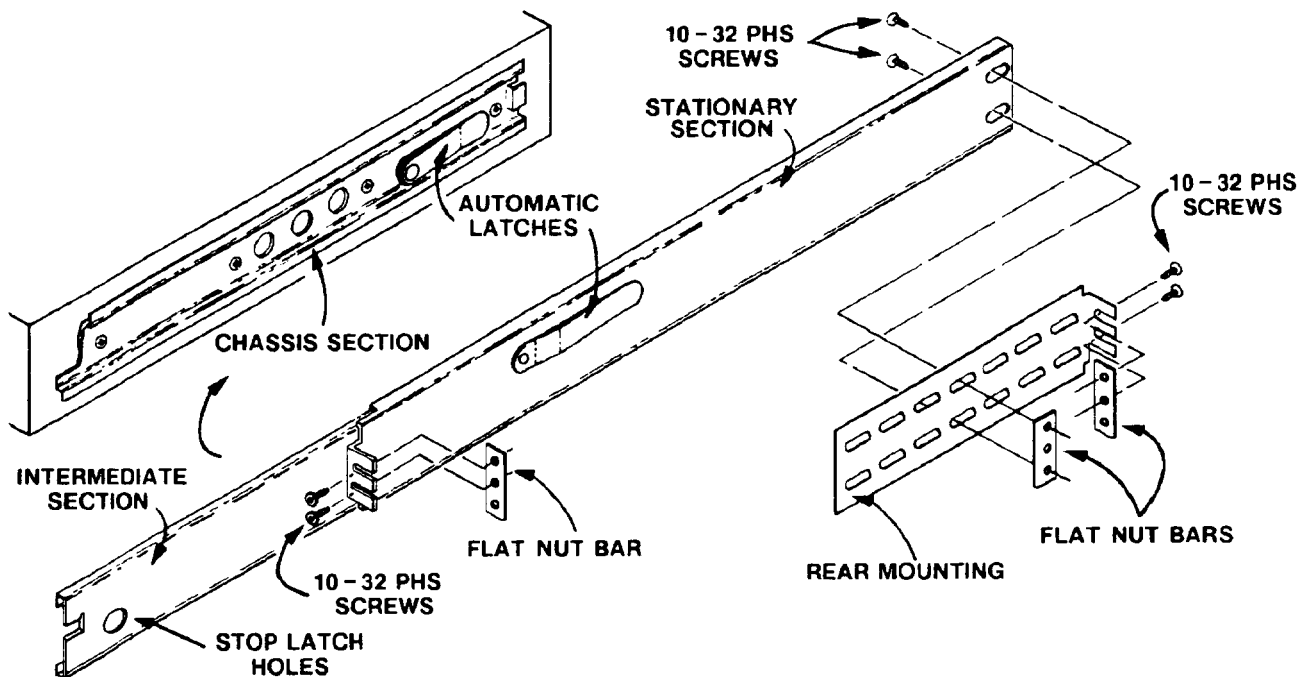


Figure 5-18: Construction of rack slides

Mounting the Rack Slides

Locate the proper holes in the rack rails as shown in Figure 5-19. Notice that the hole spacing varies with the type of rack. When installing the slides in EIA-type racks, make certain that the slides are attached to the 1/2inch-spaced holes. Install the stationary section of the rack slides as shown in Figure 5-20. Make sure the stationary sections are horizontally aligned, level and parallel.

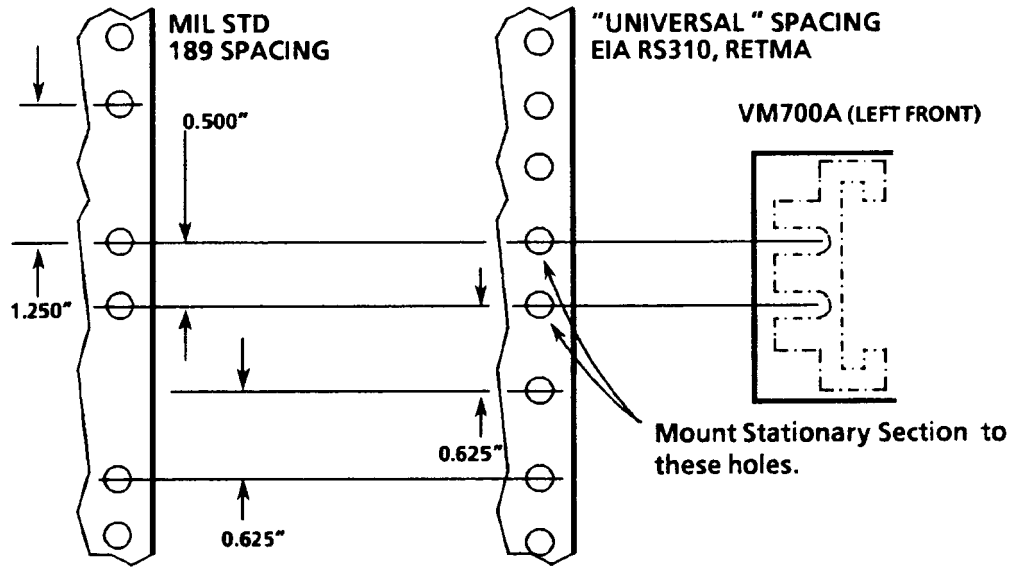


Figure 5-19: Rail detail for mounting rack slides

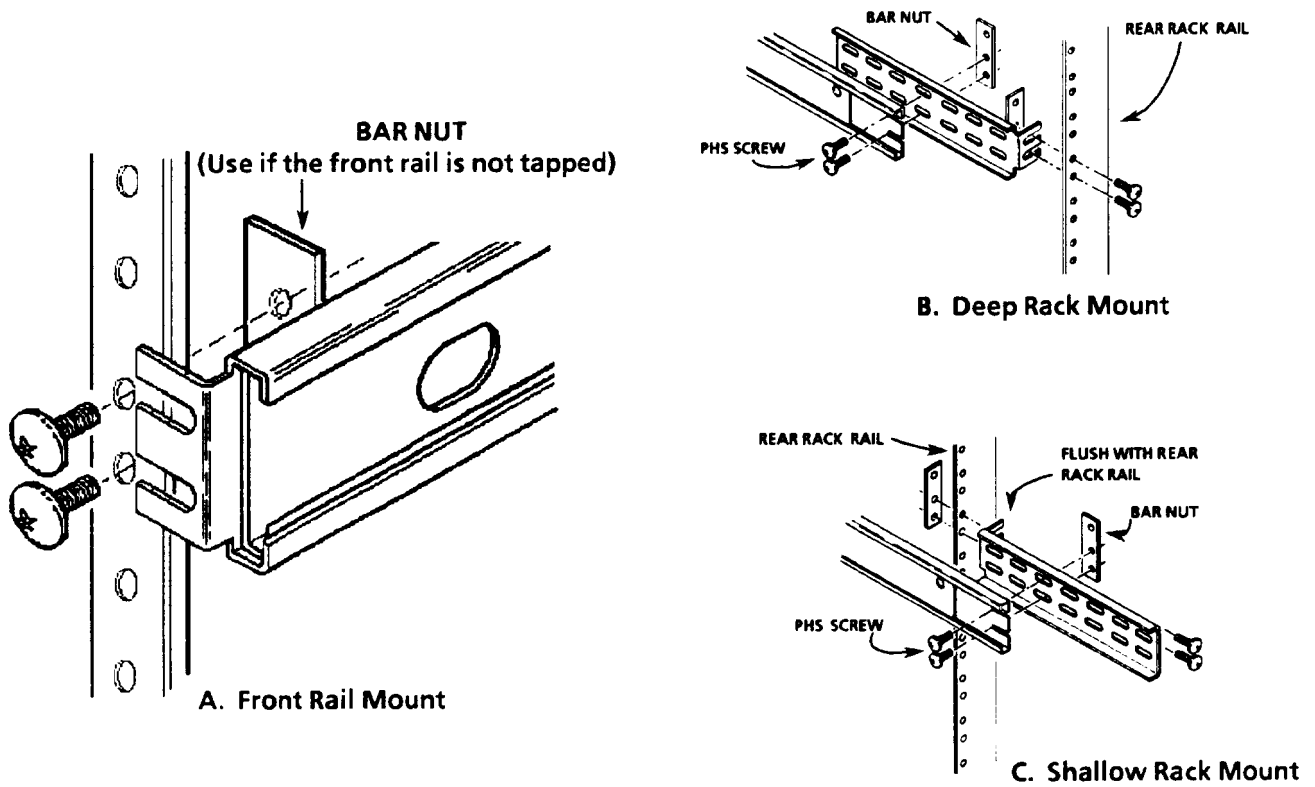


Figure 5-20: Mounting stationary rack sections

Installation/Removal from the Rack

Figure 5-21 shows how to install and remove the instrument from the rack.

Rack Adjustments

After installation, the rack slides may bind if they are not properly adjusted. To adjust the slides, slide the instrument out about 10 inches, slightly loosen the screws holding the slides to the front rails, and allow them to seek an unbound position.

Re-tighten the screws and check the tracks for smooth operation by sliding the instrument in and out of the rack several times.

To fasten the instrument securely in the rack, tighten the knurled retaining screw.

Rack Slide Maintenance

The rack slides do not require lubrication. The dark gray finish on the rack slides is a permanent, lubricated coating.

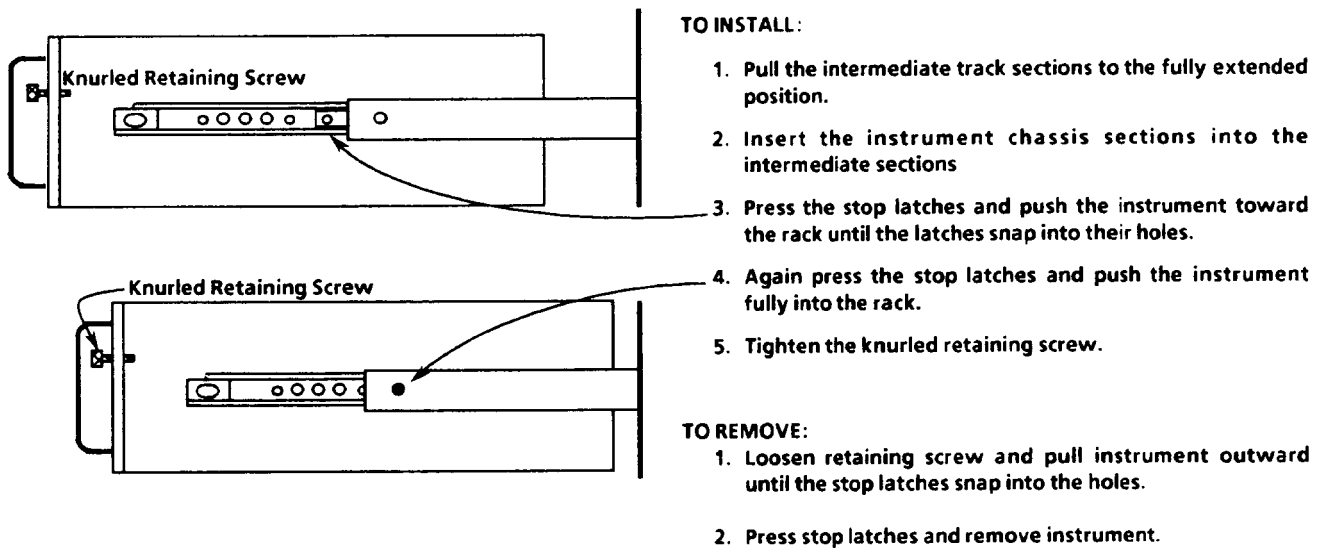


Figure 5-21: Installing and removing the VM700A from the rack

Section 6: Troubleshooting and Diagnostics

Section 6: Troubleshooting and Diagnostics

Troubleshooting and Diagnostics

The part contains information on troubleshooting procedures and the diagnostics available with the VM700A

General Troubleshooting

The material contained here is general and is not intended to cover specific cases. Note that the manual itself is considered a troubleshooting aid, and as such a brief discussion of its contents is in order.

Troubleshooting Aids

Foldout Pages. The foldout pages at the back of the manual contain information that is useful in troubleshooting the instrument. Schematic diagrams and circuit board illustrations are found there.

Diagrams - Schematic diagrams are the most often used troubleshooting aids. The circuit number and electrical value of each component is shown on the diagram. The first page has definitions of the symbology used on the schematic diagrams. Refer to the Replaceable Electrical Parts list for a complete description of each component. Circuits that are mounted on circuit boards or assemblies are enclosed in a border, with the name and assembly number shown on the border.

***NOTE.** Check the Change Information section in the rear of the manual for corrections and modifications to the instrument and the manual.*

Board

Illustrations

Electrical components, connectors, and test points are identified on circuit board illustrations, which are located on the back of a preceding schematic diagram. Circuit boards are grid numbered, with the lowest number in the upper left corner; highest number in the lower right.

Parts Locating Charts

Generally, components mounted on etched circuit boards are assigned circuit numbers according to their geographic location within the assembly, beginning with the lowest numbers at the upper left corner (as pictured in the illustration). The schematic diagrams are assigned location grids, and a parts locating chart (for each schematic diagram) gives grid locations of components on that schematic.

Assembly and Circuit Numbering - The circuit board assemblies are assigned assembly numbers. Fig. 3-1 shows the circuit board assembly locations for this instrument.

Parts Lists. There are two separate parts lists in this manual. The List of Replaceable Electrical Parts precedes the schematic diagrams and circuit board illustrations. The List of Replaceable Mechanical Parts accompanied by exploded view drawings, follows the schematic diagrams and circuit board illustrations.

Replaceable Electrical Parts – This list is arranged by assembly as designated in ANSI Standard Y32.16-1975. The list begins with the part numbers for the major assemblies (etched circuit boards). Each circuit board is identified by an A# (Assembly Number).

The circuit numbers of the individual components in the parts list is made up by combining the assembly number with the individual circuit number.

EXAMPLE: R117 on Assembly (circuit board) A3 would be listed in the Replaceable Electrical Parts list as A3R117.

NOTE. Always consult the parts list for part numbers and descriptions when ordering replacement parts. Some parts may have been replaced or have a different part number in an individual instrument. Also check the “Change Information” at the back of the manual for the most recent changes.

Replaceable Mechanical Parts – This list is arranged so that it corresponds to the exploded view drawing for major instrument components.

Major Assembly Interconnection

Signals and power supply voltages are passed through the instrument by a system of interconnecting cables. The connector holders on these cables have numbers that identify terminal connectors; numerals used are from 2 up. A triangular key symbol is used to identify pin 1 on the circuit board to assist in aligning the correct pins on the mating connector.

Troubleshooting Techniques

The following procedure is designed to assist in isolating problems, which in turn expedites repairs and minimizes down time.

1. Ensure that the malfunction actually exists. This is done by running the diagnostics to ensure that the instrument is operating as intended by Tektronix. The diagnostics are described in the diagnostics section of this manual.
2. Determine and evaluate all trouble symptoms. This is accomplished by isolating the problem to a general area such as an assembly.



CAUTION. Use extreme care when probing with meter leads or probes, because of the high component density and limited access within the instrument. The inadvertent movement of leads or a probe could cause a short circuit or transient voltage capable of destroying components.

3. Determine the nature of the problem. Attempt to make the determination of whether the instrument is out of calibration or if there has been a component failure. Once the type of failure has been determined, identify the functional area most likely at fault.
4. Visually inspect the suspect assembly for obvious defects. Most commonly these will be broken or loose components, improperly seated components, overheated or burned components, chafed insulation, etc. In the case of overheated components, determine the cause of overheating and correct the cause before re-applying power.
5. Use successive electrical checks to locate the source of the problem. At times it may be necessary to change a calibration adjustment to determine if a circuit is operational, but since this can destroy instrument calibration, care should be exercised. Before changing an adjustment, note its position so that it can be returned to its original setting.
6. Determine the extent of the repair. If the necessary repair is complex, it may be advisable to contact your local Tektronix field office or representative before continuing. Repair of the VM700A generally consists of replacing defective modules. If the repair is minor, see the parts list for replacement information.
7. Remove defective modules and exchange them with the factory. If repair requires replacing a circuit board or other assembly, the removal and replacement procedures for the assemblies can be found in the *Maintenance and Replacement Procedures*. Refer also the section *If You Need Customer Services* for information on exchanging defective modules with the factory.

Troubleshooting the VM700A is a matter of following a logical series of steps that isolate a problem to a specific system module such as a circuit board, power supply, or display monitor. After isolating the problem, repair consists of replacing the faulty module and checking the instrument for correct operation.

Some VM700A faults can be isolated to just one system module. Correcting these faults requires replacing the faulty module.

Other faults may be caused by one or more defective system modules. In either case, the VM700A diagnostics routines can assist in isolating the fault to field-replaceable modules. These routines can also evaluate each of the instrument's major hardware components to provide a high degree of confidence that measurement results produced by the instrument are correct.

The best way to repair multiple-module faults is to replace one module at a time, checking the instrument's operation after each replacement, until you have located and replaced the faulty module.

This part of the section presents a series of operational fault symptoms and suggests corrective actions. The most efficient way to use the information involves a two-step approach:

1. Compare the failure symptoms you are experiencing with the symptoms presented in Table 6-1.
2. Run the VM700A built-in diagnostics routines to assist in isolating the failure.

Following these steps will typically isolate any VM700A fault to a field-replaceable module such as a circuit board.



WARNING. High voltages are present inside the VM700A chassis. These voltages can cause serious injury. Leave all service procedures that require removing instrument covers to qualified service personnel.

For information on how to return defective instrument modules to Tektronix for repair, see *Obtaining Replacement Parts* in Section 5.

Isolating Operational Faults

Table 6-1 lists a series of instrument faults or failures, related possible causes, and suggested corrective actions. Together with the diagnostics, you may use the information in the table to characterize faulty VM700A operation and as a guide to repair. The remove and replace instructions are in *Maintenance*, Section 5 of this manual.

Table 6-1: VM700A Symptoms and Corrective Actions

Symptom	Possible Cause	Corrective Action
No display (blank screen)	Faulty power supply	Check power supply. See <i>Troubleshooting the Power Supply</i> .
	Faulty CRT	Replace CRT assembly. See <i>Removing and Replacing the CRT Assembly</i> .
	Loose Cables	Check for loose AC line cord, CRT connector, or power supply connections. To gain access to the CRT connector, see <i>Removing and Replacing the CRT Assembly</i> . To gain access to power supply connections, see <i>Removing and Replacing the Power Supply</i> .
	Blown mains (line) fuse	Check fuse on rear panel.

Table 6-1: VM700A Symptoms and Corrective Actions (Cont.)

Symptom	Possible Cause	Corrective Action
	Faulty CPU board (A5)	Check the CPU board's green LED (see <i>CPU board Diagnostic LED</i>). Replace the CPU board. See <i>Removing and Replacing the CPU Board</i> .
	Faulty display memory board (A9)	Replace the display memory board. See <i>Removing and Replacing the Display Memory Board</i> .
Glitches and spikes in Waveform mode	Faulty ADC board (A3)	Replace ADC board. See <i>Removing and Replacing the ADC Board</i> .
	Faulty data acquisition board (A7)	Replace the data acquisition board. See <i>Removing and Replacing the Data Acquisition Board</i> .
	Faulty controller board (A8)	Replace the controller board. See <i>Removing and Replacing the Controller Board</i> .
	Faulty analog input board (A1)	Replace the analog input board. See <i>Removing and Replacing the Analog Input Board</i> .
VM700A displays the re-initializing message or hangs	Faulty genlock board (A2)	Replace the genlock board. See <i>Removing and Replacing the Genlock Board</i> .
	Faulty ADC board (A3)	Replace the ADC board. See <i>Removing and Replacing the ADC Board</i> .
	Faulty controller board (A8)	Replace the controller board. See <i>Removing and Replacing the Controller Board</i> .
	Faulty data acquisition board (A7)	Replace the data acquisition board. See <i>Removing and Replacing the Data Acquisition Board</i> .
	Faulty EPROM/NVRAM board (A6)	Replace the EPROM/NVRAM board. See <i>Removing and Replacing the EPROM/NVRAM Board</i> .
	Faulty display memory board (A9)	Replace the display memory board. See <i>Removing and Replacing the Display Memory Board</i> .
	Faulty CRT touch panel	Replace the CRT touch panel. See <i>Removing and Replacing the CRT Touch Panel</i> .
	Faulty front panel (A10A1) or keypad board (A10A2)	Replace front panel/keypad board assembly. See <i>Removing and Replacing the Keypad Board</i> .
CRT touch panel not operating NOTE: If the touch panel is not functioning, the VM700A will either	Faulty CRT touch panel or cabling	Replace CRT touch panel. See <i>Removing and Replacing the CRT Touch Panel</i> .
	Loose connections	Check connections on back of front panel board. See Section 5, <i>Removing and Replacing the CRT Touch Panel</i> .

Table 6-1: VM700A Symptoms and Corrective Actions (Cont.)

Symptom	Possible Cause	Corrective Action
display the re-initializing message or hang. This is not the only problem that can cause this symptom (see previous symptom).	Conductive coating on inside of bezel is touching CRT touch screen (VM700 instruments below serial number 21135, or VM700A instruments below serial number 22406 only)	Remove bezel and scrape or sand conductive EMI coating on the back away from the area surrounding the CRT opening. Clean carefully before replacing. To remove and replace the bezel, see Section 5, <i>Removing and Replacing the CRT Bezel</i> .
	Faulty front panel (A10A1) or keypad board (A10A2)	Replace the front panel/keypad board assembly. See Section 5, <i>Removing and Replacing the Keypad Board</i> .
	Faulty display memory board (A9)	Replace the display memory board. See Section 5, <i>Removing and Replacing the Display Memory Board</i> .
Noise at fixed intervals in Line Spectrum mode	Faulty data acquisition board (A7)	Replace the data acquisition board. See Section 5, <i>Removing and Replacing the Data Acquisition Board</i> .
RAM test failure	Faulty display memory board (A9)	Replace the display memory board. See Section 5, <i>Removing and Replacing the Display Memory Board</i> .
	Faulty interconnect board socket	Replace the interconnect board. See Section 5, <i>Removing and Replacing the Interconnect Board</i> .
ROM test failure	Faulty EPROM/NVRAM board (A6)	Replace the EPROM/NVRAM board. See Section 5, <i>Removing and Replacing the EPROM/NVRAM Board</i> .
	Faulty interconnect board (A11)	Replace the interconnect board. See Section 5, <i>Removing and Replacing the Interconnect Board</i> .
	DIP switches on EPROM/NVRAM board set incorrectly	Verify the settings of the DIP switches. See Figure 6-1.
Analog gain out of specification	Faulty ADC board (A3)	Replace the ADC board. See Section 5, <i>Removing and Replacing the ADC Board</i> .
	Faulty analog input board (A1)	Replace analog input board. See Section 5, <i>Removing and Replacing the Analog Input Board</i> .
OVERTEMP status LED lit	Faulty power supply	Check power supply. See <i>Power Supply Diagnostics</i> in this section.
	Faulty or blocked cooling fan	Check cooling fan for operation and for obstructions blocking air flow.
	Loose connections to cooling fan	Check cooling fan connections. See Section 5, <i>Removing and Replacing the Cooling Fan</i> .
	Clogged or dirty front bezel air filters	Clean the front bezel air filters. See Section 5, <i>Cleaning the Front Bezel Air Filters</i> .
POWER/FAIL Status LED lit	Power supply is in "over temperature shutdown mode"	Same as OVERTEMP symptom.

Table 6-1: VM700A Symptoms and Corrective Actions (Cont.)

Symptom	Possible Cause	Corrective Action
POWER/FAIL Status LED lit (cont)	Faulty monitor pulling down 12 V on power supply	Diagnose by disconnecting 12 V monitor supply cable (P3) at power supply and retrying startup. If POWER/FAIL status LED does not light with 12 V cable disconnected, replace CRT module.
	Faulty power supply	Check power supply. See <i>Power Supply Diagnostics</i> in this section.
	Load on power supply exceeds design limit	Check power supply. See <i>Power Supply Diagnostics</i> in this section.
No waveform display, or a "Loss of Sync" message in waveform mode	Loose cable connections	Check cable connections.
	Faulty genlock board (A2)	Replace the genlock board. See <i>Removing and Replacing the Genlock Board</i> .
	Faulty controller board (A8) (Later instruments A18)	Replace the controller board. See <i>Removing and Replacing the Controller Board</i> .
	Faulty analog input board (A1)	Replace analog input board. See Section 5, <i>Removing and Replacing the Analog Input Board</i> .
	Incorrect input signal (incorrect H sync or V sync signal)	Verify that horizontal and vertical sync signals are being sent.
	Signal too noisy (signal/noise ratio below required minimum)	Correct the cause of low S/N ratio signal.
	Incorrect sync source selected	Select correct sync source.
Screen brightness won't adjust	Faulty CRT display module	Replace the CRT module. See <i>Removing and Replacing the CRT Display</i> .
	Faulty front panel (A10A1) or keypad board (A10A2)	Replace the front panel/keypad board assembly. See <i>Removing and Replacing the Keypad Board assembly</i> .
	Faulty display memory board (A9)	Replace the display memory board. See <i>Removing and Replacing the Display Memory Board</i> .

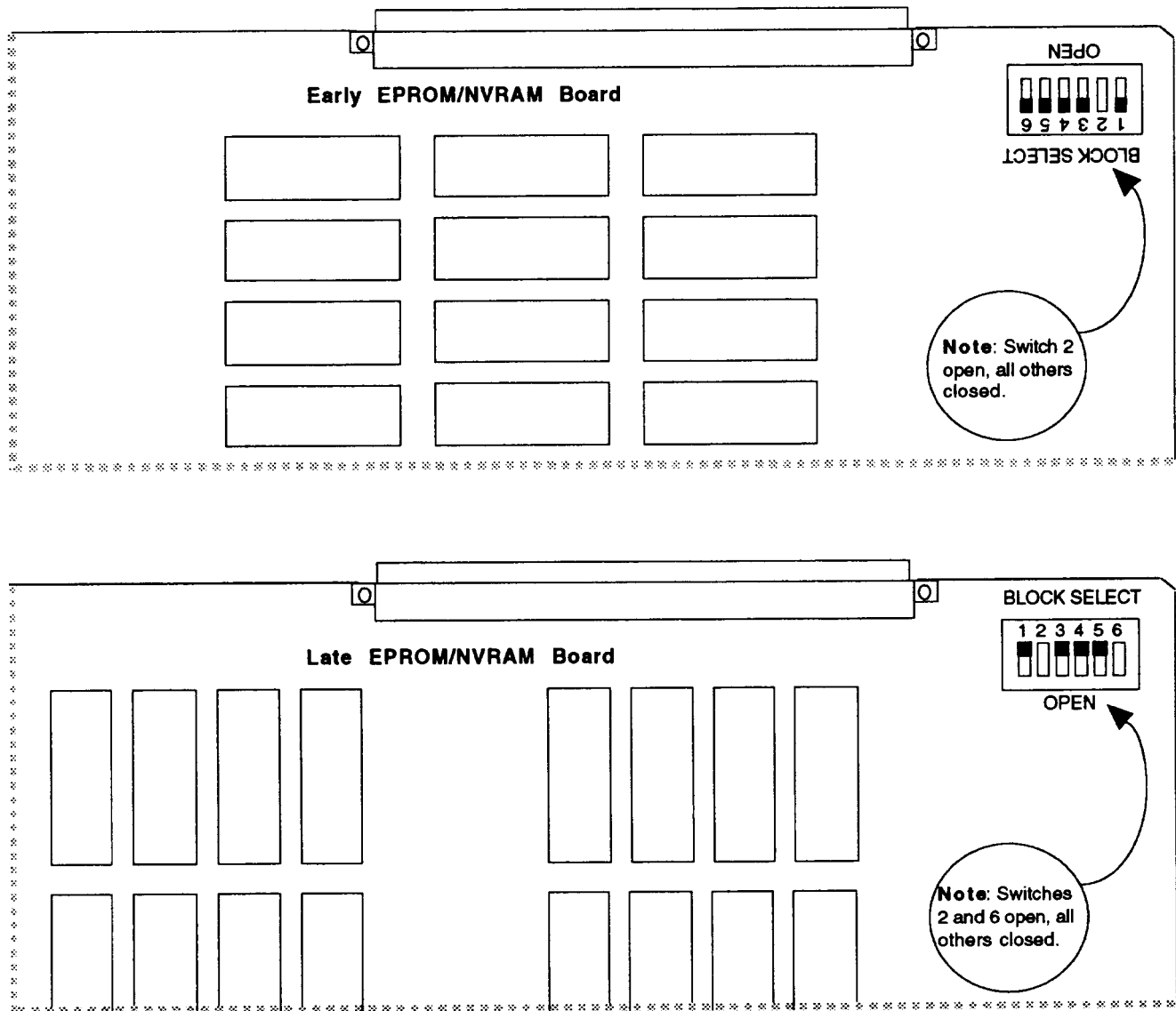


Figure 6-1: DIP Switch Settings on Early and Late EPROM/NVRAM Boards

Diagnostics

The VM700A contains two levels of diagnostic routines:

- Power-up diagnostics (low-level diagnostics) always run during the instrument's power-up cycle and test the CPU board (A5), EPROM board (A6), and Display Memory (A9) and Front Panel boards (A10). Power-up diagnostics check those system components needed to run the user-selectable diagnostics.

- User-selectable diagnostics (high-level diagnostics) test other VM700A hardware components. The various tests in this group can be user selected to run once at power-up (after the low-level diagnostics), in a continuous loop, or on demand.

Power-Up Diagnostics

The power-up, or low-level, diagnostics perform basic tests on the operation of the A5 CPU board, the A6 EPROM board, and the A9 Display Memory board.

The VM700A displays the name of the low-level test in progress as each test proceeds. When tests of the three boards are completed, the VM700A displays the message:

```
—*—*—LOW LEVEL DIAGNOSTICS COMPLETE —*—*—
```

then runs the diagnostics routines specified by the user in the Diagnostics Selection file. This file is found in the /nvram0/ConfigFiles directory.

The power-up diagnostics are listed and described in Table 6-2.

Bypassing the Power-Up Diagnostics. To bypass all power-up diagnostics (both low-level and high-level), press and hold the Waveform button when you power on the VM700A. (If the VM700A is being started cold, hold the button for three to five seconds; if the VM700A is already warmed up, one or two seconds is enough.)

The VM700A displays the message:

```
—* —* —INITIALIZING IN QUICK START MODE —* —* —
```

then proceeds with system initialization.

Power-Up Diagnostic Errors. When a low-level diagnostic routine detects an error, the VM700A displays the message:

```
— Press any Front Panel Button or —  
— Toggle 1 of 3 CPU “MODE” switches to CONTINUE —  
Automatically Continues in 60 Seconds
```

then waits for a response from the user. The first line of the message (“Press any Front Panel Button”) only appears if the VM700A has passed enough tests that the front panel buttons are operative. Pressing a front panel button allows the VM700A to try to power up in its normal state. If the Automatically Continues line appears, the number counts down from 60 to show the remaining time.

Table 6-2: VM700A Power-Up Diagnostics

Board Tested	Test Name	Description
CPU	Math Co-processor	Checks for exception errors when the math co-processor performs floating-point computations.
	CPU NVRAM ^a Decoding Segment Size Address Lines Data Lines Valid Memory	Standard RAM test. Checks decoded address space size. Checks the size of the RAM segment. Checks address integrity. Checks data bus integrity. Performs checkerboard pattern to test RAM.
Display/Front Panel	Shared RAM ^a Decoding Segment Size Address Lines Data Lines Valid Memory	Standard RAM test. Checks decoded address space size. Checks the size of the RAM segment. Checks address integrity. Checks data bus integrity. Performs checkerboard pattern to test RAM.
	Probe Board Type Board Type Parts in Set	Determines type of board. Possible board types are: 1.5, 3.0, 6.0, or 12.0 Mbyte. Information contained in each EPROM determines quantity of EPROMs on the board.
EPROM/NVRAM	Total CRC Check	Runs 32-bit CRC check on ROM space and compares the result with a CRC stored in the CPU board's NVRAM.
	Part CRC Check	Runs only if total CRC check fails. This test runs a 16-bit CRC check of each EPROM on the board. Test also checks for correct part location on board.
	Total CRC Store	Runs only if total CRC check fails. If total CRC check fails but part CRC check passes, this test computes a 32-bit CRC (based on the results of the 16-bit CRCs for each PROM) and stores it in the CPU board's NVRAM.

^a Contents of RAM are copied to main system RAM before the test runs. This preserves the contents of RAM. If main system RAM is bad, the test returns ???, indicating it did not run.

If the front panel buttons do not operate, you can use the following procedure to allow the VM700A to continue powering up:

1. Power off the VM700A.
2. Remove the VM700A from the equipment rack (if rack-mounted).
3. Remove the two screws from the rear panel that hold the left side cover (as viewed from the front of the instrument).
4. Slide the left side cover about two-thirds of the way back.
5. On the A5 CPU board (the bottom board) locate the six-section DIP switch with the markings "FAC|MODE|]" printed on the circuit board in front of it.
6. Power the VM700A back on.

7. When the error message is displayed, click any of the three switches above the word MODE (the three closest to the front of the instrument) up, then back down to continue.

User-Selectable Diagnostics

High-level diagnostics can be run during a power-up sequence (Power-Up mode), on demand, or in a continuous loop. Table 6-3 lists and describes the VM700A user-selectable diagnostics.

Table 6-3: User-Selectable Diagnostics

Board Tested	Test Name	Description
Genlock	Status Checks	Verifies that the Genlock status register correctly represents the hardware configuration. <i>These tests must pass to run the lock tests.</i>
	NTSC (or PAL) VCO Lock	Checks the board's ability to acquire and hold lock using each VCO. The test forcefully breaks lock by toggling rapidly between internal and external sync with the genlock configured for the opposite standard. Then the genlock is configured for the standard being tested and time-to-lock is measured.
Controller	Control Registers	Checks mode, Genlock configuration, Genlock status, and filter control registers with 8-bit walking-1 and walking-0 patterns. Checks analog input register for writeability (no bus errors). Checks DVM readback register for readability.
	Overrange Detector	Checks bit 4 of the Controller interrupt register. ADC output is latched high to force the bit to set, and latched low to clear it.
	Clock Detector	Checks bit 2 of the Controller interrupt register. Disables the sample clock to cause the bit to set, then re-enables the sample clock to clear the bit.
	Clamp Counters (A–C) and Acq Sig Counters (Sig0–Sig2)	Checks the counter chips. Performs walking-1 and walking-0 tests (read and write) and checks countdown over several reads.
	Register File	Runs only on later Controller/Acquisition boards.
	State Machine Settings, Trigger, and Sequence RAM	Checks SRUN and TRUN lines of the settings RAM; control, data, and address lines of the trigger RAM. Runs a checkerboard pattern test on the trigger RAM. Tests state machine sequence RAM.
Acquisition	RAM	Fills RAM with psuedo-random sequence, then reads and verifies it.
	FIFO	Checks that data moves through the FIFO without overflow, even with processor bus contentions.
Successful completion of these tests requires that Genlock (A2) and Controller (A8) boards be operating correctly.	Load /Looping	Checks that acquisition state machine can be programmed to write the contents of temporary store into acquisition memory locations, and that it can process acquisition program GOTO instructions.

Table 6-3: User-Selectable Diagnostics (Cont.)

Board Tested	Test Name	Description
	Optional Hardware	"Pass" indicates hardware present and working; "NA" indicates hardware not available.
	External Triggers	Checks that Controller trigger RAM can be used to recognize when certain bits in the ADC data stream are set. Causes signal interrupts that are counted by the Controller's Sig0, Sig1, Sig2 counters.
	Long Acquisitions	Runs long acquisitions to verify interaction of Controller and Acquisition state machines.
	Sample Dropping	Uses Controller state machine to toggle offset level (a dynamic setting on the Analog Input board), while a long acquisition runs. Analyzes the acquired data to detect missing samples.
ADC Successful completion of these tests requires that Genlock (A2), Controller (A8), and Acquisition (A7) boards be operating correctly. Tests involving the Calibration DAC require that the Analog Input (A1) board be operating correctly.	Mode Checks	Output latches in all zeros, all ones, normal, and overflow-bit modes and checks the ADC output by running an acquisition and scanning acquired data. The overflow bit test generates a drive level to overrange the board, then acquires data and checks to verify that the board's overrange bit was set.
	Bit Patterns	Generates a calibration DAC drive level that produces an ADC level corresponding to the bit pattern shown in the individual test. The diagnostic runs a long acquisition and searches the acquired data for the individual test's bit pattern.
Analog Input Successful completion of these tests requires that Genlock (A2), Controller (A8), and Acquisition (A7) boards be operating correctly.	DVM	Calibrates the DVM to the standard gating patterns for both TV standards (and the gating pattern that enables the DVM for all video lines) using a precise 1.000 volt reference and ground. ^a
	DC Paths	Checks that a nominal DC voltage can be routed through each input channel to the ADC.
	Gain Control	Checks gain control range and bit weights. ^b
	Calibration DAC	Checks the range and bit weights of the calibration DAC.
Analog Input (cont)	Offset Control	Checks the range and bit weights of the offset-control DAC.
	Input Selection	Checks the input selection switch by setting the channel bias DACs to different levels on each channel and measuring the net bias for each switch setting.

Table 6-3: User-Selectable Diagnostics (Cont.)

Board Tested	Test Name	Description
	Bias Control Range (for each channel)	Checks each channel's bias control DAC for range and bit weights. Verifies each DAC for independence by changing the other two and monitoring the one being tested to verify that its range and bit weight remain unchanged.
	Clamp (for each channel)	Checks each channel's clamp level DAC for range and bit weights. Verifies each DAC for independence by changing the other two and monitoring the one being tested to verify that its range and bit weight remain unchanged. Measures fast- and slow-clamp response time by timing a 100 mV clamp-level change. Verifies fast clamping at each possible clamp-pulse width.
Filter	Times 8 Gain	Using the ADC, two Cal DAC DC levels are measured with x8 gain off, two more with it on, and the gain is calculated from the ratio of the differences.
Successful completion of these tests requires that Genlock (A2), Controller (A8), Acquisition (A7), and Analog Input (A1) boards be operating correctly.	Filter Slot <i>n</i> (for slots 0 through 5)	Slot 0 is a bypass path, rather than a filter slot. These tests include filter ID and frequency response sub-tests.
		The filter ID sub-test checks instrument firmware to determine the TV standard and release version. This information is used by the diagnostic to determine valid filter IDs for each slot. The frequency response sub-test generates a psuedo square-wave signal by switching channel input between A and B, with each channel input clamped to a different DC level. The signal is routed through the filter slot under test to the ADC, acquired, and analyzed. Discrepancies are displayed on screen. When an empty slot is correctly identified, this test displays NA.

^a Each gating pattern has a different number of active video lines, so the ratio of the NTSC-pattern cal factor to always-on pattern equals the ratio of NTSC pattern active lines to the always-on pattern number. Likewise for PAL.

^b Range is the arithmetic sum of the measured bit weights, and bit weights are measured as the effect of toggling only the indicated bit.

Diagnostics Selection File. The Diagnostics Selection file allows you to specify the high-level diagnostics that run automatically at power-up. When the VM700A is powered on, the diagnostics selected in the Diagnostics Selection file are run. The contents of the Diagnostics Selection file are shown in Figure 6-2.

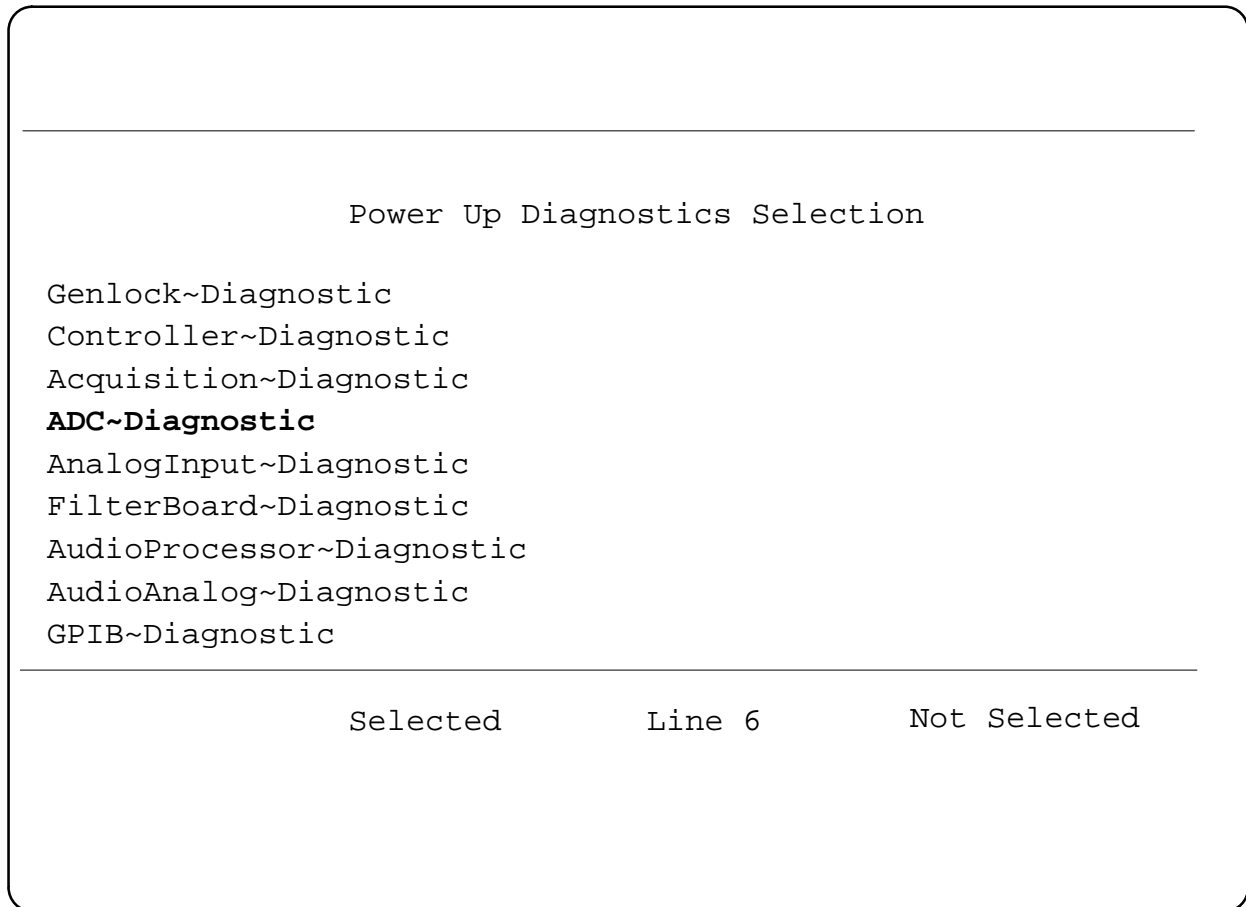


Figure 6-2: Power-Up diagnostics selection display ¹

All diagnostic routines on the “Selected” side execute at power up. To select or unselect a diagnostic from the Diagnostics Selection file:

1. Press the Configure button.
2. Press the Configure Files softkey.
3. Select the Diagnostics Selection file.
4. Turn the control knob until the diagnostic’s name is highlighted. Touching the vertical center of the left half of the screen selects the highlighted diagnostic; touching the vertical center of the right half unselects it.

¹ The AudioProcessor “Diagnostic and AudioAnalog” Diagnostic selections are available only with the VM700A Audio option. GPIB-Diagnostic is available only with the VM700A GPIB interface option.

5. Press the Update & Exit softkey to write out (save) any changes to the file; press the No change & Exit softkey to leave the file as it was when it was last saved.

Running User-Selectable Diagnostics on Power-Up. When the VM700A is powered on, the diagnostic routines selected in the Diagnostics Selection file run automatically after the low-level diagnostics are completed.

Bypassing User-Selectable Diagnostics on Power-Up. You may bypass the power-up diagnostics. Doing so shortens the power-up sequence, but it also prevents the VM700A from performing self tests at power-up. To bypass all power-up diagnostics (both low-level and high-level), press and hold the Waveform button when you power up the VM700A. If the VM700A is being started cold, hold the button for three to five seconds; if the VM700A is already warmed up, one or two seconds should do it.

The VM700A displays the message:

```
—*—*—INITIALIZING IN QUICK START MODE—*—*—
```

then proceeds with system initialization.

To bypass each user-selectable diagnostic, press the Abort Diagnostic softkey when that diagnostic is running. The VM700A proceeds to the next selected diagnostic in the Diagnostics Selection file. After the last selected diagnostic either runs or is aborted, the VM700A proceeds with system initialization.

Running Individual Diagnostics. You may run individual, user-selectable diagnostics on demand either by pressing the Measure button during normal instrument operation or by powering the instrument up with the Measure button held in.

To run a specific diagnostic during normal instrument operation:

1. Press the Measure button.
2. Press the Diags soft key.

The contents of the VM700A Diagnostics directory are displayed. They include the user-selectable diagnostics available on power-up (listed in the Diagnostics Selection file), the DiagsLoop routine (described later in this section), and the routines AdcGain Adjustment, CalDAC adjustment, Measure Sine wave, and Measure Square wave (described in the section *Verification and Adjustment*, elsewhere in this manual).

Each diagnostic consists of a series of tests, and each series is organized into test families. When running individual diagnostics, you have two display choices: Power-Up Mode and Interactive Mode. These are described below.

To run a diagnostic, touch the icon representing that diagnostic in the directory window. When each diagnostic starts, you are prompted to select a run mode from the softkeys at the bottom of the screen. The available choices are:

Power-Up Mode. Runs the selected diagnostic the same way it would run during power-up. Power-Up Mode, when selected, displays the Change Run Mode softkey. Touching the Change Run Mode softkey returns you to the SELECT RUN MODE screen.

Power-Up Mode displays a line for each family of tests that passes. If any of the tests within the family fail, Power-Up Mode pauses, displays a list indicating which tests passed or failed, then displays two additional softkeys labeled Continue and Rerun Test. Continue resumes the diagnostic. Rerun Test repeats execution of the test family. Certain of the diagnostics will also display the message Automatically Continues in 60 Seconds after a failure and count down as the time elapses.

When all the tests within a diagnostic routine have been completed, the Select Run Mode screen is displayed.

Interactive Mode. Provides a greater level of detail for most tests within a diagnostic routine than Power-Up Mode. Interactive Mode, when selected, displays the Change Run Mode softkey. Touching the Change Run Mode softkey returns you to the SELECT RUN MODE screen.

Interactive Mode lists all tests within each test family, and indicates whether each test passed or failed. Upon completion of each family of tests, Interactive Mode pauses and displays two additional softkeys, labeled Continue and Rerun Test. Continue resumes the diagnostic. Rerun Test repeats execution of the test family.

When all the tests within a diagnostic routine have been completed and the Continue softkey is selected, the Select Run Mode screen is displayed.

Running User-Selectable Diagnostics Continuously (DiagsLoop). You may, at times, want to run the user-selectable diagnostics continuously. Continuous (or looped) diagnostics are useful if you are looking for intermittent errors. The DiagsLoop application is located in the VM700A Diagnostics directory. DiagsLoop repeatedly runs the diagnostic routines selected in the Diagnostics Selection file.

DiagsLoop displays the same level of information as the Power-Up Mode of individual diagnostic execution, but DiagsLoop does not pause when failures occur. Results from all failed tests are written to the Diagnostic Errors file. To stop DiagsLoop execution, press the Abort Looping softkey.

The Diagnostic Errors File When user-selectable diagnostics are run at power-up or during DiagsLoop, all errors detected are written to the Diagnostic Errors file, found in directory /nvram0/ConfigFiles. The Diagnostic Errors file is automati-

cally created when an error is detected by user-selectable diagnostics. The contents of this file may be printed using the Print File softkey.

NOTE. *The maximum capacity for the Diagnostic Errors file is 100 lines. If the number of errors detected produces a longer file, the earliest results are scrolled out, and a message stating that fact is included.*

Auto Reset (Running All Diagnostics) If a malfunction causes the VM700A to reinitialize during normal operation, the VM700A tries to initialize in Auto Reset mode. This mode forces execution of all diagnostics, both low- and high-level, regardless of the state of the Diagnostics Selection file.

Forcing Auto Reset If all diagnostic routines in the Diagnostics Selection file are set to Not Selected, no diagnostics run at power up. If the VM700A does not complete system initialization because of a fault, the diagnostics are not available to assist in isolating the problem. In this case, you can use the following procedure to force Auto Reset mode to ensure that all diagnostic routines run at power up, regardless of the state of the Diagnostics Selection file.

To force Auto Reset mode:

1. Power off the VM700A.
2. Press and hold the Auto button and power on the VM700A.
3. After about 5 seconds, release the Auto button.

The VM700A runs all low-level and user-selectable diagnostics when you force Auto Reset.

Viewing Diagnostics Remotely

You will not be able to view diagnostic results if the VM700A display either is not operating or is operating improperly. The VM700A supplies a method, known as Debug mode, to view diagnostic results on a terminal or PC should the display be malfunctioning.

In Debug mode, the VM700A redirects the low-level diagnostics display data to the rear panel PORT 0 serial connector. To view the diagnostics you must connect a terminal or PC to PORT 0. If you connect a PC, you must also run a terminal emulator program on the PC to read the output from the VM700A.

Connecting a Terminal or PC. The VM700A has two RS-232C DTE serial ports on its rear panel (see Figure 6-3). These serial ports can be used to send graphics and reports to a printer, for remote operation via a modem, or for viewing diagnostics by direct serial connection to an RS-232C device such as a terminal. Both serial port 25-pin male D connectors are located on the A5 CPU board and are accessible from the rear panel of the instrument, as shown in Figure 6-3.

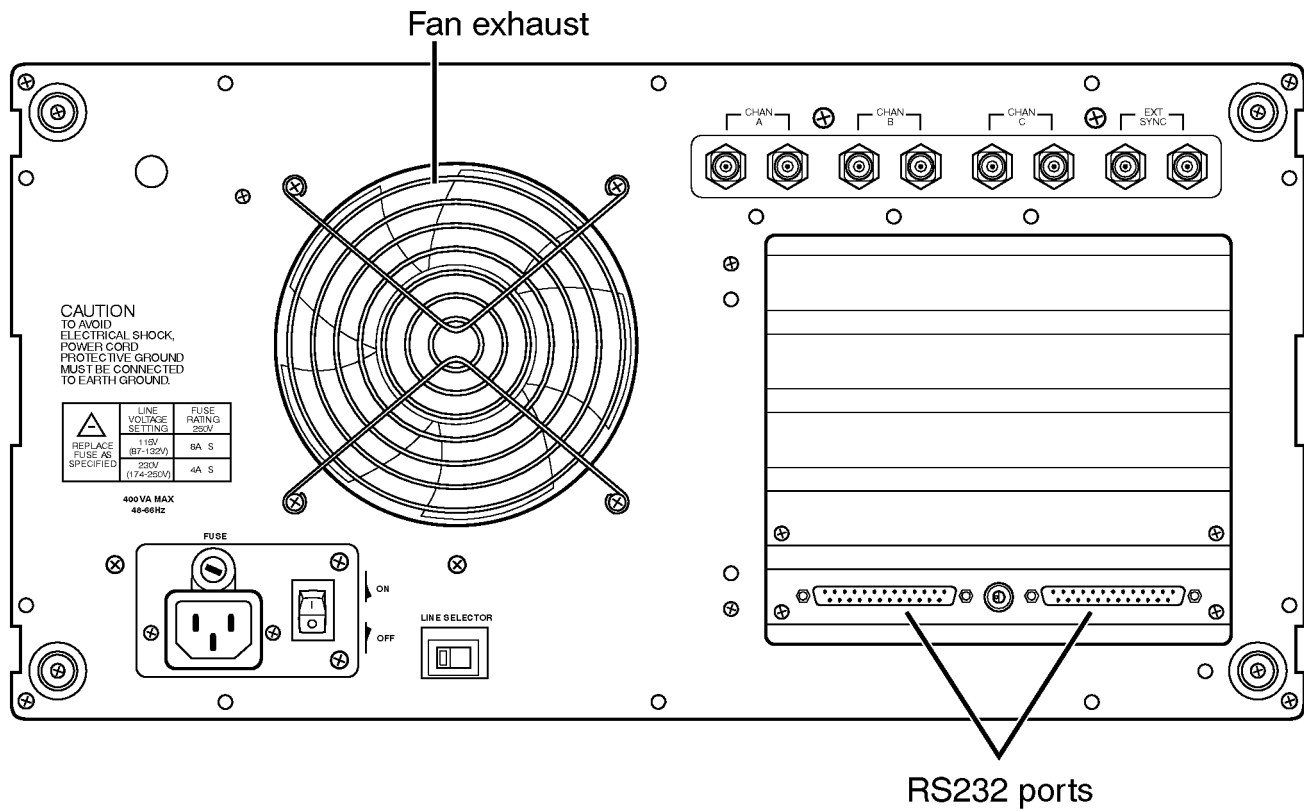


Figure 6-3: VM700A rear panel

The Communications Setup file (located in the Configure Files directory) contains the parameter settings for the serial ports. Typical Communications Setup choices for VM700A-to-PC communications are shown in Table 6-4.

Table 6-4: Typical RS-232C Cable Wiring

Parameter	Selection	Parameter	Selection
Protocol	None	Parity	None
Baud Rate	to match PC	Reset Character	Disabled
Flow Control	XON/XOFF	Carrier Detect	Disabled
Character Size	8		

NOTE. Not all RS-232C devices use control lines as described in this section. Refer to the instruction manual of the equipment you are connecting (for example, a terminal) to the VM700A to determine exactly how it should be connected.

Table 6-5 lists cable configurations that should work in most cases. The pin numbers listed for the Terminal (DTE) are the most common locations for the corresponding signals.²

Table 6-5: Typical RS-232C Cable Wiring

VM700A (DTE) to Terminal (DTE)		VM700A (DTE) to Modem (DCE)	
VM700A Pin No.	Terminal Pin No.	VM700A Pin No.	Modem Pin No.
1	1 (Chassis GND)	1	1
2	3 (RX)	2	2
3	2 (TX)	3	3
4	5 (CTS)	4	4
5	4 (RTS)	5	5
7	7 (Signal GND)	7	7
20	6 (DSR) ^a	8	8
		20	20

^a This connection may not be needed.

Serial Port Signal Description. This information describes the signals the VM700A transmits and the input signals it requires on all active serial port pins.

Pin 1 — Chassis Ground

Pin 2 — TX (Transmit Data). The VM700A transmits data on this pin.

Pin 3 — RX (Receive Data). The VM700A receives data on this pin.

Pin 4 — RTS (Request To Send [data to the VM700A])

- With Flow Control: CTS/RTS selected, RTS normally connects to the CTS line of a terminal and is active when the VM700A is ready to receive data. When the receive buffers are nearing capacity, RTS goes inactive, indicating to the sending device to stop transmitting data to the VM700A. Conversely, when the receive buffers are nearly empty, RTS goes high, telling the sending device to resume sending data to the VM700A. This process continues until data transfer is completed.

² Both ends of a DTE-to-DTE cable are usually female DB-25 connectors. However, the DTE-to-DCE cable is female on the DTE (VM700A) end, and usually male on the DCE (modem) end.

- With Flow Control: None or XON/XOFF selected, RTS is always active.

Pin 5 — CTS (Clear To Send)

- With Flow Control: CTS/RTS selected, the VM700A is enabled to transmit data by a high level on pin 5 and is disabled by a low level. Pin 5 is normally connected to the RTS line of a terminal.
- With Flow Control: None or XON/XOFF selected, the VM700A transmits data regardless of the CTS level.

Pin 7 — Signal Ground

Pin 8 — CD (Carrier Detect). This signal typically comes from a modem and indicates that a phone connection is made.

Pin 20 — DTR (Data Terminal Ready). This pin is always high when the VM700A is powered on. Modems typically require this signal to be a high level to answer the phone.

If you are connecting a PC to the VM700A, you will also have to run a terminal emulator program in order to read what the VM700A outputs.

Entering Debug Mode. If the front panel buttons are not operating, you may enter Debug mode using this procedure:

1. Switch the VM700A power off.
2. Remove the VM700A from the equipment rack (if rack-mounted).
3. Remove the two screws from the rear panel that retain the left side cover (viewed from the front of the instrument).
4. Slide the left side cover about two-thirds of the way back.
5. On the A5 CPU board (bottom board) locate the six-section DIP switch with the markings "FAC|MODE|" printed on the circuit board in front of it.
6. Set the three rightmost switches (nearest the front of the instrument) to the UP position to enable Debug mode.
7. Power on the VM700A.

If the front panel buttons are operating, you may enter Debug mode using this procedure:

1. Power off the VM700A.
2. Press and hold the Help push button while powering the VM700A on.
3. After about 5 seconds, release the Help push button.

The terminal or PC displays the same menu (shown below), regardless of how you enter Debug mode.

In Debug mode, diagnostic information is redirected to serial port 0. To direct Debug mode output to PORT 1, set the switch above the “C” on the “FAC|MODE|” DIP switch to the UP position.

Running Diagnostics in Debug Mode. When the VM700A first enters Debug mode, the menu shown in Figure 6-4 appears on the terminal screen:

```

-- DEBUG MODE --

Key                Selection
(N) ... Boot Instrument in NORMAL (Power Up) mode
(A) ... Boot Instrument in AUTO RESET mode
(Q) ... Boot Instrument in QUICK START mode
(T) ... Run TOUCHPANEL Calibration
(D) ... -CLEAR- FileSystem Nvram

(1) ... Run CPU Board Diagnostic
(2) ... Run Display/FP Board Diagnostic
(3) ... Run Main Rom Board Diagnostic

(H) ... Run Instrument in HIGH LEVEL DEBUG mode

(-) ... Reprint Menu

*** Press one of the indicated keys ***

```

Figure 6-4: Debug Mode Display Viewed from a Terminal or PC

The following options are available from within Debug mode by pressing the indicated key:

N - Normal (Power-Up) Mode – causes the VM700A to initialize as though the instrument was just powered up. This mode runs the low-level diagnostics, starts the operating system, then runs all high-level diagnostics specified in the Diagnostics Selection file.

A - Auto Reset Mode – executes all user-selectable diagnostic routines, regardless of the state of the Diagnostics Selection file. This mode operates just like Normal (Power-Up) Mode, except all high-level diagnostics are run.

Q - Quick Start Mode – initializes the VM700A (or attempts to) without running any diagnostics, low- or high-level.

T - Touch Panel Calibration – runs a routine that calibrates the touch panel to compensate for changes in thermal environment.

D - Debugger – Intended for factory service personnel only.

C - CLEAR- FileSystem Nvram – restores the file system to its original factory configuration.



CAUTION. Any changes made to the NVRAM file system will be lost if option (C) is selected.

1 (CPU Board), 2 (Display/FP Board), 3 (Main Rom Board) – These selections run the specified low-level diagnostics in a manner similar to the Interactive mode of user-selectable diagnostics. Upon completion of each test, the VM700A pauses with the prompt message:

*** Press a Terminal key to continue ***

While each low-level diagnostic runs in Debug mode, the terminal display is nearly identical to the corresponding VM700A display during a normal (non-Debug mode) power-up. When the diagnostic routine completes all its tests, the terminal displays the Debug mode main menu once more.

H - High Level Debug Mode – powers up the VM700A without running any diagnostics, and takes you straight to the /nvram0/VM700A Diagnostics directory. From this point, you can run any diagnostic, or use the softkeys to get to the Console or Diagnostic Error files.

NOTE. If you want to use the VM700A after running it in High Level Debug mode, power the instrument down and start it back up again normally to guarantee that all internal constants set during the power-up procedure are correct.

Serial Port Setup for Low-Level Diagnostics, Debug Mode. In Debug mode, the low-level diagnostics use the four possible settings of two jumpers on the A5 CPU board to determine the transmit and receive baud rates when the instrument is initialized. Table 6-5 specifies the baud rates available with these jumpers.

Table 6-6: A5 CPU Board Jumper Settings

Jumper 1 (J308)	Jumper 2 (J307)	Transmit Baud Rate	Receive Baud Rate
On	On	If settings are stored in non-volatile memory (Communication Setup file), they are used. Otherwise, both transmit and receive default to 19,200 baud.	
On	Off	19200	19200
Off	On	300	19200
Off	Off	300	300

NOTE. When you use one of the non-default jumper states (i.e., J307 or J308 set to OFF), the following communication parameter settings are used: protocol none; character size 8; flow control XON/XOFF; parity none; reset character none.

Viewing Stored Diagnostic Information

If the VM700A diagnostics detect a problem, the Console and the Diagnostic Errors files may contain information useful for troubleshooting a problem (the Diagnostic Errors file was explained previously).

The Console File. Whenever the VM700A initializes, information is stored in the console file, located in the / directory (the topmost). If a malfunction causes the VM700A to auto reset, the console file could contain useful information. You can use the Print File softkey to make a copy of the console file. The console file is rewritten each time the VM700A is powered on.

After comparing the failure symptoms with the information in Table 6-1 and running the self-test diagnostics, you may use the removal and replacement procedures given in Section 5 to remove and replace the faulty module. Return faulty VM700A modules to your Tektronix service center for exchange.

Troubleshooting the CPU Board

The CPU board has 8 status LED that are used by the low-level diagnostics to display error codes. These status LED can be viewed by removing the left-side instrument cover. The errors code in Table 6-7 are displayed by the status LED (O is lit; X is off):

Table 6-7: CPU Board Diagnostic LED Display Code

Code	Description
00000000	No Error (normal operation)
OXXXXXXX	mDelay() routine failed (this routine uses the real-time clock to calibrate a counter for short time delays)
XXXXXXO	Real-time clock failure: clock not running
XXXXXXOX	Real-time clock failure: clock running too fast
XXXXXXOO	Real-time clock failure: clock running too slow
XXXXXXOX	Real-time clock failure: invalid data returned from clock chip

Troubleshooting the OEM Power Supply

The VM700A purchased power supply is a 100 kHz switching supply capable of delivering more than 350 watts. The power supply is not field repairable. Repairs to the VM700A for power supply problems are done by board exchange. For information on exchanging this or other VM700A modules, see *Exchanging VM700A Modules* earlier in this manual.

You may view the indicators by sliding the right-side instrument cover back about 8 inches and looking through the metal cutout provided. The four red and six green LED supply the information listed in the table. A short in a power supply circuit is indicated when the associated green status LED fails to light.

Table 6-8: Power Supply LED Indicators

Red LED	Green LED ^a
Under volts (UV)	-15.0 V
Over volts (OV)	-5.2 V
Over Current (OI)	5.0 V
Over Temp (OT)	12.0 V
	15.0 V
	18.0 V (Keep Alive)

^a A short in a circuit is indicated when the associated green status LED fails to light.

Isolating a Power Supply Fault. The following procedure may be used to determine if a power supply problem is caused by an external problem or the power supply itself has failed.

1. Determine if the fault is caused by the power supply or by an external loading problem such as a shorted circuit board or reversed connector. Experiment by removing circuit boards one at a time to see if the power supply operates or status lights change.
2. If the power supply operates only with all circuit boards disconnected, either the supply can't deliver power to its load or the external load exceeds the rated specifications.
3. Exchange the power supply module and retest.



WARNING. High voltages are present inside the VM700A chassis. These voltages can cause serious injury. Leave all service procedures that require removing instrument covers to qualified service personnel.

Interpreting the Red Fault LED on the Power Supply. UV and OV—Lighted under-voltage (UV) and over-voltage (OV) LED usually indicate a power supply failure. To check for this condition isolate the power supply from the instrument (remove boards and disconnect the cables to the power supply) to verify whether the fault is in the supply or outside. When you locate the problem module, return it for repair.

For information on removing boards or power supply cables, see the *Removal and Replacement Procedures*.

OI—A lighted over-current LED (OI) can be caused by an external load greater than the supply can deliver, or by failure of the supply to deliver its rated load. To check for this condition, remove instrument circuit boards and cycle the power off and on to determine if the fault is caused by a shorted component on a circuit board. If the over-current fault goes away after you remove a board or cable assembly from the instrument, that assembly is probably the faulty module. Return it for replacement or repair.

OT—A lighted over-temperature LED (OT) is also displayed on the instrument's front panel on-off switch plate.

Constant air flow is needed to keep power supply temperatures in an operational range. The power supply has a temperature-sense circuit that shuts the unit down before high temperatures can damage sensitive circuits. If the over-temperature LED is lit the following conditions may exist:

- The cooling fan may have failed or wires to the fan may not be connected to the proper drive pins. If the fan fails to run, check for a fan-drive voltage of 12 to 24 volts. Remove the cooling fan power connector at the power supply to see if the voltage on the connector pins is correct. Because the fan operates on 24 Vdc, it can be checked with an external bench supply.
- Air filters in the instrument's front bezel may be clogged, limiting air flow through the instrument and causing a rapid increase in internal temperatures. This may shut the instrument down after about 3 to 5 minutes. Using a mini-vacuum cleaner, remove dust from the filters. For information on cleaning the front bezel air filters, see *Cleaning the Touch Screen and Front Bezel Air Filters*.
- The power supply may be overheating because of extreme loading conditions. Check the OI status LED and isolate the faulty load by removing boards and disconnecting power supply cables.
- The fan-drive circuit may be faulty. Check the drive wires to the fan for a 12 to 28 volt drive signal. Remove and replace the power supply if it is faulty.

For information on how to return defective instrument modules to Tektronix for repair, see *Exchanging VM700A Modules*.

Troubleshooting the CRT Display

The display module is a 9-inch diagonal, 640 x 480 pixel, monochrome CRT unit. The display is adjusted at the factory for optimum viewing brightness. The interactive touch screen is attached in front of the CRT. It can be removed for replacement of the touch screen or the display module, if necessary.

If the CRT display fails, the faulty unit must be removed and replaced. Refer to the following procedure to determine if the CRT display is faulty.

Isolating a CRT Display Fault. Two types of CRT display failures can occur:

- No display (blank screen)
- No display and POWER SUPPLY FAIL LED lit

For no display (blank screen) CRT display symptoms, follow this procedure:

1. Make sure that +12 V is present on pin 7 of the CRT display connector (on the back of the display module). If +12 V is not present, remove the 10-pin drive connector to see if the +12 V comes up. If it does, the CRT display may be loading the power supply.
2. With an oscilloscope, probe pins 6 (horizontal sync), 8 (video), and 9 (vertical sync) of the CRT display connector for valid drive signals.
3. Adjust the brightness and contrast controls on the bottom of the CRT display unit to see if they affect the display.
4. Swap the display memory board (A9) with another display memory board to verify that the fault lies in the CRT display.

For blank screen and lighted POWER SUPPLY FAIL LED symptoms, follow this procedure:

1. Switch the instrument power off at the rear-panel switch.
2. Disconnect the CRT 12 V power connector (P3) at the power supply and switch instrument power on to see if the monitor was loading the power supply. If the POWER SUPPLY FAIL LED is no longer lit with the 12 V cable disconnected, replace the CRT display module.

For information on replacing the CRT display module, see *Removing and Replacing Display and Control Components* in Section 5.

When a CRT display module is replaced, minor adjustments may be necessary to center the display or fine-adjust its brightness level. Refer to Procedure 5: *Adjusting the Display* in Section 4 if readjustment is needed.

After replacing the touch screen, recalibrate it by holding down the Configure button while switching instrument power on. Follow the instructions on the VM700A display.

Troubleshooting the Tektronix Power Supply

The VM700A power supply is a high efficiency switching supply. The Tektronix–manufactured power supply is a direct replacement for the OEM power supply. Circuit diagrams, a circuit description, and an electrical parts list are provided for the Tektronix–manufactured power supply; however, it is not a field repairable module. Field repairs to a VM700A with a power supply problem are done by board exchange. For information on exchanging the power supply or other VM700A modules, see *Exchanging VM700A Modules*.

Front Panel Check. Check the LED indicators over the front panel STBY/ON switch (see Figure 6-5). One red LED is an over temperature warning and the other is a power supply failure indicator. If the green Power indicator is on, primary power is applied, the line fuse is good, and the housekeeping voltage supply is operating. If no indicators come on, either the primary power circuitry has failed or the master ON/OFF switch is OFF. Check the line fuse and the master ON/OFF switch to make sure it is on. Also make sure the Line Voltage Selector switch is set to the correct supply voltage. If the Line Voltage Selector was not set to the correct setting, the fuse may have opened. If the line fuse is good, the master switch is ON, the Line Voltage Selector set correctly, and the power supply still does not operate, troubleshoot the power supply.

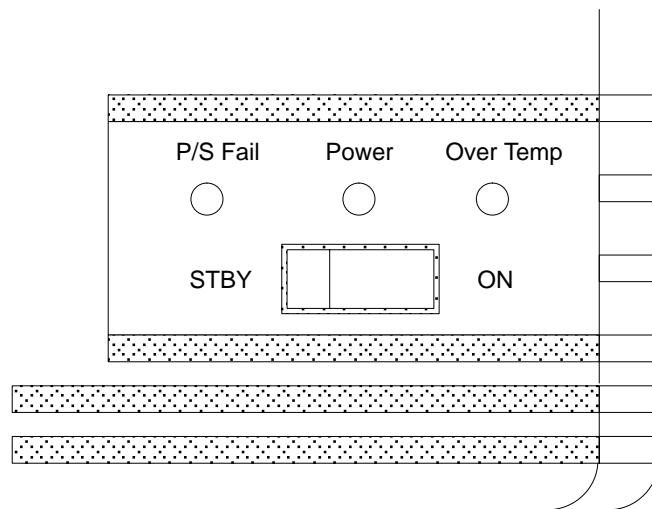


Figure 6-5: Front-panel power supply and over temperature indicators

If the Over Temp indicator is on and the instrument is still operating, then an over temperature condition exists. If the temperature continues to rise a power supply shutdown may occur. The over temperature warning occurs at about 50°C, and the power supply will shut down at about 60°C. The ambient temperature may be too high to operate the VM700A or the flow of cooling air is cut off or restricted. The VM700A should be shut off to let it cool down before a shutdown occurs.

Checks. Check that the VH (housekeeping supply) LED indicator comes on (see Figure 6-6). If it does not come on, replace the power supply. See the *Removal and Replacement* procedures for removal of the power supply.

Check the green LED indicators on the power supply. Each voltage supply is provided with an indicator to show that the associated voltage is up. All the green indicators should be on for normal operation of the power supply.

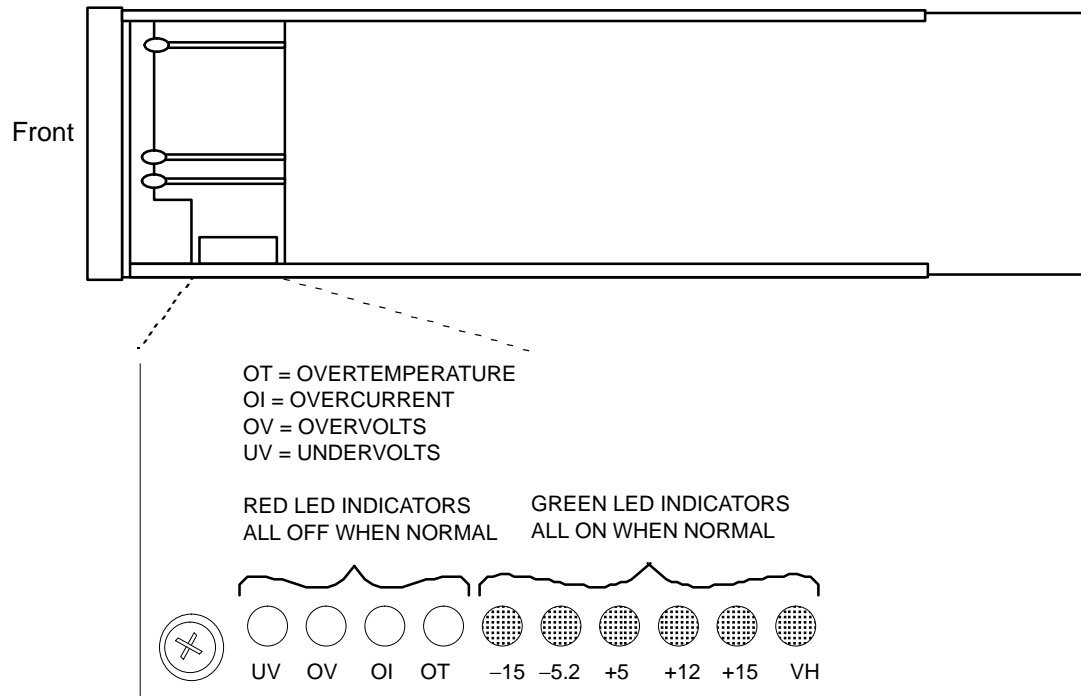


Figure 6-6: Power Supply LED indicators

Check that none of the RED indicators are lit. If any are on, a power supply problem is indicated.

If the VH (housekeeping voltage) LED is on and the other green voltage indicators are flashing on and off, check the status of the OI (over current) LED.

If the OI LED is flashing or on solid, there may be excessive loading on the power supply by the VM700A circuitry. See Table 6-9 for checks and actions for the various trouble indications.



CAUTION. Turn off the VM700A before removing or installing any circuit board.

Internal Check. If the PS Fail indicator is on, there is a power supply problem. Turn off the master ON/OFF switch on the rear panel of the VM700A and remove the holding screws from the right side (as viewed from the front) cover. Slide the cover back about 8 inches to gain visual access to the power supply LED indicators. Locate the power supply LED indicators near the front at the bottom of the chassis (see Figure 6-6). Turn the master ON/OFF switch back ON.

Table 6-9: Power Supply Trouble Indicators

Indicator	Checks	Action
Undervoltage LED on	Check Supply LED indicators to check for a missing supply voltage.	Replace power supply using board exchange. For information on how to return defective instrument modules to Tektronix for repair, see <i>Exchanging VM700A Modules</i> .
Over Voltage LED on	Check that all the green Supply LED indicators are off except the VH LED. The supply will be in shutdown mode.	Turn the master ON/OFF switch off and back on to recycle the power supply shutdown control circuitry. Check that the power supply operates normally after power is reapplied and the front-panel STBY/ON switch is turned on. If not, replace the power supply.
Over Temperature LED on	<p>Check Supply LED indicators to see if an over temperature shutdown has occurred. The green LED indicators for the supply will be on if a shutdown has not yet occurred. Check that the fan is operating.</p> <p>Over temperature shutdown of the supply will occur at about 10°C over the warning temperature. At that point, all the green power supply indicators except the VH LED will be off.</p>	<p>Turn off the master ON/OFF switch and let the VM700A cool down before restarting the power. When the power comes back on check that the fan operates and that the power supply operates correctly.</p> <p>Check the air filters in the instrument's front bezel. If they become clogged, the lack of air flow may cause overheating. Use a mini-vacuum cleaner to remove the dust from the filters. For more information on cleaning the front bezel air filters, see <i>Cleaning the Touch Screen and Front Bezel Air Filters</i>.</p>
Over Current LED on	Check for flashing supply LED indicators.	<p>Check for possible excessive loading on a power supply by the VM700A. Troubleshoot the VM700A for excessive loading problems. Circuit boards may be unplugged, one at a time, to check for board related loading. If the over current fault goes away after you remove a circuit board or disconnect a cable assembly from the instrument, that circuit board may be the faulty module. Replace with a known good module to check. Return a faulty module for replacement or repair.</p> <p>Minimum load to maintain operation of the power supply is 30 W total including at least a 10 W (2A) load on the +5.1 V supply.</p>



WARNING. High voltages present inside the VM700A chassis can cause serious injury. All service procedures that require removing instrument covers should be done only by a qualified service person.

Power Supply Voltage and Ripple Checks. To check the power supply for voltage and ripple tolerances, the bottom cover of the VM700A must be removed. Turn off the VM700A and remove the bottom cover. Use Figure 6-7 to locate the

power supply voltage test points; refer to Table 6-10 for the tolerance and ripple values.

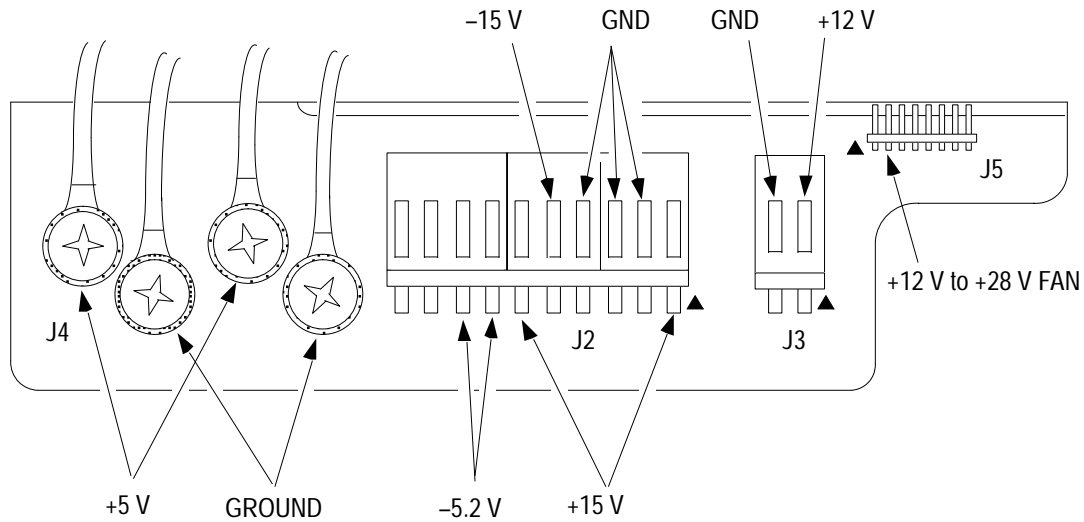


Figure 6-7: Power Supply test points

Table 6-10: Power Supply Voltages

Voltage	Tolerance @ Standard Load	P.A.R.D. Max ^a (mV) (Ripple)	Circuitry Supplied
+5 Vdc	±1% @ 18A	150	TTL Logic
+15 Vdc	±2% @ 1 A	120	Analog
-15 Vdc	±2% @ 1.2 A	120	Analog
+12 Vdc	±2% @ 1 A	150	Display
12 to 30 Vdc			Fan Drive
-5.2 Vdc	±3% @ 5 A	150	ECL Logic
VH	14.4 V @ 50 mA ^b		Control Circuitry

^a Total Periodic and Random Deviations (Pard) measured at the power supply output connector includes peak-to-peak noise, ripple, switching spikes, etc., within a bandwidth from 5 Hz to 20 MHz.

^bThe housekeeping voltage (VH) is 11.4 V before the rest of the power supply comes on line.

Section 7: Replaceable Electrical Parts List

Replaceable Electrical Parts

This section contains a list of the components that are replaceable for the VM700A. Use this list to identify and order replacement parts. There is a separate Replaceable Electrical Parts list for each instrument.

Parts Ordering Information

Replacement parts are available from or through your local Tektronix, Inc., Field Office or representative.

Changes to Tektronix instruments are sometimes made to accommodate improved components as they become available and to give you the benefit of the latest circuit improvements. Therefore, when ordering parts, it is important to include the following information in your order.

- Part number
- Instrument type or model number
- Instrument serial number
- Instrument modification number, if applicable

If a part you have ordered has been replaced with a new or improved part, your local Tektronix, Inc., Field Office or representative will contact you concerning any change in part number.

Change information, if any, is located at the rear of this manual.

Using the Replaceable Electrical Parts List

The tabular information in the Replaceable Electrical Parts list is arranged for quick retrieval. Understanding the structure and features of the list will help you find all of the information you need for ordering replaceable parts.

Cross Index–Mfr. Code Number to Manufacturer

The Mfg. Code Number to Manufacturer Cross Index for the electrical parts list is located immediately after this page. The cross index provides codes, names, and addresses of manufacturers of components listed in the electrical parts list.

Abbreviations

Abbreviations conform to American National Standards Institute (ANSI) standard Y1.1.

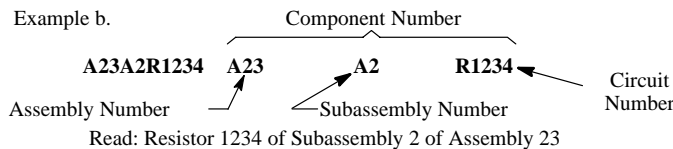
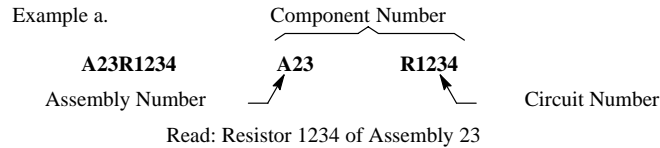
List of Assemblies

A list of assemblies can be found at the beginning of the electrical parts list. The assemblies are listed in numerical order. When the complete component number of a part is known, this list will identify the assembly in which the part is located.

Column Descriptions

Component No. (Column 1)

The component circuit number appears on the diagrams and circuit board illustrations, located in the diagrams section. Assembly numbers are also marked on each diagram and circuit board illustration, in the Diagram section and on the mechanical exploded views, in the mechanical parts list. The component number is obtained by adding the assembly number prefix to the circuit number.



The electrical parts list is arranged by assemblies in numerical sequence (A1, with its subassemblies and parts, precedes A2, with its subassemblies and parts).

Mechanical subparts to the circuit boards are listed in the electrical parts list. These mechanical subparts are listed with their associated electrical part (for example, fuse holder follows fuse).

Chassis-mounted parts and cable assemblies have no assembly number prefix and are located at the end of the electrical parts list.

Tektronix Part No. (Column 2)

Indicates part number to be used when ordering replacement part from Tektronix.

Serial/Assembly No. (Column 3 and 4)

Column three (3) indicates the serial or assembly number at which the part was first used. Column four (4) indicates the serial or assembly number at which the part was removed. No serial or assembly number entered indicates part is good for all serial numbers.

Name and Description (Column 5)

An item name is separated from the description by a colon (:). Because of space limitations, an item name may sometimes appear as incomplete. Use the U.S. Federal Catalog handbook H6-1 for further item name identification.

The mechanical subparts are shown as *ATTACHED PARTS* / *END ATTACHED PARTS* or *MOUNTING PARTS* / *END MOUNTING PARTS* in column five (5).

Mfr. Code (Column 6)

Indicates the code number of the actual manufacturer of the part. (Code to name and address cross reference can be found immediately after this page.)

Mfr. Part No. (Column 7)

Indicates actual manufacturer's part number.

Cross Index – Mfr. Code Number To Manufacturer

Mfr. Code.	Manufacturer	Address	City, State, Zip Code
00213	MSD INC	700 ORANGE ST	DARLINGTON, SC 29532
00261			
00779	AMP INC	2800 FULLING MILL PO BOX 3608	HARRISBURG PA 17105
01295	TEXAS INSTRUMENTS INC SEMICONDUCTOR GROUP	13500 N CENTRAL EXPY PO BOX 655303	DALLAS TX 75262-5303
01686	RCL ELECTRONICS/SHALLCROSS INC SUB OF HIRSCH AND ASSOCIATES INC	195 MCGREGOR ST	MANCHESTER NH 03102-3731
02111	SPECTROL ELECTRONICS CORP	4051 GREYSTONE DRIVE	ONTARIO, CA 91761
02113	COILCRAFT INC	1102 SILVER LAKE RD	CARY IL 60013-1658
02660	AMPHENOL CORP INDUSTRIAL TECHNOLOGY DIVISION (ITD)	720 SHERMAN AVENUE	HAMDEN CT 06514
02875	HUDSON TOOL AND DIE CO INC	18 MALVERN ST	NEWARK NJ 07105-1511
03877	GILBERT ENGINEERING CO INC	5310 W CAMELBACK RD	GLENDALE, AZ 85301-7503
04222	AVX/KYOCERA DIV OF AVX CORP	19TH AVE SOUTH P O BOX 867	MYRTLE BEACH SC 29577
04426	ITW SWITCHES DIV OF ILLINOIS TOOL WORKS INC	6615 W IRVING PARK RD	CHICAGO IL 60634-2410
04713	MOTOROLA INC SEMICONDUCTOR PRODUCTS SECTOR	5005 E MCDOWELL RD	PHOENIX AZ 85008-4229
05276	ITT POMONA ELECTRONICS DIV	1500 E 9TH ST PO BOX 2767	POMONA CA 91766-3835
05292	ITT COMPONENTS DIV		CLIFTON NJ
05347	ULTRONIX INC	461 N 22ND ST PO BOX 1090	GRAND JUNCTION CO 81502
05464	INDUSTRIAL ELECTRONIC ENGINEERS INC	7440 LEMONA AVE	VAN NUYS CA 91405-1136
05791	LYN-TRON INC	3150 DAMON WAY	BURBANK CA 91505-1015
06090	RAYCHEM CORP	300 CONSTITUTION DRIVE	MENLO PARK CA 94025-1111
07716	IRC, INC	2850 MT PLEASANT AVE	BURLINGTON IA 52601
09023	CORNELL-DUBILIER ELECTRONICS DIV FEDERAL PACIFIC ELECTRIC CO	2652 DALRYMPLE ST	SANFORD NC 27330
09353	C AND K COMPONENTS INC	15 RIVERDALE AVE	NEWTON MA 02158-1057
0BYG1	TADIRAN ELECTRONIC IND INC	40 SEAVIEW BLVD	PORT WASHINGTON NY 11050
0B0A9	DALLAS SEMICONDUCTOR CORP	4350 BELTWOOD PKWY SOUTH	DALLAS TX 75244
0C8T6	CITEL AMERICA INC	1111 PARK CENTRE BLVD SUITE 474	MIAMI, FL 33169
0GV52	SCHAFFNER EMC INC	9-B FADEM ROAD	SPRINGFIELD, NJ 07081
0H1N5	TOSHIBA MARCON ELECTRONICS AMERICA CORPORATION	998 FIRST EDGE DRIVE	VERNON HILLS IL 60061
0JR03	ZMAN MAGNETICS INC	7633 S 180th	KENT WA 98032
0JR04	TOSHIBA AMERICA INC ELECTRONICS COMPONENTS DIV	9775 TOLEDO WAY	IRVINE CA 92718
0JR05	TRIQUEST CORP	3000 LEWIS AND CLARK HWY	VANCOUVER WA 98661-2999
0J260	COMTEK MANUFACTURING OF OREGON (METALS)	PO BOX 4200	BEAVERTON OR 97076-4200
0J9P4	DELTA ENGINEERING	19500 SW TETON	TUALATIN OR 97062
0J9R2	HARISON ELECTRIC CO LTD	ASAHIMACHI 5-CHOME IMABARI	EHIME JAPAN

Replaceable Electrical Parts

Mfr. Code.	Manufacturer	Address	City, State, Zip Code
0KBZ5	MORELLIS Q & D PLASTICS	1812 16TH AVE PO BOX 487	FOREST GROVE OR 97116-0487
0KB01	STAUFFER SUPPLY	810 SE SHERMAN	PORTLAND OR 97214
0LUA3	PHILIPS COMPONENTS	100 PROVIDENCE PIKE	SLATERSVILLE, RI 02876
0MS63	QUALITY TECHNOLOGIES CORP	610 N MARY AVENUE	SUNNYVALE CA 94086
0NOK0	CALOGIC CORP	237 WHITNEY PLACE	FREMONT CA 94539
0P569	BARKER MICROFARADS INC	PO BOX 697	HILLSVILLE VA 24343
0TJ19	QUALITY SEMICONDUCTOR INC	851 MARTIN AVENUE	SANTA CLARA CA 95050-2903
11236	CTS CORPORATION RESISTOR NETWORKS DIVISION	406 PARR ROAD	BERNE IN 46711-9506
11502	IRC, INC	PO BOX 1860	BOONE NC 28607-1860
11532	TELEDYNE RELAYS TELEDYNE INDUSTRIES INC SUB OF TELEDYNE INC	12525 DAPHNE AVE	HAWTHORNE CA 90250-3308
12406	ELPAC ELECTRONICS INC	1562 REYNOLDS AVE	IRVINE, CA 92714-5612
12617	HAMLIN INC	612 EAST LAKE STREET	LAKE MILLS WI 53551
12969	MICROSEMI CORPORATION WATERTOWN DIVISION	530 PLEASANT STREET	WATERTOWN MA 02172
13103	THERMALLOY CO INC	2021 W VALLEY VIEW LN PO BOX 810839	DALLAS TX 75381
13919	BURR-BROWN RESEARCH CORP	6730 S TUCSON BLVD P O BOX 11400	TUCSON AZ 85734
14301	ANDERSON ELECTRONICS INC	PO BOX 89	HOLLIDAYSBURG PA 16648-0089
14552	MICROSEMI CORP	2830 S FAIRVIEW ST	SANTA ANA CA 92704-5948
14752	ELECTRO CUBE INC	1710 S DEL MAR AVE	SAN GABRIEL CA 91776-3825
14936	GENERAL INSTRUMENT CORP POWER SEMICONDUCTOR DIV	600 W JOHN ST	HICKSVILLE NY 11802-0709
15454	KETEMA RODAN DIVISION	2900 BLUE STAR STREET	ANAHEIM CA 92806-2591
15513	DATA DISPLAY PRODUCTS	301 CORAL CIR	EL SEGUNDO CA 90245-4620
15912	THOMAS AND BETTS CORP ELECTRONICS GROUP	76 FAIRBANKS	IRVINE CA 92718
17856	SILICONIX INC	2201 LAURELWOOD RD	SANTA CLARA CA 95054-1516
18565	CHOMERICS INC	77 DRAGON COURT	WOBURN MA 01801-1039
18612	VISHAY INTERTECHNOLOGY INC VISHAY RESISTOR PRODUCTS GROUP	63 LINCOLN HWY	MALVERN PA 19355-2120
18736	VOLTRONICS CORP	WEST STREET PO BOX 476	EAST HANOVER NJ 07936-2822
18796	MURATA ELECTRONICS NORTH AMERICA INC. STATE COLLEGE OPERATIONS	1900 W COLLEGE AVE	STATE COLLEGE PA 16801-2723
19396	ILLINOIS TOOL WORKS INC PAKTRON DIV	1205 MCCONVILLE RD PO BOX 4539	LYNCHBURG VA 24502-4535
19701	PHILIPS COMPONENTS DISCRETE PRODUCTS DIV RESISTIVE PRODUCTS FACILITY AIRPORT ROAD	PO BOX 760	MINERAL WELLS TX 76067-0760
1CH66	PHILIPS SEMICONDUCTORS	811 E ARQUES AVENUE PO BOX 3409	SUNNYVALE CA 94088-3409
1ES66	MAXIM INTEGRATED PRODUCTS INC	120 SAN GABRIEL DRIVE	SUNNYVALE CA 94086
21022	CONNOR-WINFIELD CORP	2111 COMPREHENSIVE DRIVE	AURORA, IL 60505
21847	FEI MICROWAVE INC	825 STEWART DR	SUNNYVALE CA 94086-4514

Mfr. Code.	Manufacturer	Address	City, State, Zip Code
22519	DATA DELAY DEVICES INC	3 MT PROSPECT AVE	CLIFTON NJ 07013
22526	BERG ELECTRONICS INC (DUPONT)	857 OLD TRAIL RD	ETTERS PA 17319
23875	M-TRON INDUSTRIES INC	PO BOX 630 100 DOUGLAS ST	YANKTON SD 57078-0630
24165	SPRAGUE ELECTRIC CO	267 LOWELL ROAD	HUDSON, NH 03051
24355	ANALOG DEVICES INC	1 TECHNOLOGY DRIVE	NORWOOD MA 02062
24546	DALE ELECTRONICS A VISHAY INTERTECHNOLOGY INC CO	550 HIGH ST	BRADFORD PA 16701-3737
24564			
24931	SPECIALTY CONNECTOR CO INC	2100 EARLYWOOD DR PO BOX 547	FRANKLIN IN 46131
26364	COMPONENTS CORP	6 KINSEY PLACE	DENVILLE NJ 07834-2611
26742	METHODE ELECTRONICS INC	7447 W WILSON AVE	CHICAGO IL 60656-4548
27014	NATIONAL SEMICONDUCTOR CORP	2900 SEMICONDUCTOR DR	SANTA CLARA CA 95051-0606
27264	MOLEX INC	2222 WELLINGTON COURT	LISLE IL 60532-1613
28733	CERAMIC MAGNETICS INC	16 LAW DR	FAIRFIELD NJ 07006
2K262	BOYD CORP	6136 NE 87th AVE PO BOX 20038	PORTLAND OR 97220
2N936	VISHAY ELECTRONIC COMPONENTS	1122 23RD STREET	COLUMBUS, NE 68601
30161	AAVID ENGINEERING INC	ONE KOOL PATH PO BOX 400	LACONIA NH 03247
30817	INSTRUMENT SPECIALTIES CO INC	EXIT 53 RT 80 BOX A	DELAWARE WATER GAP PA 18327
31433	KEMET ELECTRONICS CORP	P O BOX 5928	GREENVILLE, SC 29606
31918	ITT SCHADOW INC	8081 WALLACE RD	EDEN PRAIRIE MN 55344-2224
32997	BOURNS INC TRIMPOT DIV	1200 COLUMBIA AVE	RIVERSIDE CA 92507-2114
34335	ADVANCED MICRO DEVICES	901 THOMPSON PL PO BOX 3453	SUNNYVALE CA 94086-3413
34371	HARRIS SEMICONDUCTOR SEMICONDUCTOR SECTOR	MS 58-71 PO BOX 883	MELBOURNE, FL 32902-0883
34641	INSTRUMENT SPECIALTIES CO INC	1111 STANLEY DR PO BOX 365	EULESS TX 76039
34649	INTEL CORP	3065 BOWERS AVE PO BOX 58130	SANTA CLARA CA 95051
37942	NORTH AMERICAN CAPACITOR CO	INDIANAPOLIS ROAD, HWY 240 PO BOX 240	GREEN CASTLE, IN 46135
48726	UNITRODE INTEGRATED CIRCUITS CORP (UICC)	7 CONTINENTAL BLVD PO BOX 399	MERRIMACK NH 03054-0399
50139	ALLEN-BRADLEY CO ELECTRONIC COMPONENTS	1414 ALLEN BRADLEY DR	EL PASO TX 79936
50140	K AND L MICROWAVE INC SUB OF DOVER CORP	408 COLES CIR	SALISBURY MD 21801-3214
50434	HEWLETT-PACKARD CO OPTOELECTRONICS DIV	370 W TRIMBLE RD	SAN JOSE CA 95131-1008
50558	ELECTRONIC CONCEPTS INC	526 INDUSTRIAL WAY W	EATONTOWN NJ 07724-2212
51642	CENTRE ENGINEERING INC	2820 E COLLEGE AVE	STATE COLLEGE PA 16801-7515
51993	INTERNATIONAL RECTIFIER	233 KANSAS STREET	EL SEGUNDO, CA 90245
52763	STETCO INC	3344 SCHIERHORN	FRANKLIN PARK IL 60131
52769	SPRAGUE-GOODMAN ELECT INC	1700 SHAMES DRIVE	WESTBURY, NY 11590

Replaceable Electrical Parts

Mfr. Code.	Manufacturer	Address	City, State, Zip Code
53387	3M COMPANY ELECTRONIC PRODUCTS DIV	3M AUSTIN CENTER	AUSTIN TX 78769-2963
54937	DEYOUNG MANUFACTURING INC	12920 NE 125TH WAY	KIRKLAND WA 98034-7716
55322	SAMTEC INC	810 PROGRESS BLVD PO BOX 1147	NEW ALBANY IN 47150-2257
55566	R A F ELECTRONIC HARDWARE INC	95 SILVERMINE RD	SEYMOUR CT 06483-3915
55680	NICHICON /AMERICA/ CORP	927 E STATE PKY	SCHAUMBURG IL 60195-4526
56845	DALE ELECTRONICS INC	2300 RIVERSIDE BLVD PO BOX 74	NORFOLK NE 68701-2242
57027	INTERNATIONAL RESISTIVE PRODUCTS INC	4222 S STAPLES	CORPUS CHRISTI TX 78411-2702
57357	BASIC ELECTRONICS CO INC	11762 WESTERN AVE UNIT O	STANTON CA 90680-3449
57668	ROHM CORPORATION	15375 BARRANCA PARKWAY SUITE B207	IRVINE CA 92718
57924	BOURNS INC INTEGRATED TECHNOLOGY DIVISION	1400 NORTH 1000 WEST	LOGAN UT 84321
58050	TEKA PRODUCTS INC	45 SALEM ST	PROVIDENCE RI 02907
58614	COMMUNICATIONS INSTRUMENTS INC	HWY 74 EAST PO BOX 520	FAIRVIEW, NC 28730
59660	TUSONIX INC	7741 N BUSINESS PARK DR PO BOX 37144	TUCSON AZ 85740-7144
5Y400	TRIAX METAL PRODUCTS INC DIV OF BEAVERTON PARTS MFG CO	1800 NW 216TH AVE	HILLSBORO OR 97124-6629
61058	MATSUSHITA ELECTRIC CORP OF AMERICA PANASONIC INDUSTRIAL CO DIV	TWO PANASONIC WAY	SECAUCUS NJ 07094
61429	FOX ELECTRONICS DIV OF FOX ELECTRONICS INC	5842 CORPORATION CIRCLE	FOR MEYERS FL 33905
61772	INTEGRATED DEVICE TECHNOLOGY	3236 SCOTT BLVD	SANTA CLARA CA 95051
61857	SAN-0 INDUSTRIAL CORP	91-3 COLIN DRIVE	HOLBROOK NY 11741
61935	SCHURTER INC	1016 CLEGG COURT	PETALUMA CA 94952-1152
62643	UNITED CHEMICON INC	9801 W HIGGINS ST SUITE 430	ROSEMONT, IL 60018-4771
62786	HITACHI AMERICA LTD HITACHI PLAZA	2000 SIERRA POINT PARKWAY	BRISBANE CA 94005
63058	MCKENZIE TECHNOLOGY	910 PAGE AVENUE	FREMONT CA 94538
63791	STAR MICRONICS INC	200 PARK AVE SUITE 2308	NEW YORK NY 10166-0001
64155	LINEAR TECHNOLOGY CORP	1630 MCCARTHY BLVD	MILPITAS CA 95035-7417
64537	KDI/TRIANGLE ELECTRONICS INC	60 S JEFFERSON RD	WHIPPANY, NJ 07981
65786	CYPRESS SEMICONDUCTOR CORP	3901 N 1ST ST	SAN JOSE CA 95134-1506
66958	SGS THOMSON MICROELECTRONICS	1000 E BELL RD	PHOENIX AZ 85022-2649
71400	BUSSMANN DIV OF COOPER INDUSTRIES INC	114 OLD STATE RD PO BOX 14460	ST LOUIS MO 63178
73138	BI TECHNOLOGIES CORPORATION	4141 PALM ST	FULLERTON CA 92635
73743	FISCHER SPECIAL MFG CO	111 INDUSTRIAL RD	COLD SPRING KY 41076-9749
75042	IRC ELECTRONIC COMPONENTS PHILADELPHIA DIV TRW FIXED RESISTORS	401 N BROAD ST	PHILADELPHIA PA 19108-1001
75498	MULTICOMP INC	3005 SW 154TH TERRACE #3	BEAVERTON OR 97006

Mfr. Code.	Manufacturer	Address	City, State, Zip Code
76493	BELL INDUSTRIES INC JW MILLER DIV	306 E ALONDRA BLVD PO BOX 2859	GARDENA, CA 90247-1059
78189	ILLINOIS TOOL WORKS INC SHAKEPROOF DIV	ST CHARLES ROAD	ELGIN IL 60120
80009	TEKTRONIX INC	14150 SW KARL BRAUN DR PO BOX 500	BEAVERTON OR 97077-0001
81073	GRAYHILL INC	561 HILLGROVE AVE PO BOX 10373	LA GRANGE IL 60525-5914
86445	PENN FIBRE AND SPECIALTY CO INC SUB OF PACIFIC TUBE CO	4343 G ST PO BOX 4890A	PHILADELPHIA PA 19124-4325
86928	SEASTROM MFG CO INC	456 SEASTROM STREET	TWIN FALLS, ID 83301
91293	JOHANSON MFG CO	400 ROCKWAY VALLEY RD	BOONTON NJ 07005
91506	AUGAT IPD	452 JOHN DIETSCH BLVD PO BOX 2510	ATTLEBORO FALLS MA 02763
91637	DALE ELECTRONICS INC	2064 12TH AVE PO BOX 609	COLUMBUS NE 68601-3632
98159	RUBBER TECK INC	19115 HAMILTON AVE PO BOX 389	GARDENA CA 90247
98978	INTERNATIONAL ELECTRONIC RESEARCH CORP	135 W MAGNOLIA BLVD PO BOX 7704	BURBANK CA 91502
9M860	ELECTRONIC SUB ASSEMBLY MFG CORP (ESAM)	930 SE M STREET PO BOX 376	GRANTS PASS OR 97526-3248
D5243	ROEDERSTEIN ERNST GMBH	LUDMILLASTRASSE 23	8300 LANDSHUT GERMANY
S5302	KOA CO LTD	3672 INA NATANO-PREF 396	JAPAN
TK0303	FAB TEK INC	17 SUGAR HOLLOW RD	DANBURY CT 06810
TK0435	LEWIS SCREW CO	4300 S RACINE AVE	CHICAGO IL 60609-3320
TK0515	EVOX-RIFA INC	100 TRI-STATE INTERNATIONAL SUITE 290	LINCOLNSHIRE IL 60015
TK0679	DILECTRON INC	2669 S MRYTLE AVE	MONROVIA CA 91016
TK0875	MATSUO ELECTRONICS INC	831 S DOUBLAS ST	EL SEGUNDO CA 92641
TK0891	MICONICS	1 FAIRCHILD AVE	PLAINVIEW NY 11803
TK0974	SANGSHIN CORP	26830 PACIFIC HWY SOUTH	KENT WA 98031
TK1146	MITSUBISHI ELECTRONICS	1050 E AROQUES AVENUE	SUNNYVALE CA 94086
TK1312	LEMO USA INC	335 TESCONI CIR PO BOX 11006	SANTA ROSA CA 95406
TK1441	GFS MANUFACTURING INC	6 PROGRESS DR PO BOX 1409	DOVER NH 03820
TK1462	YAMAICHI ELECTRONICS CO LTD 2ND FLOOR NEW KYOEI BLDG 17-11	3-CHROME SHIBAURA MINATO-KU	TOKYO JAPAN
TK1465	BEAVERTON PARTS MFG CO	1800 NW 216TH AVE	HILLSBORO OR 97124-6629
TK1499	AMLAN INC	97 THORNWOOD RD	STAMFORD CT 06903-2617
TK1547	MOORE ELECTRONICS INC (DIST)	19500 SW 90TH COURT PO BOX 1030	TUALATIN OR 97062
TK1601	PULSE ENGINEERING INC	2801 MOORPARK AVE SUITE 7	SAN JOSE CA 95128
TK1727	PHILIPS NEDERLAND BV AFD ELONCO	POSTBUS 90050	5600 PB EINDHOVEN THE NETHERLANDS
TK1743	UNITRODE (UK) LTD	6 CRESSWELL PARK BLACKHEATH	LONDON SE 3 9RD ENGLAND

Replaceable Electrical Parts

Mfr. Code.	Manufacturer	Address	City, State, Zip Code
TK1828	LITE SPECIALTY METAL WORKS	20460 SW AVERY CT	TUALATIN OR 97062
TK1857	HIROSE ELECTRIC USA INC	2688 WESTHILLS COURT	SIMI VALLEY, CA 93065-6235
TK1913	WIMA THE INTER-TECHNICAL GROUP IND	2269 SAW MILL RIVER ROAD PO BOX 127	ELMSFORD NY 10523
TK1947	NORTHWEST ETCH TECHNOLOGY	2601 S HOOD ST PO BOX 110610	TACOMA, WA 98411-0610
TK1989	GASKET SPECIALTIES	4968 NE 122ND AVE	PORTLAND OR 97220
TK2039	MULTIPOWER INC	3005 SW 154 TERRACE #1	BEAVERTON OR 97006
TK2058	TDK CORPORATION OF AMERICA	1600 FEEHANVILLE DRIVE	MOUNT PROSPECT, IL 60056
TK2073	TOKYO AMERICA INC	565 W GULF ROAD	ARLINGTON HEIGHTS IL 60005
TK2096	KELVIN ASSOCIATES	14724 VENTURA BLVD SUITE 1003	SHERMAN OAKS CA 91403-3501
TK2204	ELMEC TECHNOLOGY OF AMERICA INC	1225 RIDGECREST ST	MONTEREY PARK CA 91754
TK2262	RPM ENTERPRISES SUB OF MICROSEMI CORP	3305 W CASTOR ST	SANTA ANA CA 92704
TK2319	COLLMER	14368 PROTON RD	DALLAS TX 75244
TK2419	DISPLAY TEK INC	35 LEIGH ST PO BOX 553	GENEVA NY 14456
TK2424	CHAMPION TECHNOLOGIES	2553 N EDGINGTON ST	FRANKLIN PARK IL 60131
TK2469	UNITREK CORPORATION	3000 LEWIS & CLARK WAY SUITE #2	VANCOUVER WA 98601
TK2501	K-TRONICS INC	PO BOX 4398	BISBEE AZ 85603-5603
TK2562	MOLDING SPECIALITIES INC	3000 LEWIS & CLARK HWY	VANCOUVER, WA 98661-2999
TK2598	MAXIM - ASIC	14150 SW KARL BRAUN DRIVE	BEAVERTON, OR 97077
TK2601	MAXTEK COMPONENTS CORPORATION	13335 SW TERMAN RD PO BOX 1480	BEAVERTON, OR 97075-1480
TK2611	STACKPOLE CORPORATION	PO BOX 14466	RALEIGH, NC 27610

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A1	671-0535-05	B022000	B022447	CIRCUIT BD ASSY:ANALOG INPUT	80009	671053505
A1	671-0535-06	B022448	B022693	CIRCUIT BD ASSY:ANALOG INPUT	80009	671053506
A1	671-0535-07	B022694	B023422	CIRCUIT BD ASSY:ANALOG INPUT	80009	671053507
A1	671-0535-09	B023423	B040700	CIRCUIT BD ASSY:ANALOG INPUT	80009	671053509
A1	671-0535-10	B040701	B040856	CIRCUIT BD ASSY:ANALOG INPUT	80009	671053510
A1	671-0535-11	B040857	B042558	CIRCUIT BD ASSY:ANALOG INPUT	80009	671053511
A1	671-0535-12	B042559		CIRCUIT BD ASSY:ANALOG INPUT	80009	671053512
A2	672-1294-01	B022000	B023422	CIRCUIT BD ASSY:GEN LOCK	80009	672129401
A2	672-1294-02	B023423	B030690	CIRCUIT BD ASSY:GEN LOCK	80009	672129402
A2	672-1294-03	B030691	B040696	CIRCUIT BD ASSY:GEN LOCK	80009	672129403
A2	672-1294-04	B040697		CIRCUIT BD ASSY:GEN LOCK	80009	672129404
A2A1	671-0105-01	672-1294-01	672-1294-01	CIRCUIT BD ASSY:GEN LOCK	80009	671010501
A2A1	671-0105-02	672-1294-02	672-1294-02	CIRCUIT BD ASSY:GEN LOCK	80009	671010502
A2A1	671-0105-03	672-1294-03	672-1294-03	CIRCUIT BD ASSY:GEN LOCK	80009	671010503
A2A1	671-0105-04	672-1294-04		CIRCUIT BD ASSY:GEN LOCK	80009	671010504
A2A1A1	671-0562-00			CIRCUIT BD ASSY:GENLOCK VCO,PAL	80009	671056200
A2A1A2	671-0563-00			CIRCUIT BD ASSY:GENLOCK VCO,NTSC	80009	671056300
A3	672-1296-04	B022000	B022013	CIRCUIT BD ASSY:ADC	80009	672129604
A3	672-1296-05	B022014	B023422	CKT BD SUBASSY:ADC	80009	672129605
A3	672-1296-08	B023423	B031236	CIRCUIT BD ASSY:ADC	80009	672129608
A3	672-1296-11	B031237	B042558	CIRCUIT BD ASSY:ADC	80009	672129611
A3	672-1296-12	B042559	B043073	CIRCUIT BD ASSY:ADC	80009	672129612
A3	672-3321-00	B043074	B043210	CIRCUIT BD ASSY:ADC	80009	672332100
A3	672-3321-02	B043211		CIRCUIT BD ASSY:ADC	80009	672332102
A3A1A5	671-1510-01			CIRCUIT BD ASSY:PAL,ADC FILTER	80009	671151001
A4	672-1295-03	B022000	B022030	CIRCUIT BD ASSY:FILTER SW	80009	672129503
A4	672-1295-04	B022031	B022761	CIRCUIT BD ASSY:FILTER SW	80009	672129504
A4	672-1344-00	B022762	B023422	CIRCUIT BD ASSY:FILTER SW	80009	672134400
A4	672-1344-01	B023423	B040310	CIRCUIT BD ASSY:FILTER SW	80009	672134401
A4	672-1344-02	B040311	B042568	CIRCUIT BD ASSY:FILTER SW	80009	672134402
A4	672-1344-03	B042569	B043135	CIRCUIT BD ASSY:FILTER SW	80009	672134403
A4	672-1344-05	B043136		CIRCUIT BD ASSY:FILTER SW	80009	672134405
A4A1	671-0695-01	672-1295-03	672-1344-00	CIRCUIT BD ASSY:FILTER	80009	671069501
A4A1	671-0695-02	672-1344-01	672-1344-01	CIRCUIT BD ASSY:FILTER	80009	671069502
A4A1	671-0695-03	672-1344-02		CIRCUIT BD ASSY:FILTER	80009	671069503
A4A1A1	671-0714-01	671-0695-01	671-0695-01	CIRCUIT BD ASSY:HIGHPASS FILTER	80009	671071401
A4A1A1	671-0718-00	671-0695-02		CIRCUIT BD ASSY:CHROMA BANDPASS FILTER	80009	671071800
A4A1A1	671-0718-01			CIRCUIT BD ASSY:CHROMA BANDPASS FILTER	80009	671071801
A4A1A2	671-0748-01			CIRCUIT BD ASSY:DIFF STEP FILTER	80009	671074801
A4A1A3	671-0716-02			CIRCUIT BD ASSY:LF NOISE FILTER	80009	671071602
A4A1A4	671-0715-01	671-0695-01	671-0695-01	CIRCUIT BD ASSY:LOW PASS FILTER	80009	671071501
A4A1A4	671-0715-02	671-0695-01	671-0695-01	CIRCUIT BD ASSY:LOW PASS FILTER	80009	671071502
A4A1A4	671-1909-00	671-0695-02		CIRCUIT BD ASSY:IEEE LOW PASS FILTER	80009	671190900
A4A1A5	671-0717-00	671-0695-02		CIRCUIT BD ASSY:NTSC BW LIMIT FILTER	80009	671071700
A5	671-1051-00	B022000	B022006	CIRCUIT BD ASSY:CPU II	80009	671105100
A5	671-1051-01	B022007	B022030	CIRCUIT BD ASSY:CPU II	80009	671105101
A5	671-1051-02	B022031	B022149	CIRCUIT BD ASSY:CPU II	80009	671105102
A5	671-1051-03	B022150	B022293	CIRCUIT BD ASSY:CPU II	80009	671105103
A5	671-1051-04	B022294	B022601	CIRCUIT BD ASSY:CPU II	80009	671105104
A5	671-1051-05	B022602	B022999	CIRCUIT BD ASSY:CPU	80009	671105105
A5	671-1051-06	B023000	B030274	CIRCUIT BD ASSY:CPU	80009	671105106
A5	671-1051-07	B030275	B031198	CIRCUIT BD ASSY:CPU	80009	671105107
A5	671-1051-08	B031199	B031236	CIRCUIT BD ASSY:CPU	80009	671105108
A5	671-1051-09	B031237	B041925	CIRCUIT BD ASSY:CPU	80009	671105109
A5	671-1051-10	B041926		CIRCUIT BD ASSY:CPU	80009	671105110

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A6	672-1319-00	B022000	B022293	CIRCUIT BD ASSY:EPROM	80009	672131900
A6	672-1319-02	B022294	B022761	CIRCUIT BD ASSY:EPROM	80009	672131902
A6	672-1319-03	B022762	B023176	CIRCUIT BD ASSY:EPROM	80009	672131903
A6	671-1910-00	B023177	B031236	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191000
A6	671-1910-02	B031237	B041937	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191002
A6	671-1910-04	B041938	B041938	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191004
A6	671-2675-00	B041938		CIRCUIT BD ASSY:FLASH EPROM/4M,WITH 256,NVRAM (4M,OPTION 11 ONLY)	80009	671267500
A6	671-1910-01	B030768	B031236	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191001
A6	671-1910-03	B031237	B041937	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191003
A6	671-1910-05	B041938	B041938	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191005
A6	671-3543-00	B041938		CKT BD ASSY:FLASH EPROM/5M,W/1M NVRAM,VM700A;22 (5M,OPTION 11 ONLY)	80009	671354300
A6	672-1346-00	B022609	B022725	CIRCUIT BD ASSY:EPROM	80009	672134600
A6	672-1346-01	B022726	B023000	CIRCUIT BD ASSY:EPROM	80009	672134601
A6	671-1910-00	B023001	B031236	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191000
A6	671-1910-02	B031237	B04937	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191002
A6	671-1910-04	B041938	B041938	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191004
A6	671-2675-00	B041938		CIRCUIT BD ASSY:FLASH EPROM/4M,WITH 256,NVRAM (4M,OPTION 01 ONLY)	80009	671267500
A6	671-1910-01	B030768	B031236	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191001
A6	671-1910-03	B031237	B041937	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191003
A6	671-1910-05	B041938	B041938	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191005
A6	671-3543-00	B041938		CKT BD ASSY:FLASH EPROM/5M,W/1M NVRAM,VM700A;22 (5M,OPTION 01 ONLY)	80009	671354300
A6	672-0283-00	B022609	B022714	CIRCUIT BD ASSY:EPROM	80009	672028300
A6	672-0283-01	B022715	B022954	CIRCUIT BD ASSY:EPROM	80009	672028301
A6	671-1910-00	B022955	B031236	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191000
A6	671-1910-02	B031237	B041937	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191002
A6	671-1910-04	B041938	B041938	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191004
A6	671-2675-00	B041938		CIRCUIT BD ASSY:FLASH EPROM/4M,WITH 256,NVRAM (4M,OPTION 01,11 DUAL ONLY)	80009	671267500
A6	671-1910-01	B030768	B031236	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191001
A6	671-1910-03	B031237	B041937	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191003
A6	671-1910-05	B041938	B041938	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191005
A6	671-3543-00	B041938		CKT BD ASSY:FLASH EPROM/5M,W/1M NVRAM,VM700A;22 (5M,OPTION 01,11 DUAL ONLY)	80009	671354300
A7	671-1306-00	B022000	B022470	CIRCUIT BD ASSY:DATA ACQUISITION	80009	671130600
A7	671-1306-01	B022471		CIRCUIT BD ASSY:DATA ACQUISITION 2	80009	671130601
A8	671-0534-03	B022000	B022149	CIRCUIT BD ASSY:CONTROLLER	80009	671053403
A8	671-0534-04	B022150	B022312	CIRCUIT BD ASSY:CONTROLLER	80009	671053404
A8	671-0534-05	B022313	B022765	CIRCUIT BD ASSY:CONTROLLER	80009	671053405
A8	671-0534-06	B022766	B030100	CIRCUIT BD ASSY:CONTROLLER	80009	671053406
A9	671-0533-02	B022000	B022352	CIRCUIT BD ASSY:DISPLAY MEMORY II	80009	671053302
A9	671-0533-05	B022353	B040248	CIRCUIT BD ASSY:DISPLAY MEMORY II	80009	671053305
A9	671-0533-06	B040249		CIRCUIT BD ASSY:DISPLAY MEMORY II (STANDARD ONLY)	80009	671053306
A9	671-2607-00	B022000	B040248	CIRCUIT BD ASSY:CAMERA MEAS OPT21 DISPLAY MEMORY II	80009	671260700
A9	671-2607-01	B040249		CIRCUIT BD ASSY:CAMERA MEAS OPT 21 DISPLAY MEMORY II (OPTION 21 ONLY)	80009	671260701
A10	672-1299-03	B022000	B022805	CIRCUIT BD ASSY:FRONT PANEL	80009	672129903
A10	672-1299-04	B022806	B030246	CIRCUIT BD ASSY:FRONT PANEL	80009	672129904
A10	672-1299-05	B030247	B030499	CIRCUIT BD ASSY:FRONT PANEL	80009	672129905
A10	672-1299-06	B030500		CIRCUIT BD ASSY:FRONT PANEL	80009	672129906
A10A1	-----			CIRCUIT BD ASSY:FRONT PANEL (FOR REPLACEMENT SEE A10)		

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A10A2	-----			CIRCUIT BD ASSY:KEY (FOR REPLACEMENT SEE A10)		
A10A1A1	-----	672-1299-05		CIRCUIT BD ASSY:OSCILLATOR (FOR REPLACEMENT SEE A10)		
A11	672-1298-00			CIRCUIT BD ASSY:MOTHER	80009	672129800
A11A1	671-0114-00			CIRCUIT BD ASSY:BUS INTERCONNECT	80009	671011400
A11A2	671-0113-00			CIRCUIT BD ASSY:MAIN INTERFACE,RIGHT	80009	671011300
A11A3	671-0112-00			CIRCUIT BD ASSY:MAIN INTERFACE,LEFT	80009	671011200
A14	657-0072-03	B022000	B041885	MODULAR SUBASSY:W/TOUCH PANEL	80009	657007203
A14	657-0098-01	B041886		MODULAR ASSY:W/TOUCH PANEL,VM700A (STANDARD ONLY)	80009	657009801
A14	657-0088-01	B022000	B041885	MODULAR SUBASSY:W/TOUCH PANEL,WHITE PHOSPHOR	80009	657008801
A14	657-0099-01	B041886		MODULAR ASSY:DISPLAY MODULE ASSY,VM700AOPT 74 (OPTION 74 ONLY)	80009	657009901
A14A1	657-0072-02	657-0072-03	657-0072-03	MODULAR SUBASSY:DISPLAY MODULE ASSY FOR VM700	80009	657007202
A14A1	657-0098-00	657-0098-01		MODULAR ASSY:DISPLAY MODULE ASSY,VM700A (STANDARD ONLY)	80009	657009800
A14A1	657-0088-00	657-0088-01	657-0088-01	MODULAR SUBASSY:DISPLAY MODULE ASSY FOR VM700A	80009	657008800
A14A1	657-0099-00	657-0099-01		MODULAR ASSY:DISPLAY MODULE ASSY,VM700AOPT 74 (OPTION 74 ONLY)	80009	657009900
A14A1A1	671-1033-01	657-0072-02	657-0072-02	CIRCUIT BD ASSY:TRP	80009	671103301
A14A1A1	671-1922-01	657-0098-00		CIRCUIT BD ASSY:DISPLAY	80009	671192201
A14A1A1	671-1033-01	657-0088-00	657-0088-00	CIRCUIT BD ASSY:TRP	80009	671103301
A14A1A1	671-1922-01	657-0099-00		CIRCUIT BD ASSY:DISPLAY	80009	671192201
A15	119-2630-01	B022000	B022999	POWER SUPPLY:IN 115/230 47-63 HZ, OUT 5V 40A, 15V 3A, -15V 3A,12V2.5A, -5.2V 8A, VAR FAN OUT 9-29V (REPLACEABLE AS ASSEMBLY ONLY)	TK2039	119-2630-01
A15	119-4258-00	B030000	B031029	POWER SUPPLY:IN 115/230 47-63MHZ,OUT 5V 40A,15V 3A,15V 3A,12V 2.5,-5.2V 2A,VAR FAN OUT12-24V	80009	119425800
A15	119-4258-01	B031030	B031213	POWER SUPPLY:IN 115/230 47-63MHZ,OUT 5V 40A,15V 3A,12V 2.5,-5.2V 2A,VAR FAN OUT 12-24V	80009	119425801
A15	119-4258-02	B031214	B040562	POWER SUPPLY:IN 115/230 47-63MHZ,OUT 5V 40A,15V 3A,12V 2.5,-5.2V 2A,VAR FAN OUT 12-24V	80009	119425802
A15	119-4258-03	B040563	B040808	POWER SUPPLY:IN 115/230 47-63MHZ,OUT 5V 40A,15V 3A,12V 2.5,-5.2V 2A,VAR FAN OUT 12-24V	80009	119425803
A15	119-4258-04	B040809		POWER SUPPLY:IN 115/230 47-63MHZ,OUT 5V40A,15V,3A,12V 2.5,-5.2V VAR FAN OUT 12-24V	80009	119425804
A15A1	-----	119-4258-00		CIRCUIT BD ASSY:POWER SUPPLY		
A16	671-0111-00			CIRCUIT BD ASSY:ON/OFF	80009	671011100
A18	671-1911-00	B030000	B030139	CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671191100
A18	671-1911-01	B030140	B030217	CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671191101
A18	671-1911-02	B030218	B031048	CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671191102
A18	671-1911-03	B031049	B031198	CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671191103
A18	671-1911-04	B031199	B031223	CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671191104
A18	671-1911-05	B031224	B041887	CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671191105
A18	671-1911-06	B041888	B041979	CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671191106
A18	671-1911-05	B041980	B043165	CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671191105
A18	671-3922-00	B043166		CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671392200
A19	671-2337-00			CIRCUIT BD ASSY:GPIB	80009	671233700

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A1	671-0535-05	B022000	B022447	CIRCUIT BD ASSY:ANALOG INPUT	80009	671053505
A1	671-0535-06	B022448	B022693	CIRCUIT BD ASSY:ANALOG INPUT	80009	671053506
A1	671-0535-07	B022694	B023422	CIRCUIT BD ASSY:ANALOG INPUT	80009	671053507
A1	671-0535-09	B023423	B040700	CIRCUIT BD ASSY:ANALOG INPUT	80009	671053509
A1	671-0535-10	B040701	B040856	CIRCUIT BD ASSY:ANALOG INPUT	80009	671053510
A1	671-0535-11	B040857	B042558	CIRCUIT BD ASSY:ANALOG INPUT	80009	671053511
A1	671-0535-12	B042559		CIRCUIT BD ASSY:ANALOG INPUT	80009	671053511
				ATTACHED PARTS		
	337-2816-00			SHIELD,ELEC:CKT BD (QUANTITY 7)	TK1947	337-2816-00
	337-3672-00			SHIELD,ELEC:STICK ON,FINGER TYPE,6.0 L	34641	337-3672-00
	386-5581-01			PLATE,BNC:VM700A	5Y400	ORDER BY DESC
	348-0274-00			SHLD GSKT,ELEK:FINGER TYPE	30817	97-555-05
				END ATTACHED PARTS		
A1C121	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C122	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C125	281-0810-00			CAP,FXD,CERA C:MLC;5.6PF,+/-0.5PF,100V,0.100 X 0.170	04222	SA102A5R6DAA
A1C126	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C130	290-0745-00			CAP,FXD,ALUM::22UF,20%,50V,8 X 11MM	0H1N5	CEUSM1J220
A1C132	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C149	281-0809-00			CAP,FXD,CERA C:MLC;200 PF,5%,100V,0.100 X0.170	04222	SA101A201JAA
A1C159	281-0809-00			CAP,FXD,CERA C:MLC;200 PF,5%,100V,0.100 X0.170	04222	SA101A201JAA
A1C169	281-0809-00			CAP,FXD,CERA C:MLC;200 PF,5%,100V,0.100 X0.170	04222	SA101A201JAA
A1C170	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C178	283-0625-00			CAP,FXD CA DI:220PF,1%,500V	TK0891	RDM10FD221F03
A1C179	285-1062-00			CAP,FXD,PLASTIC:0.005UF,1%,200V	19396	502F02PP460R-AE
A1C212	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C215	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C219	281-0770-00			CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C220	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C221	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C222	285-1301-00			CAP,FXD,PLSTC:MTLZD FILM;0.47UF,10%,50V,7.2 X 9.5MM	TK1913	MKS2 0.47/50/10
A1C223	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C236	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C238	281-0770-00			CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C239	281-0770-00			CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C243	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C250	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C262	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C263	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C264	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C271	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C272	281-0812-00			CAP,FXD,CERA C:MLC:1000PF,10%,100V,0.100 X	04222	SA101C102KAA
A1C310	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C311	281-0709-00			CAP,FXD,CER DI:7PF,+/-,0.1PF,500V	52763	2RDPZZ007 7P00B
A1C313	283-0160-00			CAP,FXD,CER DI:1.5PF,+/-0.1PF,50V	51642	100050NP0159B
A1C324	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C325	283-0185-01	671-0535-05	671-0535-06	CAP,FXD,CER:SLC:2.5PF,+/- 0.1PF,50V,COJ,.150 X .150	59660	8101-A050-COJO-
A1C325	283-0185-01	671-0535-07		CAP,FXD,CER:SLC:2.5PF,+/- 0.1PF,50V,COJ,.150 X .150	59660	8101-A050-COJO-
A1C332	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C333	281-0220-00			CAP,VAR,CER DI:1.0-5.5PF,400VDC,PC MTG	52763	313613210
A1C340	283-0743-00			CAP,FXD CA DI:43PF,2%,500V	09023	CDA10ED430G03
A1C342	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C350	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C355	290-0745-00			CAP,FXD,ALUM::22UF,20%,50V,8 X 11MM	0H1N5	CEUSM1J220
A1C371	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C372	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C373	281-0770-00			CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA

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Component Number	Tektronix Part Number	Serial / Assembly Number Effective Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A1C374	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C375	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C410	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C417	283-0160-00		CAP,FXD,CER DI:1.5PF,+/-0.1PF,50V	51642	100050NP0159B
A1C420	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C422	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C423	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C424	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C430	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C431	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C432	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C433	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C434	285-1301-00		CAP,FXD,PLSTC:MTLZD FILM;0.47UF,10%,50V,7.2 X 9.5MM	TK1913	MKS2 0.47/50/10
A1C435	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C440	283-0779-00		CAP,FXD CA DI:27 PF,2%,500V	TK0891	RDM15ED270G03
A1C443	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C444	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C451	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C452	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C453	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C455	283-0158-00	671-0535-05 671-0535-06	CAP,FXD,CER DI:1PF,+/-0.1PF,50V	51642	T100-050-NPO-10
A1C455	283-0348-00	671-0535-07	CAP,FXD,CER DI:0.5PF,+/-0.1PF,100V	51642	W150-100-NPO-50
A1C456	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C457	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C460	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C471	281-0759-00		CAP,FXD,CERA C:MLC:22PF,10%,100V,0.100 X 0.170	04222	SA102A220KAA
A1C472	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C473	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C474	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C475	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C476	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C514	281-0709-00		CAP,FXD,CER DI:7PF,+/-0.1PF,500V	52763	2RDPZZ007 7P00B
A1C520	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C521	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C522	283-0185-01	671-0535-05 671-0535-06	CAP,FXD,CER:SLC:2.5PF,+/- 0.1PF,50V,COJ.,150 X .150	59660	8101-A050-COJO-
A1C522	283-0185-01	671-0535-07	CAP,FXD,CER:SLC:2.5PF,+/- 0.1PF,50V,COJ.,150 X .150	59660	8101-A050-COJO-
A1C526	281-0220-00		CAP,VAR,CER DI:1.0-5.5PF,400VDC,PC MTG	52763	313613210
A1C530	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C531	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C532	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C533	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C535	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C536	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C540	283-0779-00		CAP,FXD CA DI:27 PF,2%,500V	TK0891	RDM15ED270G03
A1C542	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C544	283-0743-00		CAP,FXD CA DI:43PF,2%,500V	09023	CDA10ED430G03
A1C545	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C552	281-0773-00		CAP,FXD,CERA C:MLC:0.01UF,10%,100V	TK1743	CGB103KEX
A1C555	290-0920-00		CAP,FXD,ALUM::33UF,20%,50V,6 X 11MM,0.1SP	55680	UVX1H330MEA
A1C556	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C560	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C570	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C571	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C572	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C573	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C574	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C575	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A1C576	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective Discontinued	Name & Description	Mfr. Code	Mfr. Part Number	
A1C577	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA	
A1C578	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C580	290-0973-00		CAP,FXD,ELCTLT:100UF,20%,25VDC	0H1N5	CEUSM1E101	
A1C596	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C597	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C620	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C621	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C622	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C624	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C625	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA	
A1C637	281-0770-00		CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA	
A1C640	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C660	281-0773-00		CAP,FXD,CERA C:MLC:0.01UF,10%,100V	TK1743	CGB103KEX	
A1C666	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C668	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C678	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C681	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C692	290-0973-00		CAP,FXD,ELCTLT:100UF,20%,25VDC	0H1N5	CEUSM1E101	
A1C694	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C711	283-0160-00		CAP,FXD,CER DI:1.5PF,+/-0.1PF,50V	51642	100050NP0159B	
A1C714	281-0709-00		CAP,FXD,CER DI:7PF,+/-0.1PF,500V	52763	2RDPZZ007 7P00B	
A1C721	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C722	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C724	283-0185-01	671-0535-05	671-0535-06	CAP,FXD,CER:SLC:2.5PF,+/-0.1PF,50V,COJ.,150 X .150	59660	8101-A050-COJO-
A1C724	283-0185-01	671-0535-07		CAP,FXD,CER:SLC:2.5PF,+/-0.1PF,50V,COJ.,150 X .150	59660	8101-A050-COJO-
A1C727	281-0220-00		CAP,VAR,CER DI:1.0-5PF,400VDC,PC MTG	52763	313613210	
A1C730	285-1301-00		CAP,FXD,PLSTC:MTLZD FILM:0.47UF,10%,50V,7.2 X 9.5MM	TK1913	MKS2 0.47/50/10	
A1C731	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C732	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C733	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C734	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C735	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C740	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C743	283-0779-00		CAP,FXD CA DI:27 PF,2%,500V	TK0891	RDM15ED270G03	
A1C744	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C745	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C747	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C748	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C763	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C769	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C782	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C784	290-0973-00		CAP,FXD,ELCTLT:100UF,20%,25VDC	0H1N5	CEUSM1E101	
A1C792	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C793	290-0943-01		CAP,FXD,ELCTLT:47UF,20%,25V	55680	UVX1V470MPA1TD	
A1C797	290-0973-00		CAP,FXD,ELCTLT:100UF,20%,25VDC	0H1N5	CEUSM1E101	
A1C798	290-0943-01		CAP,FXD,ELCTLT:47UF,20%,25V	55680	UVX1V470MPA1TD	
A1C821	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C822	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C832	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C841	283-0743-00		CAP,FXD CA DI:43PF,2%,500V	09023	CDA10ED430G03	
A1C842	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C843	283-0630-00		CAP,FXD CA DI:110PF,1%,100V	TK0891	RDM15FD111F03	
A1C845	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C846	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C861	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C862	281-0759-00		CAP,FXD,CERA C:MLC:22PF,10%,100V,0.100 X 0.170	04222	SA102A220KAA	
A1C864	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	
A1C885	281-0775-02		CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA	

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A1C893	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C922	281-0182-00	671-0535-05	671-0535-10	CAP,VAR,PLASTIC:1.8-10PF,300V	19701	2805D1R810BH03F
A1C922	281-0178-00	671-0535-11	671-0535-12	CAP,VAR,PLASTIC:1-3.5PF,500V	TK1727	2222-809-05001
A1C922	281-0220-00	671-0535-12		CAP,VAR,CER DI:1.0-5.5PF,400VDC,PC MTG	52763	313613210
A1C933	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C940	283-0181-00	671-0535-05	671-0535-06	CAP,FXD,CER DI:1.8PF,+/-0.1%,100V	51642	100 100NP0189B
A1C942	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C943	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C944	281-0775-02			CAP,FXD,CERA C:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A1C945	283-0643-00			CAP,FXD CA DI:22PF,0.5%,500V	TK0891	RDM10ED220D03
A1C946	283-0629-00			CAP,FXD CA DI:62PF,1%,500V	TK0891	RDM10ED620F03
A1C956	283-0728-00			CAP,FXD CA DI:120PF,1%,500V	TK0891	RDM15FD121F03
A1C957	283-0643-00			CAP,FXD CA DI:22PF,0.5%,500V	TK0891	RDM10ED220D03
A1C977	290-0943-01			CAP,FXD,ELCTLT:47UF,20%,25V	55680	UVX1V470MPA1TD
A1C978	290-0943-01			CAP,FXD,ELCTLT:47UF,20%,25V	55680	UVX1V470MPA1TD
A1CR246	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR247	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR260	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR261	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR262	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR263	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR320	152-0040-00			DIODE,RECT:600V,1A,50A IFSM	0LUA3	1N5061
A1CR417	152-0040-00			DIODE,RECT:600V,1A,50A IFSM	0LUA3	1N5061
A1CR420	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR421	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR520	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR521	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR551	152-0066-00			DIODE,RECT:400V,1A,IFSM=30A,1.2VF,2US	0LUA3	1N5060
A1CR653	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR654	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR655	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR656	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR657	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR688	152-0040-00			DIODE,RECT:600V,1A,50A IFSM	0LUA3	1N5061
A1CR689	152-0040-00			DIODE,RECT:600V,1A,50A IFSM	0LUA3	1N5061
A1CR694	152-0040-00			DIODE,RECT:600V,1A,50A IFSM	0LUA3	1N5061
A1CR714	152-0040-00			DIODE,RECT:600V,1A,50A IFSM	0LUA3	1N5061
A1CR720	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR721	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR753	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR787	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR794	152-0040-00			DIODE,RECT:600V,1A,50A IFSM	0LUA3	1N5061
A1CR826	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR831	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR832	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR835	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR837	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR881	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR882	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1CR883	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A1E342	276-0543-02			SHLD BEAD,ELEK:FERRITE	28733	ORDER BY DESC
A1E644	276-0543-02			SHLD BEAD,ELEK:FERRITE	28733	ORDER BY DESC
A1F588	159-0208-00			FUSE,WIRE LEAD:2A,125V,5 SEC	61857	SP5-2A
A1J110	131-3635-00	671-0535-05	671-0535-05	CONN,RF JACK:BNC;50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.625 H X 0.187TAIL,W/O MTG FLANGE,W/O MTG POSTS,METAL BODY,GOLD	00779	227676-1
A1J110	131-3378-00	671-0535-06		CONN,RF JACK:BNC;50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.5-28 THD,0.625 H X 0.187 TAIL,W/O	00779	227677-1

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
				MOUNTING PARTS		
	210-1039-00			WASHER,LOCK:0.521 ID,INT,0.025 THK,SST (QUANTITY 2)	0KB01	1224-02-00-0541
	213-0816-00			SCREW,TPG,TC:2-56 X 0.188L,TYPE T,PNH,STL (QUANTITY 2)	0KB01	ORDER BY DESC
	220-0497-00			NUT,PLAIN,HEX:0.5-28 X 0.562 HEX,BRS CD PL (QUANTITY 2)	73743	ORDER BY DESC
A1J132	131-0608-00			*END MOUNTING PARTS*		
				CONN,TER NAL:PRESSFIT/PCB;MALE,STR,0.025SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A1J210	131-3635-00	671-0535-05	671-0535-05	CONN,RF JACK:BNC;50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.625 H X 0.187TAIL,W/O MTG FLANGE,W/O MTG POSTS,METAL BODY,GOLD	00779	227676-1
A1J210	131-3378-00	671-0535-06		CONN,RF JACK:BNC;50 OHM,FEMALE,RTANG,PCB/R EAR PNL,0.5-28 THD,0.625 H X 0.187 TAIL,W/O	00779	227677-1
				MOUNTING PARTS		
	210-1039-00			WASHER,LOCK:0.521 ID,INT,0.025 THK,SST (QUANTITY 2)	0KB01	1224-02-00-0541
	213-0816-00			SCREW,TPG,TC:2-56 X 0.188L,TYPE T,PNH,STL (QUANTITY 2)	0KB01	ORDER BY DESC
	220-0497-00			NUT,PLAIN,HEX:0.5-28 X 0.562 HEX,BRS CD PL (QUANTITY 2)	73743	ORDER BY DESC
				END MOUNTING PARTS		
A1J310	131-3635-00	671-0535-05	671-0535-05	CONN,RF JACK:BNC;50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.625 H X 0.187TAIL,W/O MTG FLANGE,W/O MTG POSTS,METAL BODY,GOLD	00779	227676-1
A1J310	131-3378-00	671-0535-06		CONN,RF JACK:BNC;50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.5-28 THD,0.625 H X 0.187 TAIL,W/O	00779	227677-1
				MOUNTING PARTS		
	210-1039-00			WASHER,LOCK:0.521 ID,INT,0.025 THK,SST (QUANTITY 2)	0KB01	1224-02-00-0541
	213-0816-00			SCREW,TPG,TC:2-56 X 0.188L,TYPE T,PNH,STL (QUANTITY 2)	0KB01	ORDER BY DESC
	220-0497-00			NUT,PLAIN,HEX:0.5-28 X 0.562 HEX,BRS CD PL (QUANTITY 2)	73743	ORDER BY DESC
				END MOUNTING PARTS		
A1J410	131-3635-00	671-0535-05	671-0535-05	CONN,RF JACK:BNC;50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.625 H X 0.187TAIL,W/O MTG FLANGE,W/O MTG POSTS,METAL BODY,GOLD	00779	227676-1
A1J410	131-3378-00	671-0535-06		CONN,RF JACK:BNC;50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.5-28 THD,0.625 H X 0.187 TAIL,W/O	00779	227677-1
				MOUNTING PARTS		
	210-1039-00			WASHER,LOCK:0.521 ID,INT,0.025 THK,SST (QUANTITY 2)	0KB01	1224-02-00-0541
	213-0816-00			SCREW,TPG,TC:2-56 X 0.188L,TYPE T,PNH,STL (QUANTITY 2)	0KB01	ORDER BY DESC
	220-0497-00			NUT,PLAIN,HEX:0.5-28 X 0.562 HEX,BRS CD PL (QUANTITY 2)	73743	ORDER BY DESC
				END MOUNTING PARTS		
A1J510	131-3635-00	671-0535-05	671-0535-05	CONN,RF JACK:BNC;50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.625 H X 0.187TAIL,W/O MTG FLANGE,W/O MTG POSTS,METAL BODY,GOLD	00779	227676-1
A1J510	131-3378-00	671-0535-06		CONN,RF JACK:BNC;50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.5-28 THD,0.625 H X 0.187 TAIL,W/O	00779	227677-1
				MOUNTING PARTS		
	210-1039-00			WASHER,LOCK:0.521 ID,INT,0.025 THK,SST (QUANTITY 2)	0KB01	1224-02-00-0541
	213-0816-00			SCREW,TPG,TC:2-56 X 0.188L,TYPE T,PNH,STL (QUANTITY 2)	0KB01	ORDER BY DESC

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
	220-0497-00			NUT,PLAIN,HEX:0.5-28 X 0.562 HEX,BRS CD PL (QUANTITY 2) *END MOUNTING PARTS*	73743	ORDER BY DESC
A1J550	131-0391-00			CONN,RF JACK:SMB:MALE,STR,PCB,GOLD/GOLD,0.293 H X 0.155 TAIL,3/0.045 SQ TAIL 0.038 DIA CTR COND,0.2 SQ PCB,0.312 HEX *ATTACHED PARTS*	24931	32JR105-1
	210-1160-00			WASHER,FLAT:0.129 ID X 0.25 OD X 0.031 TEFLON *END ATTACHED PARTS*	86445	ORDER BY DESC
A1J555	131-0608-00			CONN,TER NAL:PRESSFIT/PCB:MALE,STR,0.025SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A1J610	131-3635-00	671-0535-05	671-0535-05	CONN,RF JACK:BNC;50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.625 H X 0.187TAIL,W/O MTG FLANGE,W/O MTG POSTS,METAL BODY,GOLD	00779	227676-1
A1J610	131-3378-00	671-0535-06		CONN,RF JACK:BNC;50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.5-28 THD,0.625 H X 0.187 TAIL,W/O *MOUNTING PARTS*	00779	227677-1
	210-1039-00			WASHER,LOCK:0.521 ID,INT,0.025 THK,SST (QUANTITY 2)	OKB01	1224-02-00-0541
	213-0816-00			SCREW,TPG,TC:2-56 X 0.188L,TYPE T,PNH,STL (QUANTITY 2)	OKB01	ORDER BY DESC
	220-0497-00			NUT,PLAIN,HEX:0.5-28 X 0.562 HEX,BRS CD PL (QUANTITY 2) *END MOUNTING PARTS*	73743	ORDER BY DESC
A1J619	131-3635-00	671-0535-05	671-0535-05	CONN,RF JACK:BNC;50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.625 H X 0.187TAIL,W/O MTG FLANGE,W/O MTG POSTS,METAL BODY,GOLD	00779	227676-1
A1J619	131-3378-00	671-0535-06		CONN,RF JACK:BNC;50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.5-28 THD,0.625 H X 0.187 TAIL,W/O *MOUNTING PARTS*	00779	227677-1
	210-1039-00			WASHER,LOCK:0.521 ID,INT,0.025 THK,SST (QUANTITY 2)	OKB01	1224-02-00-0541
	213-0816-00			SCREW,TPG,TC:2-56 X 0.188L,TYPE T,PNH,STL (QUANTITY 2)	OKB01	ORDER BY DESC
	220-0497-00			NUT,PLAIN,HEX:0.5-28 X 0.562 HEX,BRS CD PL (QUANTITY 2) *END MOUNTING PARTS*	73743	ORDER BY DESC
A1J690	131-4136-00	671-0535-05	671-0535-07	CONN,HDR PWR:PCB:MALE,STR,1 X 10,0.156CTR,0.450 MLG X 0.172 TAIL,0.045 SQ,GOLD	27264	26-48-2101
A1J690	131-4884-00	671-0535-08		CONN,HDR PWR:PCB:MALE,STR,1 X 10,0.156CTR,0.450 MLG X 0.125 TAIL,W/FRICTION LOCK,GOLD,94-V0	26742	3162-8-110-01
A1J718	131-3635-00	671-0535-05	671-0535-05	CONN,RF JACK:BNC;50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.625 H X 0.187TAIL,W/O MTG FLANGE,W/O MTG POSTS,METAL BODY,GOLD	00779	227676-1
A1J718	131-3378-00	671-0535-06		CONN,RF JACK:BNC;50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.5-28 THD,0.625 H X 0.187 TAIL,W/O *MOUNTING PARTS*	00779	227677-1
	210-1039-00			WASHER,LOCK:0.521 ID,INT,0.025 THK,SST (QUANTITY 2)	OKB01	1224-02-00-0541
	213-0816-00			SCREW,TPG,TC:2-56 X 0.188L,TYPE T,PNH,STL (QUANTITY 2)	OKB01	ORDER BY DESC
	220-0497-00			NUT,PLAIN,HEX:0.5-28 X 0.562 HEX,BRS CD PL (QUANTITY 2) *END MOUNTING PARTS*	73743	ORDER BY DESC
A1J922	131-0608-00			CONN,TER NAL:PRESSFIT/PCB:MALE,STR,0.025SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A1J923	131-0608-00			CONN,TER NAL:PRESSFIT/PCB:MALE,STR,0.025SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A1J924	131-0608-00			CONN,TER NAL:PRESSFIT/PCB;MALE,STR,0.025SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A1J955	131-0608-00			CONN,TER NAL:PRESSFIT/PCB;MALE,STR,0.025SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A1J965	174-0839-00			CA ASSY,SP,ELEC:60,30 AWG,9.2 L,RIBBON	TK1462	ORDER BY DESC
A1K314	148-0147-00			RELAY,ARM:2 FORM C,1A,28VDC,COIL,5VDC,62 OHMS	11532	172-5/28
A1K512	148-0147-00			RELAY,ARM:2 FORM C,1A,28VDC,COIL,5VDC,62 OHMS	11532	172-5/28
A1K718	148-0147-00			RELAY,ARM:2 FORM C,1A,28VDC,COIL,5VDC,62 OHMS	11532	172-5/28
A1L336	108-1417-00			INDUCTOR,FXD:CUSTOM,SIGNAL;45UH,2%,IDC<5 MA,RDC<7 OHM	OJR03	108-1417-00
A1L338	108-1417-00			INDUCTOR,FXD:CUSTOM,SIGNAL;45UH,2%,IDC<5 MA,RDC<7 OHM	OJR03	108-1417-00
A1L539	108-1417-00			INDUCTOR,FXD:CUSTOM,SIGNAL;45UH,2%,IDC<5 MA,RDC<7 OHM	OJR03	108-1417-00
A1L635	108-1417-00			INDUCTOR,FXD:CUSTOM,SIGNAL;45UH,2%,IDC<5 MA,RDC<7 OHM	OJR03	108-1417-00
A1L683	108-0422-00			INDUCTOR,FXD:CUSTOM,POWER:80UH,20%,IDC<2 A,RDC<0.15 OHM,Q>30@40KHZ	OJR03	108-0422-00
A1L737	108-1417-00			INDUCTOR,FXD:CUSTOM,SIGNAL;45UH,2%,IDC<5 MA,RDC<7 OHM	OJR03	108-1417-00
A1L782	108-0422-00			INDUCTOR,FXD:CUSTOM,POWER:80UH,20%,IDC<2 A,RDC<0.15 OHM,Q>30@40KHZ	OJR03	108-0422-00
A1L834	108-1417-00			INDUCTOR,FXD:CUSTOM,SIGNAL;45UH,2%,IDC<5 MA,RDC<7 OHM	OJR03	108-1417-00
A1L947	114-0310-00	671-0535-05	671-0535-10	INDUCTOR,VAR:CUSTOM:26-82UH,ON FORM 276-0231-00,68.5T W/43 AWG	OJR03	114-0310-00
A1L947	114-0310-01	671-0535-10		INDUCTOR,VAR:CUSTOM:40-100UH,ON FORM 276-0231-00,76.5T W/43 AWG	OJR03	114-0310-01
	337-1417-00			*ATTACHED PARTS* SHIELD,ELEC:0.55 SQ X 0.685 INCH HIGH *END ATTACHED PARTS*	02875	SO-9649-CN
A1L955	114-0310-00	671-0535-05	671-0535-10	INDUCTOR,VAR:CUSTOM:26-82UH,ON FORM 276-0231-00,68.5T W/43 AWG	OJR03	114-0310-00
A1L955	114-0310-01	671-0535-10		INDUCTOR,VAR:CUSTOM:40-100UH,ON FORM 276-0231-00,76.5T W/43 AWG	OJR03	114-0310-01
	337-1417-00			*ATTACHED PARTS* SHIELD,ELEC:0.55 SQ X 0.685 INCH HIGH *END ATTACHED PARTS*	02875	SO-9649-CN
A1P555	131-0993-02			BUS,CONDUCTOR:SHUNT ASSEMBLY,RED	00779	1-850100-O
A1P924	131-0993-02			BUS,CONDUCTOR:SHUNT ASSEMBLY,RED	00779	1-850100-O
A1Q114	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ,AMPL	OJR04	2N3904
A1Q119	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ,AMPL	OJR04	2N3904
A1Q131	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	OJR04	2N3906
A1Q217	151-0301-00			TRANSISTOR,SIG:BIPOLAR,PNP;60V,600MA,200MHZ,AMPL	04713	2N2907A
A1Q222	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ,AMPL	OJR04	2N3904
A1Q238	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ,AMPL	OJR04	2N3904
A1Q239	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ,AMPL	OJR04	2N3904
A1Q246	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	OJR04	2N3906
A1Q247	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	OJR04	2N3906
A1Q248	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	OJR04	2N3906
A1Q260	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	OJR04	2N3906
A1Q261	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	OJR04	2N3906
A1Q262	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	OJR04	2N3906
A1Q263	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	OJR04	2N3906
A1Q264	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	OJR04	2N3906
A1Q265	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	OJR04	2N3906
A1Q342	151-1022-00			TRANSISTOR,SIG:JFET,N-CH:4V,75MA,80 OHM,SELECTED FOR VGS(OFF)	17856	FN1234

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A1Q344	151-0220-00		TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,400MHZ,AMPL	27014	S036228.22
A1Q352	151-0302-00		TRANSISTOR,SIG:BIPOLAR,NPN;40V,800MA,300MHZ,AMPL	04713	2N2222A
A1Q416	151-0301-00		TRANSISTOR,SIG:BIPOLAR,PNP;60V,600MA,200MHZ,AMPL	04713	2N2907A
A1Q548	151-0220-00		TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,400MHZ,AMPL	27014	S036228.22
A1Q644	151-1022-00		TRANSISTOR,SIG:JFET,N-CH;4V,75MA,80 OHM,SELECTED FOR VGS(OFF)	17856	FN1234
A1Q654	151-0272-00		TRANSISTOR,SIG:BIPOLAR,PNP;15V,30MA,2.0GHZ,AMPL, DUAL MP5H69	80009	151027200
A1Q656	151-0712-00		TRANSISTOR,SIG:BIPOLAR,PNP;20V,50MA,600MHZ,AMPL	04713	MPSH81
A1Q658	151-0220-00		TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,400MHZ,AMPL	27014	S036228.22
	136-0252-01		*MOUNTING PARTS* SOCKET,PIN TERM:PCB;FEM,STR,ACCOM 0.013-0.020 DIA PIN,TIN/TIN SLEEVE,CLOSED BOTTOM,0.178 L,0.038 DIA (QUANTITY 3) *END MOUNTING PARTS*	00779	1-332095-2
A1Q753	151-0298-00		TRANSISTOR,SIG:BIPOLAR,NPN;12V,40MA,3.5GHZ,AMPL	04713	MRF914
A1Q754	151-0298-00		TRANSISTOR,SIG:BIPOLAR,NPN;12V,40MA,3.5GHZ,AMPL	04713	MRF914
A1Q755	151-0427-00		TRANSISTOR,SIG:BIPOLAR,NPN;15V,50MA,900 MHZ,AMPL	27014	2N5770
A1Q788	151-0406-00		TRANSISTOR,SIG:BIPOLAR,PNP;175V,1.0A,200MHZ,AMPL	04713	2N3637
A1Q796	151-0407-00		TRANSISTOR:NPN,SI,TO-39	04713	2N3501
A1Q813	151-0301-00		TRANSISTOR,SIG:BIPOLAR,PNP;60V,600MA,200MHZ,AMPL	04713	2N2907A
A1Q835	151-0272-00		TRANSISTOR,SIG:BIPOLAR,PNP;15V,30MA,2.0GHZ,AMPL, DUAL MP5H69	80009	151027200
A1Q850	151-0272-00		TRANSISTOR,SIG:BIPOLAR,PNP;15V,30MA,2.0GHZ,AMPL, DUAL MP5H69	80009	151027200
A1Q877	151-0710-00		TRANSISTOR,SIG:BIPOLAR,NPN;40V,1.0A,50MHZ,AMPL	04713	MPSW01A
A1Q878	151-0622-00		TRANSISTOR,SIG:BIPOLAR,PNP;40V,1.0A,50MHZ,AMPL	04713	MPS6727
A1Q928	151-0459-00		TRANSISTOR:PNP,SI,TO-18	04713	2N3251A
A1R111	322-3211-00		RES,FXD,FILM:1.54K OHM,1%,0.2W,TC=T0 ,SMALL BODY	91637	CCF501G15400F
A1R112	322-3093-00		RES,FXD,FILM:90.9 OHM,1%,0.2W,TC=T0 ,SMALL	91637	CCF50-2F90R90F
A1R113	322-3093-00		RES,FXD,FILM:90.9 OHM,1%,0.2W,TC=T0 ,SMALL	91637	CCF50-2F90R90F
A1R114	322-3211-00		RES,FXD,FILM:1.54K OHM,1%,0.2W,TC=T0 ,SMALL BODY	91637	CCF501G15400F
A1R115	321-0348-00		RES,FXD,FILM:41.2K OHM,1%,0.125W,TC=T0	19701	5043ED41K20F
A1R116	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R121	322-3227-00		RES,FXD,FILM:2.26K OHM,1%,0.2W,TC=T0 ,SMALL BODY	91637	CCF502G2261FT
A1R122	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R123	315-0101-00		RES,FXD,FILM:100 OHM,5%,0.25W	50139	CB1015
A1R124	321-0261-00		RES,FXD,FILM:5.11K OHM,1%,0.125W,TC=T0	80009	321-0261-00
A1R125	315-0112-00		RES,FXD,FILM:1.1K OHM,5%,0.25W	50139	CB1125
A1R130	315-0221-00		RES,FXD,FILM:220 OHM,5%,0.25W	50139	CB2215
A1R131	315-0100-00		RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R132	315-0103-00		RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A1R133	315-0103-00		RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A1R140	315-0753-00		RES,FXD,FILM:75K OHM,5%,0.25W	50139	CB7535
A1R141	315-0753-00		RES,FXD,FILM:75K OHM,5%,0.25W	50139	CB7535
A1R142	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R143	315-0103-00		RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A1R144	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R145	315-0201-00		RES,FXD,FILM:200 OHM,5%,0.25W	50139	CB2015
A1R146	315-0393-00		RES,FXD,FILM:39K OHM,5%,0.25W	50139	CB3935
A1R147	315-0203-00		RES,FXD,FILM:20K OHM,5%,0.25W	50139	CB2035
A1R148	315-0393-00		RES,FXD,FILM:39K OHM,5%,0.25W	50139	CB3935
A1R149	315-0362-00		RES,FXD,FILM:3.6K OHM,5%,0.25W	50139	CB3625
A1R160	315-0201-00		RES,FXD,FILM:200 OHM,5%,0.25W	50139	CB2015
A1R161	315-0362-00		RES,FXD,FILM:3.6K OHM,5%,0.25W	50139	CB3625
A1R162	315-0393-00		RES,FXD,FILM:39K OHM,5%,0.25W	50139	CB3935
A1R163	315-0203-00		RES,FXD,FILM:20K OHM,5%,0.25W	50139	CB2035
A1R164	315-0393-00		RES,FXD,FILM:39K OHM,5%,0.25W	50139	CB3935
A1R165	315-0201-00		RES,FXD,FILM:200 OHM,5%,0.25W	50139	CB2015

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A1R166	315-0393-00		RES,FXD,FILM:39K OHM,5%,0.25W	50139	CB3935
A1R167	315-0203-00		RES,FXD,FILM:20K OHM,5%,0.25W	50139	CB2035
A1R168	315-0393-00		RES,FXD,FILM:39K OHM,5%,0.25W	50139	CB3935
A1R169	315-0362-00		RES,FXD,FILM:3.6K OHM,5%,0.25W	50139	CB3625
A1R178	321-0307-00		RES,FXD,FILM:15.4K OHM,1%,0.125W,TC=T0	80009	321-0307-00
A1R211	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R212	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R213	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R215	315-0100-00		RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R220	315-0100-00		RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R221	315-0362-00		RES,FXD,FILM:3.6K OHM,5%,0.25W	50139	CB3625
A1R223	315-0621-00		RES,FXD,FILM:620 OHM,5%,0.25W	50139	CB6215
A1R230	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R231	315-0103-00		RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A1R232	315-0753-00		RES,FXD,FILM:75K OHM,5%,0.25W	50139	CB7535
A1R233	315-0103-00		RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A1R234	315-0103-00		RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A1R235	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R236	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R237	315-0103-00		RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A1R238	315-0205-00		RES,FXD,FILM:2M OHM,5%,0.25W	50139	CB2055
A1R239	315-0103-00		RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A1R240	315-0205-00		RES,FXD,FILM:2M OHM,5%,0.25W	50139	CB2055
A1R241	315-0303-00		RES,FXD,FILM:30K OHM,5%,0.25W	50139	CB3035
A1R242	315-0103-00		RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A1R243	315-0103-00		RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A1R244	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R245	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R246	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R247	315-0104-00		RES,FXD,FILM:100K OHM,5%,0.25W	50139	CB1045
A1R250	321-0274-00		RES,FXD,FILM:6.98K OHM,1%,0.125W,TC=T0	50139	ADVISE
A1R251	321-0303-00		RES,FXD,FILM:14.0K OHM,1%,0.125W,TC=T0	80009	321-0303-00
A1R252	322-3304-00		RES,FXD,FILM:14.3K OHM,1%,0.2W,TC=T0,SMALL BODY	91637	CCF50G14301F
A1R253	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R254	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R255	322-3304-00		RES,FXD,FILM:14.3K OHM,1%,0.2W,TC=T0,SMALL BODY	91637	CCF50G14301F
A1R256	321-0274-00		RES,FXD,FILM:6.98K OHM,1%,0.125W,TC=T0	80009	321-0274-00
A1R257	321-0303-00		RES,FXD,FILM:14.0K OHM,1%,0.125W,TC=T0	80009	321-0303-00
A1R259	315-0151-00		RES,FXD,FILM:150 OHM,5%,0.25W	50139	CB1515
A1R260	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R261	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R262	315-0100-00		RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R263	321-0347-00		RES,FXD,FILM:40.2K OHM,1%,0.125W,TC=T0	80009	321-0347-00
A1R264	321-0288-00		RES,FXD,FILM:9.76K OHM,1%,0.125W,TC=T0	80009	321-0288-00
A1R265	322-3223-00		RES,FXD,FILM:2.05K OHM,1%,0.2W,TC=T0,SMALL BODY	57668	CRB20 FXE 2K05
A1R266	315-0182-00		RES,FXD,FILM:1.8K OHM,5%,0.25W	50139	CB1825
A1R268	321-0191-09		RES,FXD,FILM:953 OHM,1%,0.125W,TC=T9	80009	321-0191-09
A1R269	311-0622-00		RES,VAR,NONWWW:TRMR,100 OHM,0.5W CERMET	02111	65Y101T010
A1R270	321-0303-00		RES,FXD,FILM:14.0K OHM,1%,0.125W,TC=T0	80009	321-0303-00
A1R271	321-0274-00		RES,FXD,FILM:6.98K OHM,1%,0.125W,TC=T0	80009	321-0274-00
A1R272	322-3304-00		RES,FXD,FILM:14.3K OHM,1%,0.2W,TC=T0	91637	CCF50G14301F
A1R274	322-3318-00		RES,FXD,FILM:METAL FILM,20K OHM,1%,0.2W,TC=100	91637	CCF501G20001F
A1R275	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R276	315-0203-00		RES,FXD,FILM:20K OHM,5%,0.25W	50139	CB2035
A1R277	315-0203-00		RES,FXD,FILM:20K OHM,5%,0.25W	50139	CB2035
A1R278	315-0100-00		RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R310	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R311	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A1R313	315-0203-00		RES,FXD,FILM:20K OHM,5%,0.25W	50139	CB2035
A1R316	311-0622-00		RES,VAR,NONWW:TRMR,100 OHM,0.5W CERMET	02111	65Y101T010
A1R320	322-3293-00		RES,FXD:METAL FILM,11K OHM,1%,0.2W,TC=100	57668	CRB20 FXE 11K10
A1R321	322-3289-00		RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100	91637	CCF50G10001F
A1R322	321-1731-00		RES,FXD,FILM:500K OHM,1%,0.125W,TC=TO	07716	CEA 500 K 1 PERCENT T0
A1R323	321-0618-00		RES,FXD,FILM:250K OHM,1%,0.125W,TC=TO	57668	CRB25 FXE 250 K
A1R324	315-0100-00		RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R325	322-3172-00		RES,FXD,FILM:604 OHM,1%,0.2W,TC=TO ,SMALL BODY	57668	CRB20 FXE 604E
A1R326	322-3199-00		RES,FXD,FILM:1.15K OHM,1%,0.2W,TC=TO ,SMALL BODY	57668	CRB20 FXE 1K15
A1R327	322-3197-00		RES,FXD,FILM:1.1K OHM,1%,0.2W,TC=TO ,SMALL BODY	57668	CRB20 FXE 1K10
A1R328	315-0131-00		RES,FXD,FILM:130 OHM,5%,0.25W	50139	CB1315
A1R330	322-3289-00		RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100	91637	CCF50G10001F
A1R331	315-0103-00		RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A1R332	315-0100-00		RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R333	315-0104-00		RES,FXD,FILM:100K OHM,5%,0.25W	50139	CB1045
A1R334	322-3085-00		RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100	91637	CCF501G75R00F
A1R335	315-0203-00		RES,FXD,FILM:20K OHM,5%,0.25W	50139	CB2035
A1R336	315-0201-00		RES,FXD,FILM:200 OHM,5%,0.25W	50139	CB2015
A1R337	315-0152-00		RES,FXD,FILM:1.5K OHM,5%,0.25W	50139	CB1525
A1R338	315-0152-00		RES,FXD,FILM:1.5K OHM,5%,0.25W	50139	CB1525
A1R339	311-2230-00	671-0535-05 671-0535-06	RES,VAR,TRMR:CERMET,500 OHM,20%,0.5W,0.197 SQ	TK2073	GF06UT2 501 M L20
A1R341	321-1617-06	671-0535-05 671-0535-06	RES,FXD,FILM:5.85K OHM,0.25%,0.125W,TC=T9	07716	CEAE58500C
A1R341	322-3265-00	671-0535-07	RES,FXD:METAL FILM,5.62K OHM,1%,0.2W,TC=100	57668	CRB20 FXE 5K62
A1R342	321-0281-07		RES,FXD:METAL FILM,8.25K OHM,0.1%,0.125W,TC=25 PPM	07716	CEAE82500B
A1R345	315-0241-00		RES,FXD,FILM:240 OHM,5%,0.25W	50139	CB2415
A1R346	321-0319-00		RES,FXD,FILM:20.5K OHM,1%,0.125W,TC=TO	80009	321-0319-00
A1R347	315-0150-00		RES,FXD,FILM:15 OHM,5%,0.25W	50139	CB1505
A1R348	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R349	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R350	315-0103-00		RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A1R351	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R352	315-0150-00		RES,FXD,FILM:15 OHM,5%,0.25W	50139	CB1505
A1R353	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R354	322-3282-00		RES,FXD,FILM:8.45K OHM,1%,0.2W,TC=TO ,SMALL BODY	57668	CRB20 FXE 8K45
A1R355	322-3213-00		RES,FXD,FILM:1.62K OHM,1%,0.2W,TC=TO	57668	CRB20 FXE 1K62
A1R356	315-0241-00		RES,FXD,FILM:240 OHM,5%,0.25W	50139	CB2415
A1R357	321-0319-00		RES,FXD,FILM:20.5K OHM,1%,0.125W,TC=TO	80009	321-0319-00
A1R360	308-0750-00		RES,FXD,WW:1K OHM,0.01%,0.125W,TC=5PPM MULTILAYER,AXIAL LEAD	05347	207A-10000T
A1R362	308-0747-00		RES,FXD,WW:9K OHM,0.01%,0.125W,TC=5PPM MULTILAYER,AXIAL LEAD	05347	207A-90000T
A1R364	322-3289-00		RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100	91637	CCF50G10001F
A1R365	322-3289-00		RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100	91637	CCF50G10001F
A1R366	322-3289-00		RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100	91637	CCF50G10001F
A1R367	322-0173-07		RES,FXD,FILM:619 OHM,0.1%,0.125W TC=T9	91637	CCF502C619R0B
A1R368	321-0641-07		RES,FXD,FILM:1.8K OHM,0.1,0.125W,TC=T9	07716	CEAE 18000B
A1R410	315-0101-00		RES,FXD,FILM:100 OHM,5%,0.25W	50139	CB1015
A1R412	322-3085-00		RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100	91637	CCF501G75R00F
A1R415	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R416	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R418	315-0203-00		RES,FXD,FILM:20K OHM,5%,0.25W	50139	CB2035
A1R420	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R421	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R422	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R423	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R424	315-0205-00		RES,FXD,FILM:2M OHM,5%,0.25W	50139	CB2055
A1R431	315-0103-00		RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A1R432	315-0362-00			RES,FXD,FILM:3.6K OHM,5%,0.25W	50139	CB3625
A1R436	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R440	322-3265-00	671-0535-05	671-0535-06	RES,FXD:METAL FILM,5.62K OHM,1%,0.2W,TC=100	57668	CRB20 FXE 5K62
A1R440	321-1617-06	671-0535-07		RES,FXD,FILM:5.85K OHM,0.25%,0.125W,TC=T9	07716	CEAE58500C
A1R441	321-0281-07			RES,FXD:METAL FILM,8.25K OHM,0.1%,0.125W,TC=25 PPM	07716	CEAE82500B
A1R442	315-0104-00			RES,FXD,FILM:100K OHM,5%,0.25W	50139	CB1045
A1R443	315-0201-00			RES,FXD,FILM:200 OHM,5%,0.25W	50139	CB2015
A1R444	315-0201-00			RES,FXD,FILM:200 OHM,5%,0.25W	50139	CB2015
A1R445	311-2230-00	671-0535-05	671-0535-06	RES,VAR,TRMR:CERMET,500 OHM,20%,0.5W,0.197 SQ	TK2073	GF06UT2 501 M L20
A1R449	322-3318-00			RES,FXD,FILM:METAL FILM,20K OHM,1%,0.2W,TC=100	91637	CCF501G20001F
A1R450	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R451	322-3085-00			RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A1R452	322-3085-00			RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A1R453	322-3318-00			RES,FXD,FILM:METAL FILM,20K OHM,1%,0.2W,TC=100	91637	CCF501G20001F
A1R454	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R455	322-3175-00			RES,FXD,FILM:649 OHM,1%,0.2W,TC=T0	57668	CRB20 FXE 649E
A1R456	322-3222-00			RES,FXD:METAL FILM,2K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G20000F
A1R472	315-0203-00			RES,FXD,FILM:20K OHM,5%,0.25W	50139	CB2035
A1R474	311-0605-00			RES,VAR,NONWWW:TRMR,200 OHM,0.5W CERMET	32997	3329H-G48-201
A1R476	311-0605-00			RES,VAR,NONWWW:TRMR,200 OHM,0.5W CERMET	32997	3329H-G48-201
A1R514	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W	50139	CB1015
A1R515	322-3085-00			RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A1R516	311-0622-00			RES,VAR,NONWWW:TRMR,100 OHM,0.5W CERMET	02111	65Y101T010
A1R520	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R521	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R522	322-3199-00			RES,FXD,FILM:1.15K OHM,1%,0.2W,TC=T0 ,SMALL BODY	57668	CRB20 FXE 1K15
A1R523	322-3197-00			RES,FXD,FILM:1.1K OHM,1%,0.2W,TC=T0 ,SMALL BODY	57668	CRB20 FXE 1K10
A1R524	315-0131-00			RES,FXD,FILM:130 OHM,5%,0.25W	50139	CB1315
A1R531	322-3085-00			RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A1R532	315-0203-00			RES,FXD,FILM:20K OHM,5%,0.25W	50139	CB2035
A1R533	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R534	315-0205-00			RES,FXD,FILM:2M OHM,5%,0.25W	50139	CB2055
A1R544	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R554	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	50139	CB5115
A1R555	311-1757-00			RES,VAR,NONWWW:2.5K OHM 10%,.5W LIN,CERMET	32997	3326H-G48-252
A1R556	311-0978-00			RES,VAR,NONWWW:TRMR,250 OHM,0.5W CERMET	32997	3329H-K28-251
A1R557	322-3344-00			RES,FXD,FILM:37.4K OHM,1%,0.2W,TC=T0 ,SMALL BODY	57668	CRB20 FXE 37K4
A1R610	322-3172-00			RES,FXD,FILM:604 OHM,1%,0.2W,TC=T0 ,SMALL BODY	57668	CRB20 FXE 604E
A1R611	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A1R612	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A1R614	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A1R615	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A1R616	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A1R617	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A1R618	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R620	322-3293-00			RES,FXD:METAL FILM,11K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 11K0
A1R621	321-1731-00			RES,FXD,FILM:500K OHM,1%,0.125W,TC=T0	07716	CEA 500 K 1 PERCENT T0
A1R622	321-0618-00			RES,FXD,FILM:250K OHM,1%,0.125W,TC=T0	57668	CRB25 FXE 250 K
A1R623	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R628	315-0205-00			RES,FXD,FILM:2M OHM,5%,0.25W	50139	CB2055
A1R630	315-0104-00			RES,FXD,FILM:100K OHM,5%,0.25W	50139	CB1045
A1R631	315-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.25W	50139	CB1525
A1R632	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R633	315-0303-00			RES,FXD,FILM:30K OHM,5%,0.25W	50139	CB3035
A1R634	315-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.25W	50139	CB1525
A1R635	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A1R636	315-0362-00			RES,FXD,FILM:3.6K OHM,5%,0.25W	50139	CB3625

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A1R637	315-0100-00		RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R640	321-0281-07		RES,FXD:METAL FILM,8.25K OHM,0.1%,0.125W,TC=25 PPM	07716	CEAE82500B
A1R641	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R642	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R643	315-0100-00		RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R644	315-0201-00		RES,FXD,FILM:200 OHM,5%,0.25W	50139	CB2015
A1R645	322-3265-00	671-0535-05 671-0535-06	RES,FXD:METAL FILM,5.62K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 5K62
A1R645	321-1617-06	671-0535-07	RES,FXD,FILM:5.85K OHM,0.25%,0.125W,TC=T9	07716	CEAE58500C
A1R646	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R647	321-0961-07		RES,FXD,FILM:500.5 OHM,0.1%,0.125W,TC=T9	07716	CEA 500.5OHM 0.1PERCENT T9
A1R648	321-0961-07		RES,FXD,FILM:500.5 OHM,0.1%,0.125W,TC=T9	07716	CEA 500.5OHM 0.1PERCENT T9
A1R649	315-0103-00		RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A1R650	322-3110-00		RES,FXD,FILM:137 OHM,1%,0.2W,TC=T0 ,SMALL BODY	91637	CCF50-137R0F
A1R651	322-3162-00		RES,FXD:METAL FILM,475 OHM,1%,0.2W,TC=100 PPM	91637	CCF50G475R0F
A1R652	315-0470-00		RES,FXD,FILM:47 OHM,5%,0.25W	50139	CB4705
A1R653	315-0470-00		RES,FXD,FILM:47 OHM,5%,0.25W	50139	CB4705
A1R654	322-3162-00		RES,FXD:METAL FILM,475 OHM,1%,0.2W,TC=100 PPM	91637	CCF50G475R0F
A1R655	322-3110-00		RES,FXD,FILM:137 OHM,1%,0.2W,TC=T0 ,SMALL BODY	91637	CCF50-137R0F
A1R656	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R657	315-0201-00		RES,FXD,FILM:200 OHM,5%,0.25W	50139	CB2015
A1R658	315-0201-00		RES,FXD,FILM:200 OHM,5%,0.25W	50139	CB2015
A1R666	321-0816-00		RES,FXD,FILM:5K OHM,1%,0.125W,TC=T0	80009	321-0816-00
A1R667	321-0816-00		RES,FXD,FILM:5K OHM,1%,0.125W,TC=T0	80009	321-0816-00
A1R697	308-0240-00		RES,FXD,WW:2 OHM,5%,3W AXIAL LEADS	05347	MS3-2ROOJ
A1R698	308-0240-00		RES,FXD,WW:2 OHM,5%,3W AXIAL LEADS	05347	MS3-2ROOJ
A1R711	315-0203-00		RES,FXD,FILM:20K OHM,5%,0.25W	50139	CB2035
A1R712	315-0101-00		RES,FXD,FILM:100 OHM,5%,0.25W	50139	CB1015
A1R718	321-1731-00		RES,FXD,FILM:500K OHM,1%,0.125W,TC=TO	07716	CEA 500 K 1 PERCENT TO
A1R722	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R723	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R724	311-0622-00		RES,VAR,NONWW:TRMR,100 OHM,0.5W CERMET	02111	65Y101T010
A1R725	322-3199-00		RES,FXD,FILM:1.15K OHM,1%,0.2W,TC=TO ,SMALL BODY	57668	CRB20 FXE 1K15
A1R726	322-3197-00		RES,FXD,FILM:1.1K OHM,1%,0.2W,TC=TO ,SMALL BODY	57668	CRB20 FXE 1K10
A1R727	315-0131-00		RES,FXD,FILM:130 OHM,5%,0.25W	50139	CB1315
A1R734	322-3085-00		RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A1R735	315-0203-00		RES,FXD,FILM:20K OHM,5%,0.25W	50139	CB2035
A1R738	315-0205-00		RES,FXD,FILM:2M OHM,5%,0.25W	50139	CB2055
A1R740	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R741	321-0961-07		RES,FXD,FILM:500.5 OHM,0.1%,0.125W,TC=T9	07716	CEA 500.5OHM 0.1PERCENT T9
A1R742	321-0961-07		RES,FXD,FILM:500.5 OHM,0.1%,0.125W,TC=T9	07716	CEA 500.5OHM 0.1PERCENT T9
A1R743	315-0201-00		RES,FXD,FILM:200 OHM,5%,0.25W	50139	CB2015
A1R744	315-0104-00		RES,FXD,FILM:100K OHM,5%,0.25W	50139	CB1045
A1R745	315-0203-00		RES,FXD,FILM:20K OHM,5%,0.25W	50139	CB2035
A1R746	321-0085-07		RES,FXD,FILM:75 OHM,0.1%,0.125W,TC=T9	07716	CEA 75 OHM 0.1 PERCENT T9
A1R747	321-0085-07		RES,FXD,FILM:75 OHM,0.1%,0.125W,TC=T9	07716	CEA 75 OHM 0.1 PERCENT T9
A1R748	311-2230-00		RES,VAR,TRMR:CERMET,500 OHM,20%,0.5W,0.197 SQ	TK2073	GF06UT2 501 M L20
A1R750	321-0097-07		RES,FXD,FILM:100 OHM,0.1%,0.125W,TC=T9	50139	ADVISE
A1R751	321-0097-07		RES,FXD,FILM:100 OHM,0.1%,0.125W,TC=T9	50139	ADVISE
A1R754	315-0470-00		RES,FXD,FILM:47 OHM,5%,0.25W	50139	CB4705
A1R755	315-0101-00		RES,FXD,FILM:100 OHM,5%,0.25W	50139	CB1015
A1R756	315-0101-00		RES,FXD,FILM:100 OHM,5%,0.25W	50139	CB1015
A1R757	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A1R758	322-3132-00		RES,FXD,FILM:232 OHM,1%,0.2W,TC=T0 ,SMALL BODY	91637	CCF50-2-G232ROFT
A1R759	311-0978-00		RES,VAR,NONWWW:TRMR,250 OHM,0.5W CERMET	32997	3329H-K28-251
A1R760	321-0816-00		RES,FXD,FILM:5K OHM,1%,0.125W,TC=T0	50139	ADVISE
A1R761	321-0816-00		RES,FXD,FILM:5K OHM,1%,0.125W,TC=T0	50139	ADVISE
A1R762	321-0639-00		RES,FXD,FILM:9.6K OHM,1%,0.125W,TC=T0	07716	CEAD96000F
A1R763	311-0633-00		RES,VAR,NONWWW:TRMR,5K OHM,0.5W CERMET	32997	3329H-L58-502
A1R764	311-0633-00		RES,VAR,NONWWW:TRMR,5K OHM,0.5W CERMET	32997	3329H-L58-502
A1R765	322-3202-00		RES,FXD,FILM:1.24K OHM,1%,0.2W,TC=T0 ,SMALL BODY	57668	CRB20 FXE 1K24
A1R766	322-3233-00		RES,FXD,FILM:2.61K OHM,1%,0.2W,TC=T0 ,SMALL BODY	91637	CCF50-2-G2611FT
A1R767	322-3262-00		RES,FXD,FILM:5.23K OHM,1%,0.2W,TC=T0	57668	CRB20 FXE 5K23
A1R794	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R796	307-0104-00		RES,FXD,CMPSN:3.3 OHM,5%,0.25W	50139	CB33G5
A1R811	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R812	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R813	322-3085-00		RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A1R820	322-3172-00		RES,FXD,FILM:604 OHM,1%,0.2W,TC=T0 ,SMALL BODY	57668	CRB20 FXE 604E
A1R821	322-3293-00		RES,FXD:METAL FILM,11K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 11K0
A1R822	321-0618-00		RES,FXD,FILM:250K OHM,1%,0.125W,TC=T0	57668	CRB25 FXE 250 K
A1R823	315-0100-00		RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R827	315-0432-00		RES,FXD,FILM:4.3K OHM,5%,0.25W	50139	CB4325
A1R830	315-0104-00		RES,FXD,FILM:100K OHM,5%,0.25W	50139	CB1045
A1R831	315-0152-00		RES,FXD,FILM:1.5K OHM,5%,0.25W	50139	CB1525
A1R832	315-0100-00		RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R833	315-0303-00		RES,FXD,FILM:30K OHM,5%,0.25W	50139	CB3035
A1R834	315-0152-00		RES,FXD,FILM:1.5K OHM,5%,0.25W	50139	CB1525
A1R835	322-3177-00		RES,FXD:METAL FILM,681 OHM,1%,0.2W,TC=100 PPM	91637	CCF50-2G681R0F
A1R836	322-3213-00		RES,FXD,FILM:1.62K OHM,1%,0.2W,TC=T0	57668	CRB20 FXE 1K62
A1R837	322-3213-00		RES,FXD,FILM:1.62K OHM,1%,0.2W,TC=T0	57668	CRB20 FXE 1K62
A1R842	321-0609-07		RES,FXD,FILM:480 OHM,0.1%,0.125W,TC=T9	07716	CEAE480R0B
A1R843	321-0609-07		RES,FXD,FILM:480 OHM,0.1%,0.125W,TC=T9	07716	CEAE480R0B
A1R844	315-0330-00		RES,FXD,FILM:33 OHM,5%,0.25W	50139	CB3305
A1R846	315-0100-00		RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R850	311-0634-00		RES,VAR,NONWWW:TRMR,500 OHM,0.5W CERMET	32997	3329H-L58-501
A1R851	315-0332-00		RES,FXD,FILM:3.3K OHM,5%,0.25W	50139	CB3325
A1R852	131-0566-00		BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	24546	OMA0207
A1R853	131-0566-00		BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	24546	OMA0207
A1R854	315-0332-00		RES,FXD,FILM:3.3K OHM,5%,0.25W	50139	CB3325
A1R855	321-0771-01		RES,FXD,FILM:50 OHM,0.5%,0.125W,TC=T0	19701	5033
A1R856	323-0128-00		RES,FXD,FILM:210 OHM,1%,0.5W,TC=T0	80009	323-0128-00
A1R857	322-3256-00		RES,FXD,FILM:4.53K OHM,1%,0.2W,TC=T0 ,SMALL BODY	91637	CCF50-2-G4531FT
A1R862	321-0124-00		RES,FXD,FILM:191 OHM,1%,0.125W,TC=T0	80009	321-0124-00
A1R876	315-0101-00		RES,FXD,FILM:100 OHM,5%,0.25W	50139	CB1015
A1R877	315-0101-00		RES,FXD,FILM:100 OHM,5%,0.25W	50139	CB1015
A1R880	315-0102-00		RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A1R884	307-0104-00		RES,FXD,CMPSN:3.3 OHM,5%,0.25W	50139	CB33G5
A1R890	321-0319-00		RES,FXD,FILM:20.5K OHM,1%,0.125W,TC=T0	80009	321-0319-00
A1R891	321-0319-00		RES,FXD,FILM:20.5K OHM,1%,0.125W,TC=T0	80009	321-0319-00
A1R892	315-0103-00		RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A1R924	322-3092-00		RES,FXD,FILM:88.7 OHM,1%,0.2W,TC=T0 ,SMALL BODY	91637	CCF501G88R70F
A1R925	311-0633-00		RES,VAR,NONWWW:TRMR,5K OHM,0.5W CERMET	32997	3329H-L58-502
A1R929	311-2235-00	671-0535-12	RES,VAR,TRMR:CERMET,10K OHM,20%,0.5W,0.197 SQ,TOP ADJUST	32997	3362U-1-103R
A1R930	315-0133-00	671-0535-12	RES,FXD,FILM:13K OHM,5%,0.25W	50139	CB1335
A1R930	317-0113-00	671-0535-12	RES,FXD,CMPSN:11K OHM,5%,0.125W	80009	317-0113-00
A1R931	322-3162-00		RES,FXD:METAL FILM,475 OHM,1%,0.2W,TC=100 PPM	91637	CCF50G475R0F
A1R932	322-3289-00		RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A1R933	321-0961-07		RES,FXD,FILM:500.5 OHM,0.1%,0.125W,TC=T9	07716	CEA 500.5OHM 0.1PERCENT T9
A1R934	315-0203-00		RES,FXD,FILM:20K OHM,5%,0.25W	50139	CB2035
A1R935	315-0151-00	671-0535-05 671-0535-06	RES,FXD,FILM:150 OHM,5%,0.25W	50139	CB1515
A1R936	321-0735-07		RES,FXD,FILM:1.001K OHM,0.1%,0.125W,TC=T9	07716	CEAE10010B
A1R937	322-3085-00		RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A1R938	321-0754-07		RES,FXD,FILM:900 OHM,0.1%,0.125W,TC=T9	80009	321-0754-07
A1R939	321-0145-01		RES,FXD,FILM:316 OHM,0.5%,0.125W,TC=T0	07716	CEA 316 OHM 0.5 PERCENT T0
A1R941	315-0203-00		RES,FXD,FILM:20K OHM,5%,0.25W	50139	CB2035
A1R943	315-0222-00		RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A1R944	315-0100-00		RES,FXD,FILM:10 OHM,5%,0.25W	50139	CB1005
A1R946	315-0221-00		RES,FXD,FILM:220 OHM,5%,0.25W	50139	CB2215
A1R955	321-0663-00		RES,FXD,FILM:1.07K OHM,0.5%,0.125W,TC=T2	07716	CEAC10700D
A1R976	301-0101-00		RES,FXD,FILM:100 OHM,5%,0.5W	19701	5053CX100RDJ
A1R977	301-0101-00		RES,FXD,FILM:100 OHM,5%,0.5W	19701	5053CX100RDJ
A1TP220	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP250	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP252	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP254	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP256	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP339	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP360	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP362	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP450	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP453	136-0352-00		SOCKET,PIN TERM:PCB:FEMALE,STR,ACCOM 0.014 -0.026 LEAD,0.178 L X 0.05DIA,0.070 X 0.014	00779	50462-7
A1TP519	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP534	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP610	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP735	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP780	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP782	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP783	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP819	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP825	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP844	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1TP932	214-4085-00		TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A1U116	156-3124-00		IC SC:CMOS,ANALOG MUX;4 CHANNEL,DI ISOLATED,VIDEO	34371	HI3-0524-5

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A1U126	156-2910-00			IC SC:CMOS,ANALOG MUX;DUAL SPDT,DIELECTRIC ISOLATED	34371	HI3-0303-5
A1U154	156-0733-02			IC,DIGITAL:LSTTL,MULTIVIBRATOR	01295	SN74LS221N
A1U175	156-0733-02			IC,DIGITAL:LSTTL,MULTIVIBRATOR	01295	SN74LS221N
A1U216	156-2910-00			IC SC:CMOS,ANALOG MUX;DUAL SPDT,DIELECTRIC ISOLATED	34371	HI3-0303-5
A1U224	156-1843-00			IC,LINEAR:BIPOLAR,OP-AMP;DUAL,LOW OFFSET	24355	OP14EP
A1U232	156-3125-00			IC,LINEAR:BIFET,OP-AMP	64155	LT1055CN8
A1U243	156-0936-00			IC,LINEAR:BIPOLAR,OP-AMP;TRANSCONDUCTANCE	34371	CA3080AS/5
A1U264	156-2516-00			IC SC:BIPOLAR,TEMPERATURE SENSOR;CURRENT OUT	24355	AD592BN
A1U266	156-2842-00			IC,LINEAR:BIPOLAR,VOLTAGE REFERENCE;POSITIVE, 10V,0.05%,20PPM,SERIES	64155	LT1021CCN8-10
A1U270	156-3589-00			IC,CONVERTER:BIPOLAR,V/F OR F/V	13919	VFC320CG
A1U278	156-1843-00			IC,LINEAR:BIPOLAR,OP-AMP;DUAL,LOW OFFSET	24355	OP14EP
A1U326	155-0233-01			MICROCKT,LINEAR:OPERATIONAL AMPLIFIERH1038	TK2601	155023301
A1U328	156-3331-00			MICROCKT,HYBRID:HB9032-10	80009	156333100
A1U338	156-3330-00			MICROCKT,HYBRID:HB9100	80009	156333000
A1U352	156-1843-00			IC,LINEAR:BIPOLAR,OP-AMP;DUAL,LOW OFFSET	24355	OP14EP
A1U373	156-2256-00			IC,DIGITAL:HCMOS,GATE;QUAD 2-INPUT NAND	01295	SN74HC00N
A1U375	156-1270-00			IC SC:BIFET,ANALOG MUX;8 CHANNEL,850 OHM,1.6US	24355	MUX08-063Q
A1U425	156-3125-00			IC,LINEAR:BIFET,OP-AMP	64155	LT1055CN8
A1U430	156-3330-00			MICROCKT,HYBRID:HB9100	80009	156333000
A1U436	156-2910-00			IC SC:CMOS,ANALOG MUX;DUAL SPDT,DIELECTRIC ISOLATED	34371	HI3-0303-5
A1U442	156-0936-00			IC,LINEAR:BIPOLAR,OP-AMP;TRANSCONDUCTANCE	34371	CA3080AS/5
A1U458	155-0233-01			MICROCKT,LINEAR:OPERATIONAL AMPLIFIERH1038	TK2601	155023301
A1U464	156-3510-00			IC,CONVERTER:CMOS,D/A;OCTAL,8 BIT,VOLTAGE OUT,MPU COMPATIBLE,PARALLEL BUS	24355	AD7228KN
A1U468	156-2459-00			IC,CONVERTER:BIPOLAR,D/A;12 BIT,VOLTAGEOUT,MPU COMPATIBLE,REFERENCE	24355	AD667JN
A1U477	156-1270-00			IC SC:BIFET,ANALOG MUX;8 CHANNEL,850 OHM,1.6US	24355	MUX08-063Q
A1U523	156-3331-00			MICROCKT,HYBRID:HB9032-10	80009	156333100
A1U528	155-0233-01			MICROCKT,LINEAR:OPERATIONAL AMPLIFIERH1038	TK2601	155023301
A1U533	156-3330-00			MICROCKT,HYBRID:HB9100	80009	156333000
A1U535	156-3330-00			MICROCKT,HYBRID:HB9100	80009	156333000
A1U542	156-2910-00			IC SC:CMOS,ANALOG MUX;DUAL SPDT,DIELECTRIC ISOLATED	34371	HI3-0303-5
A1U553	156-0991-00			IC,LINEAR:BIPOLAR,VR;POSITIVE,5.0V,100MA,5%	01295	UA78L05ACLP
A1U618	156-1843-00			IC,LINEAR:BIPOLAR,OP-AMP;DUAL,LOW OFFSET	24355	OP14EP
A1U628	156-3125-00			IC,LINEAR:BIFET,OP-AMP;	64155	LT1055CN8
A1U638	156-2910-00			IC SC:CMOS,ANALOG MUX;DUAL SPDT,DIELECTRIC ISOLATED	34371	HI3-0303-5
A1U664	156-1589-00			IC,CONV:BIPOLAR,D/A;12 BIT,CURRENTOUT,MULTIPLYING	24355	DAC312HP
A1U668	160-5125-00	671-0535-05	671-0535-09	MICROCKT,DGTL:LOW PWR PRGM ARRAY LOGIC,PRGM	80009	160512500
A1U668	160-5125-01	671-0535-10		IC,DIGITAL:LOW PWR PRGM ARRAY LOGIC,PRGM PAL16L8-4CN,DIP20 *MOUNTING PARTS*	80009	160512501
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A1U676	156-0480-02			IC,DIGITAL:LSTTL,GATES *MOUNTING PARTS*	01295	SN74LS08N
	136-0728-00			SKT,PL-IN ELEK:PCB;14 POS,2 X 7,0.1 X 0.3CTR,0.210 H X 0.140 TAIL,TIN *END MOUNTING PARTS*	00779	2-641599-3
A1U688	156-0285-00			IC,LINEAR:BIPOLAR,VR;POS,12V,1.0A,4% *MOUNTING PARTS*	01295	UA7812CKC
	210-0586-00			NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL	TK0435	ORDER BY DESC
	211-0008-00			SCREW,MACHINE:4-40 X 0.25,PNH,STL	TK0435	ORDER BY DESC

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Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective Discontinued	Name & Description	Mfr. Code	Mfr. Part Number	
			END MOUNTING PARTS			
A1U724	156-3331-00		MICROCKT,HYBRID:HB9032-10	80009	156333100	
A1U728	155-0233-01		MICROCKT,LINER:OPERATIONAL AMPLIFIERH1038	TK2601	155023301	
A1U733	156-3330-00		MICROCKT,HYBRID:HB9100	80009	156333000	
A1U735	156-3330-00		MICROCKT,HYBRID:HB9100	80009	156333000	
A1U742	156-0936-00		IC,LINER:BIPOLAR,OP-AMP;TRANSCONDUCTANCE	34371	CA3080AS/5	
A1U747	155-0233-01		MICROCKT,LINER:OPERATIONAL AMPLIFIERH1038	TK2601	155023301	
A1U767	156-0368-00		IC,DIGITAL:ECL,TRANSLATOR:QUAD TTL TOECL	04713	MC10124L	
A1U772	156-1646-00		IC,DIGITAL:HCTCMOS,FLIP FLOP;OCTAL D-TYPE,3-STATE	OJR04	TC74HCT374AP	
A1U775	156-1646-00		IC,DIGITAL:HCTCMOS,FLIP FLOP;OCTAL D-TYPE,3-STATE	OJR04	TC74HCT374AP	
A1U784	156-0872-00		IC,LINER:BIPOLAR,VR:NEGATIVE,-12V,1.0A,4%	01295	UA7912CKC	
			MOUNTING PARTS			
	210-0586-00		NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL	TK0435	ORDER BY DESC	
	211-0008-00		SCREW,MACHINE:4-40 X 0.25,PNH,STL	TK0435	ORDER BY DESC	
			END MOUNTING PARTS			
A1U848	155-0228-00	671-0535-05	671-0535-07	MICROCKT,DGTL:5 BIT A/D CONVERTER	80009	155022800
A1U848	155-0228-01	671-0535-07		MICROCKT,DGTL:5 BIT A/D CONVERTER	TK2601	155022801
				MOUNTING PARTS		
	136-0753-00			SOCKET,PIN TERM:U/W 0.043 DIA PIN	91506	SLST-1AG4-1
				END MOUNTING PARTS		
A1U856	155-0228-00	671-0535-05	671-0535-07	MICROCKT,DGTL:5 BIT A/D CONVERTER	80009	155022800
A1U856	155-0228-01	671-0535-07		MICROCKT,DGTL:5 BIT A/D CONVERTER	TK2601	155022801
				MOUNTING PARTS		
	136-0753-00			SOCKET,PIN TERM:U/W 0.043 DIA PIN	91506	SLST-1AG4-1
				END MOUNTING PARTS		
A1U864	156-0509-00			IC,CONVERTER:BIPOLAR,D/A:8 BIT,400NS, MULTIPLYING,CUR OUT	1CH66	MC1408-8N
A1U868	156-0368-00			IC,DIGITAL:ECL,TRANSLATOR:QUAD TTL TOECL	04713	MC10124L
A1U873	156-1646-00			IC,DIGITAL:HCTCMOS,FLIP FLOP;OCTAL D-TYPE,3-STATE	OJR04	TC74HCT374AP
A1U875	156-1646-00			IC,DIGITAL:HCTCMOS,FLIP FLOP;OCTAL D-TYPE,3-STATE	OJR04	TC74HCT374AP
A1U890	156-0158-00			IC,LINER:BIPOLAR,OP-AMP:DUAL	01295	MC1458P
A1U935	155-0233-01			MICROCKT,LINER:OPERATIONAL AMPLIFIERH1038	TK2601	155023301
A1U946	156-3330-00			MICROCKT,HYBRID:HB9100	80009	156333000
A1VR132	152-0166-00			DIODE,ZENER:6.2V,5%,0.4W	04713	1N5995BRL
A1VR420	152-0807-00			SE COND DVC,DI:ZEN,SI,2.7V,5%,400MW,DO-35OR DO-7	04713	1N4371A
A1VR421	152-0807-00			SE COND DVC,DI:ZEN,SI,2.7V,5%,400MW,DO-35OR DO-7	04713	1N4371A
A1VR422	152-0807-00			SE COND DVC,DI:ZEN,SI,2.7V,5%,400MW,DO-35OR DO-7	04713	1N4371A
A1VR520	152-0807-00			SE COND DVC,DI:ZEN,SI,2.7V,5%,400MW,DO-35OR DO-7	04713	1N4371A
A1VR621	152-0807-00			SE COND DVC,DI:ZEN,SI,2.7V,5%,400MW,DO-35OR DO-7	04713	1N4371A
A1VR722	152-0807-00			SE COND DVC,DI:ZEN,SI,2.7V,5%,400MW,DO-35OR DO-7	04713	1N4371A

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A2	672-1294-01	B022000	B023422	CIRCUIT BD ASSY:GEN LOCK	80009	672129401
A2	672-1294-02	B023423	B030690	CIRCUIT BD ASSY:GEN LOCK	80009	672129402
A2	672-1294-03	B030691	B040696	CIRCUIT BD ASSY:GEN LOCK	80009	672129403
A2	672-1294-04	B040697		CIRCUIT BD ASSY:GEN LOCK	80009	672129404
A2A1	671-0105-01	672-1294-01	672-1294-01	CIRCUIT BD ASSY:GEN LOCK	80009	671010501
A2A1	671-0105-02	672-1294-02	672-1294-02	CIRCUIT BD ASSY:GEN LOCK	80009	671010502
A2A1	671-0105-03	672-1294-03	672-1294-03	CIRCUIT BD ASSY:GEN LOCK	80009	671010503
A2A1	671-0105-04	672-1294-04		CIRCUIT BD ASSY:GEN LOCK	80009	671010504
	337-1417-00			*ATTACHED PARTS*		
				SHIELD,ELEC:0.55 SQ X 0.685 INCH HIGH	02875	SO-9649-CN
				END ATTACHED PARTS		
A2A1C179	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C192	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C237	281-0759-00			CAP,FXD,CERA C:MLC:22PF,10%,100V,0.100 X 0.170	04222	SA102A2A120KAA
A2A1C246	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C254	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C264	283-0648-00			CAP,FXD CA DI:10PF,+/-0.5PF,500V	TK0891	RDM15CD100D03
A2A1C266	283-0648-00			CAP,FXD CA DI:10PF,+/-0.5PF,500V	TK0891	RDM15CD100D03
A2A1C270	283-0648-00			CAP,FXD CA DI:10PF,+/-0.5PF,500V	TK0891	RDM15CD100D03
A2A1C282	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C284	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C292	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C312	290-0973-00			CAP,FXD,ELCTLT:100UF,20%,25VDC	0H1N5	CEUSM1E101
A2A1C316	283-0238-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	SR075C103KAA
A2A1C328	285-1075-00			CAP,FXD,PLASTIC:0.1UF,5%,100V	14752	230B1B104J
A2A1C356	283-0690-00			CAP,FXD CA DI:560PF,1%,300V	TK0891	RDM15FC561F03
A2A1C369	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C377	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C378	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C385	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C412	290-0290-00			CAP,FXD,ELCTLT:10UF,20%,25V NPLZD	0P569	30D472
A2A1C417	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C423	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C429	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A2A1C448	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C452	283-0648-00			CAP,FXD CA DI:10PF,+/-0.5PF,500V	TK0891	RDM15CD100D03
A2A1C463	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C467	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C472	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C476	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C479	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C517	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C521	281-0759-00			CAP,FXD,CERA C:MLC:22PF,10%,100V,0.100 X 0.170	04222	SA102A2A120KAA
A2A1C523	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C526	283-0339-00			CAP,FXD,CERA C:MLC:0.22UF,10%,50V,X7R,0.30	04222	SR305C224KAA
A2A1C545	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C546	281-0773-00			CAP,FXD,CERA C:MLC:0.01UF,10%,100V	TK1743	CGB103KEX
A2A1C550	281-0773-00			CAP,FXD,CERA C:MLC:0.01UF,10%,100V	TK1743	CGB103KEX
A2A1C551	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C552	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C562	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C579	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C624	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C)	55680	UVX1H100MAA
A2A1C626	281-0815-00			CAP,FXD,CERA C:MLC:0.027UF,20%,50V,0.100 X	04222	SA2A105C273MAA
A2A1C627	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C628	283-0598-00			CAP,FXD CA DI:253PF,5%,500V	TK0891	RDM15FD2530J03
A2A1C629	290-0534-00			CAP,FXD,ELCTLT:1UF,20%,35V	D5243	ETP-1A 1UF 35V

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A2A1C638	290-0573-00			CAP,FXD,ELCTLT:2.7UF,20%,50V	TK0875	DTS5002-275M
A2A1C644	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C652	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C657	283-0238-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	SR075C103KAA
A2A1C664	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C669	283-0796-00			CAP,FXD CA DI:100PF,5%,500V	TK0974	DM10E101J5
A2A1C679	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C682	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C719	283-0598-00			CAP,FXD CA DI:253PF,5%,500V	TK0891	RDM15FD2530J03
A2A1C724	283-0194-00			CAP,FXD,CER DI:4.7UF,20%,50V	04222	SR505E475MAA
A2A1C733	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C754	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C764	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C782	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C811	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C815	290-0950-00			CAP,FXD,ELCTLT:100UF,+50-20%,50WVDC	0H1N5	CEUSM1H101
A2A1C816	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C826	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C827	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C832	283-0190-00			CAP,FXD,CER DI:0.47UF,5%,50V	04222	SR305C474JAA
A2A1C835	290-0986-00			CAP,FXD,ALUM:47UF,20%,50V,ESR=3.53OHM (120HZ,20C),6.3 X 16MM	55680	TVX1H470MAA
A2A1C838	290-0986-00			CAP,FXD,ALUM:47UF,20%,50V,ESR=3.53OHM (120HZ,20C),6.3 X 16MM	55680	TVX1H470MAA
A2A1C845	290-0920-00			CAP,FXD,ALUM:33UF,20%,50V,6 X 11MM,0.1SP	55680	UVX1H330MEA
A2A1C912	290-0950-00			CAP,FXD,ELCTLT:100UF,+50-20%,50WVDC	0H1N5	CEUSM1H101
A2A1C914	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C916	290-0950-00			CAP,FXD,ELCTLT:100UF,+50-20%,50WVDC	0H1N5	CEUSM1H101
A2A1C923	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C925	290-0534-00			CAP,FXD,ELCTLT:1UF,20%,35V	D5243	ETP-1A 1UF 35V
A2A1C930	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C934	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C935	281-0775-01			CAP,FXD,CERA C:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A2A1C936	290-0986-00			CAP,FXD,ALUM:47UF,20%,50V,ESR=3.53OHM (120HZ,20C),6.3 X 16MM	55680	TVX1H470MAA
A2A1C938	290-0986-00			CAP,FXD,ALUM:47UF,20%,50V,ESR=3.53OHM (120HZ,20C),6.3 X 16MM	55680	TVX1H470MAA
A2A1CR323	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A2A1CR324	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A2A1CR325	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A2A1CR423	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A2A1CR515	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A2A1DS173	150-1200-00			LT E TTING DIO:RED,2V	15513	PC080-R2
A2A1DS175	150-1198-00			LT E TTING DIO:AMBER,2V	15513	PC080-A2A1
A2A1DS176	150-1199-00			LT E TTING DIO:GREEN,2V	15513	PC080-G2
A2A1DS177	150-1198-00			LT E TTING DIO:AMBER,2V	15513	PC080-A2A1
A2A1DS179	150-1198-00			LT E TTING DIO:AMBER,2V	15513	PC080-A2A1
A2A1F830	159-0204-00			FUSE,WIRE LEAD:3.0A,125V,5 SECONDS,T&R,SAF CONTR	61857	SP7-3A
A2A1J195	131-0608-00			CONN,TER NAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 10)	22526	48283-018
A2A1J295	131-0608-00			CONN,TER NAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 4)	22526	48283-018
A2A1J318	131-0608-00			CONN,TER NAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A2A1J358	131-0391-00			CONN,RF JACK:SMB;MALE,STR,PCB,GOLD/GOLD,0.293 H X 0.155 TAIL,3/0.045 SQ TAIL 0.038 DIA CTR COND,0.2 SQ PCB,0.312 HEX *MOUNTING PARTS*	24931	32JR105-1
	210-1160-00			WASHER,FLAT:0.129 ID X 0.25 OD X 0.031 TEFLON *END ATTACHED PARTS*	86445	ORDER BY DESC
A2A1J573	131-0608-00			CONN,TER NAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A2A1J578	131-0608-00			CONN,TER NAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A2A1J694	174-0838-00			CA ASSY,SP,ELEC:34,30 AWG,9.2 L,RIBBON	TK1462	ORDER BY DESC
A2A1J779	131-0608-00			CONN,TER NAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A2A1J914	131-0608-00			CONN,TER NAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A2A1J928	131-4136-00	671-0105-01	671-0105-01	CONN,HDR PWR:PCB;MALE,STR,1 X 10,0.156CTR, 0.450 MLG X 0.172 TAIL,0.045 SQ,GOLD	27264	26-48-2101
A2A1J928	131-4884-00	671-0105-02		CONN,HDR PWR:PCB;MALE,STR,1 X 10,0.156CTR, 0.450 MLG X 0.125 TAIL,W/FRICTION LOCK,GOLD,94-V0	26742	3162-8-110-01
A2A1L722	108-0317-00			INDUCTOR,FXD:CUSTOM,POWER:15UH,10%,IDC<460MA, RDC<1.2 OHM,Q>55@2.5MHZ,SRF>30 MHZ,POWDERED IRON	OJR03	108-0317-00
A2A1P318	131-0993-02			BUS,CONDUCTOR:SHUNT ASSEMBLY,RED	00779	1-850100-0
A2A1P573	131-0993-02			BUS,CONDUCTOR:SHUNT ASSEMBLY,RED	00779	1-850100-0
A2A1P779	131-0993-02			BUS,CONDUCTOR:SHUNT ASSEMBLY,RED	00779	1-850100-0
A2A1Q134	151-0302-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,800MA,300MHZ,AMPL	04713	2N2222A
A2A1Q136	151-0301-00			TRANSISTOR,SIG:BIPOLAR,PNP;60V,600MA,200MHZ,AMPL	04713	2N2907A
A2A1Q146	151-0302-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,800MA,300MHZ,AMPL	04713	2N2222A
A2A1Q234	151-0302-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,800MA,300MHZ,AMPL	04713	2N2222A
A2A1Q236	151-0301-00			TRANSISTOR,SIG:BIPOLAR,PNP;60V,600MA,200MHZ,AMPL	04713	2N2907A
A2A1Q532	151-0261-00			XSTR,SIG:BIPOLAR,PNP;60V,50MA,100MHZ,AMPL,DUAL	80009	151026100
A2A1Q533	151-0302-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,800MA,300MHZ,AMPL	04713	2N2222A
A2A1Q534	151-0302-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,800MA,300MHZ,AMPL	04713	2N2222A
A2A1Q535	151-0301-00			TRANSISTOR,SIG:BIPOLAR,PNP;60V,600MA,200MHZ,AMPL	04713	2N2907A
A2A1Q536	151-0301-00			TRANSISTOR,SIG:BIPOLAR,PNP;60V,600MA,200MHZ,AMPL	04713	2N2907A
A2A1Q644	151-0220-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,400MHZ,AMPL	27014	S036228.22
A2A1Q645	151-0302-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,800MA,300MHZ,AMPL	04713	2N2222A
A2A1R138	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A2A1R139	315-0182-00			RES,FXD,FILM:1.8K OHM,5%,0.25W	50139	CB1825
A2A1R141	315-0182-00			RES,FXD,FILM:1.8K OHM,5%,0.25W	50139	CB1825
A2A1R142	315-0561-00			RES,FXD,FILM:560 OHM,5%,0.25W	50139	CB5615
A2A1R143	315-0332-00			RES,FXD,FILM:3.3K OHM,5%,0.25W	50139	CB3325
A2A1R144	315-0332-00			RES,FXD,FILM:3.3K OHM,5%,0.25W	50139	CB3325
A2A1R168	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A2A1R169	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	50139	CB4715
A2A1R171	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A2A1R184	307-0526-00			RES,NTWK:THICK FILM,(5)510 OHM,10%,0.125W EACH,TC=100 PPM,SIP6,PIN 1 COMMON	11236	750-61-R510 OHM OR 770-61R510
A2A1R211	322-3238-00			RES,FXD,FILM:2.94K OHM,1%,0.2W,TC=T0	57668	CRB20 FXE 2K94
A2A1R212	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A2A1R237	315-0561-00			RES,FXD,FILM:560 OHM,5%,0.25W	50139	CB5615
A2A1R238	315-0561-00			RES,FXD,FILM:560 OHM,5%,0.25W	50139	CB5615
A2A1R239	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A2A1R240	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A2A1R241	131-0391-00			RES,FXD,FILM:390 OHM,5%,0.25W	50139	CB3915

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Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A2A1R242	315-0391-00			RES,FXD,FILM:390 OHM,5%,0.25W	50139	CB3915
A2A1R243	315-0332-00			RES,FXD,FILM:3.3K OHM,5%,0.25W	50139	CB3325
A2A1R244	315-0182-00			RES,FXD,FILM:1.8K OHM,5%,0.25W	50139	CB1825
A2A1R245	315-0182-00			RES,FXD,FILM:1.8K OHM,5%,0.25W	50139	CB1825
A2A1R246	315-0332-00			RES,FXD,FILM:3.3K OHM,5%,0.25W	50139	CB3325
A2A1R262	307-1318-00			RES NTWK,FXD,FI:(2) 162 OHM,(2) 260 OHM,2%,0.125W	57924	4604X-4W1-000
A2A1R265	315-0271-00			RES,FXD,FILM:270 OHM,5%,0.25W	50139	CB2715
A2A1R268	315-0271-00			RES,FXD,FILM:270 OHM,5%,0.25W	50139	CB2715
A2A1R269	315-0271-00			RES,FXD,FILM:270 OHM,5%,0.25W	50139	CB2715
A2A1R276	307-0539-00			RES NTWK,FXD,FI:(7)510 OHM,10%,1W	11236	750-81-R510 OHM OR 770-81-R51
A2A1R284	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A2A1R286	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A2A1R292	307-0596-00			RES NTWK,FXD,FI:7.2.2K OHM,2%,1.0WTC=250PPM/DEG C	80009	307-0596-00
A2A1R294	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A2A1R315	315-0104-00			RES,FXD,FILM:100K OHM,5%,0.25W	50139	CB1045
A2A1R316	315-0104-00			RES,FXD,FILM:100K OHM,5%,0.25W	50139	CB1045
A2A1R317	315-0393-00			RES,FXD,FILM:39K OHM,5%,0.25W	50139	CB3935
A2A1R318	315-0105-00			RES,FXD,FILM:1M OHM,5%,0.25W	50139	CB1055
A2A1R319	315-0391-00			RES,FXD,FILM:390 OHM,5%,0.25W	50139	CB3915
A2A1R320	315-0753-00			RES,FXD,FILM:75K OHM,5%,0.25W	50139	CB7535
A2A1R334	315-0430-00			RES,FXD,FILM:43 OHM,5%,0.25W	50139	CB4305
A2A1R335	315-0391-00			RES,FXD,FILM:390 OHM,5%,0.25W	50139	CB3915
A2A1R336	315-0430-00			RES,FXD,FILM:43 OHM,5%,0.25W	50139	CB4305
A2A1R337	315-0391-00			RES,FXD,FILM:390 OHM,5%,0.25W	50139	CB3915
A2A1R338	315-0430-00			RES,FXD,FILM:43 OHM,5%,0.25W	50139	CB4305
A2A1R339	315-0431-00			RES,FXD,FILM:430 OHM,5%,0.25W	50139	CB4315
A2A1R355	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	50139	CB5115
A2A1R356	315-0331-00			RES,FXD,FILM:330 OHM,5%,0.25W	50139	CB3315
A2A1R366	307-1318-00			RES NTWK,FXD,FI:(2) 162 OHM,(2) 260 OHM,2%,0.125W	57924	4604X-4W1-000
A2A1R368	307-0503-00			RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125WTC=50PPM/DEG C	11236	750-101-R510 OR 770-101-R510
A2A1R376	307-1318-00			RES NTWK,FXD,FI:(2) 162 OHM,(2) 260 OHM,2%,0.125W	57924	4604X-4W1-000
A2A1R416	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A2A1R418	322-3297-00			RES,FXD:METAL FILM,12.1K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 12K1
A2A1R424	322-3258-00			RES,FXD:METAL FILM,4.75K OHM,1%,0.2W,TC=100 PPM	56845	CCF50-2-G4751FT
A2A1R425	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A2A1R426	315-0244-00			RES,FXD,FILM:240K OHM,5%,0.25W	50139	CB2445
A2A1R427	315-0104-00			RES,FXD,FILM:100K OHM,5%,0.25W	50139	CB1045
A2A1R432	315-0153-00			RES,FXD,FILM:15K OHM,5%,0.25W	50139	CB1535
A2A1R442	307-0526-00			RES,NTWK:THICK FILM,(5)510 OHM,10%,0.125W EACH,TC=100 PPM,SIP6,PIN 1 COMMON	11236	750-61-R510 OHM OR 770-61R510
A2A1R452	315-0271-00			RES,FXD,FILM:270 OHM,5%,0.25W	50139	CB2715
A2A1R453	307-1318-00			RES NTWK,FXD,FI:(2) 162 OHM,(2) 260 OHM,2%,0.125W	57924	4604X-4W1-000
A2A1R458	307-1318-00			RES NTWK,FXD,FI:(2) 162 OHM,(2) 260 OHM,2%,0.125W	57924	4604X-4W1-000
A2A1R462	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W	50139	CB1015
A2A1R465	307-1318-00			RES NTWK,FXD,FI:(2) 162 OHM,(2) 260 OHM,2%,0.125W	57924	4604X-4W1-000
A2A1R473	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	50139	CB5115
A2A1R475	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A2A1R488	307-1412-00			RES NTWK,FXD,FI:560 OHM,6 PIN,2%,0.30W	91637	CSC06A-01-561G
A2A1R489	307-1413-00			RES NTWK,FXD,FI:1.2K OHM,6 PIN,2%,0.30W	91637	CSC06A-01-122G
A2A1R499	307-1411-00			RES NTWK,FXD,FI:(5)470 OHM,10 PIN,2%,0.50W	91637	CSC10A-03-471G
A2A1R516	315-0123-00			RES,FXD,FILM:12K OHM,5%,0.25W	50139	CB1235
A2A1R520	321-0413-00			RES,FXD,FILM:196K OHM,1%,0.125W,TC=TO	50139	NOT AVAILABLE
A2A1R521	322-3342-00			RES,FXD,FILM:35.7K OHM,1%,0.2W,TC=TO ,SMALL BODY	57668	CRB20 FXE 35K7
A2A1R522	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A2A1R523	315-0122-00			RES,FXD,FILM:1.2K OHM,5%,0.25W	50139	CB1225
A2A1R524	315-0362-00			RES,FXD,FILM:3.6K OHM,5%,0.25W	50139	CB3625

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A2A1R525	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A2A1R526	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W	50139	CB5125
A2A1R527	315-0243-00			RES,FXD,FILM:24K OHM,5%,0.25W	50139	CB2435
A2A1R528	315-0623-00			RES,FXD,FILM:62K OHM,5%,0.25W	50139	CB6235
A2A1R531	322-3126-00			RES,FXD,FILM:200 OHM,1%,0.2W,TC=T0 ,SMALL BODY	91637	CCF501G200ROF
A2A1R532	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A2A1R533	315-0243-00			RES,FXD,FILM:24K OHM,5%,0.25W	50139	CB2435
A2A1R534	315-0362-00			RES,FXD,FILM:3.6K OHM,5%,0.25W	50139	CB3625
A2A1R535	315-0122-00			RES,FXD,FILM:1.2K OHM,5%,0.25W	50139	CB1225
A2A1R536	322-3097-00			RES,FXD:METAL FILM,100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100ROF
A2A1R537	322-3097-00			RES,FXD:METAL FILM,100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100ROF
A2A1R538	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W	50139	CB1015
A2A1R544	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A2A1R549	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A2A1R552	315-0332-00			RES,FXD,FILM:3.3K OHM,5%,0.25W	50139	CB3325
A2A1R554	307-0526-00			RES,NTWK:THICK FILM,(5)510 OHM,10%,0.125W EACH,TC=100 PPM,SIP6,PIN 1 COMMON	11236	750-61-R510 OHM OR 770-61R510
A2A1R574	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A2A1R586	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A2A1R625	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W	50139	CB2705
A2A1R631	315-0163-00			RES,FXD,FILM:16K OHM,5%,0.25W	50139	CB1635
A2A1R635	322-3469-00			RES,FXD,FILM:750K OHM,1%,0.2W,TC=T0 ,SMALL BODY	57668	CRB20 FXE 750K
A2A1R636	315-0562-00			RES,FXD,FILM:5.6K OHM,5%,0.25W	50139	CB5625
A2A1R637	315-0473-00			RES,FXD,FILM:47K OHM,5%,0.25W	50139	CB4735
A2A1R642	315-0101-00	671-0105-01	671-0105-02	RES,FXD,FILM:100 OHM,5%,0.25W	50139	CB1015
A2A1R642	315-0512-00	671-0105-03		RES,FXD,FILM:5.1K OHM,5%,0.25W	50139	CB5125
A2A1R643	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A2A1R647	315-0202-00			RES,FXD,FILM:2K OHM,5%,0.25W	50139	CB2025
A2A1R648	315-0820-00			RES,FXD,FILM:82 OHM,5%,0.25W	50139	CB8205
A2A1R649	322-3273-00			RES,FXD:METAL FILM,6.81K OHM,1%,0.2W,TC=100 PPM	91637	CCF50-2-G68100F
A2A1R672	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	50139	CB1035
A2A1R712	315-0272-00			RES,FXD,FILM:2.7K OHM,5%,0.25W	50139	CB2725
A2A1R733	311-0644-00			RES,VAR,NONWW:TRMR,20K OHM,0.5W CERMET	32997	3329H-L58-203
A2A1R744	311-1879-00			RES,VAR,NONWW:TRMR,20K OHM,0.5W LINEAR CERMET	32997	3299W-1-203
A2A1R764	307-1175-00			RES,NTWK:THICK FILM,(9)2.2K OHMS,BUSSED,2%,0.20W EACH,TC=100 PPM,SIP10	91637	CSC10A01-222G
A2A1R833	301-0120-00			RES,FXD,FILM:12 OHM,5%,0.5W	19701	5053CX12R00J
A2A1R839	301-0330-00			RES,FXD,FILM:33 OHM,5%,0.5W	19701	5053CX33R00J
A2A1TP145	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP182	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP322	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP324	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP342	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP434	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP439	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP444	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP514	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP523	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A2A1TP562	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP614	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP622	136-0352-00			SOCKET,PIN TERM:PCB:FEMALE,STR,ACCOM 0.014 -0.026 LEAD,0.178 L X 0.05DIA,0.070 X 0.014	00779	50462-7
A2A1TP735	136-0352-00			SOCKET,PIN TERM:PCB:FEMALE,STR,ACCOM 0.014 -0.026 LEAD,0.178 L X 0.05DIA,0.070 X 0.014	00779	50462-7
A2A1TP812	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP814	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP816	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP818	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP822	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP913	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP917	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP924	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1TP926	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A2A1U242	156-1640-00			IC,DIGITAL:ECL,RECEIVER;TRIPLE LINE	04713	MC10H116P
A2A1U252	156-0230-02			IC,DIGITAL:ECL,FLIP FLOP;DUAL D-TYPE MASTER	04713	MC10131L
A2A1U264	160-4624-00	671-0105-01	671-0105-03	IC,DIGITAL:ECL,PLD;PAL,10H20P8,6NS,210MA	80009	160462400
A2A1U264	160-4624-01	671-0105-03		IC,DIGITAL:ECL,PAL,PRGM,10E301,6NS,DIP24.3 *MOUNTING PARTS*	80009	160462401
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	00779	2-641932-3
A2A1U276	156-0956-02			IC,DIGITAL:LSTTL,BUFFER/DRIVER	01295	SN74LS244N
A2A1U278	156-0368-03			IC,DIGITAL:ECL,TRANSLATOR;QUAD TTL-TO-ECL	04713	MC10124P
A2A1U288	156-0368-03			IC,DIGITAL:ECL,TRANSLATOR;QUAD TTL-TO-ECL	04713	MC10124P
A2A1U292	156-2044-00			IC,DIGITAL:LSTTL,BUS TRANSCEIVER;OCTAL, NONINV	01295	SN74LS652NT
A2A1U366	156-0641-01			IC,DIGITAL:ECL,COUNTER;UNIVERSAL HEXADECIMAL	04713	MC10136P
A2A1U376	156-0316-04			IC,DIGITAL:ECL,TRANSLATOR;QUAD ECL TOTTL	04713	MC10125P
A2A1U394	160-5127-00			IC,DIGITAL:STTL,PLD;PAL,16L8,15NS,180MA *MOUNTING PARTS*	80009	160-5127-00
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A2A1U418	156-1191-01			IC,LINEAR:BIFET,OP-AMP;6MV VOS	01295	TL072ACP
A2A1U436	156-0048-00			IC,LINEAR:BIPOLAR,TRANSISTOR ARRAY;(5),NPN,(1)DIFF PAIR,(3)IND,15V,50MA,300MHZ,AMPLIFIER	34371	CA3046
A2A1U446	156-0230-02			IC,DIGITAL:ECL,FLIP FLOP;DUAL D-TYPE MASTER	04713	MC10131L
A2A1U455	156-1640-00			IC,DIGITAL:ECL,RECEIVER;TRIPLE LINE	04713	MC10H116P
A2A1U466	156-0641-01			IC,DIGITAL:ECL,COUNTER;UNIVERSAL HEXADECIMAL	04713	MC10136P
A2A1U485	160-5126-00	671-0105-01	671-0105-03	MICROCKT,DGTL:LOW PWR PRGM ARRAY LOGIC,PRGM	80009	160512600
A2A1U485	160-5126-01	671-0105-04		IC,DIGITAL:LOW PWR PRGM ARRAY LOGIC,PRGM PAL126L8-4CN,DIP20 *MOUNTING PARTS*	80009	160512601
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A2A1U518	156-1225-00			IC,LINEAR:BIPOLAR,COMPARATOR;DUAL,OPEN COLLECTOR,300NS	01295	LM393P
A2A1U546	156-0368-03			IC,DIGITAL:ECL,TRANSLATOR:QUAD TTL-TO-ECL	04713	MC10124P
A2A1U552	156-0733-02			IC,DIGITAL:LSTTL,MULTIVIBRATOR	01295	SN74LS221N
A2A1U558	156-0205-02			IC,DIGITAL:ECL,GATE:QUAD 2-INPUT OR	04713	MC10102P
A2A1U584	160-5562-01			IC,DIGITAL:STTL,PLD:PAL,16R8,37MHZ,180MA	80009	160-5562-01
				MOUNTING PARTS		
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A2A1U588	160-5133-00			MICROCKT,DGTL:CMOS,512 X 8 RGTR PROM,PRGM	80009	160513300
				MOUNTING PARTS		
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
				END MOUNTING PARTS		
A2A1U627	155-0144-01			MICROCKT,LINEAR:16 LEAD DUAL IN INLINE TVSYNC STRIPPER	TK2598	155014401
				MOUNTING PARTS		
	136-0729-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 8,16 POS,0.1	00779	2-641600-3
				END MOUNTING PARTS		
A2A1U656	160-5134-00			MICROCKT,DGTL:CMOS,512 X 8 RGTR PROM,PRGM	80009	160513400
				MOUNTING PARTS		
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
				END MOUNTING PARTS		
A2A1U675	160-5132-00			MICROCKT,DGTL:CMOS,2048 X 8 RGTR PROM,PRGM	80009	160513200
				MOUNTING PARTS		
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
				END MOUNTING PARTS		
A2A1U686	160-5135-00			MICROCKT,DGTL:CMOS,512 X 8 RGTR PROM,PRGM	80009	160513500
				MOUNTING PARTS		
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
				END MOUNTING PARTS		
A2A1U726	156-0515-03			IC SC:CMOS,ANALOG MUX;TRIPLE SPDT	04713	MC14053BCP
A2A1U758	160-5565-00			MICROCKT,DGTL:CMOS,8192 X 8 PROM,PRGM	80009	160556500
				7C263-40,DIP24N		
				MOUNTING PARTS		
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
				END MOUNTING PARTS		
A2A1U777	160-5563-00			MICROCKT,DGTL:ARRAY LOGIC CRO DEVICE,PRGM	80009	160556300
				MOUNTING PARTS		
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
				END MOUNTING PARTS		
A2A1U784	160-5561-00			IC,DIGITAL:STTL,PLD:PAL,16R8,37MHZ,180MA	80009	160-5561-00
				MOUNTING PARTS		
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A2A1U824	156-1160-00			IC,LINEAR:BIPOLAR,VR;POSITIVE,12V,100MA,4%	27014	LM78L12ACH
A2A1U828	156-0991-00			IC,LINEAR:BIPOLAR,VR;POSITIVE,5.0V,100MA,5%	01295	UA78L05ACLP

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A2A1U922	156-1207-00			IC,LINEAR:BIPOLAR,VR;NEGATIVE,-12V,500MA,3%	27014	LM320H-12
A2A1U949	156-0655-01			IC,LINEAR:BIPOLAR,VOLTAGE REGULATOR;BURN-IN	01295	UA7952CKC3
	210-0586-00			*MOUNTING PARTS*		
	211-0008-00			NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL	TK0435	ORDER BY DESC
				SCREW,MACHINE:4-40 X 0.25,PNH,STL	TK0435	ORDER BY DESC
				END MOUNTING PARTS		
A2A1Y746	119-2626-01			OSCILLATOR,RF:TCXO:20.25 MHZ,+/-0.0005%,HCMOS, 40/60 SYMMETRY,TR/TF=5NS,I INPUT=30MA,FEQ ADJUST +/-10PPM,14 PIN DIP CAN	21022	LS12DH
A2A1A1	671-0562-00			CIRCUIT BD ASSY:GENLOCK VCO	80009	671056200
				ATTACHED PARTS		
	337-3415-00			SHIELD,ELEC:GENLOCK	57357	BE1 11613
				END ATTACHED PARTS		
A2A1A1C1	283-5003-00			CAP,FXD,CERA C:MLC:0.01UF,10%,50V,X7R,1206	TK2058	C3216X7R1H103K-
A2A1A1C2	283-5011-00			CAP,FXD,CERA C:MLC:33PF,5%,50V,NPO,1206	TK2058	C3216C0G1H330J-
A2A1A1C3	283-5011-00			CAP,FXD,CERA C:MLC:33PF,5%,50V,NPO,1206	TK2058	C3216C0G1H330J-
A2A1A1C4	283-5000-00			CAP,FXD,CERA C:MLC:10PF,5%,50V,NPO,1206	TK2058	C3216C0G1H100J-
A2A1A1C5	281-0165-00			CAP,VAR,AIR DI:0.8-10PF,250V	91293	5201/3469
A2A1A1C6	283-5014-00			CAP,FXD,CERA C:MLC:330PF,5%,50V,NPO,1206	TK2058	C3216C0G1H331J-
A2A1A1C7	283-5014-00			CAP,FXD,CERA C:MLC:330PF,5%,50V,NPO,1206	TK2058	C3216C0G1H331J-
A2A1A1C8	283-5004-00			CAP,FXD,CERA C:MLC:0.1UF,10%,25V,X7R,1206	TK2058	C3216X7R1E104K-
A2A1A1C9	283-5000-00			CAP,FXD,CERA C:MLC:10PF,5%,50V,NPO,1206	TK2058	C3216C0G1H100J-
A2A1A1C10	283-5004-00			CAP,FXD,CERA C:MLC:0.1UF,10%,25V,X7R,1206	TK2058	C3216X7R1E104K-
A2A1A1C11	283-5004-00			CAP,FXD,CERA C:MLC:0.1UF,10%,25V,X7R,1206	TK2058	C3216X7R1E104K-
A2A1A1C12	283-5011-00			CAP,FXD,CERA C:MLC:33PF,5%,50V,NPO,1206	TK2058	C3216C0G1H330J-
A2A1A1CR1	152-5010-00			DIODE,SIG:VVC:30V,29PF,C3/25=5.75	0LUA3	BBY40TRL
A2A1A1L1	108-5072-00			INDUCTOR,FXD:SIGNAL;1UH,5%,IDC<460 MA,RDC<1.75 OHM,Q>33,SRF>290 MHZ	02113	1008CS-102XJB(A
A2A1A1L2	108-5005-00			INDUCTOR,FXD:SIGNAL:560NH,10%,IDC<580 MA,RDC<1.33 OHM,Q>30,SRF>415 MHZ	02113	1008CS-561XKB(A
A2A1A1P320	131-1426-00			CONN,HDR:PCB:MALE,RTANG,1 X 36,0.1CTR,0.23	22526	65524-136
A2A1A1Q1	151-5011-00			TRANSISTOR,SIG:BIPOLAR,NPN:12V,50MA,900MHZ,AMPL	0LUA3	BFS17 T/R
A2A1A1Q2	151-5011-00			TRANSISTOR,SIG:BIPOLAR,NPN:12V,50MA,900MHZ,AMPL	0LUA3	BFS17 T/R
A2A1A1R1	321-5030-00			RES,FXD:THICK FILM;10.0K OHM,1%,0.125W,TC=100 PPM	50139	BCK1002FT
A2A1A1R2	321-5030-00			RES,FXD:THICK FILM;10.0K OHM,1%,0.125W,TC=100 PPM	50139	BCK1002FT
A2A1A1R3	321-5030-00			RES,FXD:THICK FILM;10.0K OHM,1%,0.125W,TC=100 PPM	50139	BCK1002FT
A2A1A1R4	321-5030-00			RES,FXD:THICK FILM;10.0K OHM,1%,0.125W,TC=100 PPM	50139	BCK1002FT
A2A1A1R5	321-5043-00			RES,FXD:THICK FILM;47.5 OHM,1%,0.125W,TC=100 PPM	57668	MCR18FWEA47E5
A2A1A1R6	321-5017-00			RES,FXD:THICK FILM;825 OHM,1%,0.125W,TC=100	50139	BCK8250FT
A2A1A1R7	321-5017-00			RES,FXD:THICK FILM;825 OHM,1%,0.125W,TC=100	50139	BCK8250FT
A2A1A1R8	321-5030-00			RES,FXD:THICK FILM;10.0K OHM,1%,0.125W,TC=100 PPM	50139	BCK1002FT
A2A1A1R9	321-5043-00			RES,FXD:THICK FILM;47.5 OHM,1%,0.125W,TC=100 PPM	57668	MCR18FWEA47E5
A2A1A2	671-0563-00			CIRCUIT BD ASSY:GENLOCK VCO,NTSC	80009	671056300
				ATTACHED PARTS		
	337-3415-00			SHIELD,ELEC:GENLOCK	57357	BE1 11613
				END ATTACHED PARTS		
A2A1A2C1	283-5003-00			CAP,FXD,CERA C:MLC:0.01UF,10%,50V,X7R,1206	TK2058	C3216X7R1H103K-
A2A1A2C2	283-5001-00			CAP,FXD,CERA C:MLC:100PF,5%,50V,NPO,1206	TK2058	C3216C0G1H101J-
A2A1A2C4	283-5011-00			CAP,FXD,CERA C:MLC:33PF,5%,50V,NPO,1206	TK2058	C3216C0G1H330J-
A2A1A2C5	281-0165-00			CAP,VAR,AIR DI:0.8-10PF,250V	91293	5201/3469
A2A1A2C6	283-5014-00			CAP,FXD,CERA C:MLC:330PF,5%,50V,NPO,1206	TK2058	C3216C0G1H331J-
A2A1A2C7	283-5014-00			CAP,FXD,CERA C:MLC:330PF,5%,50V,NPO,1206	TK2058	C3216C0G1H331J-
A2A1A2C8	283-5004-00			CAP,FXD,CERA C:MLC:0.1UF,10%,25V,X7R,1206	TK2058	C3216X7R1E104K-
A2A1A2C9	283-5009-00			CAP,FXD,CERA C:MLC:15PF,5%,50V,NPO,0.126 X	TK2058	C3216C0G1H150J-
A2A1A2C10	283-5004-00			CAP,FXD,CERA C:MLC:0.1UF,10%,25V,X7R,1206	TK2058	C3216X7R1E104K-
A2A1A2C11	283-5004-00			CAP,FXD,CERA C:MLC:0.1UF,10%,25V,X7R,1206	TK2058	C3216X7R1E104K-

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A2A1A2C12	283-5011-00			CAP,FXD,CERA C:MLC;33PF,5%,50V,NPO,1206	TK2058	C3216COG1H330J-
A2A1A2C13	283-5000-00			CAP,FXD,CERA C:MLC;10PF,5%,50V,NPO,1206	TK2058	C3216COG1H100J-
A2A1A2CR1	152-5010-00			DIODE,SIG:VVC;30V,29PF,C3/25=5.75	0LUA3	BBY40TRL
A2A1A2L1	108-5072-00			INDUCTOR,FXD:SIGNAL;1UH,5%,IDC<460 MA,RDC<1.75 OHM,Q>33,SRF>290 MHZ	02113	1008CS-102XJB2A
A2A1A2L2	108-5005-00			INDUCTOR,FXD:SIGNAL;560NH,10%,IDC<580 MA,RDC<1.33 OHM,Q>30,SRF>415 MHZ	02113	1008CS-561XKB2A
A2A1A2P120	131-1426-00			CONN,HDR:PCB;MALE,RTANG,1 X 36,0.1CTR,0.23	22526	65524-136
A2A1A2Q1	151-5011-00			TRANSISTOR,SIG:BIPOLAR,NPN;12V,50MA,900MHZ,AMPL	0LUA3	BFS17 T/R
A2A1A2Q2	151-5011-00			TRANSISTOR,SIG:BIPOLAR,NPN;12V,50MA,900MHZ,AMPL	0LUA3	BFS17 T/R
A2A1A2R1	321-5030-00			RES,FXD:THICK FILM;10.0K OHM,1%,0.125W,TC=100 PPM	50139	BCK1002FT
A2A1A2R2	321-5030-00			RES,FXD:THICK FILM;10.0K OHM,1%,0.125W,TC=100 PPM	50139	BCK1002FT
A2A1A2R3	321-5030-00			RES,FXD:THICK FILM;10.0K OHM,1%,0.125W,TC=100 PPM	50139	BCK1002FT
A2A1A2R4	321-5030-00			RES,FXD:THICK FILM;10.0K OHM,1%,0.125W,TC=100 PPM	50139	BCK1002FT
A2A1A2R5	321-5043-00			RES,FXD:THICK FILM;47.5 OHM,1%,0.125W,TC=100 PPM	57668	MCR18FWEA47E5
A2A1A2R6	321-5017-00			RES,FXD:THICK FILM;825 OHM,1%,0.125W,TC=100	50139	BCK8250FT
A2A1A2R7	321-5017-00			RES,FXD:THICK FILM;825 OHM,1%,0.125W,TC=100	50139	BCK8250FT
A2A1A2R8	321-5030-00			RES,FXD:THICK FILM;10.0K OHM,1%,0.125W,TC=100 PPM	50139	BCK1002FT
A2A1A2R9	321-5043-00			RES,FXD:THICK FILM;47.5 OHM,1%,0.125W,TC=100 PPM	57668	MCR18FWEA47E5

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A3	672-1296-04	B022000	B022013	CIRCUIT BD ASSY:ADC	80009	672129604
A3	672-1296-05	B022014	B023422	CKT BD SUBASSY:ADC	80009	672129605
A3	672-1296-08	B023423	B031236	CIRCUIT BD ASSY:ADC	80009	672129608
A3	672-1296-11	B031237	B042558	CIRCUIT BD ASSY:ADC	80009	672129611
A3	672-1296-12	B042559	B043073	CIRCUIT BD ASSY:ADC	80009	672129612
A3	672-3321-00	B043074	B043210	CIRCUIT BD ASSY:ADC	80009	672332100
A3	672-3321-01	B043211		CIRCUIT BD ASSY:ADC	80009	672332101
A3A1				CIRCUIT BD SUBASSY:ADC		
A3A1C113	290-0943-00		672-3321-00	CAP,FXD,ALUM:47UF,+50-20%,25V,6 X 11MM	0H1N5	CEUSM1E470-Q
A3A1C114	290-0572-00		672-3321-00	CAP,FXD,ELCTLT:0.1UF,20%,50V	TK0875	DTS5002-104M
A3A1C115	290-0572-00		672-3321-00	CAP,FXD,ELCTLT:0.1UF,20%,50V	TK0875	DTS5002-104M
A3A1C119	283-0223-00	672-1296-12	672-3321-00	CAP,FXD,CER DI:3PF,+/-5PF,50V	TK0679	TC501-NPO-309D
A3A1C125	283-0353-00		672-3321-00	CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A3A1C131	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C135	283-0353-00		672-3321-00	CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A3A1C144	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C147	283-0353-00		672-3321-00	CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A3A1C166	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C186	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C219	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C224	283-0353-00		672-3321-00	CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A3A1C226	283-0353-00		672-3321-00	CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A3A1C234	283-0353-00		672-3321-00	CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A3A1C235	283-0353-00		672-3321-00	CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A3A1C236	283-0353-00		672-3321-00	CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A3A1C238	283-0353-00		672-3321-00	CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A3A1C239	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C259	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C268	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C275	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C279	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C289	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C322	283-0353-00		672-3321-00	CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A3A1C327	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C329	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C333	283-0353-00		672-3321-00	CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A3A1C337	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C348	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C357	283-0220-00		672-3321-00	CAP,FXD,CERAMIC:MCL:0.01UF,20%,50V,X7R,0.20	04222	SR155C103MAA
A3A1C358	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C368	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C377	281-0811-00	672-1296-12	672-3321-00	CAP,FXD,CERAMIC:10PF,100V	80009	281081100
A3A1C378	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C379	281-0811-00	672-1296-12	672-3321-00	CAP,FXD,CERAMIC:10PF,100V	80009	281081100
A3A1C384	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C398	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C444	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C445	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C446	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C453	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C462	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C463	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C464	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C468	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C486	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C487	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C488	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C511	290-0943-00		672-3321-00	CAP,FXD,ALUM:47UF,+50-20%,25V,6 X 11MM	0H1N5	CEUSM1E470-Q

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A3A1C512	281-0722-00		672-3321-00	CAP,FXD,CER DI:7.5PF,+/-0.1PF,500VDOGBONE,SMALL	52763	2RDPZZ007 7P50B
A3A1C516	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C518	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C521	290-0943-00		672-3321-00	CAP,FXD,ALUM:47UF,+50-20%,25V,6 X 11MM	0H1N5	CEUSM1E470-Q
A3A1C522	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C523	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C536	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C545	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C546	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C552	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C556	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C558	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C565	283-0353-00		672-3321-00	CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A3A1C566	283-0353-00		672-3321-00	CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A3A1C567	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C568	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C572	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C573	283-0353-00		672-3321-00	CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A3A1C575	283-0353-00		672-3321-00	CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A3A1C582	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C614	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C615	281-0657-00		672-3321-00	CAP,FXD,CER DI:13PF,2%,500V	52763	RDPL130GCOG
A3A1C617	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C628	281-0184-00		672-3321-00	CAP,VAR,PLASTIC:2-18PF,500VDC	TK1727	2222-809-05003
A3A1C637	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C638	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C647	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C648	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C657	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C662	283-0353-00		672-3321-00	CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A3A1C663	283-0353-00		672-3321-00	CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A3A1C664	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C666	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C668	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C671	290-0523-00		672-3321-00	CAP,FXD,ELCTLT:2.2UF,20%,20V	D5243	ETP-1B 2.2UF 25
A3A1C672	290-0891-00		672-1296-07	CAP,FXD,ELCTLT:1UF,+75 -10%,50V	0H1N5	CEUSM1H010
A3A1C672	290-0572-00	672-1296-08	672-3321-00	CAP,FXD,ELCTLT:0.1UF,20%,50V	TK0875	DTS5002-104M
A3A1C674	283-0779-00		672-3321-00	CAP,FXD,MICA DI:27 PF,2%,500V	TK0891	RDM15ED270G03
A3A1C677	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C678	283-0212-00		672-3321-00	CAP,FXD,CER DI:2UF,20%,50V	04222	SR405E205MAA
A3A1C679	290-0943-00		672-3321-00	CAP,FXD,ALUM:47UF,+50-20%,25V,6 X 11MM	0H1N5	CEUSM1E470-Q
A3A1C681	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C685	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C765	281-0775-02		672-3321-00	CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A3A1C766	281-0775-02		672-3321-00	CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A3A1C771	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C785	290-0943-00		672-3321-00	CAP,FXD,ALUM:47UF,+50-20%,25V,6 X 11MM	0H1N5	CEUSM1E470-Q
A3A1C787	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C793	290-0943-00		672-3321-00	CAP,FXD,ALUM:47UF,+50-20%,25V,6 X 11MM	0H1N5	CEUSM1E470-Q
A3A1C797	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C798	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C863	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C865	281-0775-02		672-3321-00	CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A3A1C866	281-0775-02		672-3321-00	CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A3A1C873	290-0973-00		672-3321-00	CAP,FXD,ELCTLT:100UF,20%,25VDC	0H1N5	CEUSM1E101
A3A1C883	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C885	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C887	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A3A1C888	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C889	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C894	283-0220-00		672-3321-00	CAP,FXD,CERAMIC:MCL:0.01UF,20%,50V,X7R,0.20	04222	SR155C103MAA
A3A1C895	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C896	290-0943-00		672-3321-00	CAP,FXD,ALUM:47UF,+50-20%,25V,6 X 11MM	0H1N5	CEUSM1E470-Q
A3A1C972	290-0943-00		672-3321-00	CAP,FXD,ALUM:47UF,+50-20%,25V,6 X 11MM	0H1N5	CEUSM1E470-Q
A3A1C976	290-0973-00		672-3321-00	CAP,FXD,ELCTLT:100UF,20%,25VDC	0H1N5	CEUSM1E101
A3A1C983	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C985	283-0649-00		672-3321-00	CAP,FXD,MICA DI:105PF,1%,500V	TK0891	RDM15FD1050F03
A3A1C986	290-1312-00		672-3321-00	CAP,FXD,ALUM:2.2UF,20%,315V;10 X 125MM,0.2SP, RADIAL,105 DEG,T&A	55680	UPR2F2R2MPHITD
A3A1C988	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1C992	290-0943-00		672-3321-00	CAP,FXD,ALUM:47UF,+50-20%,25V,6 X 11MM	0H1N5	CEUSM1E470-Q
A3A1C994	290-0943-00		672-3321-00	CAP,FXD,ALUM:47UF,+50-20%,25V,6 X 11MM	0H1N5	CEUSM1E470-Q
A3A1CR245	152-0141-02		672-3321-00	DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A1CR767	152-0141-02		672-3321-00	DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A1CR864	152-0141-02		672-3321-00	DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A1CR888	152-0141-02		672-3321-00	DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A1CR889	152-0141-02		672-3321-00	DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A1DL126	119-3050-00		672-3321-00	DELAY LINE,ELEC:5.0NS +/-0.3NS,50 OHM,350MHZ, FDC5005,SIP03	TK2204	FDC 5005
A3A1DL136	119-3050-00		672-3321-00	DELAY LINE,ELEC:5.0NS +/-0.3NS,50 OHM,350MHZ, FDC5005,SIP03	TK2204	FDC 5005
A3A1DL146	119-3049-00		672-3321-00	DELAY LINE,ELEC:10NS +/-0.5NS,50 OHM,150MHZ, FDD10005,SIP03	TK2204	FDD10005
A3A1DL222	119-3052-00		672-3321-00	DELAY LINE,ELEC:VARIABLE 0-10NS,50/100 OHM, TR 1.3NS,VDS1110,DIP16.3	TK2204	VDS 1110
A3A1DL227	119-3050-00		672-3321-00	DELAY LINE,ELEC:5.0NS +/-0.3NS,50 OHM,350MHZ, FDC5005,SIP03	TK2204	FDC 5005
A3A1DL232	119-3047-00		672-3321-00	DELAY LINE,ELEC:15NS +1NS,50 OHM,TR 1.5NS,FDS15005, DIP16.3	TK2204	FDS 15005
A3A1DL237	119-3050-00		672-3321-00	DELAY LINE,ELEC:5.0NS +/-0.3NS,50 OHM,350MHZ, FDC5005,SIP03	TK2204	FDC 5005
A3A1DL239	119-3048-00		672-3321-00	DELAY LINE,ELEC:7.0NS +/-0.4NS,50 OHM,220MHZ, FDD7005,SIP03	TK2204	FDD 7005
A3A1DL336	119-3049-00		672-3321-00	DELAY LINE,ELEC:10NS +/-0.5NS,50 OHM,150MHZ, FDD10005,SIP03	TK2204	FDD10005
A3A1DS194	150-1020-00		672-3321-00	DIODE,OPTO:LED:RED,635NM,1.0MCD AT 5V,90 DEG VIEW,INTEGRAL RESISTOR,SUBMINIATURE RIGHT ANGLE	15513	PC080-RL5
A3A1F989	159-0059-00		672-3321-00	FUSE,WIRE LEAD:5A,125V	61857	SPI-5A
A3A1F996	159-0059-00		672-3321-00	FUSE,WIRE LEAD:5A,125V	61857	SPI-5A
A3A1J111	131-0608-00		672-3321-00	CONN,TERMINAL:PRESSFIT/PCB:MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 10)	22526	48283-018
A3A1J164	174-0838-00		672-3321-00	CA ASSY,SP,ELEC:34,30 AWG,9.2 L,RIBBON	TK1462	ORDER BY DESC
A3A1J185	131-3213-00		672-3321-00	CONN,HDR:PCB:MALE,STR,2 X 6,0.1 CTR,0.318MLG X 0.100 TAIL,30GOLD	58050	182-0644-SD11
A3A1J192	131-1857-00		672-3321-00	CONN,HDR:PCB:MALE,STR,1 X 36,0.1 CTR,0.230	58050	082-3644-SS10
A3A1J246	131-0608-00		672-3321-00	CONN,TERMINAL:PRESSFIT/PCB:MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A3A1J419	131-0591-00		672-3321-00	TERM,PIN:PCB/PRESSFIT;MALE,STR,0.025 SQ,0.698 MLG X 0.137 TAIL,0.835 L,PHOS BRZ,50 GOLD,0.049 +/- 0.002 PCB (QUANTITY 2)	22526	47352-000
A3A1J439	131-0591-00		672-3321-00	TERM,PIN:PCB/PRESSFIT;MALE,STR,0.025 SQ,0.698 MLG X 0.137 TAIL,0.835 L,PHOS BRZ,50 GOLD,0.049 +/- 0.002 PCB (QUANTITY 2)	22526	47352-000
A3A1J577	131-0608-00		672-3321-00	CONN,TERMINAL:PRESSFIT/PCB:MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A3A1J712	131-0608-00		672-3321-00	CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A3A1J716	131-0591-00		672-3321-00	TERM,PIN:PCB/PRESSFIT;MALE,STR,0.025 SQ,0.698 MLG X 0.137 TAIL,0.835 L,PHOS BRZ,50 GOLD,0.049 +/- 0.002 PCB (QUANTITY 2)	22526	47352-000
A3A1J995	131-4136-00		672-1296-07	CONN,HDR PWR:PCB;MALE,STR,1 X 10,0.156CTR, 0.450 MLG X 0.172 TAIL,0.045 SQ,GOLD	27264	26-48-2101
A3A1J995	131-4884-00	672-1296-08	672-3321-00	CONN,HDR PWR:PCB;MALE,STR,1 X 10,0.156CTR, 0.450 MLG X 0.125 TAIL,W/FRICTION LOCK,GOLD,94-V0	26742	3162-8-110-01
A3A1L675	108-0655-00		672-3321-00	INDUCTOR,FXD:CUSTOM,SIGNAL:63NH,Q>73@50MHZ, ON FORM 276-0153-00	OJR03	108-0655-00
A3A1P246	131-0993-02		672-3321-00	BUS,CONDUCTOR:SHUNT ASSEMBLY,RED	00779	1-850100-0
A3A1Q786	151-0736-00		672-3321-00	TRANSISTOR,SIG:BIPOLAR,NPN;40V,600MA,250MHZ,AMPL	OJR04	2N4401
A3A1Q882	151-0406-00		672-3321-00	TRANSISTOR,SIG:BIPOLAR,PNP;175V,1.0A,200MHZ,AMPL	04713	2N3637
A3A1Q966	151-0647-00		672-3321-00	TRANSISTOR,PWR:BIPOLAR,PNP;150V,8.0A,30MHZ,AMPL	04713	MJE15031
	210-0586-00		672-3321-00	*ATTACHED PARTS*		
	210-1171-00		672-3321-00	NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL	TK0435	ORDER BY DESC
	211-0012-00		672-3321-00	WASHER,SHLDR:0.12 ID X 0.143 OD X 0.07 D	00261	A7148516P2
	214-3036-00		672-3321-00	SCREW,MACHINE:4-40 X 0.375,PNH,STL	TK0435	ORDER BY DESC
	342-0563-00		672-3321-00	HEAT SINK,SEMIC:XSTR,TO-220;ALUMINUM,BLK ANODIZE	98978	7-363-BA
			672-3321-00	INSULATOR,PLATE:XSTR,FIBERGLASS REINFORCED SILICON RUBBER	18565	69-11-8805-1674
				END ATTACHED PARTS		
A3A1Q973	151-0407-00		672-3321-00	TRANSISTOR:NPN,SI,TO-39	04713	2N3501
A3A1R119	322-3105-00	672-1296-12	672-3321-00	RES,FXD:METAL FILM,121 OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 121E
A3A1R131	307-0503-00		672-3321-00	RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125WTC=50PPM/ DEG C	11236	750-101-R510 OR 770-101-R510
A3A1R149	315-0510-00		672-3321-00	RES,FXD,FILM:51 OHM,5%,0.25W	50139	CB5105
A3A1R159	307-0503-00		672-3321-00	RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125WTC=50PPM/ DEG C	11236	750-101-R510 OR 770-101-R510
A3A1R179	307-0503-00		672-3321-00	RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125WTC=50PPM/ DEG C	11236	750-101-R510 OR 770-101-R510
A3A1R185	307-0503-00		672-3321-00	RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125WTC=50PPM/ DEG C	11236	750-101-R510 OR 770-101-R510
A3A1R195	315-0221-00		672-3321-00	RES,FXD,FILM:220 OHM,5%,0.25W,MI	50139	CB2215
A3A1R212	315-0101-00		672-3321-00	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A3A1R218	315-0101-00		672-3321-00	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A3A1R241	315-0510-00		672-3321-00	RES,FXD,FILM:51 OHM,5%,0.25W	50139	CB5105
A3A1R242	315-0510-00		672-3321-00	RES,FXD,FILM:51 OHM,5%,0.25W	50139	CB5105
A3A1R243	315-0510-00		672-3321-00	RES,FXD,FILM:51 OHM,5%,0.25W	50139	CB5105
A3A1R244	315-0152-00		672-3321-00	RES,FXD,FILM:1.5K OHM,5%,0.25W	50139	CB1525
A3A1R266	307-0539-00		672-3321-00	RES NTWK,FXD,FI:(7)510 OHM,10%,1W	11236	750-81-R510 OHM OR 770-81-R51
A3A1R268	307-1318-00		672-3321-00	RES NTWK,FXD,FI:(2) 162 OHM,(2) 260 OHM,2%,0.125W	57924	4604X-4W1-000
A3A1R269	307-0539-00		672-3321-00	RES NTWK,FXD,FI:(7)510 OHM,10%,1W	11236	750-81-R510 OHM OR 770-81-R51
A3A1R284	307-0526-00		672-3321-00	RES,NTWK:THICK FILM,(5)510 OHM,10%,0.125W EACH,TC=100 PPM,SIP6,PIN 1 COMMON	11236	750-61-R510 OHM OR 770-61R510
A3A1R294	307-1318-00		672-3321-00	RES NTWK,FXD,FI:(2) 162 OHM,(2) 260 OHM,2%,0.125W	57924	4604X-4W1-000
A3A1R296	307-1318-00		672-3321-00	RES NTWK,FXD,FI:(2) 162 OHM,(2) 260 OHM,2%,0.125W	57924	4604X-4W1-000
A3A1R298	307-1318-00		672-3321-00	RES NTWK,FXD,FI:(2) 162 OHM,(2) 260 OHM,2%,0.125W	57924	4604X-4W1-000
A3A1R310	315-0101-00		672-3321-00	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A3A1R311	315-0510-00		672-3321-00	RES,FXD,FILM:51 OHM,5%,0.25W	50139	CB5105
A3A1R312	315-0510-00		672-3321-00	RES,FXD,FILM:51 OHM,5%,0.25W	50139	CB5105
A3A1R313	322-3133-00		672-3321-00	RES,FXD,FILM:237 OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF50-2F237R0F
A3A1R314	321-0111-00		672-3321-00	RES,FXD,FILM:140 OHM,1%,0.125W,TC=T0	50139	NOT AVAILABLE
A3A1R315	315-0101-00		672-3321-00	RES,FXD,FILM:100 OHM,5%,0.25W	50139	CB1015
A3A1R347	315-0105-00		672-3321-00	RES,FXD,FILM:1M OHM,5%,0.25W	50139	CB1055

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A3A1R350	307-0539-00		672-3321-00	RES NTWK,FXD,FI:(7)510 OHM,10%,1W	11236	750-81-R510 OHM OR 770-81-R51
A3A1R359	307-0539-00		672-3321-00	RES NTWK,FXD,FI:(7)510 OHM,10%,1W	11236	750-81-R510 OHM OR 770-81-R51
A3A1R368	307-0539-00		672-3321-00	RES NTWK,FXD,FI:(7)510 OHM,10%,1W	11236	750-81-R510 OHM OR 770-81-R51
A3A1R375	307-0539-00		672-3321-00	RES NTWK,FXD,FI:(7)510 OHM,10%,1W	11236	750-81-R510 OHM OR 770-81-R51
A3A1R382	307-1318-00		672-3321-00	RES NTWK,FXD,FI:(2) 162 OHM,(2) 260 OHM,2%,0.125W	57924	4604X-4W1-000
A3A1R388	307-0539-00		672-3321-00	RES NTWK,FXD,FI:(7)510 OHM,10%,1W	11236	750-81-R510 OHM OR 770-81-R51
A3A1R392	307-0526-00		672-3321-00	RES,NTWK:THICK FILM,(5)510 OHM,10%,0.125W EACH,TC=100 PPM,SIP6,PIN 1 COMMON	11236	750-61-R510 OHM OR 770-61R510
A3A1R399	307-0526-00		672-3321-00	RES,NTWK:THICK FILM,(5)510 OHM,10%,0.125W EACH,TC=100 PPM,SIP6,PIN 1 COMMON	11236	750-61-R510 OHM OR 770-61R510
A3A1R465	307-1318-00		672-3321-00	RES NTWK,FXD,FI:(2) 162 OHM,(2) 260 OHM,2%,0.125W	57924	4604X-4W1-000
A3A1R513	322-3085-00		672-3321-00	RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A3A1R520	308-0431-00		672-3321-00	RES,FXD,WW:120 OHM,5%,3W AXIAL LEADS	91637	CW-2B-60-1200-J-T/ R
A3A1R526	321-0097-07		672-3321-00	RES,FXD,FILM:100 OHM,0.1%,0.125W,TC=T9	50139	ADVISE
A3A1R533	308-0431-00		672-3321-00	RES,FXD,WW:120 OHM,5%,3W AXIAL LEADS	91637	CW-2B-60-1200-J-T/ R
A3A1R535	307-1318-00		672-3321-00	RES NTWK,FXD,FI:(2) 162 OHM,(2) 260 OHM,2%,0.125W	57924	4604X-4W1-000
A3A1R555	307-1318-00		672-3321-00	RES NTWK,FXD,FI:(2) 162 OHM,(2) 260 OHM,2%,0.125W	57924	4604X-4W1-000
A3A1R557	322-3085-00		672-3321-00	RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A3A1R563	322-3030-00		672-3321-00	RES,FXD:METAL FILM,20 OHM,1%,0.2W,TC=100 PPM	57668	CRB 20 FXE 20E0
A3A1R564	322-3193-00		672-3321-00	RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A3A1R569	325-0390-00		672-3321-00	RES,FXD,FILM:8K OHM,0.02%,0.3W TC=1PPM/DEG C	18612	S102K 8K000-.02%
A3A1R573	322-3030-00		672-3321-00	RES,FXD:METAL FILM,20 OHM,1%,0.2W,TC=100 PPM	57668	CRB 20 FXE 20E0
A3A1R574	322-3201-00		672-3321-00	RES,FXD:METAL FILM,1.21K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G12100F
A3A1R587	321-1264-07		672-3321-00	RES,FXD,FILM:5.56K OHM,0.1%,0.125W,TC=T9	07716	CEA 5.56 K OHM 0.1 PERCENT T9
A3A1R588	321-0609-07		672-3321-00	RES,FXD,FILM:480 OHM,0.1%,0.125W,TC=T9MI	07716	CEAE480ROB
A3A1R611	321-0370-00		672-3321-00	RES,FXD,FILM:69.8K OHM,1%,0.125W,TC=T0	50139	NOT AVAILABLE
A3A1R614	321-0143-07		672-3321-00	RES,FXD,FILM:301 OHM,0.1%,0.125W,TC=T9MI	07716	CEA 301 OHM 0.1 PERCENT T-9
A3A1R615	322-3239-00		672-3321-00	RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF501G30100F
A3A1R616	321-0143-07		672-3321-00	RES,FXD,FILM:301 OHM,0.1%,0.125W,TC=T9MI	07716	CEA 301 OHM 0.1 PERCENT T-9
A3A1R619	311-0622-00		672-3321-00	RES,VAR,NONWW:TRMR,100 OHM,0.5W CERMET	02111	65Y101T010
A3A1R622	321-0928-07		672-3321-00	RES,FXD,FILM:250 OHM,0.1%,0.125W,TC=T9	50139	ADVISE
A3A1R623	321-0097-07		672-3321-00	RES,FXD,FILM:100 OHM,0.1%,0.125W,TC=T9MI	50139	ADVISE
A3A1R624	322-3255-00		672-3321-00	RES,FXD,FILM:4.42K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 4K42
A3A1R632	321-0097-07		672-3321-00	RES,FXD,FILM:100 OHM,0.1%,0.125W,TC=T9MI	50139	ADVISE
A3A1R653	307-0526-00		672-3321-00	RES,NTWK:THICK FILM,(5)510 OHM,10%,0.125W EACH,TC=100 PPM,SIP6,PIN 1 COMMON	11236	750-61-R510 OHM OR 770-61R510
A3A1R658	315-0511-00		672-3321-00	RES,FXD,FILM:510 OHM,5%,0.25W	50139	CB5115
A3A1R659	315-0511-00		672-3321-00	RES,FXD,FILM:510 OHM,5%,0.25W	50139	CB5115
A3A1R673	325-0389-00		672-3321-00	RES,FXD,FILM:102.4 OHM,0.02%,0.3W TC=1.5PPM/DEG C	18612	S102K 102R40-.02%
A3A1R676	322-3098-00		672-3321-00	RES,FXD,FILM:102 OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 102E
A3A1R677	325-0390-00		672-3321-00	RES,FXD,FILM:8K OHM,0.02%,0.3W TC=1PPM/DEG C	18612	S102K 8K000-.02%
A3A1R686	322-3158-00		672-3321-00	RES,FXD,FILM:432 OHM,1%,0.2W,TC=T0,SMALL BODY	91637	CCF501G4320FT
A3A1R687	315-0391-00		672-3321-00	RES,FXD,FILM:390 OHM,5%,0.25W	50139	CB3915
A3A1R691	315-0912-00		672-3321-00	RES,FXD,FILM:9.1K OHM,5%,0.25W	50139	CB9125
A3A1R695	311-1897-00		672-3321-00	RES,VAR,NONWW:TRMR,25K OHM,10%,0.5W,LIN CERMET	32997	3299W-1-253
A3A1R721	321-0095-00		672-3321-00	RES,FXD,FILM:95.3 OHM,1%,0.125W,TC=T0	50139	ADVISE
A3A1R722	322-3085-00		672-3321-00	RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A3A1R723	322-3193-00		672-3321-00	RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A3A1R796	322-3193-00		672-3321-00	RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A3A1R797	315-0151-00		672-3321-00	RES,FXD,FILM:150 OHM,5%,0.25W	50139	CB1515
A3A1R872	308-0620-00		672-3321-00	RES,FXD,WW:27.0 OHM,1%,3W AXIAL LEADS	91637	RS2B-27ROF
A3A1R875	308-0620-00		672-3321-00	RES,FXD,WW:27.0 OHM,1%,3W AXIAL LEADS	91637	RS2B-27ROF
A3A1R881	315-0512-00		672-3321-00	RES,FXD,FILM:5.1K OHM,5%,0.25W	50139	CB5125
A3A1R884	315-0151-00		672-3321-00	RES,FXD,FILM:150 OHM,5%,0.25W	50139	CB1515
A3A1R886	322-3289-00		672-3321-00	RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A3A1R887	322-3289-00		672-3321-00	RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A3A1R892	322-3193-00		672-3321-00	RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A3A1R974	315-0102-00		672-3321-00	RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A3A1R975	308-0710-00		672-3321-00	RES,FXD:0.27 OHM,5%,1W	91637	CPF-1-0R27JT1-T/R
A3A1R982	315-0392-00		672-3321-00	RES,FXD,FILM:3.9K OHM,5%,0.25W	50139	CB3925
A3A1R984	321-1687-07		672-3321-00	RES,FXD,FILM:13.28K OHM,0.1%,0.125W,TC=T9	07716	CEAE13281B
A3A1R985	321-1682-07		672-3321-00	RES,FXD,FILM:5.7K OHM,0.1%,0.125W,TC=T9	07716	ADVISE
A3A1TP112	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP114	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP118	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP119	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP146	131-0608-00		672-3321-00	CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE	22526	48283-018
A3A1TP152	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP188	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP189	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP196	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP248	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP249	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP356	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP357	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP579	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP580	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP595	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP657	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP658	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP659	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP777	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP784	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP792	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP794	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A3A1TP795	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP799	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP877	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP972	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1TP988	214-4085-00		672-3321-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A3A1U122	156-1639-00		672-3321-00	IC,DIGITAL:ECL,FLIP FLOP;DUAL D-TYPE MASTER-SLAVE	04713	MC10H131P
A3A1U132	156-1639-00		672-3321-00	IC,DIGITAL:ECL,FLIP FLOP;DUAL D-TYPE MASTER-SLAVE	04713	MC10H131P
A3A1U154	156-1639-00		672-3321-00	IC,DIGITAL:ECL,FLIP FLOP;DUAL D-TYPE MASTER-SLAVE	04713	MC10H131P
A3A1U174	156-1639-00		672-3321-00	IC,DIGITAL:ECL,FLIP FLOP;DUAL D-TYPE MASTER-SLAVE	04713	MC10H131P
A3A1U215	156-0308-04		672-3321-00	IC,DIGITAL:ECL,BUFFER;QUAD DIFFERENTIAL LINE RCVR	04713	MC10115P
A3A1U238	156-1640-00		672-3321-00	IC,DIGITAL:ECL,RECEIVER;TRIPLE LINE	04713	MC10H116P
A3A1U254	156-1639-00		672-3321-00	IC,DIGITAL:ECL,FLIP FLOP;DUAL D-TYPE MASTER-SLAVE	04713	MC10H131P
A3A1U264	156-1639-00		672-3321-00	IC,DIGITAL:ECL,FLIP FLOP;DUAL D-TYPE MASTER-SLAVE	04713	MC10H131P
A3A1U274	156-1639-00		672-3321-00	IC,DIGITAL:ECL,FLIP FLOP;DUAL D-TYPE MASTER-SLAVE	04713	MC10H131P
A3A1U279	156-1639-00		672-3321-00	IC,DIGITAL:ECL,FLIP FLOP;DUAL D-TYPE MASTER-SLAVE	04713	MC10H131P
A3A1U288	156-1639-00		672-3321-00	IC,DIGITAL:ECL,FLIP FLOP;DUAL D-TYPE MASTER-SLAVE	04713	MC10H131P
A3A1U318	156-2223-00		672-3321-00	IC,LINEAR:BIPOLAR,VR;NEGATIVE,ADJUSTABLE,100MA,4%	27014	LM337LZ
A3A1U324	156-1640-00		672-3321-00	IC,DIGITAL:ECL,RECEIVER;TRIPLE LINE	04713	MC10H116P
A3A1U328	156-0182-02		672-3321-00	IC,DIGITAL:ECL,GATE	04713	MC10105P
A3A1U342	156-0182-02		672-3321-00	IC,DIGITAL:ECL,GATE	04713	MC10105P
A3A1U342	136-0729-00		672-3321-00	SOCKET,DIP:PCB;FEMALE,STR,2 X 8,16 POS,0.1	00779	2-641600-3
A3A1U345	160-5119-00		672-3321-00	MICROCKT,DGTL:ECL,256 X 4 PROM,PRGM	80009	160511900
A3A1U355	160-5120-00		672-3321-00	MICROCKT,DGTL:ECL,256 X 4 PROM,PRGM	80009	160512000
			672-3321-00	*MOUNTING PARTS*		
	136-0729-00		672-3321-00	SOCKET,DIP:PCB;FEMALE,STR,2 X 8,16 POS,0.1	00779	2-641600-3
			672-3321-00	*END MOUNTING PARTS*		
A3A1U364	156-3119-00		672-3321-00	IC,DIGITAL:ECL,FLIP FLOP;HEX D-TYPE, WITH RESET	04713	MC10H186P
A3A1U374	156-3119-00		672-3321-00	IC,DIGITAL:ECL,FLIP FLOP;HEX D-TYPE, WITH RESET	04713	MC10H186P
A3A1U379	156-0543-00		672-1296-11	IC,DIGITAL:ECL,BUFFER;HEX, WITH ENABLE	80009	156054300
A3A1U379	156-1992-00	672-1296-12	672-3321-00	IC,DIGITAL:ECL,BUFFER;HEX, WITH ENABLE	80009	156199200
A3A1U386	156-1712-00		672-3321-00	IC,DIGITAL:ECL,FLIP FLOP;HEX D-TYPE MASTER-SLAVE	04713	MC10H176P
A3A1U395	156-1712-00		672-3321-00	IC,DIGITAL:ECL,FLIP FLOP;HEX D-TYPE MASTER-SLAVE	04713	MC10H176P
A3A1U458	155-0289-01		672-1296-07	MICROCKT,DGTL:A-D CONV,0.25V REF VOLTAGE M233	80009	155028901
A3A1U458	155-0289-02	672-1296-08	672-3321-00	IC,ASIC:BIPOLAR,5 BIT A/D CONV;FULL CUSTOM,M233	TK2598	155028902
				ATTACHED PARTS		
	136-0813-00		672-3321-00	SKT,PL-IN ELEK:CHIP CARRIER,68 CONTACTS	53387	2-0068-05400-00
	214-4011-00		672-3321-00	HT SK,MICROCKT:STEEL,ASTM,B449	TK1828	214-4011-00
				END ATTACHED PARTS		
A3A1U565	155-0277-00		672-1296-03	MICROCKT,LINEAR:SUMMING AMPLIFIER	80009	155027700
A3A1U565	155-0277-01	672-1296-04	672-3321-00	IC,ASIC:BIPOLAR,AMPLIFIER;SUMMING AMP M232	80009	155027701
				MOUNTING PARTS		
	136-0971-00		672-3321-00	SKT,PL-IN ELEK:DIP,16 PIN,2 X 8,0.1 X 0.3 CTR,0.095 H X 0.1 TAIL,T/GMIN TEMP RATING 100 DEG C,ACCOM 0.015-0.022	55322	ICO-316-NGT
				END MOUNTING PARTS		
A3A1U575	156-1984-00		672-3321-00	IC,LINEAR:BIPOLAR,OP-AMP;UNITY GAIN FOLLOWER/BUFFER,250MHZ,80MA	34371	HA3-5033-5
A3A1U578	155-0289-01		672-1296-05	MICROCKT,DGTL:A-D CONV,0.25V REF VOLTAGE M233	80009	155028901
A3A1U578	155-0289-02	672-1296-06	672-3321-00	IC,ASIC:BIPOLAR,5 BIT A/D CONV;FULL CUSTOM,M233	TK2598	155028902
				ATTACHED PARTS		
	136-0813-00		672-3321-00	SKT,PL-IN ELEK:CHIP CARRIER,68 CONTACTS	53387	2-0068-05400-00
	214-4011-00		672-3321-00	HT SK,MICROCKT:STEEL,ASTM,B449	TK1828	214-4011-00
				END ATTACHED PARTS		
A3A1U622	165-2243-00		672-3321-00	MICROCKT,LINEAR:OP-AMP	TK2601	165224300

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
				ATTACHED PARTS		
	337-3160-00		672-3321-00	SHIELD,ELEC:CIRCUIT BOARD	TK1947	337-3160-00
				END ATTACHED PARTS		
A3A1U642	155-0290-01		672-1296-04	MICROCKT,DGTL:A-D CONVERTER,1V REF VOLTAGE	80009	155029001
A3A1U642	155-0290-02	672-1296-06	672-3321-00	IC,ASIC:BIPOLAR,5 BIT D/A CONV;FULL CUSTOM,M369	TK2598	155029002
				ATTACHED PARTS		
	136-0813-00		672-3321-00	SKT,PL-IN ELEK:CHIP CARRIER,68 CONTACTS	53387	2-0068-05400-00
	214-3503-01		672-3321-00	HT SK,MICROCKT:ALUMINUM	TK1828	214-3503-01
				END ATTACHED PARTS		
A3A1U652	155-0282-00		672-3321-00	MICROCKT,DGTL:DGTL TO ANALOG CONVERTER M219B	TK2598	155028200
				MOUNTING PARTS		
	136-0972-00		672-3321-00	SKT,DIP:PCB:FEMALE,STR,2 X 10,0.1 X 0.3CTR,0.095 H X 0.105 TAIL,GOLD/TIN,ACCOM 0.015-0.020 DIA 0.15 L PIN	55322	ICO-320-NGT
				END MOUNTING PARTS		
A3A1U654	156-0543-00		672-1296-11	IC,DIGITAL:ECL,BUFFER:HEX, WITH ENABLE	80009	156054300
A3A1U654	156-1992-00	672-1296-12	672-3321-00	IC,DIGITAL:ECL,BUFFER:HEX, WITH ENABLE	80009	156199200
A3A1U684	156-1582-00		672-3321-00	IC,LINEAR:BIPOLAR,OP-AMP:LOW OFFSET VOLTAGE	24355	OP07-203P (STD
A3A1U778	156-0846-00		672-3321-00	IC,LINEAR:BIPOLAR,VR:NEGATIVE,-5.0V,1.0A,4.0%	27014	LM320T-5.0
				MOUNTING PARTS		
	210-0586-00		672-3321-00	NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL	TK0435	ORDER BY DESC
	211-0008-00		672-3321-00	SCREW,MACHINE:4-40 X 0.25,PNH,STL	TK0435	ORDER BY DESC
				END MOUNTING PARTS		
A3A1U789	156-0158-00		672-3321-00	IC,LINEAR:BIPOLAR,OP-AMP:DUAL	01295	MC1458P
A3A1U893	156-1322-00		672-3321-00	IC,LINEAR:BIPOLAR,V REF:POS,10V,0.05%,5PPM,SERIES	24355	AD581LH
A3A1U962	156-0277-00		672-3321-00	IC,LINEAR:BIPOLAR,VR:POSITIVE,5.0V,1.0A,4%	01295	UA7805CKC
				MOUNTING PARTS		
	210-0586-00		672-3321-00	NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL	TK0435	ORDER BY DESC
	211-0008-00		672-3321-00	SCREW,MACHINE:4-40 X 0.25,PNH,STL	TK0435	ORDER BY DESC
				END MOUNTING PARTS		
A3A1U982	156-0067-00		672-3321-00	IC,LINEAR:BIPOLAR,OP-AMP	01295	UA741CP
A3A1VR515	152-0757-00		672-3321-00	DIODE,ZENER:6.2V,5%,1W	04713	1N4735ARL
A3A1VR524	152-0757-00		672-3321-00	DIODE,ZENER:6.2V,5%,1W	04713	1N4735ARL
A3A1VR583	152-0278-00		672-3321-00	DIODE,ZENER:3V,5%,0.4W	04713	1N4372ARL
A3A1VR586	152-0278-00		672-3321-00	DIODE,ZENER:3V,5%,0.4W	04713	1N4372ARL
A3A1W334	131-0566-00		672-3321-00	BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A3A1W335	131-0566-00		672-3321-00	BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A3A1A1			672-3321-00	CIRCUIT BD ASSY:VIDEO DELAY LINE		
A3A1A1C100	283-0644-00		672-3321-00	CAP,FXD,MICA DI:150PF,1%,500V	TK0891	RDM15FD151F03
A3A1A1C114	283-0181-00		672-3321-00	CAP,FXD,CER DI:1.8PF,+/-0.1%,100V	51642	100 100NP0189B
A3A1A1C115	283-0743-00		672-3321-00	CAP,FXD,MICA DI:43PF,2%,500V	09023	CDA10ED430G03
A3A1A1C200	283-0632-00		672-3321-00	CAP,FXD,MICA DI:87PF,1%,500V	TK0891	RDM15ED870F03
A3A1A1C201	283-0743-00		672-3321-00	CAP,FXD,MICA DI:43PF,2%,500V	09023	CDA10ED430G03
A3A1A1C204	283-0644-00		672-3321-00	CAP,FXD,MICA DI:150PF,1%,500V	TK0891	RDM15FD151F03
A3A1A1C212	283-0181-00		672-3321-00	CAP,FXD,CER DI:1.8PF,+/-0.1%,100V	51642	100 100NP0189B
A3A1A1J110	136-0263-04		672-3321-00	SOCKET,PIN TERM:PCB:FEMALE,STR,ACCOM 0.025	22526	75377-001
A3A1A1J112	136-0263-04		672-3321-00	SOCKET,PIN TERM:PCB:FEMALE,STR,ACCOM 0.025	22526	75377-001
A3A1A1J214	136-0263-04		672-3321-00	SOCKET,PIN TERM:PCB:FEMALE,STR,ACCOM 0.025	22526	75377-001
A3A1A1J216	136-0263-04		672-3321-00	SOCKET,PIN TERM:PCB:FEMALE,STR,ACCOM 0.025	22526	75377-001
A3A1A1L101	108-0436-00		672-3321-00	INDUCTOR,FXD:CUSTOM,SIGNAL;240UH,Q>54@25MHZ, ON FORM 276-0153-00,13T W/33 AWG	OJR03	108-0436-00
A3A1A1L105	114-0424-00		672-3321-00	COIL,RF:VAR,1.16UH PRESET	OJR03	TO BE ASSIGNED
A3A1A1L203	108-0181-01		672-3321-00	INDUCTOR,FXD:CUSTOM,SIGNAL;165NH,Q>54@25MHZ, ON FORM 276-0153-00	OJR03	108-0181-01
A3A1A1L211	114-0424-00		672-3321-00	COIL,RF:VAR,1.16UH PRESET	OJR03	TO BE ASSIGNED
A3A1A2			672-3321-00	CIRCUIT BD ASSY:REFERENCE GEN		
A3A1A2C116	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A3A1A2C211	290-0523-00		672-3321-00	CAP,FXD,ELCTLT:2.2UF,20%,20V	D5243	ETP-1B 2.2UF 25
A3A1A2C212	290-0523-00		672-3321-00	CAP,FXD,ELCTLT:2.2UF,20%,20V	D5243	ETP-1B 2.2UF 25
A3A1A2C213	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1A2P119	131-1425-00		672-3321-00	CONN,HDR:PCB:MALE,RTANG,1 X 36,0.1CTR,0.230 MLG X 0.090 TAIL,30 GOLD,STACKABLE	22526	65521-136
A3A1A2P119	131-1426-00		672-3321-00	CONN,HDR:PCB:MALE,RTANG,1 X 36,0.1CTR,0.23	22526	65524-136
A3A1A2R111	322-3508-07		672-3321-00	RES,FXD,FILM:44.44K OHM,0.1%,0.2W,TC=T9	91637	44.44K OHM
A3A1A2R112	322-3504-07		672-3321-00	RES,FXD,FILM:200.0K OHM,0.1%,0.2W,TC=T9	91637	200.0K OHM
A3A1A2R113	311-1338-00		672-3321-00	RES,VAR,NONWW:TRMR,20K OHM,0.75W CERMET	02111	43P203T672
A3A1A2R115	322-3485-07		672-3321-00	RES,FXD,FILM:5K OHM,0.1%,0.2W,TC=T9	91637	CCF501C50000B
A3A1A2R116	322-3501-07		672-3321-00	RES,FXD,FILM:4.53K OHM,0.1%,0.2W,TC=T9	91637	4.53K OHM
A3A1A2R117	322-3504-07		672-3321-00	RES,FXD,FILM:200.0K OHM,0.1%,0.2W,TC=T9	91637	200.0K OHM
A3A1A2R118	322-3518-09		672-3321-00	RES,FXD,FILM:1.87K OHM,1%,0.2W,TC=T9	56845	CCF501C1871B
A3A1A2R211	315-0131-00		672-3321-00	RES,FXD,FILM:130 OHM,5%,0.25W	50139	CB1315
A3A1A2R212	315-0102-00		672-3321-00	RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A3A1A2R213	315-0131-00		672-3321-00	RES,FXD,FILM:130 OHM,5%,0.25W	50139	CB1315
A3A1A2R214	315-0102-00		672-3321-00	RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A3A1A2R215	322-3506-07		672-3321-00	RES,FXD,FILM:100.0K OHM,0.1%,0.2W,TC=T9	91637	100.0K OHM
A3A1A2R216	322-3503-07		672-3321-00	RES,FXD,FILM:10.20K OHM,0.1%,0.2W,TC=T9	91637	10.20K OHM
A3A1A2U116	156-2702-00		672-3321-00	IC,LINEAR:BIPOLAR,OP-AMP,DUAL,HIGH OUTPUT CURRENT,4560,DIP08.3	07933	RC4560
A3A1A3			672-3321-00	CIRCUIT BD ASSY:REFERENCE GEN		
A3A1A3C116	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1A3C211	290-0523-00		672-3321-00	CAP,FXD,ELCTLT:2.2UF,20%,20V	D5243	ETP-1B 2.2UF 25
A3A1A3C212	290-0523-00		672-3321-00	CAP,FXD,ELCTLT:2.2UF,20%,20V	D5243	ETP-1B 2.2UF 25
A3A1A3C213	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1A3P119	131-1425-00		672-3321-00	CONN,HDR:PCB:MALE,RTANG,1 X 36,0.1CTR,0.230 MLG X 0.090 TAIL,30 GOLD,STACKABLE	22526	65521-136
A3A1A3P119	131-1426-00		672-3321-00	CONN,HDR:PCB:MALE,RTANG,1 X 36,0.1CTR,0.23	22526	65524-136
A3A1A3R111	322-3498-07		672-3321-00	RES,FXD,FILM:38.25K OHM,0.1%,0.2W,TC=T9,SMALL BODY	91637	38.25K OHM
A3A1A3R112	322-3510-07		672-3321-00	RES,FXD,FILM:68.1K OHM,0.1%,0.2W,TC=T9,SMALL BODY	91637	68.1
A3A1A3R114	311-1338-00		672-3321-00	RES,VAR,NONWW:TRMR,20K OHM,0.75W CERMET	02111	43P203T672
A3A1A3R115	322-3507-07		672-3321-00	RES,FXD,FILM:2.056K OHM,0.1%,0.2W,TC=T9,SMALL BODY	91637	2.056K OHM
A3A1A3R116	322-3499-07		672-3321-00	RES,FXD,FILM:1.96K OHM,0.1%,0.2W,TC=T9 ,SMALL BODY	91637	1.96K OHM
A3A1A3R117	322-3504-07		672-3321-00	RES,FXD,FILM:200.0K OHM,0.1%,0.2W,TC=T9,SMALL BODY	91637	200.0K OHM
A3A1A3R118	315-0222-00		672-3321-00	RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A3A1A3R212	315-0102-00		672-3321-00	RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A3A1A3R214	315-0102-00		672-3321-00	RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A3A1A3R216	315-0222-00		672-3321-00	RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A3A1A3U116	156-2702-00		672-3321-00	IC,LINEAR:BIPOLAR,OP-AMP,DUAL,HIGH OUTPUT CURRENT,4560,DIP08.3	07933	RC4560
A3A1A4			672-3321-00	CIRCUIT BD ASSY:REFERENCE GEN		
A3A1A4C116	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1A4C211	290-0523-00		672-3321-00	CAP,FXD,ELCTLT:2.2UF,20%,20V	D5243	ETP-1B 2.2UF 25
A3A1A4C212	290-0523-00		672-3321-00	CAP,FXD,ELCTLT:2.2UF,20%,20V	D5243	ETP-1B 2.2UF 25
A3A1A4C213	281-0775-01		672-3321-00	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A3A1A4P119	131-1425-00		672-3321-00	CONN,HDR:PCB:MALE,RTANG,1 X 36,0.1CTR,0.230 MLG X 0.090 TAIL,30 GOLD,STACKABLE	22526	65521-136
A3A1A4P119	131-1426-00		672-3321-00	CONN,HDR:PCB:MALE,RTANG,1 X 36,0.1CTR,0.23	22526	65524-136
A3A1A4R111	322-3504-07		672-3321-00	RES,FXD,FILM:200.0K OHM,0.1%,0.2W,TC=T9	91637	200.0K OHM
A3A1A4R113	311-1338-00		672-3321-00	RES,VAR,NONWW:TRMR,20K OHM,0.75W CERMET	02111	43P203T672
A3A1A4R114	311-1338-00		672-3321-00	RES,VAR,NONWW:TRMR,20K OHM,0.75W CERMET	02111	43P203T672
A3A1A4R115	315-0222-00		672-3321-00	RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A3A1A4R116	315-0222-00		672-3321-00	RES,FXD,FILM:2.2K OHM,5%,0.25W	50139	CB2225
A3A1A4R117	322-3511-07		672-3321-00	RES,FXD,FILM:113.0K OHM,0.1%,0.2W,TC=T9	91637	113.0
A3A1A4R118	322-3500-07		672-3321-00	RES,FXD,FILM:2.10K OHM,0.1%,0.2W,TC=T9	91637	2.10K OHM

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A3A1A4R212	315-0102-00		672-3321-00	RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A3A1A4R214	315-0102-00		672-3321-00	RES,FXD,FILM:1K OHM,5%,0.25W	50139	CB1025
A3A1A4R215	322-3512-07		672-3321-00	RES,FXD,FILM:42.05K OHM,0.1%,0.2W,TC=T9	91637	42.05K OHM
A3A1A4R216	322-3509-07		672-3321-00	RES,FXD,FILM:2.162K OHM,0.1%,0.2W,TC=T9	91637	2.162K OHM
A3A1A3U116	156-2702-00		672-3321-00	IC,LINEAR:BIPOLAR,OP-AMP,DUAL,HIGH OUTPUT CURRENT,4560,DIP08.3	07933	RC4560
A3A1A5	671-1510-01			CIRCUIT BD ASSY:PAL,ADC FILTER	80009	671151001
A3A1A5C715	283-0649-00			CAP,FXD,MICA DI:105PF,1%,500V	TK0891	RDM15FD1050F03
A3A1A5C717	283-0672-00			CAP,FXD,MICA DI:200PF,1%,500V	TK0891	RDM15FD201F03
A3A1A5C718	283-0728-00			CAP,FXD,MICA DI:120PF,1%,500V	TK0891	RDM15FD121F03
A3A1A5C719	283-0631-00			CAP,FXD,MICA DI:95PF,1%,500V	TK0891	RDM15FD950F03
A3A1A5C720	283-0668-00			CAP,FXD,MICA DI:184PF,1%,100V	TK0891	RDM15FD1840F03
A3A1A5C730	283-0768-00			CAP,FXD,MICA DI:132 PF,1%,500V	TK0891	RDM15FD1320F03
A3A1A5C734	283-0766-00			CAP,FXD,MICA DI:47 PF,1%,500V	TK0891	RDM15ED470D03
A3A1A5C735	283-0669-00			CAP,FXD,MICA DI:360PF,1%,500V	TK0891	RDM15FD361F03
A3A1A5C736	283-0791-00			CAP,FXD,MICA DI:156PF,1%,500V	TK0891	RDM15FD1560F03
A3A1A5C740	283-0691-00			CAP,FXD,MICA DI:650PF,1%,300V	TK0891	RDM15FC651F03
A3A1A5C743	283-0632-00			CAP,FXD,MICA DI:87PF,1%,500V	TK0891	RDM15ED870F03
A3A1A5C745	283-0665-00			CAP,FXD,MICA DI:190PF,1%,100V	TK0891	RDM15FD191F03
A3A1A5C747	283-0693-00			CAP,FXD,MICA DI:1730PF,1%,500V	TK0891	RDM19FD1731F03
A3A1A5C756	283-0780-00			CAP,FXD,MICA DI:125PF,1%,500V	TK0891	RDM15FD1250F03
A3A1A5C765	283-0768-00			CAP,FXD,MICA DI:132 PF,1%,500V	TK0891	RDM15FD1320F03
A3A1A5J710	136-0263-04			SOCKET,PIN TERM:PCB;FEMALE,STR,ACCOM 0.025 (QUANTITY 2)	22526	75377-001
A3A1A5J750	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A3A1A5J752	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A3A1A5J755	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A3A1A5J759	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A3A1A5J765	131-0391-00			CONN,RF JACK:SMB;MALE,STR,PCB,GOLD/GOLD,0.293 H X 0.155 TAIL,3/0.045 SQ TAIL 0.038 DIA CTR COND,0.2 SQ PCB,0.312 HEX	24931	32JR105-1
A3A1A5L720	114-0453-00			COIL,RF:VAR,1.31UH-1.44UH,POT CORE	54937	500-4731
A3A1A5L729	114-0453-00			COIL,RF:VAR,1.31UH-1.44UH,POT CORE	54937	500-4731
A3A1A5L730	114-0450-00			COIL,RF:VAR,1.91UH-2.11UH,POT CORE	54937	500-4728
A3A1A5L737	114-0451-00			COIL,RF:VAR,0.780UH-0.862UH,POT CORE	54937	500-4730
A3A1A5L747	114-0452-00			COIL,RF:VAR,0.654UH-0.722UH,POT CORE	54937	500-4729
A3A1A5P750	131-0993-00			CONN,BOX:SHUNT;FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,BLACK,JUMPER	22526	65474-006
A3A1A5P752	131-0993-00			CONN,BOX:SHUNT;FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,BLACK,JUMPER	22526	65474-006
A3A1A5P755	131-0993-00			CONN,BOX:SHUNT;FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,BLACK,JUMPER	22526	65474-006
A3A1A5P759	131-0993-00			CONN,BOX:SHUNT;FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,BLACK,JUMPER	22526	65474-006
A3A1A5T755	120-1779-00			TRANSFORMER,RF:VAR,1.34-1.47UH	54937	500-4306
A3A1A5T765	120-1854-00			TRANSFORMER,RF:VAR,2.55UH-2.81UH,POT CORE	54937	500-4732

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A4	672-1295-03	B022000	B022030	CIRCUIT BD ASSY:FILTER SW	80009	672129503
A4	672-1295-04	B022031	B022761	CIRCUIT BD ASSY:FILTER SW	80009	672129504
A4	672-1344-00	B022762	B023422	CIRCUIT BD ASSY:FILTER SW	80009	672134400
A4	672-1344-01	B023423	B040310	CIRCUIT BD ASSY:FILTER SW	80009	672134401
A4	672-1344-02	B040311	B042568	CIRCUIT BD ASSY:FILTER SW	80009	672134402
A4	672-1344-03	B042569	B043135	CIRCUIT BD ASSY:FILTER SW	80009	672134403
A4	672-1344-05	B043136		CIRCUIT BD ASSY:FILTER SW	80009	672134405
				ATTACHED PARTS		
	211-0033-00	B022000	B022761	SCR,ASSEM WSHR:4-40 X 0.312,PNH,STL,CD PL POZ,W/EXT LK WSHR (QUANTITY 2)	TK0435	ORDER BY DESC
	343-1409-00	B022000	B022761	RETAINER,CKT BD:4.05 X 0.5 X 0.125,PC (QUANTITY 2)	80009	343140900
	361-0137-00	B022000	B022761	SPCR,POST:1.345 L W/4-40 THD EA END,ACETAL,0.25 OD	80009	361013700
	210-0004-00	B022762		WASHER,LOCK:#4 INTL,0.015 THK,STL (QUANTITY 2)	78189	1204-00-00-0541
	211-0661-00	B022762		SCR,ASSEM WSHR:4-40 X 0.25,PNH,STL,CD PL,POZ,MACH (QUANTITY 4)	TK0435	ORDER BY DESC
	337-3739-00	B022762		SHIELD,ELEC:FILTER BOARD	5Y400	337-3739-00
	361-1590-00	B022762		SPACER,STANDOFF:0.250 DIA X 1.375 L W/4-40X (QUANTITY 2)	05791	NY-6941-0440-1.
	361-1591-00	B022762		SPACER,STANDOFF:0.250 DIA X 1.375 L W/4-40XLD FINISH (QUANTITY 2)	05791	AL-6941-0440-1.
				END ATTACHED PARTS		
A4A1	671-0695-01	672-1295-03	672-1344-00	CIRCUIT BD ASSY:FILTER	80009	671069501
A4A1	671-0695-02	672-1344-01	672-1344-01	CIRCUIT BD ASSY:FILTER	80009	671069502
A4A1	671-0695-03	672-1344-02		CIRCUIT BD ASSY:FILTER	80009	671069503
				ATTACHED PARTS		
	210-0004-00			WASHER,LOCK:#4 INTL,0.015 THK,STL (QUANTITY 2)	78189	1204-00-00-0541
	210-0586-00			NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL (QUANTITY 4)	TK0435	ORDER BY DESC
	211-0033-00			SCR,ASSEM WSHR:4-40 X 0.312,PNH,STL,CD PL POZ,W/EXT LK WSHR (QUANTITY 6)	TK0435	ORDER BY DESC
	337-3160-00			SHIELD,ELEC:CIRCUIT BOARD	TK1947	337-3160-00
	351-0837-00			GUIDE,CKT BD:3.935 X 1.35 X 0.55,PLASTIC (QUANTITY 2)	0KBZ5	ORDER BY DESC
	361-0137-00			SPCR,POST:1.345 L W/4-40 THD EA END,ACETAL,0.25 OD (QUANTITY 2)	80009	361013700
				END ATTACHED PARTS		
A4A1C114	290-0973-00			CAP,FXD,ELCTL:100UF,20%,25VDC	0H1N5	CEUSM1E101
A4A1C116	290-0973-00			CAP,FXD,ELCTL:100UF,20%,25VDC	0H1N5	CEUSM1E101
A4A1C128	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C)	55680	UVX1H100MAA
A4A1C129	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C)	55680	UVX1H100MAA
A4A1C230	290-0973-00			CAP,FXD,ELCTL:100UF,20%,25VDC	0H1N5	CEUSM1E101
A4A1C231	290-0973-00			CAP,FXD,ELCTL:100UF,20%,25VDC	0H1N5	CEUSM1E101
A4A1C239	290-0973-00			CAP,FXD,ELCTL:100UF,20%,25VDC	0H1N5	CEUSM1E101
A4A1C249	290-0973-00			CAP,FXD,ELCTL:100UF,20%,25VDC	0H1N5	CEUSM1E101
A4A1C321	281-0775-02			CAP,FXD,CERAMIC:MLC;0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C322	281-0775-02			CAP,FXD,CERAMIC:MLC;0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C331	281-0775-02			CAP,FXD,CERAMIC:MLC;0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C332	281-0775-02			CAP,FXD,CERAMIC:MLC;0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C342	281-0775-02			CAP,FXD,CERAMIC:MLC;0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C351	281-0757-00			CAP,FXD,CERAMIC:MLC;10PF,10%,200V,NPO,0.100	04222	SA102A100KAA
A4A1C384	290-0973-00			CAP,FXD,ELCTL:100UF,20%,25VDC	0H1N5	CEUSM1E101
A4A1C397	281-0775-02			CAP,FXD,CERAMIC:MLC;0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C413	290-0973-00			CAP,FXD,ELCTL:100UF,20%,25VDC	0H1N5	CEUSM1E101

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A4A1C415	290-0973-00			CAP,FXD,ELCTLT:100UF,20%,25VDC	0H1N5	CEUSM1E101
A4A1C429	281-0775-02			CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C436	281-0123-00			CAP,VAR,CER DI:5-25PF,100V	59660	518-000A5-25
A4A1C439	281-0775-02			CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C441	281-0757-00			CAP,FXD,CERAMIC:MLC:10PF,10%,200V,NPO,0.100	04222	SA102A100KAA
A4A1C456	283-0615-00			CAP,FXD,MICA DI:33PF,5%,500V	TK0891	RDM15ED330J03
A4A1C465	281-0123-00			CAP,VAR,CER DI:5-25PF,100V	59660	518-000A5-25
A4A1C547	281-0775-02			CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C578	281-0775-02			CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C595	281-0775-02			CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C611	281-0893-00			CAP,FXD,CERAMIC:MLC:4.7PF,+/-0.5PF,100V,0.100 X 0.170	04222	SA102A4R7DAA
A4A1C617	281-0775-02			CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C628	281-0893-00			CAP,FXD,CERAMIC:MLC:4.7PF,+/-0.5PF,100V,0.100 X 0.170	04222	SA102A4R7DAA
A4A1C639	281-0893-00			CAP,FXD,CERAMIC:MLC:4.7PF,+/-0.5PF,100V,0.100 X 0.170	04222	SA102A4R7DAA
A4A1C655	281-0893-00			CAP,FXD,CERAMIC:MLC:4.7PF,+/-0.5PF,100V,0.100 X 0.170	04222	SA102A4R7DAA
A4A1C657	281-0775-02			CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C664	281-0893-00			CAP,FXD,CERAMIC:MLC:4.7PF,+/-0.5PF,100V,0.100 X 0.170	04222	SA102A4R7DAA
A4A1C683	281-0893-00			CAP,FXD,CERAMIC:MLC:4.7PF,+/-0.5PF,100V,0.100 X 0.170	04222	SA102A4R7DAA
A4A1C685	281-0775-02			CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C748	281-0775-02			CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C777	281-0775-02			CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C835	281-0893-00			CAP,FXD,CERAMIC:MLC:4.7PF,+/-0.5PF,100V,0.100 X 0.170	04222	SA102A4R7DAA
A4A1C847	281-0775-02			CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C853	281-0893-00			CAP,FXD,CERAMIC:MLC:4.7PF,+/-0.5PF,100V,0.100 X 0.170	04222	SA102A4R7DAA
A4A1C864	281-0893-00			CAP,FXD,CERAMIC:MLC:4.7PF,+/-0.5PF,100V,0.100 X 0.170	04222	SA102A4R7DAA
A4A1C877	281-0775-02			CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C883	281-0893-00			CAP,FXD,CERAMIC:MLC:4.7PF,+/-0.5PF,100V,0.100 X 0.170	04222	SA102A4R7DAA
A4A1C892	281-0775-02			CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1C911	281-0893-00			CAP,FXD,CERAMIC:MLC:4.7PF,+/-0.5PF,100V,0.100 X 0.170	04222	SA102A4R7DAA
A4A1C913	281-0775-02			CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1CR211	152-0040-00			DIODE,RECT:600V,1A,50A IFSM	0LUA3	1N5061
A4A1CR232	152-0040-00			DIODE,RECT:600V,1A,50A IFSM	0LUA3	1N5061
A4A1CR234	152-0040-00			DIODE,RECT:600V,1A,50A IFSM	0LUA3	1N5061
A4A1CR235	152-0040-00			DIODE,RECT:600V,1A,50A IFSM	0LUA3	1N5061
A4A1CR335	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A4A1CR336	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A4A1CR536	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A4A1CR537	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A4A1CR561	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A4A1CR562	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A4A1CR563	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A4A1CR564	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A4A1CR574	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A4A1CR575	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A4A1CR627	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A4A1CR628	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A4A1J148	131-4136-00	671-0695-01	671-0695-01	CONN,HDR PWR:PCB:MALE,STR,1 X 10,0.156CTR,0.450 MLG X 0.172 TAIL,0.045 SQ,GOLD	27264	26-48-2101
A4A1J148	131-4884-00	671-0695-02		CONN,HDR PWR:PCB:MALE,STR,1 X 10,0.156CTR,0.450 MLG X 0.125 TAIL,W/FRICTION LOCK,GOLD,94-V0	26742	3162-8-110-01
A4A1J415	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB:MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A4A1J418	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB:MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A4A1J529	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB:MALE,STR,0.025 S Q,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 5)	22526	48283-087

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A4A1J539	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 5)	22526	48283-087
A4A1J549	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 5)	22526	48283-087
A4A1J569	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 5)	22526	48283-087
A4A1J589	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 5)	22526	48283-087
A4A1J712	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A4A1J729	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 5)	22526	48283-087
A4A1J739	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 5)	22526	48283-087
A4A1J749	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 5)	22526	48283-087
A4A1J769	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 5)	22526	48283-087
A4A1J789	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 5)	22526	48283-087
A4A1J795	174-0838-00			CA ASSY,SP,ELEC:34,30 AWG,9.2 L,RIBBON	TK1462	ORDER BY DESC
A4A1J829	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 5)	22526	48283-087
A4A1J839	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 5)	22526	48283-087
A4A1J849	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 5)	22526	48283-087
A4A1J869	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 5)	22526	48283-087
A4A1J889	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 5)	22526	48283-087
A4A1J915	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A4A1L354	108-0146-00			INDUCTOR,FXD:CUSTOM,SIGNAL:5.5UH,10%,IMAX<350 MA,Q>51@7.9MHZ,ON FORM 307-0005-01,57T W/39 AWG	0JR03	108-0146-00
A4A1L364	108-0422-00			INDUCTOR,FXD:CUSTOM,POWER:80UH,20%,IDC<2 A, RDC<0.15 OHM,Q>30@40KHZ	0JR03	108-0422-00
A4A1P528	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 15)	22526	48283-087
A4A1P538	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 15)	22526	48283-087
A4A1P558	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 15)	22526	48283-087

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A4A1P568	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 15)	22526	48283-087
A4A1P578	131-0589-00			TERMINAL,PIN:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.343 MLG X 0.122 TAIL,0.465 L,50 GOLD,W/FERRULE (QUANTITY 15)	22526	48283-087
A4A1P712	131-0993-02			BUS,CONDUCTOR:SHUNT ASSEMBLY,RED	00779	1-850100-0
A4A1Q344	151-1103-00			TRANSISTOR,SIG:DMOSFET,N-CH;ENH,2V,50MA,45OHM	0N0K0	SD210DE
A4A1Q346	151-1103-00			TRANSISTOR,SIG:DMOSFET,N-CH;ENH,2V,50MA,45OHM	0N0K0	SD210DE
A4A1Q451	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ,AMPL	0JR04	2N3904
A4A1Q453	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ,AMPL	0JR04	2N3904
A4A1Q514	151-0712-00			TRANSISTOR,SIG:BIPOLAR,PNP;20V,50MA,600MHZ,AMPL	04713	MPSH81
A4A1Q526	151-0712-00			TRANSISTOR,SIG:BIPOLAR,PNP;20V,50MA,600MHZ,AMPL	04713	MPSH81
A4A1Q549	151-0712-00			TRANSISTOR,SIG:BIPOLAR,PNP;20V,50MA,600MHZ,AMPL	04713	MPSH81
A4A1Q579	151-0712-00			TRANSISTOR,SIG:BIPOLAR,PNP;20V,50MA,600MHZ,AMPL	04713	MPSH81
A4A1Q645	151-0712-00			TRANSISTOR,SIG:BIPOLAR,PNP;20V,50MA,600MHZ,AMPL	04713	MPSH81
A4A1Q675	151-0712-00			TRANSISTOR,SIG:BIPOLAR,PNP;20V,50MA,600MHZ,AMPL	04713	MPSH81
A4A1Q714	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	0JR04	2N3906
A4A1Q734	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	0JR04	2N3906
A4A1Q764	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	0JR04	2N3906
A4A1Q812	151-0712-00			TRANSISTOR,SIG:BIPOLAR,PNP;20V,50MA,600MHZ,AMPL	04713	MPSH81
A4A1Q835	151-0712-00			TRANSISTOR,SIG:BIPOLAR,PNP;20V,50MA,600MHZ,AMPL	04713	MPSH81
A4A1Q856	151-0712-00			TRANSISTOR,SIG:BIPOLAR,PNP;20V,50MA,600MHZ,AMPL	04713	MPSH81
A4A1Q865	151-0712-00			TRANSISTOR,SIG:BIPOLAR,PNP;20V,50MA,600MHZ,AMPL	04713	MPSH81
A4A1Q885	151-0712-00			TRANSISTOR,SIG:BIPOLAR,PNP;20V,50MA,600MHZ,AMPL	04713	MPSH81
A4A1Q923	151-0712-00			TRANSISTOR,SIG:BIPOLAR,PNP;20V,50MA,600MHZ,AMPL	04713	MPSH81
A4A1Q925	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	0JR04	2N3906
A4A1Q954	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	0JR04	2N3906
A4A1Q982	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	0JR04	2N3906
A4A1R123	322-3133-00			RES,FXD,FILM:237 OHM,1%,0.2W,TC=TOMI,SMALL BODY	91637	CCF50-2F237R0F
A4A1R124	321-0140-00			RES,FXD,FILM:280 OHM,1%,0.125W,TC=T0 MI	50139	NOT AVAILABLE
A4A1R125	322-3171-00			RES,FXD,FILM:590 OHM,1%,0.2W,TC=TOMI,SMALL BODY	57668	CRB20 FXE 590E
A4A1R126	322-3133-00			RES,FXD,FILM:237 OHM,1%,0.2W,TC=TOMI,SMALL BODY	91637	CCF50-2F237R0F
A4A1R131	308-0075-00			RES,FXD,WW:100 OHM,5%,3W	05347	CS4 100 OHM 5 PERCENT
A4A1R133	301-0100-00			RES,FXD,FILM:10 OHM,5%,0.50W MI	19701	SFR30 2322-180-13100
A4A1R135	308-0075-00			RES,FXD,WW:100 OHM,5%,3W	05347	CS4 100 OHM 5 PERCENT
A4A1R137	301-0100-00			RES,FXD,FILM:10 OHM,5%,0.50W MI	19701	SFR30 2322-180-13100
A4A1R313	308-0231-00			RES,FXD,WW:220 OHM,5%,3W AXIAL LEADS	05347	MS3 220 OHM 5 PERCENT
A4A1R322	308-0231-00			RES,FXD,WW:220 OHM,5%,3W AXIAL LEADS	05347	MS3 220 OHM 5 PERCENT
A4A1R323	321-0085-07			RES,FXD,FILM:75 OHM,0.1%,0.125W,TC=T9MI	07716	CEA 75 OHM 0.1 PERCENT T9
A4A1R324	315-0750-00			RES,FXD,FILM:75 OHM,5%,0.25W MI	50139	CB7505
A4A1R325	315-0122-00			RES,FXD,FILM:1.2K OHM,5%,0.25W MI	50139	CB1225
A4A1R326	315-0122-00			RES,FXD,FILM:1.2K OHM,5%,0.25W MI	50139	CB1225
A4A1R326	315-0680-00			RES,FXD,FILM:68 OHM,5%,0.25W MI	50139	CB6805
A4A1R327	315-0680-00			RES,FXD,FILM:68 OHM,5%,0.25W MI	50139	CB6805
A4A1R328	315-0680-00			RES,FXD,FILM:68 OHM,5%,0.25W MI	50139	CB6805
A4A1R333	315-0680-00			RES,FXD,FILM:68 OHM,5%,0.25W MI	50139	CB6805
A4A1R336	321-0114-07			RES,FXD,FILM:150 OHM,0.1%,0.125W,TC=T9 MI	07716	CEAE150R0B
A4A1R337	321-0118-04			RES,FXD,FILM:165 OHM,0.1%,0.125W,TC=T2MI	07716	CEAC165R0B
A4A1R338	322-3126-00			RES,FXD,FILM:200 OHM,1%,0.2W,TC=TOMI,SMALL BODY	91637	CCF501G200R0F
A4A1R339	321-0816-07			RES,FXD,FILM:5K OHM,0.1%,0.125W,TC=T9MI	TK1727	MPR24-2322-141-5K000

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A4A1R352	322-3264-00			RES,FXD,FILM:5.49K OHM,1%,0.2W,TC=T0	57668	CRB20 FXE 5K49
A4A1R353	321-0814-07			RES,FXD,FILM:335.6 OHM,0.1%,0.125W,TC=T9 MI	07716	T9-55 335R6B
A4A1R354	315-0332-00			RES,FXD,FILM:3.3K OHM,5%,0.25W MI	50139	CB3325
A4A1R355	315-0432-00			RES,FXD,FILM:4.3K OHM,5%,0.25W MI	50139	CB4325
A4A1R356	315-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.25W MI	50139	CB1525
A4A1R365	322-3147-00			RES,FXD:METAL FILM,332 OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 332E
A4A1R366	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A4A1R367	315-0242-00			RES,FXD,FILM:2.4K OHM,5%,0.25W MI	50139	CB2425
A4A1R426	315-0221-00			RES,FXD,FILM:220 OHM,5%,0.25W,MI	50139	CB2215
A4A1R441	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A4A1R442	315-0560-00			RES,FXD,FILM:56 OHM,5%,0.25W MI	50139	CB5605
A4A1R443	315-0562-00			RES,FXD,FILM:5.6K OHM,5%,0.25W MI	50139	CB5625
A4A1R444	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A4A1R445	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W MI	50139	CB5115
A4A1R446	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W MI	50139	CB5115
A4A1R447	315-0911-00			RES,FXD,FILM:910 OHM,5%,0.25W MI	50139	CB9115
A4A1R448	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A4A1R449	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A4A1R454	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A4A1R455	315-0202-00			RES,FXD,FILM:2K OHM,5%,0.25W MI	50139	CB2025
A4A1R492	307-0503-00			RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125WTC=50PPM/DEG C	11236	750-101-R510 OR 770-101-R510
A4A1R512	315-0751-00			RES,FXD,FILM:750 OHM,5%,0.25W MI	50139	CB7515
A4A1R514	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A4A1R515	315-0301-00			RES,FXD,FILM:300 OHM,5%,0.25W MI	50139	CB3015
A4A1R516	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A4A1R517	315-0121-00			RES,FXD,FILM:120 OHM,5%,0.25W MI	50139	CB1215
A4A1R518	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R519	315-0301-00			RES,FXD,FILM:300 OHM,5%,0.25W MI	50139	CB3015
A4A1R520	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A4A1R521	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R522	311-0978-00			RES,VAR,NONWW:TRMR,250 OHM,0.5W CERMET	32997	3329H-K28-251
A4A1R526	317-0300-00			RES,FXD,CMPSN:30 OHM,5%,0.125W	50139	BB3005
A4A1R527	315-0680-00			RES,FXD,FILM:68 OHM,5%,0.25W MI	50139	CB6805
A4A1R538	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R545	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R546	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R547	315-0680-00			RES,FXD,FILM:68 OHM,5%,0.25W MI	50139	CB6805
A4A1R548	315-0680-00			RES,FXD,FILM:68 OHM,5%,0.25W MI	50139	CB6805
A4A1R554	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A4A1R555	315-0301-00			RES,FXD,FILM:300 OHM,5%,0.25W MI	50139	CB3015
A4A1R556	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A4A1R576	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R577	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R578	315-0680-00			RES,FXD,FILM:68 OHM,5%,0.25W MI	50139	CB6805
A4A1R579	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A4A1R585	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A4A1R586	315-0301-00			RES,FXD,FILM:300 OHM,5%,0.25W MI	50139	CB3015
A4A1R587	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R613	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R614	321-0229-00			RES,FXD,FILM:2.37K OHM,1%,0.125W,TC=T0MI	50139	NOT AVAILABLE
A4A1R615	315-0221-00			RES,FXD,FILM:220 OHM,5%,0.25W,MI	50139	CB2215
A4A1R625	315-0681-00			RES,FXD,FILM:680 OHM,5%,0.25W MI	50139	CB6815
A4A1R626	315-0121-00			RES,FXD,FILM:120 OHM,5%,0.25W MI	50139	CB1215
A4A1R628	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A4A1R629	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R632	311-0978-00			RES,VAR,NONWW:TRMR,250 OHM,0.5W CERMET	32997	3329H-K28-251
A4A1R635	315-0221-00			RES,FXD,FILM:220 OHM,5%,0.25W,MI	50139	CB2215

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A4A1R637	315-0681-00			RES,FXD,FILM:680 OHM,5%,0.25W MI	50139	CB6815
A4A1R638	315-0121-00			RES,FXD,FILM:120 OHM,5%,0.25W MI	50139	CB1215
A4A1R645	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A4A1R646	315-0301-00			RES,FXD,FILM:300 OHM,5%,0.25W MI	50139	CB3015
A4A1R647	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A4A1R648	315-0681-00			RES,FXD,FILM:680 OHM,5%,0.25W MI	50139	CB6815
A4A1R656	315-0121-00			RES,FXD,FILM:120 OHM,5%,0.25W MI	50139	CB1215
A4A1R658	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R661	311-0978-00			RES,VAR,NONWWW:TRMR,250 OHM,0.5W CERMET	32997	3329H-K28-251
A4A1R662	315-0221-00			RES,FXD,FILM:220 OHM,5%,0.25W,MI	50139	CB2215
A4A1R663	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R666	315-0121-00			RES,FXD,FILM:120 OHM,5%,0.25W MI	50139	CB1215
A4A1R667	315-0681-00			RES,FXD,FILM:680 OHM,5%,0.25W MI	50139	CB6815
A4A1R675	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A4A1R676	315-0301-00			RES,FXD,FILM:300 OHM,5%,0.25W MI	50139	CB3015
A4A1R677	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A4A1R678	315-0681-00			RES,FXD,FILM:680 OHM,5%,0.25W MI	50139	CB6815
A4A1R679	315-0121-00			RES,FXD,FILM:120 OHM,5%,0.25W MI	50139	CB1215
A4A1R687	315-0221-00			RES,FXD,FILM:220 OHM,5%,0.25W,MI	50139	CB2215
A4A1R713	311-0978-00			RES,VAR,NONWWW:TRMR,250 OHM,0.5W CERMET	32997	3329H-K28-251
A4A1R715	315-0301-00			RES,FXD,FILM:300 OHM,5%,0.25W MI	50139	CB3015
A4A1R716	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A4A1R721	315-0911-00			RES,FXD,FILM:910 OHM,5%,0.25W MI	50139	CB9115
A4A1R722	315-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.25W MI	50139	CB1525
A4A1R723	315-0362-00			RES,FXD,FILM:3.6K OHM,5%,0.25W MI	50139	CB3625
A4A1R724	321-0155-00			RES,FXD,FILM:402 OHM,1%,0.125W,TC=T0 MI	50139	NOT AVAILABLE
A4A1R737	315-0331-00			RES,FXD,FILM:330 OHM,5%,0.25W MI	50139	CB3315
A4A1R738	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A4A1R745	315-0362-00			RES,FXD,FILM:3.6K OHM,5%,0.25W MI	50139	CB3625
A4A1R746	315-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.25W MI	50139	CB1525
A4A1R747	315-0121-00			RES,FXD,FILM:120 OHM,5%,0.25W MI	50139	CB1215
A4A1R754	311-0978-00			RES,VAR,NONWWW:TRMR,250 OHM,0.5W CERMET	32997	3329H-K28-251
A4A1R755	315-0221-00			RES,FXD,FILM:220 OHM,5%,0.25W,MI	50139	CB2215
A4A1R756	315-0301-00			RES,FXD,FILM:300 OHM,5%,0.25W MI	50139	CB3015
A4A1R757	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A4A1R767	315-0331-00			RES,FXD,FILM:330 OHM,5%,0.25W MI	50139	CB3315
A4A1R768	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A4A1R774	315-0362-00			RES,FXD,FILM:3.6K OHM,5%,0.25W MI	50139	CB3625
A4A1R775	315-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.25W MI	50139	CB1525
A4A1R776	315-0121-00			RES,FXD,FILM:120 OHM,5%,0.25W MI	50139	CB1215
A4A1R778	321-0085-07			RES,FXD,FILM:75 OHM,0.1%,0.125W,TC=T9MI	07716	CEA 75 OHM 0.1 PERCENT T9
A4A1R779	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R784	311-0978-00			RES,VAR,NONWWW:TRMR,250 OHM,0.5W CERMET	32997	3329H-K28-251
A4A1R785	315-0301-00			RES,FXD,FILM:300 OHM,5%,0.25W MI	50139	CB3015
A4A1R786	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A4A1R811	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A4A1R812	317-0300-00			RES,FXD,CMPSN:30 OHM,5%,0.125W	50139	BB3005
A4A1R813	322-3184-00			RES,FXD,FILM:806 OHM,1%,0.2W,TC=T0	57668	CRB20 FXE 806E
A4A1R814	322-3106-00			RES,FXD,FILM:124 OHM,1%,0.2W,TC=100PPM	91637	CCF502G124ROFT
A4A1R815	322-3097-00			RES,FXD:METAL FILM,100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100ROF
A4A1R825	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R826	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A4A1R831	311-0978-00			RES,VAR,NONWWW:TRMR,250 OHM,0.5W CERMET	32997	3329H-K28-251
A4A1R834	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R835	317-0300-00			RES,FXD,CMPSN:30 OHM,5%,0.125W	50139	BB3005
A4A1R843	315-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.25W MI	50139	CB1525
A4A1R845	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A4A1R846	315-0362-00			RES,FXD,FILM:3.6K OHM,5%,0.25W MI	50139	CB3625
A4A1R848	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A4A1R849	315-0121-00			RES,FXD,FILM:120 OHM,5%,0.25W MI	50139	CB1215
A4A1R852	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A4A1R856	317-0300-00			RES,FXD,CMPSN:30 OHM,5%,0.125W	50139	BB3005
A4A1R860	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R861	311-0978-00			RES,VAR,NONWW:TRMR,250 OHM,0.5W CERMET	32997	3329H-K28-251
A4A1R863	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R864	317-0300-00			RES,FXD,CMPSN:30 OHM,5%,0.125W	50139	BB3005
A4A1R866	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A4A1R867	315-0301-00			RES,FXD,FILM:300 OHM,5%,0.25W MI	50139	CB3015
A4A1R874	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A4A1R875	315-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.25W MI	50139	CB1525
A4A1R876	315-0362-00			RES,FXD,FILM:3.6K OHM,5%,0.25W MI	50139	CB3625
A4A1R878	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A4A1R879	315-0121-00			RES,FXD,FILM:120 OHM,5%,0.25W MI	50139	CB1215
A4A1R882	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A4A1R885	317-0300-00			RES,FXD,CMPSN:30 OHM,5%,0.125W	50139	BB3005
A4A1R888	307-0503-00			RES NTWK,FXD,Fl:(9) 510 OHM,20%,0.125WTC=50PPM/DEG C	11236	750-101-R510 OR 770-101-R510
A4A1R911	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W MI	50139	CB5105
A4A1R913	315-0331-00			RES,FXD,FILM:330 OHM,5%,0.25W MI	50139	CB3315
A4A1R916	311-0978-00			RES,VAR,NONWW:TRMR,250 OHM,0.5W CERMET	32997	3329H-K28-251
A4A1R921	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A4A1R922	315-0121-00			RES,FXD,FILM:120 OHM,5%,0.25W MI	50139	CB1215
A4A1R923	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A4A1R924	315-0301-00			RES,FXD,FILM:300 OHM,5%,0.25W MI	50139	CB3015
A4A1R926	315-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.25W MI	50139	CB1525
A4A1R927	315-0362-00			RES,FXD,FILM:3.6K OHM,5%,0.25W MI	50139	CB3625
A4A1R932	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A4A1R933	315-0301-00			RES,FXD,FILM:300 OHM,5%,0.25W MI	50139	CB3015
A4A1R944	315-0331-00			RES,FXD,FILM:330 OHM,5%,0.25W MI	50139	CB3315
A4A1R956	311-0978-00			RES,VAR,NONWW:TRMR,250 OHM,0.5W CERMET	32997	3329H-K28-251
A4A1R974	315-0331-00			RES,FXD,FILM:330 OHM,5%,0.25W MI	50139	CB3315
A4A1R975	311-0978-00			RES,VAR,NONWW:TRMR,250 OHM,0.5W CERMET	32997	3329H-K28-251
A4A1RT513	307-0126-00			RES,THERMAL:100 OHM,10%,NTC	91637	C247
A4A1RT616	307-0126-00			RES,THERMAL:100 OHM,10%,NTC	91637	C247
A4A1RT636	307-0126-00			RES,THERMAL:100 OHM,10%,NTC	91637	C247
A4A1RT657	307-0126-00			RES,THERMAL:100 OHM,10%,NTC	91637	C247
A4A1RT665	307-0126-00			RES,THERMAL:100 OHM,10%,NTC	91637	C247
A4A1RT686	307-0126-00			RES,THERMAL:100 OHM,10%,NTC	91637	C247
A4A1RT725	307-0126-00			RES,THERMAL:100 OHM,10%,NTC	91637	C247
A4A1RT832	307-0126-00			RES,THERMAL:100 OHM,10%,NTC	91637	C247
A4A1RT862	307-0126-00			RES,THERMAL:100 OHM,10%,NTC	91637	C247
A4A1RT915	307-0126-00			RES,THERMAL:100 OHM,10%,NTC	91637	C247
A4A1RT945	307-0126-00			RES,THERMAL:100 OHM,10%,NTC	91637	C247
A4A1RT973	307-0126-00			RES,THERMAL:100 OHM,10%,NTC	91637	C247
A4A1TP386	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A4A1TP412	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A4A1TP416	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A4A1TP424	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A4A1TP454	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A4A1TP468	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A4A1TP472	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A4A1TP474	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A4A1TP479	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A4A1TP732	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE	22526	48283-018
A4A1TP762	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE	22526	48283-018
A4A1TP919	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A4A1TP922	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A4A1TP957	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A4A1TP963	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A4A1TP972	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A4A1U122	156-1529-00			IC,LINEAR:BIPOLAR,VR:POSITIVE,ADJUSTABLE,100MA,5%	27014	LM317LZ
A4A1U127	156-2223-00			IC,LINEAR:BIPOLAR,VR:NEGATIVE,ADJUSTABLE,100MA,4%	27014	LM337LZ
A4A1U216	156-0872-00			IC,LINEAR:BIPOLAR,VR:NEGATIVE,-12V,1.0A,4%	01295	UA7912CKC
				MOUNTING PARTS		
	210-0586-00			NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL	TK0435	ORDER BY DESC
	211-0033-00			SCR,ASSEM WSHR:4-40 X 0.312,PNH,STL,CD PL POZ,W/EXT LK WSHR	TK0435	ORDER BY DESC
				END MOUNTING PARTS		
A4A1U232	156-0285-00			IC,LINEAR:BIPOLAR,VR:POSITIVE,12V,1.0A,4%	01295	UA7812CKC
				MOUNTING PARTS		
	210-0586-00			NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL	TK0435	ORDER BY DESC
	211-0033-00			SCR,ASSEM WSHR:4-40 X 0.312,PNH,STL,CD PL POZ,W/EXT LK WSHR	TK0435	ORDER BY DESC
				END MOUNTING PARTS		
A4A1U333	165-2243-00			MICROCKT,LINEAR:OP-AMP	TK2601	165224300
A4A1U495	156-2292-00			IC,DIGITAL:ALSTTL,TRANSCIEVER;OCTAL NONINV	01295	SN74ALS652NT
A4A1U612	156-0534-00			IC,LINEAR:BIPOLAR,AMPLIFIER;DUAL,DIFFERENTIAL,W/ CURRENT SOURCE TRANS,1.0GHZ FT	34371	CA3102E
				MOUNTING PARTS		
	136-0728-00			SKT,PL-IN ELEK:PCB;14 POS,2 X 7,0.1 X 0.3 CTR,0.210 H X 0.140 TAIL,TIN	00779	2-641599-3
				END MOUNTING PARTS		
A4A1U644	156-0534-00			IC,LINEAR:BIPOLAR,AMPLIFIER;DUAL,DIFFERENTIAL,W/ CURRENT SOURCE TRANS,1.0GHZ FT	34371	CA3102E
				MOUNTING PARTS		
	136-0728-00			SKT,PL-IN ELEK:PCB;14 POS,2 X 7,0.1 X 0.3 CTR,0.210 H X 0.140 TAIL,TIN	00779	2-641599-3
				END MOUNTING PARTS		
A4A1U674	156-0534-00			IC,LINEAR:BIPOLAR,AMPLIFIER;DUAL,DIFFERENTIAL,W/ CURRENT SOURCE TRANS,1.0GHZ FT	34371	CA3102E
				MOUNTING PARTS		
	136-0728-00			SKT,PL-IN ELEK:PCB;14 POS,2 X 7,0.1 X 0.3 CTR,0.210 H X 0.140 TAIL,TIN	00779	2-641599-3
				END MOUNTING PARTS		
A4A1U692	156-0874-00			IC,DIGITAL:LSTTL,LATCH;8-BIT ADDRESSABLE	04713	SN74LS259N
A4A1U814	156-0534-00			IC,LINEAR:BIPOLAR,AMPLIFIER;DUAL,DIFFERENTIAL,W/ CURRENT SOURCE TRANS,1.0GHZ FT	34371	CA3102E
				MOUNTING PARTS		
	136-0728-00			SKT,PL-IN ELEK:PCB;14 POS,2 X 7,0.1 X 0.3 CTR,0.210 H X 0.140 TAIL,TIN	00779	2-641599-3

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A4A1U844	156-0534-00			*END MOUNTING PARTS* IC,LINER:BIPOLAR,AMPLIFIER:DUAL,DIFFERENTIAL,W/ CURRENT SOURCE TRANS,1.0GHZ FT	34371	CA3102E
	136-0728-00			*MOUNTING PARTS* SKT,PL-IN ELEK:PCB;14 POS,2 X 7,0.1 X 0.3 CTR,0.210 H X 0.140 TAIL,TIN	00779	2-641599-3
A4A1U874	156-0534-00			*END MOUNTING PARTS* IC,LINER:BIPOLAR,AMPLIFIER:DUAL,DIFFERENTIAL,W/ CURRENT SOURCE TRANS,1.0GHZ FT	34371	CA3102E
	136-0728-00			*MOUNTING PARTS* SKT,PL-IN ELEK:PCB;14 POS,2 X 7,0.1 X 0.3 CTR,0.210 H X 0.140 TAIL,TIN	00779	2-641599-3
A4A1U898	160-5572-00	671-0695-01	671-0695-02	*END MOUNTING PARTS* IC,DIGITAL:STTL,PLD:PAL,20L10,50NS,165MA	80009	160557200
A4A1U898	160-5572-01	671-0695-03		IC,DIGITAL:CMOS,PLD;EPLD,22V10,25NS,33.3MHZ,90MA	80009	160557201
	136-0925-00			*MOUNTING PARTS* SKT,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BEUC,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
A4A1VR315	152-0757-00			*END MOUNTING PARTS* DIODE,ZENER:6.2V,5%,1W	04713	1N4735ARL
A4A1VR316	152-0757-00			DIODE,ZENER:6.2V,5%,1W	04713	1N4735ARL
A4A1W918	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A4A1A1	671-0714-01	671-0695-01	671-0695-01	CIRCUIT BD ASSY:HIGHPASS FILTER	80009	671071401
A4A1A1	671-0718-00	671-0695-02	672-1344-03	CIRCUIT BD ASSY:CHROMA BANDPASS FILTER	80009	671071800
A4A1A1	671-0718-01	672-1344-05		CIRCUIT BD ASSY:CHROMA BANDPASS FILTER	80009	671071800
A4A1A1C1	283-0622-00	671-0718-00		CAP,FXD,MICA DI:450PF,1%,300V	TK0891	RDM15FD451F03
A4A1A1C2	283-0644-00	671-0718-00		CAP,FXD,MICA DI:150PF,1%,500V	TK0891	RDM15FD151F03
A4A1A1C3	283-0784-00	671-0718-00		CAP,FXD,MICA DI:40PF,2%,500V	TK0891	RDM15ED400G03
A4A1A1C4	283-0665-00	671-0718-00		CAP,FXD,MICA DI:190PF,1%,100V	TK0891	RDM15FD191F03
A4A1A1C6	283-0149-00	671-0718-00		CAP,FXD,CER DI:25PF,2%,200V	59660	865-528T2H250G
A4A1A1C7	281-0139-00	671-0718-00	671-0718-01	CAP,VAR,CER DI:2.5-9PF,100V	59660	518-031 A 2.5-9
A4A1A1C7	281-0140-00	671-0718-01		CAP,VAR,CER DI:5-25PF,100V	59660	518-031 A 5-25
A4A1A1C216	283-0788-00	671-0714-01	671-0714-01	CAP,FXD,MICA DI:267PF,1%,500V	TK0891	RDM15FD2670F03
A4A1A1C218	283-0776-00			CAP,FXD,MICA DI:2130 PF,1%,500V	TK0891	RDM19FD2131F03
A4A1A1C413	283-0769-00	671-0714-01	671-0714-01	CAP,FXD,MICA DI:278 PF,1%,500V	TK0891	RDM15FD2780F03
A4A1A1C415	283-0594-00	671-0714-01	671-0714-01	CAP,FXD,MICA DI:0.001UF,1%,100V	TK0891	RDM15FA102F03
A4A1A1CR1	152-0141-02	671-0718-00		DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4A1A1CR2	152-0141-02	671-0718-00		DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4A1A1CR319	152-0141-02	671-0714-01	671-0714-01	DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4A1A1J112	131-2002-00			CONN,BOX:PCB;FEM,RTANG,1 X 5,0.1 CTR,0.14 X 0.115 TAIL,2 X5 PCB,0.31 X 0.1 CTR PTH,40 GOLD,SIDE ENTRY	22526	65001-110
A4A1A1J216	131-0608-00	671-0714-01	671-0714-01	CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A4A1A1J312	131-2002-00			CONN,BOX:PCB;FEMALE,RTANG,1 X 5,0.1 CTR,0.14 X 0.115 TAIL,2 X5 PCB,0.31 X 0.1 CTR PTH,40 GOLD,SIDE ENTRY	22526	65001-110
A4A1A1J412	131-2002-00			CONN,BOX:PCB;FEMALE,RTANG,1 X 5,0.1 CTR,0.14 X 0.115 TAIL,2 X5 PCB,0.31 X 0.1 CTR PTH,40 GOLD,SIDE ENTRY	22526	65001-110
A4A1A1J413	131-0608-00	671-0718-00		CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A4A1A1L5	114-0366-00	671-0718-00		COIL,RF:VARIABLE,2.40-2.70UH,Q MIN190 @ 2.6	54937	114-0366-00
A4A1A1L6	108-0509-00	671-0718-00		INDUCTOR,FXD:CUSTOM,SIGNAL;2.45UH,10%,IDC<3 10 MA,Q>35@7.9MHZ,ON FORM 276-0153-00	0JR03	108-0509-00
A4A1A1L214	114-0432-00	671-0714-01	671-0714-01	INDUCTOR,VAR:9.5-10.5UH,POT CORE	54937	500-4460
A4A1A1L314	114-0431-00			INDUCTOR,VAR:13.7-15.2UH,POT CORE	54937	500-4459

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A4A1A1P216	131-0993-00			CONN,BOX:SHUNT:FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,BLACK,JUMPER	22526	65474-006
A4A1A1R1	322-3126-07	671-0718-00		RES,FXD,FILM:200 OHM,0.1%,0.2W,TC=T9	91637	CCF50-2-C200ROB
A4A1A1R2	322-3188-00	671-0718-00		RES,FXD,FILM:887 OHM,1%,0.2W,TC=TOMI,SMALL BODY	91637	CCF501G887ROF
A4A1A1R3	311-2276-00	671-0718-00	671-0718-01	RES,VAR,NONWWW:TRMR,100 OHM,20%,0.5WLINEAR,MI	TK2073	GF06VT2 101 M L
A4A1A1R3	311-2275-00	671-0718-01		RES,VAR,NONWWW:TRMR,200 OHM,20%,0.5WLINEAR,MI	80009	311227500
A4A1A1R112	322-3289-00	671-0714-01	671-0714-01	RES,FXD:METAL FILM:10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A4A1A1R114	311-2231-00	671-0714-01	671-0714-01	RES,VAR,TRMR:CERMET;1K OHM,20%,0.5W,0.197 SQ	TK2073	GF06UT2 102 M L
A4A1A1R417	321-0122-00	671-0714-01	671-0714-01	RES,FXD,FILM:182 OHM,1%,0.125W,TC=T0	91637	CMF55116G182ROF
A4A1A2	671-0748-01			CIRCUIT BD ASSY:DIFF STEP FILTER	80009	671074801
A4A1A2C213	281-0775-02			CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1A2C314	283-0666-00			CAP,FXD,MICA DI:890PF,2%,100V	TK0891	RDM15FA891G03
A4A1A2C316	283-0594-00			CAP,FXD,MICA DI:0.001UF,1%,100V	TK0891	RDM15FA102F03
A4A1A2C318	283-0773-00			CAP,FXD,MICA DI:578 PF,1%,300V	TK0891	RDM15FC5780F03
A4A1A2C414	281-0898-00			CAP,FXD,CER DI:7.5PF,+/-0.5PF,500VTUBULAR,MI	04222	MA107A7R5DAA
A4A1A2CR316	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A4A1A2J112	131-2002-00			CONN,BOX:PCB:FEMALE,RTANG,1 X 5,0.1 CTR,0.14 X 0.115 TAIL,2 X5 PCB,0.31 X 0.1 CTR PTH,40 GOLD,SIDE ENTRY	22526	65001-110
A4A1A2J312	131-2002-00			CONN,BOX:PCB:FEMALE,RTANG,1 X 5,0.1 CTR,0.14 X 0.115 TAIL,2 X5 PCB,0.31 X 0.1 CTR PTH,40 GOLD,SIDE ENTRY	22526	65001-110
A4A1A2J412	131-2002-00			CONN,BOX:PCB:FEMALE,RTANG,1 X 5,0.1 CTR,0.14 X 0.115 TAIL,2 X5 PCB,0.31 X 0.1 CTR PTH,40 GOLD,SIDE ENTRY	22526	65001-110
A4A1A2L218	108-0360-00			INDUCTOR,FXD:CUSTOM,POWER:46UH,20%,IDC<570 MA,Q>59@2.5MHZ,ON FORM 276-0043-00,62T W/34	OJR03	108-0360-00
A4A1A2L313	108-0341-00			INDUCTOR,FXD:CUSTOM,POWER:1.4UH,IDC<470 MA,Q>38@7.9MHZ,ON FORM 276-0153-00,37T W/38 AWG	OJR03	108-0341-00
A4A1A2L411	108-1112-00			INDUCTOR,FXD:CUSTOM,SIGNAL:170UH,10%,ON FORM 276-0288-00,105T W/38 AWG	OJR03	108-1112-00
A4A1A2R114	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A4A1A2R119	322-3342-00			RES,FXD,FILM:35.7K OHM,1%,0.2W,TC=TOMI,SMALL BODY	57668	CRB20 FXE 35K7
A4A1A2R211	321-0368-00			RES,FXD,FILM:66.5K OHM,1%,0.125W,TC=TOMI	50139	NOT AVAILABLE
A4A1A2R212	322-3130-00			RES,FXD:METAL FILM,221 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALLBODY	57668	RB20FX221E
A4A1A2R215	311-2229-00			RES,VAR,TRMR:CERMET,250 OHM,20%,0.5W,0.197 SQ	TK2073	GF06UT2 251 M L20
A4A1A2R311	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A4A1A2R415	321-0090-00			RES,FXD,FILM:84.5 OHM,1%,0.125W,TC=TOMI	50139	NOT AVAILABLE
A4A1A3	671-0716-02			CIRCUIT BD ASSY:LF NOISE FILTER	80009	671071602
A4A1A3C115	283-0690-00			CAP,FXD,MICA DI:560PF,1%,300V	TK0891	RDM15FC561F03
A4A1A3C116	283-0210-00			CAP,FXD,CER DI:0.0056UF,20%,100V	04222	SR301C562MAA
A4A1A3C211	281-0775-02			CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1A3C212	281-0775-02			CAP,FXD,CERAMIC:MLC:0.1UF,20%,50V,X7R,0.265	04222	SA205C104MAA
A4A1A3C213	283-0594-00			CAP,FXD,MICA DI:0.001UF,1%,100V	TK0891	RDM15FA102F03
A4A1A3C214	283-0690-00			CAP,FXD,MICA DI:560PF,1%,300V	TK0891	RDM15FC561F03
A4A1A3C215	283-0769-00			CAP,FXD,MICA DI:278 PF,1%,500V	TK0891	RDM15FD278OFO3
A4A1A3C217	285-1190-00			CAP,FXD,MTLZD:0.056 UF,5%,250 V	05292	PMT3R ADVISE
A4A1A3C314	283-0594-00			CAP,FXD,MICA DI:0.001UF,1%,100V	TK0891	RDM15FA102F03
A4A1A3C315	283-0690-00			CAP,FXD,MICA DI:560PF,1%,300V	TK0891	RDM15FC561F03
A4A1A3C316	283-0769-00			CAP,FXD,MICA DI:278 PF,1%,500V	TK0891	RDM15FD278OFO3
A4A1A3C317	285-1190-00			CAP,FXD,MTLZD:0.056 UF,5%,250 V	05292	PMT3R ADVISE
A4A1A3C318	283-0690-00			CAP,FXD,MICA DI:560PF,1%,300V	TK0891	RDM15FC561F03
A4A1A3C415	283-0663-00			CAP,FXD,MICA DI:16.8PF,+0.5PF,500V	TK0891	RDM15CD16R8D03
A4A1A3C416	281-0910-00			CAP,FXD,CER DI:1800PF,1%,50VTAPED & REELED	04222	MA205A182FAA
A4A1A3C417	281-0910-00			CAP,FXD,CER DI:1800PF,1%,50VTAPED & REELED	04222	MA205A182FAA
A4A1A3CR317	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A4A1A3J112	131-2002-00			CONN,BOX:PCB:FEMALE,RTANG,1 X 5,0.1 CTR,0.14 X 0.115 TAIL,2 X5 PCB,0.31 X 0.1 CTR PTH,40 GOLD,SIDE ENTRY	22526	65001-110

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A4A1A3J312	131-2002-00			CONN,BOX:PCB;FEMALE,RTANG,1 X 5,0.1 CTR,0.14 X 0.115 TAIL,2 X5 PCB,0.31 X 0.1 CTR PTH,40 GOLD,SIDE ENTRY	22526	65001-110
A4A1A3J412	131-2002-00			CONN,BOX:PCB;FEMALE,RTANG,1 X 5,0.1 CTR,0.14 X 0.115 TAIL,2 X5 PCB,0.31 X 0.1 CTR PTH,40 GOLD,SIDE ENTRY	22526	65001-110
A4A1A3L114	108-1417-00			INDUCTOR,FXD:CUSTOM,SIGNAL:45UH,2%,IDC<5 MA,RDC<7 OHM	0JR03	108-1417-00
A4A1A3L211	108-1417-00			INDUCTOR,FXD:CUSTOM,SIGNAL:45UH,2%,IDC<5 MA,RDC<7 OHM	0JR03	108-1417-00
A4A1A3L419	108-0800-00			INDUCTOR,FXD:SIGNAL:820UH,10%,IDC<40 MA,RDC<65 OHM,Q>30@0.79MHZ,SRF>3.8MHZ,EPOXY MOLDED	76493	9230-90
A4A1A3R114	315-0221-00			RES,FXD,FILM:220 OHM,5%,0.25W,MI	50139	CB2215
A4A1A3R117	321-0351-00			RES,FXD,FILM:44.2K OHM,1%,0.125W,TC=T0MI	19701	5043ED44K20F
A4A1A3R118	321-0917-07			RES,FXD,FILM:27.2K OHM,0.1%,0.125W,TC=T9	57027	RC55-D-27K2-B-R
A4A1A3R119	321-1755-07			RES,FXD,FILM:65.7K OHM,0.1%,0.125W,TC=T9	24546	NE55E 65.7 K OH
A4A1A3R213	322-3295-00			RES,FXD:METAL FILM:11.5K OHM,1%,0.2W,TC=100	91637	CCF50G11501F
A4A1A3R214	321-0307-00			RES,FXD,FILM:15.4K OHM,1%,0.125W,TC=T0MI	TK1727	MR25-2322-151-1
A4A1A3R215	322-3324-00			RES,FXD,FILM:23.2K OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF50-2F23201F
A4A1A3R216	322-3211-00			RES,FXD,FILM:1.54K OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF501G15400F
A4A1A3R217	321-0351-00			RES,FXD,FILM:44.2K OHM,1%,0.125W,TC=T0MI	19701	5043ED44K20F
A4A1A3R314	321-0332-00			RES,FXD,FILM:28.0K OHM,1%,0.125W,TC=T0MI	19701	5043ED28K00F
A4A1A3R315	322-3344-00			RES,FXD,FILM:37.4K OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF501G37401F
A4A1A3R316	322-3360-00			RES,FXD,FILM:54.9K OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF501G54901F
A4A1A3R317	322-3248-00			RES,FXD,FILM:3.74K OHM,1%,0.2W,TC=T0	91637	CCF50G37400F
A4A1A3R318	321-0351-00			RES,FXD,FILM:44.2K OHM,1%,0.125W,TC=T0MI	19701	5043ED44K20F
A4A1A3R319	321-0917-07			RES,FXD,FILM:27.2K OHM,0.1%,0.125W,TC=T9	57027	RC55-D-27K2-B-R
A4A1A3R411	321-0351-00			RES,FXD,FILM:44.2K OHM,1%,0.125W,TC=T0MI	19701	5043ED44K20F
A4A1A3R412	321-1755-07			RES,FXD,FILM:65.7K OHM,0.1%,0.125W,TC=T9	24546	NE55E 65.7 K OH
A4A1A3R413	321-0612-07			RES,FXD,FILM:500 OHM,0.1%,0.125W,TC=T9MI	TK1727	MPR24-2322-141-
A4A1A3R414	311-2226-00			RES,VAR,TRMR:CERMET:50 OHM,20%,0.5W,0.197 SQ	TK2073	GF06UT2 500 M L
A4A1A3R418	321-0612-07			RES,FXD,FILM:500 OHM,0.1%,0.125W,TC=T9MI	TK1727	MPR24-2322-141-
A4A1A3U116	156-1699-00			IC,LINEAR:BIFET,OP-AMP;DUAL,LOW OFFSET,LOW DRIFT	27014	LF412CN
A4A1A3U116	156-1699-00	671-0716-02		IC,LINEAR:BIFET,OP-AMP;DUAL,LOW OFFSET,LOW DRIFT	27014	LF412CN
A4A1A3U218	156-1788-00			IC,MISC:BIFET,ANALOG MUX;DUAL 4 CHANNEL	27014	LF13509N
A4A1A3U218	156-1788-00	671-0716-02		IC,MISC:BIFET,ANALOG MUX;DUAL 4 CHANNEL	27014	LF13509N
A4A1A3U318	156-1699-00			IC,LINEAR:BIFET,OP-AMP;DUAL,LOW OFFSET,LOW DRIFT	27014	LF412CN
A4A1A3U318	156-1699-00	671-0716-02		IC,LINEAR:BIFET,OP-AMP;DUAL,LOW OFFSET,LOW DRIFT	27014	LF412CN
A4A1A4	671-0715-01	671-0695-01	671-0695-01	CIRCUIT BD ASSY:LOW PASS FILTER	80009	671071501
A4A1A4	671-0715-02	671-0695-01	671-0695-01	CIRCUIT BD ASSY:LOW PASS FILTER	80009	671071502
A4A1A4	671-1909-00	671-0695-02		CIRCUIT BD ASSY:IEEE LOW PASS FILTER	80009	671190900
A4A1A4C217	283-0790-00			CAP,FXD,MICA DI:850PF,1%,500V	TK0891	RDM19FD851F03
A4A1A4C219	283-0692-00	671-0715-01	671-0715-02	CAP,FXD,MICA DI:670PF,1%,300V	TK0891	RDM15FC671F03
A4A1A4C219	283-0631-00	671-1909-00		CAP,FXD,MICA DI:95PF,1%,500V	TK0891	RDM15FD950F03
A4A1A4C316	283-0605-00	671-0715-01	671-0715-02	CAP,FXD,MICA DI:678PF,1%,300V	TK0891	RDM15FC6780F03
A4A1A4C316	283-0667-00	671-1909-00		CAP,FXD,MICA DI:420PF,1%,500V	TK0891	RDM15FD421F03
A4A1A4C317	283-0677-00	671-1909-00		CAP,FXD,MICA DI:82PF,1%,500V	TK0891	RDM15ED820F03
A4A1A4C415	283-0637-00	671-0715-01	671-0715-02	CAP,FXD,MICA DI:20PF,2.5%,500V	TK0891	RDM15ED200D03
A4A1A4C417	283-0728-00	671-0715-01	671-0715-02	CAP,FXD,MICA DI:120PF,1%,500V	TK0891	RDM15FD121F03
A4A1A4C417	283-0640-00	671-1909-00		CAP,FXD,MICA DI:160PF,1%,500V	TK0891	RDM15FD161F03
A4A1A4CR311	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A4A1A4CR312	152-0141-02	671-1909-00		DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A4A1A4J112	131-2002-00			CONN,BOX:PCB;FEMALE,RTANG,1 X 5,0.1 CTR,0.14 X 0.115 TAIL,2 X5 PCB,0.31 X 0.1 CTR PTH,40 GOLD,SIDE ENTRY	22526	65001-110
A4A1A4J312	131-2002-00			CONN,BOX:PCB;FEM,RTANG,1 X 5,0.1 CTR,0.14 X 0.115 TAIL,2 X5 PCB,0.31 X 0.1 CTR PTH,40 GOLD,SIDE ENTRY	22526	65001-110
A4A1A4J412	131-2002-00			CONN,BOX:PCB;FEM,RTANG,1 X 5,0.1 CTR,0.14 X 0.115 TAIL,2 X5 PCB,0.31 X 0.1 CTR PTH,40 GOLD,SIDE ENTRY	22526	65001-110
A4A1A4L211	108-0016-00	671-0715-01	671-0715-02	INDUCTOR,FXD:CUSTOM,SIG:26UH,IMAX<630MA, Q>65@2.5MHZ,ON FORM 276-0043-00	0JR03	108-0016-00

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A4A1A4L211	108-0146-00	671-1909-00		INDUCTOR,FXD:CUSTOM,SIG;5.5UH,10%,IMAX<350MA, Q>51@7.9MHZ,ON FORM 307-0005-01,57T W/39 AWG	OJR03	108-0146-00
A4A1A4L213	114-0332-00			INDUCTOR,VAR:12-20UH,ON FORM 276-0080-00	80009	114033200
A4A1A4L314	108-0765-00	671-0715-01	671-0715-02	INDUCTOR,FXD:CUSTOM,SIGNAL;17.1UH,2.5%,Q=50 @2.5MHZ,ON FORM 276-0082-00,76T W/39 AWG	OJR03	108-0765-00
A4A1A4R112	321-0245-00	671-0715-01	671-0715-02	RES,FXD,FILM:3.48K OHM,1%,0.125W,TC=TOMI	19701	5033ED3K48F
A4A1A4R112	322-3254-00	671-1909-00		RES,FXD,FILM:4.32K OHM,1%,0.2W,TC=TOMI,SMALL BODY	91637	CCF502G4321FT
A4A1A4R114	311-2231-00	671-0715-01	671-0715-01	RES,VAR,TRMR:CERMET;1K OHM,20%,0.5W,0.197 SQ	TK2073	GF06UT2 102 M L
A4A1A4R114	311-2234-00	671-0715-02	671-0715-02	RES,VAR,TRMR:CERMET;5K OHM,20%,0.5W,0.197 SQ	TK2073	GF06UT2 502 M L
A4A1A4R114	311-2232-00	671-1909-00		RES,VAR,TRMR:CERMET;2K OHM,20%,0.5W,0.197 SQ	TK2073	GF06UT2 202 M L
A4A1A4R414	321-0124-00	671-0715-01	671-0715-02	RES,FXD,FILM:191 OHM,1%,0.125W, TC=TOMI	TK1727	MR25 2322-151-1
A4A1A4R414	322-3126-00	671-1909-00		RES,FXD,FILM:200 OHM,1%,0.2W,TC=TOMI,SMALL BODY	91637	CCF501G200ROF
A4A1A5	671-0717-00	671-0695-02		CIRCUIT BD ASSY:NTSC BW LIMIT FILTER	80009	671071700
A4A1A5C1	281-0716-00	671-0717-00		CAP,FXD,CER DI:13.8PF,1%,500V	52763	2RDPZZ007 13P8L
A4A1A5C2	281-0620-00	671-0717-00		CAP,FXD,CER DI:21PF,1%,500V	52763	2RDPZZ007 Z1POL
A4A1A5C3	281-0772-00	671-0717-00		CAP,FXD,CERAMIC:MLC;4700PF,10%,100V,0.100 X	04222	SA101C472KAA
A4A1A5C5	281-0621-00	671-0717-00		CAP,FXD,CER DI:12PF,1%,500V	52763	2RDPZZ007 12POL
A4A1A5C6	283-0665-00	671-0717-00		CAP,FXD,MICA DI:190PF,1%,100V	TK0891	RDM15FD191F03
A4A1A5C7	283-0776-00	671-0717-00		CAP,FXD,MICA DI:2130 PF,1%,500V	TK0891	RDM19FD2131F03
A4A1A5C8	281-0140-00	671-0717-00		CAP,VAR,CER DI:5-25PF,100V	59660	518-038A-5-25
A4A1A5CR1	152-0141-02	671-0717-00		DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4A1A5J112	131-2002-00	671-0717-00		CONN,BOX:PCB:FEM,RTANG,1 X 5,0.1 CTR,0.14 X 0.115 TAIL,2 X5 PCB,0.31 X 0.1 CTR PTH,40 GOLD,SIDE ENTRY	22526	65001-110
A4A1A5J312	131-2002-00	671-0717-00		CONN,BOX:PCB:FEM,RTANG,1 X 5,0.1 CTR,0.14 X 0.115 TAIL,2 X5 PCB,0.31 X 0.1 CTR PTH,40 GOLD,SIDE ENTRY	22526	65001-110
A4A1A5J412	131-2002-00	671-0717-00		CONN,BOX:PCB:FEM,RTANG,1 X 5,0.1 CTR,0.14 X 0.115 TAIL,2 X5 PCB,0.31 X 0.1 CTR PTH,40 GOLD,SIDE ENTRY	22526	65001-110
A4A1A5J413	131-0608-00	671-0717-00		CONN,TERMINAL:PRESSFIT/PCB:MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A4A1A5J414	131-0608-00	671-0717-00		CONN,TERMINAL:PRESSFIT/PCB:MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A4A1A5L1	120-1882-00	671-0717-00		TRANSFORMER,RF:VAR 4.8-5.3UH,PRESET TO 5.1UH,+/-1%,Q=200,RATIO 1:1,POT CORE	54937	500-4992
A4A1A5L2	114-0364-00	671-0717-00		COIL,RF:VARIABLE,1.42-1.68UHPOT CORE	54937	500-3893
A4A1A5L3	114-0473-00	671-0717-00		INDUCTOR,VAR:28-34UH,PRESET TO 30UH (1%),Q>100@L=30UH,POT CORE	54937	500-4991
A4A1A5L4	114-0450-00	671-0717-00		COIL,RF:VAR,1.91UH-2.11UH,POT CORE	54937	500-4728
A4A1A5L5	114-0474-00	671-0717-00		INDUCTOR,VAR:7.7-9.0UH,PRESET TO 8.5UH (1%),Q>180@L=8.5UH,POT CORE	54937	500-4990
A4A1A5L6	108-0509-00	671-0717-00		INDUCTOR,FXD:CUSTOM,SIGNAL;2.45UH,10%,IDC<310 MA,Q>35@7.9MHZ,ON FORM 276-0153-00	OJR03	108-0509-00
A4A1A5P414	131-0993-00	671-0717-00		CONN,BOX:SHUNT;FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,BLACK,JUMPER	22526	65474-006
A4A1A5R1	322-3126-07	671-0717-00		RES,FXD,FILM:200 OHM,0.1%,0.2W,TC=T9	91637	CCF50-2-C200ROB
A4A1A5R2	322-3254-00	671-0717-00		RES,FXD,FILM:4.32K OHM,1%,0.2W,TC=TOMI,SMALL BODY	91637	CCF502G4321FT
A4A1A5R3	322-3243-00	671-0717-00		RES,FXD:METAL FILM:3.32K OHM,1%,0.2W,TC=100	91637	CCF50-1-G33200F
A4A1A5R4	311-2270-00	671-0717-00		RES,VAR,TRMR:CERMET;10K OHM,20%,0.5W,0.197SQ	TK2073	GF06VT2 103 M L

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A5	671-1051-00	B022000	B022006	CIRCUIT BD ASSY:CPU II	80009	671105100
A5	671-1051-01	B022007	B022030	CIRCUIT BD ASSY:CPU II	80009	671105101
A5	671-1051-02	B022031	B022149	CIRCUIT BD ASSY:CPU II	80009	671105102
A5	671-1051-03	B022150	B022293	CIRCUIT BD ASSY:CPU II	80009	671105103
A5	671-1051-04	B022294	B022601	CIRCUIT BD ASSY:CPU II	80009	671105104
A5	671-1051-05	B022602	B022999	CIRCUIT BD ASSY:CPU II	80009	671105105
A5	671-1051-06	B023000	B030274	CIRCUIT BD ASSY:CPU II	80009	671105106
A5	671-1051-07	B030275	B031198	CIRCUIT BD ASSY:CPU II	80009	671105107
A5	671-1051-08	B031199	B031236	CIRCUIT BD ASSY:CPU II	80009	671105108
A5	671-1051-09	B031237	B041925	CIRCUIT BD ASSY:CPU II	80009	671105109
A5	671-1051-10	B041926		CIRCUIT BD ASSY:CPU II	80009	671105110
				ATTACHED PARTS		
	105-0160-00			EJECTOR,CKT BD:WHITE PLASTIC	TK2562	105-0160-00
	214-1337-00			PIN,SPRING:0.25 L X 0.103 OD,STL CD PL	OKB01	ORDER BY DESC
	386-6665-00			PANEL,CKT BD:VM700A (QUANTITY 4)	80009	386666500
	211-0661-00			SCR,ASSEM WSHR:4-40 X 0.25,PNH,STL,CD PL,POZ,MACH (QUANTITY 4)	TK0435	ORDER BY DESC
	214-3903-01			SCREW,JACK:4-40 X 0.312 EXT THD,4-40 INT THD,0.188 HEX,STEEL,CADPLATE	OKB01	214-3903-01
	220-0098-00			NUT BLOCK:4-40 THRU,ALUMINUM (QUANTITY 2)	TK1465	220-0098-00
				END ATTACHED PARTS		
A5BT706	146-0045-00			BATTERY,DRY:3.4V,1.75AH,AA CELL	OBYG1	TL2100/P
A5BT706	343-0549-00			STRAP,TIEDOWN,E:0.098 W X 4.0 L,ZYTEL (QUANTITY 2)	TK1499	HW-047
A5C109	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C115	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C122	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C128	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C134	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C140	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C152	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C214	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C221	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C222	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C233	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C234	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C249	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C252	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C260	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C277	290-0932-00			CAP,FXD,ELCTL:390UF,+100-10%,15VDC	62643	672D676
A5C310	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C317	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C333	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C349	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C364	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C404	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C420	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C429	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C)	55680	UVX1H100MAA
A5C433	283-0423-00			CAP,FXD,CER DI:0.22UF,+80-20%,50VDIP STYLE	04222	MD015E224ZAA
A5C443	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C456	283-0423-00			CAP,FXD,CER DI:0.22UF,+80-20%,50VDIP STYLE	04222	MD015E224ZAA
A5C458	283-0423-00			CAP,FXD,CER DI:0.22UF,+80-20%,50VDIP STYLE	04222	MD015E224ZAA
A5C465	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C472	283-0423-00			CAP,FXD,CER DI:0.22UF,+80-20%,50VDIP STYLE	04222	MD015E224ZAA
A5C476	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C)	55680	UVX1H100MAA
A5C519	290-0776-00			CAP,FXD,ALUM:22UF,20%,10V,ESR=15.07 OHM (120HZ,20C)	0H1N5	CEUSM1A220

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A5C543	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C565	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C614	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C618	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C631	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C633	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C646	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C648	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C658	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C664	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C668	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C711	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C713	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C715	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C733	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C735	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C743	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C751	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C753	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C766	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C767	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C803	283-0167-00			CAP,FXD,CER DI:0.1UF,10%,100V	04222	SR211C104KAA
A5C804	283-0051-00			CAP,FXD,CER DI:0.0033UF,5%,100V	04222	SR211A332JAA
A5C805	283-0154-00			CAP,FXD,CER DI:22PF,5%,50V	04222	SR155A220JAA
A5C806	283-0154-00			CAP,FXD,CER DI:22PF,5%,50V	04222	SR155A220JAA
A5C807	281-0299-00			CAP,VAR,CER DI:14PF,50V	18736	EP14
A5C816	283-0066-00			CAP,FXD,CER DI:2.5PF,+/-0.5PF,200V	80009	283006600
A5C824	281-0865-00			CAP,FXD,CER DI:1000PF,5%,100V	04222	SA201A102JAA
A5C826	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C846	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C855	283-0185-01			CAP,FXD,CER:SLC:2.5PF,+/- 0.1PF,50V,COJ, .150 X .150	59660	8101-A050-COJO-
A5C858	283-0260-00			CAP,FXD,CER DI:5.6PF,+/-0.25PF,200V	04222	SR152A5R6CAA
A5C874	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C879	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C883	290-0967-00			CAP,FXD,ALUM:22UF,20%,25V,ESR=10.55 OHM (120HZ,20C),5 X 12MM	0H1N5	CE02W1E220C
A5C886	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A5C887	290-0973-00			CAP,FXD,ELCTL:100UF,20%,25VDC	0H1N5	CEUSM1E101
A5C910	283-0167-00			CAP,FXD,CER DI:0.1UF,10%,100V	04222	SR211C104KAA
A5C911	283-0167-00			CAP,FXD,CER DI:0.1UF,10%,100V	04222	SR211C104KAA
A5C920	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A5C921	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A5C922	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A5C923	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A5C924	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A5C925	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A5C926	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C927	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A5C942	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A5C943	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A5C960	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C961	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A5C962	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A5C963	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A5C964	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A5C965	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A5C966	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A5C967	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A5C979	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A5C983	290-0967-00			CAP,FXD,ALUM:22UF,20%,25V,ESR=10.55 OHM (120HZ,20C),5 X 12MM	0H1N5	CE02W1E220C
A5C986	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A5C987	290-0973-00			CAP,FXD,ELCTLT:100UF,20%,25VDC	0H1N5	CEUSM1E101
A5CR123	152-0725-00			SEMICON DVC,DI:SI,SCHOTTKY,20V,1.2PF,DO-35	21847	A2X1582
A5CR426	152-0322-00			DIODE,SIG:SCHTKY:15V,410MV AT 1MA,1.2PF	50434	5082-2672-T25
A5CR508	152-0322-00			DIODE,SIG:SCHTKY:15V,410MV AT 1MA,1.2PF	50434	5082-2672-T25
A5CR509	152-0322-00			DIODE,SIG:SCHTKY:15V,410MV AT 1MA,1.2PF	50434	5082-2672-T25
A5CR514	152-0322-00			DIODE,SIG:SCHTKY:15V,410MV AT 1MA,1.2PF	50434	5082-2672-T25
A5CR515	152-0322-00			DIODE,SIG:SCHTKY:15V,410MV AT 1MA,1.2PF	50434	5082-2672-T25
A5CR614	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A5CR759	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A5CR881	152-0066-00			DIODE,RECT:400V,1A,IFSM=30A,1.2VF,2US	0LUA3	1N5060
A5CR981	152-0066-00			DIODE,RECT:400V,1A,IFSM=30A,1.2VF,2US	0LUA3	1N5060
A5DS202	150-1157-00			LT EMITTING DIO:GREEN,6.7MA	15513	PC080-G12
A5DS203	150-1157-00			LT EMITTING DIO:GREEN,6.7MA	15513	PC080-G12
A5DS204	150-1157-00			LT EMITTING DIO:GREEN,6.7MA	15513	PC080-G12
A5DS205	150-1157-00			LT EMITTING DIO:GREEN,6.7MA	15513	PC080-G12
A5DS206	150-1157-00			LT EMITTING DIO:GREEN,6.7MA	15513	PC080-G12
A5DS207	150-1157-00			LT EMITTING DIO:GREEN,6.7MA	15513	PC080-G12
A5DS208	150-1157-00			LT EMITTING DIO:GREEN,6.7MA	15513	PC080-G12
A5DS209	150-1157-00			LT EMITTING DIO:GREEN,6.7MA	15513	PC080-G12
A5DS604	150-1020-00			DIODE,OPTO:LED;RED,635NM,1.0MCD AT 5V,90 DEG VIEW,INTEGRAL RESISTOR,SUBMINIATURE RIGHT ANGLE	15513	PC080-RL5
A5F283	159-0193-00			FUSE,WIRE LEAD:10A,60V,FAST BLOW,5 SEC,SAFETY CONTROLLED	61857	SP5-10A
A5F311	159-0205-00			FUSE,WIRE LEAD:1A,125V,5 SECONDS	61857	SP7-1A
A5FL920	119-3580-00			FILTER,EMI:T-CIRCUIT:140MHZ MAX,INS LOSS 15 DB@30-800MHZ,25DB @70-200MHZ,1A,50V,1000PF	TK2058	ZJSR-5101-102TA
A5FL921	119-3580-00			FILTER,EMI:T-CIRCUIT:140MHZ MAX,INS LOSS 15 DB@30-800MHZ,25DB @70-200MHZ,1A,50V,1000PF	TK2058	ZJSR-5101-102TA
A5FL922	119-3580-00			FILTER,EMI:T-CIRCUIT:140MHZ MAX,INS LOSS 15 DB@30-800MHZ,25DB @70-200MHZ,1A,50V,1000PF	TK2058	ZJSR-5101-102TA
A5FL923	119-3580-00			FILTER,EMI:T-CIRCUIT:140MHZ MAX,INS LOSS 15 DB@30-800MHZ,25DB @70-200MHZ,1A,50V,1000PF	TK2058	ZJSR-5101-102TA
A5FL924	119-3580-00			FILTER,EMI:T-CIRCUIT:140MHZ MAX,INS LOSS 15 DB@30-800MHZ,25DB @70-200MHZ,1A,50V,1000PF	TK2058	ZJSR-5101-102TA
A5FL925	119-3580-00			FILTER,EMI:T-CIRCUIT:140MHZ MAX,INS LOSS 15 DB@30-800MHZ,25DB @70-200MHZ,1A,50V,1000PF	TK2058	ZJSR-5101-102TA
A5FL927	119-3580-00			FILTER,EMI:T-CIRCUIT:140MHZ MAX,INS LOSS 15 DB@30-800MHZ,25DB @70-200MHZ,1A,50V,1000PF	TK2058	ZJSR-5101-102TA
A5FL928	119-3580-00			FILTER,EMI:T-CIRCUIT:140MHZ MAX,INS LOSS 15 DB@30-800MHZ,25DB @70-200MHZ,1A,50V,1000PF	TK2058	ZJSR-5101-102TA
A5FL929	119-3580-00			FILTER,EMI:T-CIRCUIT:140MHZ MAX,INS LOSS 15 DB@30-800MHZ,25DB @70-200MHZ,1A,50V,1000PF	TK2058	ZJSR-5101-102TA
A5FL961	119-3580-00			FILTER,EMI:T-CIRCUIT:140MHZ MAX,INS LOSS 15 DB@30-800MHZ,25DB @70-200MHZ,1A,50V,1000PF	TK2058	ZJSR-5101-102TA
A5FL962	119-3580-00			FILTER,EMI:T-CIRCUIT:140MHZ MAX,INS LOSS 15 DB@30-800MHZ,25DB @70-200MHZ,1A,50V,1000PF	TK2058	ZJSR-5101-102TA
A5FL963	119-3580-00			FILTER,EMI:T-CIRCUIT:140MHZ MAX,INS LOSS 15 DB@30-800MHZ,25DB @70-200MHZ,1A,50V,1000PF	TK2058	ZJSR-5101-102TA
A5FL964	119-3580-00			FILTER,EMI:T-CIRCUIT:140MHZ MAX,INS LOSS 15 DB@30-800MHZ,25DB @70-200MHZ,1A,50V,1000PF	TK2058	ZJSR-5101-102TA
A5FL965	119-3580-00			FILTER,EMI:T-CIRCUIT:140MHZ MAX,INS LOSS 15 DB@30-800MHZ,25DB @70-200MHZ,1A,50V,1000PF	TK2058	ZJSR-5101-102TA
A5FL966	119-3580-00			FILTER,EMI:T-CIRCUIT:140MHZ MAX,INS LOSS 15 DB@30-800MHZ,25DB @70-200MHZ,1A,50V,1000PF	TK2058	ZJSR-5101-102TA
A5FL967	119-3580-00			FILTER,EMI:T-CIRCUIT:140MHZ MAX,INS LOSS 15 DB@30-800MHZ,25DB @70-200MHZ,1A,50V,1000PF	TK2058	ZJSR-5101-102TA

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A5J305	131-1425-00			CONN,HDR:PCB;MALE,RTANG,1 X 36,0.1CTR,0.230 MLG X 0.090 TAIL,30 GOLD,STACKABLE (QUANTITY 6)	22526	65521-136
A5J307	131-1425-00			CONN,HDR:PCB;MALE,RTANG,1 X 36,0.1CTR,0.230 MLG X 0.090 TAIL,30 GOLD,STACKABLE (QUANTITY 2)	22526	65521-136
A5J308	131-1426-00			CONN,HDR:PCB;MALE,RTANG,1 X 36,0.1CTR,0.23 (QUANTITY 2)	22526	65524-136
A5J490	131-3517-00			CONN,DIN:PCB;FEMALE,RTANG,3 X 50,0.1 CTR,0.504 MLG X 0.118 TAIL,30 GOLD *MOUNTING PARTS*	15912	FXR150-012-2
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0185-00			SCREW,MACHINE:2-56 X 0.438,PNH,STL (QUANTITY 2) *END MOUNTING PARTS*	0KB01	ORDER BY DESC
A5J906	131-1425-00			CONN,HDR:PCB;MALE,RTANG,1 X 36,0.1CTR,0.230 MLG X 0.090 TAIL,30 GOLD,STACKABLE (QUANTITY 2)	22526	65521-136
A5J927	131-2199-00			CONN,DSUB:PCB/PNL;MALE,RTANG,25 POS,0.112 CTR,0.590 MLG X 0.125 TAIL,4-40 THD INSERT,GOLD/TIN *MOUNTING PARTS*	00779	747047-3
	210-0586-00			NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL (QUANTITY 2)	TK0435	ORDER BY DESC
	211-0012-00			SCREW,MACHINE:4-40 X 0.375,PNH,STL (QUANTITY 2) *END MOUNTING PARTS*	TK0435	ORDER BY DESC
A5J944	131-1426-00	671-1051-00	671-1051-08	CONN,HDR:PCB;MALE,RTANG,1 X 36,0.1CTR,0.23 (QUANTITY 2)	22526	65524-136
A5J946	131-1652-00			CONN,CIRC:PNL/LEMO;FEM,STR,2 POS,ONE MALE,ONE FEM,0.767 L,SLDR CUP,0.362 DIA MTG HOLE,00 SHELL SIZE *ATTACHED PARTS*	TK1312	ERA.0S.302.CLL
	210-0012-00			WASHER,LOCK:0.384 ID,INTL,0.022 THK,STL *END ATTACHED PARTS*	78189	1220-02-00-0541
A5J960	131-2199-00			CONN,DSUB:PCB/PNL;MALE,RTANG,25 POS,0.112CTR,0.590 MLG X 0.125 TAIL,4-40 THD INSERT,GOLD/TIN *MOUNTING PARTS*	00779	747047-3
	210-0586-00			NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL (QUANTITY 2)	TK0435	ORDER BY DESC
	211-0012-00			SCREW,MACHINE:4-40 X 0.375,PNH,STL (QUANTITY 2) *END MOUNTING PARTS*	TK0435	ORDER BY DESC
A5K946	148-0076-00			RELAY,REED:1 FORM A; 100VDC, 0.25A,10W, COIL 5VDC, 500 OHMS	12617	HE721A6314
A5L920	120-0407-00			INDUCTOR,FXD:SIGNAL;25.7UH,32%,TOROID CORE 276-0557-01,5 TURNS WITH 27 AWG WIRE 176-0010-XX	0JR03	120-0407-00
A5L921	120-0407-00			INDUCTOR,FXD:SIGNAL;25.7UH,32%,TOROID CORE 276-0557-01,5 TURNS WITH 27 AWG WIRE 176-0010-XX	0JR03	120-0407-00
A5L923	120-0407-00			INDUCTOR,FXD:SIGNAL;25.7UH,32%,TOROID CORE 276-0557-01,5 TURNS WITH 27 AWG WIRE 176-0010-XX	0JR03	120-0407-00
A5L924	120-0407-00			INDUCTOR,FXD:SIGNAL;25.7UH,32%,TOROID CORE 276-0557-01,5 TURNS WITH 27 AWG WIRE 176-0010-XX	0JR03	120-0407-00
A5L963	120-0407-00			INDUCTOR,FXD:SIGNAL;25.7UH,32%,TOROID CORE 276-0557-01,5 TURNS WITH 27 AWG WIRE 176-0010-XX	0JR03	120-0407-00
A5L965	120-0407-00			INDUCTOR,FXD:SIGNAL;25.7UH,32%,TOROID CORE 276-0557-01,5 TURNS WITH 27 AWG WIRE 176-0010-XX	0JR03	120-0407-00
A5L966	120-0407-00			INDUCTOR,FXD:SIGNAL;25.7UH,32%,TOROID CORE 276-0557-01,5 TURNS WITH 27 AWG WIRE 176-0010-XX	0JR03	120-0407-00

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Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A5P307	131-0993-00			CONN,BOX:SHUNT;FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,BLACK,JUMPER	22526	65474-006
A5P308	131-0993-00			CONN,BOX:SHUNT;FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,BLACK,JUMPER	22526	65474-006
A5Q426	151-0424-00	671-1051-00	671-1051-09	TRANSISTOR,SIG:BIPOLAR,NPN;15V,500MA,SWITCHING	04713	MPS2369A
A5Q426	151-0223-00	671-1051-09		TRANSISTOR,SIG:BIPOLAR,NPN;15V,500MA,SWITCHING	04713	MPS2369A
A5Q429	151-0424-00	671-1051-00	671-1051-09	TRANSISTOR,SIG:BIPOLAR,NPN;15V,500MA,SWITCHING	04713	MPS2369A
A5Q429	151-0223-00	671-1051-09		TRANSISTOR,SIG:BIPOLAR,NPN;15V,500MA,SWITCHING	04713	MPS2369A
A5Q522	151-0424-00	671-1051-00	671-1051-09	TRANSISTOR,SIG:BIPOLAR,NPN;15V,500MA,SWITCHING	04713	MPS2369A
A5Q522	151-0223-00	671-1051-09		TRANSISTOR,SIG:BIPOLAR,NPN;15V,500MA,SWITCHING	04713	MPS2369A
A5Q525	151-0424-00	671-1051-00	671-1051-09	TRANSISTOR,SIG:BIPOLAR,NPN;15V,500MA,SWITCHING	04713	MPS2369A
A5Q525	151-0223-00	671-1051-09		TRANSISTOR,SIG:BIPOLAR,NPN;15V,500MA,SWITCHING	04713	MPS2369A
A5Q529	151-0424-00	671-1051-00	671-1051-09	TRANSISTOR,SIG:BIPOLAR,NPN;15V,500MA,SWITCHING	04713	MPS2369A
A5Q529	151-0223-00	671-1051-09		TRANSISTOR,SIG:BIPOLAR,NPN;15V,500MA,SWITCHING	04713	MPS2369A
A5Q764	151-0273-00			TRANSISTOR,SIG:BIPOLAR,NPN;30V,50MA,50MHZ,AMPL	04713	2N5088
A5R116	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A5R123	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A5R124	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A5R125	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A5R127	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W MI	50139	CB1005
A5R128	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A5R129	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A5R145	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A5R175	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A5R177	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W	73138	ADVISE
A5R272	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A5R281	315-0331-00			RES,FXD,FILM:330 OHM,5%,0.25W MI	50139	CB3315
A5R311	307-0675-00			RES NTWK,FXD,FI:(9)1K OHM,2%,1.25W	50139	210A102
A5R326	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W	73138	ADVISE
A5R327	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W	73138	ADVISE
A5R340	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W	73138	ADVISE
A5R341	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W	73138	ADVISE
A5R342	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W	73138	ADVISE
A5R355	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W	73138	ADVISE
A5R357	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W	73138	ADVISE
A5R358	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W	73138	ADVISE
A5R368	307-0445-00			RES,NTWK:THICK FILM,(9) 4.7K OHM,2%,0.2W EACH,TC=100 PPM,SIP10,PIN 1 COMMON	11236	750-101-R4.7 K TUBE PACKED
A5R373	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W	73138	ADVISE
A5R374	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W	73138	ADVISE
A5R409	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A5R419	315-0621-00			RES,FXD,FILM:620 OHM,5%,0.25W MI	50139	CB6215
A5R420	315-0332-00			RES,FXD,FILM:3.3K OHM,5%,0.25W MI	50139	CB3325
A5R421	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A5R426	315-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.25W MI	50139	CB1525
A5R427	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A5R428	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A5R429	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A5R508	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W MI	50139	CB4725
A5R514	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W MI	50139	CB4725
A5R520	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A5R521	315-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.25W MI	50139	CB1525
A5R525	307-0445-00			RES,NTWK:THICK FILM,(9) 4.7K OHM,2%,0.2W EACH,TC=100 PPM,SIP10,PIN 1 COMMON	11236	750-101-R4.7 K TUBE PACKED
A5R526	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A5R527	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A5R528	315-0332-00			RES,FXD,FILM:3.3K OHM,5%,0.25W MI	50139	CB3325

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A5R541	307-0445-00			RES,NTWK:THICK FILM,(9) 4.7K OHM,2%,0.2W EACH,TC=100 PPM,SIP10,PIN 1 COMMON	11236	750-101-R4.7 K TUBE PACKED
A5R556	307-0445-00			RES,NTWK:THICK FILM,(9) 4.7K OHM,2%,0.2W EACH,TC=100 PPM,SIP10,PIN 1 COMMON	11236	750-101-R4.7 K TUBE PACKED
A5R572	307-0445-00			RES,NTWK:THICK FILM,(9) 4.7K OHM,2%,0.2W EACH,TC=100 PPM,SIP10,PIN 1 COMMON	11236	750-101-R4.7 K TUBE PACKED
A5R580	307-0828-00			RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B330
A5R612	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A5R613	315-0113-00			RES,FXD,FILM:11K OHM,5%,0.25W MI	50139	CB1135
A5R614	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W MI	50139	CB5115
A5R615	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W MI	50139	CB4725
A5R625	307-0675-00			RES NTWK,FXD,FI:(9),1K OHM,2%,1.25W	50139	210A102
A5R641	307-0675-00			RES NTWK,FXD,FI:(9),1K OHM,2%,1.25W	50139	210A102
A5R656	307-0675-00			RES NTWK,FXD,FI:(9),1K OHM,2%,1.25W	50139	210A102
A5R672	307-0675-00			RES NTWK,FXD,FI:(9),1K OHM,2%,1.25W	50139	210A102
A5R673	307-0719-00			RES NTWK,FXD,FI:9,1.5K OHM,2%,0.15W EACH	50139	210A152F
A5R682	307-0675-00			RES NTWK,FXD,FI:(9),1K OHM,2%,1.25W	50139	210A102
A5R724	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W MI	50139	CB4725
A5R725	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A5R726	307-0648-00			RES NTWK,FXD,FI:8,100 OHM,2%,0.125 W	11236	761-3-R100
A5R733	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A5R736	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A5R752	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A5R759	315-0431-00			RES,FXD,FILM:430 OHM,5%,0.25W MI	50139	CB4315
A5R760	307-0741-00			RES NTWK,FXD,FI:7,3.3K OHM,2%,0.19W EACH	11236	750-81-R3.3K OR 770-81-R3.3K
A5R773	307-0648-00			RES NTWK,FXD,FI:8,100 OHM,2%,0.125 W	11236	761-3-R100
A5R785	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A5R811	315-0202-00			RES,FXD,FILM:2K OHM,5%,0.25W MI	50139	CB2025
A5R823	307-0446-00			RES NTWK,FXD,FI:10K OHM,20%,(9)RES	11236	750-101-R10K
A5R836	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A5R871	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A5R905	315-0104-00			RES,FXD,FILM:100K OHM,5%,0.25W MI	50139	CB1045
A5R910	315-0104-00			RES,FXD,FILM:100K OHM,5%,0.25W MI	50139	CB1045
A5R911	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A5R927	307-0737-00			RES NTWK,FXD,FI:10,6.2K OHM,2%,0.19 EACH	57668	ADVISE
A5R960	307-0737-00			RES NTWK,FXD,FI:10,6.2K OHM,2%,0.19 EACH	57668	ADVISE
A5S405	260-2064-00			SWITCH,ROCKER:(6)SPST,125MA,30VDC	81073	76YY2759S
A5T944	120-0487-00	671-1051-09		XFMR,TOROID:5 TURNS,BIFILAR,3T2	0JR03	120-0487-00
A5TP106	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A5TP184	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A5TP457	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A5TP906	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A5TP981	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A5U121	156-3106-00			IC,DIGITAL:HCMOS,COUNTER;14-STAGE BINARY RIPPLE	01295	SN74HC4020N
A5U128	156-2321-00			IC,DIGITAL:ASTTL,GATE:QUAD 2-INPUT AND	01295	SN74AS08N
A5U134	156-2340-00			IC,DIGITAL:ASTTL,GATE:DUAL 4-INPUT NAND	01295	SN74AS20N
A5U143	160-5137-00			IC,DIGITAL:STTL,PLD;PAL,20L8,25NS,210MA	80009	160513700
	136-0925-00			*MOUNTING PARTS*		
				SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
				END MOUNTING PARTS		
A5U146	156-2167-00			IC,DIGITAL:ASTTL,GATE:HEX INV BUFFER	01295	SN74AS1004AN
A5U162	160-7168-00	671-1051-00	671-1051-00	MICROCKT,DGTL:CMOS,65536 X 8 EPROM,W/3 STATE OUT,PRGM,27C512,DIP28	80009	160716800
A5U162	160-7168-01	671-1051-01	671-1051-01	MICROCKT,DGTL:CMOS,65536 X 8 EPROM,W/3 STATE OUT,PRGM,27C512,DIP28	80009	160716801
A5U162	160-7168-02	671-1051-02	671-1051-02	MICROCKT,DGTL:CMOS,65536 X 8 EPROM,W/3 STATE OUT,PRGM,27C512,DIP28	80009	160716802
A5U162	160-7282-00	671-1051-03	671-1051-03	MICROCKT,DGTL:CMOS,65536 X 8 EPROM,W/3 STATE OUT,PRGM,27C512,DIP28	80009	160728200
A5U162	160-7282-01	671-1051-04	671-1051-04	MICROCKT,DGTL:CMOS,65536 X 8 EPROM,W/3 STATE OUT,PRGM,27C512,DIP28	80009	160728201
A5U162	160-7282-02	671-1051-05	671-1051-05	MICROCKT,DGTL:CMOS,65536 X 8 EPROM,W/3 STATE OUT,PRGM,27C512,DIP28	80009	160728202
A5U162	160-7282-03	671-1051-06	671-1051-06	MICROCKT,DGTL:CMOS,65536 X 8 EPROM,W/3 STATE OUT,PRGM,27C512,DIP28	80009	160728203
A5U162	160-7282-04	671-1051-07	671-1051-07	IC,DIGITAL:CMOS,EPPROM:65536 X 8,W/3 STATE OUT,27C512,DIP28.6	80009	160728204
A5U162	160-7282-05	671-1051-08		IC,DIGITAL:CMOS,EPPROM:65536 X 8 W/3 STATE OUT,27C512,DIP28.6	80009	160728205
				MOUNTING PARTS		
	136-0755-00			SKT,DIP:PCB;FEM,STR,2 X 14,28 POS,0.1 X 0.6 CTR,0.175 H X0.130 TAIL,BECU,TIN,ACCOM 0.008-0.0015 X 0.014-0.022	00779	2-641605-3
				END MOUNTING PARTS		
A5U209	156-1998-00			IC,DIGITAL:ALSTTL,FLIP FLOP;OCTAL D-TYPE, W/CLEAR	01295	SN74ALS273N
				MOUNTING PARTS		
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A5U213	160-5548-00			IC,DIGITAL:STTL,PLD;PAL,16R4,25NS,28.5MHZ,180MA	80009	160554800
				MOUNTING PARTS		
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A5U216	156-2338-00			IC,DIGITAL:ASTTL,FLIP FLOP;DUAL D-TYPE	01295	SN74AS74N
A5U227	156-2324-00			IC,DIGITAL:ASTTL,GATE;TRIPLE 3-INPUT NOR	01295	SN74AS27N
A5U228	156-2496-00			IC,DIGITAL:ASTTL,GATE;TRIPLE 3-INPUT NAND	01295	74AS10N
A5U241	156-2613-00			IC,DIGITAL:ASTTL,LATCH;OCTAL D-TYPE TRANS, 3-STATE	01295	SN74AS573AN
				MOUNTING PARTS		
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A5U243	160-5138-00			IC,DIGITAL:STTL,PLD;PAL,20L8,25NS,210MA	80009	160513800
				MOUNTING PARTS		
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
				END MOUNTING PARTS		
A5U255	156-2235-00			IC,DIGITAL:ASTTL,GATE;QUAD 2-INPUT ORBUFFER/DRVR	01295	SN74AS1032AN
A5U262	156-1842-00			IC,MEMORY:CMOS,SRAM;8K X 8,150NS,OE	62786	HM6264AP-10
				MOUNTING PARTS		
	136-0755-00			SKT,DIP:PCB;FEM,STR,2 X 14,28 POS,0.1 X 0.6 CTR,0.175 H X0.130 TAIL,BECU,TIN,ACCOM 0.008-0.0015 X 0.014-0.022	00779	2-641605-3
				END MOUNTING PARTS		
A5U268	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV	01295	SN74ALS245AN
				MOUNTING PARTS		
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A5U325	156-2434-00			IC,DIGITAL:ASTTL,BUFFER/DRIVER;NONINVOCAL	01295	SN74AS244N

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A5U341	156-2434-00			*END MOUNTING PARTS* IC,DIGITAL:ASTTL,BUFFER/DRIVER;NONINVOCAL	01295	SN74AS244N
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A5U356	156-2434-00			*END MOUNTING PARTS* IC,DIGITAL:ASTTL,BUFFER/DRIVER;NONINVOCAL	01295	SN74AS244N
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A5U372	156-2434-00			*END MOUNTING PARTS* IC,DIGITAL:ASTTL,BUFFER/DRIVER;NONINVOCAL	01295	SN74AS244N
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A5U410	156-2392-00			*END MOUNTING PARTS* IC,DIGITAL:HCMOS,GATE;HEX INV, SCHMITT TRIG	04713	MC74HC14AN
A5U413	156-2391-00			IC,DIGITAL:ALSTTL,BUFFER/DRIVER;OCTALNONINV, 3-STATE	01295	SN74ALS541N
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A5U420	156-2396-00			*END MOUNTING PARTS* IC,MISC:BIPOLAR,PWR SUPPLY SUPERVISOR;MPU RESET GENERATOR,5V SUPPLY SENSING	01295	TL7705ACP
A5U422	156-2392-00			IC,DIGITAL:HCMOS,GATE;HEX INV, SCHMITT TRIG	04713	MC74HC14AN
A5U443	156-2515-00			IC,PROCESSOR:HCMOS,MIPRCS;32-BIT,16.7MHZ	04713	MC68020RC16E
	136-0878-00			*MOUNTING PARTS* SOCKET,PGA:PCB;114 POS,13 X 13,0.1 X0.1 CTR,0.250 H X 0.110 TAIL,TIN,NON-SYMMETRICAL,LIF,PAT 1337	00779	916223-3
A5U465	156-2616-00	671-1051-00	671-1051-09	*END MOUNTING PARTS* IC,PROCESSOR:HCMOS,COPROCESSOR;FLOATING- POINT,16.67MHZ	80009	156261600
A5U465	156-3265-00	671-1051-10		IC,PROCESSOR:NMOS,COPROCESSOR;FLOATING POINT 33MHZ	04713	MC68882RC33A
	136-0849-00			*MOUNTING PARTS* SOCKET,PGA:PCB,MOT 68000;68 POS,10 X 10,0.1 ICAL,PAT 1006,LIF,GOLD	00779	916220-2
A5U510	156-3062-00			*END MOUNTING PARTS* IC,DIGITAL:HCMOS,GATE;QUAD 2-INPUT NAND,SCHMITT TRIGGER	01295	SN74HC132N
A5U624	156-2391-00			IC,DIGITAL:ALSTTL,BFR/DRVR;OCTALNONINV, 3-STATE	01295	SN74ALS541N
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A5U625	156-2930-00			*END MOUNTING PARTS* IC,DIGITAL:ASTTL,BUS XCVR;OCTAL, NONINV, 3-STATE	01295	SN74AS245N
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A5U638	160-5142-00			*END MOUNTING PARTS* IC,DIGITAL:STTL,PLD;PAL,16L8,35NS,90MA,PRGM	80009	160-5142-00
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A5U641	156-2930-00			IC,DIGITAL:ASTTL,BUS TRANSCEIVER;OCTAL, NONINV, 3-STATE	01295	SN74AS245N
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A5U652	156-2928-00			IC,DIGITAL:ASTTL,FLIP FLOP;HEX D-TYPE, CLEAR	01295	SN74AS174N
A5U656	156-2930-00			IC,DIGITAL:ASTTL,BUS XCVR;OCTAL, NONINV, 3-STATE	01295	SN74AS245N
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A5U663	156-2968-00			IC,DIGITAL:ASTTL,GATE;TRIPLE 3-INPUT AND	01295	SN74AS11N
A5U672	156-2930-00			IC,DIGITAL:ASTTL,BUS XCVR;OCTAL, NONINV, 3-STATE	01295	SN74AS245N
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A5U674	156-1252-00			IC,DIGITAL:LS TTL,MUX/ENCDR;8-TO-3 PRIORITY ENCDR	04713	SN74LS148N
A5U716	156-2463-00			IC,DIGITAL:HC MOS,GATE;QUAD 2-INPUT OR	01295	SN74HC32N
A5U719	156-3062-00			IC,DGTL:HC MOS,GATE;QUAD 2-INP NAND,SCHMITT TRGR	01295	SN74HC132N
A5U724	156-2292-00			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV	01295	SN74ALS652NT
	136-0925-00			*MOUNTING PARTS* SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
				END MOUNTING PARTS		
A5U735	160-5141-00			IC,DIGITAL:STTL,PLD;PAL,20R4,28.5MHZ,210MA	80009	160514100
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
				END MOUNTING PARTS		
A5U742	160-5139-00			IC,DIGITAL:STTL,PLD;PAL,20L8,25NS,210MA	80009	160513900
	136-0925-00			*MOUNTING PARTS* SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
				END MOUNTING PARTS		
A5U744	160-5140-00			IC,DIGITAL:STTL,PLD;PAL,20L8,25NS,210MA	80009	160514000
	136-0925-00			*MOUNTING PARTS* SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
				END MOUNTING PARTS		
A5U758	156-2928-00			IC,DIGITAL:ASTTL,FLIP FLOP;HEX D-TYPE, CLEAR	01295	SN74AS174N
A5U760	156-2928-00			IC,DIGITAL:ASTTL,FLIP FLOP;HEX D-TYPE, CLEAR	01295	SN74AS174N
A5U772	156-2391-00			IC,DIGITAL:ALSTTL,BFR/DRVR;OCTALNONINV, 3-STATE	01295	SN74ALS541N
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A5U773	156-2377-00			IC,DIGITAL:ASTTL,MUX;QUAD 2-TO-1 DATA SEL, 3-STATE	01295	SN74AS257N
A5U783	156-2178-00			IC,DIGITAL:ALSTTL,GATE;QUAD 2-INPUT NAND BFR, OC	01295	SN74ALS38AN
A5U818	156-2478-00			IC,PROCESSOR:CMOS,PERIPHERAL;RTC, CLK CALENDAR	34371	ICM7170CPG/IPG
	136-0751-00			*MOUNTING PARTS* SOCKET,DIP:PCB;STR,2 X 12,24 POS,0.1 X 0.608-0.015 X 0.014-0.022 LEADS	00779	2-641604-3
				END MOUNTING PARTS		
A5U836	156-2991-00			IC,MEM:CMOS,NVRAM;8K X 8,200NS,SRAM,INT BTRY	0B0A9	DS1225Y
A5U859	156-2103-00			IC,PROCESSOR:NMOS,PERIPHERAL;DUART	04713	MC68681P

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
	136-0757-00			*MOUNTING PARTS* SKT,DIP:PCB:FEM,STR,2 X 20,40 POS,0.1 X 0.6 CTR,0.175 H X0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015 X 0.014-0.022	00779	2-641606-3
A5U874	156-3511-00			*END MOUNTING PARTS* IC,MISC:TTL,INTERFACE:TRIPLE RS-232 LINE DRIVER/RECEIVER,LOW POWER SHUTDOWN MODE,3-STATE	64155	LT1039CN
	136-0756-00			*MOUNTING PARTS* SOCKET,DIP:PCB:FEMALE,STR,2 X 9,18 POS,0.1	00779	2-641601-3
A5U882	156-1160-00			*END MOUNTING PARTS* IC,LINEAR:BIPOLAR,VR:POSITIVE,12V,100MA,4%	27014	LM78L12ACH
A5U933	156-3511-00			IC,MISC:TTL,INTERFACE:TRIPLE RS-232 LINE DRIVER/RECEIVER,LOW POWER SHUTDOWN MODE,3-STATE	64155	LT1039CN
	136-0756-00			*MOUNTING PARTS* SOCKET,DIP:PCB:FEMALE,STR,2 X 9,18 POS,0.1	00779	2-641601-3
A5U965	156-0645-02			*END MOUNTING PARTS* IC,DIGITAL:LSTTL,GATES	01295	SN74LS14N
A5U982	156-1207-00			IC,LINEAR:BIPOLAR,VR:NEGATIVE,-12V,500MA,3%	27014	LM320H-12
A5VR521	152-0227-00			DIODE,ZENER:6.2V,5%,0.4W	04713	1N753ARL
A5VR614	152-0760-00			DIODE,ZENER:6.2V,2%,0.4W	04713	SZG30205
A5W941	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A5W974	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A5Y116	119-2624-00			OSCILLATOR,RF:33.333MHZ, +/- 0.005%,TTL,4 PIN 14 PIN DIP COMPATIBLE	14301	012-405-02183
A5Y811	158-0361-00			XTAL UNIT,QTZ:1.048576MHZ,0.001% *ATTACHED PARTS*	50140	150-19240
	346-0032-00			STRAP,RETAINING:0.075 DIA X 4.0 L,MLD RBR *END ATTACHED PARTS*	98159	2829-75-4
A5Y856	158-0271-00			XTAL UNIT,QTZ:3.6864MHZ, 50PPM,SERIES,ESR 120 OHMS,HC-18/U OR HC-49UPKG *MOUNTING PARTS*	61429	FOX-0368S
	352-0130-01			HLDR,XTAL UNIT:STEEL TIN PL *END MOUNTING PARTS*	5Y400	ORDER BY DESC

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A6	672-1319-00	B022000	B022293	CIRCUIT BD ASSY:EPROM	80009	672131900
A6	672-1319-02	B022294	B022761	CIRCUIT BD ASSY:EPROM	80009	672131902
A6	672-1319-03	B022762	B023176	CIRCUIT BD ASSY:EPROM	80009	672131903
A6	671-1910-00	B023177	B031236	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191000
A6	671-1910-02	B031237	B041937	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191002
A6	671-1910-04	B041938	B041938	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191004
A6	671-2675-00	B041938		CIRCUIT BD ASSY:FLASH EPROM/4M,WITH 256,NVRAM (4M,OPTION 11 ONLY)	80009	671267500
A6	671-1910-01	B030768	B031236	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191001
A6	671-1910-03	B031237	B041937	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191003
A6	671-1910-05	B041938	B041938	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191005
A6	671-3543-00	B041938		CKT BD ASSY:FLASH EPROM/5M,W/1M NVRAM,VM700A:22 (5M,OPTION 11 ONLY)	80009	671354300
A6	672-1346-00	B022609	B022725	CIRCUIT BD ASSY:EPROM	80009	672134600
A6	672-1346-01	B022726	B023000	CIRCUIT BD ASSY:EPROM	80009	672134601
A6	671-1910-00	B023001	B031236	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191000
A6	671-1910-02	B031237	B04937	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191002
A6	671-1910-04	B041938	B041938	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191004
A6	671-2675-00	B041938		CIRCUIT BD ASSY:FLASH EPROM/4M,WITH 256,NVRAM (4M,OPTION 01 ONLY)	80009	671267500
A6	671-1910-01	B030768	B031236	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191001
A6	671-1910-03	B031237	B041937	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191003
A6	671-1910-05	B041938	B041938	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191005
A6	671-3543-00	B041938		CKT BD ASSY:FLASH EPROM/5M,W/1M NVRAM,VM700A:22 (5M,OPTION 01 ONLY)	80009	671354300
A6	672-0283-00	B022609	B022714	CIRCUIT BD ASSY:EPROM	80009	672028300
A6	672-0283-01	B022715	B022954	CIRCUIT BD ASSY:EPROM	80009	672028301
A6	671-1910-00	B022955	B031236	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191000
A6	671-1910-02	B031237	B041937	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191002
A6	671-1910-04	B041938	B041938	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,4M	80009	671191004
A6	671-2675-00	B041938		CIRCUIT BD ASSY:FLASH EPROM/4M,WITH 256,NVRAM (4M,OPTION 01,11 DUAL ONLY)	80009	671267500
A6	671-1910-01	B030768	B031236	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191001
A6	671-1910-03	B031237	B041937	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191003
A6	671-1910-05	B041938	B041938	CIRCUIT BD ASSY:FLASH EPROM/NVRAM,5M	80009	671191005
A6	671-3543-00	B041938		CKT BD ASSY:FLASH EPROM/5M,W/1M NVRAM,VM700A:22 (5M,OPTION 01,11 DUAL ONLY)	80009	671354300
				ATTACHED PARTS		
	105-0160-00			EJECTOR,CKT BD:WHITE PLASTIC	TK2562	105-0160-00
	214-1337-00			PIN,SPRING:0.25 L X 0.103 OD,STL CD PL	OKB01	ORDER BY DESC
	386-5591-01	672-0283-00	672-0283-01	PANEL,ROM:VM700A	OJ260	386-5591-01
	386-5591-01	672-1319-00	672-1319-03	PANEL,ROM:VM700A	OJ260	386-5591-01
	386-5591-01	672-1346-00	672-1346-01	PANEL,ROM:VM700A	OJ260	386-5591-01
	386-6664-00			PANEL,ROM:386-5591-02 & 337-3892-00ASSEMBLED	80009	386666400
	211-0661-00			SCR,ASSEM WSHR:4-40 X 0.25,PNH,STL,CD PL,POZ,MACH (QUANTITY 4)	TK0435	ORDER BY DESC
	220-0098-00			NUT BLOCK:4-40 THRU,ALUMINUM (QUANTITY 2)	TK1465	220-0098-00
	337-3633-00	672-0283-00	672-0283-01	SHIELD,ELEC:PROTECTIVE,PLASTIC	80009	337363300
	337-3633-00	672-1319-00	672-1319-03	SHIELD,ELEC:PROTECTIVE,PLASTIC	80009	337363300
	337-3633-00	672-1346-00	672-1346-01	SHIELD,ELEC:PROTECTIVE,PLASTIC	80009	337363300
	337-3671-00	671-1910-00	671-1910-05	SHIELD,CKT BD:POLYIMIDE	TK1989	337-3671-00
	346-0032-00	672-0283-00	672-0283-01	STRAP,RETAINING:0.075 DIA X 4.0 L,MLD RBR (QUANTITY 4)	98159	2829-75-4
	346-0032-00	672-1319-00	672-1319-03	STRAP,RETAINING:0.075 DIA X 4.0 L,MLD RBR (QUANTITY 4)	98159	2829-75-4
	346-0032-00	672-1346-00	672-1346-01	STRAP,RETAINING:0.075 DIA X 4.0 L,MLD RBR (QUANTITY 4)	98159	2829-75-4

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
	346-0032-00	671-1910-00		STRAP,RETAINING:0.075 DIA X 4.0 L,MLD RBR (QUANTITY 2)	98159	2829-75-4
	346-0032-00	671-1910-01		STRAP,RETAINING:0.075 DIA X 4.0 L,MLD RBR (QUANTITY 2) *END ATTACHED PARTS*	98159	2829-75-4
A6BT134	146-0045-00			BATTERY,DRY:3.4V,1.75AH,AA CELL	0BYG1	TL2100/P
A6BT134	343-0549-00			STRAP,TIEDOWN,E:0.098 W X 4.0 L,ZYTEL (QUANTITY 2)	TK1499	HW-047
A6C127	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C139	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C145	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C155	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C158	281-0814-00			CAP,FXD,CERAMIC:MCL:100 PF,10%,100V,0.100 X	TK1743	CGB101KEN
A6C159	281-0775-01	672-0283-00	672-0283-01	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C159	281-0775-01	672-1319-00	672-1319-03	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C159	281-0775-01	672-1346-00	672-1346-01	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C166	281-0775-01	672-0283-00	672-0283-01	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C166	281-0775-01	672-1319-00	672-1319-03	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C166	281-0775-01	672-1346-00	672-1346-01	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C175	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C177	281-0814-00			CAP,FXD,CERAMIC:MCL:100 PF,10%,100V,0.100 X	TK1743	CGB101KEN
A6C178	281-0775-01	672-0283-00	672-0283-01	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C178	281-0775-01	672-1319-00	672-1319-03	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C178	281-0775-01	672-1346-00	672-1346-01	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C236	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C237	283-0190-00			CAP,FXD,CER DI:0.47UF,5%,50V	04222	SR305C474JAA
A6C238	283-0486-00			CAP,FXD,CER DI:1.0UF,10%,50V	04222	SR305C105KAA
A6C239	281-0812-00			CAP,FXD,CERAMIC:MCL:1000PF,10%,100V,0.100 X	04222	SA101C102KAA
A6C246	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C255	281-0812-00			CAP,FXD,CERAMIC:MCL:1000PF,10%,100V,0.100 X	04222	SA101C102KAA
A6C256	283-0486-00			CAP,FXD,CER DI:1.0UF,10%,50V	04222	SR305C105KAA
A6C257	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C272	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C274	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C313	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C315	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C323	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C325	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C336	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C356	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C376	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C418	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C428	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C433	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C439	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C453	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C459	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C473	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C479	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C510	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C523	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C525	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C529	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C557	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C558	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C577	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C579	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C675	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A6C716	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C718	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C726	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C728	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C734	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C754	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C774	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C798	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C832	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C838	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C852	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C858	281-0775-01	672-0283-00	672-0283-01	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C858	281-0775-01	672-1319-00	672-1319-03	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C858	281-0775-01	672-1346-00	672-1346-01	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C872	281-0775-01	672-0283-00	672-0283-01	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C872	281-0775-01	672-1319-00	672-1319-03	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C872	281-0775-01	672-1346-00	672-1346-01	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C878	281-0775-01	672-0283-00	672-0283-01	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C878	281-0775-01	672-1319-00	672-1319-03	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C878	281-0775-01	672-1346-00	672-1346-01	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C898	281-0775-01	672-0283-00	672-0283-01	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C898	281-0775-01	672-1319-00	672-1319-03	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C898	281-0775-01	672-1346-00	672-1346-01	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C912	281-0775-01	672-0283-00	672-0283-01	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C912	281-0775-01	672-1319-00	672-1319-03	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C912	281-0775-01	672-1346-00	672-1346-01	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C914	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C922	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C924	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C926	283-0194-00			CAP,FXD,CER DI:4.7UF,20%,50V	04222	SR505E475MAA
A6C934	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C938	290-0932-00			CAP,FXD,ELCTLT:390UF,+100-10%,15VDC	62643	672D676
A6C944	281-0812-00			CAP,FXD,CERAMIC:MLC:1000PF,10%,100V,0.100 X	04222	SA101C102KAA
A6C955	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C958	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C968	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C974	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C984	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C999	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C1301	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C2301	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C2302	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C3301	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C3302	290-0950-00	671-1910-00		CAP,FXD,ELCTLT:100UF,+50-20%,50WVDC	0H1N5	CEUSM1H101
A6C3303	281-0773-00	671-1910-00		CAP,FXD,CERAMIC:MLC:0.01UF,10%,100V	TK1743	CGB103KEX
A6C3304	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C3305	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C3306	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C3307	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C3308	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C3309	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C3310	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C3311	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4301	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4302	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4303	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4304	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4305	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A6C4306	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4307	290-0782-00	671-1910-00		CAP,FXD,AL:4.7UF,20%,35V,ESR=42.33 OHM (120HZ,20C)	55680	UVX1V4R7MAA
A6C4308	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4309	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4310	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4311	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4312	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4313	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4314	290-0782-00	671-1910-00		CAP,FXD,AL:4.7UF,20%,35V,ESR=42.33 OHM (120HZ,20C)	55680	UVX1V4R7MAA
A6C4315	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4316	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4317	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4318	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4319	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4320	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4321	290-0782-00	671-1910-00		CAP,FXD,AL:4.7UF,20%,35V,ESR=42.33 OHM (120HZ,20C)	55680	UVX1V4R7MAA
A6C4322	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4323	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4324	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4325	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4326	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4327	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6C4328	290-0782-00	671-1910-00		CAP,FXD,AL:4.7UF,20%,35V,ESR=42.33 OHM (120HZ,20C)	55680	UVX1V4R7MAA
A6C5301	281-0775-01	671-1910-00		CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A6CR974	152-0322-00	672-0283-00	672-0283-01	DIODE,SIG:SCHTKY;15V,410MV AT 1MA,1.2PF	50434	5082-2672-T25
A6CR974	152-0322-00	672-1319-00	672-1319-03	DIODE,SIG:SCHTKY;15V,410MV AT 1MA,1.2PF	50434	5082-2672-T25
A6CR974	152-0322-00	672-1346-00	672-1346-01	DIODE,SIG:SCHTKY;15V,410MV AT 1MA,1.2PF	50434	5082-2672-T25
A6CR974	152-0141-02	671-1910-00		DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR975	152-0322-00			DIODE,SIG:SCHTKY;15V,410MV AT 1MA,1.2PF	50434	5082-2672-T25
A6CR976	152-0322-00			DIODE,SIG:SCHTKY;15V,410MV AT 1MA,1.2PF	50434	5082-2672-T25
A6CR977	152-0322-00			DIODE,SIG:SCHTKY;15V,410MV AT 1MA,1.2PF	50434	5082-2672-T25
A6CR978	152-0322-00			DIODE,SIG:SCHTKY;15V,410MV AT 1MA,1.2PF	50434	5082-2672-T25
A6CR5501	152-0141-02	671-1910-00		DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6DS3401	150-1120-00	671-1910-00		DIODE,OPTO:LED:AMBER,583NM,8MCD AT 20MA,T1	15513	PCL200-BA
A6F298	159-0193-00			FUSE,WIRE LEAD:10A,60V,FAST BLOW,5 SEC,SAF CONTR	61857	SP5-10A
A6J495	131-3517-00			CONN,DIN:PCB:FEMALE,RTANG,3 X 50,0.1 CTR,0.504 MLG X 0.118 TAIL,30 GOLD *MOUNTING PARTS*	15912	FXR150-012-2
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0185-00			SCREW,MACHINE:2-56 X 0.438,PNH,STL (QUANTITY 2) *END MOUNTING PARTS*	0KB01	ORDER BY DESC
A6Q3101	151-0424-00	671-1910-00	671-1910-01	TRANSISTOR,SIG:BIPOLAR,NPN;15V,500MA,SWITCHING	04713	MPS2369A
A6Q3101	151-0223-00	671-1910-02		TRANSISTOR,SIG:BIPOLAR,NPN;15V,500MA,SWITCHING	04713	MPS2369A
A6Q3102	151-0424-00	671-1910-00	671-1910-01	TRANSISTOR,SIG:BIPOLAR,NPN;15V,500MA,SWITCHING	04713	MPS2369A
A6Q3102	151-0223-00	671-1910-02		TRANSISTOR,SIG:BIPOLAR,NPN;15V,500MA,SWITCHING	04713	MPS2369A
A6Q3103	151-1229-00	671-1910-00		TRANSISTOR,PWR:MOS,P-CH;60V,12A,0.3 OHM	04713	MTD2955E1
A6Q3104	151-1230-00	671-1910-00		TRANSISTOR,PWR:MOS,N-CH;50V,10A,0.1 OHM	04713	MTD10N05E1
A6Q3105	151-0327-00	671-1910-00		TRANSISTOR,SIG:BIPOLAR,PNP;12V,80MA,SWITCHING	27014	PN4258
A6R117	307-0677-00	672-0283-00	672-0283-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R117	307-0677-00	672-1319-00	672-1319-03	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R117	307-0677-00	672-1346-00	672-1346-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A6R117	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R118	315-0101-00	672-0283-00	672-0283-01	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A6R118	315-0101-00	672-1319-00	672-1319-03	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A6R118	315-0101-00	672-1346-00	672-1346-01	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A6R118	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R119	307-0677-00	672-0283-00	672-0283-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R119	307-0677-00	672-1319-00	672-1319-03	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R119	307-0677-00	672-1346-00	672-1346-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R119	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R126	315-0102-00	672-0283-00	672-0283-01	RES,FXD,FILM:1K OHM,5%,0.25W,MI	50139	CB1025
A6R126	315-0102-00	672-1319-00	672-1319-03	RES,FXD,FILM:1K OHM,5%,0.25W,MI	50139	CB1025
A6R126	315-0102-00	672-1346-00	672-1346-01	RES,FXD,FILM:1K OHM,5%,0.25W,MI	50139	CB1025
A6R126	322-3193-00	671-1910-00		RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A6R157	315-0102-00	672-0283-00	672-0283-01	RES,FXD,FILM:1K OHM,5%,0.25W,MI	50139	CB1025
A6R157	315-0102-00	672-1319-00	672-1319-03	RES,FXD,FILM:1K OHM,5%,0.25W,MI	50139	CB1025
A6R157	315-0102-00	672-1346-00	672-1346-01	RES,FXD,FILM:1K OHM,5%,0.25W,MI	50139	CB1025
A6R157	322-3193-00	671-1910-00		RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A6R158	315-0102-00	672-0283-00	672-0283-01	RES,FXD,FILM:1K OHM,5%,0.25W,MI	50139	CB1025
A6R158	315-0102-00	672-1319-00	672-1319-03	RES,FXD,FILM:1K OHM,5%,0.25W,MI	50139	CB1025
A6R158	315-0102-00	672-1346-00	672-1346-01	RES,FXD,FILM:1K OHM,5%,0.25W,MI	50139	CB1025
A6R168	315-0472-00	672-0283-00	672-0283-01	RES,FXD,FILM:4.7K OHM,5%,0.25W,MI	50139	CB4725
A6R168	315-0472-00	672-1319-00	672-1319-03	RES,FXD,FILM:4.7K OHM,5%,0.25W,MI	50139	CB4725
A6R168	315-0472-00	672-1346-00	672-1346-01	RES,FXD,FILM:4.7K OHM,5%,0.25W,MI	50139	CB4725
A6R168	322-3258-00	671-1910-00		RES,FXD:METAL FILM,4.75K OHM,1%,0.2W,TC=100 PPM	56845	CCF50-2-G4751FT
A6R169	315-0221-00	672-0283-00	672-0283-01	RES,FXD,FILM:220 OHM,5%,0.25W,MI	50139	CB2215
A6R169	315-0221-00	672-1319-00	672-1319-03	RES,FXD,FILM:220 OHM,5%,0.25W,MI	50139	CB2215
A6R169	315-0221-00	672-1346-00	672-1346-01	RES,FXD,FILM:220 OHM,5%,0.25W,MI	50139	CB2215
A6R169	322-3114-00	671-1910-00		RES,FXD:METAL FILM,150 OHM,1%,0.2W,TC=100 PPM	57668	CRB20-FX-150E-AXI AL
A6R176	315-0221-00	672-0283-00	672-0283-01	RES,FXD,FILM:220 OHM,5%,0.25W,MI	50139	CB2215
A6R176	315-0221-00	672-1319-00	672-1319-03	RES,FXD,FILM:220 OHM,5%,0.25W,MI	50139	CB2215
A6R176	315-0221-00	672-1346-00	672-1346-01	RES,FXD,FILM:220 OHM,5%,0.25W,MI	50139	CB2215
A6R176	322-3114-00	671-1910-00		RES,FXD:METAL FILM,150 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALLBODY	57668	CRB20-FX-150E-AXI AL
A6R178	317-0102-00	672-0283-00	672-0283-01	RES,FXD,CMPSN:1K OHM,5%,0.125W	50139	BB1025
A6R178	317-0102-00	672-1319-00	672-1319-03	RES,FXD,CMPSN:1K OHM,5%,0.125W	50139	BB1025
A6R178	317-0102-00	672-1346-00	672-1346-01	RES,FXD,CMPSN:1K OHM,5%,0.125W	50139	BB1025
A6R179	307-0741-00			RES NTWK,FXD,FI:7,3.3K OHM,2%,0.19W EACH	11236	750-81-R3.3K OR 770-81-R3.3K
A6R235	315-0101-00	672-0283-00	672-0283-01	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A6R235	315-0101-00	672-1319-00	672-1319-03	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A6R235	315-0101-00	672-1346-00	672-1346-01	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A6R235	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R247	315-0560-00	672-0283-00	672-0283-01	RES,FXD,FILM:56 OHM,5%,0.25W,MI	50139	CB5605
A6R247	315-0560-00	672-1319-00	672-1319-03	RES,FXD,FILM:56 OHM,5%,0.25W,MI	50139	CB5605
A6R247	315-0560-00	672-1346-00	672-1346-01	RES,FXD,FILM:56 OHM,5%,0.25W,MI	50139	CB5605
A6R248	315-0560-00	672-0283-00	672-0283-01	RES,FXD,FILM:56 OHM,5%,0.25W,MI	50139	CB5605
A6R248	315-0560-00	672-1319-00	672-1319-03	RES,FXD,FILM:56 OHM,5%,0.25W,MI	50139	CB5605
A6R248	315-0560-00	672-1346-00	672-1346-01	RES,FXD,FILM:56 OHM,5%,0.25W,MI	50139	CB5605
A6R249	315-0560-00	672-0283-00	672-0283-01	RES,FXD,FILM:56 OHM,5%,0.25W,MI	50139	CB5605
A6R249	315-0560-00	672-1319-00	672-1319-03	RES,FXD,FILM:56 OHM,5%,0.25W,MI	50139	CB5605
A6R249	315-0560-00	672-1346-00	672-1346-01	RES,FXD,FILM:56 OHM,5%,0.25W,MI	50139	CB5605

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A6R258	315-0560-00	672-0283-00	672-0283-01	RES,FXD,FILM:56 OHM,5%,0.25W,MI	50139	CB5605
A6R258	315-0560-00	672-1319-00	672-1319-03	RES,FXD,FILM:56 OHM,5%,0.25W,MI	50139	CB5605
A6R258	315-0560-00	672-1346-00	672-1346-01	RES,FXD,FILM:56 OHM,5%,0.25W,MI	50139	CB5605
A6R258	322-3073-00	671-1910-00		RES,FXD:METAL FILM,56.2 OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 56E2
A6R259	315-0560-00	672-0283-00	672-0283-01	RES,FXD,FILM:56 OHM,5%,0.25W,MI	50139	CB5605
A6R259	315-0560-00	672-1319-00	672-1319-03	RES,FXD,FILM:56 OHM,5%,0.25W,MI	50139	CB5605
A6R259	315-0560-00	672-1346-00	672-1346-01	RES,FXD,FILM:56 OHM,5%,0.25W,MI	50139	CB5605
A6R259	322-3073-00	671-1910-00		RES,FXD:METAL FILM,56.2 OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 56E2
A6R265	315-0472-00	672-0283-00	672-0283-01	RES,FXD,FILM:4.7K OHM,5%,0.25W,MI	50139	CB4725
A6R265	315-0472-00	672-1319-00	672-1319-03	RES,FXD,FILM:4.7K OHM,5%,0.25W,MI	50139	CB4725
A6R265	315-0472-00	672-1346-00	672-1346-01	RES,FXD,FILM:4.7K OHM,5%,0.25W,MI	50139	CB4725
A6R265	322-3258-00	671-1910-00		RES,FXD:METAL FILM,4.75K OHM,1%,0.2W,TC=100 PPM	56845	CCF50-2-G4751FT
A6R268	307-0677-00			RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R278	307-1174-00			RES NTWK,FXD,FI:3.3K OHM,2%	91637	CSC10A01-332G
A6R292	315-0100-00	672-0283-00	672-0283-01	RES,FXD,FILM:10 OHM,5%,0.25W,MI	50139	CB1005
A6R292	315-0100-00	672-1319-00	672-1319-03	RES,FXD,FILM:10 OHM,5%,0.25W,MI	50139	CB1005
A6R292	315-0100-00	672-1346-00	672-1346-01	RES,FXD,FILM:10 OHM,5%,0.25W,MI	50139	CB1005
A6R292	307-0841-00	671-1910-00		RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W	73138	ADVISE
A6R293	315-0100-00	672-0283-00	672-0283-01	RES,FXD,FILM:10 OHM,5%,0.25W,MI	50139	CB1005
A6R293	315-0100-00	672-1319-00	672-1319-03	RES,FXD,FILM:10 OHM,5%,0.25W,MI	50139	CB1005
A6R293	315-0100-00	672-1346-00	672-1346-01	RES,FXD,FILM:10 OHM,5%,0.25W,MI	50139	CB1005
A6R294	315-0100-00	672-0283-00	672-0283-01	RES,FXD,FILM:10 OHM,5%,0.25W,MI	50139	CB1005
A6R294	315-0100-00	672-1319-00	672-1319-03	RES,FXD,FILM:10 OHM,5%,0.25W,MI	50139	CB1005
A6R294	315-0100-00	672-1346-00	672-1346-01	RES,FXD,FILM:10 OHM,5%,0.25W,MI	50139	CB1005
A6R515	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R517	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R519	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R523	315-0101-00	672-0283-00	672-0283-01	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A6R523	315-0101-00	672-1319-00	672-1319-03	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A6R523	315-0101-00	672-1346-00	672-1346-01	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A6R523	322-3097-00	671-1910-00		RES,FXD:METAL FILM,100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A6R524	315-0101-00	672-0283-00	672-0283-01	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A6R524	315-0101-00	672-1319-00	672-1319-03	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A6R524	315-0101-00	672-1346-00	672-1346-01	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A6R524	322-3097-00	671-1910-00		RES,FXD:METAL FILM,100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A6R526	315-0102-00	672-0283-00	672-0283-01	RES,FXD,FILM:1K OHM,5%,0.25W,MI	50139	CB1025
A6R526	315-0102-00	672-1319-00	672-1319-03	RES,FXD,FILM:1K OHM,5%,0.25W,MI	50139	CB1025
A6R526	315-0102-00	672-1346-00	672-1346-01	RES,FXD,FILM:1K OHM,5%,0.25W,MI	50139	CB1025
A6R568	307-0677-00	672-0283-00	672-0283-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R568	307-0677-00	672-1319-00	672-1319-03	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R568	307-0677-00	672-1346-00	672-1346-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R568	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R613	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R633	307-0677-00	672-0283-00	672-0283-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R633	307-0677-00	672-1319-00	672-1319-03	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R633	307-0677-00	672-1346-00	672-1346-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A6R633	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R635	307-0677-00	672-0283-00	672-0283-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R635	307-0677-00	672-1319-00	672-1319-03	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R635	307-0677-00	672-1346-00	672-1346-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R635	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R637	307-0677-00	672-0283-00	672-0283-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R637	307-0677-00	672-1319-00	672-1319-03	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R637	307-0677-00	672-1346-00	672-1346-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R637	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R643	307-0677-00	672-0283-00	672-0283-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R643	307-0677-00	672-1319-00	672-1319-03	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R643	307-0677-00	672-1346-00	672-1346-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R643	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R645	307-0677-00	672-0283-00	672-0283-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R645	307-0677-00	672-1319-00	672-1319-03	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R645	307-0677-00	672-1346-00	672-1346-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R645	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R647	307-0677-00	672-0283-00	672-0283-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R647	307-0677-00	672-1319-00	672-1319-03	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R647	307-0677-00	672-1346-00	672-1346-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R647	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R653	307-0677-00	672-0283-00	672-0283-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R653	307-0677-00	672-1319-00	672-1319-03	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R653	307-0677-00	672-1346-00	672-1346-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R653	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R655	307-0677-00	672-0283-00	672-0283-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R655	307-0677-00	672-1319-00	672-1319-03	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R655	307-0677-00	672-1346-00	672-1346-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R655	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R657	307-0677-00	672-0283-00	672-0283-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A6R657	307-0677-00	672-1319-00	672-1319-03	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R657	307-0677-00	672-1346-00	672-1346-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R657	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R661	307-0677-00	672-0283-00	672-0283-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R661	307-0677-00	672-1319-00	672-1319-03	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R661	307-0677-00	672-1346-00	672-1346-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R661	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R663	307-0677-00	672-0283-00	672-0283-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R663	307-0677-00	672-1319-00	672-1319-03	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R663	307-0677-00	672-1346-00	672-1346-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R663	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R665	307-0677-00	672-0283-00	672-0283-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R665	307-0677-00	672-1319-00	672-1319-03	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R665	307-0677-00	672-1346-00	672-1346-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R665	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R667	307-0677-00	672-0283-00	672-0283-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R667	307-0677-00	672-1319-00	672-1319-03	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R667	307-0677-00	672-1346-00	672-1346-01	RES NTWK,FXD,FI:4,56 OHM,2%,0.2W	11236	750-83-R56 OR 770-83-R56
A6R667	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R673	307-1174-00			RES NTWK,FXD,FI:3.3K OHM,2%	91637	CSC10A01-332G
A6R788	307-1174-00			RES NTWK,FXD,FI:3.3K OHM,2%	91637	CSC10A01-332G
A6R888	307-1174-00			RES NTWK,FXD,FI:3.3K OHM,2%	91637	CSC10A01-332G
A6R954	315-0472-00	672-0283-00	672-0283-01	RES,FXD,FILM:4.7K OHM,5%,0.25W,MI	50139	CB4725
A6R954	315-0472-00	672-1319-00	672-1319-03	RES,FXD,FILM:4.7K OHM,5%,0.25W,MI	50139	CB4725
A6R954	315-0472-00	672-1346-00	672-1346-01	RES,FXD,FILM:4.7K OHM,5%,0.25W,MI	50139	CB4725
A6R954	322-3258-00	671-1910-00		RES,FXD:METAL FILM,4.75K OHM,1%,0.2W,TC=100 PPM	56845	CCF50-2-G4751FT
A6R964	315-0101-00	672-0283-00	672-0283-01	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A6R964	315-0101-00	672-1319-00	672-1319-03	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A6R964	315-0101-00	672-1346-00	672-1346-01	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A6R964	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R968	322-3193-00	671-1910-00		RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A6R974	315-0102-00	672-0283-00	672-0283-01	RES,FXD,FILM:1K OHM,5%,0.25W,MI	50139	CB1025
A6R974	315-0102-00	672-1319-00	672-1319-03	RES,FXD,FILM:1K OHM,5%,0.25W,MI	50139	CB1025
A6R974	315-0102-00	672-1346-00	672-1346-01	RES,FXD,FILM:1K OHM,5%,0.25W,MI	50139	CB1025
A6R974	322-3193-00	671-1910-00		RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A6R975	315-0331-00	672-0283-00	672-0283-01	RES,FXD,FILM:330 OHM,5%,0.25W,MI	50139	CB3315
A6R975	315-0331-00	672-1319-00	672-1319-03	RES,FXD,FILM:330 OHM,5%,0.25W,MI	50139	CB3315
A6R975	315-0331-00	672-1346-00	672-1346-01	RES,FXD,FILM:330 OHM,5%,0.25W,MI	50139	CB3315
A6R975	322-3147-00	671-1910-00		RES,FXD:METAL FILM,332 OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 332E
A6R976	315-0472-00	672-0283-00	672-0283-01	RES,FXD,FILM:4.7K OHM,5%,0.25W,MI	50139	CB4725

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Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A6R976	315-0472-00	672-1319-00	672-1319-03	RES,FXD,FILM:4.7K OHM,5%,0.25W,MI	50139	CB4725
A6R976	315-0472-00	672-1346-00	672-1346-01	RES,FXD,FILM:4.7K OHM,5%,0.25W,MI	50139	CB4725
A6R976	322-3258-00	671-1910-00		RES,FXD:METAL FILM,4.75K OHM,1%,0.2W,TC=100 PPM	56845	CCF50-2-G4751FT
A6R977	315-0472-00	672-0283-00	672-0283-01	RES,FXD,FILM:4.7K OHM,5%,0.25W,MI	50139	CB4725
A6R977	315-0472-00	672-1319-00	672-1319-03	RES,FXD,FILM:4.7K OHM,5%,0.25W,MI	50139	CB4725
A6R977	315-0472-00	672-1346-00	672-1346-01	RES,FXD,FILM:4.7K OHM,5%,0.25W,MI	50139	CB4725
A6R977	322-3258-00	671-1910-00		RES,FXD:METAL FILM,4.75K OHM,1%,0.2W,TC=100 PPM	56845	CCF50-2-G4751FT
A6R978	315-0103-00	672-0283-00	672-0283-01	RES,FXD,FILM:10K OHM,5%,0.25W,MI	50139	CB1035
A6R978	315-0103-00	672-1319-00	672-1319-03	RES,FXD,FILM:10K OHM,5%,0.25W,MI	50139	CB1035
A6R978	315-0103-00	672-1346-00	672-1346-01	RES,FXD,FILM:10K OHM,5%,0.25W,MI	50139	CB1035
A6R978	322-3289-00	671-1910-00		RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A6R988	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R989	307-1174-00			RES NTWK,FXD,FI:3.3K OHM,2%	91637	CSC10A01-332G
A6R990	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A6R1203	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR
A6R1207	322-3258-00	671-1910-00		RES,FXD:METAL FILM:4.75K OHM,1%,0.2W,TC=100	56845	CCF50-2-G4751FT
A6R1539	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR
A6R2201	322-3097-00	671-1910-00		RES,FXD:METAL FILM:100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A6R2202	322-3193-00	671-1910-00		RES,FXD:METAL FILM:1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A6R2203	322-3097-00	671-1910-00		RES,FXD:METAL FILM:100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A6R2204	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR
A6R3201	322-3193-00	671-1910-00		RES,FXD:METAL FILM:1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A6R3202	322-3097-00	671-1910-00		RES,FXD:METAL FILM:100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A6R3203	322-3258-00	671-1910-00		RES,FXD:METAL FILM:4.75K OHM,1%,0.2W,TC=100	56845	CCF50-2-G4751FT
A6R3204	322-3258-00	671-1910-00		RES,FXD:METAL FILM:4.75K OHM,1%,0.2W,TC=100	56845	CCF50-2-G4751FT
A6R3205	322-3204-00	671-1910-00		RES,FXD,FILM:1.3K OHM,1%,0.2W,TC=TOMI,SMALL	91637	CCF501G13000F
A6R3206	322-3250-00	671-1910-00		RES,FXD:METAL FILM:3.92K OHM,1%,0.2W,TC=100	91637	CCF50-2F39200F
A6R3207	322-3250-00	671-1910-00		RES,FXD:METAL FILM:3.92K OHM,1%,0.2W,TC=100	91637	CCF50-2F39200F
A6R3208	322-3204-00	671-1910-00		RES,FXD,FILM:1.3K OHM,1%,0.2W,TC=TOMI,SMALL	91637	CCF501G13000F
A6R3209	322-3250-00	671-1910-00		RES,FXD:METAL FILM:3.92K OHM,1%,0.2W,TC=100	91637	CCF50-2F39200F
A6R3210	322-3250-00	671-1910-00		RES,FXD:METAL FILM:3.92K OHM,1%,0.2W,TC=100	91637	CCF50-2F39200F
A6R3211	322-3246-00	671-1910-00		RES,FXD,FILM:3.57K OHM,1%,0.2W,TC=TOMI,SMALL BODY	91637	CCF501G35700F
A6R3212	322-3246-00	671-1910-00		RES,FXD,FILM:3.57K OHM,1%,0.2W,TC=TOMI,SMALL BODY	91637	CCF501G35700F
A6R3213	322-3306-00	671-1910-00		RES,FXD:METAL FILM:15K OHM,1%,0.2W,TC=100 PPM	91637	CCF50-2-G1502F
A6R3214	322-3230-00	671-1910-00		RES,FXD,FILM:2.43K OHM,1%,0.2W,TC=TOMI,SMALL BODY	91637	CCF50-2-G2431FT
A6R3215	322-3258-00	671-1910-00		RES,FXD:METAL FILM:4.75K OHM,1%,0.2W,TC=100	56845	CCF50-2-G4751FT
A6R3216	322-3193-00	671-1910-00		RES,FXD:METAL FILM:1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A6R3217	322-3193-00	671-1910-00		RES,FXD:METAL FILM:1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A6R3218	322-3114-00	671-1910-00		RES,FXD:METAL FILM:150 OHM,1%,0.2W,TC=100 PPM	91637	CCF50-2-G1500F
A6R3219	307-1174-00	671-1910-00		RES NTWK,FXD,FI:3.3K OHM,2%	91637	CSC10A01-332G
A6R3220	307-0659-00	671-1910-00		RES,FXD,FILM:2.2 OHM,5%,0.25W	11502	TF07 2.2 OHM +-
A6R5201	322-3162-00	671-1910-00		RES,FXD:METAL FILM:475 OHM,1%,0.2W,TC=100 PPM	91637	CCF50G475R0F
A6R5274	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR
A6R5275	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR
A6R5589	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR
A6R5590	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR
A6R5794	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR
A6R5795	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR
A6R5894	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR
A6R5895	307-0717-00	671-1910-00		RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR
A6S196	260-1589-00			SWITCH,ROCKER:(6)SPST,125MA,30VDC	81073	76SB06S
A6S3501	260-2549-00	671-1910-00		SWITCH,PUSH:SPST,MOM,NO,300 GRM FRC,GOLD CONTACTS,RIGHT ANGLE,TOPSEALED,SHORT ACTUATOR	31918	KSA0V431
A6TP116	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A6TP279	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A6TP916	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A6TP994	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A6U138	156-3849-00			IC,MISC:CMOS,PWR SUPPLY SUPERVISOR;NONVOLAT ILE CMOS RAM BATTERY BACKUP,W/3-8 DECODER	0B0A9	DS1211
A6U142	156-2377-00			IC,DIGITAL:STTL,MUX;QUAD 2-TO-1 DATA SEL, 3-STATE	01295	SN74AS257N
A6U148	160-6721-00	672-0283-00	672-0283-01	IC,DIGITAL:STTL,PLD;PAL,16L8,10NS,180MA	80009	160672100
A6U148	160-6721-00	672-1319-00	672-1319-03	IC,DIGITAL:STTL,PLD;PAL,16L8,10NS,180MA	80009	160672100
A6U148	160-6721-00	672-1346-00	672-1346-01	IC,DIGITAL:STTL,PLD;PAL,16L8,10NS,180MA	80009	160672100
A6U148	160-8071-00	671-1910-00		IC,DIGITAL:STTL,PLD;PAL,20L8,10NS,210MA	80009	160-8071-00
	136-0752-00	672-0283-00	672-0283-01	SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
	136-0752-00	672-1319-00	672-1319-03	SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
	136-0752-00	672-1346-00	672-1346-01	SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
	136-0925-00	671-1910-00		SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
A6U152	156-2338-00			IC,DIGITAL:STTL,FLIP FLOP;DUAL D-TYPE	01295	SN74AS74N
A6U162	156-2343-00	672-0283-00	672-0283-01	IC,DIGITAL:STTL,GATE;QUAD 2-INPUT NOR	01295	SN74AS02N
A6U162	156-2343-00	672-1319-00	672-1319-03	IC,DIGITAL:STTL,GATE;QUAD 2-INPUT NOR	01295	SN74AS02N
A6U162	156-2343-00	672-1346-00	672-1346-01	IC,DIGITAL:STTL,GATE;QUAD 2-INPUT NOR	01295	SN74AS02N
A6U168	156-2235-00	672-0283-00	672-0283-01	IC,DIGITAL:STTL,GATE;QUAD 2-INPUT ORBUFFER/DRVR	01295	SN74AS1032AN
A6U168	156-2235-00	672-1319-00	672-1319-03	IC,DIGITAL:STTL,GATE;QUAD 2-INPUT ORBUFFER/DRVR	01295	SN74AS1032AN
A6U168	156-2235-00	672-1346-00	672-1346-01	IC,DIGITAL:STTL,GATE;QUAD 2-INPUT ORBUFFER/DRVR	01295	SN74AS1032AN
A6U172	156-0441-00			IC,DIGITAL:FTTL,COMPARATOR;8-BIT IDENTITY,/P=/Q,STD	04713	MC74F521N
A6U178	156-2430-00	672-0283-00	672-0283-01	IC,DIGITAL:STTL,GATE;QUAD 2-INPUT AND DRVR	01295	SN74AS1008N/J
A6U178	156-2430-00	672-1319-00	672-1319-03	IC,DIGITAL:STTL,GATE;QUAD 2-INPUT AND DRVR	01295	SN74AS1008N/J
A6U178	156-2430-00	672-1346-00	672-1346-01	IC,DIGITAL:STTL,GATE;QUAD 2-INPUT AND DRVR	01295	SN74AS1008N/J
A6U215	156-3850-00	672-0283-00	672-0283-01	IC,MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	QJR04	TC55257CPL-10L
A6U215	156-3850-00	672-1319-00	672-1319-03	IC,MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	QJR04	TC55257CPL-10L
A6U215	156-3850-00	672-1346-00	672-1346-01	IC,MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	QJR04	TC55257CPL-10L
A6U215	156-5940-01	671-1910-00	671-1910-03	MICROCKT,DGTL:	80009	156594001
A6U215	156-6151-00	671-1910-04	671-1910-05	IC,MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10LL
A6U215	156-6151-01	671-2675-00		IC,MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10L
A6U215	156-6151-01	671-3543-00		IC,MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10L
A6U225	156-3850-00	672-0283-00	672-0283-01	IC,MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	QJR04	TC55257CPL-10L
A6U225	156-3850-00	672-1319-00	672-1319-03	IC,MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	QJR04	TC55257CPL-10L
A6U225	156-3850-00	672-1346-00	672-1346-01	IC,MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	QJR04	TC55257CPL-10L
A6U225	156-5940-01	671-1910-00	671-1910-03	MICROCKT,DGTL:	80009	156594001
A6U225	156-6151-01	671-1910-04	671-1910-05	IC,MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10LL
A6U225	156-6151-01	671-2675-00		IC,MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10L
A6U225	156-6151-01	671-3543-00		IC,MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10L
A6U244	160-6723-00	672-0283-00	672-0283-01	MICROCKT,DGTL:TTL,PRGM EVENT GEN,2971A,DIP24.6	80009	160672300
A6U244	160-6723-00	672-1319-00	672-1319-03	MICROCKT,DGTL:TTL,PRGM EVENT GEN,2971A,DIP24.6	80009	160672300
A6U244	160-6723-00	672-1346-00	672-1346-01	MICROCKT,DGTL:TTL,PRGM EVENT GEN,2971A,DIP24.6	80009	160672300
A6U244	160-8073-00	671-1910-00		MICROCKT,DGTL:TTL,MISC,PROGRAMMABLE EVENT GENERATOR;2917A,PRGM,DIP24.6	80009	160807300
				MOUNTING PARTS		
	136-0751-00			SOCKET,DIP:PCB;STR,2 X 12,24 POS,0.1 X 0.608-0.015 X 0.014-0.022 LEADS	00779	2-641604-3
				END MOUNTING PARTS		
A6U265	156-1727-00			IC,DIGITAL:FTTL,DEMUX/DECODER;1-OF-8 DECODER	01295	SN74F138N
A6U272	160-6722-00	672-0283-00	672-0283-01	IC,DIGITAL:STTL,PLD;PAL,20L8,25NS,210MA	80009	160672200
A6U272	160-6722-00	672-1319-00	672-1319-03	IC,DIGITAL:STTL,PLD;PAL,20L8,25NS,210MA	80009	160672200

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A6U272	160-6722-00	672-1346-00	672-1346-01	IC,DIGITAL:STTL,PLD;PAL,20L8,25NS,210MA	80009	160672200
A6U272	160-8074-00	671-1910-00		IC,DIGITAL:STTL,PLD;PAL,20L8,25NS,210MA	80009	160-8074-00
	136-0925-00			*MOUNTING PARTS* SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
				END MOUNTING PARTS		
A6U274	156-2434-00	672-0283-00	672-0283-01	IC,DIGITAL:ASTTL,BUFFER/DRIVER:NONINVOCTAL	01295	SN74AS244N
A6U274	156-2434-00	672-1319-00	672-1319-03	IC,DIGITAL:ASTTL,BUFFER/DRIVER:NONINVOCTAL	01295	SN74AS244N
A6U274	156-2434-00	672-1346-00	672-1346-01	IC,DIGITAL:ASTTL,BUFFER/DRIVER:NONINVOCTAL	01295	SN74AS244N
A6U274	156-2930-00	671-1910-00		IC,DIGITAL:ASTTL,BUS XCVR;OCTAL, NONINV, 3-STATE	01295	SN74AS245N
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A6U333	156-4071-00	671-1910-01		IC,MEMORY:CMOS,EPROM,256K X 8,200NS;FLASH, 28F020,DIP32.6	34335	AM28F020-200PC
A6U415	156-3850-00	672-0283-00	672-0283-01	IC,MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U415	156-3850-00	672-1319-00	672-1319-03	IC,MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U415	156-3850-00	672-1346-00	672-1346-01	IC,MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U415	156-5940-01	671-1910-00	671-1910-03	MICROCKT,DGTL:	80009	156594001
A6U415	156-6151-00	671-1910-04	671-1910-05	IC,MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008FP-10LL
A6U415	156-6151-01	671-2675-00		IC,MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10L
A6U415	156-6151-01	671-3543-00		IC,MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10L
A6U425	156-3850-00	672-0283-00	672-0283-01	IC,MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U425	156-3850-00	672-1319-00	672-1319-03	IC,MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U425	156-3850-00	672-1346-00	672-1346-01	IC,MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U425	156-5940-01	671-1910-00	671-1910-03	MICROCKT,DGTL:	80009	156594001
A6U425	156-6151-00	671-1910-04	671-1910-05	IC,MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008FP-10LL
A6U425	156-6151-01	671-2675-00		IC,MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10L
A6U425	156-6151-01	671-3543-00		IC,MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10L
A6U436	156-4071-00	671-1910-01		IC,MEMORY:CMOS,EPROM,256K X 8,200NS;FLASH,28F020	34335	AM28F020-200PC
A6U539	156-2434-00			IC,DIGITAL:ASTTL,BUFFER/DRIVER:NONINVOCTAL	01295	SN74AS244N
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A6U559	156-2434-00			IC,DIGITAL:ASTTL,BUFFER/DRIVER:NONINVOCTAL	01295	SN74AS244N
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A6U589	156-2434-00	672-0283-00	672-0283-01	IC,DIGITAL:ASTTL,BUFFER/DRIVER:NONINVOCTAL	01295	SN74AS244N
A6U589	156-2434-00	672-1319-00	672-1319-03	IC,DIGITAL:ASTTL,BUFFER/DRIVER:NONINVOCTAL	01295	SN74AS244N
A6U589	156-2434-00	672-1346-00	672-1346-01	IC,DIGITAL:ASTTL,BUFFER/DRIVER:NONINVOCTAL	01295	SN74AS244N
A6U589	156-2930-00	671-1910-00		IC,DIGITAL:ASTTL,BUS XCVR;OCTAL, NONINV, 3-STATE	01295	SN74AS245N
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A6U685	156-2434-00			IC,DIGITAL:ASTTL,BUFFER/DRIVER:NONINVOCTAL	01295	SN74AS244N
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A6U713	156-3850-00	672-0283-00	672-0283-01	IC,MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U713	156-3850-00	672-1319-00	672-1319-03	IC,MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U713	156-3850-00	672-1346-00	672-1346-01	IC,MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U713	156-5940-01	671-1910-00	671-1910-03	MICROCKT,DGTL:	80009	156594001

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A6U713	156-6151-00	671-1910-04	671-1910-05	IC, MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008FP-10LL
A6U713	156-6151-01	671-2675-00		IC, MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10L
A6U713	156-6151-01	671-3543-00		IC, MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10L
A6U723	156-3850-00	672-0283-00	672-0283-01	IC, MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U723	156-3850-00	672-1319-00	672-1319-03	IC, MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U723	156-3850-00	672-1346-00	672-1346-01	IC, MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U723	156-5940-01	671-1910-00	671-1910-03	MICROCKT,DGTL:	80009	156594001
A6U723	156-6151-00	671-1910-04	671-1910-05	IC, MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008FP-10LL
A6U723	156-6151-01	671-2675-00		IC, MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10L
A6U723	156-6151-01	671-3543-00		IC, MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10L
A6U730	156-4071-00	671-1910-01		IC, MEMORY:CMOS,EPROM;256K X 8,200NS;FLASH,28F020	34335	AM28F020-200PC
A6U794	156-2434-00	672-0283-00	672-0283-01	IC,DIGITAL:ASTTL,BUFFER/DRIVER;NONINVOCTAL	01295	SN74AS244N
A6U794	156-2434-00	672-1319-00	672-1319-03	IC,DIGITAL:ASTTL,BUFFER/DRIVER;NONINVOCTAL	01295	SN74AS244N
A6U794	156-2434-00	672-1346-00	672-1346-01	IC,DIGITAL:ASTTL,BUFFER/DRIVER;NONINVOCTAL	01295	SN74AS244N
A6U794	156-2930-00	671-1910-00		IC,DIGITAL:ASTTL,BUS XCVR;OCTAL, NONINV, 3-STATE	01295	SN74AS245N
	136-0752-00			*MOUNTING PARTS*		
				SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A6U816	156-3850-00	672-0283-00	672-0283-01	IC, MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U816	156-3850-00	672-1319-00	672-1319-03	IC, MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U816	156-3850-00	672-1346-00	672-1346-01	IC, MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U816	156-5940-01	671-1910-00	671-1910-03	MICROCKT,DGTL:	80009	156594001
A6U816	156-6151-00	671-1910-04	671-1910-05	IC, MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008FP-10LL
A6U816	156-6151-01	671-2675-00		IC, MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10L
A6U816	156-6151-01	671-3543-00		IC, MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10L
A6U826	156-3850-00	672-0283-00	672-0283-01	IC, MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U826	156-3850-00	672-1319-00	672-1319-03	IC, MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U826	156-3850-00	672-1346-00	672-1346-01	IC, MEMORY:CMOS,SRAM;32K X 8,120NS,3UA,OE	OJR04	TC55257CPL-10L
A6U826	156-5940-01	671-1910-00	671-1910-03	MICROCKT,DGTL:	80009	156594001
A6U826	156-6151-00	671-1910-04	671-1910-05	IC, MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008FP-10LL
A6U826	156-6151-01	671-2675-00		IC, MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10L
A6U826	156-6151-01	671-3543-00		IC, MEMORY:CMOS,SRAM;128K X 8,100NS,15UA,OE	TK1146	M5M51008AFP-10L
A6U834	156-4071-00	671-1910-01		IC, MEMORY:CMOS,EPROM;256K X 8,200NS;FLASH,28F020	34335	AM28F020-200PC
A6U894	156-2434-00	672-0283-00	672-0283-01	IC,DIGITAL:ASTTL,BUFFER/DRIVER;NONINVOCTAL	01295	SN74AS244N
A6U894	156-2434-00	672-1319-00	672-1319-03	IC,DIGITAL:ASTTL,BUFFER/DRIVER;NONINVOCTAL	01295	SN74AS244N
A6U894	156-2434-00	672-1346-00	672-1346-01	IC,DIGITAL:ASTTL,BUFFER/DRIVER;NONINVOCTAL	01295	SN74AS244N
A6U894	156-2930-00	671-1910-00		IC,DIGITAL:ASTTL,BUS XCVR;OCTAL, NONINV, 3-STATE	01295	SN74AS245N
	136-0752-00			*MOUNTING PARTS*		
				SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A6U958	156-3062-00			IC,DGTL:HCMOS,GATE:QUAD 2-INP NAND,SCHMITT TRIG	01295	SN74HC132N
A6U968	156-2463-00			IC,DIGITAL:HCMOS,GATE:QUAD 2-INPUT OR	01295	SN74HC32N
A6U996	156-2930-00			IC,DIGITAL:ASTTL,BUS XCVR;OCTAL, NONINV, 3-STATE	01295	SN74AS245N
	136-0752-00			*MOUNTING PARTS*		
				SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A6U2001	160-8076-00	671-1910-00		IC,DIGITAL:STTL,PLD;PAL, 16L8	80009	160807600
	136-0752-00	671-1910-00		*MOUNTING PARTS*		
				SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A6U2002	160-8072-00	671-1910-00		IC,DIGITAL:STTL,PLD;PAL,20L8,10NS,210MA	80009	160-8072-00
	136-0925-00	671-1910-00		*MOUNTING PARTS*		
				SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A6U3001	160-8075-00	671-1910-00		*END MOUNTING PARTS* IC,DIGITAL:STTL,PLD;PAL,20L8,25NS,210MA	80009	160-8075-00
	136-0925-00	671-1910-00		*MOUNTING PARTS* SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
A6U3002	156-1748-02	671-1910-00		*END MOUNTING PARTS* IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV	01295	SN74ALS245AN
	136-0752-00	671-1910-00		*MOUNTING PARTS* SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A6U3003	160-8077-00	671-1910-00	671-1910-03	*END MOUNTING PARTS* IC,DIGITAL:STTL,PLD;PAL,20RA10,20NS,30MHZ,200MA	80009	160807700
A6U3003	160-8077-01	671-1910-04		IC,DIGITAL:CMOS,PLD;EEPLD,20RA10,20NS,100MA	80009	160-8077-01
A6U3003	160-8077-01	671-1910-05		IC,DIGITAL:CMOS,PLD;EEPLD,20RA10,20NS,100MA	80009	160-8077-01
	136-0925-00	671-1910-00		*MOUNTING PARTS* SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
A6U3004	160-8078-00	671-1910-00	671-1910-03	*END MOUNTING PARTS* MICROCKT,DGTL:STTL,PLD;PAL,20RA10,20NS,30MHZ	80009	160807800
A6U3004	160-8078-01	671-1910-04		IC,DIGITAL:CMOS,PLD;EEPLD,20RA10,20NS,100MA	80009	160807801
A6U3004	160-8078-01	671-1910-05		IC,DIGITAL:CMOS,PLD;EEPLD,20RA10,20NS,100MA	80009	160807801
	136-0925-00	671-1910-00		*MOUNTING PARTS* SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
A6U3005	156-3580-00	671-1910-00		*END MOUNTING PARTS* IC,DIGITAL:FTTL,COUNTER;8-BIT BIDIRECTIONAL	04713	MC74F269N
A6U3006	156-1664-00	671-1910-00		IC,DIGITAL:ALSTTL,FLIP FLOP;OCTAL NONINV D-TYPE, 3-STATE	01295	SN74ALS574BN
A6U3007	156-2391-00	671-1910-00		IC,DIGITAL:ALSTTL,BUFFER/DRIVER;OCTALNONINV, 3-STATE	01295	SN74ALS541N
A6U3008	156-4073-00	671-1910-00		IC,MISC:BIPOLAR,PWR SUPPLY SUPERVISOR;MPU RESET GENERATOR,12VSUPPLY SENSING	01295	TL7712ACP
A6U3009	156-4047-00	671-1910-00		IC,LINEAR:BIPOLAR,VR;POSITIVE,12.0V,750MA,1%,LOW-DROPOUT,ENABLE PIN	01295	TL751M12CKC
A6U3010	156-4072-00	671-1910-00		IC,MISC:BIPOLAR,PWR SUPPLY SUPERVISOR;MPU RESET GENERATOR,5V SUPPLY SENSING	04713	MC34064P-5
A6U3011	156-4072-00	671-1910-00		IC,MISC:BIPOLAR,PWR SUPPLY SUPERVISOR;MPU RESET GENERATOR,5V SUPPLY SENSING	04713	MC34064P-5
A6W314	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W324	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W419	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W429	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W522	131-0566-00	672-0283-00	672-0283-01	BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W522	131-0566-00	672-1319-00	672-1319-03	BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W522	131-0566-00	672-1346-00	672-1346-01	BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W544	131-0566-00	672-0283-00	672-0283-01	BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W544	131-0566-00	672-1319-00	672-1319-03	BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W544	131-0566-00	672-1346-00	672-1346-01	BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W545	131-0566-00	672-0283-00	672-0283-01	BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W545	131-0566-00	672-1319-00	672-1319-03	BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W545	131-0566-00	672-1346-00	672-1346-01	BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W546	131-0566-00	672-0283-00	672-0283-01	BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W546	131-0566-00	672-1319-00	672-1319-03	BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W546	131-0566-00	672-1346-00	672-1346-01	BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W717	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W727	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A6W913	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6W923	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A6XU333	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU339	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU353	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU359	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU373	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU379	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU436	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU456	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU476	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU533	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU553	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU573	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU730	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU737	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU750	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU757	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU770	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU777	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU834	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU854	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A6XU874	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU932	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU952	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6XU972	136-0963-00			SOCKET,DIP:PCB;32,2 X 16,0.1 X 0.6 CTR,0.210 H X 0.12 TAIL,PHOS BRZ,ACCOM 0.008-0.014 THICK LEAD,DUAL (IC REPLACEABLE AT A6 ONLY)	00779	2-644018-3
A6Y235	119-1413-00			OSC,XTAL CLOCK:20.0MHZ, +/-0.05 %, TTL, 4PIN 14 PIN DIP COMPATIBLE	14301	AE 404-417

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A7	671-1306-00	B022000	B022470	CIRCUIT BD ASSY:DATA ACQUISITION	80009	671130600
A7	671-1306-01	B022471		CIRCUIT BD ASSY:DATA ACQUISITION 2	80009	671130601
	105-0160-00			*ATTACHED PARTS*		
				EJECTOR,CKT BD:WHITE PLASTIC	TK2562	105-0160-00
	214-1337-00			(QUANTITY 2)		
				PIN,SPRING:0.25 L X 0.103 OD,STL CD PL	0KB01	ORDER BY DESC
				(QUANTITY 2)		
				END ATTACHED PARTS		
A7C104	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C107	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C110	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C113	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C116	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C119	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C122	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C126	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C130	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C134	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C138	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C141	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C150	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C152	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C155	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C158	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C189	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C193	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C201	281-0814-00			CAP,FXD,CERAMIC:MLC:100 PF,10%,100V,0.100 X	TK1743	CGB101KEN
A7C222	281-0814-00			CAP,FXD,CERAMIC:MLC:100 PF,10%,100V,0.100 X	TK1743	CGB101KEN
A7C234	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C238	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C239	281-0814-00			CAP,FXD,CERAMIC:MLC:100 PF,10%,100V,0.100 X	TK1743	CGB101KEN
A7C241	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C244	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C247	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C250	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C252	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C255	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C258	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C283	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C290	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C301	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C304	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C307	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C310	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C313	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C316	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C319	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C322	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C326	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C330	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C334	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C338	281-0814-00			CAP,FXD,CERAMIC:MLC:100 PF,10%,100V,0.100 X	TK1743	CGB101KEN
A7C383	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C401	281-0814-00			CAP,FXD,CERAMIC:MLC:100 PF,10%,100V,0.100 X	TK1743	CGB101KEN
A7C438	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C441	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C444	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C447	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A7C450	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C452	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C455	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C458	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C462	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C467	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C472	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C477	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C501	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C504	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C507	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C510	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C513	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C516	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C519	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C522	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C526	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C530	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C534	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C538	281-0814-00			CAP,FXD,CERAMIC:MLC:100 PF,10%,100V,0.100 X	TK1743	CGB101KEN
A7C601	281-0814-00			CAP,FXD,CERAMIC:MLC:100 PF,10%,100V,0.100 X	TK1743	CGB101KEN
A7C630	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C634	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C638	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C641	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C644	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C647	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C650	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C652	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C655	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C658	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C701	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C702	281-0814-00			CAP,FXD,CERAMIC:MLC:100 PF,10%,100V,0.100 X	TK1743	CGB101KEN
A7C704	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C707	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C710	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C713	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C716	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C719	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C722	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C738	281-0814-00			CAP,FXD,CERAMIC:MLC:100 PF,10%,100V,0.100 X	TK1743	CGB101KEN
A7C762	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C766	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C767	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C770	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C772	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C776	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C777	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C782	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C790	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C795	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C841	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C850	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C860	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C866	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C872	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C879	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C890	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A7C908	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C917	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C935	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C960	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C966	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C972	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C985	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7C992	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A7DL191	119-2705-00			DELAY LINE,DATA:20NS,4 TAPS,5NS EACH,DIP8 TTL	22519	DDU-8-5020
A7DL768	119-2705-00			DELAY LINE,DATA:20NS,4 TAPS,5NS EACH,DIP8 TTL	22519	DDU-8-5020
A7F939	159-0193-00			FUSE,WIRE LEAD:10A,60V,FAST BLOW,5 SEC,SAFETY CONTROLLED	61857	SP5-10A
A7J271	131-1465-01			CONN,HDR:PCB;MALE,RTANG,2 X 17,0.1CTR,0.300 H X 0.112 TAIL,SHRD/3 SIDES,CTR PLZ,30 GOLD,LONG LATCH	53387	3431-1202
				MOUNTING PARTS		
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0185-00			SCREW,MACHINE:2-56 X 0.438,PNH,STL (QUANTITY 2)	0KB01	ORDER BY DESC
				END MOUNTING PARTS		
A7J926	131-3517-00			CONN,DIN:PCB;FEMALE,RTANG,3 X 50,0.1 CTR,0.504 MLG X 0.118 TAIL,30 GOLD	15912	FXR150-012-2
				MOUNTING PARTS		
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0185-00			SCREW,MACHINE:2-56 X 0.438,PNH,STL (QUANTITY 2)	0KB01	ORDER BY DESC
				END MOUNTING PARTS		
A7R124	307-0828-00			RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B
A7R201	322-3097-00			RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A7R222	322-3097-00			RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A7R238	322-3097-00			RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A7R324	307-0828-00			RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B
A7R338	322-3097-00			RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A7R401	322-3097-00			RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A7R524	307-0828-00			RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B
A7R538	322-3097-00			RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A7R601	322-3097-00			RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A7R624	307-0828-00			RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B
A7R701	322-3097-00			RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A7R738	322-3097-00			RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A7R943	307-0445-00			RES,NTWK:THICK FILM;(9) 4.7K OHM,2%,0.2W EACH,TC=100 PPM	11236	750-101-R4.7 K
A7S941	260-1721-00			SWITCH,ROCKER:8,SPST,125MA,30VDC,	81073	76SB08S
A7U134	156-1935-00			IC,DIGITAL:FTTL,COUNTER:SYNCH 4-BIT BINARY	04713	MC74F163AN
A7U186	156-3123-00	671-1306-00	671-1306-00	IC,DIGITAL:ASTTL,FLIP FLOP:DUAL J-K, PRESET, CLEAR	01295	SN74AS109N
A7U186	156-3834-00	671-1306-01		IC,DIGITAL:FTTL,FLIP FLOP:DUAL J-K, PRESET	1CH66	N74F50109N
A7U201	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U204	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U207	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U210	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U213	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U216	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U219	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U222	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A7U226	156-3851-00			IC,DIGITAL:FCTCMOS,BUFFER;10-BIT	61772	74FCT827BP
A7U230	156-3851-00			IC,DIGITAL:FCTCMOS,BUFFER;10-BIT	61772	74FCT827BP
A7U238	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U241	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U244	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U247	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U250	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U252	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U255	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U258	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U334	156-1935-00			IC,DIGITAL:FTTL,COUNTER:SYNCH 4-BIT BINARY	04713	MC74F163AN
A7U338	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U341	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U344	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U347	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U350	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U352	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U355	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U358	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U363	156-3375-00			IC,MEMORY:CMOS,SRAM;16 X 4,DUAL PORT	80009	156337500
A7U368	156-3375-00			IC,MEMORY:CMOS,SRAM;16 X 4,DUAL PORT	80009	156337500
A7U373	156-3375-00			IC,MEMORY:CMOS,SRAM;16 X 4,DUAL PORT	80009	156337500
A7U378	156-3375-00			IC,MEMORY:CMOS,SRAM;16 X 4,DUAL PORT	80009	156337500
A7U383	156-3741-00			MICROCKT,DGTL:SYNCHRONIUS COMMULATIVE 10BIT	80009	156374100
				MOUNTING PARTS		
	136-0757-00			SOCKET,DIP:PCB;FEM,STR,2 X 20,40 POS,0.1 X 0.6 CTR,0.175 H X0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015 X 0.014-0.022 IC	00779	2-641606-3
				END MOUNTING PARTS		
A7U390	160-5113-00	671-1306-00	671-1306-00	IC,DIGITAL:CMOS,PLD:EPLD,16V8,25NS,90MA	80009	160511300
A7U390	160-5113-01	671-1306-01		MICROCKT,DGTL:CMOS,PLD,16 IN,8 OUT,REGISTERED, GAL,10NS,16V8A-10,DIP20.3	80009	160511301
				MOUNTING PARTS		
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A7U401	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U404	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U407	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U410	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U413	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U416	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U419	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U422	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U426	156-3851-00			IC,DIGITAL:FCTCMOS,BUFFER;10-BIT	61772	74FCT827BP
A7U430	156-3851-00			IC,DIGITAL:FCTCMOS,BUFFER;10-BIT	61772	74FCT827BP
A7U434	156-1935-00			IC,DIGITAL:FTTL,COUNTER:SYNCH 4-BIT BINARY	04713	MC74F163AN
A7U538	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U541	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U544	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U547	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U550	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U552	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U555	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U558	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U601	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U604	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC
A7U607	156-3231-00			IC,MEMORY:CMOS,SRAM;16K X 4,35NS	65786	CY7C164-35PC

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A7U610	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U613	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U616	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U619	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U622	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U626	156-3121-00			IC, DIGITAL: FCTCMOS, FLIP FLOP; 10-BIT D-TYPE	61772	IDT74FCT821BP
A7U630	156-3121-00			IC, DIGITAL: FCTCMOS, FLIP FLOP; 10-BIT D-TYPE	61772	IDT74FCT821BP
A7U634	156-1935-00			IC, DIGITAL: FTTL, COUNTER; SYNCH 4-BIT BINARY	04713	MC74F163AN
A7U663	156-3375-00			IC, MEMORY: CMOS, SRAM; 16 X 4, DUAL PORT	80009	156337500
A7U668	156-3375-00			IC, MEMORY: CMOS, SRAM; 16 X 4, DUAL PORT	80009	156337500
A7U673	156-3375-00			IC, MEMORY: CMOS, SRAM; 16 X 4, DUAL PORT	80009	156337500
A7U678	156-3375-00			IC, MEMORY: CMOS, SRAM; 16 X 4, DUAL PORT	80009	156337500
A7U701	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U704	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U707	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U710	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U713	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U716	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U719	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U722	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U726	156-3121-00			IC, DIGITAL: FCTCMOS, FLIP FLOP; 10-BIT D-TYPE	61772	IDT74FCT821BP
A7U730	156-3121-00			IC, DIGITAL: FCTCMOS, FLIP FLOP; 10-BIT D-TYPE	61772	IDT74FCT821BP
A7U734	156-1935-00			IC, DIGITAL: FTTL, COUNTER; SYNCH 4-BIT BINARY	04713	MC74F163AN
A7U738	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U741	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U744	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U747	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U750	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U752	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U755	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U758	156-3231-00			IC, MEMORY: CMOS, SRAM; 16K X 4, 35NS	65786	CY7C164-35PC
A7U763	156-3123-00			IC, DIGITAL: ASTTL, FLIP FLOP; DUAL J-K, PRESET, CLEAR	01295	SN74AS109N
A7U773	156-3154-00			IC, DIGITAL: ACTCMOS, GATE; TRIPLE 3-INPUT NAND	80009	156315400
A7U779	156-1997-00			IC, DIGITAL: FTTL, MUX; QUAD 2-TO-1 DATA SELECTOR, INV	04713	MC74F158AN
A7U785	160-5112-00			MICROCKT, DGTL: CMOS, 1K X 8 RGTR PROM, PRGM W/3 STATE OUT, CY7C235, DIP24	80009	160511200
				MOUNTING PARTS		
	136-0925-00			SOCKET, DIP: PCB; 24 POS, 2 X 12, 0.1 X 0.3 CTR, 0.196 H X 0.130 TAIL, BECU, TIN, ACCOM 0.008-0.015 THRU 0.014 X 0.022 LEADS	00779	2-641932-3
				END MOUNTING PARTS		
A7U786	156-3120-00			IC, DIGITAL: FCTCMOS, FLIP FLOP; OCTAL D-TYPE, 3-STATE	61772	IDT74FCT374AP
A7U795	156-2339-00			IC, DIGITAL: ASTTL, GATE; QUAD 2-INPUT OR	01295	SN74AS32N
A7U847	156-1727-00			IC, DIGITAL: FTTL, DEMUX/DECODER; 1-OF-8 DECODER	01295	SN74F138N
A7U856	156-3120-00			IC, DIGITAL: FCTCMOS, FLIP FLOP; OCTAL D-TYPE, 3-STATE	61772	IDT74FCT374AP
A7U863	156-3123-00			IC, DIGITAL: ASTTL, FLIP FLOP; DUAL J-K, PRESET, CLEAR	01295	SN74AS109N
A7U876	156-2339-00			IC, DIGITAL: ASTTL, GATE; QUAD 2-INPUT OR	01295	SN74AS32N
A7U886	156-3121-00			IC, DIGITAL: FCTCMOS, FLIP FLOP; 10-BIT D-TYPE	61772	IDT74FCT821BP
A7U895	156-3121-00			IC, DIGITAL: FCTCMOS, FLIP FLOP; 10-BIT D-TYPE	61772	IDT74FCT821BP
A7U904	156-2236-00			IC, DIGITAL: ASTTL, TRANSCEIVER; OCTAL, WITH REGISTER, NONINV, 3-STATE	01295	SN74AS652NT
A7U913	156-2236-00			IC, DIGITAL: ASTTL, TRANSCEIVER; OCTAL, WITH REGISTER, NONINV, 3-STATE	01295	SN74AS652NT
A7U922	156-2236-00			IC, DIGITAL: ASTTL, TRANSCEIVER; OCTAL, WITH REGISTER, NONINV, 3-STATE	01295	SN74AS652NT
A7U931	156-2236-00			IC, DIGITAL: ASTTL, TRANSCEIVER; OCTAL, WITH REGISTER, NONINV, 3-STATE	01295	SN74AS652NT
A7U938	156-0441-00			IC, DIGITAL: FTTL, COMPARATOR; 8-BIT IDENTITY, /P=/Q, STD	04713	MC74F521N
A7U956	160-5115-00			IC, DIGITAL: CMOS, PLD; EEPLD, 16V8, 25NS, 90MA	80009	160511500

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A7U963	156-3123-00			*END MOUNTING PARTS* IC,DIGITAL:ASTTL,FLIP FLOP;DUAL J-K, PRESET, CLEAR	01295	SN74AS109N
A7U969	156-1722-00			IC,DIGITAL:FTTL,GATE;HEX INV	04713	MC74F04N
A7U981	160-5116-00			IC,DIGITAL:CMOS,PLD;EEPLD,16V8,25NS,90MA	80009	160511600
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A7U989	160-5117-00			*END MOUNTING PARTS* IC,DIGITAL:CMOS,PLD;EEPLD,16V8,25NS,90MA	80009	160511700
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A7U996	160-5118-00			*END MOUNTING PARTS* IC,DIGITAL:CMOS,PLD;EEPLD,16V8,25NS,90MA	80009	160511800
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A7Y869	119-2625-00			*END MOUNTING PARTS* OSCILLATOR,RF:11.0 MHZ, +/- 0.005 %, TTL, 4	14301	012-405-02182

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A8	671-0534-03	B022000	B022149	CIRCUIT BD ASSY:CONTROLLER	80009	671053403
A8	671-0534-04	B022150	B022312	CIRCUIT BD ASSY:CONTROLLER	80009	671053404
A8	671-0534-05	B022313	B022765	CIRCUIT BD ASSY:CONTROLLER	80009	671053405
A8	671-0534-06	B022766	B030100	CIRCUIT BD ASSY:CONTROLLER	80009	671053406
	105-0160-00			*ATTACHED PARTS* EJECTOR,CKT BD:WHITE PLASTIC (QUANTITY 2)	TK2562	105-0160-00
	214-1337-00			PIN,SPRING:0.25 L X 0.103 OD,STL CD PL (QUANTITY 2)	0KB01	ORDER BY DESC
				END ATTACHED PARTS		
A8C110	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C115	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C140	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C145	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C150	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C152	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C154	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C155	290-1107-00			CAP,FXD,ALUM:10UF,20%,50V:6 X 12 MM,AXIAL	2N936	516D106M063JL7B
A8C164	290-0966-00			CAP,FXD,ALUM:220UF,20%,25V,ESR=1.06 OHM (120HZ,20C),8 X 16MM	55680	TVXIE221MAA
A8C166	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C170	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C180	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C230	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C235	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C240	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C250	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C254	283-0108-00			CAP,FXD,CER DI:220PF,10%,200V	04222	SR152A221KAA
A8C256	283-0108-00			CAP,FXD,CER DI:220PF,10%,200V	04222	SR152A221KAA
A8C258	283-0108-00			CAP,FXD,CER DI:220PF,10%,200V	04222	SR152A221KAA
A8C259	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C260	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C262	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C280	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C285	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C330	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C340	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C356	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C360	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C364	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C380	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C385	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C430	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C440	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C450	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C452	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C460	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C470	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C530	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C535	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C540	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C542	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C550	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C552	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C554	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C556	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C560	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C562	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A8C570	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C572	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C580	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C582	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C586	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C630	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C640	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C650	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C652	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C660	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C670	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C680	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C688	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C730	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C735	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C740	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C745	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C750	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C752	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C755	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C758	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C760	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C765	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C770	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C775	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C780	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C785	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C786	290-0966-00			CAP,FXD,ALUM:220UF,20%,25V,ESR=1.06 OHM (120HZ,20C)	55680	TVXIE221MAA
A8C788	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C789	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C830	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C840	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C842	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C844	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C850	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C855	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C860	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C864	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C868	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C870	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C885	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C888	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C940	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C942	281-0765-00			CAP,FXD,CER DI:100PF,5%,100V	04222	SA102A101JAA
A8C944	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C946	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C955	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C958	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C960	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C964	290-1107-00			CAP,FXD,ALUM:10UF,20%,50V;6 X 12 MM,AXIAL	2N936	516D106M063JL7B
A8C965	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C980	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C982	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C984	290-1107-00			CAP,FXD,ALUM:10UF,20%,50V;6 X 12 MM,AXIAL	2N936	516D106M063JL7B
A8C985	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A8C986	290-0966-00			CAP,FXD,ALUM:220UF,20%,25V,ESR=1.06 OHM (120HZ,20C)	55680	TVXIE221MAA
A8F490	159-0193-00			FUSE,WIRE LEAD:10A,60V,FAST BLOW,5 SEC,SAF CONT	61857	SP5-10A

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A8J221	131-4048-00			CONN,HDR:PCB;MALE,RTANG,2 X 17,0.05 X 0.1CTR,0.326 H X 0.106TAIL,0.075 STAGGERED PCB,W/EJECTOR LATCH	TK1462	NFP-34A-0112A
A8J325	131-4049-00			CONN,HDR:PCB;MALE,RTANG,2 X 30,0.05 X 0.1CTR,0.326 H X 0.106TAIL,0.075 STAGGERED PCB,W/EJECTOR LATCH	TK1462	NFP-60A-0112A
A8J390	131-3517-00			CONN,DIN:PCB;FEMALE,RTANG,3 X 50,0.1 CTR,0.504 MLG X 0.118 TAIL,30 GOLD	15912	FXR150-012-2
				MOUNTING PARTS		
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0185-00			SCREW,MACHINE:2-56 X 0.438,PNH,STL (QUANTITY 2)	0KB01	ORDER BY DESC
				END MOUNTING PARTS		
A8J620	131-4048-00			CONN,HDR:PCB;MALE,RTANG,2 X 17,0.05 X 0.1CTR,0.326 H X 0.106TAIL,0.075 STAGGERED PCB,W/EJECTOR LATCH	TK1462	NFP-34A-0112A
A8J725	131-1465-01			CONN,HDR:PCB;MALE,RTANG,2 X 17,0.1CTR,0.300 H X 0.112 TAIL,SHRD/3 SIDES,CTR PLZ,30 GOLD,LONG LATCH	53387	3431-1202
A8J828	131-4048-00			CONN,HDR:PCB;MALE,RTANG,2 X 17,0.05 X 0.1CTR,0.326 H X 0.106TAIL,0.075 STAGGERED PCB,W/EJECTOR LATCH	TK1462	NFP-34A-0112A
A8R146	315-0101-00	671-0534-03	671-0534-05	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A8R146	322-3097-00	671-0534-06		RES,FXD:METAL FILM,100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A8R148	315-0101-00	671-0534-03	671-0534-05	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A8R148	322-3097-00	671-0534-06		RES,FXD:METAL FILM,100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A8R160	315-0102-00	671-0534-03	671-0534-05	RES,FXD,FILM:1K OHM,5%,0.25W,MI	50139	CB1025
A8R160	322-3193-00	671-0534-06		RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A8R165	315-0102-00	671-0534-03	671-0534-05	RES,FXD,FILM:1K OHM,5%,0.25W,MI	50139	CB1025
A8R165	322-3193-00	671-0534-06		RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A8R180	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A8R230	307-0675-00			RES NTWK,FXD,FI:(9),1K OHM,2%,1.25W	50139	210A102
A8R240	315-0101-00	671-0534-03	671-0534-05	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A8R240	322-3097-00	671-0534-06		RES,FXD:METAL FILM,100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A8R280	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A8R285	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A8R340	315-0680-00			RES,FXD,FILM:68 OHM,5%,0.25W,MI	50139	CB6805
A8R350	315-0680-00			RES,FXD,FILM:68 OHM,5%,0.25W,MI	50139	CB6805
A8R352	315-0680-00			RES,FXD,FILM:68 OHM,5%,0.25W,MI	50139	CB6805
A8R380	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A8R435	307-0675-00			RES NTWK,FXD,FI:(9),1K OHM,2%,1.25W	50139	210A102
A8R530	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A8R540	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A8R550	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A8R552	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A8R570	307-1187-00			RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A8R580	315-0330-00			RES,FXD,FILM:33 OHM,5%,0.25W,MI	50139	CB3305
A8R582	315-0330-00			RES,FXD,FILM:33 OHM,5%,0.25W,MI	50139	CB3305
A8R620	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A8R630	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A8R640	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A8R650	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A8R652	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A8R670	307-1187-00			RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A8R675	307-1187-00			RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A8R760	307-1187-00			RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A8R765	307-1187-00			RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A8R770	307-1187-00			RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A8R775	307-1187-00			RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A8R820	315-0561-00			RES,FXD,FILM:560 OHM,5%,0.25W,MI	50139	CB5615
A8R830	315-0101-00	671-0534-03	671-0534-05	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A8R830	322-3097-00	671-0534-06		RES,FXD:METAL FILM,100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A8R835	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A8R840	315-0561-00			RES,FXD,FILM:560 OHM,5%,0.25W,MI	50139	CB5615
A8R850	315-0561-00			RES,FXD,FILM:560 OHM,5%,0.25W,MI	50139	CB5615
A8R860	307-1187-00			RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A8R865	307-1187-00			RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A8R885	307-1187-00			RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A8R930	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A8R935	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A8R950	315-0561-00			RES,FXD,FILM:560 OHM,5%,0.25W,MI	50139	CB5615
A8R952	315-0561-00			RES,FXD,FILM:560 OHM,5%,0.25W,MI	50139	CB5615
A8R954	315-0103-00	671-0534-03	671-0534-05	RES,FXD,FILM:10K OHM,5%,0.25W,MI	50139	CB1035
A8R954	322-3289-00	671-0534-06		RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A8R956	315-0101-00	671-0534-03	671-0534-05	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A8R956	322-3097-00	671-0534-06		RES,FXD:METAL FILM,100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A8R958	315-0101-00	671-0534-03	671-0534-05	RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A8R958	322-3097-00	671-0534-06		RES,FXD:METAL FILM,100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALLBODY	91637	CCF501G100R0F
A8R960	315-0330-00	671-0534-06		RES,FXD,FILM:33 OHM,5%,0.25W,MI	50139	CB3305
A8TP130	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A8TP280	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A8TP530	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A8TP580	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A8TP940	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A8TP980	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A8U120	160-5570-00			MICROCKT,DGTL:10 LOW OUT ARRAY LOGIC,PRGM *MOUNTING PARTS*	80009	160557000
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	00779	2-641932-3
A8U125	156-1756-00			IC,DIGITAL:ALSTTL,FLIP FLOP;DUAL D-TYPE W/CLEAR	01295	SN74ALS74AN
A8U135	156-1756-00			IC,DIGITAL:ALSTTL,FLIP FLOP;DUAL D-TYPE W/CLEAR	01295	SN74ALS74AN
A8U140	156-2391-00			IC,DIGITAL:ALSTTL,BFR/DRVR;OCTALNONINV,3-STATE	01295	SN74ALS541N
A8U145	156-1910-00			IC,DIGITAL:ALSTTL,GATE;8-INPUT NAND	01295	SN74ALS30AN
A8U150	156-1756-00			IC,DIGITAL:ALSTTL,FLIP FLOP;DUAL D-TYPE W/CLEAR	01295	SN74ALS74AN
A8U160	156-2601-00			IC,DIGITAL:HCMS,COUNTER;12-STAGE BINARY RIPPLE	OJR04	TC74HC4040P
A8U170	160-5111-02			MICROCKT,DGTL:NMOS,65536 X 8 EPROM, PRGMW/3STATE OUT,27512,DIP28 *MOUNTING PARTS*	80009	160511102
	136-0755-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 14,28 POS,0.1 X 0.6 CTR,0.175 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.0015 X 0.014-0.022 *END MOUNTING PARTS*	00779	2-641605-3
A8U175	156-2331-00			IC,DGTL:LSSTL,CNTR;8-BIT, WITH STOR RGTR, 3-STATE	01295	SN74LS590N
A8U180	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCIEVER;OCTAL NONINV *MOUNTING PARTS*	01295	SN74ALS245AN
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A8U230	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV *MOUNTING PARTS*	01295	SN74ALS245AN
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A8U240	156-3237-00			IC,PROCESSOR:CMOS,PERIPHERAL;PROGRAMMABLE INTERVAL TIMER	34649	82C54-2
A8U250	156-2484-00			IC,DIGITAL:ASTTL,GATE;QUAD 2-INPUT NAND	01295	SN74AS00 (N OR
A8U260	160-5105-01	671-0534-03	671-0534-04	IC,DIGITAL:STTL,PLD;PAL,16R4,25NS,28.5MHZ,180MA	80009	160510501
A8U260	160-5105-02	671-0534-05		IC,DIGITAL:STTL,PLD;PAL,16R4,25NS,28.5MHZ,180MA *MOUNTING PARTS*	80009	160510502
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A8U265	160-5110-00			IC,DIGITAL:STTL,PLD;PAL,20RA10,30NS,20MHZ,200MA *MOUNTING PARTS*	80009	160511000
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BEUC,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	00779	2-641932-3
A8U270	156-2331-00			IC,DGTL:LSTTL,CNTR;8-BIT, WITH STOR RGTR, 3-STATE	01295	SN74LS590N
A8U280	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV *MOUNTING PARTS*	01295	SN74ALS245AN
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A8U285	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV *MOUNTING PARTS*	01295	SN74ALS245AN
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A8U330	160-5571-03	671-0534-03	671-0534-04	MICROCKT,DGTL:ARRAY LOGIC,MIVRO DEVICE,PRGM	80009	160557103
A8U330	160-5571-04	671-0534-05		MICROCKT,DGTL:ARRAY LOGIC,MIVRO DEVICE,PRGM,AM- PAL22V10,DIP24 *MOUNTING PARTS*	80009	160557104
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BEUC,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	00779	2-641932-3
A8U340	156-2292-00			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV	01295	SN74ALS652NT
A8U350	156-2773-00			IC,PROCESSOR:CMOS,PERIPHERAL;PROGRAMMABLE INTERVAL TIMER,8MHZ	34649	P82C54-2
A8U365	156-2391-00			IC,DIGITAL:ALSTTL,BFR/DRV;OCTALNONINV, 3-STATE *MOUNTING PARTS*	01295	SN74ALS541N
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A8U368	160-5103-00			MICROCKT,DGTL:LOW PWR PRGM ARRAY LOGIC,PRGM *MOUNTING PARTS*	80009	160510300
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A8U380	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV *MOUNTING PARTS*	01295	SN74ALS245AN
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A8U385	156-2391-00			IC,DIGITAL:ALSTTL,BFR/DRV;OCTALNONINV, 3-STATE *MOUNTING PARTS*	01295	SN74ALS541N

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0,3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A8U430	156-2612-00			IC,DIGITAL:ASTTL,FLIP FLOP;OCTAL D-TYPE, INV,3-STATE *MOUNTING PARTS*	01295	SN74AS574N
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0,3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A8U435	156-2391-00			IC,DIGITAL:ALSTTL,BFR/DRV:R;OCTALNONINV, 3-STATE *MOUNTING PARTS*	01295	SN74ALS541N
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0,3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A8U440	160-5109-00			MICROCKT,DGTL:HEX 16 INP RGTR AND/OR,PRGM *MOUNTING PARTS*	80009	160510900
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0,3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A8U445	156-2992-00			IC,MEMORY:CMOS,SRAM;2K X 8,35NS,OE *MOUNTING PARTS*	65786	CY7C128A-35PC
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	00779	2-641932-3
A8U450	156-2612-00			IC,DIGITAL:ASTTL,FLIP FLOP;OCTAL D-TYPE, INV,3-STATE	01295	SN74AS574N
A8U452	156-2612-00			IC,DIGITAL:ASTTL,FLIP FLOP;OCTAL D-TYPE, INV,3-STATE *MOUNTING PARTS*	01295	SN74AS574N
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0,3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A8U455	156-2992-00			IC,MEMORY:CMOS,SRAM;2K X 8,35NS,OE *MOUNTING PARTS*	65786	CY7C128A-35PC
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	00779	2-641932-3
A8U458	156-2992-00			IC,MEMORY:CMOS,SRAM;2K X 8,35NS,OE *MOUNTING PARTS*	65786	CY7C128A-35PC
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	00779	2-641932-3
A8U460	156-2612-00			IC,DIGITAL:ASTTL,FLIP FLOP;OCTAL D-TYPE, INV,3-STATE *MOUNTING PARTS*	01295	SN74AS574N
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0,3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A8U465	156-2992-00			IC,MEMORY:CMOS,SRAM;2K X 8,35NS,OE *MOUNTING PARTS*	65786	CY7C128A-35PC
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	00779	2-641932-3
A8U475	160-5106-00			MICROCKT,DGTL:OCTAL 16 INP,PRGM	80009	160510600
A8U475	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0,3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A8U480	160-5100-00	671-0534-03	671-0534-03	MICROCKT,DGTL:OCTAL 20 INP AND/OR,PRGMLOGIC	80009	160510000
A8U480	160-5100-01	671-0534-04		MICROCKT,DGTL:OCTAL 20 INP AND/OR,PRGM LOGIC ARRAY,20L8A,DIP24	80009	160510001

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
				MOUNTING PARTS		
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
A8U485	156-2391-00			*END MOUNTING PARTS*		
				IC,DIGITAL:ALSTTL,BFR/DRVR;OCTALNONINV, 3-STATE	01295	SN74ALS541N
				MOUNTING PARTS		
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A8U488	156-2391-00			*END MOUNTING PARTS*		
				IC,DIGITAL:ALSTTL,BFR/DRVR;OCTALNONINV, 3-STATE	01295	SN74ALS541N
				MOUNTING PARTS		
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A8U530	156-2612-00			*END MOUNTING PARTS*		
				IC,DIGITAL:ASTTL,FLIP FLOP;OCTAL D-TYPE, INV,3-STATE	01295	SN74AS574N
A8U540	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV	01295	SN74ALS245AN
A8U550	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV	01295	SN74ALS245AN
A8U552	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV	01295	SN74ALS245AN
A8U560	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV	01295	SN74ALS245AN
A8U570	160-5107-00			MICROCKT,DGTL:OCTAL 16 INP,PRGM	80009	160510700
				MOUNTING PARTS		
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A8U580	160-5564-00			*END MOUNTING PARTS*		
				MICROCKT,DGTL:OCTAL 16 INP AND/OR INV,PRGM	80009	160556400
				MOUNTING PARTS		
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A8U630	156-1748-02			*END MOUNTING PARTS*		
				IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV	01295	SN74ALS245AN
A8U640	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV	01295	SN74ALS245AN
A8U650	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV	01295	SN74ALS245AN
A8U652	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV	01295	SN74ALS245AN
A8U660	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV	01295	SN74ALS245AN
A8U670	156-2612-00			IC,DIGITAL:ASTTL,FLIP FLOP;OCTAL D-TYPE, INV,3-STATE	01295	SN74AS574N
A8U680	156-2612-00			IC,DIGITAL:ASTTL,FLIP FLOP;OCTAL D-TYPE, INV,3-STATE	01295	SN74AS574N
A8U688	156-2391-00			IC,DIGITAL:ALSTTL,BFR/DRVR;OCTALNONINV, 3-STATE	01295	SN74ALS541N
A8U730	156-2864-00			IC,DIGITAL:FTTL,BUFFER;OCTAL, BUFFER/DRVR, 3-STATE	01295	SN74F541N
				MOUNTING PARTS		
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A8U735	156-2864-00			*END MOUNTING PARTS*		
				IC,DIGITAL:FTTL,BUFFER;OCTAL, BUFFER/DRVR, 3-STATE	01295	SN74F541N
				MOUNTING PARTS		
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
A8U740	156-3461-00			*END MOUNTING PARTS*		
				IC,MEMORY:CMOS,SRAM;16K X 4,25NS	TK1146	M5M5188BP-25
				MOUNTING PARTS		
	136-0727-00			SKT,PL-IN ELEK:MICROCKT,8 CONTACT	00779	2-640463-3
	136-0728-00			SKT,PL-IN ELEK:PCB;14 POS,2 X 7,0.1 X 0.3CTR,0.210 H X 0.140 TAIL,TIN	00779	2-641599-3
A8U745	156-3461-00			*END MOUNTING PARTS*		
				IC,MEMORY:CMOS,SRAM;16K X 4,25NS	TK1146	M5M5188BP-25
				MOUNTING PARTS		
	136-0727-00			SKT,PL-IN ELEK:MICROCKT,8 CONTACT	00779	2-640463-3
	136-0728-00			SKT,PL-IN ELEK:PCB;14 POS,2 X 7,0.1 X 0.3CTR,0.210 H X 0.140 TAIL,TIN	00779	2-641599-3

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A8U750	156-3461-00			*END MOUNTING PARTS* IC, MEMORY: CMOS, SRAM; 16K X 4, 25NS	TK1146	M5M5188BP-25
	136-0727-00			*MOUNTING PARTS* SKT, PL-IN ELEK: MICROCKT, 8 CONTACT	00779	2-640463-3
	136-0728-00			SKT, PL-IN ELEK: PCB; 14 POS, 2 X 7, 0.1 X 0.3CTR, 0.210 H X 0.140 TAIL, TIN	00779	2-641599-3
A8U752	156-3461-00			*END MOUNTING PARTS* IC, MEMORY: CMOS, SRAM; 16K X 4, 25NS	TK1146	M5M5188BP-25
	136-0727-00			*MOUNTING PARTS* SKT, PL-IN ELEK: MICROCKT, 8 CONTACT	00779	2-640463-3
	136-0728-00			SKT, PL-IN ELEK: PCB; 14 POS, 2 X 7, 0.1 X 0.3CTR, 0.210 H X 0.140 TAIL, TIN	00779	2-641599-3
A8U755	156-3461-00			*END MOUNTING PARTS* IC, MEMORY: CMOS, SRAM; 16K X 4, 25NS	TK1146	M5M5188BP-25
	136-0727-00			*MOUNTING PARTS* SKT, PL-IN ELEK: MICROCKT, 8 CONTACT	00779	2-640463-3
	136-0728-00			SKT, PL-IN ELEK: PCB; 14 POS, 2 X 7, 0.1 X 0.3CTR, 0.210 H X 0.140 TAIL, TIN	00779	2-641599-3
A8U758	156-3461-00			*END MOUNTING PARTS* IC, MEMORY: CMOS, SRAM; 16K X 4, 25NS	TK1146	M5M5188BP-25
	136-0727-00			*MOUNTING PARTS* SKT, PL-IN ELEK: MICROCKT, 8 CONTACT	00779	2-640463-3
	136-0728-00			SKT, PL-IN ELEK: PCB; 14 POS, 2 X 7, 0.1 X 0.3CTR, 0.210 H X 0.140 TAIL, TIN	00779	2-641599-3
A8U760	156-3461-00			*END MOUNTING PARTS* IC, MEMORY: CMOS, SRAM; 16K X 4, 25NS	TK1146	M5M5188BP-25
	136-0727-00			*MOUNTING PARTS* SKT, PL-IN ELEK: MICROCKT, 8 CONTACT	00779	2-640463-3
	136-0728-00			SKT, PL-IN ELEK: PCB; 14 POS, 2 X 7, 0.1 X 0.3CTR, 0.210 H X 0.140 TAIL, TIN	00779	2-641599-3
A8U765	156-3461-00			*END MOUNTING PARTS* IC, MEMORY: CMOS, SRAM; 16K X 4, 25NS	TK1146	M5M5188BP-25
	136-0727-00			*MOUNTING PARTS* SKT, PL-IN ELEK: MICROCKT, 8 CONTACT	00779	2-640463-3
	136-0728-00			SKT, PL-IN ELEK: PCB; 14 POS, 2 X 7, 0.1 X 0.3CTR, 0.210 H X 0.140 TAIL, TIN	00779	2-641599-3
A8U770	156-3508-00			*END MOUNTING PARTS* IC, DIGITAL: ASTTL, FLIP FLOP; OCTAL D-TYPE, NONINV, CLEAR, 3-STATE	01295	SN74AS575NT
A8U775	156-3508-00			IC, DIGITAL: ASTTL, FLIP FLOP; OCTAL D-TYPE, NONINV, CLEAR, 3-STATE	01295	SN74AS575NT
A8U780	156-2391-00			IC, DIGITAL: ALSTTL, BUFFER/DRIVER; OCTALNONINV, 3-STATE	01295	SN74ALS541N
A8U785	156-2391-00			IC, DIGITAL: ALSTTL, BUFFER/DRIVER; OCTALNONINV, 3-STATE	01295	SN74ALS541N
A8U788	156-2391-00			IC, DIGITAL: ALSTTL, BUFFER/DRIVER; OCTALNONINV, 3-STATE	01295	SN74ALS541N
A8U830	156-2114-00			IC, DIGITAL: ECL, RECEIVER; QUAD LINE	04713	MC10H115P
	136-0729-00			*MOUNTING PARTS* SOCKET, DIP: PCB; FEMALE, STR, 2 X 8, 16 POS, 0.1	00779	2-641600-3
A8U835	156-2290-00			*END MOUNTING PARTS* IC, DIGITAL: ECL, TRANSLATOR; QUAD ECL-TO-TTL	04713	MC10H125P
	136-0729-00			*MOUNTING PARTS* SOCKET, DIP: PCB; FEMALE, STR, 2 X 8, 16 POS, 0.1	00779	2-641600-3
A8U840	156-3509-00			*END MOUNTING PARTS* IC, DIGITAL: FTTL, COUNTER; SYNCH 8-BIT UP/DOWN	1CH66	N74F1779N
A8U850	156-3509-00			IC, DIGITAL: FTTL, COUNTER; SYNCH 8-BIT UP/DOWN	1CH66	N74F1779N
A8U852	156-2289-00			IC, DIGITAL: ECL, TRANSLATOR; QUAD TTL-TO-ECL	04713	MC10H124P
				MOUNTING PARTS		

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
	136-0729-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 8,16 POS,0.1 *END MOUNTING PARTS*	00779	2-641600-3
A8U860	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP;OCTAL NONINV D-TYPE, 3-STATE	01295	SN74ALS574BN
A8U865	156-2612-00			IC,DIGITAL:ASTTL,FLIP FLOP;OCTAL D-TYPE, INV,3-STATE	01295	SN74AS574N
A8U868	156-2323-00			IC,DIGITAL:ASTTL,GATE:HEX INVERTER	01295	SN74AS04N
A8U880	156-3461-00			IC,MEMORY:CMOS,SRAM;16K X 4,25NS *MOUNTING PARTS*	TK1146	M5M5188BP-25
	136-0727-00			SKT,PL-IN ELEK:MICROCKT,8 CONTACT	00779	2-640463-3
	136-0728-00			SKT,PL-IN ELEK:PCB;14 POS,2 X 7,0.1 X 0.3CTR,0.210 H X 0.140 TAIL,TIN *END MOUNTING PARTS*	00779	2-641599-3
A8U885	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP;OCTAL NONINV D-TYPE, 3-STATE	01295	SN74ALS574BN
A8U888	156-2612-00			IC,DIGITAL:ASTTL,FLIP FLOP;OCTAL D-TYPE, INV,3-STATE	01295	SN74AS574N
A8U930	156-2290-00			IC,DIGITAL:ECL,TRANSLATOR;QUAD ECL-TO-TTL *MOUNTING PARTS*	04713	MC10H125P
	136-0729-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 8,16 POS,0.1 *END MOUNTING PARTS*	00779	2-641600-3
A8U935	156-2290-00			IC,DIGITAL:ECL,TRANSLATOR;QUAD ECL-TO-TTL *MOUNTING PARTS*	04713	MC10H125P
	136-0729-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 8,16 POS,0.1 *END MOUNTING PARTS*	00779	2-641600-3
A8U950	156-1713-00			IC,DIGITAL:ECL,MULTIVIBRATOR;RETRIG MONOSTABLE	04713	MC10198P
A8U955	156-2290-00			IC,DIGITAL:ECL,TRANSLATOR;QUAD ECL-TO-TTL *MOUNTING PARTS*	04713	MC10H125P
	136-0729-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 8,16 POS,0.1 *END MOUNTING PARTS*	00779	2-641600-3
A8U960	156-1756-00	671-0534-03	671-0534-03	IC,DIGITAL:ALSTTL,FLIP FLOP;DUAL D-TYPE W/CLEAR	01295	SN74ALS74AN
A8U960	155-0397-00	671-0534-04	671-0534-05	MICROCIRCUIT:74ALS74 & 74F74 ASSEMBLY	80009	155039700
A8U960	156-1611-00	671-0534-06		IC,DIGITAL:FTTL,FLIP FLOP;DUAL D-TYPE	04713	MC74F74N
A8U963	156-1756-00	671-0534-06		IC,DIGITAL:ALSTTL,FLIP FLOP;DUAL D-TYPE W/CLEAR (PART OF U960 COMBO ONLY)	01295	SN74ALS74AN
A8U965	156-2159-00			IC,DIGITAL:ASTTL,MUX;QUAD 2-TO-1 DATA SEL, NONINV	01295	SN74AS157N
A8U980	156-1756-00			IC,DIGITAL:ALSTTL,FLIP FLOP;DUAL D-TYPE W/CLEAR	01295	SN74ALS74AN
A8U985	156-2339-00			IC,DIGITAL:ASTTL,GATE;QUAD 2-INPUT OR	01295	SN74AS32N
A8W925	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A8Y250	119-1413-00			OSC,XTAL CLOCK:20.0MHZ, +/-0.05 %, TTL, 4PIN 14 PIN DIP COMPATIBLE	14301	AE 404-417

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A9	671-0533-02	B022000	B022352	CIRCUIT BD ASSY:DISPLAY MEMORY II	80009	671053302
A9	671-0533-05	B022353	B040248	CIRCUIT BD ASSY:DISPLAY MEMORY II	80009	671053305
A9	671-0533-06	B040249		CIRCUIT BD ASSY:DISPLAY MEMORY II (STANDARD ONLY)	80009	671053306
A9	671-2607-00	B022000	B040248	CIRCUIT BD ASSY:CAMERA MEAS OPT21 DISPL MEM II	80009	671260700
A9	671-2607-01	B040249		CIRCUIT BD ASSY:CAMERA MEAS OPT 21 DSPL MEM II (OPTION 21 ONLY)	80009	671260701
	105-0160-00			*ATTACHED PARTS* EJECTOR,CKT BD:WHITE PLASTIC (QUANTITY 2)	TK2562	105-0160-00
	131-0157-00			TERMINAL,PIN:0.25 L X 0.04 OD,BRS,SLDR PL (QUANTITY 2 ON BACK)	05276	013-100-1000-47
	214-1337-00			PIN,SPRING:0.25 L X 0.103 OD,STL CD PL (QUANTITY 2)	0KB01	ORDER BY DESC
				END ATTACHED PARTS		
A9C116	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C118	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C)	55680	UVX1H100MAA
A9C119	290-0944-00			CAP,FXD,ELCTLT:220UF,+50-20%,10V	0H1N5	CEUSM1A221
A9C123	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C125	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C127	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C143	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C145	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C147	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C155	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C157	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C163	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C173	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C175	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C177	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C190	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C196	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C218	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C221	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C223	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C225	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C228	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C231	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C243	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C245	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C248	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C251	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C253	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C255	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C258	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C271	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C273	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C275	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C278	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C290	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C296	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C314	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C316	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C321	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C326	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C328	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C336	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C341	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A9C346	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C351	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C352	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C354	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C364	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C371	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C375	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C377	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C380	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C384	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C413	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C423	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C425	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C433	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C443	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C453	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C455	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C463	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C472	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C475	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C477	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C486	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C488	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C525	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C532	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C534	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C537	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C543	283-0625-00			CAP,FXD,MICA DI:220PF,1%,500V	TK0891	RDM10FD221F03
A9C545	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C549	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C554	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C565	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C569	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C572	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C592	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C614	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C616	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C628	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C634	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C636	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C639	285-1305-00			CAP,FXD,PLASTIC:0.1UF,1%,50V	14752	(D) 650D1A104F
A9C644	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C646	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C656	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C664	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C666	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C674	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C678	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C684	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C722	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C723	283-0594-00			CAP,FXD,MICA DI:0.001UF,1%,100V	TK0891	RDM15FA102F03
A9C724	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C733	283-0620-00			CAP,FXD,MICA DI:470PF,1%,500V	TK0891	RDM15FD471F03
A9C742	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C743	283-0811-00			CAP,FXD,CER DI:0.01UF,20%,100V	04222	MDO11C103MAB
A9C745	283-0811-00			CAP,FXD,CER DI:0.01UF,20%,100V	04222	MDO11C103MAB
A9C752	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C753	281-0814-00			CAP,FXD,CERAMIC:MLC;100 PF,10%,100V,0.100 X	TK1743	CGB101KEN

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Replaceable Electrical Parts

Component Number	Tektronix		Serial / Assembly Number	Name & Description	Mfr. Code	Mfr. Part Number
	Part Number	Effective				
A9C756	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C763	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C764	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C766	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C768	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A9C772	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C774	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C776	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C778	283-0811-00			CAP,FXD,CER DI:0.01UF,20%,100V	04222	MDO11C103MAB
A9C788	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C827	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C829	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C836	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C838	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C846	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C856	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C858	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C864	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C872	290-1107-00			CAP,FXD,ALUM:110UF,20%,50V;6 X 12 MM,AXIAL	2N936	516D106M063JL7B
A9C875	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C882	290-0747-00			CAP,FXD,ELCTLT:100UF,+50-20%,25WVDC	0H1N5	CE02W1E101F
A9C885	290-0747-00			CAP,FXD,ELCTLT:100UF,+50-20%,25WVDC	0H1N5	CE02W1E101F
A9C888	290-0966-00			CAP,FXD,ALUM:220UF,20%,25V,ESR=1.06 OHM (120HZ,20C)	55680	TVXIE221MAA
A9C912	283-0811-00			CAP,FXD,CER DI:0.01UF,20%,100V	04222	MDO11C103MAB
A9C913	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C914	283-0811-00			CAP,FXD,CER DI:0.01UF,20%,100V	04222	MDO11C103MAB
A9C918	290-0986-00			CAP,FXD,ALUM:47UF,20%,50V,ESR=3.53OHM (120HZ,20C)	55680	TVX1H470MAA
A9C922	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A9C926	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C928	290-0986-00			CAP,FXD,ALUM:47UF,20%,50V,ESR=3.53OHM (120HZ,20C)	55680	TVX1H470MAA
A9C936	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C952	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C966	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9C974	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A9CR738	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A9CR746	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A9F494	159-0193-00			FUSE,WIRE LEAD:10A,60V,FAST BLOW,5 SEC,SAF CONT	61857	SP5-10A
A9J712	131-1425-00			CONN,HDR:PCB;MALE,RTANG,1 X 36,0.1CTR,0.230 MLG X 0.090 TAIL,30 GOLD,STACKABLE	22526	65521-136
A9J712	131-1426-00			CONN,HDR:PCB;MALE,RTANG,1 X 36,0.1CTR,0.23	22526	65524-136
A9J822	131-4048-00			CONN,HDR:PCB;MALE,RTANG,2 X 17,0.05 X 0.1CTR,0.326 H X 0.106TAIL,0.075 STAGGERED PCB,W/EJECTOR LATCH	TK1462	NFP-34A-0112A
				MOUNTING PARTS		
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0185-00			SCREW,MACHINE:2-56 X 0.438,PNH,STL (QUANTITY 2)	0KB01	ORDER BY DESC
				END MOUNTING PARTS		
A9J873	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A9P395	131-3517-00			CONN,DIN:PCB;FEMALE,RTANG,3 X 50,0.1 CTR,0.504 MLG X 0.118 TAIL,30 GOLD	15912	FXR150-012-2
A9Q714	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP:40V,200MA,250MHZ,AMPL	OJR04	2N3906
A9Q716	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP:40V,200MA,250MHZ,AMPL	OJR04	2N3906
A9Q724	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP:40V,200MA,250MHZ,AMPL	OJR04	2N3906
A9Q726	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP:40V,200MA,250MHZ,AMPL	OJR04	2N3906

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A9Q736	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	0JR04	2N3906
A9Q737	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	0JR04	2N3906
A9Q745	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	0JR04	2N3906
A9Q874	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ,AMPL	0JR04	2N3904
A9Q875	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ,AMPL	0JR04	2N3904
A9R181	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A9R191	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A9R281	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A9R291	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A9R398	307-0828-00			RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B330
A9R514	307-0598-00			RES NTWK,FXD,FI:7,330 OHM,2%,1.0W TC=250 PPM/DEG C	64537	ADVISE
A9R524	307-1187-00			RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A9R526	307-1187-00			RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A9R542	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A9R562	307-0528-00			RES NTWK,FXD,FI:(7)39 OHM,20%,0.125W TC=50PPM/DEG C	11236	750-81-R39
A9R564	307-0528-00			RES NTWK,FXD,FI:(7)39 OHM,20%,0.125W TC=50PPM/DEG C	11236	750-81-R39
A9R572	307-0649-00			RES NTWK,FXD,FI:8,33 OHM,2%,0.125W	11236	761-3-R33 OHM
A9R612	311-1283-00			RES,VAR,NONWW:TRMR,10K OHM,0.5W CERMET	32997	3329S-L58-103
A9R614	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W MI	50139	CB2225
A9R615	311-1283-00			RES,VAR,NONWW:TRMR,10K OHM,0.5W CERMET	32997	3329S-L58-103
A9R636	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A9R637	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A9R723	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A9R724	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A9R725	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A9R726	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A9R727	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A9R728	307-0598-00			RES NTWK,FXD,FI:7,330 OHM,2%,1.0W TC=250 PPM/DEG C	64537	ADVISE
A9R732	321-1712-06			RES,FXD,FILM:4.4K OHM,0.25%,0.125W,TC=T9 MI	07716	CEAE440000C
A9R737	322-3114-00			RES,FXD:METAL FILM,150 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20-FX-150E-AXIAL
A9R742	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A9R745	322-3222-00			RES,FXD:METAL FILM,2K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G20000F
A9R746	322-3222-00			RES,FXD:METAL FILM,2K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G20000F
A9R747	322-3181-00			RES,FXD,FILM:750 OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF501G750R0F
A9R748	323-0126-00			RES,FXD,FILM:200 OHM,1%,0.5W,TC=T0	64537	PME70
A9R749	323-0126-00			RES,FXD,FILM:200 OHM,1%,0.5W,TC=T0	64537	PME70
A9R753	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A9R754	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A9R755	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A9R756	322-3222-00			RES,FXD:METAL FILM,2K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G20000F
A9R757	322-3222-00			RES,FXD:METAL FILM,2K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G20000F
A9R758	315-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.25W MI	50139	CB1525
A9R762	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W MI	50139	CB4725
A9R766	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A9R778	315-0330-00			RES,FXD,FILM:33 OHM,5%,0.25W MI	50139	CB3305
A9R798	315-0330-00	671-0533-02	671-0533-05	RES,FXD,FILM:33 OHM,5%,0.25W MI	50139	CB3305
A9R798	322-3085-00	671-0533-06		RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A9R798	315-0330-00	671-2607-00	671-2607-00	RES,FXD,FILM:33 OHM,5%,0.25W MI	50139	CB3305
A9R798	322-3085-00	671-2607-01		RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A9R822	307-1187-00			RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A9R824	307-1187-00			RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A9R826	307-1187-00			RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A9R832	323-0085-00			RES,FXD,FILM:75.0 OHM,1%,0.5W,TC=T0	64537	PME70
A9R842	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A9R855	307-0824-00			RES NTWK,FXD,FI:4,150 OHM,2%,0.3W EACH	50139	208B151

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A9R856	307-0824-00			RES NTWK,FXD,FI:4,150 OHM,2%,0.3W EACH	50139	208B151
A9R874	307-0540-00			RES NTWK,FXD,FI:(5)1K OHM,2%,0.7W	11236	770-61-R1K OR 750-61-R1K
A9R875	307-0540-00			RES NTWK,FXD,FI:(5)1K OHM,2%,0.7W	11236	770-61-R1K OR 750-61-R1K
A9R878	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A9R932	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A9R933	315-0330-00			RES,FXD,FILM:33 OHM,5%,0.25W MI	50139	CB3305
A9R944	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A9R945	315-0330-00			RES,FXD,FILM:33 OHM,5%,0.25W MI	50139	CB3305
A9R946	315-0330-00	671-0533-02	671-0533-05	RES,FXD,FILM:33 OHM,5%,0.25W MI	50139	CB3305
A9R946	322-3085-00	671-0533-06		RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A9R946	315-0330-00	671-2607-00	671-2607-00	RES,FXD,FILM:33 OHM,5%,0.25W MI	50139	CB3305
A9R946	322-3085-00	671-2607-01		RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A9R951	315-0332-00			RES,FXD,FILM:3.3K OHM,5%,0.25W MI	50139	CB3325
A9R954	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A9R964	315-0330-00	671-0533-02	671-0533-05	RES,FXD,FILM:33 OHM,5%,0.25W MI	50139	CB3305
A9R964	322-3085-00	671-0533-06		RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A9R964	315-0330-00	671-2607-00	671-2607-00	RES,FXD,FILM:33 OHM,5%,0.25W MI	50139	CB3305
A9R964	322-3085-00	671-2607-01		RES,FXD:METAL FILM,75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A9R965	307-0445-00	671-0533-02	671-0533-05	RES,NTWK:THICK FILM,(9) 4.7K OHM,2%,0.2W EACH,TC=100 PPM,SIP10,PIN 1 COMMON	11236	750-101-R4.7 K TUBE PACKED
A9R965	322-3075-00	671-0533-06		RES,FXD,FILM:59 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 59E
A9R965	307-0445-00	671-2607-00	671-2607-00	RES,NTWK:THICK FILM,(9) 4.7K OHM,2%,0.2W EACH,TC=100 PPM,SIP10,PIN 1 COMMON	11236	750-101-R4.7 K TUBE PACKED
A9R965	322-3075-00	671-2607-01		RES,FXD,FILM:59 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 59E
A9TP114	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A9TP382	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A9TP515	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A9TP819	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A9TP969	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A9U124	156-3011-00			IC,MEMORY:CMOS,DRAM:256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U126	156-3011-00			IC,MEMORY:CMOS,DRAM:256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U128	156-3011-00			IC,MEMORY:CMOS,DRAM:256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U134	156-3011-00			IC,MEMORY:CMOS,DRAM:256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U136	156-3011-00			IC,MEMORY:CMOS,DRAM:256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U138	156-3011-00			IC,MEMORY:CMOS,DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U154	156-3011-00			IC,MEMORY:CMOS,DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U156	156-3011-00			IC,MEMORY:CMOS,DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U158	156-3011-00			IC,MEMORY:CMOS,DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U164	156-3011-00			IC,MEMORY:CMOS,DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U166	156-3011-00			IC,MEMORY:CMOS,DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U168	156-3011-00			IC,MEMORY:CMOS,DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U184	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV *MOUNTING PARTS*	01295	SN74ALS245AN
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U194	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV *MOUNTING PARTS*	01295	SN74ALS245AN
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U216	156-2073-00			IC,DIGITAL:ASTTL,MUX;8-TO-1 DATA SELECTOR	01295	SN74AS151N
A9U222	156-3011-00			IC,MEMORY:CMOS,DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U224	156-3011-00			IC,MEMORY:CMOS,DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A9U226	156-3011-00			IC, MEMORY:CMOS, DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U232	156-3011-00			IC, MEMORY:CMOS, DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U234	156-3011-00			IC, MEMORY:CMOS, DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U236	156-3011-00			IC, MEMORY:CMOS, DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U252	156-3011-00			IC, MEMORY:CMOS, DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U254	156-3011-00			IC, MEMORY:CMOS, DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U256	156-3011-00			IC, MEMORY:CMOS, DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U262	156-3011-00			IC, MEMORY:CMOS, DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U264	156-3011-00			IC, MEMORY:CMOS, DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U266	156-3011-00			IC, MEMORY:CMOS, DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U284	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV *MOUNTING PARTS*	01295	SN74ALS245AN
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U288	160-6093-00			IC,DIGITAL:STTL,PLD;PAL,20L8,25NS,210MA *MOUNTING PARTS*	80009	160-6093-00

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	00779	2-641932-3
A9U294	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV *MOUNTING PARTS*	01295	SN74ALS245AN
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U312	156-2073-00			IC,DIGITAL:ASTTL,MUX;8-TO-1 DATA SELECTOR	01295	SN74AS151N
A9U318	156-2978-00			IC,MEMORY:NMOS,65536 X 4 DUAL PORT DRAM *MOUNTING PARTS*	80009	156297800
	136-0977-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.4 CTR,0.165 H X 0.125 TAIL,30 GOLD/TIN SLEEVE,ACCOM 0.017-0.022 LEAD *END MOUNTING PARTS*	63058	DIP 424-003B-F
A9U320	156-3011-00			IC,MEMORY:CMOS,DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U322	156-3011-00			IC,MEMORY:CMOS,DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U326	156-2978-00			IC,MEMORY:NMOS,65536 X 4 DUAL PORT DRAM *MOUNTING PARTS*	80009	156297800
	136-0977-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.4 CTR,0.165 H X 0.125 TAIL,30 GOLD/TIN SLEEVE,ACCOM 0.017-0.022 LEAD *END MOUNTING PARTS*	63058	DIP 424-003B-F
A9U328	156-2978-00			IC,MEMORY:NMOS,65536 X 4 DUAL PORT DRAM *MOUNTING PARTS*	80009	156297800
	136-0977-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.4 CTR,0.165 H X 0.125 TAIL,30 GOLD/TIN SLEEVE,ACCOM 0.017-0.022 LEAD *END MOUNTING PARTS*	63058	DIP 424-003B-F
A9U330	156-3011-00			IC,MEMORY:CMOS,DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U332	156-3011-00			IC,MEMORY:CMOS,DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U338	156-2978-00			IC,MEMORY:NMOS,65536 X 4 DUAL PORT DRAM *MOUNTING PARTS*	80009	156297800
	136-0977-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.4 CTR,0.165 H X 0.125 TAIL,30 GOLD/TIN SLEEVE,ACCOM 0.017-0.022 LEAD *END MOUNTING PARTS*	63058	DIP 424-003B-F
A9U348	156-2978-00			IC,MEMORY:NMOS,65536 X 4 DUAL PORT DRAM *MOUNTING PARTS*	80009	156297800
	136-0977-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.4 CTR,0.165 H X 0.125 TAIL,30 GOLD/TIN SLEEVE,ACCOM 0.017-0.022 LEAD *END MOUNTING PARTS*	63058	DIP 424-003B-F
A9U350	156-3011-00			IC,MEMORY:CMOS,DRAM;256K X 4, 120NS *MOUNTING PARTS*	TK1146	M5M44256BP-10
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3

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Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A9U352	156-3011-00			*END MOUNTING PARTS*		
				IC, MEMORY: CMOS, DRAM; 256K X 4, 120NS	TK1146	M5M44256BP-10
	136-0752-00			*MOUNTING PARTS*		
				SOCKET, DIP: PCB; FEMALE, STR, 2 X 10, 0.3 CTR, 0.210 H X 0.128 TAIL, TIN, PHOS BRONZE	00779	2-641602-3
A9U356	156-2978-00			*END MOUNTING PARTS*		
				IC, MEMORY: NMOS, 65536 X 4 DUAL PORT DRAM	80009	156297800
	136-0977-00			*MOUNTING PARTS*		
				SOCKET, DIP: PCB; 24 POS, 2 X 12, 0.1 X 0.4 CTR, 0.165 H X 0.125 TAIL, 30 GOLD/TIN SLEEVE, ACCOM 0.017-0.022 LEAD	63058	DIP 424-003B-F
A9U358	156-2978-00			*END MOUNTING PARTS*		
				IC, MEMORY: NMOS, 65536 X 4 DUAL PORT DRAM	80009	156297800
	136-0977-00			*MOUNTING PARTS*		
				SOCKET, DIP: PCB; 24 POS, 2 X 12, 0.1 X 0.4 CTR, 0.165 H X 0.125 TAIL, 30 GOLD/TIN SLEEVE, ACCOM 0.017-0.022 LEAD	63058	DIP 424-003B-F
A9U360	156-3011-00			*END MOUNTING PARTS*		
				IC, MEMORY: CMOS, DRAM; 256K X 4, 120NS	TK1146	M5M44256BP-10
	136-0752-00			*MOUNTING PARTS*		
				SOCKET, DIP: PCB; FEMALE, STR, 2 X 10, 0.3 CTR, 0.210 H X 0.128 TAIL, TIN, PHOS BRONZE	00779	2-641602-3
A9U362	156-3011-00			*END MOUNTING PARTS*		
				IC, MEMORY: CMOS, DRAM; 256K X 4, 120NS	TK1146	M5M44256BP-10
	136-0752-00			*MOUNTING PARTS*		
				SOCKET, DIP: PCB; FEMALE, STR, 2 X 10, 0.3 CTR, 0.210 H X 0.128 TAIL, TIN, PHOS BRONZE	00779	2-641602-3
A9U368	156-2978-00			*END MOUNTING PARTS*		
				IC, MEMORY: NMOS, 65536 X 4 DUAL PORT DRAM	80009	156297800
	136-0977-00			*MOUNTING PARTS*		
				SOCKET, DIP: PCB; 24 POS, 2 X 12, 0.1 X 0.4 CTR, 0.165 H X 0.125 TAIL, 30 GOLD/TIN SLEEVE, ACCOM 0.017-0.022 LEAD	63058	DIP 424-003B-F
A9U376	156-1962-00			*END MOUNTING PARTS*		
				IC, DIGITAL: FTTL, BFR; OCTAL NONINV BFR/DRVR, 3-STATE	04713	MC74F244N
A9U378	156-2260-00			*MOUNTING PARTS*		
				IC, DIGITAL: FTTL, MUX/ENCODER; DUAL 4-TO-1, 3-STATE	04713	MC74F253N
A9U382	156-1754-01			*END MOUNTING PARTS*		
				IC, DIGITAL: ALSTTL, BUFFER; OCTAL, 3-STATE	01295	SN74ALS244CN
A9U392	156-2098-00			*MOUNTING PARTS*		
				IC, DIGITAL: ALSTTL, COUNTER; SYNCH 4-BIT BINARY	01295	SN74ALS161BN
A9U394	156-1611-00			*END MOUNTING PARTS*		
				IC, DIGITAL: FTTL, FLIP FLOP; DUAL D-TYPE	04713	MC74F74N
A9U418	156-2978-00			*END MOUNTING PARTS*		
				IC, MEMORY: NMOS, 65536 X 4 DUAL PORT DRAM	80009	156297800
	136-0977-00			*MOUNTING PARTS*		
				SOCKET, DIP: PCB; 24 POS, 2 X 12, 0.1 X 0.4 CTR, 0.165 H X 0.125 TAIL, 30 GOLD/TIN SLEEVE, ACCOM 0.017-0.022 LEAD	63058	DIP 424-003B-F
A9U426	156-2978-00			*END MOUNTING PARTS*		
				IC, MEMORY: NMOS, 65536 X 4 DUAL PORT DRAM	80009	156297800
	136-0977-00			*MOUNTING PARTS*		
				SOCKET, DIP: PCB; 24 POS, 2 X 12, 0.1 X 0.4 CTR, 0.165 H X 0.125 TAIL, 30 GOLD/TIN SLEEVE, ACCOM 0.017-0.022 LEAD	63058	DIP 424-003B-F
A9U428	156-2978-00			*END MOUNTING PARTS*		
				IC, MEMORY: NMOS, 65536 X 4 DUAL PORT DRAM	80009	156297800
	136-0977-00			*MOUNTING PARTS*		
				SOCKET, DIP: PCB; 24 POS, 2 X 12, 0.1 X 0.4 CTR, 0.165 H X 0.125 TAIL, 30 GOLD/TIN SLEEVE, ACCOM 0.017-0.022 LEAD	63058	DIP 424-003B-F
A9U438	156-2978-00			*END MOUNTING PARTS*		
				IC, MEMORY: NMOS, 65536 X 4 DUAL PORT DRAM	80009	156297800
	136-0977-00			*MOUNTING PARTS*		
				SOCKET, DIP: PCB; 24 POS, 2 X 12, 0.1 X 0.4 CTR, 0.165 H X 0.125 TAIL, 30 GOLD/TIN SLEEVE, ACCOM 0.017-0.022 LEAD	63058	DIP 424-003B-F
A9U448	156-2978-00			*END MOUNTING PARTS*		
				IC, MEMORY: NMOS, 65536 X 4 DUAL PORT DRAM	80009	156297800
				MOUNTING PARTS		

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Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
	136-0977-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.4 CTR,0.165 H X 0.125 TAIL,30 GOLD/TIN SLEEVE,ACCOM 0.017-0.022 LEAD *END MOUNTING PARTS*	63058	DIP 424-003B-F
A9U456	156-2978-00			IC,MEMORY:NMOS,65536 X 4 DUAL PORT DRAM *MOUNTING PARTS*	80009	156297800
	136-0977-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.4 CTR,0.165 H X 0.125 TAIL,30 GOLD/TIN SLEEVE,ACCOM 0.017-0.022 LEAD *END MOUNTING PARTS*	63058	DIP 424-003B-F
A9U458	156-2978-00			IC,MEMORY:NMOS,65536 X 4 DUAL PORT DRAM *MOUNTING PARTS*	80009	156297800
	136-0977-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.4 CTR,0.165 H X 0.125 TAIL,30 GOLD/TIN SLEEVE,ACCOM 0.017-0.022 LEAD *END MOUNTING PARTS*	63058	DIP 424-003B-F
A9U468	156-2978-00			IC,MEMORY:NMOS,65536 X 4 DUAL PORT DRAM *MOUNTING PARTS*	80009	156297800
	136-0977-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.4 CTR,0.165 H X 0.125 TAIL,30 GOLD/TIN SLEEVE,ACCOM 0.017-0.022 LEAD *END MOUNTING PARTS*	63058	DIP 424-003B-F
A9U474	156-2260-00			IC,DIGITAL:FTTL,MUX/ENCODER;DUAL 4-TO-1,3-STATE	04713	MC74F253N
A9U476	156-2260-00			IC,DIGITAL:FTTL,MUX/ENCODER;DUAL 4-TO-1,3-STATE	04713	MC74F253N
A9U478	156-2260-00			IC,DIGITAL:FTTL,MUX/ENCODER;DUAL 4-TO-1,3-STATE	04713	MC74F253N
A9U494	156-3591-00			IC,DIGITAL:FTTL,MISC;DRAM CONTROLLER,W/ DUAL-PORT ARBITER	1CH66	N74F764-1N
	136-0757-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 20,40 POS,0.1 X 0.6 CTR,0.175 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015 X 0.014-0.022 IC	00779	2-641606-3
A9U524	160-6630-00	671-0533-02	671-0533-05	MICROCKT,DGTL:TTL,PRGM LOGIC ARRAY,PRGM PAL20L8-10,DIP24.3	80009	160663000
A9U524	160-6630-01	671-0533-06		IC,DIGITAL:CMOS,PLD;EPLD,20V8,10NS,115MA	80009	160663001
A9U524	160-6630-00	671-2607-00	671-2607-00	MICROCKT,DGTL:TTL,PRGM LOGIC ARRAY,PRGM PAL20L8-10,DIP24.3	80009	160663000
A9U524	160-6630-01	671-2607-01		IC,DIGITAL:CMOS,PLD;EPLD,20V8,10NS,115MA *MOUNTING PARTS*	80009	160663001
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	00779	2-641932-3
A9U528	160-6098-00			IC,DIGITAL:STTL,PLD;PAL,20L8,15NS,210MA	80009	160-6098-00
A9U532	156-2786-01			IC,DIGITAL:FCTCMOS,BUFFER;OCTAL,3-STATE	61772	IDT74FCT244AP
A9U536	156-2482-00			IC,DIGITAL:ASTTL,BFR/DRVR;INV OCTAL, DRVR, 3-STATE	01295	SN74AS240(NJ)
A9U544	160-6254-00			IC,DIGITAL:STTL,PLD;PAL,20L8,15NS,210MA *MOUNTING PARTS*	80009	160-6254-00
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	00779	2-641932-3
A9U548	156-1756-00			IC,DIGITAL:ALSTTL,FLIP FLOP;DUAL D-TYPE W/CLEAR	01295	SN74ALS74AN
A9U552	156-1974-00			IC,DIGITAL:FTTL,FLIP FLOP;DUAL J-K, NEG EDGE TRIG	04713	MC74F112N
A9U555	160-5097-00			IC,DIGITAL:STTL,PLD;PAL,22V10,35NS,18MHZ,180MA *MOUNTING PARTS*	80009	160509700
	136-0925-00			SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	00779	2-641932-3
A9U558	156-1754-01			IC,DIGITAL:ALSTTL,BUFFER;OCTAL,3-STATE	01295	SN74ALS244CN
A9U564	156-2786-01			IC,DIGITAL:FCTCMOS,BUFFER;OCTAL,3-STATE	61772	IDT74FCT244AP
A9U574	156-2339-00			IC,DIGITAL:ASTTL,GATE;QUAD 2-INPUT OR	01295	SN74AS32N
A9U576	156-2292-00			IC,DIGITAL:ALSTTL,TRANSCIEVER;OCTAL NONINV	01295	SN74ALS652NT
A9U578	156-2292-00			IC,DIGITAL:ALSTTL,TRANSCIEVER;OCTAL NONINV	01295	SN74ALS652NT

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Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A9U584	156-1756-00			IC,DIGITAL:ALSTTL,FLIP FLOP;DUAL D-TYPE W/CLEAR	01295	SN74ALS74AN
A9U586	156-2334-00			IC,DIGITAL:ALSTTL,COUNTER:SYNCH 4-BITUP/DWN BIN	01295	SN74ALS191N
A9U588	156-2334-00			IC,DIGITAL:ALSTTL,COUNTER:SYNCH 4-BITUP/DWN BIN	01295	SN74ALS191N
A9U592	156-2338-00			IC,DIGITAL:ASTTL,FLIP FLOP;DUAL D-TYPE	01295	SN74AS74N
A9U624	156-2389-00			IC,DIGITAL:ASTTL,CNTR:SYNCH 8-BIT UP/DWN, ASYNCH	01295	SN74AS867NT
A9U626	156-2389-00			IC,DIGITAL:ASTTL,CNTR:SYNCH 8-BIT UP/DWN, ASYNCH	01295	SN74AS867NT
A9U644	156-2389-00			IC,DIGITAL:ASTTL,CNTR:SYNCH 8-BIT UP/DWN, ASYNCH	01295	SN74AS867NT
A9U646	156-2323-00			IC,DIGITAL:ASTTL,GATE:HEX INVERTER	01295	SN74AS04N
A9U648	156-2601-00			IC,DIGITAL:HCMS,COUNTER;12-STAGE BINARY RIPPLE	OJR04	TC74HC4040P
A9U656	156-1919-00			IC,DIGITAL:FTTL,FLIP FLOP;DUAL J-K, PRESET	04713	MC74F109N
A9U666	156-1756-00			IC,DIGITAL:ALSTTL,FLIP FLOP;DUAL D-TYPE W/CLEAR	01295	SN74ALS74AN
A9U668	156-2543-00			IC,DIGITAL:LSTTL,COMPARATOR;8-BIT MAGNITUDE, WITH ENABLE	01295	SN74LS686NT
A9U674	160-5091-00	671-0533-02	671-0533-05	MICROCKT,DGTL:10 LOW OUT ARRAY LOGIC,PRGM	80009	160509100
A9U674	160-5091-01	671-0533-06		IC,DIGITAL:CMOS,PLD;PAL,22V10,15NS,45MHZ,180MA	80009	160509101
A9U674	160-5091-00	671-2607-00	671-2607-00	MICROCKT,DGTL:10 LOW OUT ARRAY LOGIC,PRGM	80009	160509100
A9U674	160-5091-01	671-2607-01		IC,DIGITAL:CMOS,PLD;PAL,22V10,15NS,45MHZ,180MA	80009	160509101
	136-0925-00			*MOUNTING PARTS* SOCKET,DIP:PCB;24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	00779	2-641932-3
A9U684	156-2334-00			IC,DIGITAL:ALSTTL,COUNTER:SYNCH 4-BITUP/DWN BIN	01295	SN74ALS191N
A9U686	156-1756-00			IC,DIGITAL:ALSTTL,FLIP FLOP;DUAL D-TYPE W/CLEAR	01295	SN74ALS74AN
A9U688	156-1754-01			IC,DIGITAL:ALSTTL,BUFFER;OCTAL,3-STATE	01295	SN74ALS244CN
A9U732	156-0733-02			IC,DIGITAL:LSTTL,MULTIVIBRATOR	01295	SN74LS221N
A9U734	160-6095-00			IC,DIGITAL:STTL,PLD;PAL,16R6,15NS,180MA	80009	160-6095-00
	136-0752-00			*END MOUNTING PARTS* SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U742	156-0733-02			IC,DIGITAL:LSTTL,MULTIVIBRATOR	01295	SN74LS221N
A9U754	156-1200-01			IC,LINEAR:BIFET,OP-AMP	01295	TL074CN
A9U762	156-2543-00			IC,DIGITAL:LSTTL,COMPARATOR;8-BIT MAGNITUDE, WITH ENABLE	01295	SN74LS686NT
A9U764	156-2493-00			IC, CONVERTER:CMOS,D/A;DUAL,8 BIT,180NS,CURRENT OUTPUT,MPU COMPATIBLE,MULTIPLYING	24355	AD7528JN
A9U766	156-1126-00			IC,LINEAR:BIPOLAR,COMPARATOR;OPEN COLL,200NS	01295	LM311P
A9U782	156-1754-01			IC,DIGITAL:ALSTTL,BUFFER;OCTAL,3-STATE	01295	SN74ALS244CN
A9U784	156-1998-00			IC,DIGITAL:ALSTTL,FLIP FLOP;OCTAL D-TYPE, W/CLEAR	01295	SN74ALS273N
A9U786	160-6096-00	671-0533-02	671-0533-05	MICROCKT,DGTL:LOW POWER,LOGIC ARRAY,PRGM PAL16L8A-4,DIP20	80009	160609600
A9U786	160-6096-01	671-0533-06		IC,DIGITAL:CMOS,PLD;EEPLD,16V8,15NS,90MA	80009	160609601
A9U786	160-6096-00	671-2607-00	671-2607-00	MICROCKT,DGTL:LOW POWER,LOGIC ARRAY,PRGM PAL16L8A-4,DIP20	80009	160609600
A9U786	160-6096-01	671-2607-01		IC,DIGITAL:CMOS,PLD;EEPLD,16V8,15NS,90MA	80009	160609601
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A9U788	156-1160-00			IC,LINEAR:BIPOLAR,VR:POSITIVE,12V,100MA,4%	27014	LM78L12ACH
A9U834	156-1754-01			IC,DIGITAL:ALSTTL,BUFFER;OCTAL,3-STATE	01295	SN74ALS244CN
A9U836	156-2098-00			IC,DIGITAL:ALSTTL,COUNTER:SYNCH 4-BITBINARY	01295	SN74ALS161BN
A9U838	156-3106-00			IC,DIGITAL:HCMS,COUNTER;14-STAGE BINARY RIPPLE	01295	SN74HC4020N
A9U848	156-1756-00			IC,DIGITAL:ALSTTL,FLIP FLOP;DUAL D-TYPE W/CLEAR	01295	SN74ALS74AN
A9U854	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER;OCTAL NONINV	01295	SN74ALS245AN
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
				END MOUNTING PARTS		
A9U856	156-1756-00			IC,DIGITAL:ALSTTL,FLIP FLOP:DUAL D-TYPE W/CLEAR	01295	SN74ALS74AN
A9U862	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER:OCTAL NONINV	01295	SN74ALS245AN
	136-0752-00			*MOUNTING PARTS*		
				SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A9U864	156-2456-00			IC,DIGITAL:LSTTL,COUNTER:8-BIT BINARY, WITH	01295	SN74LS592N
A9U866	156-2427-00			IC,DIGITAL:ALSTTL,GATE:HEX INV, OC	01295	SN74ALS05AN/J
A9U868	160-5092-00	671-0533-02	671-0533-05	MICROCKT,DGTL:10 LOW OUT ARRAY LOGIC,PRGM	80009	160509200
A9U868	160-5092-01	671-0533-06		IC,DIGITAL:CMOS,PLD;EEPLD,22V10,25NS,33.3MHZ,90MA	80009	160509201
A9U868	160-5092-00	671-2607-00	671-2607-00	MICROCKT,DGTL:10 LOW OUT ARRAY LOGIC,PRGM	80009	160509200
A9U868	160-5092-01	671-2607-01		IC,DIGITAL:CMOS,PLD;EEPLD,22V10,25NS,33.3MHZ,90MA	80009	160509201
	136-0925-00			*MOUNTING PARTS*		
				SOCKET,DIP:PCB:24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS	00779	2-641932-3
				END MOUNTING PARTS		
A9U912	156-1160-00			IC,LINEAR:BIPOLAR,VR:POSITIVE,12V,100MA,4%	27014	LM78L12ACH
A9U922	156-1207-00			IC,LINEAR:BIPOLAR,VR:NEGATIVE,-12V,500MA,3%	27014	LM320H-12
A9U946	160-6097-00	671-0533-02	671-0533-05	MICROCKT,DGTL:QUAD,LOGIC ARRAY,PRGMPAL16R4A-4	80009	160609700
A9U946	160-6097-01	671-0533-06		IC,DIGITAL:CMOS,PLD;EEPLD,16V8,25NS,90MA	80009	160609701
A9U946	160-6097-00	671-2607-00	671-2607-00	MICROCKT,DGTL:QUAD,LOGIC ARRAY,PRGMPAL16R4A-4	80009	160609700
A9U946	160-6097-01	671-2607-01		IC,DIGITAL:CMOS,PLD;EEPLD,16V8,25NS,90MA	80009	160609701
	136-0752-00			*MOUNTING PARTS*		
				SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A9U952	156-1915-00			IC,PROCESSOR:NMOS,MICROPROCESSOR:16-BITWITH	80009	156191500
	136-0751-00			SOCKET,DIP:PCB:STR,2 X 12,24 POS,0.1 X 0.608-0.015 X 0.014-0.022 LEADS	00779	2-641604-3
A9U956	156-2096-00			IC,DIGITAL:ALSTTL,FLIP FLOP:QUAD D-TYPE, W/CLEAR	01295	SN74ALS175N
A9U982	156-1842-00			IC,MEMORY:CMOS,SRAM:8K X 8,150NS,OE	62786	HM6264AP-10
	136-0755-00			*MOUNTING PARTS*		
				SOCKET,DIP:PCB:FEMALE,STR,2 X 14,28 POS,0.1 X 0.6 CTR,0.175 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.0015 X 0.014-0.022	00779	2-641605-3
				END MOUNTING PARTS		
A9U986	160-5099-05			MICROCKT,DGTL:CMOS,65536 X 8 EPROM,W/3 STATE OUT,PRGM,27C512,DIP28	80009	160509905
	136-0755-00			*MOUNTING PARTS*		
				SOCKET,DIP:PCB:FEMALE,STR,2 X 14,28 POS,0.1 X 0.6 CTR,0.175 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.0015 X 0.014-0.022	00779	2-641605-3
				END MOUNTING PARTS		
A9Y396	119-1413-00			OSC,XTAL CLOCK:20.0MHZ, +/-0.05 %, TTL, 4PIN 14 PIN DIP COMPATIBLE	14301	AE 404-417
A9Y638	119-1953-00			OSC,XTAL CLOCK:TTL:25 MHZ,0.01%,0-70 DEGC,14 PIN DIP COMPATIBLE,0.110 L 0.020 DIA LEADS	TK2424	RASCO PLUS 25.0
A9Y932	119-1897-00			OSCILLATOR,RF:XTAL CONTROLLED,8.00MHZ,0.01%	61429	F1100H 8.000 MH

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A10	672-1299-03	B022000	B022805	CIRCUIT BD ASSY:FRONT PANEL	80009	672129903
A10	672-1299-04	B022806	B030246	CIRCUIT BD ASSY:FRONT PANEL	80009	672129904
A10	672-1299-05	B030247	B030499	CIRCUIT BD ASSY:FRONT PANEL	80009	672129905
A10	672-1299-06	B030500		CIRCUIT BD ASSY:FRONT PANEL	80009	672129906
A10A1	-----			CIRCUIT BD ASSY:FRONT PANEL (FOR REPLACEMENT SEE A10)		
A10A1C172	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C182	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C242	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C316	281-0775-01	672-1299-00	672-1299-04	CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C328	283-0167-00	672-1299-00	672-1299-04	CAP,FXD,CER DI:0.1UF,10%,100V	04222	SR211C104KAA
A10A1C328	131-0566-00	672-1299-05		BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A10A1C332	283-0692-00	672-1299-00	672-1299-04	CAP,FXD,MICA DI:670PF,1%,300V	TK0891	RDM15FC671F03
A10A1C340	283-0785-00	672-1299-03	672-1299-05	CAP,FXD,MICA DI:250PF,1%,500V	TK0891	RDM15FD251F03
A10A1C340	283-0645-00	672-1299-06		CAP,FXD,MICA DI:790PF,1%,300V	TK0891	RDM15FC791F03
A10A1C342	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C345	283-0260-00			CAP,FXD,CER DI:5.6PF,+/-0.25PF,200V	04222	SR152A5R6CAA
A10A1C355	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C372	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C386	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C413	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C426	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C428	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C446	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C453	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C458	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C472	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C476	283-0169-00			CAP,FXD,CER DI:0.022UF,10%,200V	04222	SR302C223KAA
A10A1C486	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C513	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C526	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C528	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C541	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C553	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A10A1C554	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A10A1C573	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C586	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C613	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C626	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C628	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C641	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C659	281-0809-00			CAP,FXD,CERAMIC:MCL:200 PF,5%,100V,0.100 X0.170	04222	SA101A201JAA
A10A1C669	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C713	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C726	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C728	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C741	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C744	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A10A1C748	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C760	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C763	281-0809-00			CAP,FXD,CERAMIC:MCL:200 PF,5%,100V,0.100 X0.170	04222	SA101A201JAA
A10A1C766	283-0169-00			CAP,FXD,CER DI:0.022UF,10%,200V	04222	SR302C223KAA
A10A1C773	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C780	285-1340-00			CAP,FXD,PLASTIC:METALIZED FILM:0.01UF,10%,63V, POLYESTER,7.2 X .7MM	TK1913	MKS2 .01/63/10
A10A1C782	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C819	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C821	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A10A1C860	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C865	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C879	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C885	290-0966-00			CAP,FXD,ALUM:220UF,20%,25V,ESR=1.06 OHM (120HZ,20C)	55680	TVXIE221MAA
A10A1C888	290-1107-00			CAP,FXD,ALUM:10UF,20%,50V;6 X 12 MM,AXIAL	2N936	516D106M063JL7B
A10A1C890	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C895	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A10A1C899	283-0479-00			CAP,FXD,CER DI:0.47UF,+80-20%,25VDIP STYLE	04222	MD025E474ZAB
A10A1C952	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C958	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1C968	283-0555-00			CAP,FXD,MICA DI:2000PF,1%,500V	TK0891	RDM19FD202F03
A10A1C977	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A1CR126	152-0333-00			DIODE,SIG:ULTRA FAST;80V,4NS,1VF AT200MA,2.OPF	12969	NDP261
A10A1CR339	152-0581-00	672-1299-00	672-1299-04	DIODE,RECT:SCHTKY;20V,1A,.450VF,25A IFSM	04713	1N5817
A10A1CR339	322-3284-00	672-1299-05		RES,FXD,FILM:8.87K OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF501G88700F
A10A1CR439	152-0333-00			DIODE,SIG:ULTRA FAST;80V,4NS,1VF AT200MA,2.OPF	12969	NDP261
A10A1CR441	152-0333-00			DIODE,SIG:ULTRA FAST;80V,4NS,1VF AT200MA,2.OPF	12969	NDP261
A10A1CR570	152-0333-00			DIODE,SIG:ULTRA FAST;80V,4NS,1VF AT200MA,2.OPF	12969	NDP261
A10A1CR571	152-0333-00			DIODE,SIG:ULTRA FAST;80V,4NS,1VF AT200MA,2.OPF	12969	NDP261
A10A1CR822	152-0964-00			DIODE,SIG:ULTRA FAST;ARRAY,6 COM CATH/COMANODE PAIR,12 DIODES,50V,200MA,4NS,2.5PF	TK2262	DM 308BT100SP-4
A10A1CR842	152-0964-00			DIODE,SIG:ULTRA FAST;ARRAY,6 COM CATH/COMANODE PAIR,12 DIODES,50V,200MA,4NS,2.5PF	TK2262	DM 308BT100SP-4
A10A1CR922	152-0964-00			DIODE,SIG:ULTRA FAST;ARRAY,6 COM CATH/COMANODE PAIR,12 DIODES,50V,200MA,4NS,2.5PF	TK2262	DM 308BT100SP-4
A10A1CR942	152-0964-00			DIODE,SIG:ULTRA FAST;ARRAY,6 COM CATH/COMANODE PAIR,12 DIODES,50V,200MA,4NS,2.5PF	TK2262	DM 308BT100SP-4
A10A1DS411	150-1077-00			LT EMITTING DIO:RED,650NM,40MA MAX	05464	LL201R
A10A1F890	159-0208-00			FUSE,WIRE LEAD:2A,125V,5 SEC	61857	SP5-2A
A10A1J159	174-0923-00			CA ASSY,SP:FLAT FLEX:FLX,25,27 AWG,0.050 CTR,2.0 L,RTANG STAGGERED PCB ON BOTH ENDS	TK2469	174-0923-00
A10A1J933	131-2401-00			CORN,HDR:PCB:MALE,STR,2 X 25.0.1 CTR,0.230	58050	082-2544-SD10
A10A1LS111	119-2520-00			TRANSDUCER:AUDIO,2.2KHZ,W/DRIVE CKT	63791	HMB-06
A10A1P695	174-0838-00			CA ASSY,SP,ELEC:34,30 AWG,9.2 L,RIBBON	TK1462	ORDER BY DESC
A10A1Q228	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN:40V,200MA,300MHZ,AMPL	0JR04	2N3904
A10A1Q646	151-0103-00			TRANSISTOR,SIG:BIPOLAR,NPN:40V,800MA,300MHZ,AMPL	04713	2N2219A
A10A1Q654	151-0134-00			TRANSISTOR,SIG:BIPOLAR,PNP:60V,600MA,200MHZ,AMPL	04713	2N2905A
A10A1R123	311-0978-00	672-1299-00	672-1299-04	RES,VAR,NONWW:TRMR,250 OHM,0.5W CERMET	32997	3329H-K28-251
A10A1R127	315-0103-00	672-1299-00	672-1299-04	RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A10A1R127	322-3289-00	672-1299-05		RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A10A1R223	322-3179-00	672-1299-00	672-1299-04	RES,FXD,FILM:715 OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 715E
A10A1R265	315-0563-00	672-1299-03	672-1299-03	RES,FXD,FILM:56K OHM,5%,0.25W TELEQ,MI	50139	CB5635
A10A1R265	315-0823-00	672-1299-04		RES,FXD,FILM:82K OHM,5%,0.25W MI	50139	CB8235
A10A1R267	315-0563-00	672-1299-03	672-1299-03	RES,FXD,FILM:56K OHM,5%,0.25W TELEQ,MI	50139	CB5635
A10A1R267	315-0823-00	672-1299-04		RES,FXD,FILM:82K OHM,5%,0.25W MI	50139	CB8235
A10A1R315	321-0274-00	672-1299-00	672-1299-04	RES,FXD,FILM:6.98K OHM,1%,0.125W,TC=T0MI	50139	ADVISE
A10A1R329	322-3193-07	672-1299-00	672-1299-04	RES,FXD,FILM:1K OHM,0.1%,0.2W,TC=T9 MI,SMALL BODY	91637	CCF501C10000B
A10A1R330	322-3193-07	672-1299-00	672-1299-04	RES,FXD,FILM:1K OHM,0.1%,0.2W,TC=T9 MI,SMALL BODY	91637	CCF501C10000B
A10A1R336	315-0242-00	672-1299-00	672-1299-04	RES,FXD,FILM:2.4K OHM,5%,0.25W MI	50139	CB2425
A10A1R336	322-3289-00	672-1299-05		RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A10A1R338	315-0202-00	672-1299-00	672-1299-04	RES,FXD,FILM:2K OHM,5%,0.25W MI	50139	CB2025
A10A1R338	322-3284-00	672-1299-05		RES,FXD,FILM:8.87K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 8K87
A10A1R343	315-0682-00			RES,FXD,FILM:6.8K OHM,5%,0.25W MI	50139	CB6825
A10A1R345	315-0391-00			RES,FXD,FILM:390 OHM,5%,0.25W MI	50139	CB3915
A10A1R443	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A10A1R444	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A10A1R511	315-0331-00			RES,FXD,FILM:330 OHM,5%,0.25W MI	50139	CB3315
A10A1R546	315-0391-00			RES,FXD,FILM:390 OHM,5%,0.25W MI	50139	CB3915

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A10A1R547	315-0682-00			RES,FXD,FILM:6.8K OHM,5%,0.25W MI	50139	CB6825
A10A1R548	315-0223-00	672-1299-00	672-1299-04	RES,FXD,FILM:22K OHM,5%,0.25W MI	50139	CB2235
A10A1R549	315-0333-00	672-1299-00	672-1299-04	RES,FXD,FILM:33K OHM,5%,0.25W MI	50139	CB3335
A10A1R549	131-0566-00	672-1299-05		BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	24546	OMA0207
A10A1R550	315-0220-00			RES,FXD,FILM:22 OHM,5%,0.25W MI	50139	CB2205
A10A1R562	315-0182-00			RES,FXD,FILM:1.8K OHM,5%,0.25W MI	50139	CB1825
A10A1R564	315-0302-00			RES,FXD,FILM:3K OHM,5%,0.25W MI	50139	CB3025
A10A1R568	315-0562-00			RES,FXD,FILM:5.6K OHM,5%,0.25W MI	50139	CB5625
A10A1R569	315-0221-00			RES,FXD,FILM:220 OHM,5%,0.25W,MI	50139	CB2215
A10A1R572	321-0929-07			RES,FXD,FILM:2.5K OHM,0.1%,0.125W,TC=T9	07716	CEAE25000B
A10A1R574	321-0926-07			RES,FXD,FILM:4K OHM,0.1%,0.125W,TC=T9MI	07716	CEAE40000B
A10A1R575	321-0239-07			RES,FXD,FILM:3.01K OHM,0.1%,0.125W,TC=T9MI	07716	CEAE30100B
A10A1R576	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W MI	50139	CB4715
A10A1R580	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A10A1R648	307-0103-00			RES,FXD,CMPSPN:2.7 OHM,5%,0.25W MI	50139	CB27G5
A10A1R649	307-0103-00			RES,FXD,CMPSPN:2.7 OHM,5%,0.25W MI	50139	CB27G5
A10A1R680	322-3289-07			RES,FXD,FILM:10K OHM,0.1%,0.2W,TC=T9,T&R,SM BODY	91637	CCF501C10001B
A10A1R742	315-0220-00			RES,FXD,FILM:22 OHM,5%,0.25W MI	50139	CB2205
A10A1R761	315-0133-00			RES,FXD,FILM:13K OHM,5%,0.25W MI	50139	CB1335
A10A1R762	315-0133-00			RES,FXD,FILM:13K OHM,5%,0.25W MI	50139	CB1335
A10A1R764	315-0331-00			RES,FXD,FILM:330 OHM,5%,0.25W MI	50139	CB3315
A10A1R765	315-0273-00			RES,FXD,FILM:27K OHM,5%,0.25W MI	50139	CB2735
A10A1R768	321-0239-07			RES,FXD,FILM:3.01K OHM,0.1%,0.125W,TC=T9MI	07716	CEAE30100B
A10A1R769	321-0239-07			RES,FXD,FILM:3.01K OHM,0.1%,0.125W,TC=T9MI	07716	CEAE30100B
A10A1R770	321-0816-07			RES,FXD,FILM:5K OHM,0.1%,0.125W,TC=T9MI	TK1727	MPR24-2322-141-5K000
A10A1R771	321-0816-07			RES,FXD,FILM:5K OHM,0.1%,0.125W,TC=T9MI	TK1727	MPR24-2322-141-5K000
A10A1R772	321-0816-07			RES,FXD,FILM:5K OHM,0.1%,0.125W,TC=T9MI	TK1727	MPR24-2322-141-5K000
A10A1R774	321-0816-07			RES,FXD,FILM:5K OHM,0.1%,0.125W,TC=T9MI	TK1727	MPR24-2322-141-5K000
A10A1R775	315-0391-00			RES,FXD,FILM:390 OHM,5%,0.25W MI	50139	CB3915
A10A1R776	315-0391-00			RES,FXD,FILM:390 OHM,5%,0.25W MI	50139	CB3915
A10A1R864	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A10A1T558	120-1640-00			TRANSFORMER,RF:Z60316T#31 BIFILAR 8T #31	0JR03	120-1640-00
A10A1TP195	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A10A1TP311	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A10A1TP315	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A10A1TP342	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A10A1TP345	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A10A1TP358	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A10A1TP455	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A10A1TP558	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A10A1TP562	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A10A1TP568	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A10A1TP580	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A10A1TP582	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A10A1TP658	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A10A1TP862	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A10A1TP919	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A10A1TP962	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A10A1TP990	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A10A1U144	156-1998-00			IC,DIGITAL:ALSTTL,FLIP FLOP;OCTAL D-TYPE, W/CLEAR	01295	SN74ALS273N
A10A1U175	156-2392-00			IC,DIGITAL:HCMOS,GATE:HEX INV, SCHMITT TRIG	04713	MC74HC14AN
A10A1U185	156-2094-00			IC,DIGITAL:ALSTTL,GATE:HEX INV	01295	SN74ALS04BN
A10A1U321	156-3074-01	672-1299-00	672-1299-04	IC,MISC:BIPOLAR,WAVEFORM GEN;SINE,SQ,TRIANGLE	80009	156307401
A10A1U346	156-1367-00			IC,CONVERTER:CMOS,D/A:8 BIT,400NS,CURRENT OUT,MPU COMPATIBLE,MULTIPLYING	24355	AD7524JN
A10A1U362	156-3509-00			IC,DIGITAL:FTTL,COUNTER;SYNCH 8-BIT UP/DOWN	1CH66	N74F1779N
A10A1U376	160-6100-00			MICROCKT,DGTL:STTL,OCTAL 16 INP RGTR,PRGM *MOUNTING PARTS*	80009	160610000
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A10A1U392	156-2100-00			IC,DIGITAL:ALSTTL,DEMUX/DECODER:3-TO-8 LINE	01295	SN74ALS138AN
A10A1U421	156-3166-00			IC,MISC:CMOS,ANALOG SW:DUAL DPST,55 OHM,+/-15V	1ES66	DG405DJ/C30251
A10A1U432	156-2092-00	672-1299-03	672-1299-03	IC,DIGITAL:ALSTTL,GATE:QUAD 2-INPUT NOR	01295	SN74ALS02AN
A10A1U432	156-3626-00	672-1299-04		IC,DIGITAL:HCTCMOS,GATE:QUAD 2-INPUT NOR	01295	SN74HCT02N
A10A1U446	156-2873-00			IC,LINEAR:BIFET,OP-AMP;DUAL	04713	MC34082P
A10A1U462	156-1754-01			IC,DIGITAL:ALSTTL,BUFFER;OCTAL,3-STATE	01295	SN74ALS244CN
A10A1U476	156-2347-00			IC,CONVERTER:TTL,A/D:10-BIT,200US,SAR,MPU COMPATIBLE,BYTE OUTPUT	27014	ADC1001CCJ-1
A10A1U492	156-2100-00			IC,DIGITAL:ALSTTL,DEMUX/DECODER:3-TO-8 LINE	01295	SN74ALS138AN
A10A1U521	156-3166-00			IC,MISC:CMOS,ANALOG SW:DUAL DPST,55 OHM,+/-15V	1ES66	DG405DJ/C30251
A10A1U532	156-3166-00			IC,MISC:CMOS,ANALOG SW:DUAL DPST,55 OHM,+/-15V	1ES66	DG405DJ/C30251
A10A1U592	156-2100-00			IC,DIGITAL:ALSTTL,DEMUX/DECODER:3-TO-8 LINE	01295	SN74ALS138AN
A10A1U621	156-3166-00			IC,MISC:CMOS,ANALOG SW:DUAL DPST,55 OHM,+/-15V	1ES66	DG405DJ/C30251
A10A1U632	156-3166-00			IC,MISC:CMOS,ANALOG SW:DUAL DPST,55 OHM,+/-15V	1ES66	DG405DJ/C30251
A10A1U662	156-0407-00			IC,MISC:BIPOLAR,MULTIPLIER;FOUR QUADRANT	80009	156040700
A10A1U674	156-2817-00			IC,LINEAR:BIFET,OP-AMP;QUAD	04713	MC34084P
A10A1U684	156-1225-00			IC,LINEAR:BIPOLAR,COMPTR;DUAL,OPEN COLL,300NS	01295	LM393P
A10A1U721	156-3166-00			IC,MISC:CMOS,ANALOG SW:DUAL DPST,55 OHM,+/-15V	1ES66	DG405DJ/C30251
A10A1U732	156-3166-00			IC,MISC:CMOS,ANALOG SWH:DUAL DPST,55 OHM,+/-15V	1ES66	DG405DJ/C30251
A10A1U755	156-3166-00			IC,MISC:CMOS,ANALOG SW:DUAL DPST,55 OHM,+/-15V	1ES66	DG405DJ/C30251
A10A1U855	156-3166-00			IC,MISC:CMOS,ANALOG SW:DUAL DPST,55 OHM,+/-15V	1ES66	DG405DJ/C30251
A10A1U870	156-3311-00			IC,MISC:CMOS,ANALOG SWITCH;QUAD,HIGH SPEED ML	17856	DG271CJ
A10A1VR928	152-0243-00			DIODE,ZENER:15V,5%,0.4W	04713	SZ13203 (1N965B)
A10A1VR929	152-0243-00			DIODE,ZENER:15V,5%,0.4W	04713	SZ13203 (1N965B)
A10A2	-----			CIRCUIT BD ASSY:KEY (FOR REPLACEMENT SEE A10)		
A10A2C152	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A2C344	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A2C360	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A2C460	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A2C532	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A2C544	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A10A2C560	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A10A2DS142	150-1029-00			DIODE,OPTO:LED:GRN,565NM,1MCD AT 20MA,3.0VF AT 20MA,T-1 3/4 *MOUNTING PARTS*	OMS63	MV5474C.6480
	352-0866-00	672-1299-03	672-1299-06	HOLDER,LED:DUAL	OKBZ5	ORDER BY DESC
	352-0866-01	672-1299-06		HOLDER,LED:DUAL (QUANTITY 1 AT DS142/DS144) *END MOUNTING PARTS*	OKBZ5	352-0866-01
A10A2DS144	150-1064-00			LT EMITTING DIO:YELLOW,585NM,40 MA MAX	OMS63	MV5374C
A10A2DS242	150-1029-00			DIODE,OPTO:LED:GRN,565NM,1MCD AT 20MA,3.0VF AT 20MA,T-1 3/4 *MOUNTING PARTS*	OMS63	MV5474C.6480
	352-0866-00			HOLDER,LED:DUAL (QUANTITY 1 AT DS242/DS244) *END MOUNTING PARTS*	OKBZ5	ORDER BY DESC
A10A2DS244	150-1064-00			LT EMITTING DIO:YELLOW,585NM,40 MA MAX	OMS63	MV5374C
A10A2R140	307-0738-00			RES NTWK,FXD,FI:10,270 OHM,2%,0.19 EACH	91637	CSC11B-1-271G
A10A2R160	307-0862-00			RES NTWK,FXD,FI:9,18K OHM,2%,0.15W EACH	11236	750-101-R18K OR
A10A2R420	307-0738-00			RES NTWK,FXD,FI:10,270 OHM,2%,0.19 EACH	91637	CSC11B-1-271G
A10A2R440	307-0862-00			RES NTWK,FXD,FI:9,18K OHM,2%,0.15W EACH	11236	750-101-R18K OR
A10A2R540	307-0862-00			RES NTWK,FXD,FI:9,18K OHM,2%,0.15W EACH	11236	750-101-R18K OR
A10A2S110	260-2384-00			SWITCH,PUSH:SPST;MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP *ATTACHED PARTS*	TK1857	HL20-LSR
	366-0671-00			PUSH BUTTON:W/LENS,HL20-1101 *END ATTACHED PARTS*	TK1857	HL20-1101
A10A2S120	260-2384-00			SWITCH,PUSH:SPST;MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP *ATTACHED PARTS*	TK1857	HL20-LSR
	366-0671-00			PUSH BUTTON:W/LENS,HL20-1101 *END ATTACHED PARTS*	TK1857	HL20-1101
A10A2S130	260-2384-00			SWITCH,PUSH:SPST;MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP *ATTACHED PARTS*	TK1857	HL20-LSR
	366-0671-00			PUSH BUTTON:W/LENS,HL20-1101 *END ATTACHED PARTS*	TK1857	HL20-1101
A10A2S150	260-2384-00			SWITCH,PUSH:SPST;MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP *ATTACHED PARTS*	TK1857	HL20-LSR
	366-0672-00			PUSH BUTTON:W/O LENS,HL20-0101 *END ATTACHED PARTS*	TK1857	HL20-0101
A10A2S160	260-2384-00			SWITCH,PUSH:SPST;MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP *ATTACHED PARTS*	TK1857	HL20-LSR
	366-0672-00			PUSH BUTTON:W/O LENS,HL20-0101 *END ATTACHED PARTS*	TK1857	HL20-0101
A10A2S210	260-2384-00			SWITCH,PUSH:SPST;MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP *ATTACHED PARTS*	TK1857	HL20-LSR
	366-0671-00			PUSH BUTTON:W/LENS,HL20-1101 *END ATTACHED PARTS*	TK1857	HL20-1101
A10A2S220	260-2384-00			SWITCH,PUSH:SPST;MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP *ATTACHED PARTS*	TK1857	HL20-LSR
	366-0671-00			PUSH BUTTON:W/LENS,HL20-1101 *END ATTACHED PARTS*	TK1857	HL20-1101
A10A2S230	260-2384-00			SWITCH,PUSH:SPST;MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP *ATTACHED PARTS*	TK1857	HL20-LSR
	366-0671-00			PUSH BUTTON:W/LENS,HL20-1101	TK1857	HL20-1101

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A10A2S250	260-2384-00			*END ATTACHED PARTS* SWITCH,PUSH:SPST:MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP	TK1857	HL20-LSR
	366-0672-00			*ATTACHED PARTS* PUSH BUTTON:W/O LENS,HL20-0101	TK1857	HL20-0101
A10A2S260	260-2384-00			*END ATTACHED PARTS* SWITCH,PUSH:SPST:MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP	TK1857	HL20-LSR
	366-0672-00			*ATTACHED PARTS* PUSH BUTTON:W/O LENS,HL20-0101	TK1857	HL20-0101
A10A2S310	260-2384-00			*END ATTACHED PARTS* SWITCH,PUSH:SPST:MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP	TK1857	HL20-LSR
	366-0671-00			*ATTACHED PARTS* PUSH BUTTON:W/LENS,HL20-1101	TK1857	HL20-1101
A10A2S320	260-2384-00			*END ATTACHED PARTS* SWITCH,PUSH:SPST:MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP	TK1857	HL20-LSR
	366-0671-00			*ATTACHED PARTS* PUSH BUTTON:W/LENS,HL20-1101	TK1857	HL20-1101
A10A2S330	260-2384-00			*END ATTACHED PARTS* SWITCH,PUSH:SPST:MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP	TK1857	HL20-LSR
	366-0671-00			*ATTACHED PARTS* PUSH BUTTON:W/LENS,HL20-1101	TK1857	HL20-1101
A10A2S340	260-2384-00			*END ATTACHED PARTS* SWITCH,PUSH:SPST:MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP	TK1857	HL20-LSR
	366-0671-00			*ATTACHED PARTS* PUSH BUTTON:W/LENS,HL20-1101	TK1857	HL20-1101
A10A2S410	260-2384-00			*END ATTACHED PARTS* SWITCH,PUSH:SPST:MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP	TK1857	HL20-LSR
	366-0671-00			*ATTACHED PARTS* PUSH BUTTON:W/LENS,HL20-1101	TK1857	HL20-1101
A10A2S420	260-2384-00			*END ATTACHED PARTS* SWITCH,PUSH:SPST:MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP	TK1857	HL20-LSR
	366-0671-00			*ATTACHED PARTS* PUSH BUTTON:W/LENS,HL20-1101	TK1857	HL20-1101
A10A2S430	260-2384-00			*END ATTACHED PARTS* SWITCH,PUSH:SPST:MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP	TK1857	HL20-LSR
	366-0671-00			*ATTACHED PARTS* PUSH BUTTON:W/LENS,HL20-1101	TK1857	HL20-1101
A10A2S450	311-2193-00			*END ATTACHED PARTS* ENCODER,DIGITAL:INCREMENTAL,2 CHAN,50PPR/CH	61058	EWT-XAK01950B
A10A2S510	260-2384-00			*END ATTACHED PARTS* SWITCH,PUSH:SPST:MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP	TK1857	HL20-LSR
	366-0671-00			*ATTACHED PARTS* PUSH BUTTON:W/LENS,HL20-1101	TK1857	HL20-1101
A10A2S520	260-2384-00			*END ATTACHED PARTS* SWITCH,PUSH:SPST:MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP	TK1857	HL20-LSR
	366-0671-00			*ATTACHED PARTS* PUSH BUTTON:W/LENS,HL20-1101	TK1857	HL20-1101
A10A2S530	260-2384-00			*END ATTACHED PARTS* SWITCH,PUSH:SPST:MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,RED LED,W/KEYCAP	TK1857	HL20-LSR

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
				ATTACHED PARTS		
	366-0671-00			PUSH BUTTON:W/LENS,HL20-1101	TK1857	HL20-1101
				END ATTACHED PARTS		
A10A2U154	156-3113-00			IC,DIGITAL:HCMOS;BUFFER	OJR04	TC74HC240AP
A10A2U362	156-1998-00			IC,DIGITAL:ALSTTL,FLIP FLOP;OCTAL D-TYPE, W/CLEAR	01295	SN74ALS273N
A10A2U440	156-3113-00			IC,DIGITAL:HCMOS;BUFFER	OJR04	TC74HC240AP
A10A2U462	156-1998-00			IC,DIGITAL:ALSTTL,FLIP FLOP;OCTAL D-TYPE, W/CLEAR	01295	SN74ALS273N
A10A2U540	156-3113-00			IC,DIGITAL:HCMOS;BUFFER	OJR04	TC74HC240AP
A10A2U562	156-1998-00			IC,DIGITAL:ALSTTL,FLIP FLOP;OCTAL D-TYPE, W/CLEAR	01295	SN74ALS273N
A10A1A1	-----	672-1299-05		CIRCUIT BD ASSY:OSCILLATOR (FOR REPLACEMENT SEE A10)		
				ATTACHED PARTS		
	131-0590-00			TERMINAL,PIN:PCB/PRESSFIT;MALE,STR,0.025 SQ,0.573 MLG X 0.137 TAIL,0.710 L,PHOS BRZ,50 GOLD,W/FERRULE (QUANTITY 14)	22526	47351-000
	214-1721-00			PIN,SPRING:0.375 L X 0.069,CS CD PL (QUANTITY 4)	0KB01	214-1721-00
	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
				END ATTACHED PARTS		
A10A1A1C300	283-0203-00	672-1299-05		CAP,FXD,CER DI:0.47UF,20%,50V	04222	SR305C474MAA
A10A1A1C302	283-0647-00	672-1299-05		CAP,FXD,MICA DI:70PF,1%,100V	TK0891	RDM15ED700F03
A10A1A1C304	283-0647-00	672-1299-05		CAP,FXD,MICA DI:70PF,1%,100V	TK0891	RDM15ED700F03
A10A1A1C306	283-0111-00	672-1299-05		CAP,FXD,CER DI:0.1UF,20%,50V	04222	SR215C104MAA
A10A1A1CR310	152-0195-00	672-1299-05		DIODE,ZENER:5.1V,5%,0.4W	14552	CD332125
A10A1A1CR312	152-0195-00	672-1299-05		DIODE,ZENER:5.1V,5%,0.4W	14552	CD332125
A10A1A1R300	311-1920-00	672-1299-05		RES,VAR,NONWWW:TRMR,500 OHM,10%,0.5 W LIN CERMET	32997	3386C-1-501
A10A1A1R302	322-3346-00	672-1299-05		RES,FXD:METAL FILM:39.2K OHM,1%,0.2W,TC=100	91637	CCF50-2-G39201F
A10A1A1R304	322-3243-00	672-1299-05		RES,FXD:METAL FILM:3.32K OHM,1%,0.2W,TC=100	91637	CCF50-1-G33200F
A10A1A1R306	322-3385-00	672-1299-05		RES,FXD:METAL FILM:100K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10002F
A10A1A1R308	322-3269-00	672-1299-05		RES,FXD,FILM:6.19K OHM,1%,0.2W,TC=TOMI,SMALL BODY	91637	CCF501G61900F
A10A1A1R310	322-3306-00	672-1299-05		RES,FXD:METAL FILM:15K OHM,1%,0.2W,TC=100 PPM	91637	CCF50-2-G1502F
A10A1A1R316	322-3484-00	672-1299-05		RES,FXD,FILM:600 OHM,1%,0.2W,TC=TOSMALL BODY	91637	CCF501G600R0F
A10A1A1R318	311-1920-00	672-1299-05		RES,VAR,NONWWW:TRMR,500 OHM,10%,0.5 W LIN CERMET	32997	3386C-1-501
A10A1A1R320	322-3231-00	672-1299-05		RES,FXD,FILM:2.49K OHM,1%,0.2W,TC=TOMI,SMALL BODY	91637	CCF50-1G24900F
A10A1A1U320	156-2873-00	672-1299-05		IC,LINEAR:BIFET,OP-AMP;DUAL	04713	MC34082P

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A11	672-1298-00			CIRCUIT BD ASSY:MOTHER *ATTACHED PARTS*	80009	672129800
	129-0208-00			SPCR,POST:0.312 L,6-32 STUD,BRS,ALBALOY PL,0.25 HEX (QUANTITY 6)	80009	129020800
	174-0841-00			CA ASSY,SP,ELEC:10,18 AWG,4.88 L,RIBBON SAF CONT	9M860	ORDER BY DESC
	196-3165-00			LEAD,ELECTRICAL:12 AWG,4.4 L,BLACK (QUANTITY 2)	9M860	ORDER BY DESC
	196-3166-00			LEAD,ELECTRICAL:12 AWG,4.5 L,RED (QUANTITY 2)	9M860	ORDER BY DESC
	210-0055-00			WASHER,LOCK:#6 SPLIT,0.031 THK,STL	86928	ORDER BY DESC
	210-0408-00			NUT,PLAIN,HEX:6-32 X 0.312,BRS CD PL (QUANTITY 8)	73743	3040-402
	211-0244-00			SCR,ASSEM WSHR:4-40 X 0.312,PNH,STL,CD PL,POZ (QUANTITY 2)	TK0435	7772-312
	211-0507-00			SCREW,MACHINE:6-32 X 0.312,PNH,STL	TK0435	ORDER BY DESC
	211-0510-00			SCREW,MACHINE:6-32 X 0.375,PNH,STL (QUANTITY 2)	TK0435	ORDER BY DESC
	211-0514-00			SCREW,MACHINE:6-32 X 0.750,PNH,STL (QUANTITY 2)	TK0435	1541-300
	211-0658-00			SCR,ASSEM WSHR:6-32 X 0.312,PNH,STL,POZ (QUANTITY 5)	TK0435	17691-300
	385-0079-00			SPACER,POST:0.375 L W/6-32 THD THRU,AL 0.25 (QUANTITY 8)	0J260	385-0079-00
	385-0109-00			SPACER,POST:0.312 L W/4-40 THD THRU,NYL (QUANTITY 2)	80009	385010900
A11A1	671-0114-00			CIRCUIT BD ASSY:BUS INTERCONNECT	80009	671011400
A11A1J310	131-3516-01			CONN,DIN:PCB;MALE,STR,3 X 50,0.1 CTR,0.457 *MOUNTING PARTS*	00779	536427-5
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0062-00			SCREW,MACHINE:2-56 X 0.312,PNH,STL (QUANTITY 2)	TK0435	ORDER BY DESC
				END MOUNTING PARTS		
A11A1J320	131-3516-01			CONN,DIN:PCB;MALE,STR,3 X 50,0.1 CTR,0.457 *MOUNTING PARTS*	00779	536427-5
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0062-00			SCREW,MACHINE:2-56 X 0.312,PNH,STL (QUANTITY 2)	TK0435	ORDER BY DESC
				END MOUNTING PARTS		
A11A2	671-0113-00			CIRCUIT BD ASSY:MAIN INTERFACE,RIGHT *ATTACHED PARTS*	80009	671011300
	131-1425-00			CONN,HDR:PCB;MALE,RTANG,1 X 36,0.1CTR,0.230 MLG X 0.090 TAIL,30 GOLD,STACKABLE *END ATTACHED PARTS*	22526	65521-136
A11A2C230	290-0984-00			CAP,FXD,ELCTL:1000UF,20%,50V	55680	TLB1H102MCA
A11A2C240	290-0963-00			CAP,FXD,ALUM:220UF,+50-20%,25WVDC,10 X12MM	55680	UVX1V221MPA
A11A2C242	290-0963-00			CAP,FXD,ALUM:220UF,+50-20%,25WVDC,10 X12MM	55680	UVX1V221MPA
A11A2C244	290-0963-00			CAP,FXD,ALUM:220UF,+50-20%,25WVDC,10 X12MM	55680	UVX1V221MPA
A11A2C246	290-0963-00			CAP,FXD,ALUM:220UF,+50-20%,25WVDC,10 X12MM	55680	UVX1V221MPA
A11A2C248	290-0963-00			CAP,FXD,ALUM:220UF,+50-20%,25WVDC,10 X12MM	55680	UVX1V221MPA
A11A2C257	283-0594-00			CAP,FXD,MICA DI:0.001UF,1%,100V	TK0891	RDM15FA102F03
A11A2C258	283-0594-00			CAP,FXD,MICA DI:0.001UF,1%,100V	TK0891	RDM15FA102F03
A11A2F200	159-0059-00			FUSE,WIRE LEAD:5A,125V	61857	SPI-5A

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Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A11A2J200	131-2909-00			CONN,HDR:PCB;MALE,RTANG,1 X 10,0.156 CTR,0.46 MLG X 0.156 TAIL,20 GOLD,0.302 FROM	26742	3109-3-110-17
A11A2J210	131-3516-01			CONN,DIN:PCB;MALE,STR,3 X 50,0.1 CTR,0.457 *MOUNTING PARTS*	00779	536427-5
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0062-00			SCREW,MACHINE:2-56 X 0.312,PNH,STL (QUANTITY 2) *END MOUNTING PARTS*	TK0435	ORDER BY DESC
A11A2J220	131-3516-01			CONN,DIN:PCB;MALE,STR,3 X 50,0.1 CTR,0.457 *MOUNTING PARTS*	00779	536427-5
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0062-00			SCREW,MACHINE:2-56 X 0.312,PNH,STL (QUANTITY 2) *END MOUNTING PARTS*	TK0435	ORDER BY DESC
A11A2J230	131-3516-01			CONN,DIN:PCB;MALE,STR,3 X 50,0.1 CTR,0.457 *MOUNTING PARTS*	00779	536427-5
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0062-00			SCREW,MACHINE:2-56 X 0.312,PNH,STL (QUANTITY 2) *END MOUNTING PARTS*	TK0435	ORDER BY DESC
A11A2J240	131-3516-01			CONN,DIN:PCB;MALE,STR,3 X 50,0.1 CTR,0.457 *MOUNTING PARTS*	00779	536427-5
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0062-00			SCREW,MACHINE:2-56 X 0.312,PNH,STL (QUANTITY 2) *END MOUNTING PARTS*	TK0435	ORDER BY DESC
A11A2J245	131-1425-00			CONN,HDR:PCB;MALE,RTANG,1 X 36,0.1CTR,0.230 MLG X 0.090 TAIL,30 GOLD,STACKABLE	22526	65521-136
A11A2J255	131-1425-00			CONN,HDR:PCB;MALE,RTANG,1 X 36,0.1CTR,0.230 MLG X 0.090 TAIL,30 GOLD,STACKABLE	22526	65521-136
A11A2P260	131-3517-00			CONN,DIN:PCB;FEMALE,RTANG,3 X 50,0.1 CTR,0.504 MLG X 0.118 TAIL,30 GOLD *MOUNTING PARTS*	15912	FXR150-012-2
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0185-00			SCREW,MACHINE:2-56 X 0.438,PNH,STL (QUANTITY 2) *END MOUNTING PARTS*	0KB01	ORDER BY DESC
A11A2R240	308-0240-00			RES,FXD,WW:2 OHM,5%,3W	91637	CW-2B-2R000J
A11A2R242	308-0240-00			RES,FXD,WW:2 OHM,5%,3W	91637	CW-2B-2R000J
A11A3	671-0112-00			CIRCUIT BD ASSY:MAIN INTERFACE,LEFT	80009	671011200
A11A3J110	131-3516-01			CONN,DIN:PCB;MALE,STR,3 X 50,0.1 CTR,0.457 *MOUNTING PARTS*	00779	536427-5
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0062-00			SCREW,MACHINE:2-56 X 0.312,PNH,STL (QUANTITY 2)	TK0435	ORDER BY DESC
A11A3J120	131-3516-01			*END MOUNTING PARTS* CONN,DIN:PCB;MALE,STR,3 X 50,0.1 CTR,0.457 *MOUNTING PARTS*	00779	536427-5
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0062-00			SCREW,MACHINE:2-56 X 0.312,PNH,STL (QUANTITY 2)	TK0435	ORDER BY DESC
A11A3J130	131-3516-01			*END MOUNTING PARTS* CONN,DIN:PCB;MALE,STR,3 X 50,0.1 CTR,0.457 *MOUNTING PARTS*	00779	536427-5
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0062-00			SCREW,MACHINE:2-56 X 0.312,PNH,STL (QUANTITY 2)	TK0435	ORDER BY DESC
A11A3J140	131-3516-01			*END MOUNTING PARTS* CONN,DIN:PCB;MALE,STR,3 X 50,0.1 CTR,0.457 *MOUNTING PARTS*	00779	536427-5
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0062-00			SCREW,MACHINE:2-56 X 0.312,PNH,STL (QUANTITY 2)	TK0435	ORDER BY DESC
A11A3J150	131-3516-01			*END MOUNTING PARTS* CONN,DIN:PCB;MALE,STR,3 X 50,0.1 CTR,0.457 *MOUNTING PARTS*	00779	536427-5
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0062-00			SCREW,MACHINE:2-56 X 0.312,PNH,STL (QUANTITY 2)	TK0435	ORDER BY DESC
A11A3P160	131-3517-00			*END MOUNTING PARTS* CONN,DIN:PCB;FEMALE,RTANG,3 X 50,0.1 CTR,0.504 MLG X 0.118 TAIL,30 GOLD *MOUNTING PARTS*	15912	FXR150-012-2
	210-0001-00			WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0185-00			SCREW,MACHINE:2-56 X 0.438,PNH,STL (QUANTITY 2)	0KB01	ORDER BY DESC
				END MOUNTING PARTS		

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A14	657-0072-03	B022000	B041885	MODULAR SUBASSY:W/TOUCH PANEL	80009	657007203
A14	657-0098-01	B041886		MODULAR ASSY:W/TOUCH PANEL,VM700A (STANDARD ONLY)	80009	657009801
A14	657-0088-01	B022000	B041885	MODULAR SUBASSY:W/TOUCH PNL,WHITE PHOSPHOR	80009	657008801
A14	657-0099-01	B041886		MODULAR ASSY:DISPLAY MODULE ASSY,VM700AOPT74 (OPTION 74 ONLY)	80009	657009901
A14A1	657-0072-02	657-0072-03	657-0072-03	MODULAR ASSY:DISPLAY MODULE ASSY FOR VM700	80009	657007202
A14A1	657-0098-00	657-0098-01		MODULAR ASSY:DISPLAY MODULE ASSY,VM700A (STANDARD ONLY)	80009	657009800
A14A1	657-0088-00	657-0088-01	657-0088-01	MODULAR ASSY:DISPLAY MODULE ASSY FOR VM700A	80009	657008800
A14A1	657-0099-00	657-0099-01		MODULAR ASSY:DISPLAY MODULE ASSY,VM700AOPT74 (OPTION 74 ONLY)	80009	657009900
A14A1	671-1033-01	657-0072-02	657-0072-02	CIRCUIT BD ASSY:TRP	80009	671103301
A14A1	671-1033-01	657-0088-00	657-0088-00	CIRCUIT BD ASSY:TRP	80009	671103301
A14A1	671-1922-01	657-0099-00		CKT BD ASSY:DISPLAY	80009	671192201
				ATTACHED PARTS		
	108-1460-00	671-1033-01	671-1033-01	COIL,RF:FXD,TRACE ROTATION,1200TURNS,DCR	75498	128-8059-EA
	210-0055-00			WASHER,LOCK:#6 SPLIT,0.031 THK,STL (QUANTITY 4)	86928	ORDER BY DESC
	211-0507-00			SCREW,MACHINE:6-32 X 0.312,PNH,STL (QUANTITY 4)	TK0435	ORDER BY DESC
				END ATTACHED PARTS		
A14A1C17	285-1456-00			CAP,FXD,MTLZD:1.7UF,5%,100V	50558	MP1-9596J
A14A1C25	281-0772-00			CAP,FXD,CERAMIC:MLC:4700PF,10%,100V,0.100 X	04222	SA101C472KAA
A14A1C33	290-0942-00			CAP,FXD,ELCTL:100UF,+100-10%,25V,ALUMINUM	0H1N5	CEUFM1E101
A14A1C42	283-0013-00			CAP,FXD,CER DI:0.01UF,-0+100%,1000V,DISC	59660	818-602ZSUO103P
A14A1C58	283-0280-00			CAP,FXD,CER DI:2200PF,10%,2000V	59660	0818-590-Y550-0
A14A1C60	290-0920-01			CAP,FXD,ALUM:33UF,20%,50V,6 X 11MM	0H1N5	CEUSM1V330-T12
A14A1C64	281-0820-00			CAP,FXD,CERAMIC:MLC:680 PF,10%,50V,0.100 X0.170	04222	SA101C681KAA
A14A1C65	290-0852-00			CAP,FXD,ALUM:1UF,+75%-10%,350V,0.680 X0.414	0H1N5	CE04W2V010A
A14A1C67	290-0806-00			CAP,FXD,ELCTL:3.3UF,+75-10%,350VDC	0H1N5	CE04W2V3R3B
A14A1C72	290-0916-00			CAP,FXD,ALUM:2200UF,20%,35V,18 X 35MM,LS=7.5MM	62643	SME50VB222M18X3
A14A1C110	283-0729-00			CAP,FXD,MICA DI:2500PF,5%,500V	TK0891	RDM19FD252J03
A14A1C127	283-0013-00			CAP,FXD,CER DI:0.01UF,-0+100%,1000V,DISC	59660	818-602ZSUO103P
A14A1C136	285-1262-00			CAP,FXD,PLASTIC:0.015UF,5%,400VDC	12406	PFR9765
A14A1C148	283-0013-00			CAP,FXD,CER DI:0.01UF,-0+100%,1000V,DISC	59660	818-602ZSUO103P
A14A1C150	290-0944-01			CAP,FXD,ELCTL:220UF,20%,10V,LEADSPACING 0.2	0H1N5	CEBSM1C221M-T4
A14A1C154	285-1340-00			CAP,FXD,PLASTIC:METALIZED FILM:0.01UF,10%,63V, POLYESTER,7.2 X .7MM	TK1913	MKS2 .01/63/10
A14A1C156	283-0010-00			CAP,FXD,CER DI:0.05UF,+80-20%,50V	04222	SR305E503ZAA
A14A1C157	281-0813-00			CAP,FXD,CERAMIC:MLC:0.047UF,20%,50V,0.100 X	04222	SA105E473MAA
A14A1C162	290-0778-01			CAP,FXD,AL:1UF,20%,50V,ESR=198.94 OHM (120HZ,20C)	55680	UVP1H010MAAITD
A14A1C164	290-0852-00			CAP,FXD,ALUM:1UF,+75%-10%,350V,0.680 X0.414	0H1N5	CE04W2V010A
A14A1C172	290-0943-02			CAP,FXD,ELCTL:47UF,20%,25VTAPED & REELED	55680	UVX1E470MDA1TD
A14A1C188	281-0819-00			CAP,FXD,CERAMIC:MLC:33 PF,5%,50V,0.100 X 0.170	04222	SA102A330JAA
A14A1C196	290-0782-01			CAP,FXD,AL:4.7UF,20%,35V,ESR=42.33 OHM (120HZ,20C)	55680	UVX1V4R7MAA1TD
A14A1C198	285-1189-00			CAP,FXD,MTLZD:0.1 UF,5%,100 V	05292	PMT 3R .1J 100
A14A1C199	285-1189-00			CAP,FXD,MTLZD:0.1 UF,5%,100 V	05292	PMT 3R .1J 100
A14A1C238	290-0916-00			CAP,FXD,ALUM:2200UF,20%,35V,18 X 35MM,LS=7.5MM	62643	SME50VB222M18X3
A14A1C239	290-0916-00			CAP,FXD,ALUM:2200UF,20%,35V,18 X 35MM,LS=7.5MM	62643	SME50VB222M18X3
A14A1C240	281-0765-00			CAP,FXD,CER DI:100PF,5%,100V	04222	SA102A101JAA
A14A1C248	290-0768-00			CAP,FXD,ELCTL:10UF,+50-20%,100WVDC	0H1N5	CEBSM2D100M
A14A1C250	281-0772-00			CAP,FXD,CERAMIC:MLC:4700PF,10%,100V,0.100 X	04222	SA101C472KAA
A14A1C251	290-0768-00			CAP,FXD,ELCTL:10UF,+50-20%,100WVDC	0H1N5	CEBSM2D100M
A14A1C262	290-0778-01			CAP,FXD,AL:1UF,20%,50V,ESR=198.94 OHM (120HZ,20C)	55680	UVP1H010MAAITD
A14A1C272	285-1188-00			CAP,FXD,MTLZD:0.082 UF,5%,100 V	05292	PMT 3R ADVISE
A14A1C275	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A14A1C276	281-0767-00			CAP,FXD,CERAMIC:MLC:330PF,20%,100V,0.100 X0.170	04222	SA102C331MAA
A14A1C288	281-0765-00			CAP,FXD,CER DI:100PF,5%,100V	04222	SA102A101JAA

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A14A1C298	290-0950-00			CAP,FXD,ELCTLT:100UF,+50-20%,50WVDC	0H1N5	CEUSM1H101
A14A1C335	290-0916-00			CAP,FXD,ALUM:2200UF,20%,35V,18 X 35MM,LS=7.5MM	62643	SME50VB222M18X3
A14A1C364	290-1311-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=1.4 OHM(100KHZ,20C),5X11MM,105C,5000HRS	55680	UPL1H100MDH1TD
A14A1C366	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A14A1JP360	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA0207
A14A1Q118	151-0679-00			XSTR,PWR:BIPOLAR,NPN:400V,12A,SWITCHING	04713	MJE13009
A14A1Q146	151-0476-00			XSTR,PWR:BIPOLAR,NPN:100V,3.0A,3.0MHZ,AMPL	04713	TIP31C
A14A1Q174	151-0347-02			XSTR,SIG:BIPOLAR,NPN:160V,600MA,100MHZ,AMPLIFIER	04713	2N5551RLRP
A14A1Q280	151-0756-00			XSTR,SIG:BIPOLAR,NPN:100V,100MA,500MHZ,AMPLIFIER	04713	MRF531
A14A1Q284	151-0411-00			XSTR,SIG:BIPOLAR,NPN:30V,400MA,1.2GHZ,AMPL	04713	2N5943
A14A1Q297	151-0712-02			XSTR,SIG:BIPOLAR,PNP:20V,50MA,600MHZ,AMPLIFIER	04713	MPSH81RLRP
A14A1Q340	151-0190-00			XSTR,SIG:BIPOLAR,NPN:40V,200MA,300MHZ,AMPL	0JR04	2N3904
A14A1Q379	151-0188-00			XSTR,SIG:BIPOLAR,PNP:40V,200MA,250MHZ,AMPL	0JR04	2N3906
A14A1Q395	151-0188-00			XSTR,SIG:BIPOLAR,PNP:40V,200MA,250MHZ,AMPL	0JR04	2N3906
A14A1Q396	151-0188-00			XSTR,SIG:BIPOLAR,PNP:40V,200MA,250MHZ,AMPL	0JR04	2N3906
A14A1Q397	151-0190-00			XSTR,SIG:BIPOLAR,NPN:40V,200MA,300MHZ,AMPL	0JR04	2N3904
A14A1R23	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W MI	50139	CB4725
A14A1R45	302-0473-00			RES,FXD,FILM:47K OHM,10%,0.5W MI	19701	5053CX47K00K
A14A1R57	315-0106-00			RES,FXD,FILM:10M OHM,5%,0.25W MI	19701	SFR25 2322-181-63106
A14A1R71	308-0459-00			RES,FXD,WW:1.1 OHM,5%,3W AXIAL LEADS	05347	CS4 1.1 OHM 5 PERCENT
A14A1R86	315-0473-00			RES,FXD,FILM:47K OHM,5%,0.25W MI	50139	CB4735
A14A1R88	315-0473-00			RES,FXD,FILM:47K OHM,5%,0.25W MI	50139	CB4735
A14A1R91	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W MI	50139	CB4725
A14A1R93	307-0113-00			RES,FXD,CMPSN:5.1 OHM,5%,0.25W MI	50139	CB51G5
A14A1R94	307-0113-00			RES,FXD,CMPSN:5.1 OHM,5%,0.25W MI	50139	CB51G5
A14A1R97	315-0473-00			RES,FXD,FILM:47K OHM,5%,0.25W MI	50139	CB4735
A14A1R98	315-0473-00			RES,FXD,FILM:47K OHM,5%,0.25W MI	50139	CB4735
A14A1R122	302-0472-00			RES,FXD,CMPSN:4.7K OHM,10%,0.5W MI	19701	5053CX4K700K
A14A1R165	302-0471-00			RES,FXD,CMPSN:470 OHM,10%,0.5W MI	19701	5053CX470R0K
A14A1R167	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W MI	50139	CB4725
A14A1R170	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W MI	50139	CB4725
A14A1R243	301-0471-00			RES,FXD,FILM:470 OHM,5%,0.5W MI	19701	5053CX 470R0J
A14A1R249	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W MI	50139	CB1005
A14A1R256	321-0317-00			RES,FXD,FILM:19.6K OHM,1%,0.125W,TC=T0 MI	80009	321-0317-00
A14A1R274	307-0104-00			RES,FXD,CMPSN:3.3 OHM,5%,0.25W MI	50139	CB33G5
A14A1R277	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W MI	50139	CB1005
A14A1R290	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A14A1R293	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A14A1R295	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W MI	50139	CB1005
A14A1R346	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W MI	50139	CB4725
A14A1R374	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A14A1R377	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A14A1R393	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W MI	50139	CB1005
A14A1U193	156-1693-03			IC,MISC:BIPOLAR,VIDEO SUBSYSTEM:VERTICAL DEFLECTION SYSTEM	80009	156169303
A14A1VR365	152-0279-00			DIODE,ZENER:5.1V,5%,0.4W;IN751A	80009	152027900

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A15	119-2630-01	B022000	B022999	POWER SUPPLY:IN 115/230 47-63 HZ, OUT 5V 40A, 15V 3A, -15V 3A,12V2.5A, -5.2V 8A, VAR FAN OUT 9-29V (REPLACEABLE AS ASSEMBLY ONLY)	TK2039	119-2630-01
A15	119-4258-00	B030000	B031029	POWER SUPPLY:IN 115/230 47-63HZ,OUT 5V 40A,15V 3A,15V 3A,12V 2.5,-5.2V 2A,VAR FAN OUT12-24V	80009	119425800
A15	119-4258-01	B031030	B031213	POWER SUPPLY:IN 115/230 47-63HZ,OUT 5V 40A, 15V 3A,12V 2.5,-5.2V 2A,VAR FAN OUT 12-24V	80009	119425801
A15	119-4258-02	B031214	B040562	POWER SUPPLY:IN 115/230 47-63HZ,OUT 5V 40A, 15V 3A,12V 2.5,-5.2V 2A,VAR FAN OUT 12-24V	80009	119425802
A15	119-4258-03	B040563	B040808	POWER SUPPLY:IN 115/230 47-63HZ,OUT 5V 40A, 15V 3A,12V 2.5,-5.2V 2A,VAR FAN OUT 12-24V	80009	119425803
A15	119-4258-04	B040809		POWER SUPPLY:IN 115/230 47-63MHZ,OUT 5V40A, 15V,3A,12V 2.5,-5.2V VAR FAN OUT 12-24V *ATTACHED PARTS*	80009	119425804
	211-0510-00			SCREW,MACHINE:6-32 X 0.375,PNH,STL (QUANTITY 7, BACK OF HEAT SINK)	TK0435	ORDER BY DESC
	211-0661-00			SCR,ASSEM WSHR:4-40 X 0.25,PNH,STL,CD PL,POZ,MACH (QUANTITY 10 TO MOUNT A15A1 TO PS CHASSIS)	TK0435	ORDER BY DESC
	426-0568-00			FRAME,PUSH BTN:576	OJR05	ORDER BY DESC
	441-1997-00	119-4258-00	119-4258-00	CHAS,PWR SPLY:ALUMINUM	OJ9P4	441-1997-00
	441-1997-01	119-4258-01		CHAS,PWR SPLY:ALUMINUM *END ATTACHED PARTS*	80009	441199701
A15F1	159-0342-00			FUSE,CARTRIDGE:6 AMP,250V,SLOW BLOW,0.250X1.250 (FOR 90 - 132 VAC OPERATION)	80009	159034200
A15F1	159-0005-00			FUSE,CRTG:3AG,3A,250V,30SEC,UL LISTED,CSA CERT (FOR 180 - 250 VAC OOPERATION) *ATTACHED PARTS*	71400	MSL-3
	198-5786-00			WIRE SET,ELEC:VM700A	TK1547	198-5786-00
	200-0237-04			COVER,FUHLR:PLASTIC	OJR05	ORDER BY DESC
	200-2264-00			CAP,FUSEHOLDER:3AG FUSES	61935	FEK 031 1666
	204-0832-00			BODY,FUSEHOLDER:3AG & 5 X 20MM FUSES	61935	031 1673 (FEU M
	210-0873-00			WASHER,FLAT:0.5 ID X 0.688 OD X 0.047,RBR *END ATTACHED PARTS*	OKB01	ORDER BY DESC
A15A1	-----	119-4258-00		CIRCUIT BD ASSY:POWER SUPPLY *ATTACHED PARTS*		
	211-0008-00			SCREW,MACHINE:4-40 X 0.25,PNH,STL (QUANTITY 3, BACK OF THRU HEAT SINK)	TK0435	ORDER BY DESC
	214-4453-00			HEAT SINK:ALUMINUM *END ATTACHED PARTS*	TK1828	214-4453-00
A15A1C1	285-1252-00			CAP,FXD,PLASTIC:0.15UF,10%,250VAC	D5243	F1772-415-2000
A15A1C2	285-1252-00			CAP,FXD,PLASTIC:0.15UF,10%,250VAC	D5243	F1772-415-2000
A15A1C3	290-1294-00			CAP,FXD,ALUM:1000UF,20%,200V,40 X 35 MM;SNAP-IN TERM,105 DEG	0H1N5	CEAUF2D102M42
A15A1C4	290-1294-00			CAP,FXD,ALUM:1000UF,20%,200V,40 X 35 MM;SNAP-IN TERM,105 DEG	0H1N5	CEAUF2D102M42
A15A1C5	283-0167-02			CAP,FXD,CER DI:0.1UF,10%,100V,0.2 SPACING	TK2058	FK26X5R2A104K-T
A15A1C6	285-1196-00			CAP,FXD,PPR DI:0.01UF,20%,250V	TK0515	PME 290 MB 5100
A15A1C7	285-1196-00			CAP,FXD,PPR DI:0.01UF,20%,250V	TK0515	PME 290 MB 5100
A15A1C8	285-1196-00			CAP,FXD,PPR DI:0.01UF,20%,250V	TK0515	PME 290 MB 5100
A15A1C9	285-1196-00			CAP,FXD,PPR DI:0.01UF,20%,250V	TK0515	PME 290 MB 5100
A15A1C10	285-1336-00			CAP,FXD,MTLZD:1.5UF,20%,400VDC	TK1913	MKC4 1.5/400/20
A15A1C11	290-0919-00			CAP,FXD,ALUM:470UF,+50-20%,35V	55680	UVX1V471MPA
A15A1C16	290-0943-02			CAP,FXD,ELCTLT:47UF,20%,25VTAPED & REELED	55680	UVX1E470MDA1TD
A15A1C23	285-1347-00			CAP,FXD,FILM:POLYCRBNT FILM;2.2UF,10%,250V,LS=1.07	TK1913	MKC4 2.2/250/10
A15A1C24	285-1347-00			CAP,FXD,FILM:POLYCRBNT FILM;2.2UF,10%,250V,LS=1.07	TK1913	MKC4 2.2/250/10
A15A1C25	281-0773-00			CAP,FXD,CERAMIC:MLC:0.01UF,10%,100V	TK1743	CGB103KEX
A15A1C26	290-0800-00			CAP,FXD,ELCTLT:250UF,+100-10%,20V	62643	RXC25B251W12X24
A15A1C27	290-0800-00			CAP,FXD,ELCTLT:250UF,+100-10%,20V	62643	RXC25B251W12X24
A15A1C28	290-0800-00			CAP,FXD,ELCTLT:250UF,+100-10%,20V	62643	RXC25B251W12X24

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A15A1C30	283-0486-00			CAP,FXD,CER DI:1.0UF,10%,50V	04222	SR305C105KAA
A15A1C31	283-0486-00			CAP,FXD,CER DI:1.0UF,10%,50V	04222	SR305C105KAA
A15A1C32	281-0812-00			CAP,FXD,CERAMIC:MLC;1000PF,10%,100V,0.100 X	04222	SA101C102KAA
A15A1C33	290-0800-00			CAP,FXD,ELCTLT:250UF,+100-10%,20V	62643	RXC25B251W12X24
A15A1C34	283-0486-00			CAP,FXD,CER DI:1.0UF,10%,50V	04222	SR305C105KAA
A15A1C35	290-0800-00			CAP,FXD,ELCTLT:250UF,+100-10%,20V	62643	RXC25B251W12X24
A15A1C36	283-0486-00			CAP,FXD,CER DI:1.0UF,10%,50V	04222	SR305C105KAA
A15A1C37	283-0197-02			CAP,FXD,CER DI:470PF,5%,50VTAPED & REELED	04222	SR591A471JAAAP1
A15A1C38	283-0486-00			CAP,FXD,CER DI:1.0UF,10%,50V	04222	SR305C105KAA
A15A1C39	283-0051-02			CAP,FXD,CER DI:0.0033UF,5%,100V,SQUARE,MI	TK2058	FK22COG2A332J-T
A15A1C40	283-0167-02			CAP,FXD,CER DI:0.1UF,10%,100V,0.2 SPACING	TK2058	FK26X5R2A104K-T
A15A1C41	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C)	55680	UVX1H100MAA
A15A1C42	283-0065-00			CAP,FXD,CER DI:0.001UF,5%,50V	59660	0835-591-Y5E0-1
A15A1C43	281-0773-00			CAP,FXD,CERAMIC:MLC;0.01UF,10%,100V	TK1743	CGB103KEX
A15A1C44	290-0943-02			CAP,FXD,ELCTLT:47UF,20%,25VTAPED & REELED	55680	UVX1E470MDA1TD
A15A1C45	290-0778-00			CAP,FXD,ALUM:1UF,20%,50V,5 X 11 MM,NONPOLAR	62643	SMEBP50VB1R0M5X
A15A1C46	290-0778-00			CAP,FXD,ALUM:1UF,20%,50V,5 X 11 MM,NONPOLAR	62643	SMEBP50VB1R0M5X
A15A1C49	290-0800-00			CAP,FXD,ELCTLT:250UF,+100-10%,20V	62643	RXC25B251W12X24
A15A1C51	290-0943-02			CAP,FXD,ELCTLT:47UF,20%,25VTAPED & REELED	55680	UVX1E470MDA1TD
A15A1C52	281-0773-00			CAP,FXD,CERAMIC:MLC;0.01UF,10%,100V	TK1743	CGB103KEX
A15A1C53	281-0773-00			CAP,FXD,CERAMIC:MLC;0.01UF,10%,100V	TK1743	CGB103KEX
A15A1C54	290-0800-00			CAP,FXD,ELCTLT:250UF,+100-10%,20V	62643	RXC25B251W12X24
A15A1C56	283-0486-00			CAP,FXD,CER DI:1.0UF,10%,50V	04222	SR305C105KAA
A15A1C57	281-0812-00			CAP,FXD,CERAMIC:MLC;1000PF,10%,100V,0.100 X	04222	SA101C102KAA
A15A1C58	283-0197-02			CAP,FXD,CER DI:470PF,5%,50VTAPED & REELED	04222	SR591A471JAAAP1
A15A1C59	283-0197-02			CAP,FXD,CER DI:470PF,5%,50VTAPED & REELED	04222	SR591A471JAAAP1
A15A1C60	290-0943-02			CAP,FXD,ELCTLT:47UF,20%,25VTAPED & REELED	55680	UVX1E470MDA1TD
A15A1C61	290-0943-02			CAP,FXD,ELCTLT:47UF,20%,25VTAPED & REELED	55680	UVX1E470MDA1TD
A15A1C62	290-0943-02			CAP,FXD,ELCTLT:47UF,20%,25VTAPED & REELED	55680	UVX1E470MDA1TD
A15A1C64	281-0773-00			CAP,FXD,CERAMIC:MLC;0.01UF,10%,100V	TK1743	CGB103KEX
A15A1C74	283-0167-02			CAP,FXD,CER DI:0.1UF,10%,100V,0.2 SPACING	TK2058	FK26X5R2A104K-T
A15A1C75	281-0773-00			CAP,FXD,CERAMIC:MLC;0.01UF,10%,100V	TK1743	CGB103KEX
A15A1C76	283-0051-02			CAP,FXD,CER DI:0.0033UF,5%,100V,SQUARE,MI	TK2058	FK22COG2A332J-T
A15A1C81	283-0167-02			CAP,FXD,CER DI:0.1UF,10%,100V,0.2 SPACING	TK2058	FK26X5R2A104K-T
A15A1C82	281-0773-00			CAP,FXD,CERAMIC:MLC;0.01UF,10%,100V	TK1743	CGB103KEX
A15A1C83	281-0773-00			CAP,FXD,CERAMIC:MLC;0.01UF,10%,100V	TK1743	CGB103KEX
A15A1C84	283-0167-02			CAP,FXD,CER DI:0.1UF,10%,100V,0.2 SPACING	TK2058	FK26X5R2A104K-T
A15A1C85	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C)	55680	UVX1H100MAA
A15A1C86	290-0973-00			CAP,FXD,ELCTLT:100UF,20%,25VDC	0H1N5	CEUSM1E101
A15A1C87	290-0943-02			CAP,FXD,ELCTLT:47UF,20%,25VTAPED & REELED	55680	UVX1E470MDA1TD
A15A1C88	283-0239-00			CAP,FXD,CER DI:0.022UF,10%,50V	18796	RPE122166X7R223
A15A1C89	283-0051-02			CAP,FXD,CER DI:0.0033UF,5%,100V,SQUARE,MI	TK2058	FK22COG2A332J-T
A15A1C90	283-0197-02			CAP,FXD,CER DI:470PF,5%,50VTAPED & REELED	04222	SR591A471JAAAP1
A15A1C91	290-0798-00			CAP,FXD,ELCTLT:180UF,+100-10%,40V	62643	672D708A
A15A1C92	281-0773-00			CAP,FXD,CERAMIC:MLC;0.01UF,10%,100V	TK1743	CGB103KEX
A15A1C125	283-0486-00			CAP,FXD,CER DI:1.0UF,10%,50V	04222	SR305C105KAA
A15A1C147	283-0024-02			CAP,FXD,CER DI:0.1UF,+80-20%,50V	TK2058	FK20Z5U1H104Z-T
A15A1C150	281-0773-00			CAP,FXD,CERAMIC:MLC;0.01UF,10%,100V	TK1743	CGB103KEX
A15A1C151	283-0486-00			CAP,FXD,CER DI:1.0UF,10%,50V	04222	SR305C105KAA
A15A1C157	283-0198-00			CAP,FXD,CERAMIC:MLC;0.22UF,20%,50V,X7R,0.30	04222	SR305C224MAA
A15A1C157	283-0198-00	119-4258-01		CAP,FXD,CERAMIC:MLC;0.22UF,20%,50V,X7R,0.30	04222	SR305C224MAA
A15A1C158	283-0198-00			CAP,FXD,CERAMIC:MLC;0.22UF,20%,50V,X7R,0.30	04222	SR305C224MAA
A15A1C185	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C)	55680	UVX1H100MAA
A15A1C201	283-0167-02			CAP,FXD,CER DI:0.1UF,10%,100V,0.2 SPACING	TK2058	FK26X5R2A104K-T
A15A1C290	285-1381-00	119-4258-01		CAP,FXD,MTLZD:1500PF,10%,250V	TK0515	PME271Y415K
A15A1C291	285-1381-00	119-4258-01		CAP,FXD,MTLZD:1500PF,10%,250V	TK0515	PME271Y415K
A15A1C292	285-1196-00			CAP,FXD,PPR DI:0.01UF,20%,250V	TK0515	PME 290 MB 5100
A15A1C293	285-1196-00			CAP,FXD,PPR DI:0.01UF,20%,250V	TK0515	PME 290 MB 5100

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A15A1C420	283-0238-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	SR075C103KAA
A15A1C470	283-0213-00			CAP,FXD,CER DI:300PF,5%,100V	04222	SR201A301JAA
A15A1C570	283-0486-00			CAP,FXD,CER DI:1.0UF,10%,50V	04222	SR305C105KAA
A15A1C640	283-0197-02			CAP,FXD,CER DI:470PF,5%,50VTAPED & REELED	04222	SR591A471JAAAP1
A15A1C900	283-0486-00			CAP,FXD,CER DI:1.0UF,10%,50V	04222	SR305C105KAA
A15A1CR1	152-0750-00			DIO,RECT:FAST RCVRY;BRDG,600V,3A,IFSM=125A,250NS	TK2319	RKBPC606
				ATTACHED PARTS		
	210-0586-00			NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL	TK0435	ORDER BY DESC
	211-0014-00			SCREW,MACHINE:4-40 X 0.5,PNH,STL	TK0435	ORDER BY DESC
	214-1914-00			HEAT SINK,DIODE:(2)0.15 DIA HOLES,AL	98978	PB1-2CB
				END ATTACHED PARTS		
A15A1CR2	152-0601-01			DIODE,RECT:ULTRA FAST;150V,25NS,35A IFSM	04713	MUR120RL
A15A1CR3	152-0601-01			DIODE,RECT:ULTRA FAST;150V,25NS,35A IFSM	04713	MUR120RL
A15A1CR4	152-0601-01			DIODE,RECT:ULTRA FAST;150V,25NS,35A IFSM	04713	MUR120RL
A15A1CR5	152-0601-01			DIODE,RECT:ULTRA FAST;150V,25NS,35A IFSM	04713	MUR120RL
A15A1CR6	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR7	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR9	152-0839-00			DIODE,RECT:FAST RCVRY;500V,8A,50NS	04713	MUR850
				ATTACHED PARTS		
	214-2518-01			HEAT SINK,XSTR:TO-202/TO-220,AL	TK0303	332-012
				END ATTACHED PARTS		
A15A1CR10	152-0581-04			DIODE,RECT:SCHTKY;20V,1A,.450VF,25A IFSM	04713	1N5817RL (TAPE
A15A1CR12	152-0581-04			DIODE,RECT:SCHTKY;20V,1A,.450VF,25A IFSM	04713	1N5817RL (TAPE
A15A1CR14	152-1170-00			DIODE,RECT:SCHTKY:DUAL,40V,40A,COM-CATH	14936	MBR4045-PT
				ATTACHED PARTS		
	211-0511-00			SCREW,MACHINE:6-32 X 0.5,PNH,STL	TK0435	ORDER BY DESC
	342-0354-00			INSULATOR,PLATE:TRANSISTOR,SILICONE RUBBER	2K262	342-0354-00
				END ATTACHED PARTS		
A15A1CR15	152-0884-00			DIODE,RECT:SCHTKY;35V,16A,150A IFSM,630MVF	04713	MBR1635
				ATTACHED PARTS		
	210-1178-00			WASHER,SHLDR:U/W TO-220 TRANSISTOR	13103	7721-7PPS
	211-0012-00			SCREW,MACHINE:4-40 X 0.375,PNH,STL	TK0435	ORDER BY DESC
	342-0563-00			INSULATOR,PLATE:XSTR,FIBERGLASS REINFORCED SILICON RUBBER	18565	69-11-8805-1674
				END ATTACHED PARTS		
A15A1CR16	152-0884-00			DIODE,RECT:SCHTKY;35V,16A,150A IFSM,630MVF	04713	MBR1635
				ATTACHED PARTS		
	210-1178-00			WASHER,SHLDR:U/W TO-220 TRANSISTOR	13103	7721-7PPS
	211-0012-00			SCREW,MACHINE:4-40 X 0.375,PNH,STL	TK0435	ORDER BY DESC
	342-0563-00			INSULATOR,PLATE:XSTR,FIBERGLASS REINFORCED SILICON RUBBER	18565	69-11-8805-1674
				END ATTACHED PARTS		
A15A1CR17	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR22	152-0581-04			DIODE,RECT:SCHTKY;20V,1A,.450VF,25A IFSM	04713	1N5817RL (TAPE
A15A1CR26	152-0581-04			DIODE,RECT:SCHTKY;20V,1A,.450VF,25A IFSM	04713	1N5817RL (TAPE
A15A1CR27	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR28	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR29	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR30	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR31	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR32	152-0141-02			DIODE,SIG:ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR33	152-0539-00			DIODE,RECT:ULTRA FAST;200V,8A,100A IFSM,35NS, COM-CATH	04713	MUR1620CT
				ATTACHED PARTS		
	210-1178-00			WASHER,SHLDR:U/W TO-220 TRANSISTOR	13103	7721-7PPS
	211-0012-00			SCREW,MACHINE:4-40 X 0.375,PNH,STL	TK0435	ORDER BY DESC
	342-0563-00			INSULATOR,PLATE:XSTR,FIBERGLASS REINFORCED SILICON RUBBER	18565	69-11-8805-1674

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
END ATTACHED PARTS						
A15A1CR35	152-0754-00	119-4258-00	1194258-03	DIODE,RECT:SCHTKY:40V,8A,380A IFSM,AXIAL LEAD	51993	95-4421 (80SQ04
A15A1CR35	152-1192-00	119-4258-04		DIODE,RECT:SCHTKY:100V,5A,150A IFSM,790MVF,AX LEAD	51993	50SQ100
A15A1CR36	152-0754-00	119-4258-00	119-4258-03	DIODE,RECT:SCHTKY:40V,8A,380A IFSM,AXIAL LEAD	51993	95-4421 (80SQ04
A15A1CR36	152-1192-00	119-4258-04		DIODE,RECT:SCHTKY:100V,5A,150A IFSM,790MVF,AX LEAD	51993	50SQ100
A15A1CR37	152-0754-00	119-4258-00	119-4258-03	DIODE,RECT:SCHTKY:40V,8A,380A IFSM,AXIAL LEAD	51993	95-4421 (80SQ04
A15A1CR37	152-1192-00	119-4258-04		DIODE,RECT:SCHTKY:100V,5A,150A IFSM,790MVF,AX LEAD	51993	50SQ100
A15A1CR38	152-0754-00	119-4258-00	119-4258-03	DIODE,RECT:SCHTKY:40V,8A,380A IFSM,AXIAL LEAD	51993	95-4421 (80SQ04
A15A1CR38	152-1192-00	119-4258-04		DIODE,RECT:SCHTKY:100V,5A,150A IFSM,790MVF,AX LEAD	51993	50SQ100
A15A1CR46	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR47	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR48	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR49	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR50	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR51	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR52	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR53	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR56	152-0601-01			DIODE,RECT:ULTRA FAST:150V,25NS,35A IFSM	04713	MUR120RL
A15A1CR84	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR88	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR89	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR151	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR201	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR202	152-0670-00			DIODE,RECT:SCHTKY:40V,3A,IFSM=80A,VF=525MV	04713	1N5822
A15A1CR258	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR259	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR260	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR261	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR262	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR640	152-0141-02			DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1CR651	152-0141-02	119-4258-00	119-4258-00	DIODE,SIG:ULTRA FAST:40V,150MA,4NS,2PF	27014	FDH9427
A15A1DS1	150-0030-00			LAMP,GLOW:60-90V MAX,0.6MA,A28-T,WIRE LEADS	0J9R2	NE-2B(AC/DC)R-T
A15A1DS2	150-1119-00	119-4258-00	119-4258-02	DIODE,OPTO:LED:GREEN,562NM,2MCD AT 20MA,T1	15513	SP830928-2
A15A1DS2	150-1160-00	119-4258-03		DIO,OPTO:LED:GRN,569NM,4,2MCD AT 10MA,HLMP-1521	50434	QLMP-1587
A15A1DS3	150-1119-00	119-4258-00	119-4258-02	DIODE,OPTO:LED:GREEN,562NM,2MCD AT 20MA,T1	15513	SP830928-2
A15A1DS3	150-1160-00	119-4258-03		DIO,OPTO:LED:GRN,569NM,4,2MCD AT 10MA,HLMP-1521	50434	QLMP-1587
A15A1DS4	150-1119-00	119-4258-00	119-4258-02	DIODE,OPTO:LED:GREEN,562NM,2MCD AT 20MA,T1	15513	SP830928-2
A15A1DS4	150-1160-00	119-4258-03		DIO,OPTO:LED:GRN,569NM,4,2MCD AT 10MA,HLMP-1521	50434	QLMP-1587
A15A1DS5	150-1119-00	119-4258-00	119-4258-02	DIODE,OPTO:LED:GREEN,562NM,2MCD AT 20MA,T1	15513	SP830928-2
A15A1DS5	150-1160-00	119-4258-03		DIO,OPTO:LED:GRN,569NM,4,2MCD AT 10MA,HLMP-1521	50434	QLMP-1587
A15A1DS6	150-1119-00	119-4258-00	119-4258-02	DIODE,OPTO:LED:GREEN,562NM,2MCD AT 20MA,T1	15513	SP830928-2
A15A1DS6	150-1160-00	119-4258-03		DIO,OPTO:LED:GRN,569NM,4,2MCD AT 10MA,HLMP-1521	50434	QLMP-1587
A15A1DS7	150-1118-00	119-4258-00	119-4258-02	DIODE,OPTO:LED:RED,635NM,6MCD AT 20MA,T1 W/SPEC SPACER LENGTH	15513	SP830928-1
A15A1DS7	150-1171-00	119-4258-03		DIODE,OPTO:LED:RED,626NM,3MCD AT 10MA,60 DEG VIEW ANGL	50434	HLMP-1302-002
A15A1DS8	150-1118-00	119-4258-00	119-4258-02	DIODE,OPTO:LED:RED,635NM,6MCD AT 20MA,T1 W/SPEC SPACER LENGTH	15513	SP830928-1
A15A1DS8	150-1171-00	119-4258-03		DIODE,OPTO:LED:RED,626NM,3MCD AT 10MA,60 DEG VIEW ANGL	50434	HLMP-1302-002
A15A1DS9	150-1118-00	119-4258-00	119-4258-02	DIODE,OPTO:LED:RED,635NM,6MCD AT 20MA,T1 W/SPEC SPACER LENGTH	15513	SP830928-1
A15A1DS9	150-1171-00	119-4258-03		DIODE,OPTO:LED:RED,626NM,3MCD AT 10MA,60 DEG VIEW ANGL	50434	HLMP-1302-002
A15A1DS10	150-1118-00	119-4258-00	119-4258-02	DIODE,OPTO:LED:RED,635NM,6MCD AT 20MA,T1 W/SPEC SPACER LENGTH	15513	SP830928-1
A15A1DS10	150-1171-00	119-4258-03		DIODE,OPTO:LED:RED,626NM,3MCD AT 10MA,60 DEG VIEW ANGL	50434	HLMP-1302-002
A15A1DS11	150-1119-00	119-4258-00	119-4258-02	DIODE,OPTO:LED:GREEN,562NM,2MCD AT 20MA,T1	15513	SP830928-2

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A15A1DS11	150-1160-00	119-4258-03		DIO,OPTO:LED:GRN,569NM,4,2MCD AT 10MA,HLMP-1521	50434	QLMP-1587
A15A1E3	119-0181-00			ARSR,ELEC SURGE:230V, +/-15%: GAS DISCHARGE	0C8T6	BBS-230V +/-15%
A15A1F3	307-1593-00			RES,THERMAL:CIRCUIT PROTECTOR,0.2 AMP,SELFRE-SETTING THERMAL FUSE:60 VOLT,0.290 D X 0.120 THK,RADIAL LEADS	06090	RXE-020
A15A1F4	307-1593-00			RES,THERMAL:CIRCUIT PROTECTOR,0.2 AMP,SELFRE-SETTING THERMAL FUSE:60 VOLT,0.290 D X 0.120 THK,RADIAL LEADS	06090	RXE-020
A15A1FL1	119-4353-00			FILTER,RFI:6A,250V,50/60HZ,FLG MT,RTANGL PC TERM *MOUNTING PARTS*	0GV52	FX326-6/02
	210-0586-00			NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL (QUANTITY 2,ATTACH TO CHASSIS)	TK0435	ORDER BY DESC
	211-0012-00			SCREW,MACHINE:4-40 X 0.375,PNH,STL (QUANTITY 2,ATTACH TO CHASSIS) *END MOUNTING PARTS*	TK0435	ORDER BY DESC
A15A1J1	131-4885-00			CONN,HDR:PCB:MALE,STR,1 X 5,0.1 CTR,0.290MLG X 0.130 TAIL,PLZ WALL,W/FRICT LOCK,20 GOLD,(0.295 MLG)	00779	641215-5
A15A1J2	131-2993-00			CONN,HDR PWR:PCB:MALE,RTANG,1 X 10,0.156 CTR,0.450 MLG X 0.172 TAIL,PLZ WALL,20 GOLD,WALL ONPCB	27264	26-48-2104
A15A1J3	131-4036-00			CONN,HDR PWR::PCB:MALE,RTANG,1 X 2,0.156 CTR,0.450 MLG X 0.172 TAIL,PLZ WALL,20 GOLD	27264	09-47-1022
A15A1J4	129-1402-00			SPACER,POST:0.125 SPACING,10-32 INT THREAD,SWAGE MOUNT,0.375 OD,STEEL,TIN PLATE (QUANTITY 4) *MOUNTING PARTS*	55566	739-B-1032-S-27
	212-0518-00			SCREW,MACHINE:10-32 X 0.312,PNH,STL (QUANTITY 4) *END MOUNTING PARTS*	TK0435	ORDER BY DESC
A15A1J5	131-1425-00			CONN,HDR:PCB:MALE,RTANG,1 X 36,0.1CTR,0.230 MLG X 0.090 TAIL,30 GOLD,STACKABLE	22526	65521-136
A15A1J7	131-5444-00			CONN,HDR PWR:PCB:MALE,STR,1 X 2,0.200 CTR,0.420 MLG C 0.142 TAIL,W/FRICTION LOCK,TIN	27264	10-32-1021
A15A1J10	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB:MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A15A1J12	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB:MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A15A1J13	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB:MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A15A1L2	120-1654-00			TRANSFORMER,PWR:8MH,1.5A,COMMON MODE,	TK1601	62911
A15A1L3	108-1519-00			INDUCTOR,FXD:POWER:1.03MH,10%,IMAX<2.5 A,RDC<0.18 OHM,SRF>1.8MHZ,TOROID CORE	OJR03	108-1519-00
A15A1L4	108-1289-00			INDUCTOR,FXD:POWER,BOBBIN:1UH,IDC=30 A,RW=0.0012 OHM,FREQ=100KHZ	TK1441	85-1086-1
A15A1L5	108-1289-00			INDUCTOR,FXD:POWER,BOBBIN:1UH,IDC=30 A,RW=0.0012 OHM,FREQ=100KHZ	TK1441	85-1086-1
A15A1L6	108-0554-00			INDUCTOR,FXD:CUSTOM,POWER:5UH,20%,I<7A,RDC<0.01 OHM,ROD CORE 276-0147-00	OJR03	108-0554-00
A15A1L8	108-0958-00			INDUCTOR,FXD:CUSTOM,POWER:50UH,10%,IDC<3 A,RDC<0.027 OHM,BOBBIN 276-0240-00,30.5T W/20	OJR03	108-0958-00
A15A1L10	108-0958-00			INDUCTOR,FXD:CUSTOM,POWER:50UH,10%,IDC<3 A,RDC<0.027 OHM,BOBBIN 276-0240-00,30.5T W/20	OJR03	108-0958-00
A15A1L12	108-0958-00			INDUCTOR,FXD:CUSTOM,POWER:50UH,10%,IDC<3 A,RDC<0.027 OHM,BOBBIN 276-0240-00,30.5T W/20	OJR03	108-0958-00
A15A1L13	108-0422-00			INDUCTOR,FXD:CUSTOM,POWER:80UH,20%,IDC<2 A,RDC<0.15 OHM,Q>30@40KHZ	OJR03	108-0422-00
A15A1P10	131-0993-00			CONN,BOX:SHUNT:FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,BLACK,JUMPER	22526	65474-006

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A15A1P12	131-0993-00			CONN,BOX:SHUNT:FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,BLACK,JUMPER	22526	65474-006
A15A1P13	131-0993-00			CONN,BOX:SHUNT:FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,BLACK,JUMPER	22526	65474-006
A15A1Q2	151-1282-00			TRANSISTOR,PWR:MOS,N-CH;500V,9.0A,0.4 OHM *ATTACHED PARTS*	66958	IRFP450FI
	211-0578-00			SCREW,MACHINE:6-32 X 0.438,PNH,STL	TK0435	ORDER BY DESC
	342-0927-00			PAD,CNDCT,XSTR:GRAPHITE FOIL,TO-218/TO3P/TO-24, THM GRAFOIL G4 *END ATTACHED PARTS*	13103	G4
A15A1Q3	151-1282-00			TRANSISTOR,PWR:MOS,N-CH;500V,9.0A,0.4 OHM *ATTACHED PARTS*	66958	IRFP450FI
	211-0578-00			SCREW,MACHINE:6-32 X 0.438,PNH,STL	TK0435	ORDER BY DESC
	342-0927-00			PAD,CNDCT,XSTR:GRAPHITE FOIL,TO-218/TO3P/TO-24, THM GRAFOIL G4 *END ATTACHED PARTS*	13103	G4
A15A1Q8	151-1282-00			TRANSISTOR,PWR:MOS,N-CH;500V,9.0A,0.4 OHM *ATTACHED PARTS*	66958	IRFP450FI
	211-0578-00			SCREW,MACHINE:6-32 X 0.438,PNH,STL	TK0435	ORDER BY DESC
	342-0927-00			PAD,CNDCT,XSTR:GRAPHITE FOIL,TO-218/TO3P/TO-24, THM GRAFOIL G4 *END ATTACHED PARTS*	13103	G4
A15A1Q10	151-1282-00			TRANSISTOR,PWR:MOS,N-CH;500V,9.0A,0.4 OHM *ATTACHED PARTS*	66958	IRFP450FI
	211-0578-00			SCREW,MACHINE:6-32 X 0.438,PNH,STL	TK0435	ORDER BY DESC
	342-0927-00			PAD,CNDCT,XSTR:GRAPHITE FOIL,TO-218/TO3P/TO-24, THM GRAFOIL G4 *END ATTACHED PARTS*	13103	G4
A15A1Q11	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	OJR04	2N3906
A15A1Q12	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	OJR04	2N3906
A15A1Q13	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ,AMPL	OJR04	2N3904
A15A1Q16	151-1253-00			TRANSISTOR,PWR:MOS,P-CH;60V,12A,0.3 OHM *ATTACHED PARTS*	34371	IRF9530
	210-0586-00			NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL	TK0435	ORDER BY DESC
	210-1178-00			WASHER,SHLDR:U/W TO-220 TRANSISTOR	13103	7721-7PPS
	214-4516-00			HEAT SINK,TRANS:XSTR,TO-220/TO-218;ALUM,BLACK ANODIZE,(2)SOLDERABLE TABS	30161	590102B03600
	342-0563-00			INSULATOR,PLATE:XSTR,FIBERGLASS REINFORCED SILICON RUBBER *END ATTACHED PARTS*	18565	69-11-8805-1674
A15A1Q17	151-1253-00			TRANSISTOR,PWR:MOS,P-CH;60V,12A,0.3 OHM *ATTACHED PARTS*	34371	IRF9530
	210-0586-00			NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL	TK0435	ORDER BY DESC
	210-1178-00			WASHER,SHLDR:U/W TO-220 TRANSISTOR	13103	7721-7PPS
	214-1815-00			HEAT SINK,SEMIC:XSTR,TO-202/TO-220;VERTICAL MOUNT,(2)SOLDERABLE TABS,ALUM,BLACK ANODIZE	13103	6234B-MT
	342-0563-00			INSULATOR,PLATE:XSTR,FIBERGLASS REINFORCED SILICON RUBBER *END ATTACHED PARTS*	18565	69-11-8805-1674
A15A1Q18	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ,AMPL	OJR04	2N3906
A15A1Q19	151-1171-00			TRANSISTOR,PWR:MOS,N-CH;50V,12A,0.12 OHM *ATTACHED PARTS*	04713	MTP15N05E
	210-0586-00			NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL	TK0435	ORDER BY DESC
	210-1178-00			WASHER,SHLDR:U/W TO-220 TRANSISTOR	13103	7721-7PPS
	214-1815-00			HEAT SINK,SEMIC:XSTR,TO-202/TO-220;VERTICAL MOUNT,(2)SOLDERABLE TABS,ALUM,BLACK ANODIZE	13103	6234B-MT
	342-0563-00			INSULATOR,PLATE:XSTR,FIBERGLASS REINFORCED SILICON RUBBER *END ATTACHED PARTS*	18565	69-11-8805-1674

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A15A1Q20	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN:40V,200MA,300MHZ,AMPL	OJR04	2N3904
A15A1Q23	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP:40V,200MA,250MHZ,AMPL	OJR04	2N3906
A15A1Q24	151-1171-00			TRANSISTOR,PWR:MOS,N-CH:50V,12A,0.12 OHM	04713	MTP15N05E
A15A1Q25	151-0503-00			THYRISTOR,PWR:BIPOLAR,SCR:30V,800MA RMS	0LUA3	2N5064
A15A1Q26	151-0503-00			THYRISTOR,PWR:BIPOLAR,SCR:30V,800MA RMS	0LUA3	2N5064
A15A1Q27	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN:40V,200MA,300MHZ,AMPL	OJR04	2N3904
A15A1Q130	151-0528-00			THYRISTOR,PWR:BIPOLAR,SCR:50V,16A RMS,PHASE	04713	2N6400
A15A1Q560	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP:40V,200MA,250MHZ,AMPL	OJR04	2N3906
A15R1	301-0105-00			RES,FXD,FILM:1M OHM,5%,0.50W MI	19701	5053CX1M000J
A15R2	315-0100-02			RES,FXD,CMPSN:10 OHM,5%,0.25W MI	50139	CB1005
A15R5	305-0104-00			RES,FXD,CMPSN:100K OHM,5%,2W	11502	GF-3 OR GS-3 1003J
A15R6	315-0106-00			RES,FXD,FILM:10M OHM,5%,0.25W MI	19701	SFR25 2322-181-63106
A15R8	315-0103-03			RES,FXD,CMPSN:10K OHM,5%,0.25W AB ONLY, MI	50139	CB1035
A15R9	315-0103-03			RES,FXD,CMPSN:10K OHM,5%,0.25W AB ONLY, MI	50139	CB1035
A15R18	322-3265-00			RES,FXD:METAL FILM,5.62K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20 FXE 5K62
A15R20	315-0270-01	119-4258-00	119-4258-03	RES,FXD,CMPSN:27 OHM,5%,0.25W	50139	CB2705 (TAPE AND REEL)
A15R20	315-0200-00	119-4258-04		RES,FXD,FILM:20 OHM,5%,0.25W MI	50139	CB2005
A15R21	315-0270-01	119-4258-00	119-4258-03	RES,FXD,CMPSN:27 OHM,5%,0.25W	50139	CB2705 (TAPE AND REEL)
A15R21	315-0200-00	119-4258-04		RES,FXD,FILM:20 OHM,5%,0.25W MI	50139	CB2005
A15R22	301-0101-03			RES,FXD,CMPSN:100 OHM,5%,0.5W MI	50139	EB1015
A15R23	301-0101-03			RES,FXD,CMPSN:100 OHM,5%,0.5W MI	50139	EB1015
A15R27	308-0875-00			RES,FXD,WW:0.003 OHM,5%,5W	TK2501	TMR5
A15R28	308-0875-00			RES,FXD,WW:0.003 OHM,5%,5W	TK2501	TMR5
A15R33	315-0100-02			RES,FXD,CMPSN:10 OHM,5%,0.25W MI	50139	CB1005
A15R34	315-0100-02			RES,FXD,CMPSN:10 OHM,5%,0.25W MI	50139	CB1005
A15R35	322-3001-00			RES,FXD:METAL FILM,10 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10R00F
A15R36	322-3001-00			RES,FXD:METAL FILM,10 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10R00F
A15R37	322-3056-00			RES,FXD,FILM:37.4 OHM,1%,0.2W,TC=TOMI,SMALL BODY	91637	CCF50-2F37R40F
A15R38	322-3224-00			RES,FXD,FILM:2.1K OHM,1%,0.2W,TC=TOMI,SMALL BODY	91637	CCF50-2F21000F
A15R39	311-2231-00			RES,VAR,TRMR:CERMET,1K OHM,20%,0.5W,0.197 SQ	TK2073	GF06UT2 102 M L20
A15R40	322-3226-00			RES,FXD:METAL FILM,2.21K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G22100F
A15R41	322-3260-00			RES,FXD,FILM:4.99K OHM,1%,0.2W,TC=T0	91637	CCF501G49900F
A15R42	322-3260-00			RES,FXD,FILM:4.99K OHM,1%,0.2W,TC=T0	91637	CCF501G49900F
A15R43	322-3235-00			RES,FXD:METAL FILM,2.74K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 2K74
A15R45	322-3271-00			RES,FXD,FILM:6.49K OHM,1%,0.2W,TC=TOMI,SMALL BODY	91637	CCF50-2-G-64900FT
A15R46	322-3299-00			RES,FXD,FILM:12.7K OHM,1%,0.2W,TC=TOMI,SMALL BODY	57668	CRB20 FXE 12K7
A15R47	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A15R48	322-3264-00			RES,FXD,FILM:5.49K OHM,1%,0.2W,TC=T0	57668	CRB20 FXE 5K49
A15R49	322-3202-00			RES,FXD,FILM:1.24K OHM,1%,0.2W,TC=TOMI,SMALL BODY	57668	CRB20 FXE 1K24
A15R50	322-3481-00			RES,FXD,FILM:1M OHM.1%,0.2W,TC=TOMI,SMALL BODY	57668	CRB20 FXE 1M00
A15R52	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A15R53	322-3235-00			RES,FXD:METAL FILM,2.74K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 2K74
A15R54	322-3235-00			RES,FXD:METAL FILM,2.74K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 2K74
A15R55	315-0100-02			RES,FXD,CMPSN:10 OHM,5%,0.25W MI	50139	CB1005
A15R56	315-0100-02			RES,FXD,CMPSN:10 OHM,5%,0.25W MI	50139	CB1005
A15R57	315-0100-02			RES,FXD,CMPSN:10 OHM,5%,0.25W MI	50139	CB1005
A15R61	308-0165-00			RES,FXD,WW:0.5 OHM,5%,5W	05347	CS7 R500J
A15R63	308-0165-00			RES,FXD,WW:0.5 OHM,5%,5W	05347	CS7 R500J
A15R64	322-3275-00			RES,FXD,FILM:7.15K OHM,1%,0.2W,TC=TOMI,SMALL BODY	57668	CRB20 FXE 7K15
A15R65	322-3260-00			RES,FXD,FILM:4.99K OHM,1%,0.2W,TC=T0	91637	CCF501G49900F
A15R67	322-3318-00			RES,FXD,FILM:MET FILM,20K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G20001F
A15R69	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A15R70	322-3260-00			RES,FXD,FILM:4.99K OHM,1%,0.2W,TC=T0	91637	CCF501G49900F
A15R71	322-3139-00			RES,FXD:METAL FILM,274 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G274R0F

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A15R72	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A15R73	322-3231-00			RES,FXD,FILM:2.49K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 2K49
A15R74	322-3231-00			RES,FXD,FILM:2.49K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 2K49
A15R75	322-3260-00			RES,FXD,FILM:4.99K OHM,1%,0.2W,TC=T0	91637	CCF501G49900F
A15R76	322-3306-00			RES,FXD:METAL FILM,15K OHM,1%,0.2W,TC=100 PPM	91637	CCF50-2-G1502F
A15R77	322-3139-00			RES,FXD:METAL FILM,274 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G274ROF
A15R78	322-3039-00			RES,FXD,FILM:24.9 OHM,1%,0.2W,TC=T0	91637	CCF50-2-G24R90FT
A15R79	308-0760-00			RES,FXD,WW:0.2 OHM,10%,2W	91637	CW-2B .2 OHM 10 PERCENT
A15R80	322-3318-00			RES,FXD,FILM:MET FILM,20K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G20001F
A15R81	322-3039-00			RES,FXD,FILM:24.9 OHM,1%,0.2W,TC=T0	91637	CCF50-2-G24R90FT
A15R82	308-0760-00			RES,FXD,WW:0.2 OHM,10%,2W	91637	CW-2B .2 OHM 10 PERCENT
A15R83	322-3318-00			RES,FXD,FILM:MET FILM,20K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G20001F
A15R84	322-3213-00			RES,FXD,FILM:1.62K OHM,1%,0.2W,TC=T0	57668	CRB20 FXE 1K62
A15R85	322-3356-00			RES,FXD,FILM:49.9K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 49K9
A15R86	322-3280-00			RES,FXD,FILM:8.06K OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF501G80600F
A15R87	322-3280-00			RES,FXD,FILM:8.06K OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF501G80600F
A15R88	322-3356-00			RES,FXD,FILM:49.9K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 49K9
A15R89	322-3418-00			RES,FXD:METAL FILM,221K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 221K
A15R90	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A15R94	322-3210-00			RES,FXD:METAL FILM,1.5K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 1K50
A15R95	322-3210-00			RES,FXD:METAL FILM,1.5K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 1K50
A15R96	322-3155-00			RES,FXD,FILM:402 OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 402E
A15R97	322-3270-02			RES,FXD,FILM:6.34K OHM,0.5%,0.2W,TC=T2	57668	CRB20 DYE 6K34
A15R98	322-3203-00			RES,FXD,FILM:1.27K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 1K27
A15R99	322-3287-00			RES,FXD,FILM:9.53K OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF50G95300F
A15R100	322-3231-00			RES,FXD,FILM:2.49K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 2K49
A15R101	322-3232-00			RES,FXD,FILM:2.55K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 2K55
A15R102	322-3231-00			RES,FXD,FILM:2.49K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 2K49
A15R103	322-3210-00			RES,FXD:METAL FILM,1.5K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 1K50
A15R104	322-3155-00			RES,FXD,FILM:402 OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 402E
A15R105	322-3262-00			RES,FXD,FILM:5.23K OHM,1%,0.2W,TC=T0	57668	CRB20 FXE 5K23
A15R106	322-3306-00			RES,FXD:METAL FILM,15K OHM,1%,0.2W,TC=100 PPM	91637	CCF50-2-G1502F
A15R107	322-3203-00			RES,FXD,FILM:1.27K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 1K27
A15R108	322-3305-00			RES,FXD,FILM:14.7K OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF50-2-G1472FT
A15R109	322-3305-00			RES,FXD,FILM:14.7K OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF50-2-G1472FT
A15R110	322-3135-00			RES,FXD,FILM:249 OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 249E
A15R111	322-3228-00			RES,FXD,FILM:2.32K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 2K32
A15R112	322-3258-00			RES,FXD:METAL FILM,4.75K OHM,1%,0.2W,TC=100 PPM	56845	CCF50-2-G4751FT
A15R113	322-3258-00			RES,FXD:METAL FILM,4.75K OHM,1%,0.2W,TC=100 PPM	56845	CCF50-2-G4751FT
A15R114	322-3356-00			RES,FXD,FILM:49.9K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 49K9
A15R121	315-0122-00			RES,FXD,FILM:1.2K OHM,5%,0.25W MI	50139	CB1225
A15R122	322-3216-00			RES,FXD,FILM:1.74K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 1K74
A15R123	322-3001-00			RES,FXD:METAL FILM,10 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10R00F
A15R124	322-3001-00			RES,FXD:METAL FILM,10 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10R00F
A15R125	322-3258-00	119-4258-00	119-4258-01	RES,FXD:METAL FILM,4.75K OHM,1%,0.2W,TC=100 PPM	56845	CCF50-2-G4751FT
A15R125	322-3193-00	119-4258-02		RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A15R126	322-3012-00			RES,FXD,FILM:13 OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF50-2F13RROF
A15R127	322-3012-00	119-4258-00	119-4258-01	RES,FXD,FILM:13 OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF50-2F13RROF
A15R127	322-3011-00	119-4258-02		RES,FXD,FILM:12.7 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20FXE12E7
A15R127	322-3007-00	119-4258-02		RES,FXD,FILM:11.5 OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20FXE511E
A15R127	322-3014-00	119-4258-02		RES,FXD,FILM:13.7 OHM,1%,0.2W,TC=T0	57668	CRB20FXE78E7
A15R128	322-3160-00			RES,FXD,FILM:453 OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 453E
A15R129	315-0122-00			RES,FXD,FILM:1.2K OHM,5%,0.25W MI	50139	CB1225
A15R132	322-3265-00			RES,FXD:METAL FILM,5.62K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 5K62
A15R134	322-3258-00			RES,FXD:METAL FILM,4.75K OHM,1%,0.2W,TC=100 PPM	56845	CCF50-2-G4751FT
A15R135	322-3202-00			RES,FXD,FILM:1.24K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 1K24

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Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A15R136	322-3353-00			RES,FXD,FILM:46.4K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	91637	CCF50-2F46401F
A15R137	322-3437-00			RES,FXD,FILM:348K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 348K
A15R138	322-3437-00			RES,FXD,FILM:348K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 348K
A15R139	322-3441-00			RES,FXD,FILM:383K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	91637	CCF50-2F38302F
A15R140	322-3228-00			RES,FXD,FILM:2.32K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 2K32
A15R141	322-3265-00			RES,FXD:METAL FILM,5.62K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 5K62
A15R142	322-3338-00			RES,FXD,FILM:32.4K OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF50-2F32401F
A15R143	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A15R144	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A15R145	322-3284-00			RES,FXD,FILM:8.87K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 8K87
A15R146	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A15R147	322-3255-00			RES,FXD,FILM:4.42K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 4K42
A15R150	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A15R151	322-3402-00			RES,FXD:METAL FILM,150K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G15002F
A15R152	322-3277-00			RES,FXD,FILM:7.5K OHM,1%,0.2W,TC=T0	57668	CRB20 FXE 7K50
A15R153	322-3039-00			RES,FXD,FILM:24.9 OHM,1%,0.2W,TC=T0	91637	CCF50-2-G24R90FT
A15R154	322-3181-00			RES,FXD,FILM:750 OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF501G750ROF
A15R155	308-0793-00			RES,FXD:0.51 OHM,5%,1WTC=150PPM/DEG C,MI	91637	CPF-1-0R51JT1-T/R
A15R156	322-3235-00			RES,FXD:METAL FILM,2.74K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 2K74
A15R157	322-3235-00			RES,FXD:METAL FILM,2.74K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 2K74
A15R158	322-3235-00			RES,FXD:METAL FILM,2.74K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 2K74
A15R159	322-3202-00			RES,FXD,FILM:1.24K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 1K24
A15R160	322-3235-00			RES,FXD:METAL FILM,2.74K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 2K74
A15R161	322-3206-00			RES,FXD,FILM:1.37K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 1K37
A15R162	322-3206-00			RES,FXD,FILM:1.37K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 1K37
A15R163	322-3206-00			RES,FXD,FILM:1.37K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 1K37
A15R164	322-3206-00			RES,FXD,FILM:1.37K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 1K37
A15R165	322-3126-00			RES,FXD,FILM:200 OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF501G200ROF
A15R166	322-3126-00			RES,FXD,FILM:200 OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF501G200ROF
A15R167	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A15R168	322-3210-00			RES,FXD:METAL FILM,1.5K OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 1K50
A15R169	322-3346-00			RES,FXD:METAL FILM,39.2K OHM,1%,0.2W,TC=100 PPM	57668	CRB20FXE39K2
A15R201	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A15R230	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A15R258	322-3356-00			RES,FXD,FILM:49.9K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 49K9
A15R260	322-3431-00			RES,FXD,FILM:301K OHM,1%,0.2W,TC=T0	57668	CRB20 FXE 301K
A15R261	322-3356-00			RES,FXD,FILM:49.9K OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 49K9
A15R262	322-3258-00			RES,FXD:METAL FILM,4.75K OHM,1%,0.2W,TC=100 PPM	56845	CCF50-2-G4751FT
A15R420	322-3251-00			RES,FXD,FILM:4.02K OHM,1%,0.2W,TC=T0	91637	CCF501G40200F
A15R640	322-3139-00			RES,FXD:METAL FILM,274 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G274ROF
A15R641	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A15R642	322-3039-00			RES,FXD,FILM:24.9 OHM,1%,0.2W,TC=T0	91637	CCF50-2-G24R90FT
A15R643	301-0274-00			RES,FXD,FILM:270K OHM,5%,0.5W MI	19701	5053CX270K0J
A15R644	322-3212-00			RES,FXD,FILM:1.58K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 1K58
A15R645	322-3150-00			RES,FXD,FILM:357 OHM,1%,0.2W,TC=T0MI,SMALL BODY	57668	CRB20 FXE 357E
A15R646	322-3086-00			RES,FXD,FILM:76.8 OHM,1%,0.2W,TC=T0MI,SMALL BODY	91637	CCF50-2G76R80F
A15R647	322-3212-00			RES,FXD,FILM:1.58K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 1K58
A15R648	322-3212-00			RES,FXD,FILM:1.58K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 1K58
A15R649	322-3096-00			RES,FXD,FILM:97.6 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	91637	CCF501G97R60FT
A15R650	315-0622-00			RES,FXD,FILM:6.2K OHM,5%,0.25W MI	50139	CB6225
A15R651	322-3243-00			RES,FXD:METAL FILM,3.32K OHM,1%,0.2W,TC=100 PPM	91637	CCF50-1-G33200F
A15R652	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A15R653	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A15A1RT1	307-0746-00			RES,THERMAL:5 OHM,10%,7A/DEG C,	15454	SG200-S STRAI
A15A1RT5	307-0919-00			RES,THERMAL:100K OHM,10% @ 25DEG C	91637	A1232
				MOUNTING PARTS		
	211-0012-00			SCREW,MACHINE:4-40 X 0.375,PNH,STL	TK0435	ORDER BY DESC
				END MOUNTING PARTS		

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A15A1RV1	307-0449-00			RES,V SENSITIVE:MOV; 130VRMS, 175VDC, 70J,6500A, VAR 228V, CLAMP 340V1900PF *ATTACHED PARTS*	34371	V130LA20A
	162-0676-00			INSUL SLVG,ELEC:HT SHRINK,0.75 IDPOLYOLEFIN,BLK,135 DEG C0.033 WALL THK *END ATTACHED PARTS*	06090	VERSAFIT
A15A1RV2	307-0449-00			RES,V SENSITIVE:MOV; 130VRMS, 175VDC, 70J,6500A, VAR 228V, CLAMP 340V1900PF *ATTACHED PARTS*	34371	V130LA20A
	162-0676-00			INSUL SLVG,ELEC:HT SHRINK,0.75 IDPOLYOLEFIN,BLK,135 DEG C0.033 WALL THK *END ATTACHED PARTS*	06090	VERSAFIT
A15A1S1	260-2443-00			SWITCH,PWR:DPDT;PUSH PUSH ALT ACT,PC PINS,6A 250VAC/1A 100VDC,36A AC SURGE,RIGHT ANG MNT,W/HARDENED WIRE BAIL:NE18 TYPE *ATTACHED PARTS*	31918	NE18-00-EE-N-47
	366-1160-00			PUSH BUTTON:CHARCOAL,0.523 X 0.253 X 0.43 *END ATTACHED PARTS*	80009	366116000
A15A1S2	260-2116-00			SWITCH,SLIDE:DPDT,10A,125VAC,LINE SEL	04426	18-000-0019
A15A1T1	120-1910-00			XFMR,PWR:DUAL PRI/SEC,PRI,115/230 VAC,50/60HZ,SEC 2-18 VAC,0.28A;BOARD MOUNT,1.3 X 1.6,UL/CSA/VDE	80009	120191000
A15A1T2	120-1911-00	119-4258-00	119-4258-00	XFMR,PWR:SWITCHING,40KHZ,PRI 150V,W/SHIELD,SEC 16VCT 2.5A,5VCT60A,LEAD-FOIL,2.06 X 2.11,1.43 HIGH	75498	129-0140-EB
A15A1T2	120-1911-01	119-4258-01		TRANSFORMER,PWR:SWITCHING,40KHZ,PRIMARY,84VD FOIL,2.06 X 2.11,1.43 HIGH	75498	129-0140-EC
A15A1T3	120-1670-00			TRANSFORMER:CURRENT SENSE,DUAL,TWO CORE,1.100,1.100,POTTED	TK1441	85-801-5
A15A1T4	120-1655-00			TRANSFORMER,PWR:GATE DR,1:1:1,1.5MH,50KHZ	TK1441	85-404-2
A15A1T5	120-1655-00			TRANSFORMER,PWR:GATE DR,1:1:1,1.5MH,50KHZ	TK1441	85-404-2
A15A1TP2	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A15A1TP3	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A15A1TP4	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A15A1TP5	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A15A1TP6	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A15A1TP10	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE	22526	48283-018
A15A1TP11	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE	22526	48283-018
A15A1TP12	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE	22526	48283-018
A15A1TP13	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE	22526	48283-018
A15A1TP14	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE	22526	48283-018
A15A1TP15	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE	22526	48283-018
A15A1TP16	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE	22526	48283-018
A15A1TP17	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE	22526	48283-018
A15A1TP18	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE	22526	48283-018
A15A1TP19	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE	22526	48283-018

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A15A1TP20	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A15A1TP21	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A15A1TP22	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A15A1U2	156-0285-00			IC,LINEAR:BIPOLAR,VR;POSITIVE,12V,1.0A,4%	01295	UA7812CKC
A15A1U5	156-1631-00	119-4258-00	119-4258-00	IC,LINEAR:BIPOLAR,VR;SHUNT,ADJUSTABLE,100MA	01295	TL431CLP
A15A1U5	156-1631-01	119-4258-01		IC,LINEAR:BIPOLAR,VR;ADJUSTABLE,SHUNT,100MA,2.2%	01295	TL431CLPM
A15A1U6	156-2873-00			IC,LINEAR:BIFET,OP-AMP:DUAL	04713	MC34082P
A15A1U7	156-1225-00			IC,LINEAR:BIPOLAR,COMPTR:DUAL,OPEN COLL,300NS	01295	LM393P
A15A1U8	156-3827-00			IC,LINEAR:BIPOLAR,SW-REGULATOR CONTROLLER;PWM, CURRENT MODE,PUSH-PULL TOTEM POLE OUTPUTS	48726	UC3846N
A15A1U10	156-0366-00			IC,DIGITAL:CMOS,FLIP FLOP;DUAL D-TYPE	04713	MC14013BCP
A15A1U11	156-2462-00			IC,MISC:CMOS,MISC:QUAD POWER MOSFET GATE DRVR	17856	D469ADJ
A15A1U12	156-0853-00			IC,LINEAR:BIPOLAR,OP-AMP:DUAL,SINGLESUPPLY	01295	LM358P
A15A1U16	156-4205-00			IC,MISC:BIPOLAR,PWR SUPPLY SUPERVISOR;OVER/ UNDER VOLTAGE MONITOR,QUAD,W/REFERENCE	80009	156420500
A15A1U20	156-1225-00			IC,LINEAR:BIPOLAR,COMPTR:DUAL,OPEN COLL,300NS	01295	LM393P
A15A1U21	156-1226-00			IC,LINEAR:BIPOLAR,COMPTR:DUAL,OPEN COLL,80NS	1CH66	LM319N
A15A1U22	156-1225-00			IC,LINEAR:BIPOLAR,COMPTR:DUAL,OPEN COLL,300NS	01295	LM393P
A15A1U24	156-0853-00			IC,LINEAR:BIPOLAR,OP-AMP:DUAL,SINGLESUPPLY	01295	LM358P
A15A1U25	156-4104-00			IC,LINEAR:BIPOLAR,SW-REGULATOR CONTROLLER;PWM, CURRENT MODE,SINGLE TOTEM POLE OUTPUT	48726	UC3843N
A15A1U26	156-0524-00			IC,DIGITAL:CMOS,GATE:TRIPLE 3-INPUT NAND	04713	MC14023BCP
A15A1U28	156-0494-00			IC,DIGITAL:CMOS,BUFFER/DRIVER;HEX INV	04713	MC14049UBCP
A15A1U30	156-1225-00			IC,LINEAR:BIPOLAR,COMTR:DUAL,OPEN COLL,300NS	01295	LM393P
A15A1VR2	152-0175-01			SEMICON DVC,DI:ZEN,SI,5.6V,5%,0.4W,DO-71N752A	80009	152017501
A15A1VR3	152-0175-01			SEMICON DVC,DI:ZEN,SI,5.6V,5%,0.4W,DO-71N752A	80009	152017501
A15A1VR130	152-0175-01			SEMICON DVC,DI:ZEN,SI,5.6V,5%,0.4W,DO-71N752A	80009	152017501

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A16	671-0111-00			CIRCUIT BD ASSY:ON/OFF	80009	671011100
A16DS155	150-1043-00			DIODE,OPTO:LED:RED,635NM,1.5MCD @ IF=20MA *MOUNTING PARTS*	0MS63	MV5774C
	352-0865-00			HOLDER,LED:SINGLE *END MOUNTING PARTS*	0KBZ5	ORDER BY DESC
A16DS160	150-1029-00			DIODE,OPTO:LED:GRN,565NM,1MCD AT 20MA,3.0VF AT 20MA,T-1 3/4 *MOUNTING PARTS*	0MS63	MV5474C.6480
	352-0865-00			HOLDER,LED:SINGLE *END MOUNTING PARTS*	0KBZ5	ORDER BY DESC
A16DS165	150-1043-00			DIODE,OPTO:LED:RED,635NM,1.5MCD @ IF=20MA *MOUNTING PARTS*	0MS63	MV5774C
	352-0865-00			HOLDER,LED:SINGLE *END MOUNTING PARTS*	0KBZ5	ORDER BY DESC
A16J140	131-1857-00			CONN,HDR:PCB;MALE,STR,1 X 36,0.1 CTR,0.230	58050	082-3644-SS10
A16R150	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W MI	50139	CB2225
A16S145	260-2392-00			SWITCH,ROCKER:DPDT,5A,120VAC	09353	7201-J1-C-Q-E

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A18	671-1911-00	B030000	B030139	CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671191100
A18	671-1911-01	B030140	B030217	CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671191101
A18	671-1911-02	B030218	B031048	CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671191102
A18	671-1911-03	B031049	B031198	CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671191103
A18	671-1911-04	B031199	B031223	CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671191104
A18	671-1911-05	B031224	B041887	CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671191105
A18	671-1911-06	B041888	B041979	CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671191106
A18	671-1911-05	B041980	B043165	CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671191105
A18	671-3922-00	B043166		CIRCUIT BD ASSY:DATA ACQUISITION/CONTROLLER	80009	671392200
				ATTACHED PARTS		
	105-0160-00			EJECTOR,CKT BD:WHITE PLASTIC (QUANTITY 2)	TK2562	105-0160-00
	214-1337-00			PIN,SPRING:0.25 L X 0.103 OD,STL CD PL (QUANTITY 2)	0KB01	ORDER BY DESC
				END ATTACHED PARTS		
A18C1	290-0966-00		671-3922-00	CAP,FXD,ALUM::220UF,20%,25V,ESR=1.06 OHM (120HZ,20C),8 X 16MM	55680	TVXIE221MAA
A18C3	290-1107-00		671-3922-00	CAP,FXD,ALUM:10UF,20%,50V;6 X 12 MM,AXIAL	2N936	516D106M063JL7B
A18C4	290-1107-00		671-3922-00	CAP,FXD,ALUM:10UF,20%,50V;6 X 12 MM,AXIAL	2N936	516D106M063JL7B
A18C5	290-0966-00		671-3922-00	CAP,FXD,AL::220UF,20%,25V,ESR=1.06 OHM (120HZ,20C)	55680	TVXIE221MAA
A18C6	290-1107-00		671-3922-00	CAP,FXD,ALUM:10UF,20%,50V;6 X 12 MM,AXIAL	2N936	516D106M063JL7B
A18C10	281-0759-00		671-3922-00	CAP,FXD,CERAMIC:MLC;22PF,10%,100V,0.100 X 0.170	04222	SA102A220KAA
A18C11	281-0765-00		671-3922-00	CAP,FXD,CER DI:100PF,5%,100V	04222	SA102A101JAA
A18C41	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C42	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C43	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C44	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C45	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C46	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C47	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C50	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C51	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C52	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C53	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C54	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C55	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C56	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C57	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C58	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C59	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C60	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C61	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C62	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C63	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C64	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C65	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C66	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C67	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C68	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C69	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C70	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C71	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C72	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C73	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C74	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C75	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C76	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C77	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A18C141	281-0916-00		671-3922-00	CAP,FXD,CER DI:0.047UF,+/-10%,50V,AXIAL,0.120 INCH DIA	04222	SA115C473KAA
A18C142	281-0786-00		671-3922-00	CAP,FXD,CERAMIC:MLC;150PF,10%,100V,0.100 X0.170	04222	SA101A151KAA
A18C143	281-0765-00		671-3922-00	CAP,FXD,CER DI:100PF,5%,100V	04222	SA102A101JAA
A18C144	283-1037-00		671-3922-00	CAP,FXD,CERAMIC:MLC;0.1UF,10%,50V,Z5V,0.745	80009	283103700
A18C145	281-0765-00		671-3922-00	CAP,FXD,CER DI:100PF,5%,100V	04222	SA102A101JAA
A18C146	283-1037-00		671-3922-00	CAP,FXD,CERAMIC:MLC;0.1UF,10%,50V,Z5V,0.745	80009	283103700
A18C147	281-0786-00		671-3922-00	CAP,FXD,CERAMIC:MLC;150PF,10%,100V,0.100 X0.170	04222	SA101A151KAA
A18C148	281-0765-00		671-3922-00	CAP,FXD,CER DI:100PF,5%,100V	04222	SA102A101JAA
A18C149	281-0775-01		671-3922-00	CAP,FXD,CERAMIC:MCL;0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A18C150	281-0775-01		671-3922-00	CAP,FXD,CERAMIC:MCL;0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A18DL62	119-4103-00		671-3922-00	DELAY LINE,ELEC:22.5NS W/10 TAPS,2.5NS EA,TTL BFR	22519	DDU-7F-25
A18F1	159-0193-00		671-3922-00	FUSE,WIRE LEAD:10A,60V,FAST BLOW,5 SEC,SAF CONT	61857	SP5-10A
A18J1	131-4048-00		671-3922-00	CONN,HDR:PCB;MALE,RTANG,2 X 17,0.05 X 0.1CTR,0.326 H X 0.106TAIL,0.075 STAGGERED PCB,W/EJECTOR LATCH	TK1462	NFP-34A-0112A
A18J2	131-4048-00		671-3922-00	CONN,HDR:PCB;MALE,RTANG,2 X 17,0.05 X 0.1CTR,0.326 H X 0.106TAIL,0.075 STAGGERED PCB,W/EJECTOR LATCH	TK1462	NFP-34A-0112A
A18J3	131-4048-00		671-3922-00	CONN,HDR:PCB;MALE,RTANG,2 X 17,0.05 X 0.1CTR,0.326 H X 0.106TAIL,0.075 STAGGERED PCB,W/EJECTOR LATCH	TK1462	NFP-34A-0112A
A18J4	131-4049-00		671-3922-00	CONN,HDR:PCB;MALE,RTANG,2 X 30,0.05 X 0.1CTR,0.326 H X 0.106TAIL,0.075 STAGGERED PCB,W/EJECTOR LATCH	TK1462	NFP-60A-0112A
A18J5	131-3517-00		671-3922-00	CONN,DIN:PCB;FEMALE,RTANG,3 X 50,0.1 CTR,0.504 MLG X 0.118 TAIL,30 GOLD	15912	FXR150-012-2
				MOUNTING PARTS		
	210-0001-00		671-3922-00	WASHER,LOCK:#2 INTL,0.013 THK,STL (QUANTITY 2)	78189	1202-00-00-0541
	210-0405-00		671-3922-00	NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0185-00		671-3922-00	SCREW,MACHINE:2-56 X 0.438,PNH,STL (QUANTITY 2)	0KB01	ORDER BY DESC
				END MOUNTING PARTS		
A18L63	108-0733-00		671-3922-00	INDUCTOR,FXD:CUSTOM,SIGNAL:117NH,10%, Q>45@25MHZ,ON FORM 276-0145-00,11T W/33 AWG	0JR03	108-0733-00
A18L64	108-0212-00		671-3922-00	INDUCTOR,FXD:CUSTOM,SIGNAL:495NH ON FORM 315-0331-01	0JR03	108-0212-00
A18L65	108-0212-00		671-3922-00	INDUCTOR,FXD:CUSTOM,SIGNAL:495NH ON FORM 315-0331-01	0JR03	108-0212-00
A18R1	307-0650-00		671-3922-00	RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A18R2	307-0650-00		671-3922-00	RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A18R3	307-0650-00		671-3922-00	RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A18R4	307-0650-00		671-3922-00	RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A18R8	322-3097-00		671-3922-00	RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A18R9	322-3097-00		671-3922-00	RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A18R10	322-3097-00		671-3922-00	RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A18R11	322-3162-00		671-3922-00	RES,FXD:METAL FILM;475 OHM,1%,0.2W,TC=100 PPM	91637	CCF50G475R0F
A18R12	307-0717-00		671-3922-00	RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A18R13	307-0717-00		671-3922-00	RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A18R14	307-0717-00		671-3922-00	RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A18R15	322-3169-00		671-3922-00	RES,FXD:METAL FILM;562 OHM,1%,0.2W,TC=100 PPM	91637	CCF50-2F562R0F
A18R16	322-3169-00		671-3922-00	RES,FXD:METAL FILM;562 OHM,1%,0.2W,TC=100 PPM	91637	CCF50-2F562R0F
A18R17	322-3169-00		671-3922-00	RES,FXD:METAL FILM;562 OHM,1%,0.2W,TC=100 PPM	91637	CCF50-2F562R0F
A18R18	307-0650-00		671-3922-00	RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A18R19	307-1187-00		671-3922-00	RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A18R20	307-1187-00		671-3922-00	RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A18R21	307-1187-00		671-3922-00	RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A18R22	322-3097-00		671-3922-00	RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A18R23	322-3097-00		671-3922-00	RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A18R25	322-3289-00		671-3922-00	RES,FXD:METAL FILM;10K OHM,1%,0.2W,TC=100 PPM	91637	CCF50G10001F
A18R26	322-3169-00		671-3922-00	RES,FXD:METAL FILM;562 OHM,1%,0.2W,TC=100 PPM	91637	CCF50-2F562R0F
A18R27	322-3169-00		671-3922-00	RES,FXD:METAL FILM;562 OHM,1%,0.2W,TC=100 PPM	91637	CCF50-2F562R0F
A18R28	307-0650-00		671-3922-00	RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A18R29	307-0650-00		671-3922-00	RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A18R30	307-0650-00		671-3922-00	RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A18R31	307-0650-00		671-3922-00	RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A18R32	307-0675-00		671-3922-00	RES NTWK,FXD,FI:(9),1K OHM,2%,1.25W	50139	210A102
A18R33	307-1187-00		671-3922-00	RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A18R34	307-1187-00		671-3922-00	RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A18R36	307-1187-00		671-3922-00	RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A18R37	307-1187-00		671-3922-00	RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A18R38	307-0650-00		671-3922-00	RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A18R39	307-0650-00		671-3922-00	RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A18R40	307-0650-00		671-3922-00	RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A18R41	307-0650-00		671-3922-00	RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W	11236	750-101-R2.7K
A18R43	322-3193-00		671-3922-00	RES,FXD:METAL FILM;1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A18R45	322-3097-00		671-3922-00	RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A18R47	322-3097-00		671-3922-00	RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A18R48	322-3047-00		671-3922-00	RES,FXD,FILM;30.1 OHM,1%,0.2W,TC=T0,SMALL BODY	57668	CRB20FXE30E1
A18R49	322-3097-00		671-3922-00	RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A18R50	322-3030-00	671-1911-00	671-1911-04	RES,FXD:METAL FILM;20 OHM,1%,0.2W,TC=100 PPM	57668	CRB 20 FXE 20E0
A18R51	322-3162-00	671-1911-00	671-1911-04	RES,FXD:METAL FILM;475 OHM,1%,0.2W,TC=100 PPM	91637	CCF50G475R0F
A18R52	322-3047-00		671-3922-00	RES,FXD,FILM;30.1 OHM,1%,0.2W,TC=T0,SMALL BODY	57668	CRB20FXE30E1
A18R53	322-3105-00		671-3922-00	RES,FXD:METAL FILM;121 OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 121E
A18R54	307-1187-00		671-3922-00	RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A18R55	307-1187-00		671-3922-00	RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A18R56	307-0828-00		671-3922-00	RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B330
A18R57	307-0828-00		671-3922-00	RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B330
A18R58	307-1187-00		671-3922-00	RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A18R59	307-1187-00		671-3922-00	RES NTWK,FXD,FI:33 OHM,2%,1.25W	57924	4310R-102-330
A18R60	322-3105-00	671-1911-00	671-1911-00	RES,FXD:METAL FILM;121 OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 121E
A18R60	322-3085-00	671-1911-01	671-1911-04	RES,FXD:METAL FILM;75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A18R60	322-3097-00	671-1911-05	671-3922-00	RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A18R61	322-3097-00		671-3922-00	RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100R0F
A18R62	322-3051-00		671-3922-00	RES,FXD:METAL FILM;33.2 OHM,1%,0.2W,TC=100 PPM	57668	CRB20FXE33E2
A18R64	322-3085-00	671-1911-03	671-3922-00	RES,FXD:METAL FILM;75 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G75R00F
A18RC1	307-1585-00		671-3922-00	RES NTWK,FXD,FI:TERMN NTWK,8,50 OHM RESISTORS AND 8 ,220PFCAPS IN SERIES,9 PIN SIP,PIN 1 COMMON	91637	CSRC-09C30-500J
A18RC2	307-1586-00		671-3922-00	RES NTWK,FXD,FI:TERMN NTWK,10,50 OHM RESISTORS AND 10 220PFCAPS IN SERIES,11PIN SIP,PIN 1 COMMON	91637	CSRC-11C30-500J
A18RC3	307-1585-00		671-3922-00	RES NTWK,FXD,FI:TERMN NTWK,8,50 OHM RESISTORS AND 8 ,220PFCAPS IN SERIES,9 PIN SIP,PIN 1 COMMON	91637	CSRC-09C30-500J
A18RC4	307-1586-00		671-3922-00	RES NTWK,FXD,FI:TERMN NTWK,10,50 OHM RESISTORS AND 10 220PFCAPS IN SERIES,11PIN SIP,PIN 1 COMMON	91637	CSRC-11C30-500J
A18TP1	214-4085-00		671-3922-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A18TP2	214-4085-00		671-3922-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A18TP3	214-4085-00		671-3922-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A18TP4	214-4085-00		671-3922-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A18TP5	214-4085-00		671-3922-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A18TP6	214-4085-00		671-3922-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A18TP7	214-4085-00		671-3922-00	TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A18U1	156-1748-02		671-3922-00	IC,DIGITAL:ALSTTL,TRANSCEIVER:OCTAL NONINV	01295	SN74ALS245AN
A18U2	156-1748-02		671-3922-00	IC,DIGITAL:ALSTTL,TRANSCEIVER:OCTAL NONINV	01295	SN74ALS245AN
A18U3	156-1748-02		671-3922-00	IC,DIGITAL:ALSTTL,TRANSCEIVER:OCTAL NONINV	01295	SN74ALS245AN
A18U4	156-1748-02		671-3922-00	IC,DIGITAL:ALSTTL,TRANSCEIVER:OCTAL NONINV	01295	SN74ALS245AN
A18U5	156-3888-00		671-3922-00	IC,DIGITAL:FTTL,BUFFER;10-BIT,3-STATE	04713	MC74F827N
A18U6	156-3237-00		671-3922-00	IC,PROCESSOR:CMOS,PRPHL;PRGM INTERVAL TIMER	34649	82C54-2
A18U7	156-2773-00	671-1911-00	671-1911-01	IC,PROCESSOR:CMOS,PRPHL;PRGM INTERVAL TIMER	34649	P82C54-2
A18U7	156-3237-00	671-1911-02	671-3922-00	IC,PROCESSOR:CMOS,PRPHL;PRGM INTERVAL TIMER	34649	82C54-2
A18U8	156-4066-00		671-3922-00	IC,ASIC:CMOS,GATE ARRAY;VM700A CONTR GLUE LOGIC *MOUNTING PARTS*	80009	156406600
	136-0906-00		671-3922-00	SOCKET,PGA;PCB;145 POS,15 X 15,0.1 X0.1 CTR,0.250 H X 0.125 TAIL,TIN,NON-SYMMETRICAL,LIF,PAT 1521 *END MOUNTING PARTS*	00779	916225-3
A18U9	156-2290-00		671-3922-00	IC,DIGITAL:ECL,TRANSLATOR;QUAD ECL-TO-TTL	04713	MC10H125P
A18U10	156-2290-00		671-3922-00	IC,DIGITAL:ECL,TRANSLATOR;QUAD ECL-TO-TTL	04713	MC10H125P
A18U11	156-2114-00		671-3922-00	IC,DIGITAL:ECL,RECEIVER;QUAD LINE	04713	MC10H115P
A18U12	156-2290-00		671-3922-00	IC,DIGITAL:ECL,TRANSLATOR;QUAD ECL-TO-TTL	04713	MC10H125P
A18U13	156-2290-00		671-3922-00	IC,DIGITAL:ECL,TRANSLATOR;QUAD ECL-TO-TTL	04713	MC10H125P
A18U14	156-1713-00		671-3922-00	IC,DIGITAL:ECL,MULTIVIBRATOR;RETRIG MONOSTABLE	04713	MC10198P
A18U15	156-2953-00		671-3922-00	IC,DITL:FTTL,FLIP FLOP;OCTAL NONINV D-TYPE,3-STATE	01295	SN74F574N
A18U16	156-2953-00		671-3922-00	IC,DGTL:FTTL,FLIP FLOP;OCTAL NONINV D-TYPE,3-STATE	01295	SN74F574N
A18U17	156-3461-00		671-3922-00	IC,MEMORY:CMOS,SRAM;16K X 4,25NS	TK1146	M5M5188BP-25
A18U18	156-1748-02		671-3922-00	IC,DIGITAL:ALSTTL,TRANSCEIVER:OCTAL NONINV	01295	SN74ALS245AN
A18U19	156-2289-00		671-3922-00	IC,DIGITAL:ECL,TRANSLATOR;QUAD TTL-TO-ECL	04713	MC10H124P
A18U20	156-4113-00		671-3922-00	IC,DIGITAL:FTTL,FLIP FLOP;10-BIT,3-STATE	1CH66	74F821N
A18U22	156-1748-02		671-3922-00	IC,DIGITAL:ALSTTL,TRANSCEIVER:OCTAL NONINV	01295	SN74ALS245AN
A18U23	156-1748-02		671-3922-00	IC,DIGITAL:ALSTTL,TRANSCEIVER:OCTAL NONINV	01295	SN74ALS245AN
A18U24	156-1748-02		671-3922-00	IC,DIGITAL:ALSTTL,TRANSCEIVER:OCTAL NONINV	01295	SN74ALS245AN
A18U25	156-1748-02		671-3922-00	IC,DIGITAL:ALSTTL,TRANSCEIVER:OCTAL NONINV	01295	SN74ALS245AN
A18U26	156-1748-02		671-3922-00	IC,DIGITAL:ALSTTL,TRANSCEIVER:OCTAL NONINV	01295	SN74ALS245AN
A18U27	156-3888-00		671-3922-00	IC,DIGITAL:FTTL,BUFFER;10-BIT,3-STATE	04713	MC74F827N
A18U28	156-3508-00		671-3922-00	IC,DGTL:ASTTL,FLIP FLOP;OCTAL D-TYPE, NONINV,CLR	01295	SN74AS575NT
A18U29	156-3508-00		671-3922-00	IC,DGTL:ASTTL,FLIP FLOP;OCTAL D-TYPE, NONINV,CLR	01295	SN74AS575NT
A18U30	156-3461-00		671-3922-00	IC,MEMORY:CMOS,SRAM;16K X 4,25NS	TK1146	M5M5188BP-25
A18U31	156-3461-00		671-3922-00	IC,MEMORY:CMOS,SRAM;16K X 4,25NS	TK1146	M5M5188BP-25
A18U32	156-3461-00		671-3922-00	IC,MEMORY:CMOS,SRAM;16K X 4,25NS	TK1146	M5M5188BP-25
A18U33	156-3461-00		671-3922-00	IC,MEMORY:CMOS,SRAM;16K X 4,25NS	TK1146	M5M5188BP-25
A18U34	156-3461-00		671-3922-00	IC,MEMORY:CMOS,SRAM;16K X 4,25NS	TK1146	M5M5188BP-25
A18U35	156-3461-00		671-3922-00	IC,MEMORY:CMOS,SRAM;16K X 4,25NS	TK1146	M5M5188BP-25
A18U36	156-3461-00		671-3922-00	IC,MEMORY:CMOS,SRAM;16K X 4,25NS	TK1146	M5M5188BP-25
A18U37	156-3461-00		671-3922-00	IC,MEMORY:CMOS,SRAM;16K X 4,25NS	TK1146	M5M5188BP-25
A18U38	156-3509-00		671-3922-00	IC,DIGITAL:FTTL,COUNTER;SYNCH 8-BIT UP/DOWN	1CH66	N74F1779N
A18U39	156-3509-00		671-3922-00	IC,DIGITAL:FTTL,COUNTER;SYNCH 8-BIT UP/DOWN	1CH66	N74F1779N
A18U40	156-1722-00		671-3922-00	IC,DIGITAL:FTTL,GATE;HEX INV	04713	MC74F04N
A18U41	156-2953-00		671-3922-00	IC,DGTL:FTTL,FLIP FLOP;OCTAL NONINV D-TYPE,3-STATE	01295	SN74F574N
A18U42	156-2953-00		671-3922-00	IC,DGTL:FTTL,FLIP FLOP;OCTAL NONINV D-TYPE,3-STATE	01295	SN74F574N
A18U43	156-2953-00		671-3922-00	IC,DGTL:FTTL,FLIP FLOP;OCTAL NONINV D-TYPE,3-STATE	01295	SN74F574N
A18U44	156-2992-00		671-3922-00	IC,MEMORY:CMOS,SRAM;2K X 8,35NS,OE	65786	CY7C128A-35PC
A18U45	156-2992-00		671-3922-00	IC,MEMORY:CMOS,SRAM;2K X 8,35NS,OE	65786	CY7C128A-35PC
A18U46	156-2992-00		671-3922-00	IC,MEMORY:CMOS,SRAM;2K X 8,35NS,OE	65786	CY7C128A-35PC
A18U47	156-2992-00		671-3922-00	IC,MEMORY:CMOS,SRAM;2K X 8,35NS,OE	65786	CY7C128A-35PC
A18U48	156-1748-02		671-3922-00	IC,DIGITAL:ALSTTL,TRANSCEIVER:OCTAL NONINV	01295	SN74ALS245AN
A18U49	156-1748-02		671-3922-00	IC,DIGITAL:ALSTTL,TRANSCEIVER:OCTAL NONINV	01295	SN74ALS245AN
A18U50	156-1748-02		671-3922-00	IC,DIGITAL:ALSTTL,TRANSCEIVER:OCTAL NONINV	01295	SN74ALS245AN
A18U51	156-1748-02		671-3922-00	IC,DIGITAL:ALSTTL,TRANSCEIVER:OCTAL NONINV	01295	SN74ALS245AN
A18U52	156-2953-00		671-3922-00	IC,DGTL:FTTL,FLIP FLOP;OCTAL NONINV D-TYPE,3-STATE	01295	SN74F574N

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Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Serial / Assembly Number Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
A18U53	156-2953-00		671-3922-00	IC,DGTL:FTTL,FLIP FLOP;OCTAL NONINV D-TYPE,3-STATE	01295	SN74F574N
A18U54	156-2953-00		671-3922-00	IC,DGTL:FTTL,FLIP FLOP;OCTAL NONINV D-TYPE,3-STATE	01295	SN74F574N
A18U55	156-2953-00		671-3922-00	IC,DGTL:FTTL,FLIP FLOP;OCTAL NONINV D-TYPE,3-STATE	01295	SN74F574N
A18U56	160-5109-00		671-3922-00	MICROCKT,DGTL:HEX 16 INP RGTR AND/OR,PRGM	80009	160510900
	136-0752-00		671-3922-00	*MOUNTING PARTS* SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A18U57	156-3888-00		671-3922-00	IC,DIGITAL:FTTL,BUFFER;10-BIT,3-STATE	04713	MC74F827N
A18U58	156-4063-00		671-3922-00	IC,ASIC:CMOS,GATE ARRAY;VM700A ACQUISITION 1C	80009	156406300
	136-0906-00		671-3922-00	*MOUNTING PARTS* SOCKET,PGA:PCB;145 POS,15 X 15,0.1 X0.1 CTR,0.250 H X 0.125 TAIL,TIN,NON-SYMMETRICAL,LIF,PAT 1521	00779	916225-3
				END MOUNTING PARTS		
A18U59	156-4064-00		671-3922-00	IC,ASIC:CMOS,GATE ARRAY;DUAL PORT REGISTER FILE	80009	156406400
	136-1058-00		671-3922-00	*MOUNTING PARTS* SKT,PL-IN ELEK:PLCC,68 POS,0.152 TAIL,GOLD, FOR AMP CERAMIC PKG ONLY	00779	641749-2
				END MOUNTING PARTS		
A18U60	156-4065-00	671-1911-00	671-1911-05	IC,ASIC:CMOS,GATE ARRAY;VM700A FIFO CONTROLLER	80009	156406500
A18U61	156-3741-01		671-3922-00	IC,ASIC:CMOS,GATE ARRAY;SYNCHRONOUS CUMUMATIVE 10-BIT MIN-MAXSTORE,VM700A	80009	156374101
A18U63	160-8189-00		671-3922-00	IC,DIGITAL:CMOS,PLD;EEPLD,16V8,15NS,90MA	80009	160818900
	136-0752-00		671-3922-00	*MOUNTING PARTS* SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A18U64	156-4068-00		671-3922-00	IC,DIGITAL:FCTCMOS,TRANSCEIVER;OCTAL REGISTERED	0TJ19	QS74FCT652ATP
A18U65	156-4068-00		671-3922-00	IC,DIGITAL:FCTCMOS,TRANSCEIVER;OCTAL REGISTERED	0TJ19	QS74FCT652ATP
A18U66	156-4068-00		671-3922-00	IC,DIGITAL:FCTCMOS,TRANSCEIVER;OCTAL REGISTERED	0TJ19	QS74FCT652ATP
A18U67	156-4068-00		671-3922-00	IC,DIGITAL:FCTCMOS,TRANSCEIVER;OCTAL REGISTERED	0TJ19	QS74FCT652ATP
A18U68	156-3668-00		671-3922-00	IC,DIGITAL:FCTCMOS,LATCH;10-BIT BUS INTFC, D-TYPE	61772	IDT74FCT841BP
A18U69	156-3668-00		671-3922-00	IC,DIGITAL:FCTCMOS,LATCH;10-BIT BUS INTFC, D-TYPE	61772	IDT74FCT841BP
A18U70	156-4064-00		671-3922-00	IC,ASIC:CMOS,GATE ARRAY;DUAL PORT REGISTER FILE	80009	156406400
	136-1058-00		671-3922-00	*MOUNTING PARTS* SKT,PL-IN ELEK:PLCC,68 POS,0.152 TAIL,GOLD, FOR AMP CERAMIC PKG ONLY	00779	641749-2
				END MOUNTING PARTS		
A18U71	156-4070-00	671-1911-00	671-1911-03	IC,MEMORY:BICMOS,SRAM;64K X 4,25NS	62786	HM6708AP-25
A18U71	156-4350-00	671-1911-04	671-3922-00	IC, MEMORY:CMOS,SRAM;64K X 4,20NS	TK1146	M5M5258BP-20
A18U72	156-4070-00	671-1911-00	671-1911-03	IC,MEMORY:BICMOS,SRAM;64K X 4,25NS	62786	HM6708AP-25
A18U72	156-4350-00	671-1911-04	671-3922-00	IC, MEMORY:CMOS,SRAM;64K X 4,20NS	TK1146	M5M5258BP-20
A18U73	156-4070-00	671-1911-00	671-1911-03	IC,MEMORY:BICMOS,SRAM;64K X 4,25NS	62786	HM6708AP-25
A18U73	156-4350-00	671-1911-04	671-3922-00	IC, MEMORY:CMOS,SRAM;64K X 4,20NS	TK1146	M5M5258BP-20
A18U74	156-4070-00	671-1911-00	671-1911-03	IC,MEMORY:BICMOS,SRAM;64K X 4,25NS	62786	HM6708AP-25
A18U74	156-4350-00	671-1911-04	671-3922-00	IC, MEMORY:CMOS,SRAM;64K X 4,20NS	TK1146	M5M5258BP-20
A18U75	156-4070-00	671-1911-00	671-1911-03	IC,MEMORY:BICMOS,SRAM;64K X 4,25NS	62786	HM6708AP-25
A18U75	156-4350-00	671-1911-04	671-3922-00	IC, MEMORY:CMOS,SRAM;64K X 4,20NS	TK1146	M5M5258BP-20
A18U76	156-4070-00	671-1911-00	671-1911-03	IC,MEMORY:BICMOS,SRAM;64K X 4,25NS	62786	HM6708AP-25
A18U76	156-4350-00	671-1911-04	671-3922-00	IC, MEMORY:CMOS,SRAM;64K X 4,20NS	TK1146	M5M5258BP-20
A18U77	156-4070-00	671-1911-00	671-1911-03	IC,MEMORY:BICMOS,SRAM;64K X 4,25NS	62786	HM6708AP-25
A18U77	156-4350-00	671-1911-04	671-3922-00	IC, MEMORY:CMOS,SRAM;64K X 4,20NS	TK1146	M5M5258BP-20
A18U78	156-4070-00	671-1911-00	671-1911-03	IC,MEMORY:BICMOS,SRAM;64K X 4,25NS	62786	HM6708AP-25
A18U78	156-4350-00	671-1911-04	671-3922-00	IC, MEMORY:CMOS,SRAM;64K X 4,20NS	TK1146	M5M5258BP-20
A18U79	156-4070-00	671-1911-00	671-1911-03	IC,MEMORY:BICMOS,SRAM;64K X 4,25NS	62786	HM6708AP-25
A18U79	156-4350-00	671-1911-04	671-3922-00	IC, MEMORY:CMOS,SRAM;64K X 4,20NS	TK1146	M5M5258BP-20
A18U80	156-4070-00	671-1911-00	671-1911-03	IC,MEMORY:BICMOS,SRAM;64K X 4,25NS	62786	HM6708AP-25
A18U80	156-4350-00	671-1911-04	671-3922-00	IC, MEMORY:CMOS,SRAM;64K X 4,20NS	TK1146	M5M5258BP-20
A18U81	156-4070-00	671-1911-00	671-1911-03	IC,MEMORY:BICMOS,SRAM;64K X 4,25NS	62786	HM6708AP-25

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Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A18U81	156-4350-00	671-1911-04	671-3922-00	IC, MEMORY:CMOS,SRAM;64K X 4,20NS	TK1146	M5M5258BP-20
A18U82	156-4070-00	671-1911-00	671-1911-03	IC, MEMORY:BICMOS,SRAM;64K X 4,25NS	62786	HM6708AP-25
A18U82	156-4350-00	671-1911-04	671-3922-00	IC, MEMORY:CMOS,SRAM;64K X 4,20NS	TK1146	M5M5258BP-20
A18U83	156-4070-00	671-1911-00	671-1911-03	IC, MEMORY:BICMOS,SRAM;64K X 4,25NS	62786	HM6708AP-25
A18U83	156-4350-00	671-1911-04	671-3922-00	IC, MEMORY:CMOS,SRAM;64K X 4,20NS	TK1146	M5M5258BP-20
A18U84	156-4070-00	671-1911-00	671-1911-03	IC, MEMORY:BICMOS,SRAM;64K X 4,25NS	62786	HM6708AP-25
A18U84	156-4350-00	671-1911-04	671-3922-00	IC, MEMORY:CMOS,SRAM;64K X 4,20NS	TK1146	M5M5258BP-20
A18U85	156-4070-00	671-1911-00	671-1911-03	IC, MEMORY:BICMOS,SRAM;64K X 4,25NS	62786	HM6708AP-25
A18U85	156-4350-00	671-1911-04	671-3922-00	IC, MEMORY:CMOS,SRAM;64K X 4,20NS	TK1146	M5M5258BP-20
A18U86	156-4070-00	671-1911-00	671-1911-03	IC, MEMORY:BICMOS,SRAM;64K X 4,25NS	62786	HM6708AP-25
A18U86	156-4350-00	671-1911-04	671-3922-00	IC, MEMORY:CMOS,SRAM;64K X 4,20NS	TK1146	M5M5258BP-20
A18U87	156-1727-00		671-3922-00	IC,DIGITAL:FTTL,DEMUX/DECODER;1-OF-8 DECODER	01295	SN74F138N
A18U88	156-0645-02		671-3922-00	IC,DIGITAL:LSTTL,GATES	01295	SN74LS14N
A18U89	156-4341-00		671-3922-00	IC,DIGITAL:BICMOS,BUFFER/DRIVER;DUAL,3-STATE	01295	SN64BCT306P
A18Y1	119-1413-00	671-1911-00	671-1911-03	OSC,XTAL CLOCK:20.0MHZ, +/-0.05 %, TTL, 4PIN 14 PIN DIP COMPATIBLE	14301	AE 404-417
A18Y1	119-1408-00	671-1911-04	671-3922-00	OSC,XTAL CLOCK:16MHZ,0.01%,TTL,4 PIN 14 PIN	23875	792-010

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Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A19	671-2337-00			CIRCUIT BD ASSY:GPIB *ATTACHED PARTS*	80009	671233700
	105-0160-00			EJECTOR,CKT BD:WHITE PLASTIC	TK2562	105-0160-00
	211-0244-00			SCR,ASSEM WSHR:4-40 X 0.312,PNH,STL,CD PL,POZ (QUANTITY 4)	TK0435	7772-312
	214-1337-00			PIN,SPRING:0.25 L X 0.103 OD,STL CD PL	0KB01	ORDER BY DESC
	220-0098-00			NUT BLOCK:4-40 THRU,ALUMINUM (QUANTITY 2)	TK1465	220-0098-00
	337-3892-00			SHIELD,ELEC:BE CU,CLIP ON,1 X 60 (QUANTITY 2)	80009	337389200
	386-6232-00			PANEL,GPIB:VM700A *END ATTACHED PARTS*	5Y400	386-6232-00
A19C100	290-0932-00			CAP,FXD,ELCTLT:390UF,+100-10%,15VDC	62643	672D676
A19C103	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C104	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C105	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C106	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C107	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C109	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C110	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C111	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C112	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C113	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C114	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C116	281-0814-00			CAP,FXD,CERAMIC:MCL:100 PF,10%,100V,0.100 X	TK1743	CGB101KEN
A19C117	281-0814-00			CAP,FXD,CERAMIC:MCL:100 PF,10%,100V,0.100 X	TK1743	CGB101KEN
A19C120	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C121	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C128	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C129	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C130	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C131	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C132	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C133	283-0339-01			CAP,FXD,CERAMIC:MCL:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C134	283-0339-01			CAP,FXD,CERAMIC:MCL:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C135	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C137	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C138	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C139	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C140	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C141	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C145	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C148	283-0339-01			CAP,FXD,CERAMIC:MCL:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C149	283-0339-01			CAP,FXD,CERAMIC:MCL:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C150	283-0339-01			CAP,FXD,CERAMIC:MCL:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C151	283-0339-01			CAP,FXD,CERAMIC:MCL:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C152	283-0339-01			CAP,FXD,CERAMIC:MCL:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C153	283-0339-01			CAP,FXD,CERAMIC:MCL:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C154	283-0339-01			CAP,FXD,CERAMIC:MCL:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C155	283-0339-01			CAP,FXD,CERAMIC:MCL:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C160	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C161	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C162	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C163	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C164	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C167	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C168	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C169	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA

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		Effective	Discontinued			
A19C170	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C171	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C174	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C175	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C178	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C214	281-0814-00			CAP,FXD,CERAMIC:MLC:100 PF,10%,100V,0.100 X	TK1743	CGB101KEN
A19C215	281-0814-00			CAP,FXD,CERAMIC:MLC:100 PF,10%,100V,0.100 X	TK1743	CGB101KEN
A19C216	281-0814-00			CAP,FXD,CERAMIC:MLC:100 PF,10%,100V,0.100 X	TK1743	CGB101KEN
A19C220	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C221	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C222	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C223	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C224	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C509	283-0339-01			CAP,FXD,CERAMIC:MLC:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C510	283-0339-01			CAP,FXD,CERAMIC:MLC:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C511	283-0339-01			CAP,FXD,CERAMIC:MLC:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C512	283-0339-01			CAP,FXD,CERAMIC:MLC:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C515	283-0339-01			CAP,FXD,CERAMIC:MLC:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C516	283-0339-01			CAP,FXD,CERAMIC:MLC:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C517	283-0339-01			CAP,FXD,CERAMIC:MLC:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C518	283-0339-01			CAP,FXD,CERAMIC:MLC:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C522	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C523	283-0198-00			CAP,FXD,CERAMIC:MLC:0.22UF,20%,50V,X7R,0.30	04222	SR305C224MAA
A19C524	283-0339-01			CAP,FXD,CERAMIC:MLC:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C601	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C602	283-0198-00			CAP,FXD,CERAMIC:MLC:0.22UF,20%,50V,X7R,0.30	04222	SR305C224MAA
A19C603	283-0339-01			CAP,FXD,CERAMIC:MLC:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C604	283-0339-01			CAP,FXD,CERAMIC:MLC:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C605	283-0339-01			CAP,FXD,CERAMIC:MLC:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C606	283-0198-00			CAP,FXD,CERAMIC:MLC:0.22UF,20%,50V,X7R,0.30	04222	SR305C224MAA
A19C607	283-0339-01			CAP,FXD,CERAMIC:MLC:0.22UF,10%,50V,X7R,0.300 X 0.300	TK2058	FK22X7R1H224K-T
A19C608	283-0159-02			CAP,FXD,CER DI:18PF,5%,50VTAPE & REEL	TK2058	FK16COG1H180J-T
A19C609	283-0260-01			CAP,FXD,CER DI:5.6PF,+/- 0.25PF,200VAMMO PACK	04222	SR292A5R6CAAAP1
A19C610	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C611	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19C612	281-0775-01			CAP,FXD,CERAMIC:MCL:0.1UF,20%,50V,Z5U,0.170	04222	SA105E104MAA
A19CR100	152-0322-00			DIODE,SIG:SCHTKY:15V,410MV AT 1MA,1.2PF	50434	5082-2672-T25
A19CR101	152-0322-00			DIODE,SIG:SCHTKY:15V,410MV AT 1MA,1.2PF	50434	5082-2672-T25
A19DS101	150-1120-00			DIODE,OPTO:LED:AMBER,583NM,8MCD AT 20MA,T1	15513	PCL200-BA
A19DS102	150-1090-00			DIODE,OPTO:LED:RED,626NM,4MCD AT 10MA,60 DEG VIEW ANGLE,RT ANGLE MT W/EVEN SHEARED LEADS	15513	SP850211
A19DS103	150-1111-00			LT EMITTING DIO:GREEN,D565NM,35MA	15513	PCL200-MG
A19DS104	150-1111-00			LT EMITTING DIO:GREEN,D565NM,35MA	15513	PCL200-MG
A19DS105	150-1120-00			DIODE,OPTO:LED:AMBER,583NM,8MCD AT 20MA,T1	15513	PCL200-BA
A19DS106	150-1111-00			LT EMITTING DIO:GREEN,D565NM,35MA	15513	PCL200-MG
A19DS107	150-1111-00			LT EMITTING DIO:GREEN,D565NM,35MA	15513	PCL200-MG
A19F100	159-0193-00			FUSE,WIRE LEAD:10A,60V,FAST BLOW,5 SEC,SAFETY	61857	SP5-10A
A19FL100	119-4472-00			FILTER,RF:EMI/RFI:50V,500MA,0.12 OHMS MAX DCR,200 OHMS IMPEADANCE AT 20-300MHZ,4 COMMON MODE CHOKE COILS	TK2058	ZJY51R5-8PA
A19FL101	119-4472-00			FILTER,RF:EMI/RFI:50V,500MA,0.12 OHMS MAX DCR,200 OHMS IMPEADANCE AT 20-300MHZ,4 COMMON MODE CHOKE COILS	TK2058	ZJY51R5-8PA
A19FL102	119-4472-00			FILTER,RF:EMI/RFI:50V,500MA,0.12 OHMS MAX DCR,200 OHMS IMPEADANCE AT 20-300MHZ,4 COMMON MODE CHOKE COILS	TK2058	ZJY51R5-8PA
A19FL103	119-4472-00			FILTER,RF:EMI/RFI:50V,500MA,0.12 OHMS MAX DCR,200 OHMS IMPEADANCE AT 20-300MHZ,4 COMMON MODE CHOKE COILS	TK2058	ZJY51R5-8PA

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A19J100	131-3517-00			CONN,DIN:PCB;FEMALE,RTANG,3 X 50,0.1 CTR,0.504 MLG X 0.118 TAIL,30 GOLD	15912	FXR150-012-2
A19J101	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A19J103	131-3410-00			CONN,RIBBON:PCB/PNL;FEMALE,RTANG,24 POS,0.085 CTR,0.469 MLG X 0.157 TAIL,6-32 THD PNL *MOUNTING PARTS*	00779	553811-2
	129-0887-02			SPCR,POST:0.531 L,M3.5 X 0.6 INT/6-32 EXT,STL,0.312 HEX (QUANTITY 2)	02660	57-1912-01 EA B
	211-0504-00			SCREW,MACHINE:6-32 X 0.250,PNH,STL (QUANTITY 2) *END MOUNTING PARTS*	TK0435	ORDER BY DESC
A19J602	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB;MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A19R100	322-3147-00			RES,FXD:METAL FILM;332 OHM,1%,0.2W,TC=100 PPM	57668	CRB20 FXE 332E
A19R102	307-0741-00			RES NTWK,FXD,FI:7.3.3K OHM,2%,0.19W EACH	11236	750-81-R3.3K OR 770-81-R3.3K
A19R103	322-3258-00			RES,FXD:METAL FILM;4.75K OHM,1%,0.2W,TC=100	56845	CCF50-2-G4751FT
A19R111	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R112	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W	91637	CSC08A-03-100G
A19R114	307-0637-00			RES NTWK,FXD,FI:5,2K OHM,2%,0.125W	11236	750-61-R2K
A19R120	307-0445-00			RES,NTWK:THICK FILM:(9) 4.7K OHM,2%,0.2W EACH,TC=100 PPM,SIP10,PIN 1 COMMON	11236	750-101-R4.7 K TUBE PACKED
A19R121	307-0445-00			RES,NTWK:THICK FILM:(9) 4.7K OHM,2%,0.2W EACH,TC=100 PPM,SIP10,PIN 1 COMMON	11236	750-101-R4.7 K TUBE PACKED
A19R122	307-0445-00			RES,NTWK:THICK FILM:(9) 4.7K OHM,2%,0.2W EACH,TC=100 PPM,SIP10,PIN 1 COMMON	11236	750-101-R4.7 K TUBE PACKED
A19R123	307-0445-00			RES,NTWK:THICK FILM:(9) 4.7K OHM,2%,0.2W EACH,TC=100 PPM,SIP10,PIN 1 COMMON	11236	750-101-R4.7 K TUBE PACKED
A19R126	307-0446-00			RES NTWK,FXD,FI:10K OHM,20%,(9)RES	11236	750-101-R10K
A19R127	307-0446-00			RES NTWK,FXD,FI:10K OHM,20%,(9)RES	11236	750-101-R10K
A19R128	307-0446-00			RES NTWK,FXD,FI:10K OHM,20%,(9)RES	11236	750-101-R10K
A19R129	307-0446-00			RES NTWK,FXD,FI:10K OHM,20%,(9)RES	11236	750-101-R10K
A19R132	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R136	307-0828-00			RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B330
A19R137	307-0446-00			RES NTWK,FXD,FI:10K OHM,20%,(9)RES	11236	750-101-R10K
A19R138	307-0637-00			RES NTWK,FXD,FI:5,2K OHM,2%,0.125W	11236	750-61-R2K
A19R141	322-3250-00			RES,FXD:METAL FILM;3.92K OHM,1%,0.2W,TC=100	91637	CCF50-2F39200F
A19R142	322-3250-00			RES,FXD:METAL FILM;3.92K OHM,1%,0.2W,TC=100	91637	CCF50-2F39200F
A19R168	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR
A19R183	307-0637-00			RES NTWK,FXD,FI:5,2K OHM,2%,0.125W	11236	750-61-R2K
A19R184	307-0824-00			RES NTWK,FXD,FI:4,150 OHM,2%,0.3W EACH	50139	208B151
A19R186	307-0611-00			RES NTWK,FXD,FI:7,150 OHM,5%,1.125 W	11236	750-81-R150 OHM
A19R187	307-0446-00			RES NTWK,FXD,FI:10K OHM,20%,(9)RES	11236	750-101-R10K
A19R188	307-0446-00			RES NTWK,FXD,FI:10K OHM,20%,(9)RES	11236	750-101-R10K
A19R189	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R502	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R503	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R504	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R505	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A19R506	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R507	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R508	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R509	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R510	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R511	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R512	307-0828-00			RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B330
A19R513	307-0828-00			RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B330
A19R514	307-0828-00			RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B330
A19R515	307-0828-00			RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B330
A19R516	307-0828-00			RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B330
A19R517	307-0828-00			RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B330
A19R518	307-0828-00			RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B330
A19R519	307-0828-00			RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B330
A19R520	307-0828-00			RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B330
A19R521	307-0828-00			RES NTWK,FXD,FI:4,33 OHM,2%,0.30W	50139	108B330 OR 708B330
A19R522	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R523	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R535	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R536	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R539	322-3097-00			RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100ROF
A19R540	307-1482-00			RES NTWK,FXD,FI:7,4.7K,SIP	57924	4608X-101-472
A19R544	322-3114-00			RES,FXD:METAL FILM;150 OHM,1%,0.2W,TC=100 PPM	57668	CRB20-FX-150E-AXI AL
A19R545	322-3114-00			RES,FXD:METAL FILM;150 OHM,1%,0.2W,TC=100 PPM	57668	CRB20-FX-150E-AXI AL
A19R601	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R602	322-3193-00			RES,FXD:METAL FILM;1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A19R603	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R604	307-0717-00			RES NTWK,FXD,FI:4,100 OHM,2%,0.3W EACH	11236	750-83-R100 OR 770-83-R100
A19R605	322-3193-00			RES,FXD:METAL FILM;1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A19R606	322-3193-00			RES,FXD:METAL FILM;1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A19R607	322-3193-00			RES,FXD:METAL FILM;1K OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10000F
A19R608	307-0741-00			RES NTWK,FXD,FI:7,3.3K OHM,2%,0.19W EACH	11236	750-81-R3.3K OR 770-81-R3.3K
A19R609	322-3001-00			RES,FXD:METAL FILM;10 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G10R00F
A19R610	322-3051-00			RES,FXD:METAL FILM;33.2 OHM,1%,0.2W,TC=100 PPM	57668	CRB20FXE33E2
A19R611	322-3051-00			RES,FXD:METAL FILM;33.2 OHM,1%,0.2W,TC=100 PPM	57668	CRB20FXE33E2
A19R612	322-3097-00			RES,FXD:METAL FILM;100 OHM,1%,0.2W,TC=100 PPM	91637	CCF501G100ROF
A19R613	307-0741-00			RES NTWK,FXD,FI:7,3.3K OHM,2%,0.19W EACH	11236	750-81-R3.3K OR 770-81-R3.3K
A19R614	307-0651-00			RES NTWK,FXD,FI:5,3.3K OHM,5%,0.150W	11236	750-61-R3.3K OHM OR 770-61-R3
A19RC100	307-1587-00			RES NTWK,FXD,FI:TERMN NTWK,8 100 OHM RESISTORS AND 8 220PFCAPS IN SERIES,9 PIN SIP,PIN 1 COMMON	91637	CSRC-09C30-101J/2 21K
A19RC101	307-1585-00			RES NTWK,FXD,FI:TERMN NTWK,8,50 OHM RESISTORS AND 8 ,220PFCAPS IN SERIES,9 PIN SIP,PIN 1 COMMON	91637	CSRC-09C30-500J/2 21K

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A19RC102	307-1586-00			RES NTWK,FXD,FI:TERNTWKMN ,10,50 OHM RESISTORS AND 10 220PFCAPS IN SERIES,11PIN SIP,PIN 1 COMMON	91637	CSRC-11C30-500J/22 1K
A19RC103	307-1587-00			RES NTWK,FXD,FI:TERMN NTWK,8 100 OHM RESISTORS AND 8 220PFCAPS IN SERIES,9 PIN SIP,PIN 1 COMMON	91637	CSRC-09C30-101J
A19RC104	307-1587-00			RES NTWK,FXD,FI:TERMN NTWK,8 100 OHM RESISTORS AND 8 220PFCAPS IN SERIES,9 PIN SIP,PIN 1 COMMON	91637	CSRC-09C30-101J/2 21K
A19RC105	307-1587-00			RES NTWK,FXD,FI:TERMN NTWK,8 100 OHM RESISTORS AND 8 220PFCAPS IN SERIES,9 PIN SIP,PIN 1 COMMON	91637	CSRC-09C30-101J/2 21K
A19RC501	307-1588-00			RES NTWK,FXD FI:TERMN NTWK,10,100OHM RESISTORS AND 10,220PFCAPS IN SERIES,11PIN SIP,PIN 1 COMMON	91637	CSRC-11C30-101J/22 1K
A19RC502	307-1588-00			RES NTWK,FXD FI:TERMN NTWK,10,100OHM RESISTORS AND 10,220PFCAPS IN SERIES,11PIN SIP,PIN 1 COMMON	91637	CSRC-11C30-101J/22 1K
A19S100	260-1589-00			SWITCH,ROCKER:(6)SPST,125MA,30VDC	81073	76SB06S
A19TP100	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A19TP101	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A19TP102	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A19TP103	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIAP CB,0.015 X 0.032 BRASS,W/RED NYLON COLLAR	26364	104-01-02
A19U100	156-0441-00			IC,DIGITAL:FTTL,COMPARATOR:8-BIT IDENTITY,/P=/Q,STD *MOUNTING PARTS*	04713	MC74F521N
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A19U102	156-3062-00			IC,DGTL:HCMOS,GATE:QUAD 2-INP NAND,SCHMITT TRIG	01295	SN74HC132N
A19U103	156-2864-00			IC,DIGITAL:FTTL,BUFFER:OCTAL, BUFFER/DRVR, 3-STATE *MOUNTING PARTS*	01295	SN74F541N
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A19U104	156-2864-00			IC,DIGITAL:FTTL,BUFFER:OCTAL,BUFFER/DRVR ,3-STATE *MOUNTING PARTS*	01295	SN74F541N
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A19U105	156-2864-00			IC,DIGITAL:FTTL,BUFFER:OCTAL,BUFFER/DRVR, 3-STATE *MOUNTING PARTS*	01295	SN74F541N
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A19U106	156-2864-00			IC,DIGITAL:FTTL,BUFFER:OCTAL, BUFFER/DRVR, 3-STATE *MOUNTING PARTS*	01295	SN74F541N
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A19U107	156-2391-00			IC,DIGITAL:ALSTTL,BFR/DRVR:OCTALNONINV, 3-STATE	01295	SN74ALS541N
A19U108	156-2391-00			IC,DIGITAL:ALSTTL,BFR/DRVR:OCTALNONINV, 3-STATE	01295	SN74ALS541N
A19U109	156-2391-00			IC,DIGITAL:ALSTTL,BFR/DRVR:OCTALNONINV, 3-STATE	01295	SN74ALS541N
A19U110	160-9288-00			IC,DIGITAL:STTL,PLD:PAL,20L8,25NS,210MA *MOUNTING PARTS*	80009	160928800
	136-0925-00			SOCKET,DIP:PCB:24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	00779	2-641932-3
A19U111	160-9276-00			IC,DIGITAL:STTL,PLD:PAL,16L8,15NS,180MA *MOUNTING PARTS*	80009	160927600
	136-0752-00			SOCKET,DIP:PCB:FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	00779	2-641602-3

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A19U113	156-2377-00			*END MOUNTING PARTS*	01295	SN74AS257N
	136-0729-00			IC,DIGITAL:ASTTL,MUX:QUAD 2-TO-1 DATA SEL, 3-STATE *MOUNTING PARTS*	00779	2-641600-3
A19U115	160-9274-00			*END MOUNTING PARTS*	80009	160927400
	136-0752-00			IC,DIGITAL:STTL,PLD;PAL,16L8,10NS,180MA *MOUNTING PARTS*	00779	2-641602-3
A19U122	156-2236-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 8,16 POS,0.1 *END MOUNTING PARTS*	01295	SN74AS652NT
	136-0925-00			IC,DIGITAL:ASTTL,TRANSCEIVER;OCTAL, WITH REGISTER, NONINV, 3-STATE *MOUNTING PARTS*	00779	2-641932-3
A19U123	156-2236-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	01295	SN74AS652NT
	136-0925-00			IC,DIGITAL:ASTTL,TRANSCEIVER;OCTAL, WITH REGISTER, NONINV, 3-STATE *MOUNTING PARTS*	00779	2-641932-3
A19U124	156-2236-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	01295	SN74AS652NT
	136-0925-00			IC,DIGITAL:ASTTL,TRANSCEIVER;OCTAL, WITH REGISTER, NONINV, 3-STATE *MOUNTING PARTS*	00779	2-641932-3
A19U125	156-2236-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	01295	SN74AS652NT
	136-0925-00			IC,DIGITAL:ASTTL,TRANSCEIVER;OCTAL, WITH REGISTER, NONINV, 3-STATE *MOUNTING PARTS*	00779	2-641932-3
A19U126	160-9270-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	80009	160927000
	136-0752-00			IC,DIGITAL:STTL,PLD;PAL,16L8,25NS,180MA *MOUNTING PARTS*	00779	2-641602-3
A19U130	156-4265-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	1CH66	74F1765N
A19U131	156-2159-00			IC,PROCESSOR:FTTL,CONTROLLER;1 MEG DRAM,DUAL	01295	SN74AS157N
A19U132	156-2159-00			IC,DIGITAL:ASTTL,MUX:QUAD 2-TO-1 DATASEL, NONINV	01295	SN74AS157N
A19U133	156-2159-00			IC,DIGITAL:ASTTL,MUX:QUAD 2-TO-1 DATA SEL, NONINV	01295	SN74AS157N
A19U134	156-2159-00			IC,DIGITAL:ASTTL,MUX:QUAD 2-TO-1 DATA SEL, NONINV	01295	SN74AS157N
A19U135	156-2159-00			IC,DIGITAL:ASTTL,MUX:QUAD 2-TO-1 DATA SEL, NONINV	01295	SN74AS157N
A19U138	160-9283-00			IC,DIGITAL:STTL,PLD;PAL,20L8,10NS,210MA *MOUNTING PARTS*	80009	160928300
	136-0925-00			IC,DIGITAL:ASTTL,MUX:QUAD 2-TO-1 DATA SEL, NONINV *MOUNTING PARTS*	00779	2-641932-3
A19U142	156-3546-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015THRU 0.014 X 0.022 LEADS *END MOUNTING PARTS*	TK1146	M5M4256AL-10
A19U143	156-3546-00			IC,MEMORY:CMOS,262144 X 4 DRAM514256Z-10,ZIP20	TK1146	M5M4256AL-10
A19U144	156-3546-00			IC,MEMORY:CMOS,262144 X 4 DRAM514256Z-10,ZIP20	TK1146	M5M4256AL-10
A19U145	156-3546-00			IC,MEMORY:CMOS,262144 X 4 DRAM514256Z-10,ZIP20	TK1146	M5M4256AL-10

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A19U146	156-3546-00			IC, MEMORY: CMOS, 262144 X 4 DRAM514256Z-10, ZIP20	TK1146	M5M4256AL-10
A19U147	156-3546-00			IC, MEMORY: CMOS, 262144 X 4 DRAM514256Z-10, ZIP20	TK1146	M5M4256AL-10
A19U148	156-3546-00			IC, MEMORY: CMOS, 262144 X 4 DRAM514256Z-10, ZIP20	TK1146	M5M4256AL-10
A19U149	156-3546-00			IC, MEMORY: CMOS, 262144 X 4 DRAM514256Z-10, ZIP20	TK1146	M5M4256AL-10
A19U154	156-2292-00			IC, DIGITAL: ALSTTL, TRANSCEIVER; OCTAL NONINV	01295	SN74ALS652NT
A19U155	156-2292-00			IC, DIGITAL: ALSTTL, TRANSCEIVER; OCTAL NONINV	01295	SN74ALS652NT
A19U156	156-2292-00			IC, DIGITAL: ALSTTL, TRANSCEIVER; OCTAL NONINV	01295	SN74ALS652NT
A19U157	156-2292-00			IC, DIGITAL: ALSTTL, TRANSCEIVER; OCTAL NONINV	01295	SN74ALS652NT
A19U158	160-9271-00			IC, DIGITAL: STTL, PLD; PAL, 16L8, 25NS, 180MA	80009	160927100
				MOUNTING PARTS		
	136-0752-00			SOCKET, DIP: PCB; FEMALE, STR, 2 X 10, 0.3 CTR, 0.210 H X 0.128 TAIL, TIN, PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A19U162	156-6527-00			IC, PROCESSOR: NMOS, MICRO PROCESSOR; 16 BIT, 10MHZ	80009	156652700
				MOUNTING PARTS		
	136-0871-00			SOCKET, PLCC: PCB; 68 POS, 0.05 CTR, 0.360H X 0.125 TAIL, TIN, 0.1 CTRPCB, 0.060 SHOULDER HEIGHT	00779	3-821574-1
				END MOUNTING PARTS		
A19U164	156-4107-00			IC, DIGITAL: FTTL, FLIP FLOP; DUAL D-TYPE, METASTABLE	80009	156410700
A19U168	156-4267-00			IC, DIGITAL: FTTL, FLIP FLOP; DUAL, DUAL RANKING	1CH66	N74F50728N
A19U199	156-1414-00			IC, DIGITAL: LSTTL, TRANSCEIVER; OCTAL IEEE-488	01295	SN75160BN
				MOUNTING PARTS		
	136-0752-00			SOCKET, DIP: PCB; FEMALE, STR, 2 X 10, 0.3 CTR, 0.210 H X 0.128 TAIL, TIN, PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A19U200	156-6223-00			IC, PROCESSOR: NMOS, PERIPHERAL; GPIB CONTROLLER, TEXAS INSTR PINOUT	80009	156622300
				MOUNTING PARTS		
	136-1047-00			SOCKET, PLCC: PCB; 44 POS, 0.05 CTR, 0.360H X 0.125 TAIL, TIN	00779	821575-1
				END MOUNTING PARTS		
A19U201	156-2013-00			IC, DIGITAL: STTL, TRANSCEIVER; IEEE-488 GPIB BUS MGT, MULTI-CONTROLLER SYSTEM	01295	SN75162BN
				MOUNTING PARTS		
	136-0754-00			SOCKET, DIP: PCB; FEMALE, STR, 2 X 11, 22 POS, 0.1 X 0.4 CTR, 0.175 H X 0.130 TAIL, BECU, TIN, ACCOM 0.008-0.015 X 0.014-0.022 IC	00779	2-641603-3
				END MOUNTING PARTS		
A19U203	160-9275-00			IC, DIGITAL: STTL, PLD; PAL, 16L8, 10NS, 180MA	80009	160927500
				MOUNTING PARTS		
	136-0752-00			SOCKET, DIP: PCB; FEMALE, STR, 2 X 10, 0.3 CTR, 0.210 H X 0.128 TAIL, TIN, PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A19U207	160-9272-00			IC, DIGITAL: STTL, PLD; PAL, 16L8, 25NS, 180MA	80009	160927200
				MOUNTING PARTS		
	136-0752-00			SOCKET, DIP: PCB; FEMALE, STR, 2 X 10, 0.3 CTR, 0.210 H X 0.128 TAIL, TIN, PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		
A19U504	160-9279-00			IC, DIGITAL: CMOS, PLD; OPT, 32 MACROCELL, 20NS, 83.3MHZ	80009	160927900
				MOUNTING PARTS		
	136-0728-00			SKT, PL-IN ELEK: PCB; 14 POS, 2 X 7, 0.1 X 0.3 CTR, 0.210 H X 0.140 TAIL, TIN (QUANTITY 2)	00779	2-641599-3
				END MOUNTING PARTS		
A19U505	160-9284-00			IC, DIGITAL: CMOS, PLD; OTP, 5016, 16 M/C, 8 I/O, I	80009	160-9284-00
				MOUNTING PARTS		
	136-0752-00			SOCKET, DIP: PCB; FEMALE, STR, 2 X 10, 0.3 CTR, 0.210 H X 0.128 TAIL, TIN, PHOS BRONZE	00779	2-641602-3
				END MOUNTING PARTS		

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A19U507	160-9287-00			IC,DIGITAL:CMOS,PLD;OTP;5064,64 MACROCELL,25NS *MOUNTING PARTS*	80009	160928700
	136-1047-00			SKT,PLCC:PCB;44 POS,0.05 CTR,0.360H X 0.125 TAIL,TIN *END MOUNTING PARTS*	00779	821575-1
A19U509	156-2540-00			IC,DIGITAL:FTTL,GATE:QUAD 2-INPUT NAND BUFFER, OC	01295	SN74F38N
A19U601	160-9273-00			IC,DIGITAL:STTL,PLD;PAL,16L8,25NS,180MA *MOUNTING PARTS*	80009	160927300
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A19U602	160-9280-00			IC,DIGITAL:CMOS,PLD;OPT;32 MACROCELL,20NS,83.3MHZ *MOUNTING PARTS*	80009	160928000
	136-0728-00			SKT,PL-IN ELEK:PCB;14 POS,2 X 7,0.1 X 0.3CTR,0.210 H X 0.140 TAIL,TIN (QUANTITY 2) *END MOUNTING PARTS*	00779	2-641599-3
A19U605	160-9277-00			IC,DIGITAL:STTL,PLD;PAL,16L8,15NS,180MA *MOUNTING PARTS*	80009	160927700
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A19U606	160-9285-00			IC,DIGITAL:CMOS,PLD;OTP;5016,16 M/C,8 I/O,I *MOUNTING PARTS*	80009	160-9285-00
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A19U607	160-9278-00			IC,DIGITAL:STTL,PLD;PAL,16L8,15NS,180MA *MOUNTING PARTS*	80009	160927800
	136-0752-00			SOCKET,DIP:PCB;FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE *END MOUNTING PARTS*	00779	2-641602-3
A19U608	160-9286-00			IC,DIGITAL:CMOS,PLD:EEPLD,26V12,20NS,105MA *MOUNTING PARTS*	80009	160928600
	136-0728-00			SKT,PL-IN ELEK:PCB;14 POS,2 X 7,0.1 X 0.3CTR,0.210 H X 0.140 TAIL,TIN (QUANTITY 2) *END MOUNTING PARTS*	00779	2-641599-3
A19U609	160-9281-00			IC,DIGITAL:CMOS,PLD;OPT;32 MACROCELL,20NS,83.3MHZ *MOUNTING PARTS*	80009	160928100
	136-0728-00			SKT,PL-IN ELEK:PCB;14 POS,2 X 7,0.1 X 0.3CTR,0.210 H X 0.140 TAIL,TIN (QUANTITY 2) *END MOUNTING PARTS*	00779	2-641599-3
A19U610	160-9282-00			IC,DIGITAL:CMOS,PLD;OPT;32 MACROCELL,20NS,83.3MHZ *MOUNTING PARTS*	80009	160928200
	136-0728-00			SKT,PL-IN ELEK:PCB;14 POS,2 X 7,0.1 X 0.3CTR,0.210 H X 0.140 TAIL,TIN (QUANTITY 2) *END MOUNTING PARTS*	00779	2-641599-3
A19U611	156-6031-00			IC,PROCESSOR:NMOS,PERIPHERAL:DUAL ASYNCH RECEIVER/TRANSMITTER, DUART *MOUNTING PARTS*	80009	156603100
	136-1047-00			SKT,PLCC:PCB;44 POS,0.05 CTR,0.360H X 0.125 TAIL,TIN *END MOUNTING PARTS*	00779	821575-1
A19U612	156-2391-00			IC,DIGITAL:ALSTTL,BFR/DRVR:OCTALNONINV, 3-STATE	01295	SN74ALS541N
A19U613	156-2391-00			IC,DIGITAL:ALSTTL,BFR/DRVR:OCTALNONINV, 3-STATE	01295	SN74ALS541N
A19Y501	119-2624-00			OSCILLATOR,RF:33.333MHZ, +/- 0.005%,TTL,4 PIN 14 PIN DIP COMPATIBLE	14301	012-405-02183

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number		Name & Description	Mfr. Code	Mfr. Part Number
		Effective	Discontinued			
A19Y502	119-1413-00			OSC,XTAL CLOCK:20.0MHZ, +/-0.05 %, TTL, 4PIN 14 PIN DIP COMPATIBLE	14301	AE 404-417
A19Y601	158-0271-00			XTAL UNIT,QTZ:3.6864MHZ, 50PPM,SERIES,ESR 120 OHMS,HC-18/U OR HC-49UPKG *MOUNTING PARTS*	61429	FOX-0368S
	352-0130-01			HLDR,XTAL UNIT:STEEL TIN PL *END MOUNTING PARTS*	5Y400	ORDER BY DESC

Replaceable Electrical Parts

Component Number	Tektronix Part Number	Serial / Assembly Number Effective	Discontinued	Name & Description	Mfr. Code	Mfr. Part Number
				CHASSIS PARTS		
B1	119-2616-02	B022000	B040750	FAN:24VDC,0.28A,6.7W,W/LEADS 17.0L,VM700	0J260	119-2616-02
B1	119-4681-00	B040751		FAN,DC:TUBEAXIAL:24V,5W,2,800 RPM,100 CFM,45 DBA,120MM X 120MM X 32MM,W/17.5 IN CABLEASSY	80009	119468100
W252	174-1371-01	B022000	B040750	CA ASSY,SP,ELEC:2,26 AWG,4.50 L,RIBBON	9M860	174-1371-01

Section 8:Diagrams & Circuit Board Illustrations

Section 8:Diagrams/Circuit Board Illustrations

Symbols

Graphic symbols and class designation letters are based on ANSI Standard Y32.2–1975.

Logic symbology is based on ANSI Y32.14–1973 in terms of positive logic. Logic symbols depict the logic function performed and may differ from the manufacturer’s data.

Overline, parenthesis, or leading slash indicate a low asserting state.

Example: $\overline{\text{ID CONTROL}}$, (ID CONTROL), or /ID CONTROL.

Abbreviations are based on ANSI Y1.1–1972.

Other ANSI standards that are used in the preparation of diagrams by Tektronix, Inc. are:

Y14.15, 1966 — Drafting Practices.

Y14.2, 1973 — Line Conventions and Lettering.

Y10.5, 1968 — Letter Symbols for Quantities Used in Electrical Science and Electrical Engineering

American National Standard Institute
1430 Broadway, New York, New York 10018

Component Values

Electrical components shown on the diagrams are in the following units unless noted otherwise:

Capacitors Values one or greater are in picofarads (pF).
 Values less than one are in microfarads (μF).

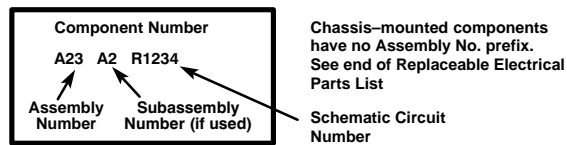
Resistors Ohms (Ω).

The following information and special symbols may appear in this manual.

Assembly Numbers

Each assembly in the instrument is assigned an assembly number (e.g., A20). The assembly number appears on the diagram (in circuit board outline), circuit board illustration title, and lookup table for the schematic diagram.

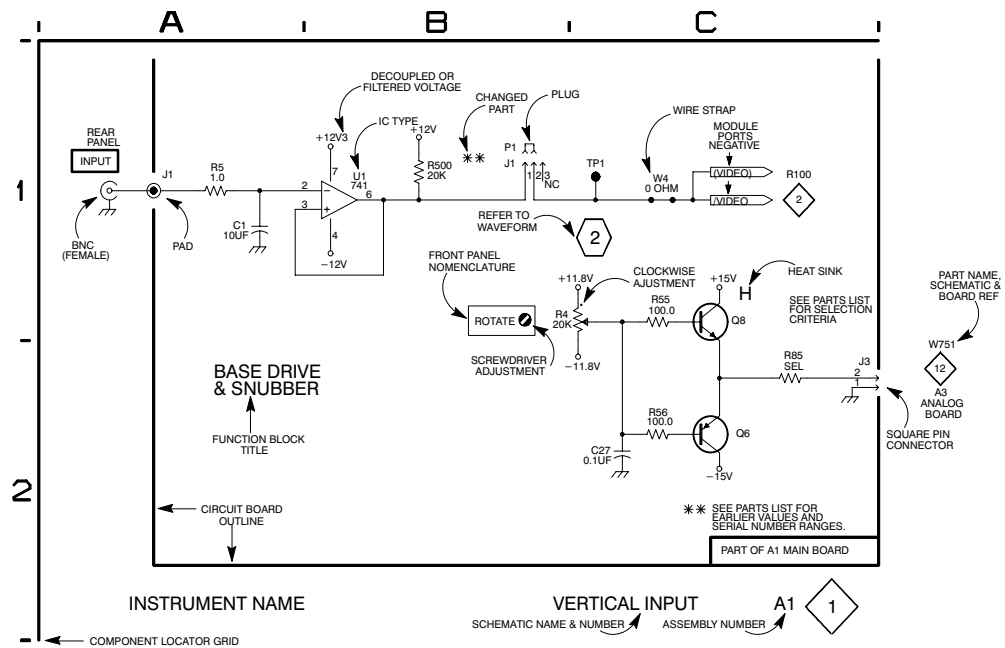
The Replaceable Electrical Parts List is arranged by assembly number in numerical sequence; the components are listed by component number. Example:



Grid Coordinates

The schematic diagram and circuit board component location illustration have grids. A lookup table with the grid coordinates is provided for ease of locating the component. Only the components illustrated on the facing diagram are listed in the lookup table.

When more than one schematic diagram is used to illustrate the circuitry on a circuit board, the circuit board illustration will only appear opposite the first diagram; the lookup table will list the diagram number of other diagrams that the other circuitry appears on.





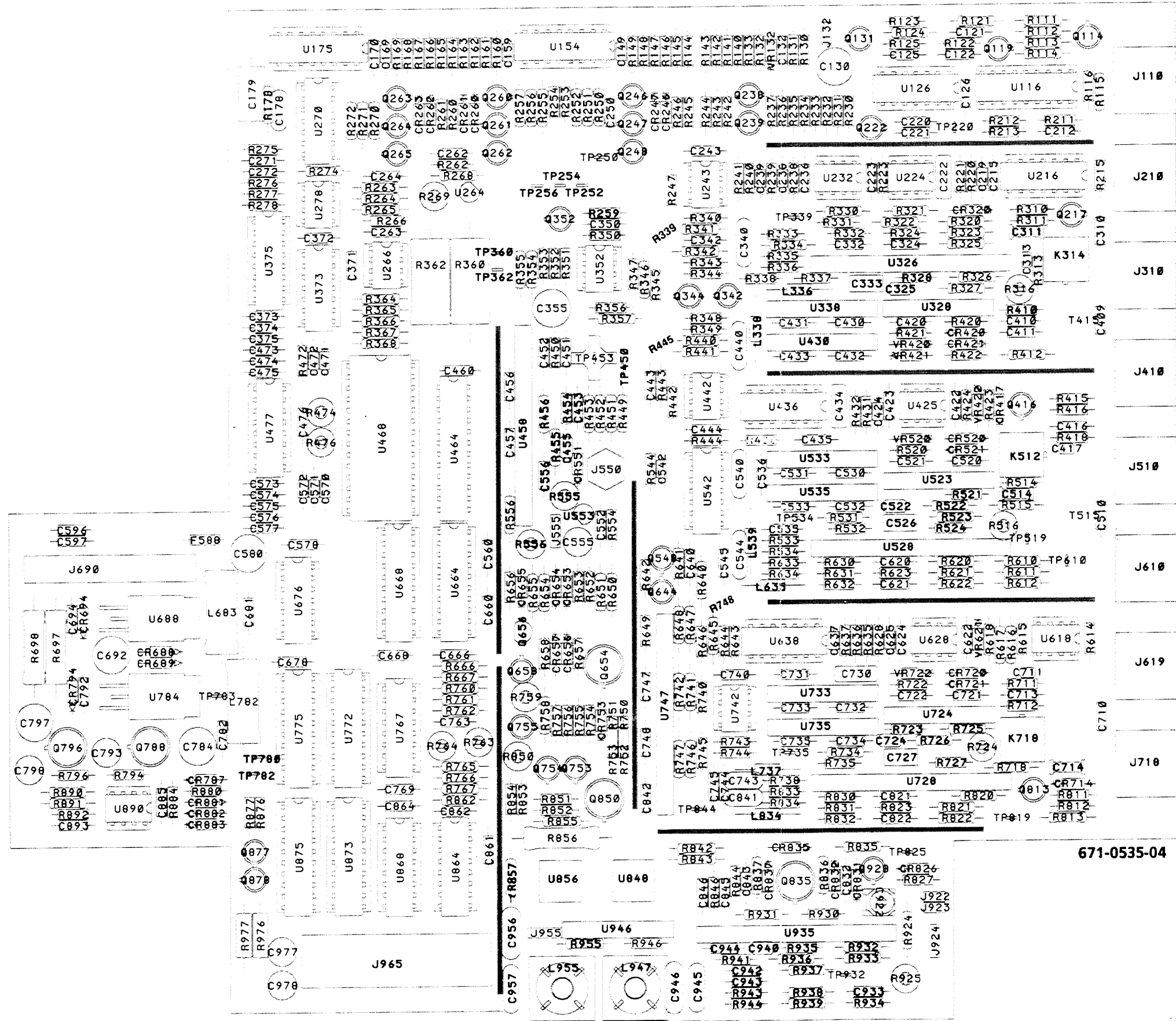
A1 ANALOG INPUT

VM 700A SERVICE

ANALOG BOARD
Schematic <1> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A1. Partial Assembly A1 also shown on Schematics 2, 3, 4, 5, 6, and 7.

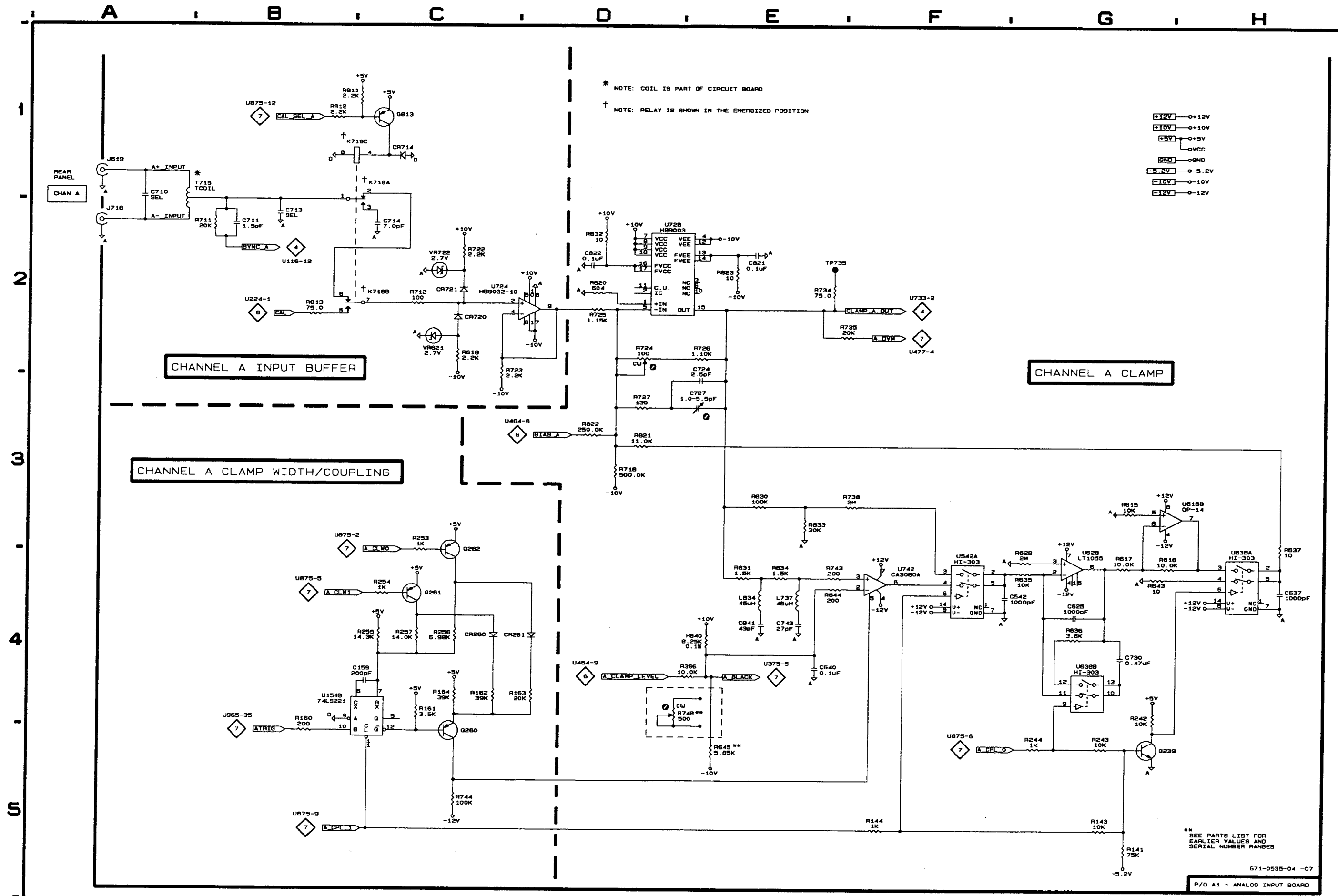


CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C159	C4	R618	C2
C542	F4	R628	G4
C625	G4	R635	G4
C637	H4	R636	G4
C640	E4	R637	H3
C710	A1	R640	E4
C711	B2	R643	G4
C713	B2	R644	E4
C714	C2	R645	E4
C724	E3	R711	B2
C727	E3	R712	C2
C730	G4	R718	D3
C743	E4	R722	C2
C821	E2	R723	C2
C822	D2	R724	D2
C841	E4	R725	D2
CR260	C4	R726	E2
CR261	D4	R727	D3
CR714	C1	R734	E2
CR720	C2	R735	E2
CR721	C2	R738	F3
J619	A1	R743	E4
J718	A2	R744	C5
K718A	B1	R748	E4
K718B	B2	R811	C1
K718C	B1	R812	B1
L737	E4	R813	B2
L834	E4	R820	D2
Q239	G5	R821	D3
Q260	C4	R822	D3
Q261	C4	R823	E2
Q262	C3	R830	E3
Q813	C1	R831	E4
R141	G5	R832	D2
R143	G5	R833	E3
R144	F5	R834	E4
R160	B5	R834	E4
R161	C4	R715	A1
R162	C4	TP735	E2
R163	D4	U154B	C4
R164	C4	U542A	F4
R242	G4	U618B	G3
R243	G5	U628	G4
R244	G5	U638A	H4
R253	C3	U638B	G4
R254	C4	U724	D2
R255	C4	U728	D2
R256	C4	U742	F4
R366	E4	VR621	C2
R615	G3	VR722	C2
R616	G4		
R617	G4		

*See parts list for earlier serial number ranges.

A1 ANALOG INPUT BOARD





** SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES

**ANALOG BOARD
Schematic <2> Look-Up Chart**

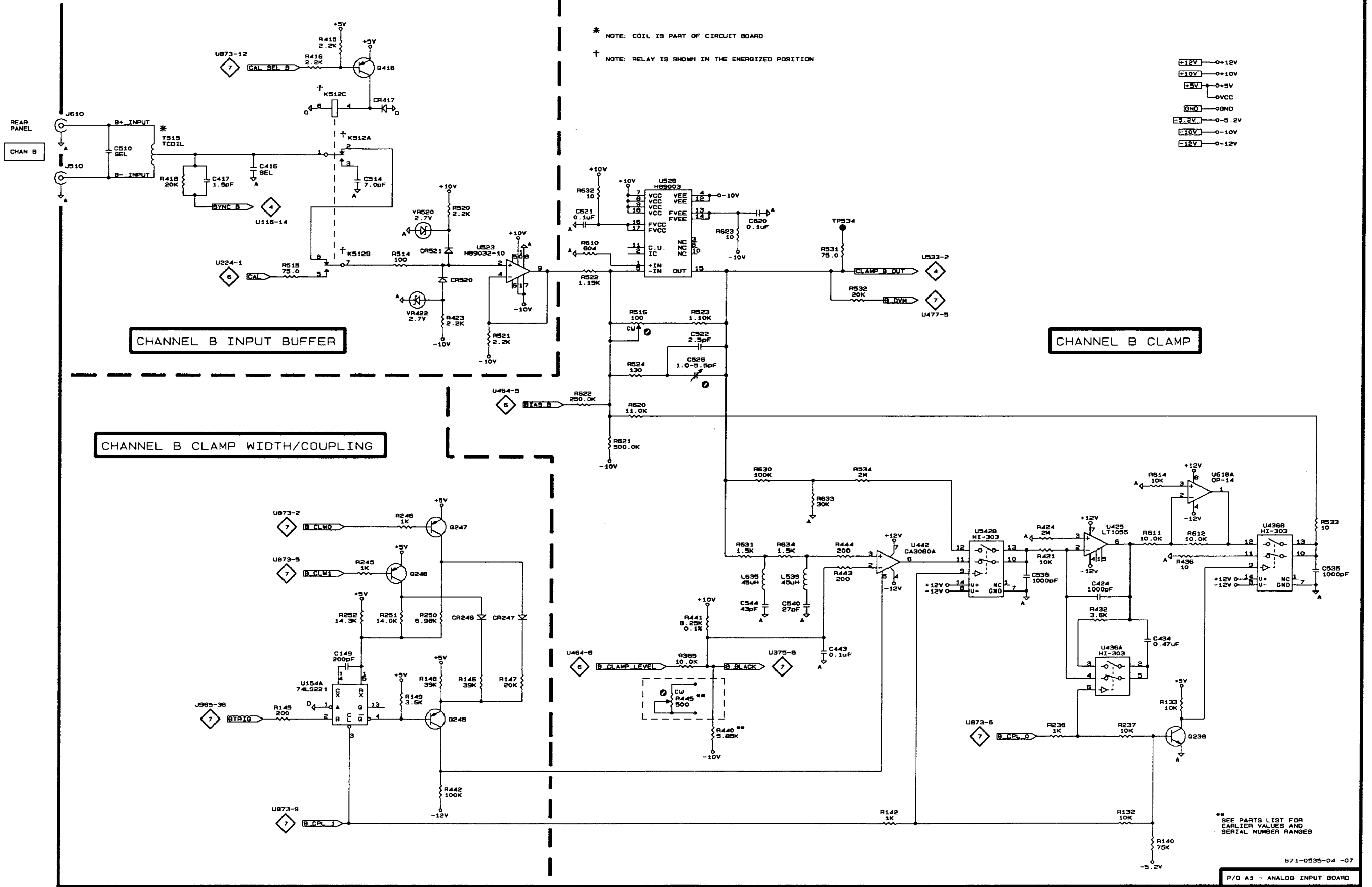
The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A1. *Partial Assembly A1 also shown on Schematics 1, 3, 4, 5, 6, and 7.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C149	C4	R423	C2
C416	B2	R424	G4
C417	B2	R431	G4
C424	G4	R432	G4
C434	G4	R436	G4
C443	E4	R440	E4
C510	A1	R441	E4
C514	C2	R442	C5
C522	E3	R443	E4
C526	E3	R444	E4
C535	H4	R445 *	E4
C536	F4	R514	C2
C540	E4	R515	B2
C544	E4	R516	D2
C620	E2	R520	C2
C621	D2	R521	C2
		R522	D2
CR246	C4	R523	E2
CR247	D4		
CR417	C1	R524	D3
CR520	C2	R531	E2
CR521	C2	R532	E2
		R533	H3
J510	A2	R534	F3
J610	A1	R610	D2
K512A	B1	R611	G4
K512B	B2	R612	G4
K512C	B1	R614	G3
		R620	D3
L539	E4	R621	D3
L635	E4	R622	D3
Q238	G5	R623	E2
Q246	C4	R630	E3
Q247	C3	R631	E4
Q248	C4	R632	D2
Q416	C1	R633	E3
		R634	E4
R132	G5		
R133	G4	T515	A1
R140	G5		
R142	F5	TP534	E2
R145	B5		
R146	C4	U154A	C4
		U425	G4
R147	D4	U436A	G4
R148	C4	U436B	H4
R149	C4	U442	F4
R236	G5	U523	D2
R237	G5		
R245	C4	U528	D2
		U542B	F4
R246	C3	U618A	G3
R250	C4		
R251	C4	VR422	C2
R252	C4	VR520	C2
R365	E4		
R415	C1		
R416	B1		
R418	B2		

*See parts list for earlier serial number ranges.

1
2
3
4
5



* NOTE: COIL IS PART OF CIRCUIT BOARD
 † NOTE: RELAY IS SHOWN IN THE ENERGIZED POSITION

- C12V → 0+12V
- C10V → 0+10V
- C5V → 0+5V
- OVCC → 0VCC
- GN0 → 0GND
- C5.2V → 0-5.2V
- C10V → 0-10V
- C12V → 0-12V

** SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES

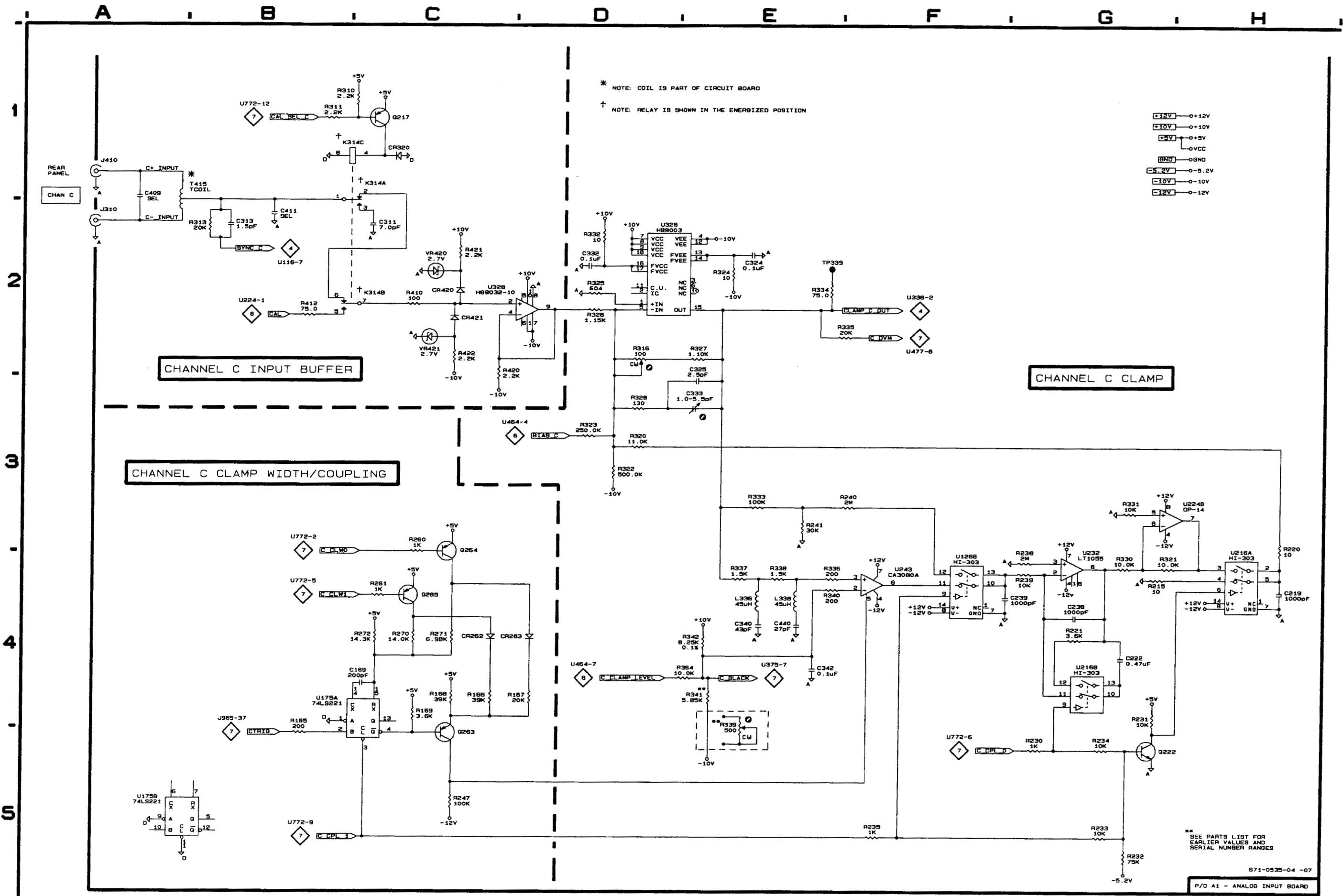
**ANALOG BOARD
Schematic <3> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A1. *Partial Assembly A1 also shown on Schematics 1, 2, 4, 5, 6, and 7.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C169	C4	R261	C4
C219	H4	R270	C4
C222	G4	R271	C4
C238	G4	R272	C4
C239	F4	R310	C1
C311	C2	R311	B1
C313	B2	R313	B2
C324	E2	R316	D2
C325	E3	R320	D3
C332	D2	R321	G4
C333	E3	R322	D3
C340	E4	R323	D3
C342	E4	R324	E2
C409	A1	R325	D2
C411	B2	R326	D2
C440	E4	R327	E2
CR262	C4	R328	D3
CR263	D4	R330	G4
CR320	C1	R331	G3
CR420	C2	R332	D2
CR421	C2	R333	E3
J310	A2	R334	E2
J410	A1	R335	E2
K314A	B1	R336	E4
K314B	B2	R337	E4
K314C	B1	R338	E4
L336	E4	R339 *	E4
L338	E4	R340	E4
Q217	C1	R341	E4
Q222	G5	R342	E4
Q263	C4	R364	E4
Q264	C3	R410	C2
Q265	C4	R412	B2
R165	B5	R420	C2
R166	C4	R421	C2
R167	D4	R422	C2
R168	C4	T415	A1
R169	C4	TP339	E2
R215	G4	U126B	F4
R220	H3	U175A	C4
R221	G4	U175B	A5
R230	G5	U216A	H4
R231	G4	U216B	G4
R232	G5	U224B	G3
R233	G5	U232	G4
R234	G5	U243	F4
R235	F5	U326	D2
R238	G4	U328	D2
R239	G4	VR420	C2
R240	F3	VR421	C2
R241	E3		
R247	C5		
R260	C3		

*See parts list for earlier serial number ranges.



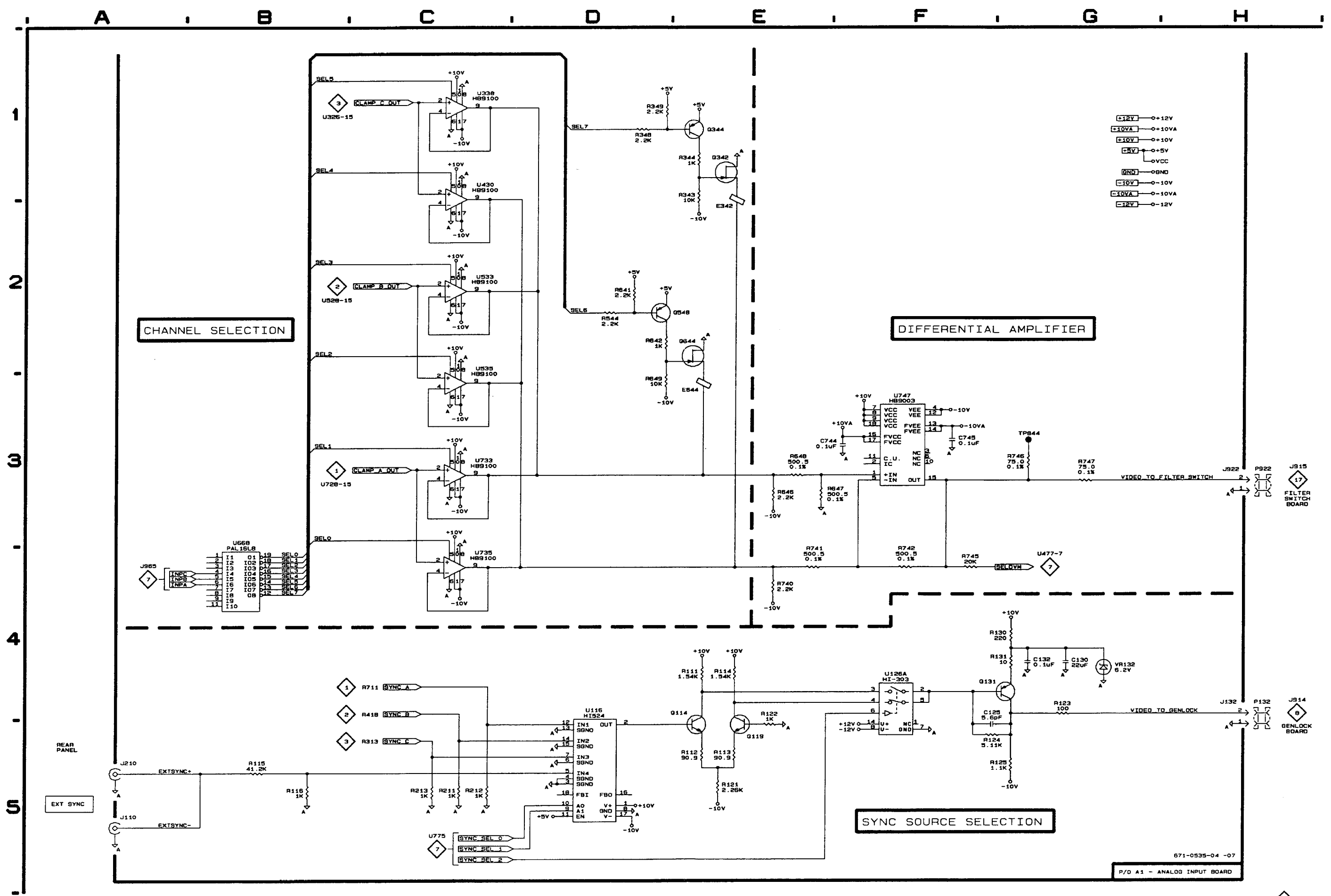
**ANALOG BOARD
Schematic <4> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A1. *Partial Assembly A1 also shown on Schematics 1, 2, 3, 5, 6, and 7.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C125	F5	R745	F4
C130	G4	R746	G3
C132	G4	R747	G3
C744	F3		
C745	F3	TP844	G3
J110	A5	U116	D5
J132	H4	U126A	F4
J210	A5	U338	C1
J922	H3	U430	C1
		U533	C2
Q114	E4		
Q119	E4	U535	C3
Q131	G4	U668	B4
Q342	E1	U733	C3
Q344	E1	U735	C4
		U747	F3
Q548	D2		
Q644	E2	VR132	G4
R111	E4		
R112	E5		
R113	E5		
R114	E4		
R115	B5		
R116	B5		
R121	E5		
R122	E5		
R123	G4		
R124	F5		
R125	G5		
R130	G4		
R131	G4		
R211	C5		
R212	C5		
R213	C5		
R343	E1		
R344	E1		
R348	D1		
R349	D1		
R544	D2		
R641	D2		
R642	D2		
R646	E3		
R647	E3		
R648	E3		
R649	D3		
R740	E4		
R741	E4		
R742	F4		

*See parts list for earlier serial number ranges.



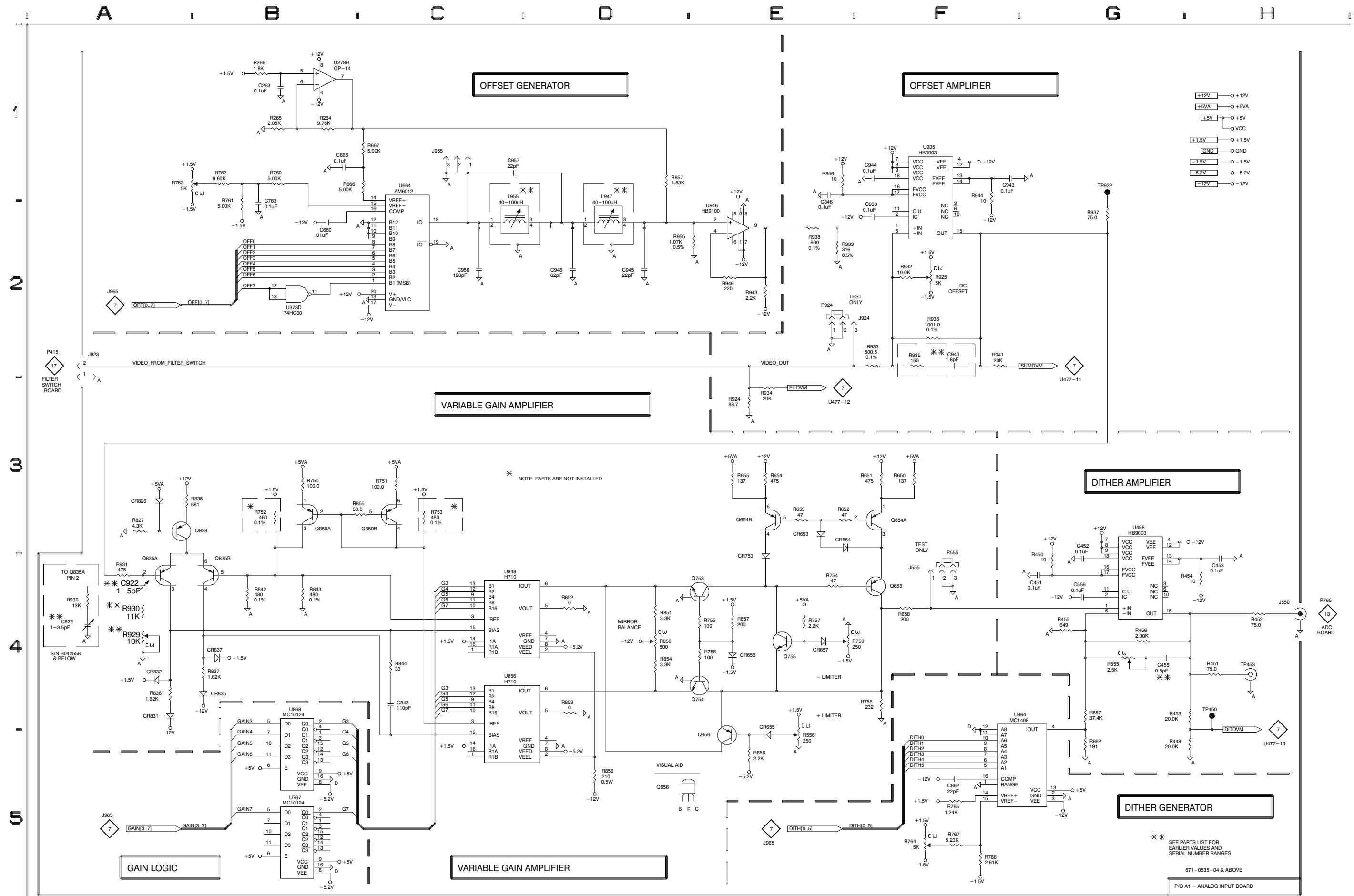
ANALOG BOARD
Schematic <5> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A1. *Partial Assembly A1 also shown on Schematics 1, 2, 3, 4, 6, and 7.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C263	B1	R264	B1	R853	D4
C451	G4	R265	B1	R854	D4
C452	G4	R266	B1	R855	B3
C453	H4	R449	H5	R856	D5
C455	G4	R450	G4	R858	D1
C556	G4	R451	H4	R862	G5
C660	B2	R452	H4	R924	E3
C666	B1	R453	H4	R925	F2
C763	B2	R454	H4	R930	A4
C843	C4	R455	G4	R931	A4
C846	E1	R456	G4	R932	F2
C862	F5	R555	G4	R933	F2
C922	A4	R556	E4	R934	E3
C933	F2	R557	G4	R935 *	F2
C940 *	F2	R650	F3	R936	F2
C943	F1	R651	F3	R937	G2
C944	F1	R652	E3	R938	E2
C945	D2	R653	E3	R939	E2
C946	D2	R654	E3	R941	F2
C956	C2	R655	E3	R943	E2
C957	C1	R656	E5	R944	F1
CR653	E3	R657	E4	R946	E2
CR654	E3	R658	F4	R955	D2
CR655	E5	R666	C1	TP450	H4
CR656	E4	R667	C1	TP453	H4
CR657	E4	R750	B3	TP932	G1
CR753	E4	R751	C3		
CR826	A3	R752	B3	U278B	B1
CR831	A4	R753	C3	U373D	B2
CR832	A4	R754	E4	U458	G3
CR835	B4	R755	E4	U664	C1
CR837	B4	R756	E4	U767	B5
J550	H4	R757	E4	U848	C4
J555	F4	R758	F4	U856	C4
J923	A2	R759	E4	U864	F4
J924	E2	R760	B1	U868	B4
J955	C1	R761	B1	U935	F1
L947	D2	R762	B1	U946	E2
L955	C2	R763	A1		
Q654A	F3	R764	F5		
Q654B	E3	R765	F5		
Q656	E4	R766	F5		
Q658	F4	R767	F5		
Q753	E4	R827	A3		
Q754	E4	R835	A3		
Q755	E4	R836	A4		
Q835A	A4	R837	B4		
Q835B	B4	R842	B4		
Q850A	B3	R843	B4		
Q850B	C3	R844	C4		
Q928	A3	R846	E1		
		R850	D4		
		R851	D4		
		R852	D4		

*See parts list for earlier serial number ranges.



**ANALOG BOARD
Schematic <6> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A1. *Partial Assembly A1 also shown on Schematics 1, 2, 3, 4, 5, and 7.*

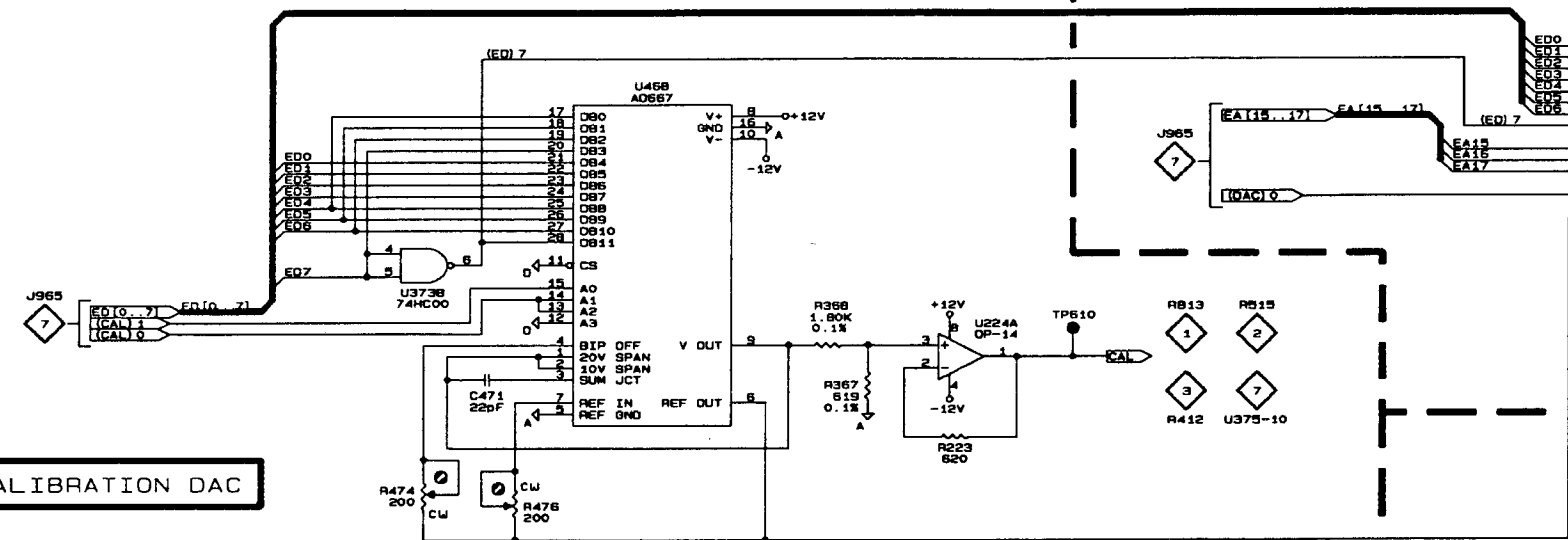
CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C121	C5	C731	G5	R353	B3
C122	D5	C732	D5	R354	A3
C126	B5	C733	C5	R355	A4
C170	B5	C734	D5	R356	C4
C212	D5	C722	C5	R357	B4
C215	G5	C735	C5	R360	F3
C220	F5	C740	H5	R362	F3
C221	G5	C747	C5	R367	D2
C223	F5	C748	E5	R368	D2
C236	H5	C769	B2	R474	C2
C243	F5	C782	B2	R476	C2
C250	B5	C784	B2	R554	D4
C264	F5	C792	D4	R697	C4
C310	G5	C793	G4	R698	C3
C350	F5	C797	D4	R794	F3
C355	B4	C798	G4	R796	G3
C371	B5	C832	G5	R876	H4
C372	H5	C842	C5	R877	H3
C410	D5	C845	H5	R880	F3
C420	C5	C861	B5	R884	G4
C422	F5	C864	B5	R890	F4
C423	H5	C885	E5	R891	F4
C430	E5	C893	E5	R892	F4
C431	C5	C942	G5	R976	H4
C432	D5	C977	H4	R977	H3
C433	C5	C978	H3		
C435	F5			TP220	A5
C444	F5	CR551	E4	TP250	A5
C456	G5	CR688	D3	TP252	D3
C457	G5	CR689	D4	TP254	D3
		CR694	D3	TP256	B3
C460	F5	CR787	G3	TP360	C4
C471	C2	CR794	D3		
C476	F5			TP362	C4
C520	D5	CR881	G3	TP519	A5
C521	C5	CR882	G4	TP610	E2
C530	D5	CR883	G4	TP780	G4
				TP782	G3
C531	C5	F588	B3	TP783	A5
C532	E5				
C533	C5	J690	A2	TP819	A5
C545	G5			TP825	A5
C552	D4	L683	B3		
C555	D4	L782	B3	U224A	D2
				U266	E3
C560	F5	Q352	B3	U352A	B3
C578	B5	Q788	G4	U352B	B4
C580	B3	Q796	G3	U373B	C1
C596	E5	Q877	H4	U464	F1
C597	E5	Q878	H3		
C622	F5			U468	C1
		R223	D2	U553	D4
C624	H5	R259	B3	U688	D3
C668	B5	R345	B4	U784	D4
C678	B5	R346	B4	U890A	F3
C681	B5	R347	B4	U890B	F4
C692	D3	R350	B4		
C694	D3				
		R351	B4		
C721	D5	R352	B4		

*See parts list for earlier serial number ranges.

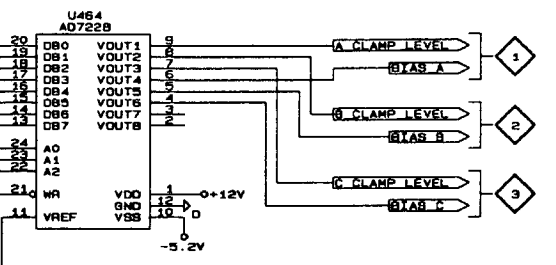
1
2
3
4
5

- 15VA → +15VA
- 12V → +12V
- 10VA → +10VA
- 5V → +5V
- 5VA → +5VA
- 1.5V → +1.5V
- GND → GND
- 1.5V → -1.5V
- 10VA → -10VA
- 12V → -12V
- 15V → -15V

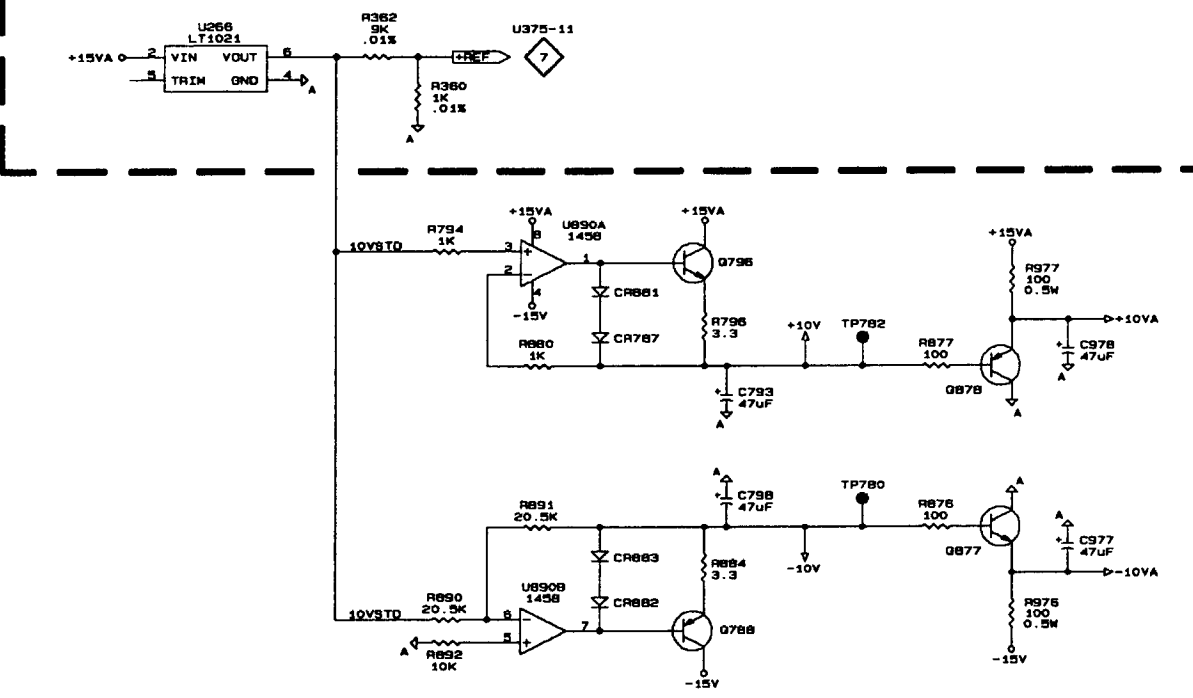
CALIBRATION DAC



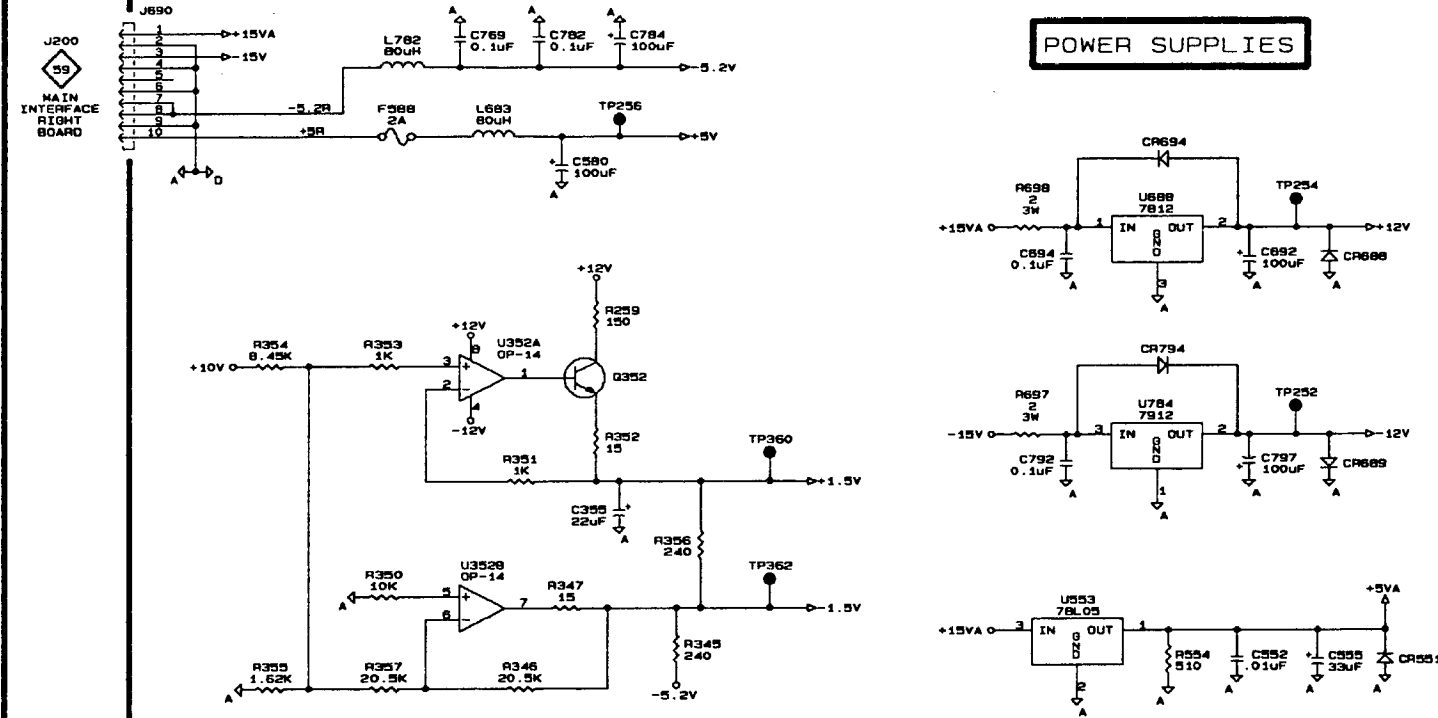
CLAMP & BIAS GENERATORS



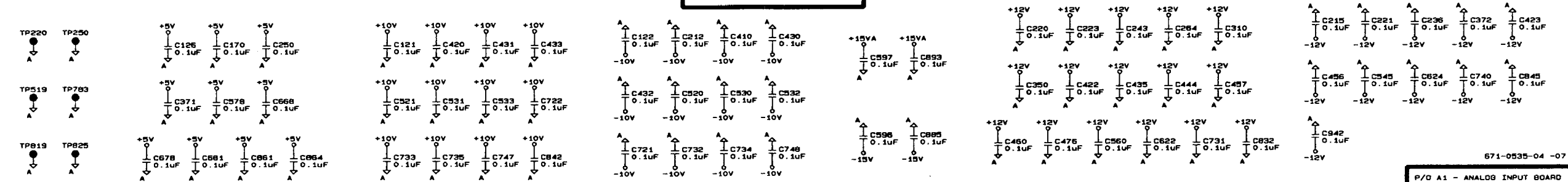
PRECISION VOLTAGE REFERENCE



POWER SUPPLIES



DECOUPLING CAPS



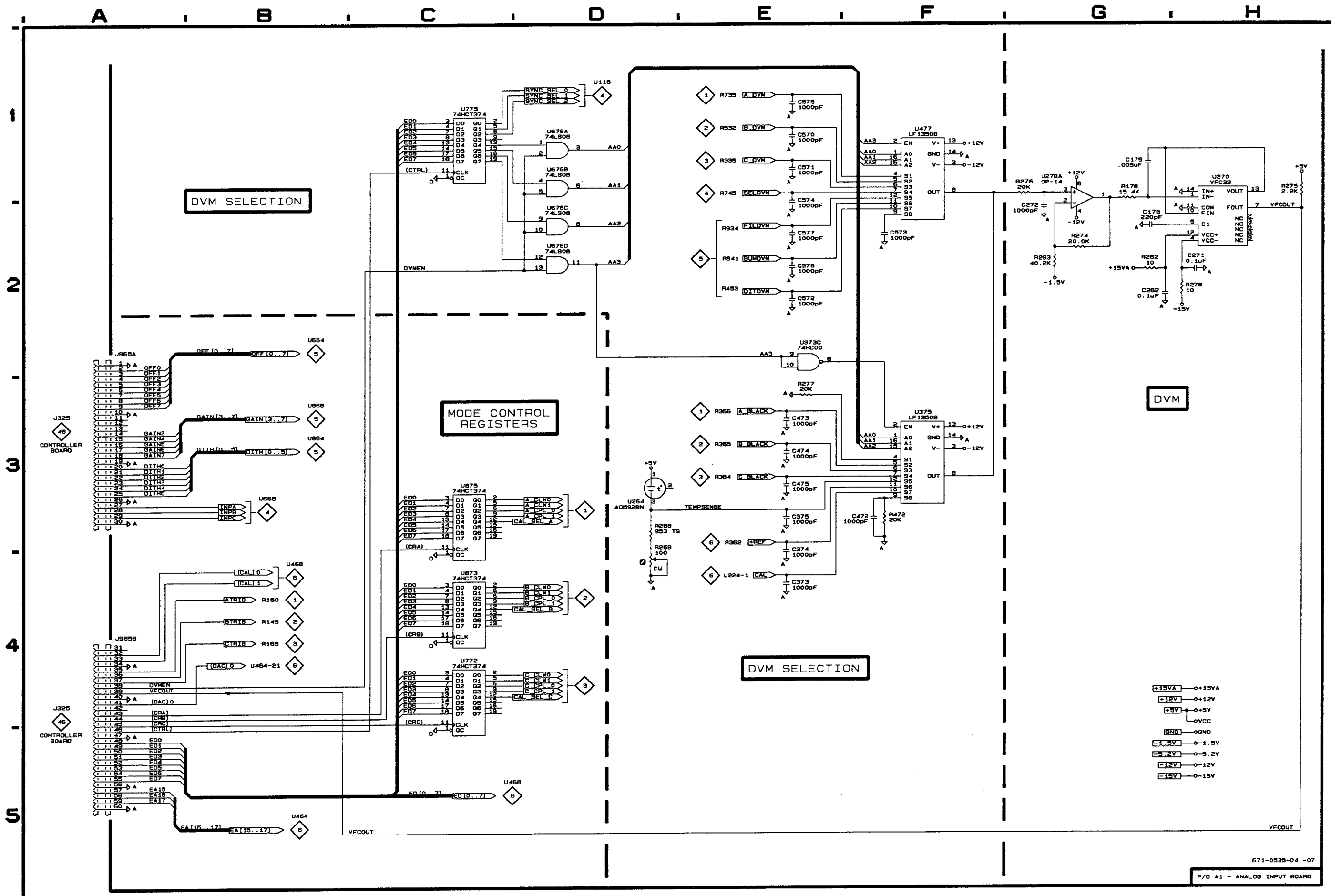
**ANALOG BOARD
Schematic <7> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A1. *Partial Assembly A1 also shown on Schematics 1, 2, 3, 4, 5, and 6.*

CIRCUIT NUMBER	SCHEM LOCATION
C178	G2
C179	G1
C262	G2
C271	H2
C272	G2
C373	E4
C374	E4
C375	E3
C472	F3
C473	E3
C474	E3
C475	E3
C570	E1
C571	E1
C572	E2
C573	F2
C574	E2
C575	E1
C576	E2
C577	E2
J965A	A2
J965B	A4
R178	G1
R262	G2
R263	G2
R268	D3
R269	D4
R274	G2
R275	H1
R276	G1
R277	E3
R278	H2
R472	F3
U264	D3
U270	H1
U278A	G1
U373C	E2
U375	F3
U477	F1
U676A	D1
U676B	D1
U676C	D2
U676D	D2
U772	C4
U775	C1
U873	C4
U875	C3

*See parts list for earlier serial number ranges.



VM 700A SERVICE

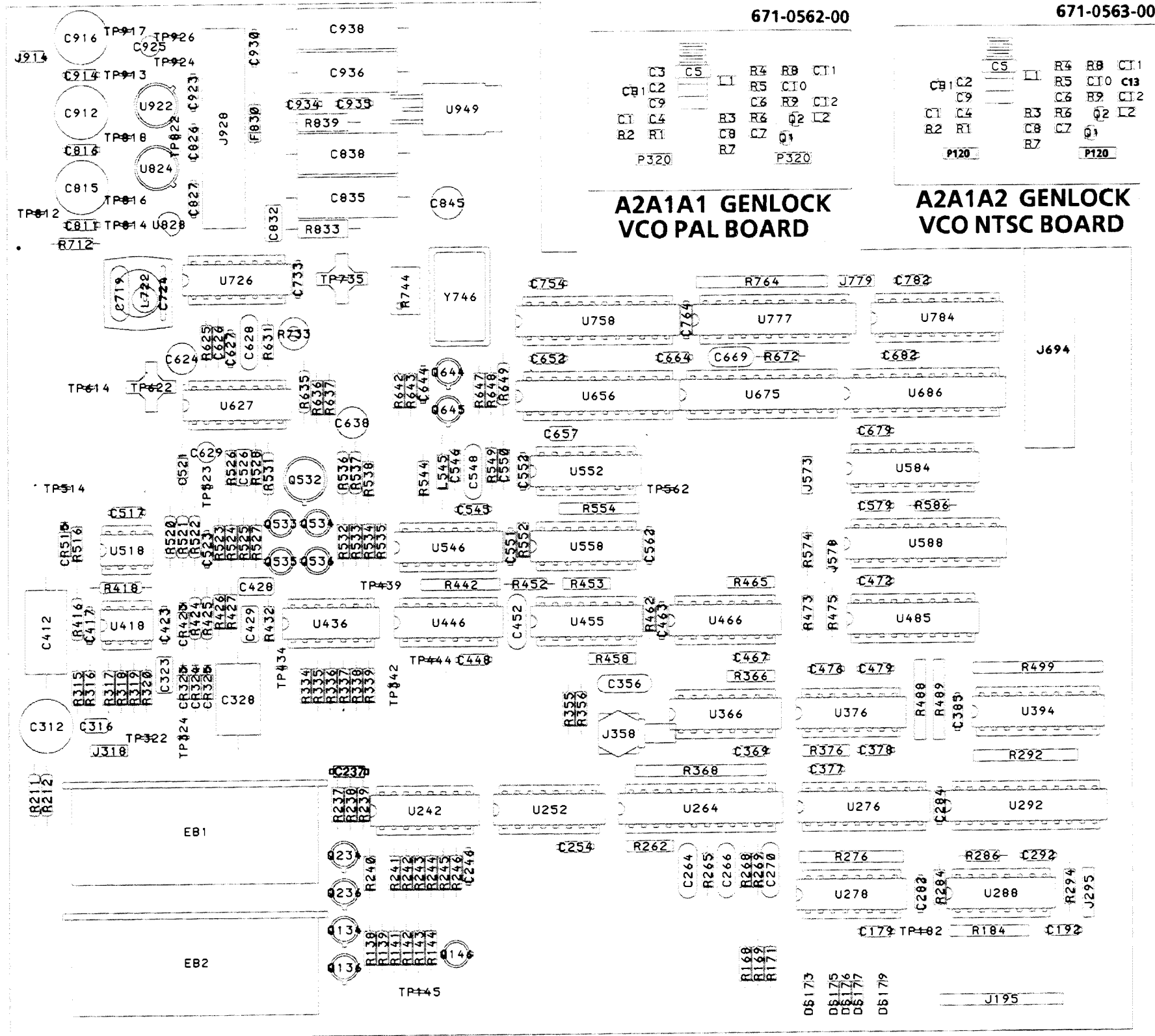


A2A1 GENLOCK

GENLOCK BOARD
Schematic <8> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A2. Partial Assembly A2 also shown on Schematics 9, 10, 11, and 12.



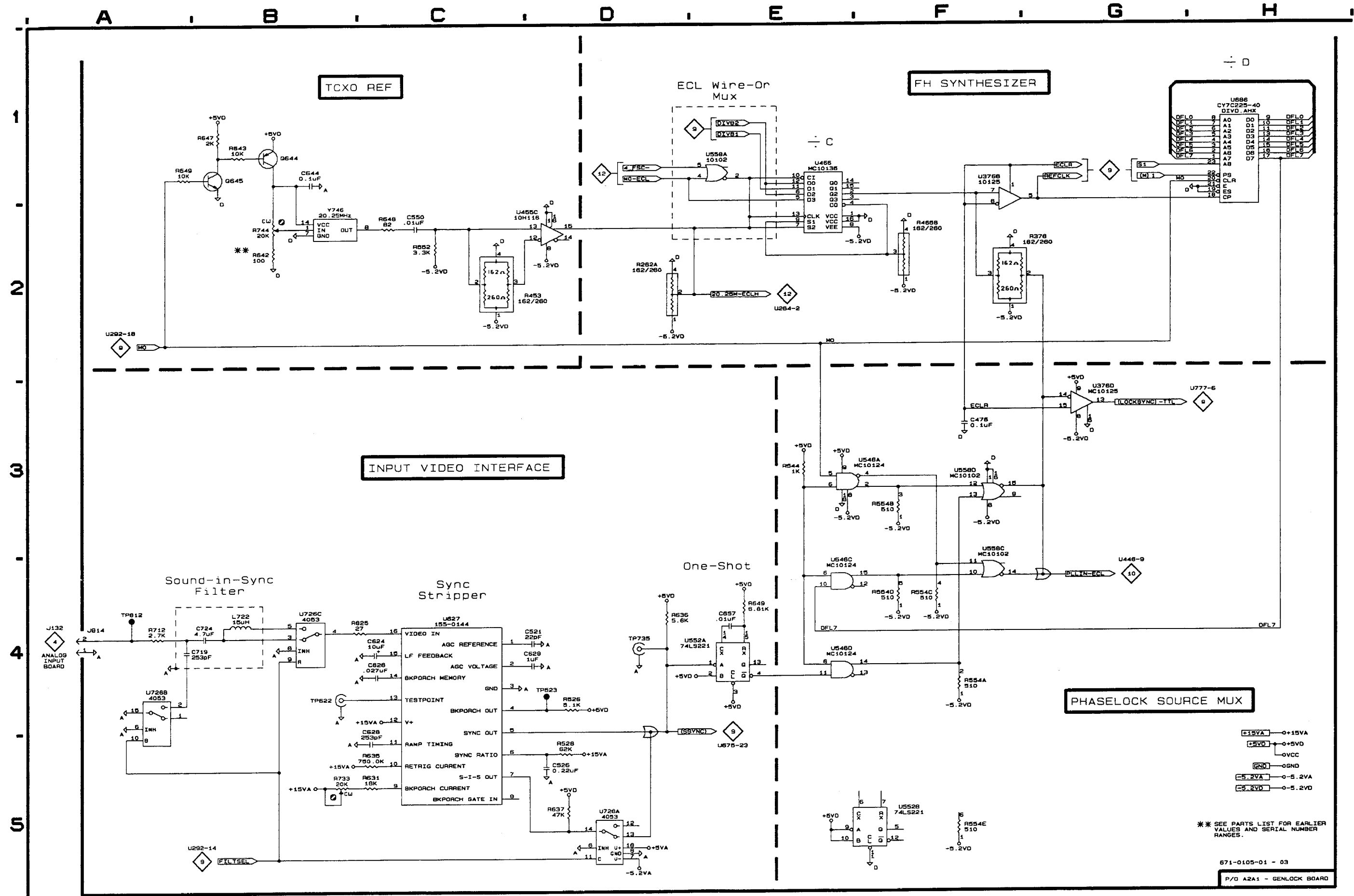
A2A1 GENLOCK BOARD

671-0105-01 - 03

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C476	F3	U376B	F1
C521	D4	U376D	G3
C526	D5	U455C	D2
C546 *	C1	U466	E1
C548 *	C1	U546A	E3
C550	C2	U546C	E4
C624	C4	U546D	E4
C626	C4	U552A	E4
C628	C5	U552B	F5
C629	D4	U558A	E1
C644	B1	U558C	F4
C657	E4	U558D	F3
C719	A4	U627	C4
C724	B4	U686	H1
J914	A4	U726A	D5
L545 *	C1	U726B	A4
L722	B4	U726C	B4
Q644	B1	Y746	B2
Q645	B1		
R262A	D2		
R376	F2		
R453	C2		
R465B	F2		
R526	D4		
R528	D5		
R544	E3		
R549	A1		
R552	C2		
R554A	F4		
R554B	F3		
R554C	F4		
R554D	F4		
R554E	F5		
R625	B4		
R631	C5		
R635	C5		
R636	D4		
R637	D5		
R642	B2		
R643	B1		
R647	B1		
R648	C2		
R649	E4		
R712	A4		
R733	B5		
R744	B2		
TP523	D4		
TP622	B4		
TP735	D4		
TP812	A4		

*See parts list for earlier serial number ranges.

Static Sensitive Devices
See the section in this manual on handling precautions for static sensitive components.



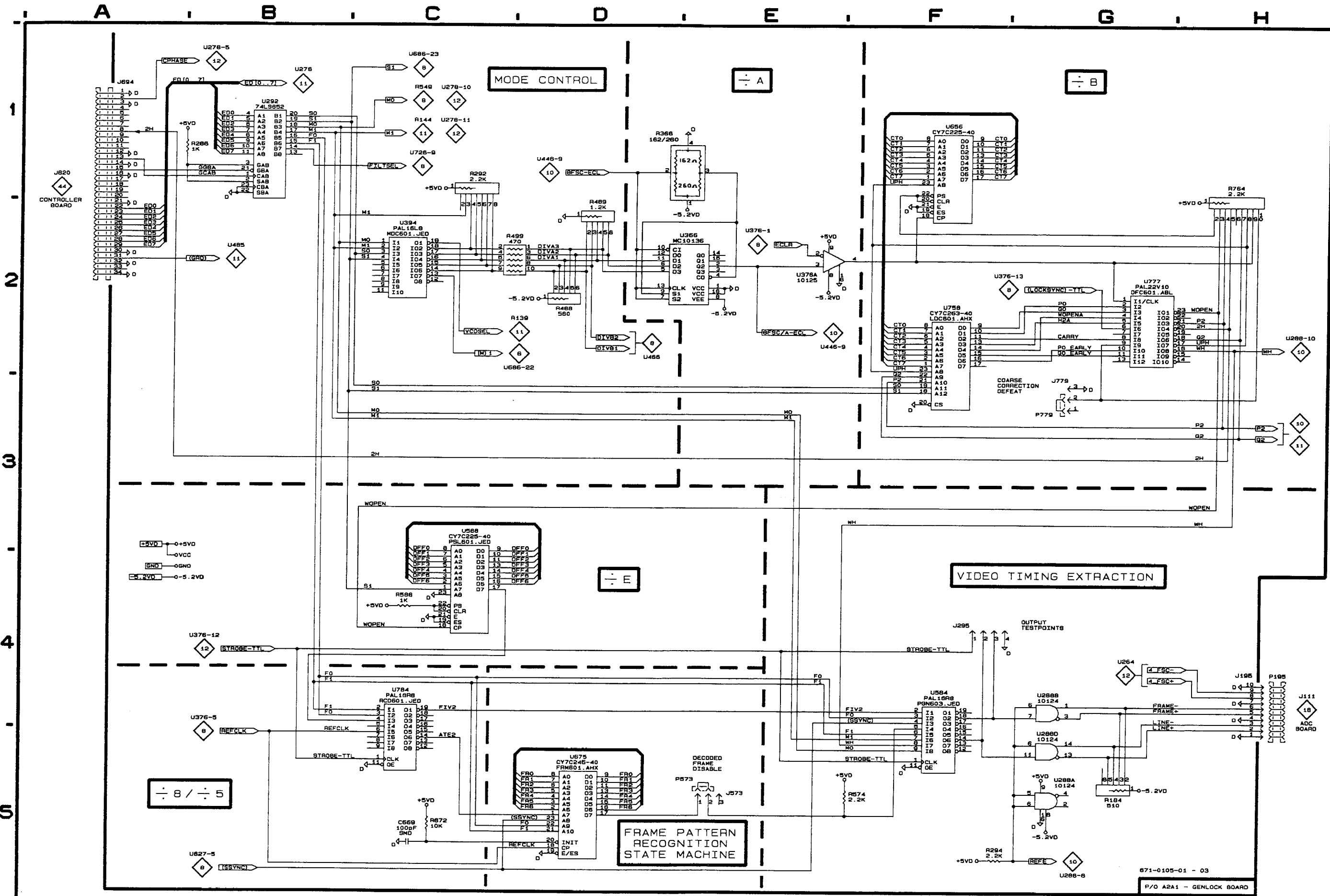
**GENLOCK BOARD
Schematic <9> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A2. *Partial Assembly A2 also shown on Schematics 8, 10, 11, and 12.*

CIRCUIT NUMBER	SCHEM LOCATION
C669	C5
J195	H4
J295	F4
J573	E5
J694	A1
J779	G3
R184	G5
R286	A1
R292	C1
R294	F5
R366	D1
R488	D2
R489	D2
R499	C2
R574	F5
R586	C4
R672	C5
R764	H1
U288A	G5
U288B	G4
U288D	G5
U292	B1
U366	D2
U376A	E2
U394	C2
U584	F4
U588	C3
U656	F1
U675	D5
U758	F2
U777	G2
U784	C4

*See parts list for earlier serial number ranges.



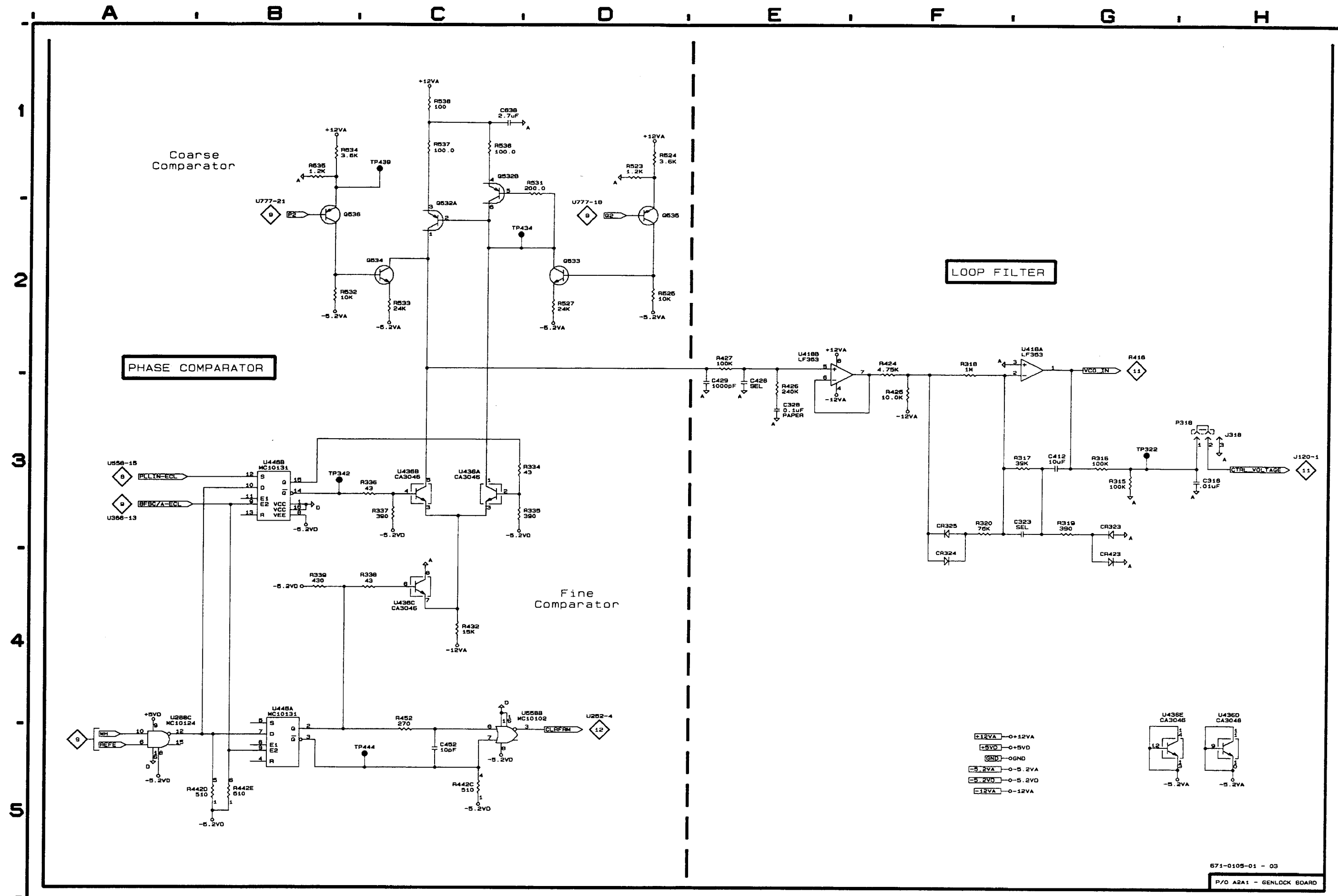
**GENLOCK BOARD
Schematic <10> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A2. *Partial Assembly A2 also shown on Schematics 8, 9, 11, and 12.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C316	H3	R536	C1
C323	G3	R537	C1
C328	E3	R538	C1
C412	G3		
C428	E3	TP322	G3
		TP342	B3
C429	E3	TP434	C2
C452	C5	TP439	C1
C638	C1	TP444	C5
CR323	G3	U288C	A5
CR324	F4	U418A	G2
CR325	F3	U418B	E2
CR423	G4	U436A	C3
		U436B	C3
J318	H3	U436C	C4
Q532A	C2	U436D	H5
Q532B	C1	U436E	G5
Q533	D2	U446A	B4
		U446B	B3
Q534	C2	U558B	C5
Q535	D2		
Q536	B2		
R315	G3		
R316	G3		
R317	G3		
R318	F2		
R319	G3		
R320	F3		
R334	C3		
R335	C3		
R336	C3		
R337	C3		
R338	C4		
R339	B4		
R424	F2		
R425	F3		
R426	E3		
R427	E2		
R432	C4		
R442C	C5		
R442D	B5		
R442E	B5		
R452	C5		
R523	D1		
R524	D1		
R525	D2		
R527	D2		
R531	D1		
R532	B2		
R533	C2		
R534	B1		
R535	B1		

*See parts list for earlier serial number ranges.



GENLOCK BOARD
Schematic <11> Look-Up Chart

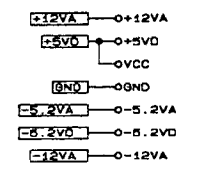
The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A2. Partial Assembly A2 also shown on Schematics 8, 9, 10, and 12.

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A2A1					
		R141	A4	R418	A1
		R142	B4	R462	D2
C312	E4	R143	C4	R473	B1
C523	B2	R144	C4		
		R168	C3	R475	A3
CR515	B2	R169	B3	R516	B2
		R171	B3	R520	B2
DS173	B3	R211	E4	R521	B2
DS175	B3			R522	B2
DS176	B3	R212	E4		
DS177	C3	R237	E4	TP514	B2
DS179	C3	R238	E1		
		R239	D1	U242A	C2
J578	A3	R240	B5	U242B	E1
				U242C	E1
Q134	C5	R241	D2	U276	C3
Q136	B4	R242	D2	U455B	D2
Q146	C4	R243	B4		
Q234	C5	R244	B4	U485	B3
Q236	B4	R245	D1	U518A	B2
				U518B	B2
R138	B5	R246	D1		
R139	A4	R416	A2		
CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A2A1A1					
		C11	G1	R3	H2
		C12	H1	R4	H2
C1	F2			R5	H2
C2	G2	CR1	F2	R6	H2
C3	G2			R7	G3
C4	G2	L1	G2		
C5	G2	L2	H1	R8	H2
				R9	H2
C6	H2	Q1	H2		
C7	H2	Q2	H2		
C8	H3				
C9	G2	R1	F2		
C10	H2	R2	F2		
CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A2A1A2					
		C12	H4	R1	F4
		C13	H4	R2	F5
C1	F5			R3	H5
C2	G4	CR1	F4	R4	H4
C4	G4			R5	H4
C5	G4	L1	G4		
C6	H5	L2	H4	R6	H5
				R7	G5
C7	H5	P120	F4	R8	H4
C8	H5			R9	H4
C9	G4	Q1	H4		
C10	H4	Q2	H4		
C11	G4				

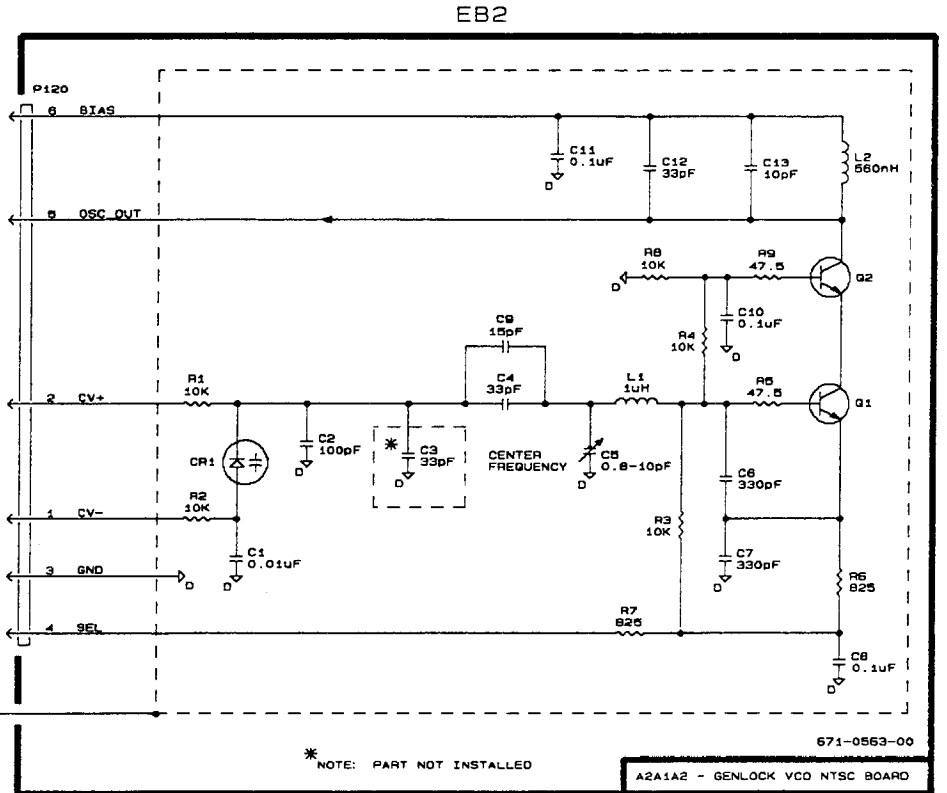
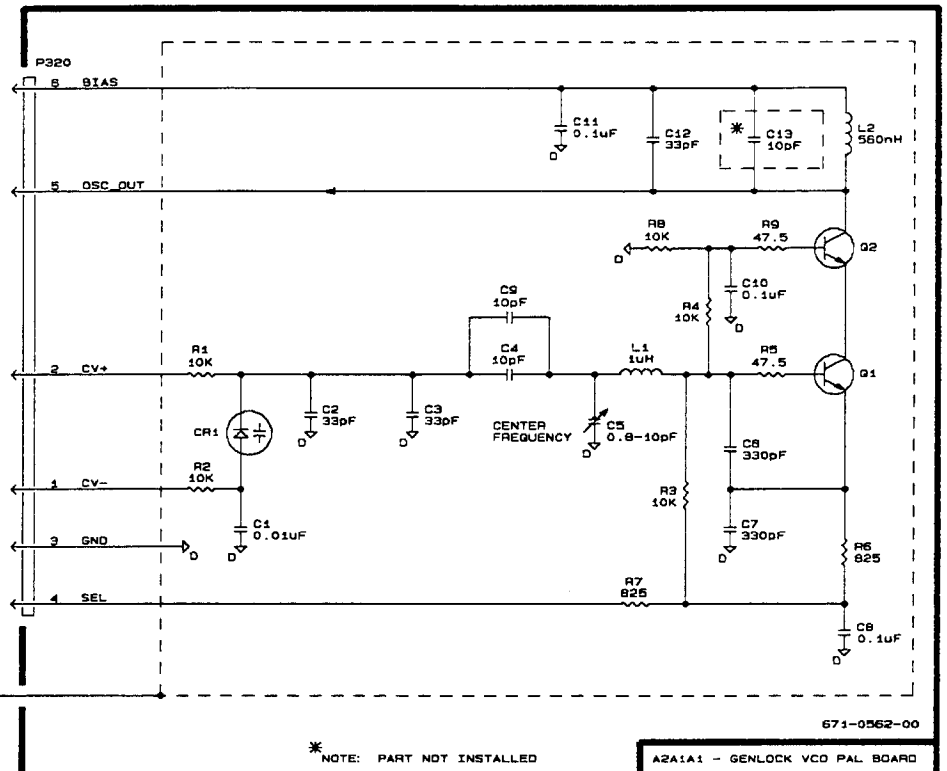
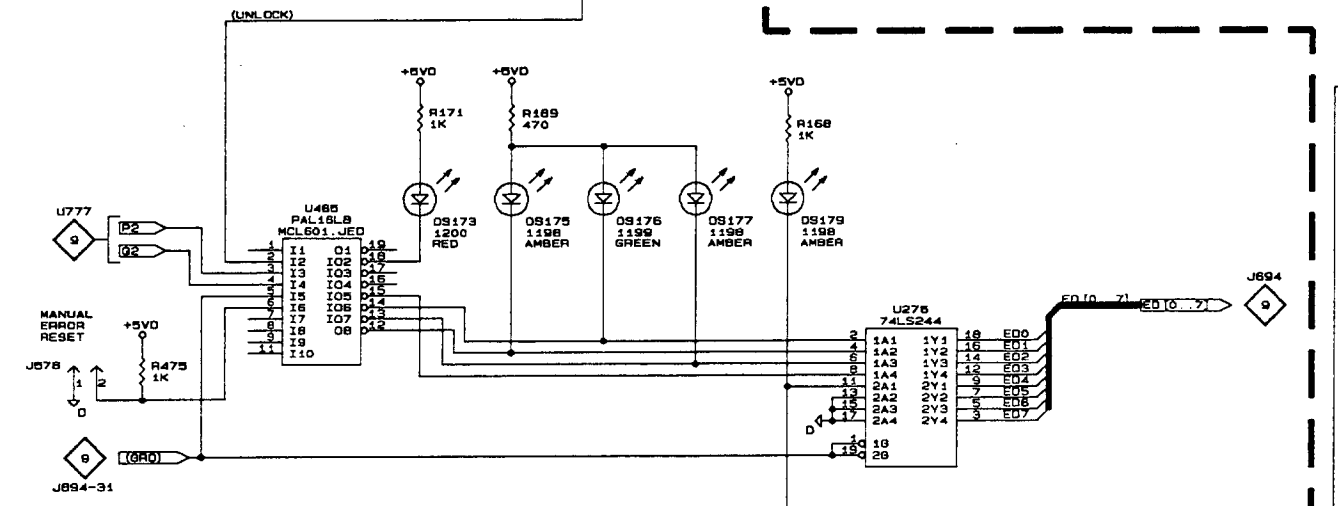
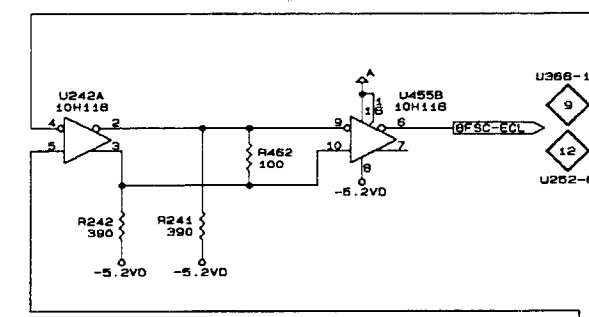
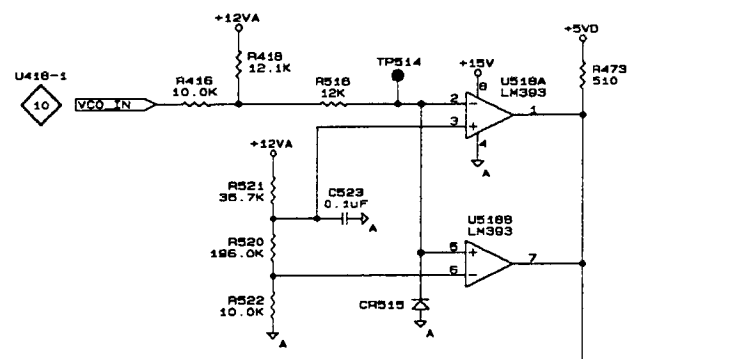
*See parts list for earlier serial number ranges.

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STATUS DECODER

VCO CONTROL



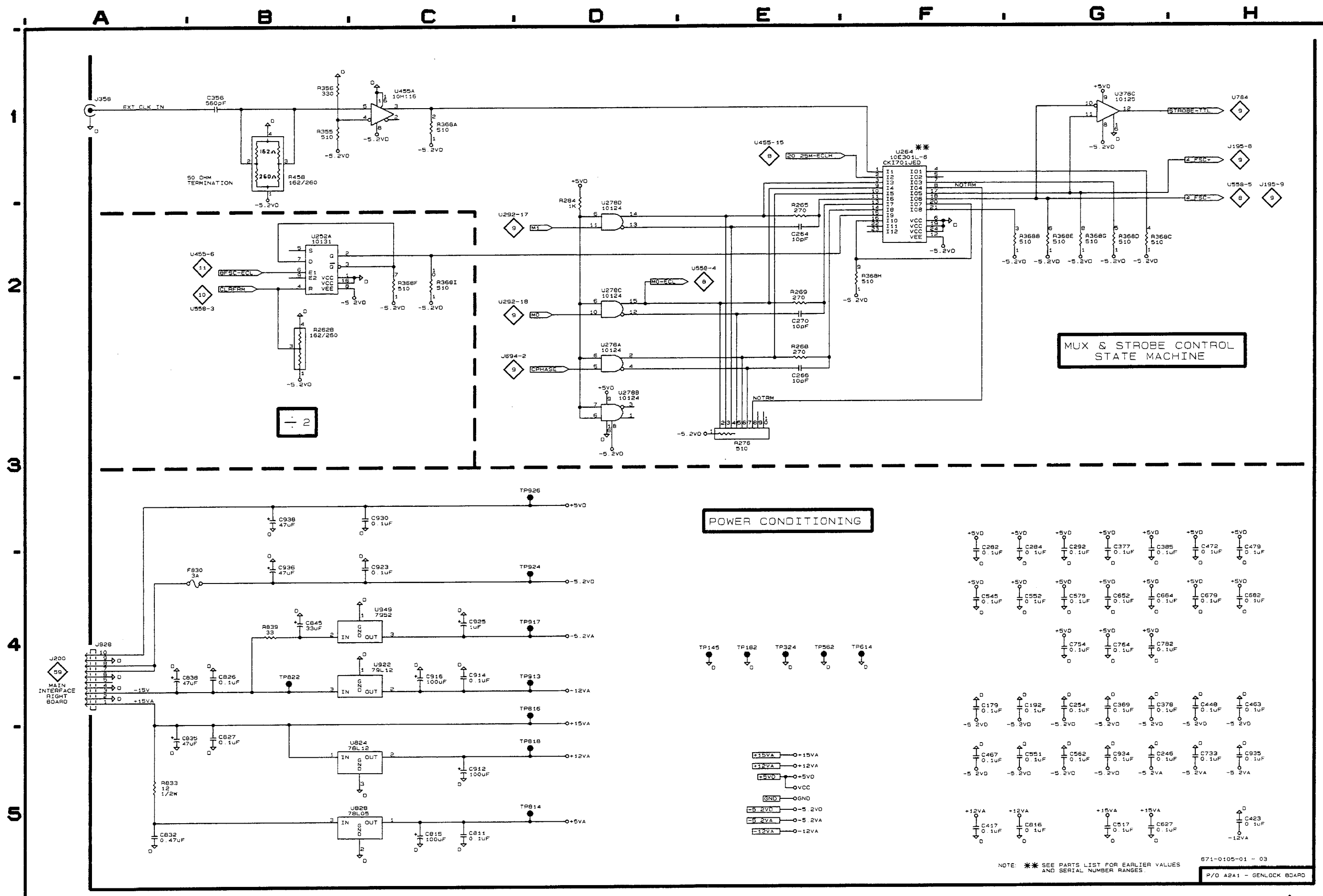
GENLOCK BOARD
Schematic <12> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A2. *Partial Assembly A2 also shown on Schematics 8, 9, 10, and 11.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C179	F4	C936	B4
C192	G4	C938	B3
C246	G5		
C254	G4	F830	B4
C264	E2		
C266	E2	J358	A1
		J928	A4
C270	E2		
C282	F4	R262B	B2
C284	G4	R265	E2
C292	G4	R268	E2
C356	B1	R269	E2
C369	G4	R276	E3
		R284	D1
C377	G4		
C378	G4	R355	B1
C385	G4	R356	B1
C417	F5	R368A	C1
C423	H5	R368B	G2
C448	H4	R368C	G2
		R368D	G2
C463	H4		
C467	F5	R368E	G2
C472	H4	R368F	C2
C479	H4	R368G	G2
C517	G5	R368H	F2
C545	F4	R368I	C2
		R458	B1
C551	G5		
C552	G4	R833	A5
C562	G5	R839	B4
C579	G4		
C627	G5	TP145	E4
C652	G4	TP182	E4
		TP324	E4
C664	G4	TP562	E4
C679	H4	TP614	F4
C682	H4	TP814	D5
C733	H5		
C754	G4	TP816	D4
C764	G4	TP818	D5
		TP822	B4
C782	G4	TP913	D4
C811	C5	TP917	D4
C815	C5	TP924	D4
C816	G5	TP926	D3
C826	B4		
C827	B5	U252A	B2
		U264	F1
C832	A5	U278A	D2
C835	A5	U278B	D3
C838	A4	U278C	D2
C845	B4	U278D	D2
C912	C5		
C914	C4	U376C	G1
		U455A	C1
C916	C4	U824	B5
C923	C4	U828	B5
C925	C4	U922	B4
C930	C3	U949	B4
C934	G5		
C935	H5		

*See parts list for earlier serial number ranges.



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VM 700A SERVICE

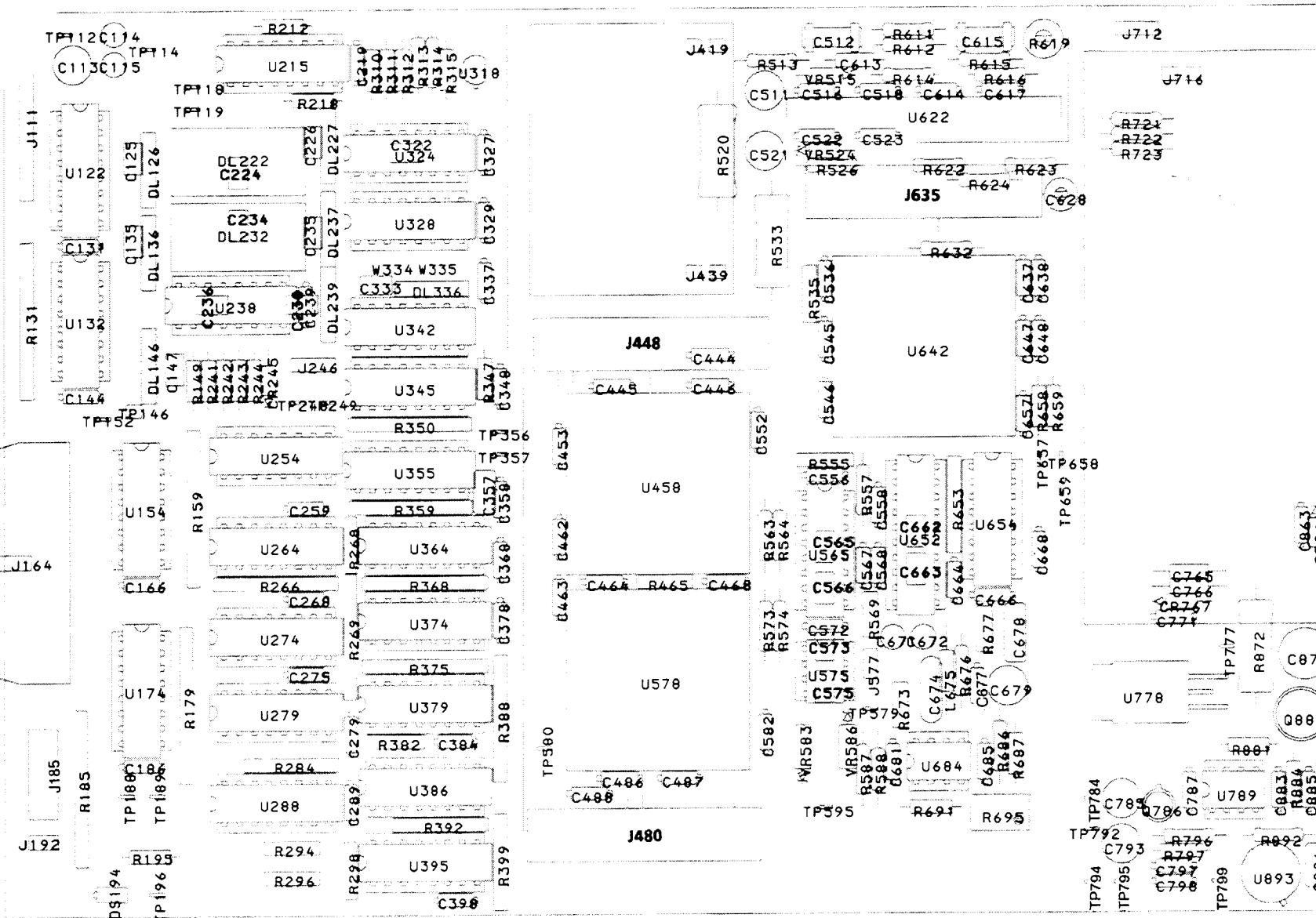


A3A1 ADC

ADC BOARD
Schematic <13> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

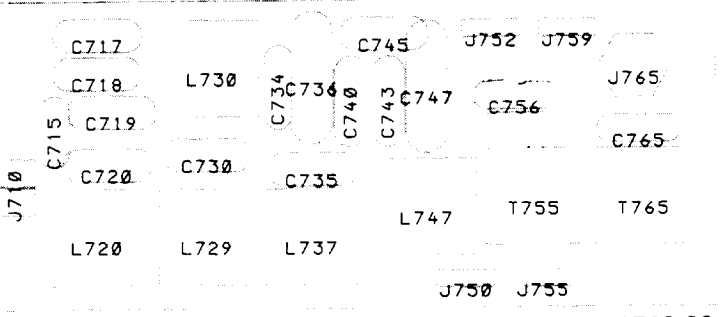
ASSEMBLY A3. Partial Assembly A3 also shown on Schematics 14, 15, and 16.



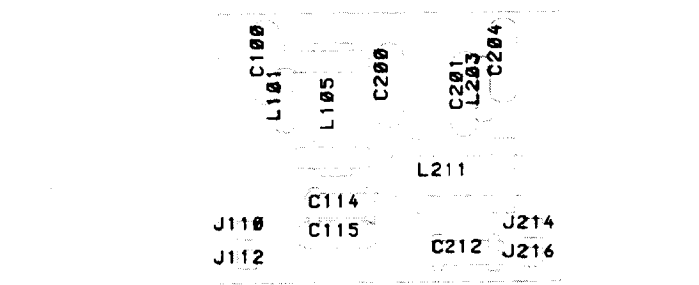
A3A1 ADC BOARD

CIRCUIT NUMBER	SCHEM LOCATE	CIRCUIT NUMBER	SCHEM LOCATE	CIRCUIT NUMBER	SCHEM LOCATE	CIRCUIT NUMBER	SCHEM LOCATE	CIRCUIT NUMBER	SCHEM LOCATE
A3A1		C337	H4	C487	C3	C896	E1	R721	D4
C131	G3	C348	G4	C511	F4	C972	E1	R722	D4
C144	G3	C358	G4	C512	E5	C976	B1	R723	D5
C166	G3	C368	G4	C516	E4	C981	B2	R796	G1
C186	G3	C378	G4	C518	F4	C983	B2	R797	G1
C219	H3	C384	H4	C521	D4	C985	B2	R872	E2
C239	H3	C398	H4	C522	D4	C986	C2	R875	D1
C259	H3	C445	B3	C523	E4	C988	B1	R881	G2
C268	G4	C446	G3	C536	H3	C992	D2	R884	G2
C275	G4	C453	G3	C545	C3	C994	B1	R886	G2
C279	G4	C462	G3	C546	H3			R887	G2
C289	G4	C463	G3	C613	F4	CR767	F2	R892	G1
C327	H4	C464	C3	C614	E4	CR864	F1	R974	C2
C329	H4	C468	H4	C615	E5	CR888	C2	R975	C2
		C486	H3	C617	E4	CR889	C2	R982	B2
				C628	E5			R984	B2
				C638	G3	F989	B1	R985	B2
				C647	C3	F996	B1		
				C657	G3			TP112	B3
				C662	G3	J419	F5	TP196	C3
				C663	G3	J439	H5	TP595	C3
				C664	H3	J712	D5	TP777	F2
				C666	H3	J716	D4	TP784	H2
				C668	H3	J995	A1	TP792	C2
				C765	E2			TP794	B1
				C766	E2	Q786	G1	TP795	H1
				C771	F2	Q882	G2	TP799	F1
				C785	H2	Q966	C2	TP877	F1
				C787	G1	Q973	C2	TP972	C3
				C793	G1			TP988	C1
				C797	G1	R513	F5		
				C798	E1	R520	F4	U622	E4
				C863	E1	R526	F4	U778	E2
				C865	E1	R533	D4	U789A	G1
				C866	E1	R611	E5	U789B	G2
				C873	E2	R612	E4	U893	E1
				C883	G1	R614	F4	U962	E1
				C885	G2	R615	E5	U982	B2
				C887	B1	R616	E5		
				C888	C2	R619	E5		
				C889	D2	R622	E5	VR515	E4
				C894	E1	R623	E5	VR524	D4
				C895	E1	R624	D5		

*See parts list for earlier serial number ranges.



A3A1A5 PAL ADC FILTER BOARD



A3A1A1 VIDEO DELAY LINE BOARD

Static Sensitive Devices
See the section in this manual on handling precautions for static sensitive components.

CIRCUIT NUMBER	SCHEM LOCATE	CIRCUIT NUMBER	SCHEM LOCATE	CIRCUIT NUMBER	SCHEM LOCATE
A3A1A1		C204	G5	L101	G5
C100	G5	C212	G5	L105	G5
C114	G5			L203	G5
C115	H5	J110	H5	L211	G5
C200	G5	J112	H5		
C201	G5	J214	F5		
		J216	F5		
CIRCUIT NUMBER	SCHEM LOCATE	CIRCUIT NUMBER	SCHEM LOCATE	CIRCUIT NUMBER	SCHEM LOCATE
A3A1A5		C743	B5	J765	A4
C715	C4	C745	B4	L720	C4
C717	C4	C747	A5	L729	C4
C718	C4	C756	B4	L730	B4
C719	C4	C757	B4	L737	B5
C720	C4	C765	B4	L747	B5
C730	C4				
C734	C4	J710	D4	T755	B4
C735	C4	J750	B5	T765	B4
C736	B5	J752	B4		
C740	B5	J755	A5		
		J759	A4		

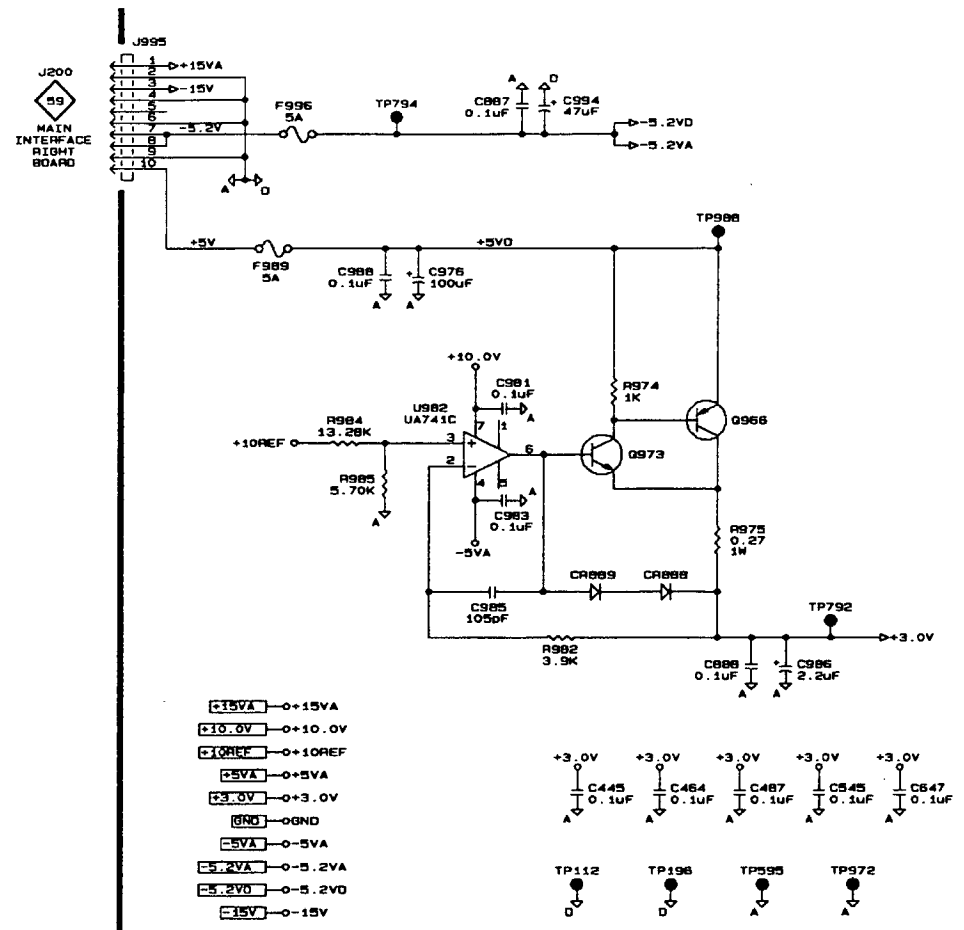
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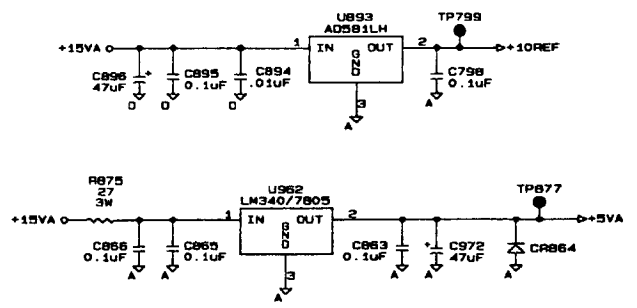
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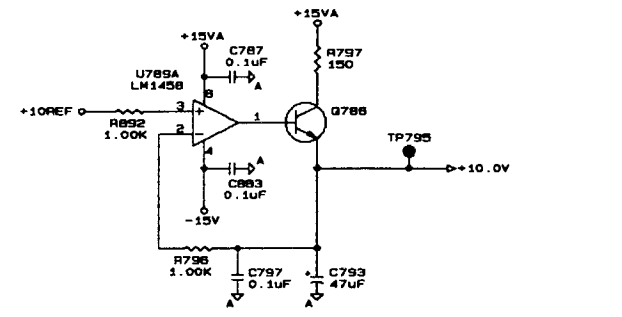
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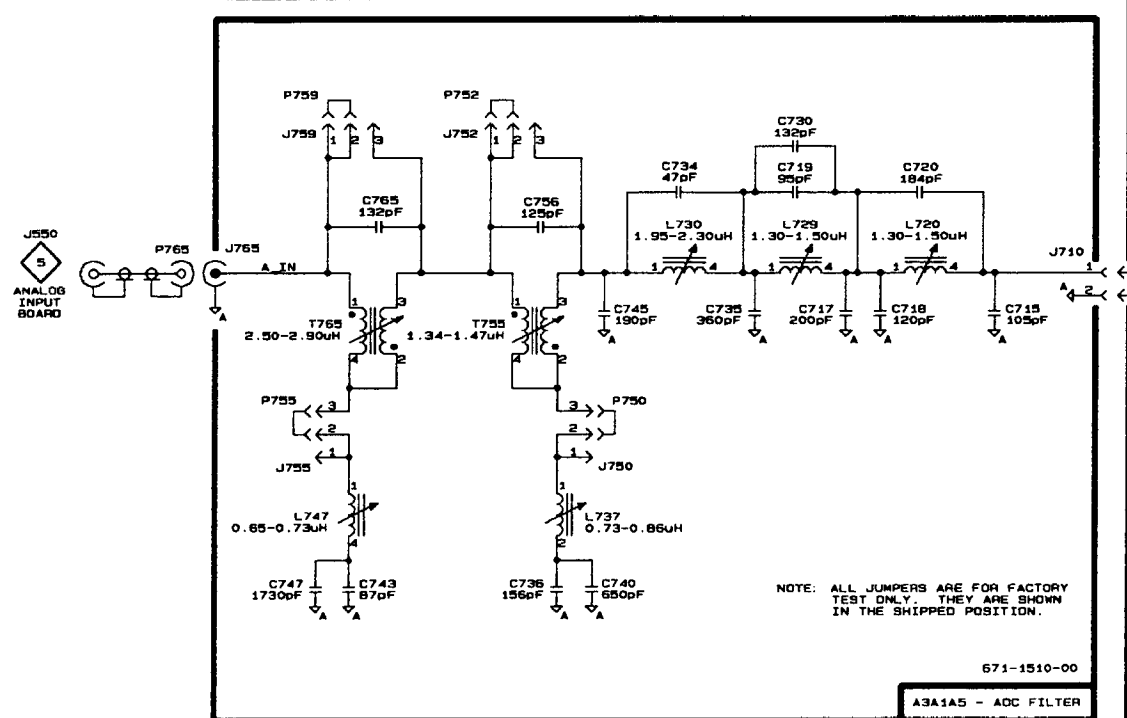
- +15VA** → +15VA
 - +10.0V** → +10.0V
 - +10REF** → +10REF
 - +5VA** → +5VA
 - +3.0V** → +3.0V
 - 0V** → 0V
 - 5VA** → -5VA
 - 5.2VA** → -5.2VA
 - 15V** → -15V
- +3.0V** → +3.0V (C445, C454, C487, C545, C547)
 - TP112**
 - TP198**
 - TP595**
 - TP972**



POWER REGULATION

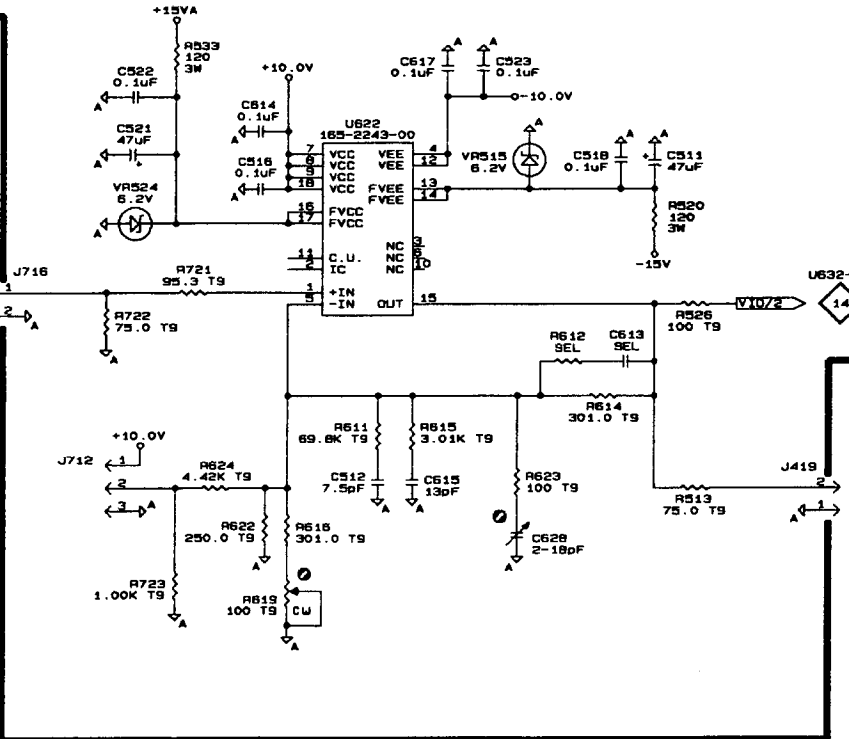


SIGNAL CONDITIONING



NOTE: ALL JUMPERS ARE FOR FACTORY TEST ONLY. THEY ARE SHOWN IN THE SHIPPED POSITION.

671-1510-00
A3A1A5 - AOC FILTER



671-0110-01
A3A1A1 - VIDEO DELAY FILTER

671-0100-03
P/O A3A1-ADC BOARD

- +3.0V** → +3.0V (C446, C453, C462, C483, C486, C536, C546)
- 5.2VA** → -5.2VA (C338, C357, C652, C663, C664, C668, C688)
- 5.2V0** → -5.2V0 (C131, C144, C166, C188, C219, C239, C259)
- 5.2V0** → -5.2V0 (C268, C275, C279, C289, C327, C329, C337)
- 5.2V0** → -5.2V0 (C348, C358, C368, C378, C384, C398, C468)

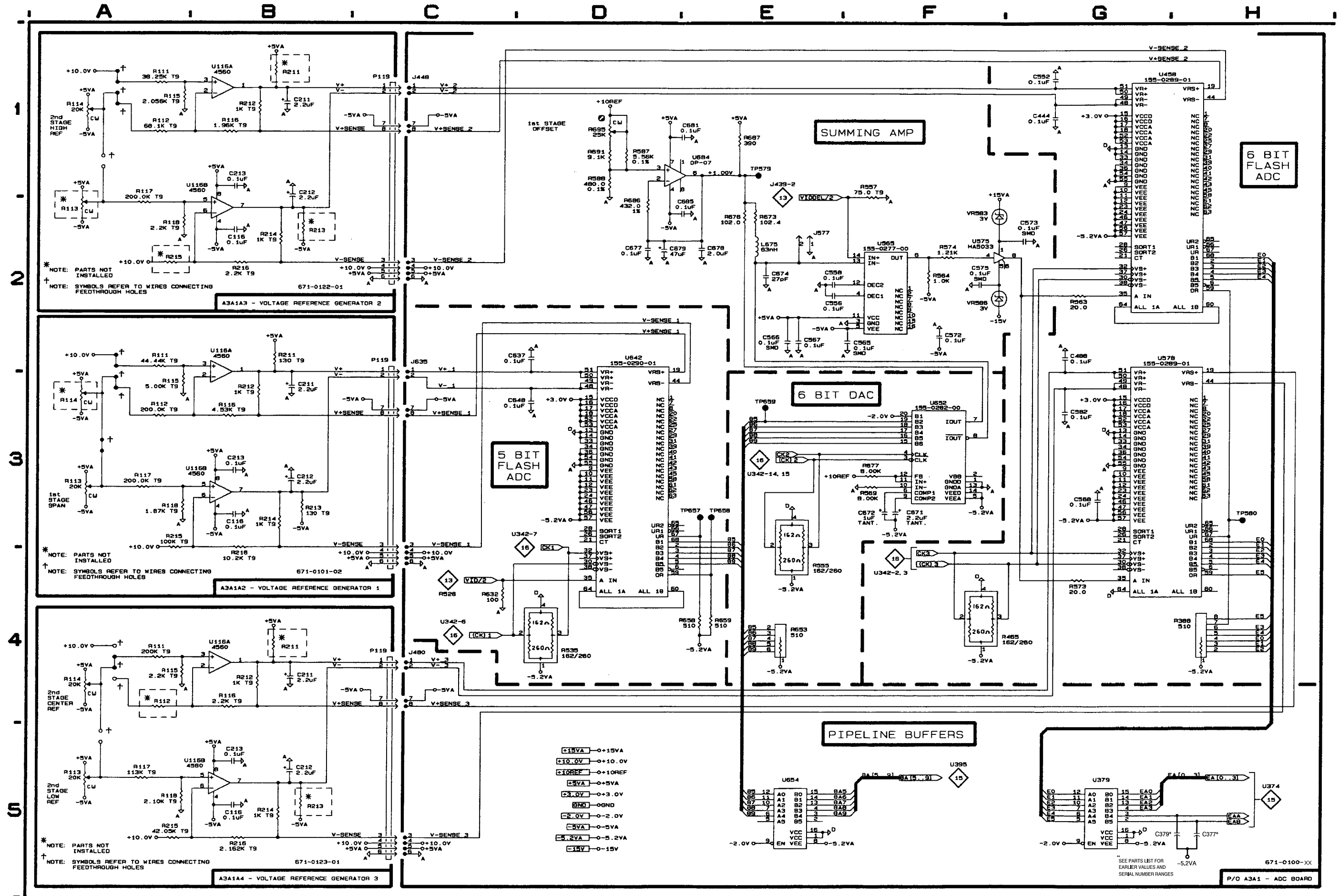
ADC BOARD
Schematic <14> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A3. *Partial Assembly A3 also shown on Schematics 13, 15, and 16.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A3A1		J448	C1	R686	D2
C444	G1	J480	C4	R687	E1
C488	G2	J577	E2	R691	D1
C552	G1	J635	C2	R695	D1
C556	E2	L675	E2	TP579	E1
C558	E2			TP580	H3
C565	F2	R388	H4	TP657	E3
C566	E2	R465	F4	TP658	E3
C567	E2	R535	D4	TP659	E3
C568	G3	R555	E3		
C572	F2	R557	F1	U379	G5
				U458	G1
C573	G2	R563	G2	U565	F2
C575	F2	R564	F2	U575	F2
C582	G3	R569	F3	U578	G2
C637	D2	R573	G4		
C648	D3	R574	F2	U642	D2
				U652	F3
C671	F3	R587	D1	U654	E5
C672	F3	R588	D1	U684	D1
C674	E2	R632	C4		
C677	D2	R653	E4	VR583	F2
C678	E2	R658	E4	VR586	F2
C679	D2	R659	E4	C377	H5
C681	E1	R673	E2	C379	H5
C685	E2	R676	E2		
		R677	F3		
CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A3A1A2		R113	A3	R213	B3
C211	B3	R114	A3	R214	B3
C212	B3	R115	A3	R215	A3
C213	B3	R116	B3	R216	B3
		R117	A3		
R111	A2	R118	A3	U116A	B2
R112	A3	R211	B2	U116B	B3
		R212	B3		
CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A3A1A3		R113	A2	R213	B2
C211	B1	R114	A1	R214	B2
C212	B1	R115	A1	R215	A2
C213	B1	R116	B1	R216	B2
		R117	A2		
R111	A1	R118	A2	U116A	B1
R112	A1	R211	B1	U116B	B2
		R212	B1		
CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A3A1A4		R113	A5	R213	B5
C211	B4	R114	A4	R214	B5
C212	B5	R115	A4	R215	A5
C213	B5	R116	B4	R216	B5
		R117	A5		
R111	A4	R118	A5	U116A	B4
R112	A4	R211	B4	U116B	B5
		R212	B4		

*See parts list for earlier serial number ranges.



NOTE: PARTS NOT INSTALLED
 † NOTE: SYMBOLS REFER TO WIRES CONNECTING FEEDTHROUGH HOLES

NOTE: PARTS NOT INSTALLED
 † NOTE: SYMBOLS REFER TO WIRES CONNECTING FEEDTHROUGH HOLES

NOTE: PARTS NOT INSTALLED
 † NOTE: SYMBOLS REFER TO WIRES CONNECTING FEEDTHROUGH HOLES

- C15VA - 0+15VA
- C10.0V - 0+10.0V
- C10REF - 0+10REF
- C5VA - 0+5VA
- C3.0V - 0+3.0V
- GND - 0GND
- 2.0V - 0-2.0V
- 5VA - 0-5VA
- 5.2VA - 0-5.2VA
- 15V - 0-15V

SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES

ADC BOARD
Schematic <15> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A3. *Partial Assembly A3 also shown on Schematics 13, 14, and 16.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A3A1		R368C	C5
C357	E3	R368D	C5
CR245	E4	R368E	C5
DS194	H3	R368F	F5
J164	H3	R368G	F5
J185	H2	R375	C3
J192	H3	R382	A4
J246	E4	R392	B5
R159E	G4	R399	A5
R185	G4	TP248	F3
R195	H3	TP249	F3
R244	E4	TP356	F2
R266	G3	TP357	E2
R268	C3	U254A	G4
R269	D2	U254B	G4
R284	G3	U264A	G1
R294	F5	U264B	G1
R296	F5	U274A	G2
R298	B5	U274B	G1
R347	E3	U279A	G3
R350A	D5	U279B	G2
R350B	F3	U288A	G3
R350C	C5	U288B	G3
R350D	D5	U345	E3
R350E	A2	U355	E4
R350F	F3	U364	D4
R350G	F3	U374	D3
R359A	D5	U386	B4
R359B	D3	U395	A4
R359C	D3		
R359D	D5		
R359E	F4		
R359F	D5		
R359G	F4		
R368A	C5		
R368B	C5		

*See parts list for earlier serial number ranges.

A B C D E F G H

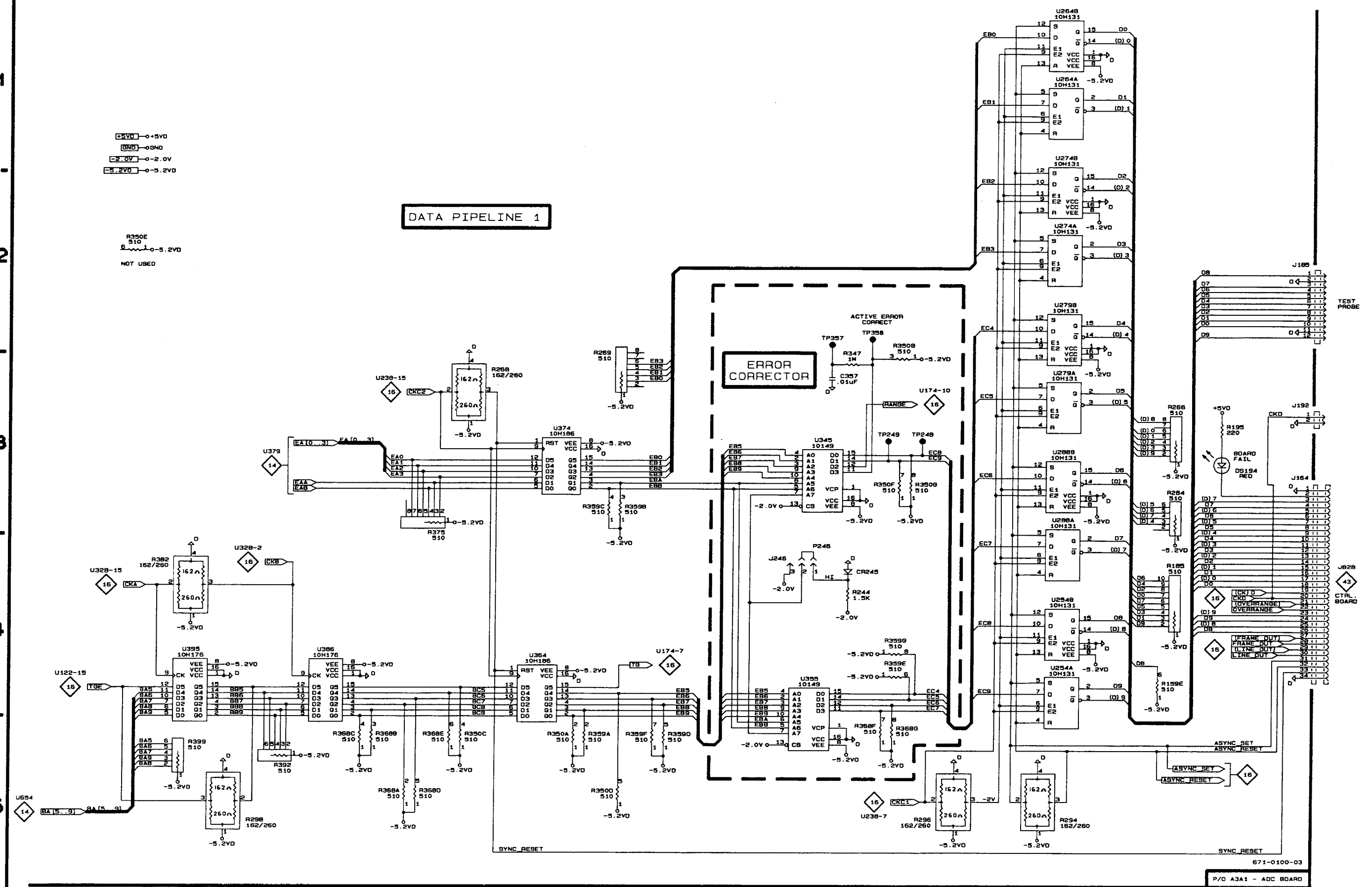
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0+5V0
0ND-0GND
-2.0V-0-2.0V
-5.2V0-0-5.2V0

R350E
510
-5.2V0
NOT USED

DATA PIPELINE 1

ERROR CORRECTOR



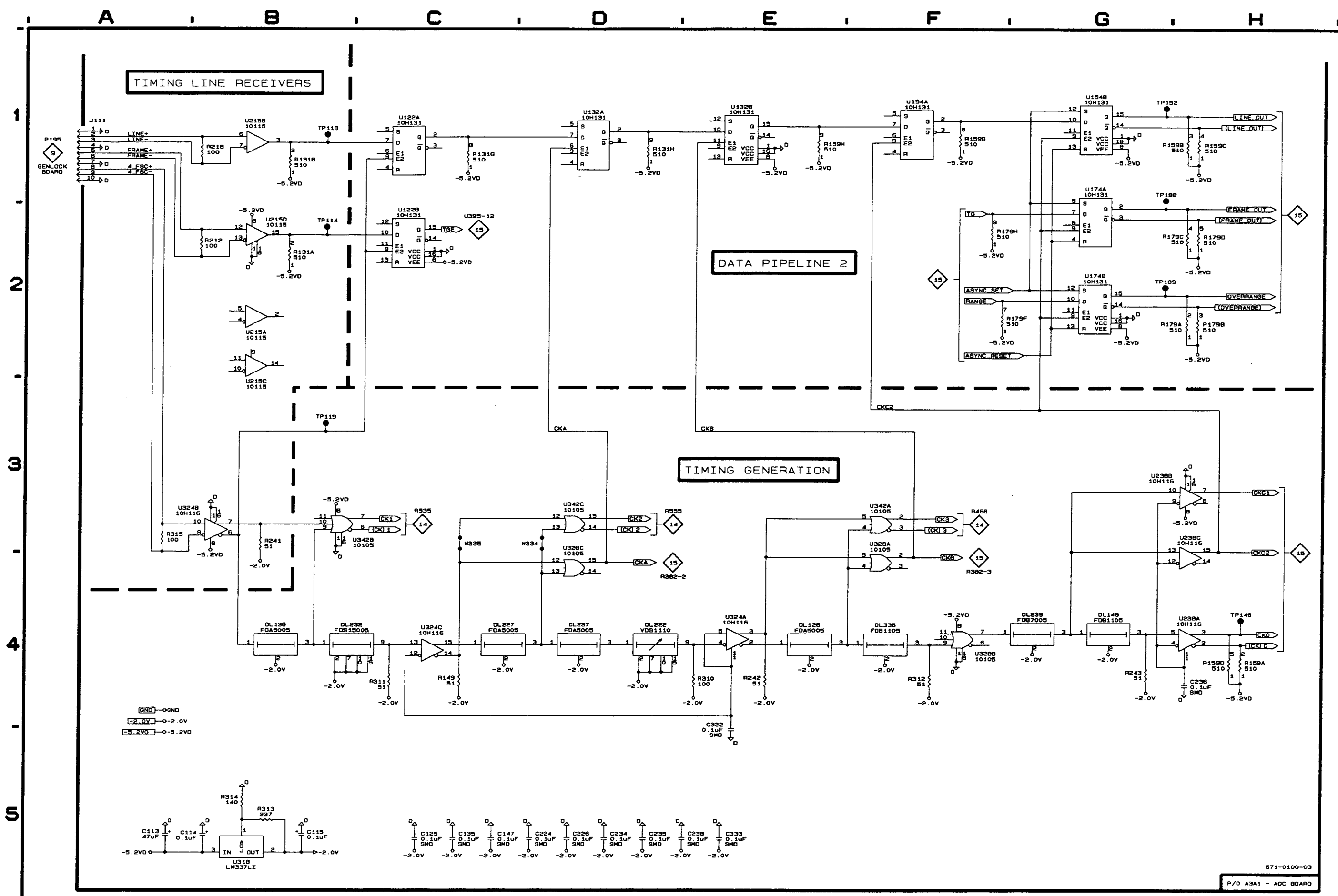
ADC BOARD
Schematic <16> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A3. *Partial Assembly A3 also shown on Schematics 13, 14, and 15.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A3A1		R242	E4
		R243	G4
C113	A5	R310	E4
C114	B5	R311	C4
C115	B5	R312	F4
C125	C5		
C135	C5	R313	B5
		R314	B5
C147	C5	R315	A3
C224	D5		
C226	D5	TP114	B2
C234	D5	TP118	B1
C235	D5	TP119	B3
		TP146	H4
C236	H4	TP152	G1
C238	E5		
C322	E5	TP188	G1
C333	E5	TP189	G2
DL126	E4	U122A	C1
DL136	B4	U122B	C2
DL146	G4	U132A	D1
DL222	D4	U132B	E1
DL227	C4	U154A	F1
DL232	B4	U154B	G1
DL237	D4	U174A	G1
DL239	G4	U174B	G2
DL336	F4	U215A	B2
		U215B	B1
J111	A1	U215C	B2
R131A	B2	U215D	B2
R131B	B1	U238A	H4
R131G	C1	U238B	H3
R131H	D1	U238C	H3
R149	C4		
		U318	B5
R159A	H4	U324A	E4
R159B	H1	U324B	B3
R159C	H1	U324C	C4
R159D	H4	U328A	F4
R159G	F1		
		U328B	F4
R159H	E1	U328C	D4
R179A	H2	U342A	F3
R179B	H2	U342B	B3
R179C	H2	U342C	D3
R179D	H2		
		W334	D3
R179F	F2	W335	C3
R179H	F2		
R212	B2		
R218	B1		
R241	B3		

*See parts list for earlier serial number ranges.



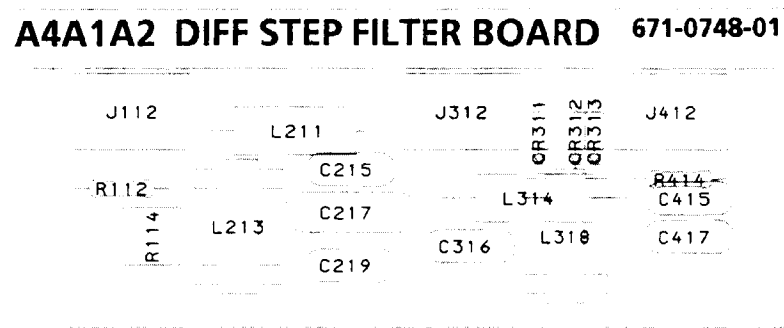
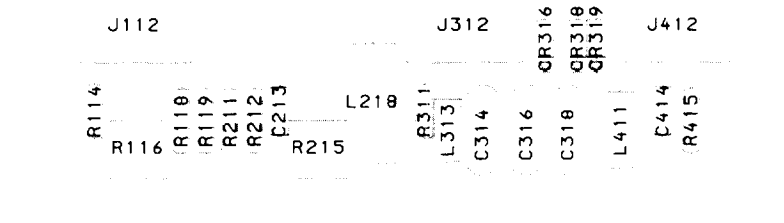
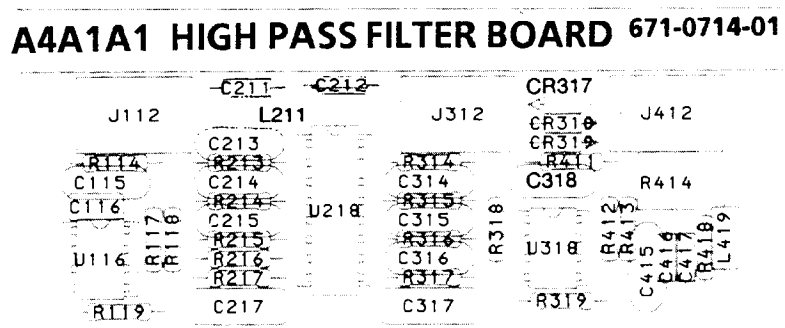
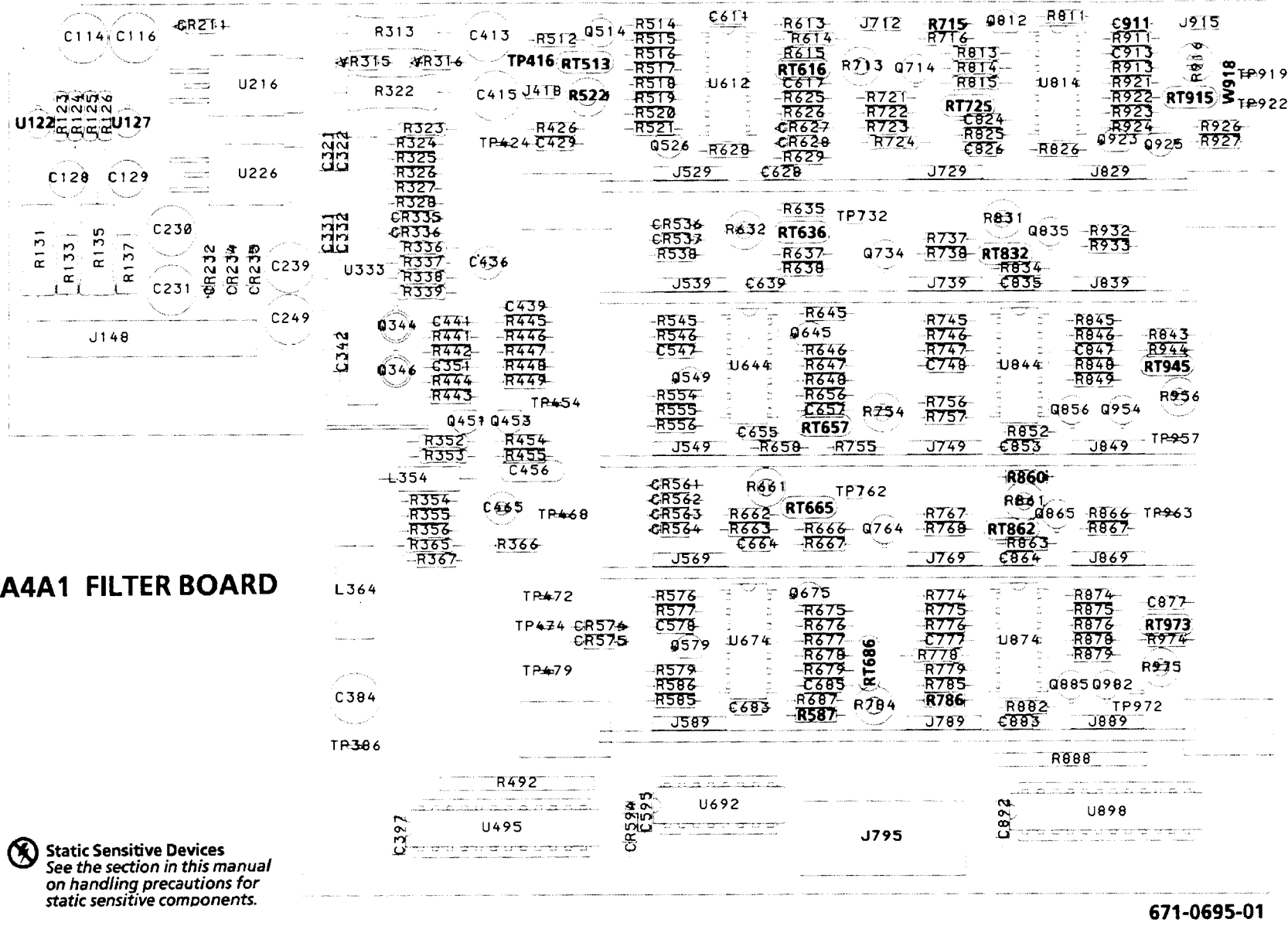
VM 700A SERVICE

DATA PIPELINE 2 &
TIMING GENERATOR <16>



A4 FILTERS

VM 700A SERVICE



FILTER BOARD Schematic <17> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A4. Partial Assembly A4 also shown on Schematics 18 and 19.

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C321	H3	R326	G5	R715	D1
C322	G3	R327	G5	R716	E1
C331	H3	R328	G4	R721	C1
C332	G3	R336	F4	R722	C1
C342	G3	R337	F4	R723	C1
C351	F4	R338	F4	R724	D1
C413	G3	R339	G5	R778	B1
C415	H3	R352	G5	R811	D1
C436	F5	R353	F5	R813	D1
C439	G4	R354	F5	R814	D1
C441	F4	R355	E4	R815	E1
C456	F5	R356	E4	R825	C2
C465	F5	R365	G3	R826	D2
C611	F1	R366	F3	R888	B4
C628	F2	R367	E4	R911	C1
C826	D2	R426	F2	R913	D3
C911	D1	R441	E4	R916	D3
		R442	F4	R921	C3
CR335	G4	R443	E4	R922	D3
CR336	G5	R444	E4	R923	D2
CR594	B5				
CR627	E3	R445	G4	R924	D2
CR628	E2	R446	G4	R926	C3
		R447	F4	R927	C3
J418	H4	R448	E4		
J529	E2	R449	E4	RT513	F1
J712	C1			RT616	F3
J729	E3	R454	E4	RT725	D1
J795	A3	R455	E4	RT915	D3
		R492	D5		
J829	E2	R512	F1	TP424	G4
J915	A1	R514	F1	TP922	C2
L354	F5	R515	F1	U333	G3
Q344	F4	R516	G1	U495	C5
Q346	F4	R517	F1	U612A	F1
Q451	E4	R518	G1	U612B	F2
Q453	E4	R519	F2	U692	B4
Q514	F1	R520	F2	U814A	D1
Q526	F2	R521	F3	U814B	D2
Q714	D1	R522	F1	U898	B3
Q812	D1	R613	F1		
Q823	D2	R614	E1	VR315	H3
Q925	C2	R615	F3	VR316	G3
		R625	F3		
R313	G2	R626	F3		
R322	H3	R628	F2		
R323	G4	R629	F3		
R324	G4				
R325	G4	R713	F3		

*See parts list for earlier serial number ranges.

NOTE

See 671-0716-00 for 671-0716-01 part locations.

P822
4
ANALOG
INPUT
BOARD

VIDEO TO FILTER SWITCH

SLOT 0

SLOT 1

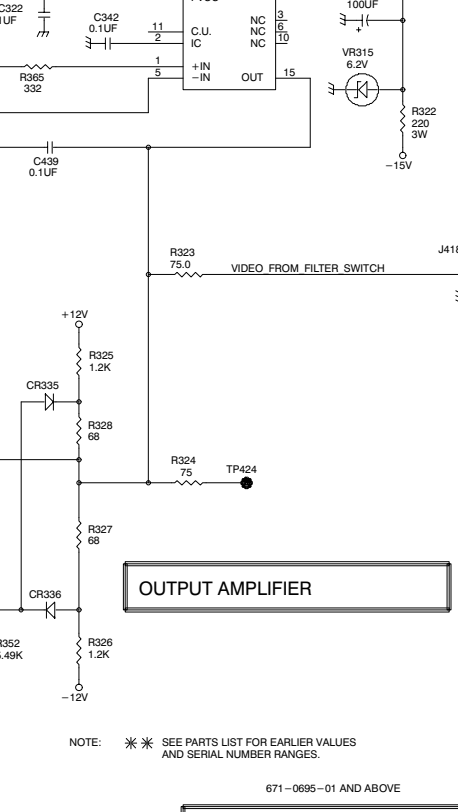
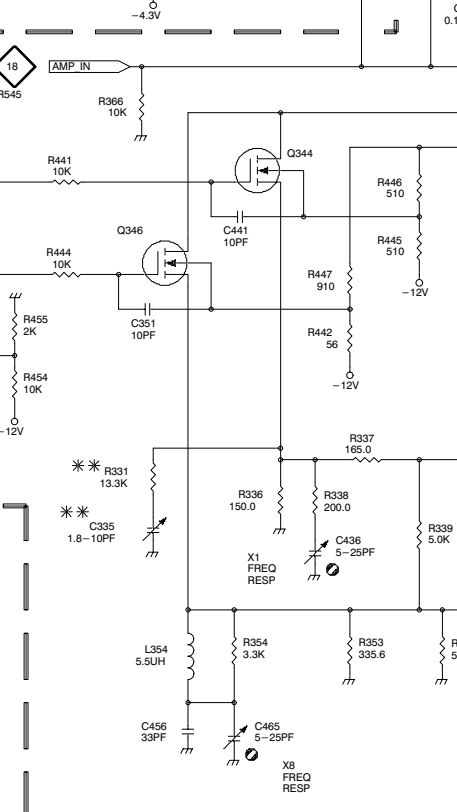
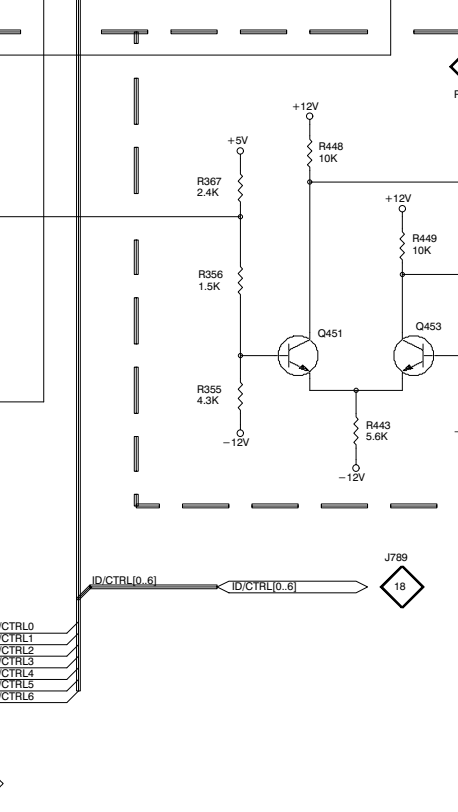
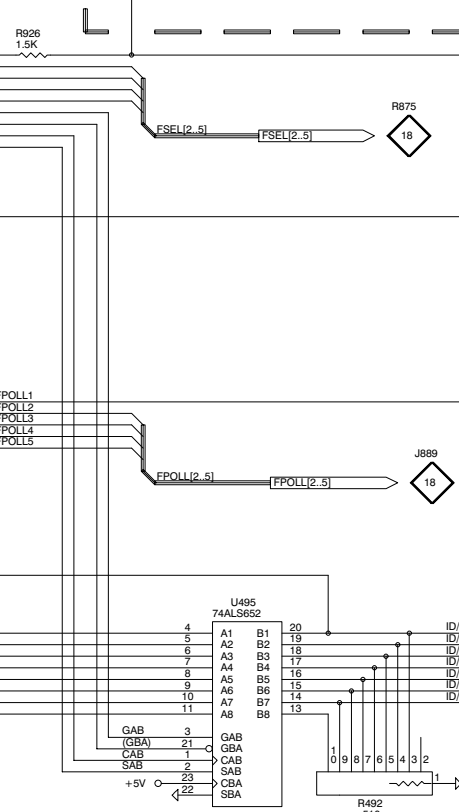
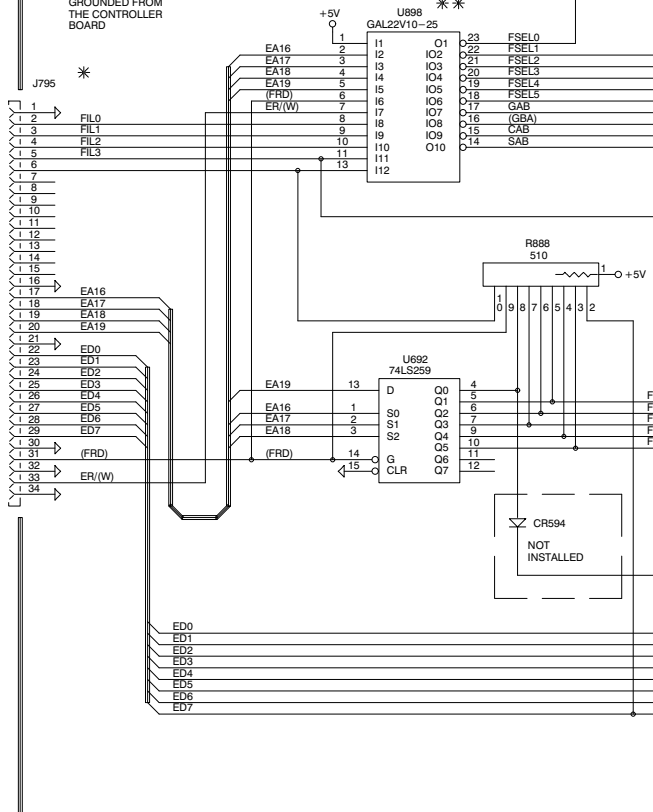
SLOT 0

SLOT 1

FILTER SELECT & CONTROL

NOTE:
J795 PIN 6 IS
GROUNDED FROM
THE CONTROLLER
BOARD

J221
44
CONTROLLER
BOARD



FILTER BOARD
Schematic < 18 > Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

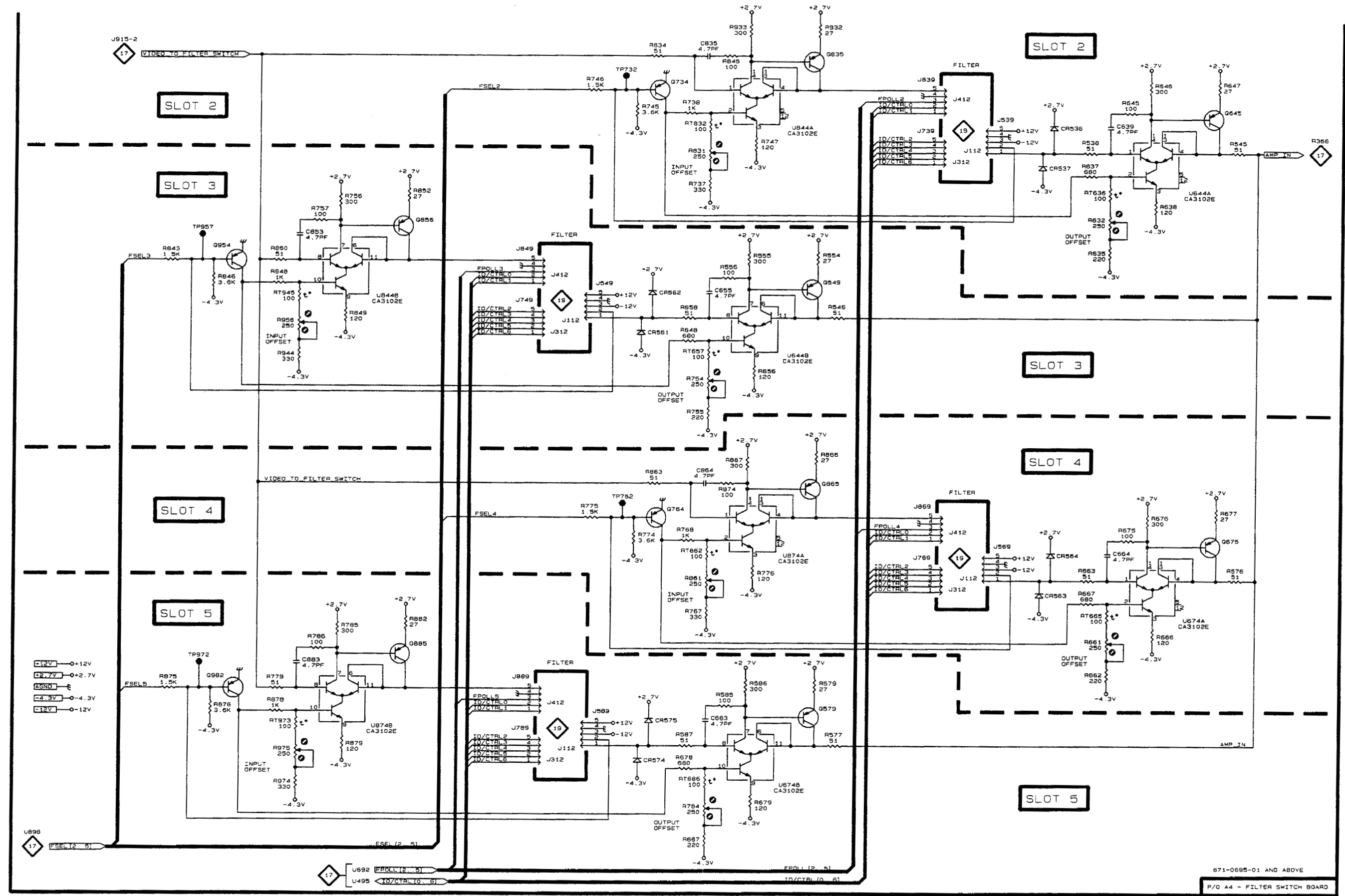
ASSEMBLY A4. *Partial Assembly A4 also shown on Schematics 17 and 19.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C639	G1	R579	E4	R848	B2
C655	E2	R585	E4	R849	C2
C664	G4	R586	E4	R852	C2
C683	E4	R587	E5	R860	B2
C835	E1	R632	G2	R861	E4
C853	B2	R635	G2	R863	D3
C864	E3				
C883	B4	R637	G1	R866	E3
		R638	G2	R867	E3
CR536	G1	R645	G1	R874	E3
CR537	G1	R646	G1	R875	B4
CR561	D2	R647	H1	R876	B4
CR562	D2	R648	E2	R878	B4
CR563	G4				
CR564	G4	R656	E3	R879	C5
CR574	D5	R658	E2	R882	C4
CR575	D4	R661	G4	R932	E1
		R662	G4	R933	E1
J539	F1	R663	G4	R944	B2
J549	D2	R666	G4	R956	B2
J569	F4			R974	B5
J589	D4	R667	G4	R975	B5
J739	F1	R675	G3		
J749	D2	R676	G3	RT636	G2
		R677	H3	RT657	E2
J769	F4	R678	E5	RT665	G4
J789	D5	R679	E5	RT686	E5
J839	F1			RT832	E1
J849	D2	R687	E5	RT862	E4
J869	F3	R737	E2	RT945	B2
J889	D4	R738	E1	RT973	B4
		R745	D1		
Q549	E2	R746	D1	TP732	D1
Q579	E4	R747	E1	TP762	D3
Q645	H1			TP957	B2
Q675	H3	R754	E3	TP972	B4
Q734	D1	R755	E3		
Q764	D3	R756	C2	U644A	G1
		R757	B2	U644B	E2
Q835	E1	R767	E4	U674A	G4
Q856	C2	R768	E3	U674B	E5
Q865	E3			U844A	E1
Q885	C4	R774	D3	U844B	B2
Q954	B2	R775	D3	U874A	E3
Q982	B4	R776	E4	U874B	B4
		R779	B4		
R538	G1	R784	E5		
R545	H1	R784	B4		
R546	E2				
R554	E2	R785	C4		
R555	E2	R831	E1		
R556	E2	R834	D1		
		R843	B2		
R576	H4	R845	E1		
R577	E5	R846	B2		

*See parts list for earlier serial number ranges.

A B C D E F G H

1
2
3
4
5



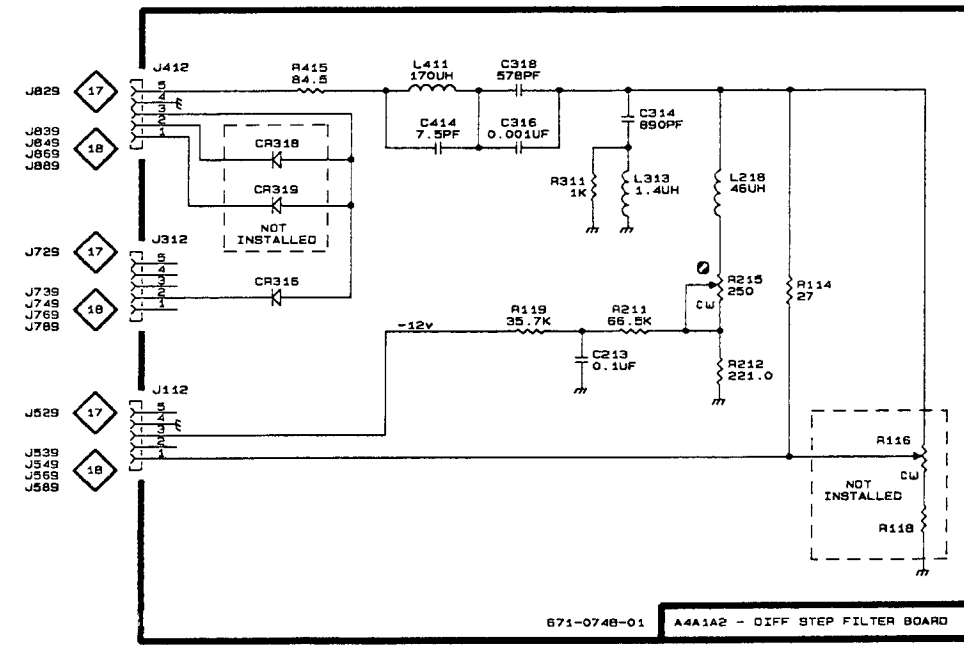
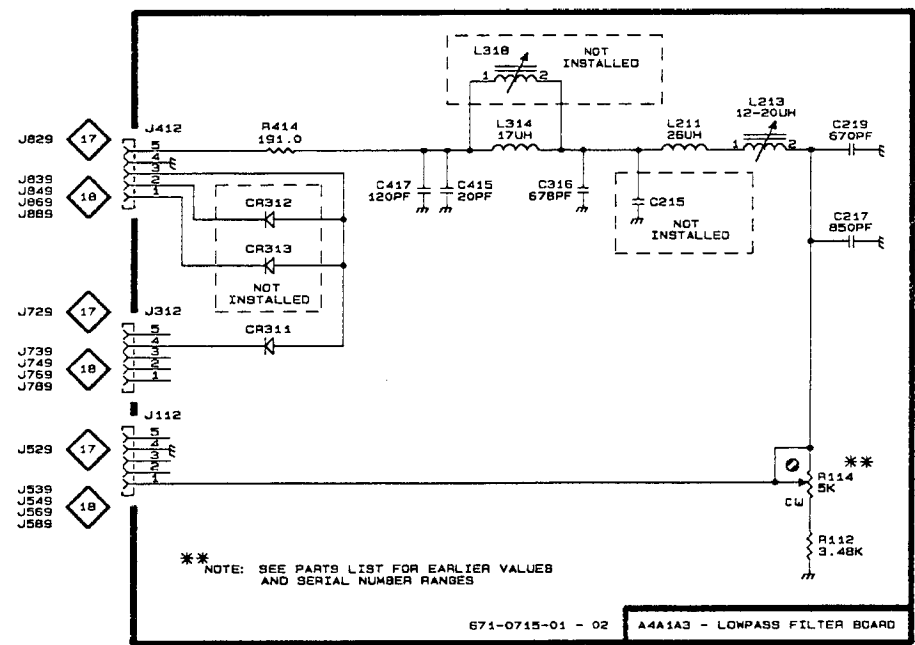
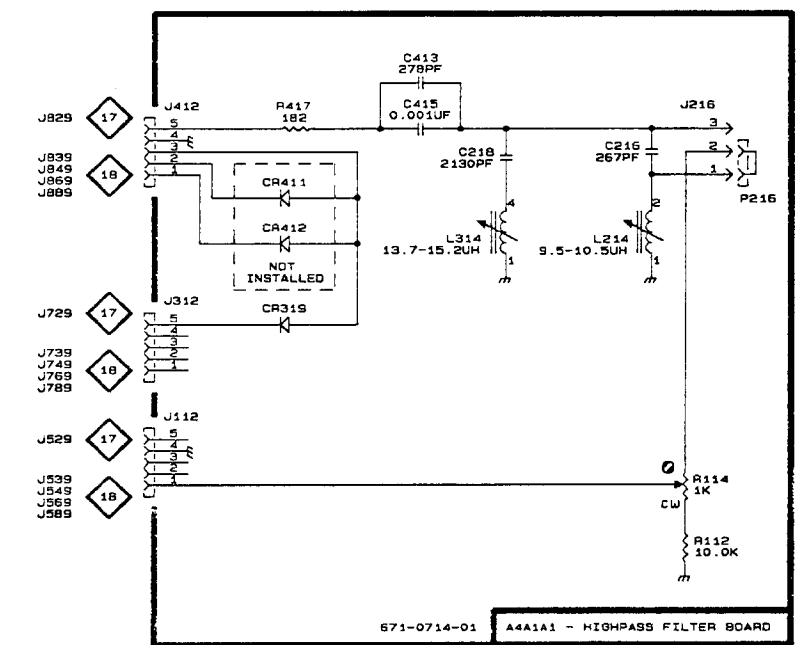
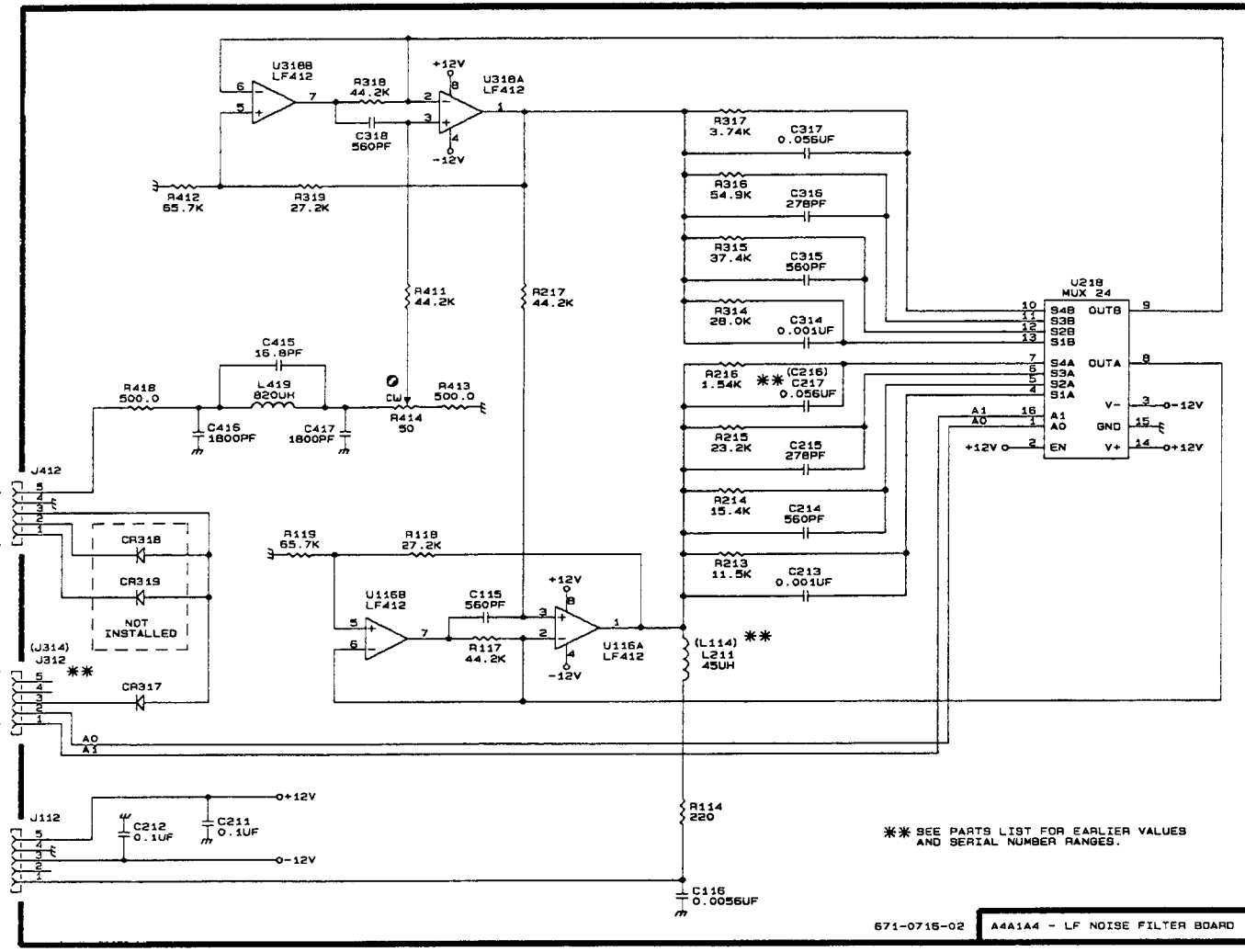
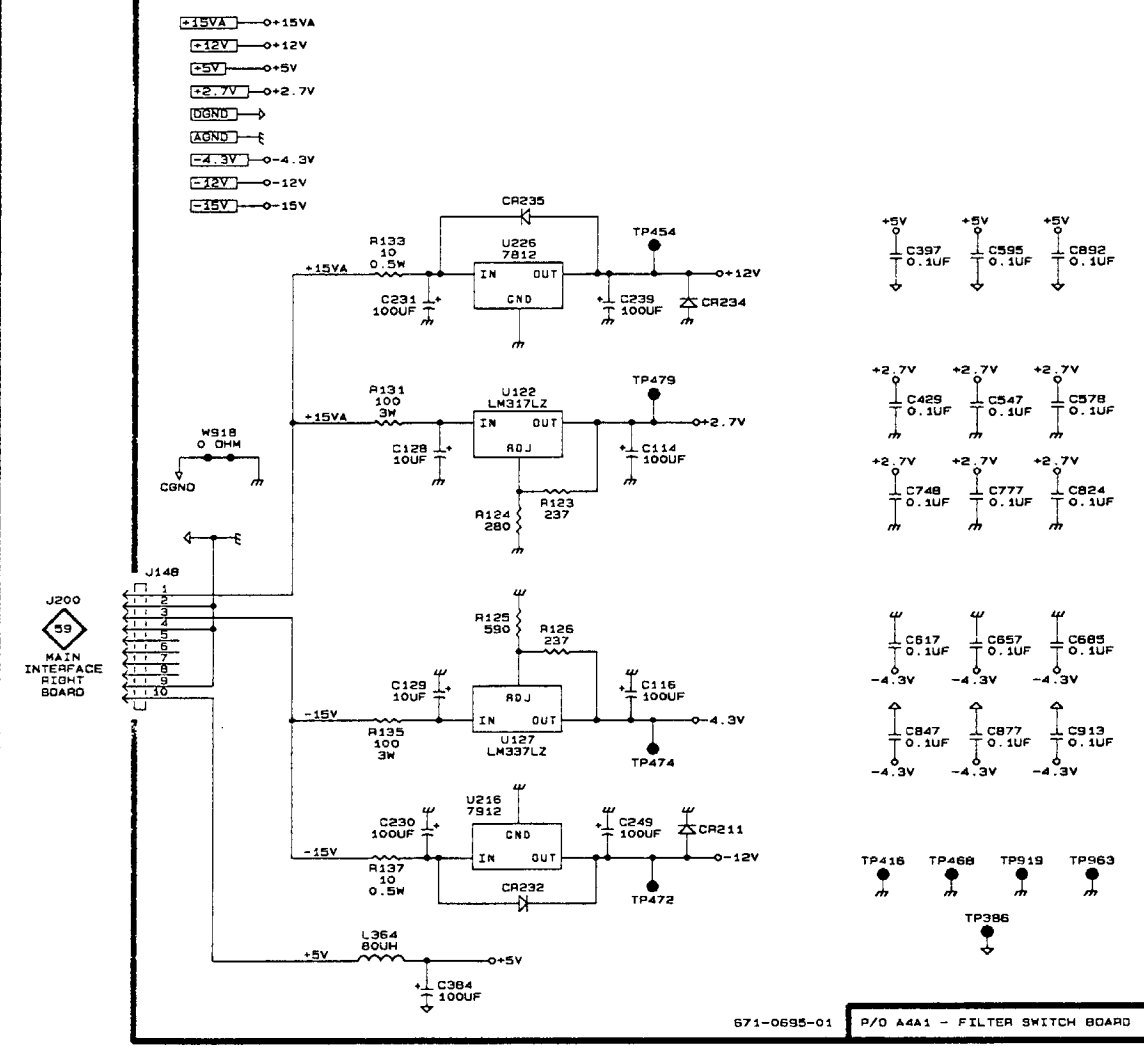
FILTER BOARD
Schematic <19>A Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A4. *Partial Assembly A4 also shown on Schematics 17 and 18.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A4A1		C617	C2	J148	A2	TP468	C3
C114	B2	C657	C2			TP472	B3
C116	B3	C685	D2	L364	B3	TP474	B3
C128	B2	C748	C2			TP479	B2
C129	B3	C777	C2	R123	B2	TP919	C3
C230	B3	C824	D2	R124	B2	TP963	D3
C231	B1	C847	C3	R125	B2		
C239	B1	C877	C3	R126	B2	U122	B2
C249	B3	C892	D1	R131	B2	U127	B3
C384	B3	C913	D3	R133	B1	U216	B3
C397	C1	CR211	C3	R135	B3	U226	B1
C429	C2	CR232	B3	R137	B3		
C547	C2	CR234	C1	TP386	C3	W918	A2
C578	D2	CR235	B1	TP416	C3		
C595	C1			TP454	B1		
CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A4A1A1		CR319	A5	J312	A5	R112	C5
C216	B4	CR411	A4	J412	A4	R114	B5
C218	B4	CR412	A4			R417	A4
C413	B4	J112	A5	L214	B4		
C415	B4	J216	C4	L314	B4		
CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A4A1A2		CR316	F4	L218	H4	R119	G5
C213	G5	CR318	F4	L313	G4	R211	G5
C314	G4	CR319	F4	L411	G4	R212	H5
C316	G4	J112	F5			R215	H4
C318	G4	J312	F4	R114	H4	R311	G4
C414	G4	J412	F4	R116	H5	R415	F4
				R118	H5		
CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A4A1A3		C415	D4	J112	C5	L314	D4
C215	E4	C417	D4	J312	C5	L318	D4
C217	E4			J412	C4		
C219	E4	CR311	D5			R112	E5
C316	E4	CR312	D4	L211	E4	R114	E5
		CR313	D4	L213	E4	R414	D4
CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A4A1A4		C318	F1	R114	G3	R319	E1
C115	F2	C415	E2	R117	F3	R411	F2
C116	G3	C416	E2	R118	F2	R412	E1
C211	E3	C417	F2	R119	E2	R413	F2
C212	E3	CR317	E3	R213	G2	R414	F2
C213	G2	CR318	E2	R214	G2	R418	E2
C214	G2	CR319	E2	R215	G2		
C215	G2	J112	E3	R216	G2	U116A	F2
C217	G2	J312	E3	R217	F2	U116B	F3
C314	G2	J412	E2	R314	G2	U218	H2
C315	G1			R315	G1	U318A	F1
C316	G1	L211	G3	R316	G1	U318B	E1
C317	G1	L419	E2	R317	G1		
				R318	F1		

*See parts list for earlier serial number ranges.



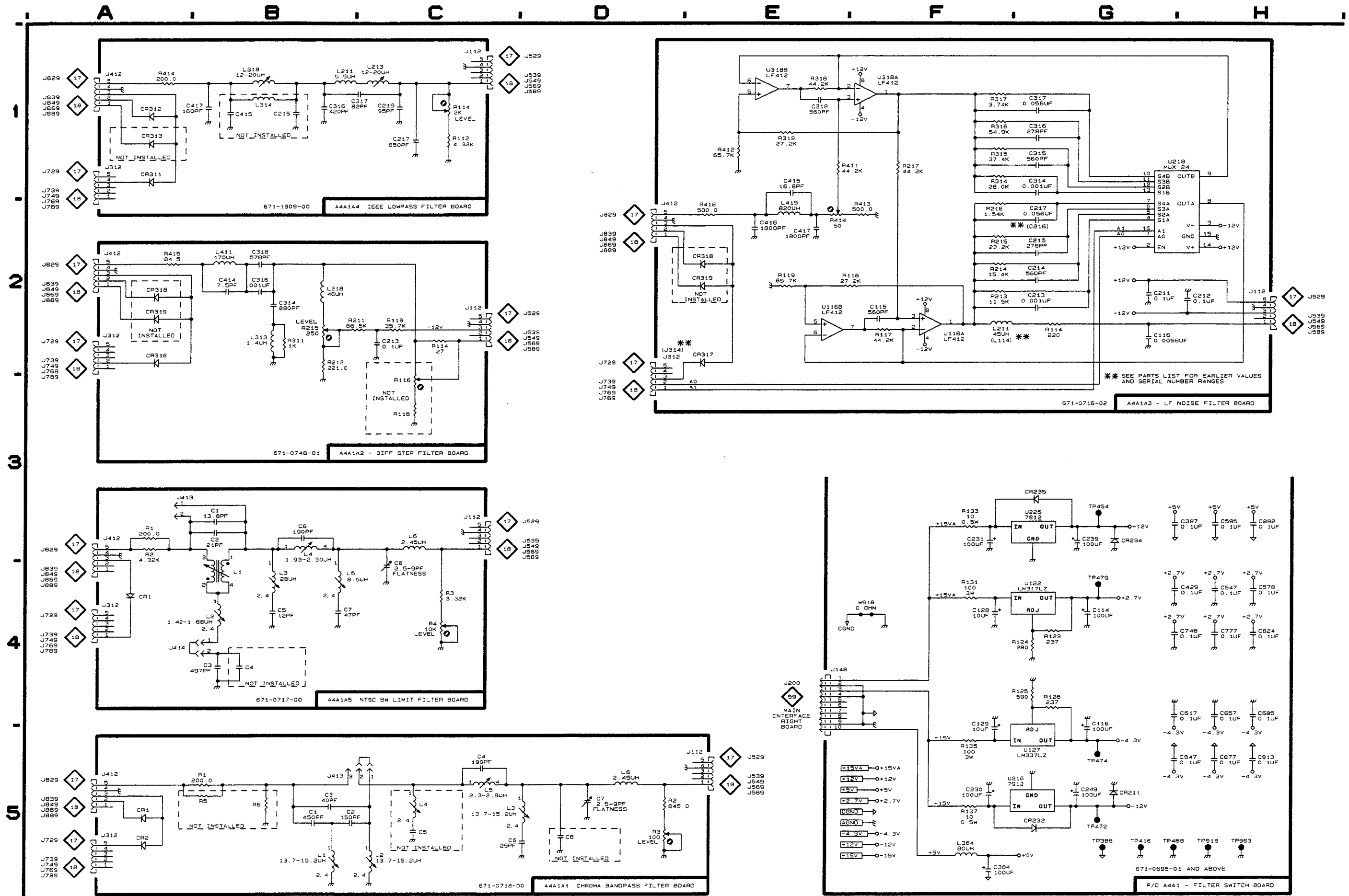
FILTER BOARD
Schematic <19>_B Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A4. Partial Assembly A4 also shown on Schematics 17 and 18.

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A4A1		C429	H4	C892	H3	R124	G4	TP472	G5
C114	G4	C547	H4	C913	H5	R125	G4	TP474	G5
C116	G4	C578	H4			R126	G4	TP479	G4
C128	F4	C595	H3	CR211	G5	R131	F4	TP919	H5
C129	F4	C617	H4	CR232	G5	R133	F3	TP963	H5
C230	F5	C657	H4	CR234	G3	R135	F5		
C231	F3	C685	H4	CR235	G3	R137	F5	U122	G4
C239	G3	C748	H4					U127	G5
C249	G5	C777	H4	J148	E4	TP386	G5	U216	G5
C384	F5	C824	H4	L364	F5	TP416	G5	U226	G3
C397	H3	C847	H5	R123	G4	TP454	G3	W918	F4
C877	H5					TP468	H5		
CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A4A1A1		C5	C5	CR2	A5	L1	B5	R1	A5
C1	B5	C6	C5			L2	C5	R2	D5
C2	B5	C7	D5	J112	D5	L3	C5	R3	D5
C3	B5	C8	D5	J312	A5	L4	C5	R5	A5
C4	C5	CR1	A5	J412	A5	L5	C5	R6	B5
				J413	B5	L6	D5		
CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A4A1A2		C414	B2	J112	C2	L313	B2	R211	B2
C213	C2	CR316	A2	J312	A2			R212	B2
C314	B2	CR318	A2	J412	A2	R114	C2	R215	B2
C316	B2	CR319	A2			R116	C2	R311	B2
C318	B2			L411	B2	R118	C2	R415	A2
				L218	B2	R119	C2		
CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A4A1A3		C317	C1	CR313	A1	L211	B1	R114	C1
C215	B1	C415	B1			L213	C1	R414	A1
C217	C1	C417	B1	J112	C1	L314	B1		
C219	C1			J312	A1	L318	B1		
C316	B1	CR311	A1	J412	A1				
		CR312	A1			R112	C1		
CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A4A1A4		C315	G1	J112	H2	R213	F2	R411	E1
C115	F2	C316	G1	J312	D2	R214	F2	R412	E1
C116	G2	C317	G1	J412	D2	R215	F2	R413	F2
C211	G2	C318	E1			R216	F2	R414	E2
C212	H2	C415	E1	L211	F2	R217	F1	R418	E2
C213	G2	C416	E2	L419	E2	R314	F1		
C214	G2	C417	E2			R315	F1	U116A	F2
C215	G2			R114	G2	R316	F1	U116B	E2
C217	G2	CR317	E2	R117	F2	R317	F1	U218	H1
C314	G1	CR318	E2	R118	E2	R318	E1	U318A	F1
		CR319	E2	R119	E2	R319	E1	U318B	E1
CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A4A1A5		C5	B4	CR2	A5	J415	A4	L6	C3
C1	B3	C6	B3			L1	B4		
C2	B3	C7	B4	J112	C3	L2	B4	R1	A3
C3	B4	C8	C4	J312	A4	L3	B4	R2	A3
C4	B4	CR1	A4	J412	A3	L4	B3	R3	C4
				J413	A3	L5	B4	R5	C4

*See parts list for earlier serial number ranges.



VM 700A SERVICE

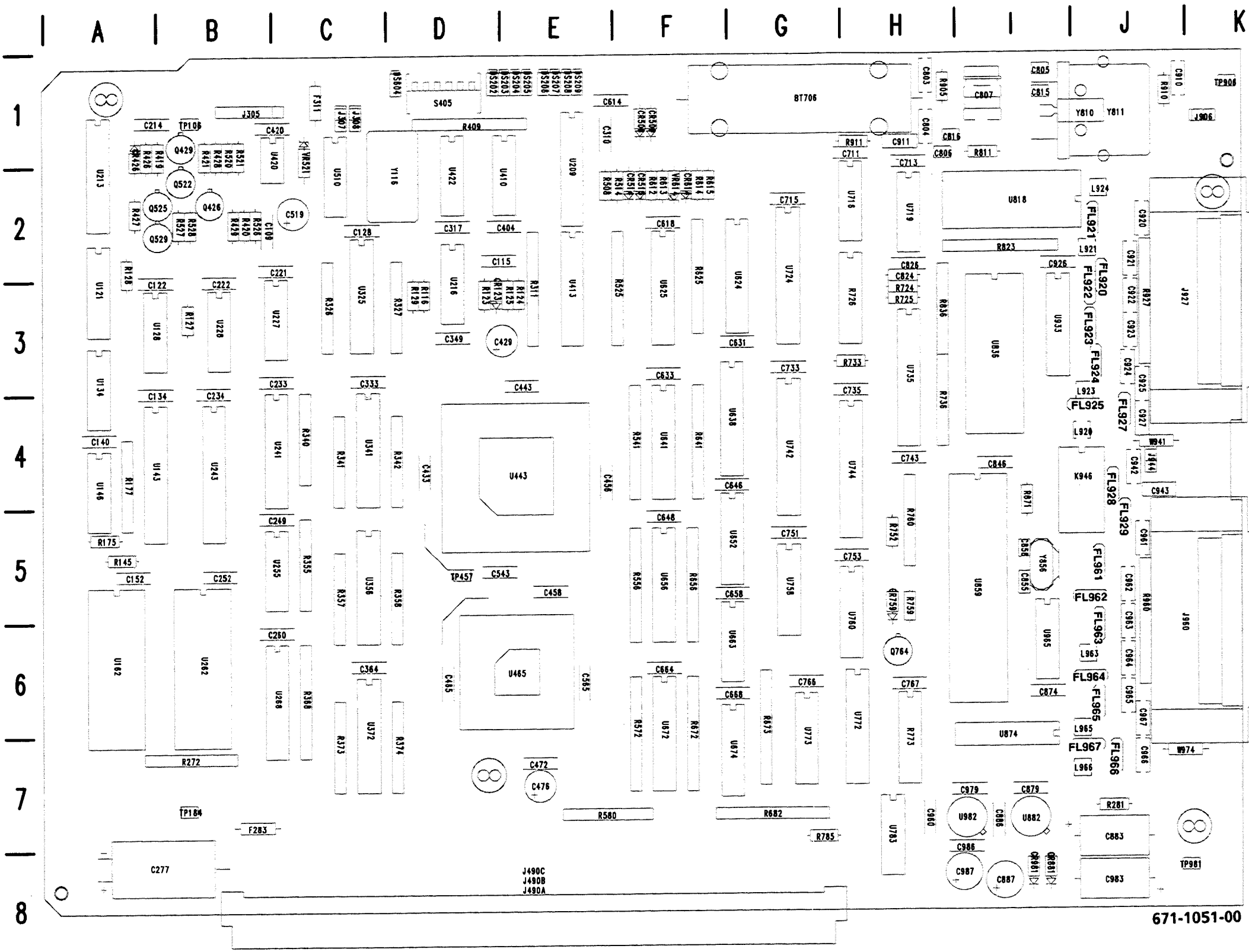


A5 CPU II

CPU BOARD
Schematic <20> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

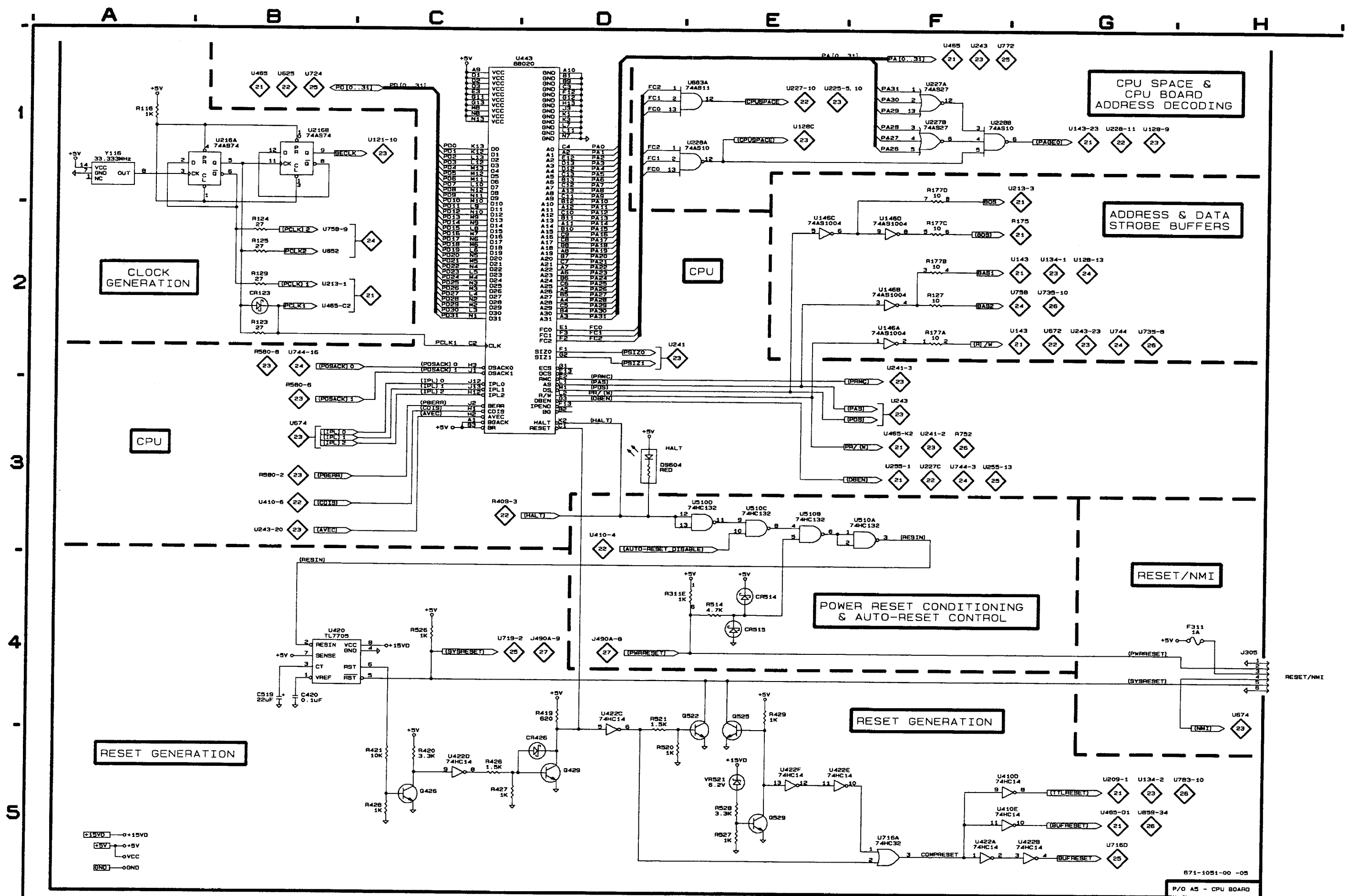
Assembly A5. Partial A5 also shown on Schematics 21, 22, 23, 24, 25, 26, and 27.



CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C420	B4	B1	R521	D4	B1
C519	B4	C2	R526	C4	B2
			R527	E5	B2
			R528	E5	B2
CR123	B2	D2			
CR426	D5	A1	U146A	F2	A4
CR514	E4	F2	U146B	F2	A4
CR515	E4	F2	U146C	E2	A4
			U146D	F2	A4
DS604	D3	D1	U216A	A1	D2
F311	H4	C1	U216B	B1	D2
J305	H4	B1	U227A	F1	C3
			U227B	F1	C3
Q426	C5	B2	U228A	D1	B3
Q429	D5	B1	U228B	F1	B3
Q522	E4	B2			
Q525	E4	A2	U410D	G5	E1
Q529	E5	A2	U410E	G5	E1
			U420	B4	C1
R116	A1	D3	U422A	F5	D1
R123	B2	D3	U422B	G5	D1
R124	B2	E3			
R125	B2	E3	U422C	D4	D1
R127	F2	B3	U422D	C5	D1
			U422E	E5	D1
			U422F	E5	D1
R129	B2	D3	U443	C1	E4
R177A	F2	A4			
R177B	F2	A4	U510A	F3	C1
R177C	F2	A4	U510B	E3	C1
R177D	F1	A4	U510C	E3	C1
			U510D	E3	C1
R311E	E4	E2	U663A	D1	G6
R419	D4	B1	U716A	F5	H2
R420	C5	B2			
R421	C5	B1			
R426	C5	A1	VR521	E5	C1
R427	C5	A2			
R428	C5	B1	Y116	A1	D1
R429	E4	B2			
R514	E4	F2			
R520	D5	B1			

A5 CPU II BOARD

⚡ Static Sensitive Devices
See the section in this manual on handling precautions for static sensitive components.



VM 700A

CPU, CLOCK, RESET, BUFFERS & DECODING

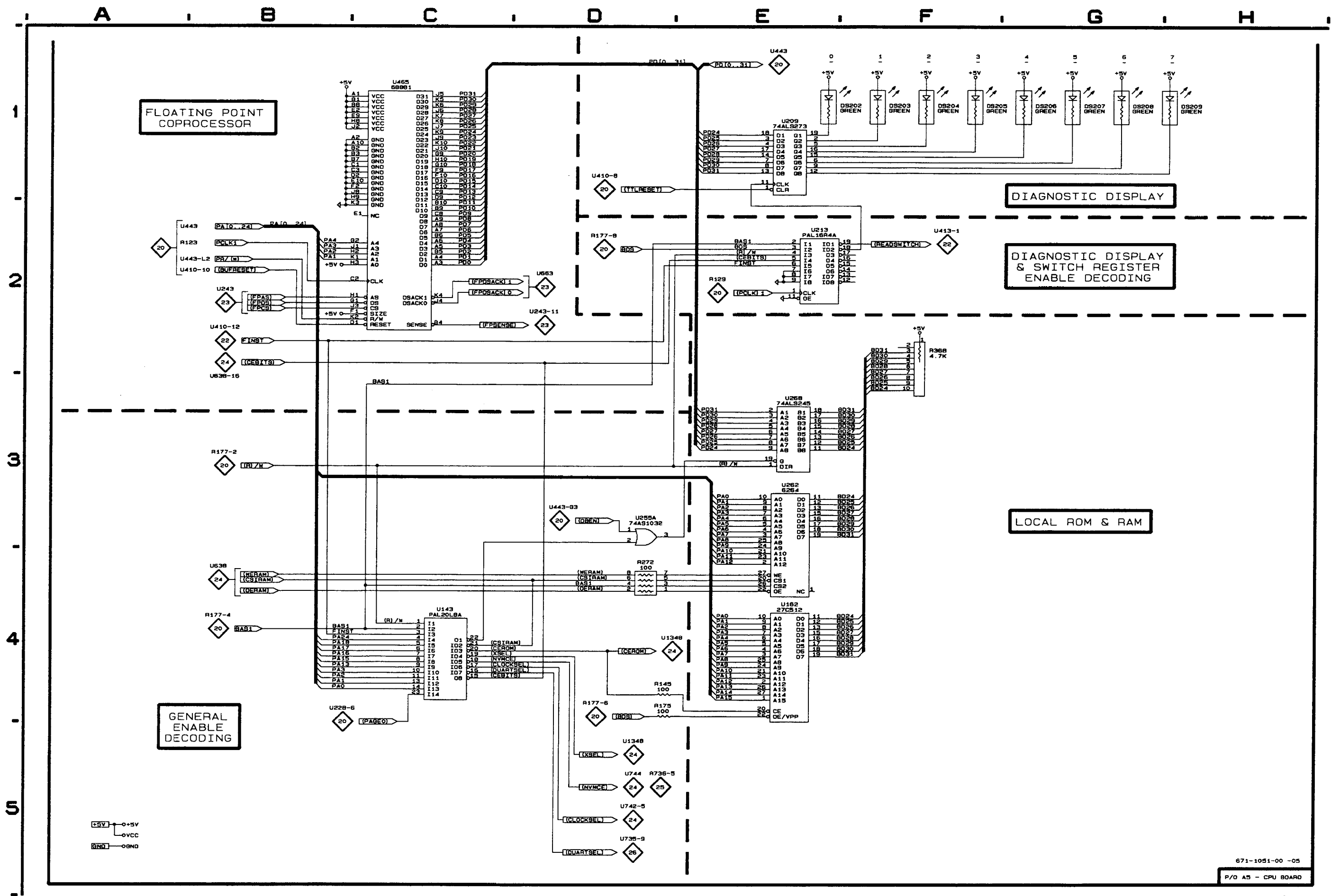
871-1051-00 -05
P/O A5 - CPU BOARD

**CPU BOARD
Schematic <21> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

Assembly A5. *Partial A5 also shown on Schematics 20, 22, 23, 24, 25, 26, and 27.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
DS202	E1	D1
DS203	F1	E1
DS204	F1	E1
DS205	F1	E1
DS206	G1	E1
DS207	G1	E1
DS208	G1	E1
DS209	G1	E1
R145	D4	A5
R175	D4	A5
R272	D4	B7
R368	F2	C6
U143	C4	A4
U162	E4	A6
U209	E1	E1
U213	E2	A1
U255A	D3	C5
U262	E3	B6
U268	E3	C6
U465	C1	E6

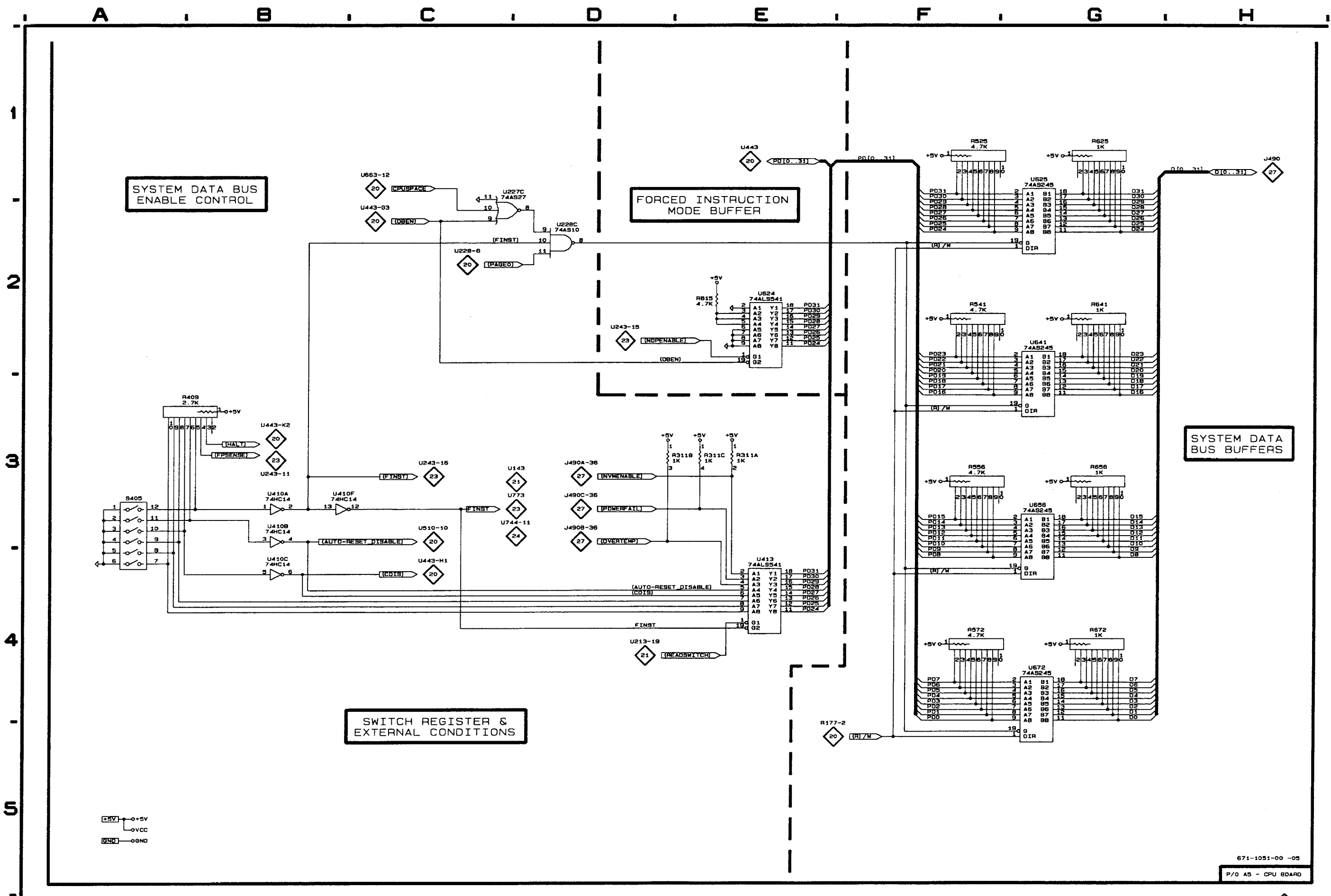


**CPU BOARD
Schematic <22> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

Assembly A5. *Partial A5 also shown on Schematics 20, 21, 23, 24, 25, 26, and 27.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
R311A	E3	E2
R311B	D3	E2
R311C	E3	E2
R409	A3	D1
R525	F1	F2
R541	F2	F4
R556	F3	F5
R572	F4	F6
R615	E2	F2
R625	G1	F2
R641	G2	F4
R656	G3	F5
R672	G4	F6
S405	A3	D1
U227C	C1	C3
U228C	D2	B3
U410A	B3	E1
U410B	B3	E1
U410C	B4	E1
U410F	B3	E1
U413	E4	E2
U624	E2	G2
U625	G1	F2
U641	G2	F4
U656	G3	F5
U672	G4	F6



CPU BOARD
Schematic <23> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

Assembly A5. *Partial A5 also shown on Schematics 20, 21, 22, 24, 25, 26, and 27.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
R128	H1	A2
R311F	D2	E2
R311G	D2	E2
R311H	C5	E2
R326	G5	C3
R327	G5	D3
R340	D5	C4
R341	G5	C4
R342	G4	D4
R355	D5	C5
R357	G4	C5
R358	G4	D5
R373	G4	C6
R374	G3	D6
R580	F3	E7
R673	E2	G6
R682	D1	G7
U121	G2	A2
U128A	H1	A3
U128B	E3	A3
U128C	D3	A3
U134A	F2	A3
U146E	G2	A4
U146F	H1	A4
U241	D5	C4
U243	D3	B4
U255B	D4	C5
U255C	D5	C5
U325	F5	C3
U341	F4	C4
U356	F4	C5
U372	F3	C6
U663B	D2	G6
U663C	D2	G6
U674	D1	G7
U773	E3	G6

A B C D E F G H

1
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INTERRUPT GENERATION

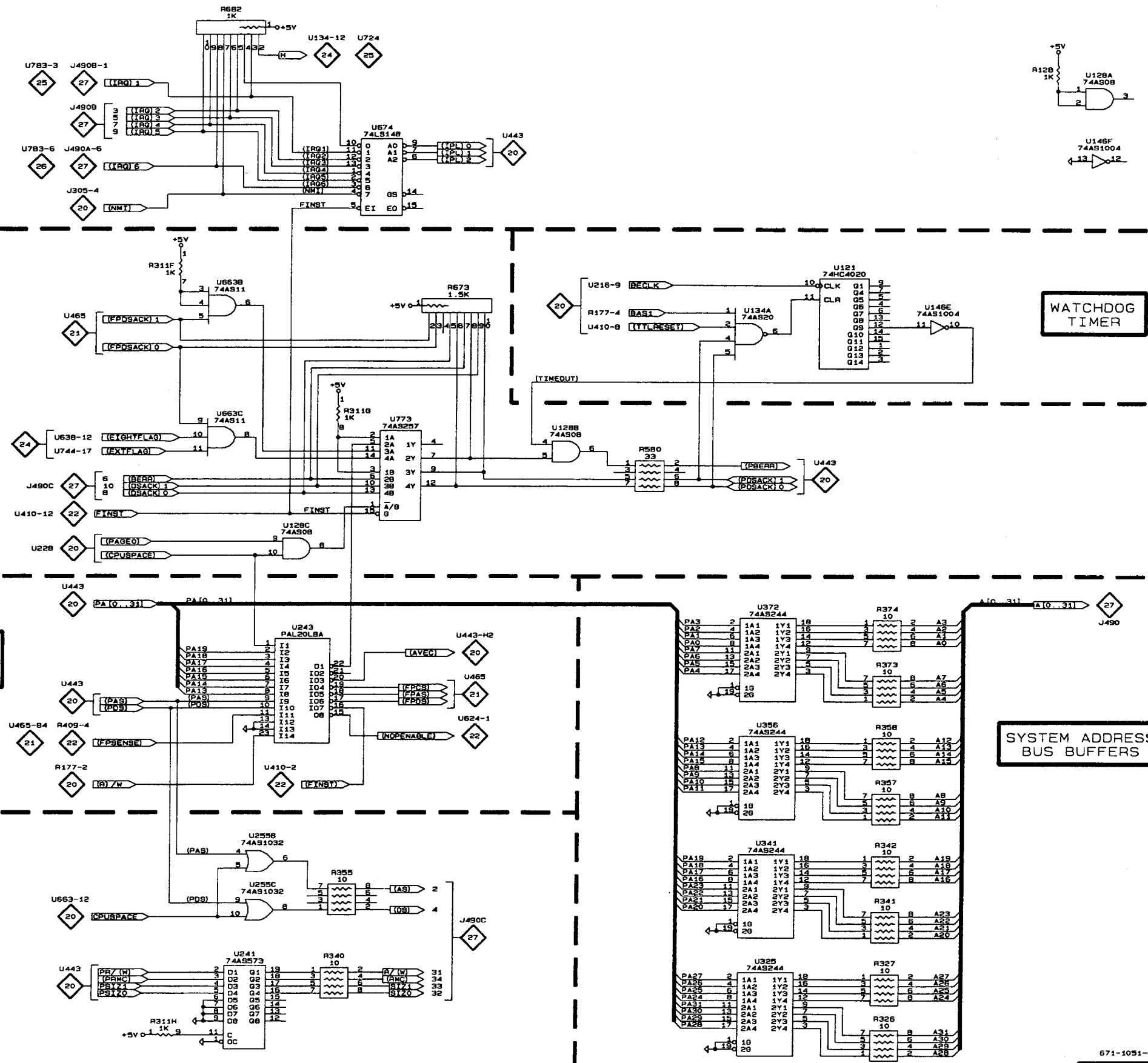
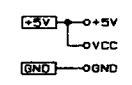
DSACK & BERR GENERATION

FLOATING-POINT PROCESSOR CONTROL, AUTO-VECTOR, & FORCED INSTRUCTION MODE SIGNAL GENERATION

SYSTEM CONTROL BUS BUFFERS

WATCHDOG TIMER

SYSTEM ADDRESS BUS BUFFERS



CPU BOARD
Schematic <24> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

Assembly A5. *Partial A5 also shown on Schematics 20, 21, 22, 23, 25, 26, and 27.*

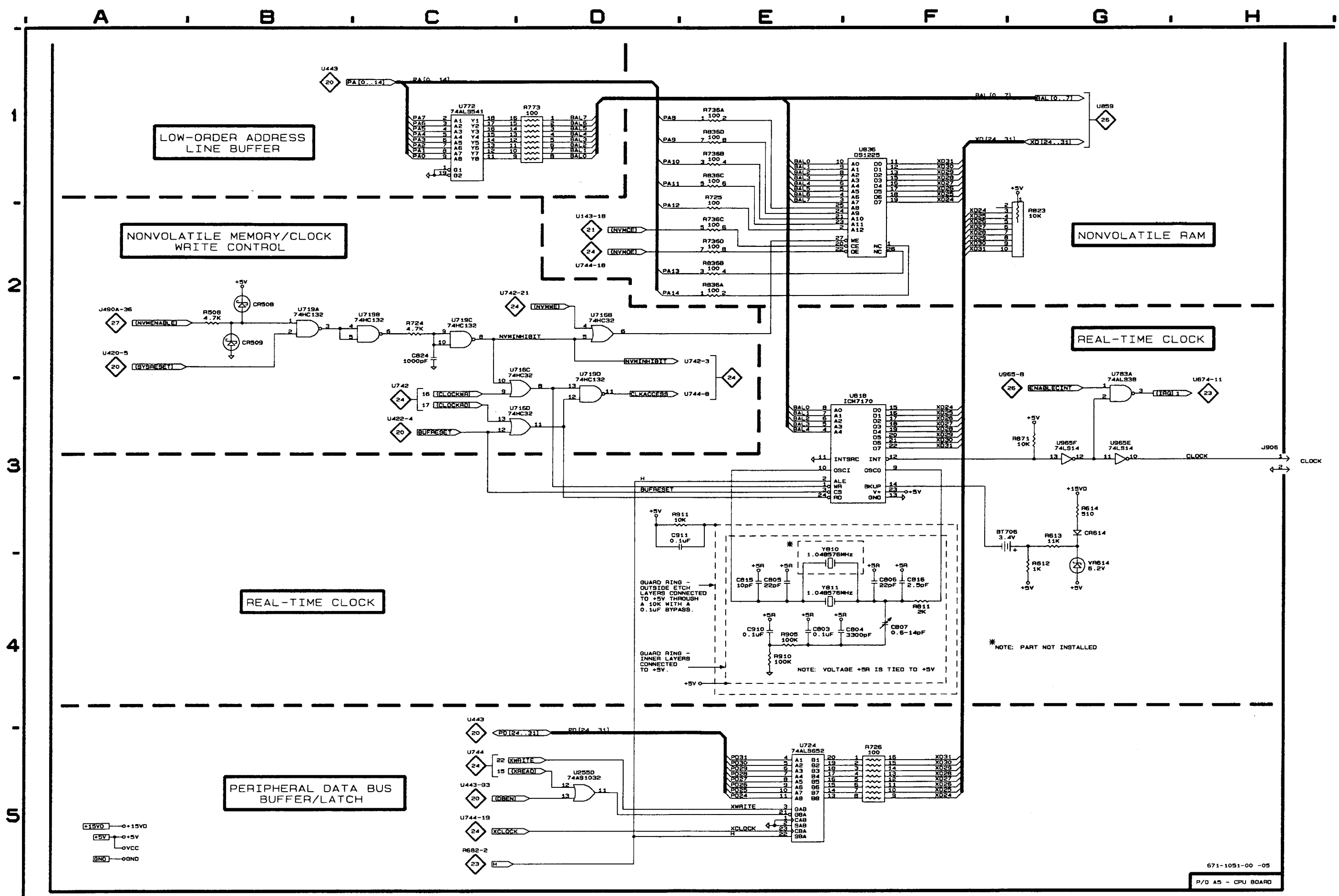
CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
U128D	C4	A3
U134B	C4	A3
U638	E3	G4
U652	D4	G5
U742	E2	G4
U744	F1	H4
U758	D5	G5
U760	G2	H5

CPU BOARD
Schematic <25> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

Assembly A5. *Partial A5 also shown on Schematics 20, 21, 22, 23, 24, 26, and 27.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
BT706	F3	G1	R910	E4	J1
			R911	D3	H1
C803	E4	H1			
C804	E4	H1	U255D	D5	C5
C805	E4	I1	U716B	D2	H2
C806	F4	H1	U716C	C3	H2
C807	F4	I1	U716D	C3	H2
			U719A	B2	H2
C815	E4	I1			
C816	F4	H1	U719B	C2	H2
C824	C2	H2	U719C	C2	H2
C910	E4	J1	U719D	D3	H2
C911	E3	H1	U724	E5	G2
			U772	C1	H6
CR508	B2	F1			
CR509	B2	F1	U783A	G3	H7
CR614	G3	F2	U818	E3	I2
			U836	F1	I3
J906	H3	K1	U965F	G3	I6
			U965E	G3	I6
R508	B2	E2			
R612	G4	F2	VR614	G4	F2
R613	G3	F2			
R614	G3	F2	Y810	E4	J1
R724	C2	H3	Y811	E4	J1
R725	E2	H3			
R726	F5	H3			
R736A	E1	H3			
R736B	E1	H3			
R736C	E2	H3			
R736D	E2	H3			
R773	D1	H6			
R811	F4	I1			
R823	G2	I2			
R836A	E2	H3			
R836B	E2	H3			
R836C	E1	H3			
R836D	E1	H3			
R871	G3	I4			
R905	E4	H1			

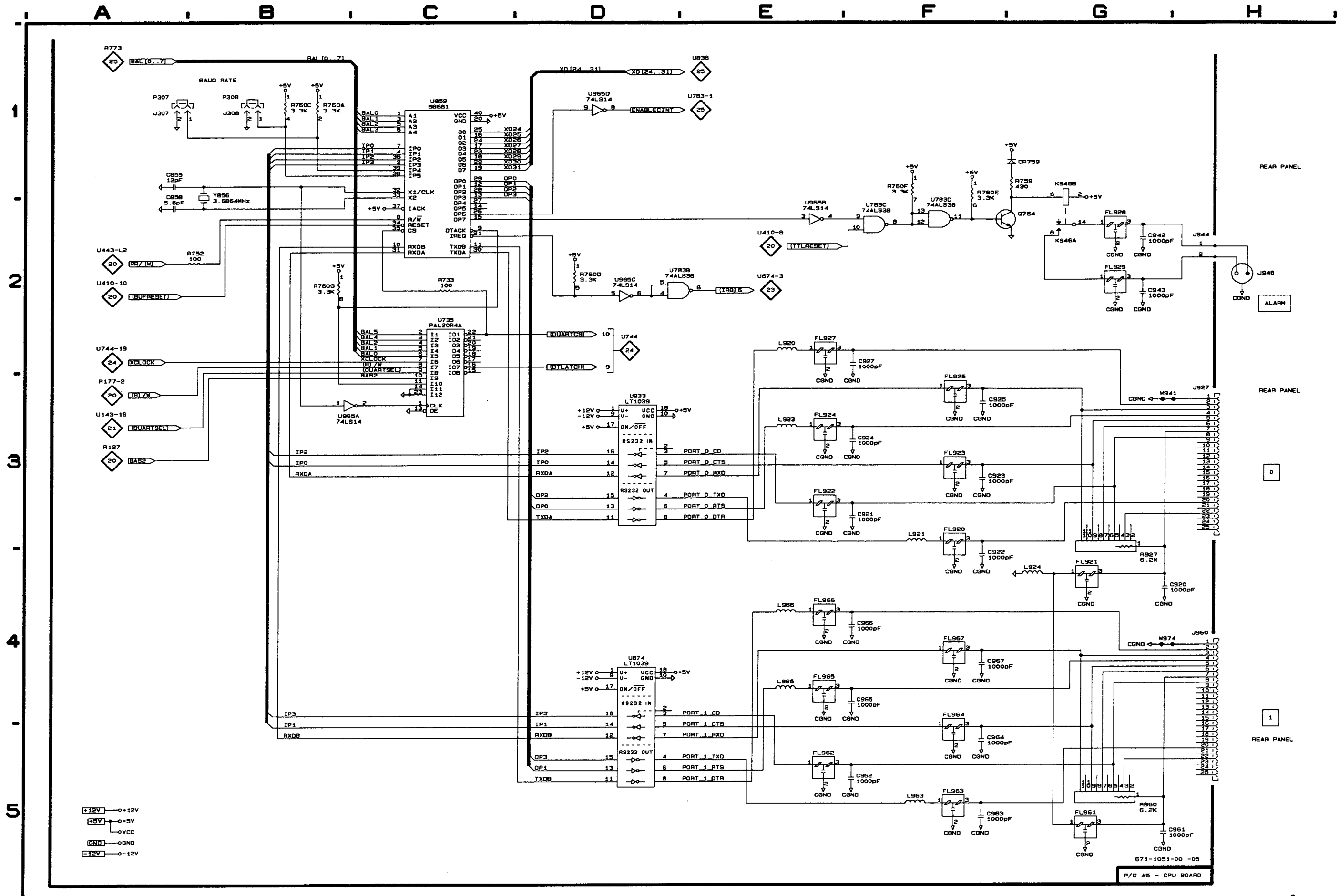


CPU BOARD
Schematic <26> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

Assembly A5. *Partial A5 also shown on Schematics 20, 21, 22, 23, 24, 25, and 27.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C855	A1	I5	K946A	G2	J4
C858	A2	I5	K946B	G1	J4
C920	G4	J2			
C921	F3	J2	L920	E2	J4
C922	F4	J3	L921	F3	J2
			L923	E3	J4
C923	F3	J3	L924	G4	J2
C924	F3	J3	L963	F5	J6
C925	F3	J3			
C927	F2	J4	L965	E4	J6
C942	G2	J4	L966	E4	J7
C943	G2	J4	Q764	F2	H6
C961	G5	J5			
C962	F5	J5	R733	C2	H3
C963	F5	J5	R752	B2	H5
C964	F5	J6	R759	G1	H5
			R760A	B1	H4
C965	F4	J6	R760C	B1	H4
C966	F4	J7			
C967	F4	J6	R760D	D2	H4
			R760E	F1	H4
CR759	G1	H5	R760F	F1	H4
			R760G	B2	H4
FL920	F3	J2	R927	G3	J3
FL921	G4	J2	R960	G5	J5
FL922	E3	J2			
FL923	F3	J3	U735	C2	H3
FL924	E3	J3	U783B	D2	H7
			U783C	F2	H7
FL925	F3	J4	U783D	F2	H7
FL927	E2	J4	U859	C1	I5
FL928	G2	J4			
FL929	G2	J4	U874	D4	I6
FL961	G5	J5	U933	D3	I3
			U965A	B3	I6
FL962	E5	J5	U965B	E2	I6
FL963	F5	J5	U965C	D2	I6
FL964	F4	J6	U965D	D1	I6
FL965	E4	J6			
FL966	E4	J7	W941	G3	J4
			W974	G4	J7
FL967	F4	J7			
			Y856	B1	I5
J307	A1	C1			
J308	B1	C1			
J927	H3	J3			
J944	H2	J4			
J960	H4	J5			



CPU BOARD
Schematic <27> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

Assembly A5. *Partial A5 also shown on Schematics 20, 21, 22, 23, 24, 25, and 26.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C109	E4	B2	C735	G5	H3
C115	E4	D2	C743	G5	H4
C122	E4	A3	C751	E5	G5
C128	F4	C2	C753	E5	H5
C134	F4	A3	C766	E5	G6
C140	F4	A4	C767	F5	H6
C152	G4	A5	C826	F5	H2
C214	G4	A1	C846	F5	I4
C221	G4	B2	C874	G5	I6
C222	G4	B3	C879	B4	I7
C233	E4	B3	C883	C4	J7
C234	E4	B3	C886	A4	I7
C249	E4	B5	C887	B4	I8
C252	F4	B5	C926	G5	I2
C260	F4	B6	C960	G5	H7
C277	D4	A8	C979	B5	I7
C310	F4	E1	C983	C5	J8
C317	G4	D2	C986	A5	I7
C333	G4	C3	C987	B5	I8
C349	G4	D3	CR881	B4	I8
C364	G4	C6	CR981	B5	I8
C404	E4	D2	F283	H3	B7
C429	D4	D3	J490A	D2	E8
C433	C4	D4	J490B	F2	E8
C443	E4	E3	J490C	H2	E8
C456	D4	E4	R281	D5	J7
C458	D4	E5	R785	C1	G7
C465	E4	D6	TP106	C5	B1
C472	D4	E7	TP184	D5	B7
C476	D4	E7	TP457	D5	D5
C543	F4	D5	TP906	D5	K1
C565	F4	E6	TP981	D5	J8
C614	F4	E1	U882	B4	I7
C618	G4	F2	U982	B5	I7
C631	G4	G3			
C633	G4	F3			
C646	G4	F4			
C648	E5	F5			
C658	E5	F5			
C664	E5	F6			
C668	F5	F6			
C711	F5	H1			
C713	F5	H1			
C715	G5	G2			
C733	G5	G3			

A B C D E F G H

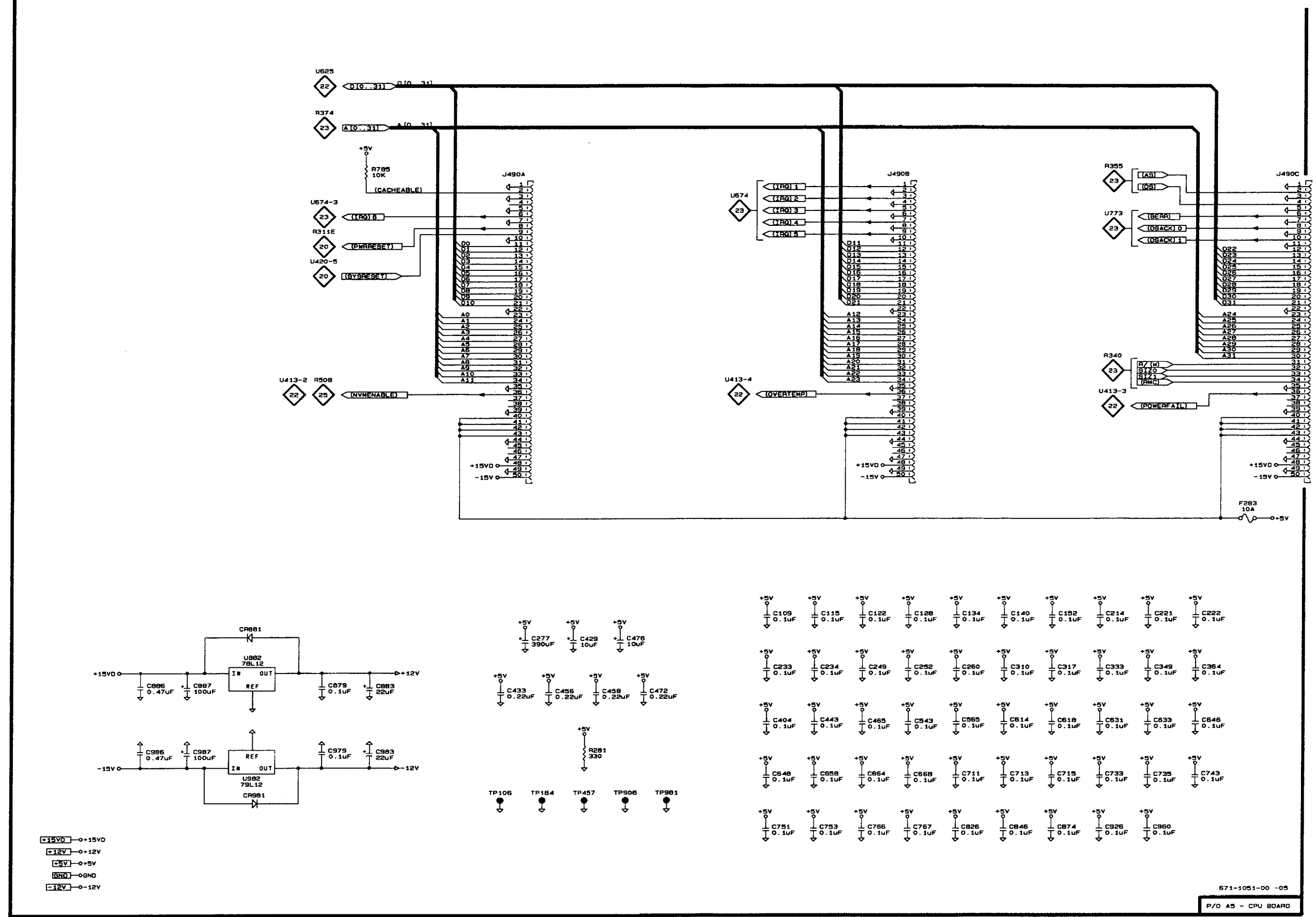
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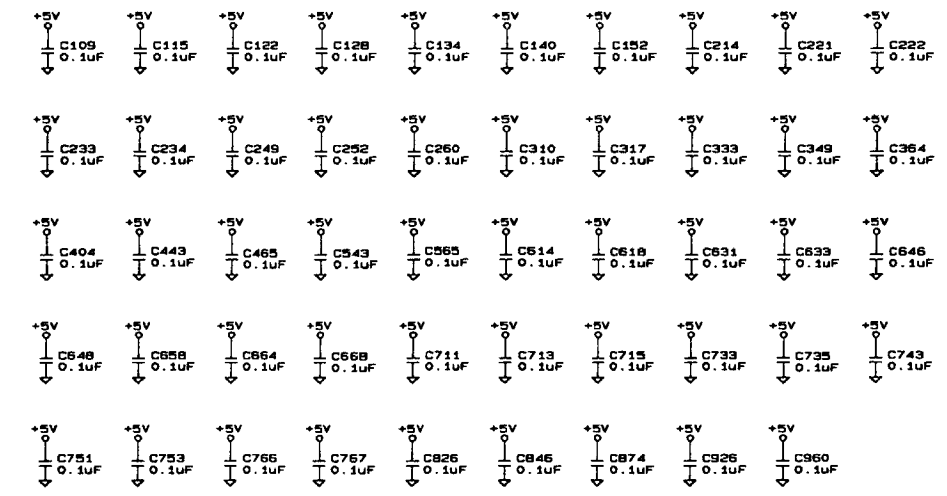
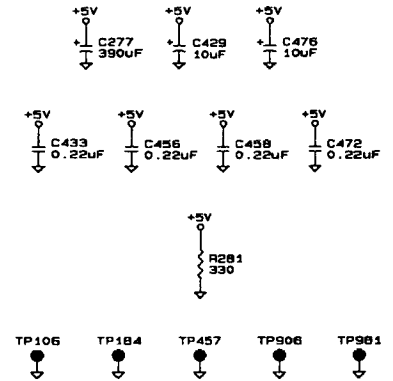
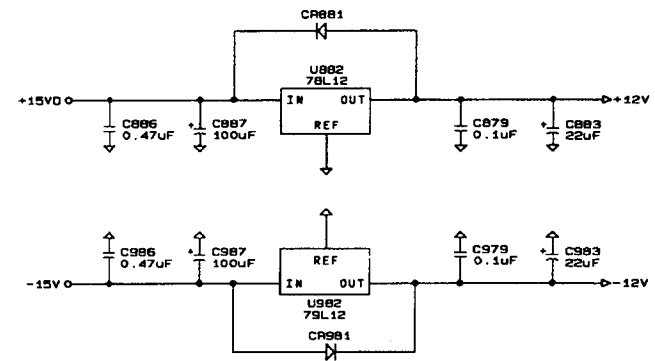
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J150
MAIN
INTERFACE
LEFT
BOARD



+15V — +15V
 +12V — +12V
 +5V — +5V
 GND — GND
 -12V — -12V

671-1051-00 -05
P/O A5 - CPU BOARD

VM 700A SERVICE



A6 FLASH/1M NVRAM

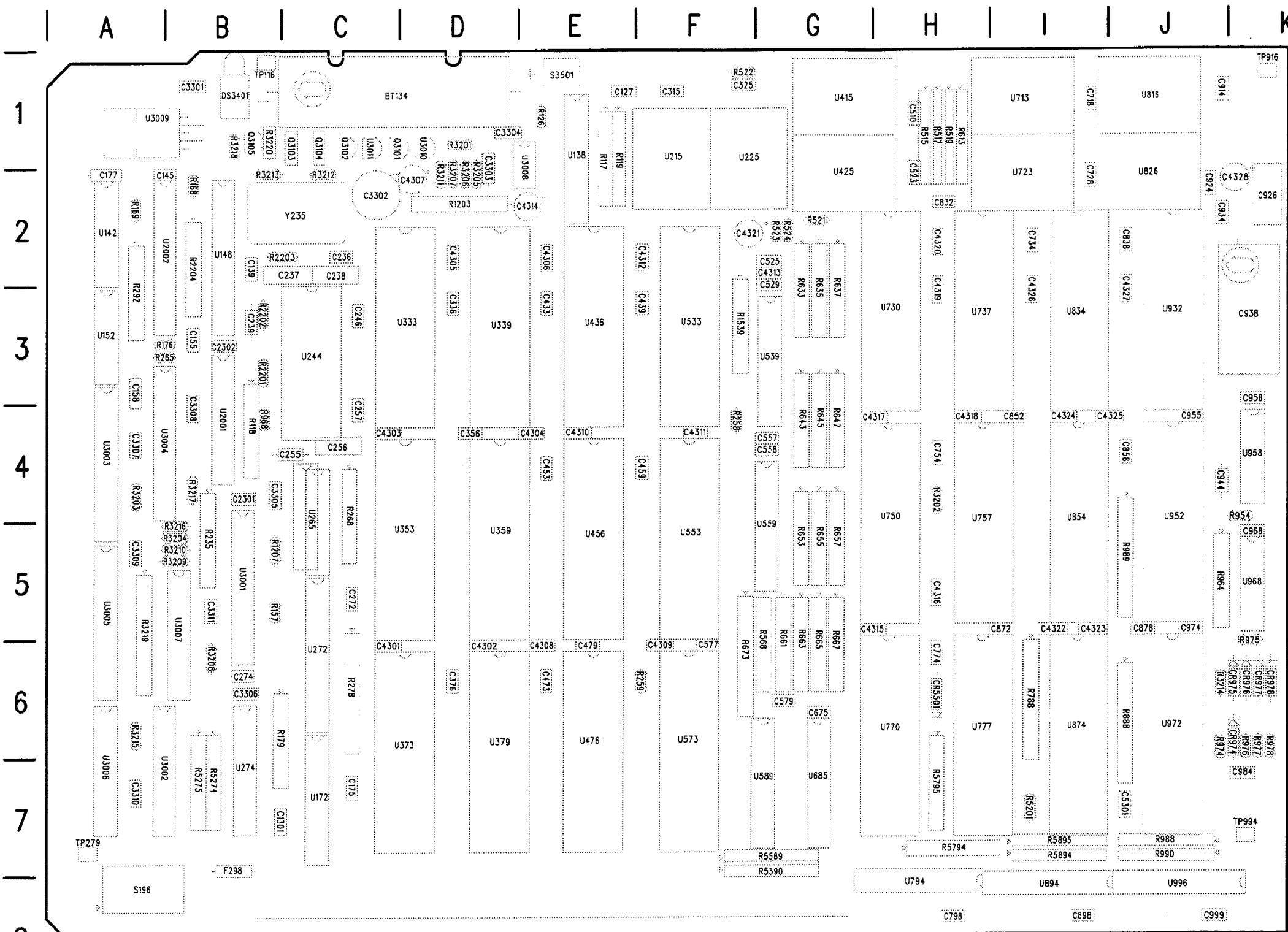
VM 700A SERVICE

A6 Flash EPROM/NVRAM Board Component Locator (with cross-references to schematic diagrams 28, 29, 29A, 30, and 31)

Comp No	Diag No	Diag Loc	Bd Loc	Comp No	Diag No	Diag Loc	Bd Loc	Comp No	Diag No	Diag Loc	Bd Loc	Comp No	Diag No	Diag Loc	Bd Loc	Comp No	Diag No	Diag Loc	Bd Loc	Comp No	Diag No	Diag Loc	Bd Loc	Comp No	Diag No	Diag Loc	Bd Loc				
BT134	1	F5	D2	C728	5	D3	I3	C4302	4	C2	D7	J495C	1	A4	H9	R635	4	B5	G3	R3201	3	C2	D2	U152B	2	D1	A4	U874	4	G1	I8
C127	1	B5	E2	C734	1	C5	I3	C4303	4	C3	D5	C4304	4	C4	E5	R637	4	B4	G3	R3202	3	C2	H5	U172	1	D4	C7	U894	5	H4	I9
C139	1	B5	B3	C754	1	D5	H5	C4305	4	C5	D3	Q3101	3	F4	C2	R643A	4	B5	G4	R3203	3	D2	A5	U215	5	C1	F2	U932	4	G5	J4
C145	1	B5	B3	C774	1	D5	H7	C4306	4	C5	E3	Q3102	3	F5	C2	R643B	4	B5	G4	R3204	3	D3	B6	U225	5	C2	F2	U952	4	G3	J5
C155	1	B5	B4	C798	1	D5	H9	C4307	4	C5	E3	Q3103	3	F4	B2	R643C	4	B3	G4	R3205	3	F4	D2	U244	2	B3	B4	U958A	1	F3	J5
C158	2	G5	A4	C832	1	D5	H3	C4307	4	D1	D2	Q3104	3	G5	C2	R643D	4	B3	G4	R3206	3	F4	D2	U265	1	F3	C6	U958B	1	F3	J5
C175	1	C5	C8	C838	1	E5	J3	C4308	4	E1	E7	Q3105	3	F2	B2	R645	4	B3	G4	R3207	3	F4	D2	U272	1	F4	C6	U958C	1	G3	J5
C177	2	G4	A3	C852	1	E5	I5	C4309	4	E2	F7	R117	1	G5	E3	R647	4	B5	G4	R3208	3	E4	B7	U274	5	H1	B7	U958D	3	C2	J5
C236	1	C5	C3	C858	1	E5	J5	C4310	4	E3	E5	R118	2	F1	B4	R653	4	B3	G5	R3209	3	E5	B6	U333	4	C4	D3	U968A	1	D3	K5
C237	2	C3	C3	C872	1	E5	I6	C4311	4	E4	F5	R119	1	G4	E3	R655	4	B3	G5	R3210	3	E5	B6	U339	4	C5	D3	U968B	1	D4	K5
C238	2	B3	C3	C878	1	F5	J6	C4312	4	E5	F3	R126	1	F5	E2	R657	4	B2	G5	R3211	3	F4	D2	U353	4	C2	C5	U968C	1	G3	K5
C239	2	B3	B4	C898	1	F5	I9	C4313	4	E5	G3	R157	2	F2	B6	R661	4	B1	G6	R3212	3	F4	C3	U359	4	C3	D5	U968D	1	B1	K5
C246	1	C5	C4	C914	5	D4	J2	C4314	4	E1	E3	R168	2	G4	B3	R663	4	B1	G6	R3213	3	F5	B3	U373	4	C1	C7	U972	4	G2	J6
C255	2	B3	C5	C924	5	D5	J3	C4315	4	F1	H6	R169	2	G4	A3	R665	4	B2	G6	R3214	3	G4	J7	U379	4	C2	D7	U996	5	G5	J9
C256	2	B3	C5	C926	5	B1	K3	C4316	4	F2	H6	R176	2	G5	B4	R667	4	B1	G6	R3215	3	G4	A7	U415	5	C3	H2	U2001	2	E1	B4
C257	1	E5	C4	C934	1	F5	J3	C4317	4	F3	H5	R179A	1	D4	B7	R673	5	F2	F6	R3216	3	E2	B6	U425	5	C4	H2	U2002	2	F4	B4
C272	1	E5	C6	C938	1	B2	K4	C4318	4	F4	H5	R179B	1	D4	B7	R788	5	F3	I6	R3217	3	E2	B5	U436	4	D4	E3	U3001	3	C3	B5
C274	1	E5	B7	C944	1	G3	J5	C4319	4	F5	H3	R179C	1	D4	B7	R888	5	F3	J6	R3218	3	F2	B2	U456	4	D2	E5	U3002	3	C4	B7
C315	5	C2	F2	C955	1	F5	J5	C4320	4	F5	H3	R179D	1	D4	B7	R954	1	F3	K5	R3219	3	H2	A6	U476	4	D1	E7	U3003	3	D1	A4
C325	5	C3	F2	C958	1	F5	K4	C4321	4	F1	G3	R179E	1	D4	B7	R964A	1	H3	J6	R3220	3	G4	B2	U533	4	D5	F3	U3004	3	E3	B5
C336	1	F5	D4	C968	1	G5	K6	C4322	4	G1	I6	R179F	1	D4	B7	R964B	1	G3	J6	R5201	5	G1	I8	U539	1	D1	G4	U3005	3	G1	A6
C356	1	F5	D5	C974	1	G5	J6	C4323	4	G2	J6	R179G	1	D4	B7	R964C	1	D3	J6	R5274	5	G1	B7	U553	4	D3	F5	U3006	3	H1	A7
C376	1	F5	D7	C984	5	F5	K8	C4324	4	G3	I5	R235	2	F1	B5	R964D	1	D4	J6	R5275	5	G2	B7	U559	1	D2	F5	U3007	3	H3	A6
C433	1	F5	E4	C999	1	G5	J9	C4325	4	G4	J5	R258	1	G3	F5	R968	1	G3	B5	R5589	5	G2	F8	U573	4	D2	F7	U3008	3	G3	E2
C439	1	F5	F4	C1301	1	B2	B8	C4326	4	G5	I3	R259	1	G2	F7	R974	5	F5	J7	R5590	5	G2	F8	U589	5	H2	F7	U3009	3	G4	B2
C453	1	G5	E5	C2301	2	A5	B5	C4327	4	G5	J3	R265	2	G4	B4	R975	1	H5	K6	R5794	5	G3	H8	U685	1	D2	G7	U3010	3	E4	D2
C459	1	G5	F5	C2302	2	A5	B4	C4328	4	H1	K3	R268	1	G3	C5	R976	1	C3	K7	R5795	5	G3	H8	U713	5	E1	I2	U3011	3	E5	C2
C473	1	G5	E7	C3301	3	F4	B2	C5301	5	G1	J8	R278	5	F1	C6	R977	1	C4	K7	R5894	5	G4	I8	U723	5	E2	I2	Y235	2	A3	C3
C479	1	G5	E7	C3302	3	G4	C3	CR974	5	F4	K7	R292	2	G2	A4	R978	1	B1	K7	R5895	5	G4	I8	U730	4	F4	G3				
C510	5	C4	H2	C3303	3	F4	D2	CR975	1	C3	K7	R515	5	B2	H2	R978	5	G5	K8	S196	1	D5	A8	U737	4	F5	H4				
C523	5	B5	H2	C3304	3	F4	D2	CR976	1	C3	K7	R517	5	B2	H2	R988	5	F5	J5	S3501	3	C2	E2	U750	4	F2	G5				
C525	1	B5	G3	C3305	3	B5	B5	CR977	1	C3	K7	R519	5	B2	H2	R989	5	F5	J5	TP116	1	B5	C2	U757	4	F3	H6				
C529	1	B5	G3	CR978	1	C4	K7	CR978	1	C4	K7	R521	5	B3	G3	R990	5	G5	K8	TP279	1	B5	A8	U770	4	F1	G7				
C557	1	B5	G5	CR978	1	C4	K7	CR978	1	C4	K7	R522	5	B3	F1	R1203	1	F4	D3	TP916	1	B5	K2	U777	4	F2	H6				
C558	1	B5	G5	CR978	1	C4	K7	CR978	1	C4	K7	R523	5	B3	G3	R1207	1	F3	B6	TP994	1	B5	K8	U794	5	H3	H9				
C577	1	C5	F7	CR978	1	C4	K7	CR978	1	C4	K7	R524	5	B3	G3	R1539	1	E1	F3	U816	5	E3	J2	U826	5	E4	J2				
C579	1	C5	G7	CR978	1	C4	K7	CR978	1	C4	K7	R524	5	B3	G3	R2201	2	C3	B4	U834	4	G4	I4	U834	4	G4	I4				
C675	1	C5	G7	CR978	1	C4	K7	CR978	1	C4	K7	R524	5	B3	G3	R2202	2	A3	B4	U854	4	G2	I5	U854	4	G2	I5				
C718	5	D2	I2	CR978	1	C4	K7	CR978	1	C4	K7	R524	5	B3	G3	R2202	2	A3	B4												
				C3311	3	A5	B6	J495A	1	A1	H9	R568B	4	B2	G6	R2203	2	B3	C3	U138	1	F4	E2	U142	2	G2	A3				
				C4301	4	C1	C7	J495B	1	A2	H9	R613	5	B2	H2	R2204	2	F3	B2	U148	2	E2	B3	U148	2	E2	B3				
												R633	4	B4	G3					U152A	2	D3	A4								

A6 Flash EPROM/NVRAM board located on back of this page.

VM 700A SERVICE



Schematic Diagram <28>
Component Locator Chart

Assembly A6. Partial Assembly A6 also shown on Diagrams 29, 29A, 30, and 31.

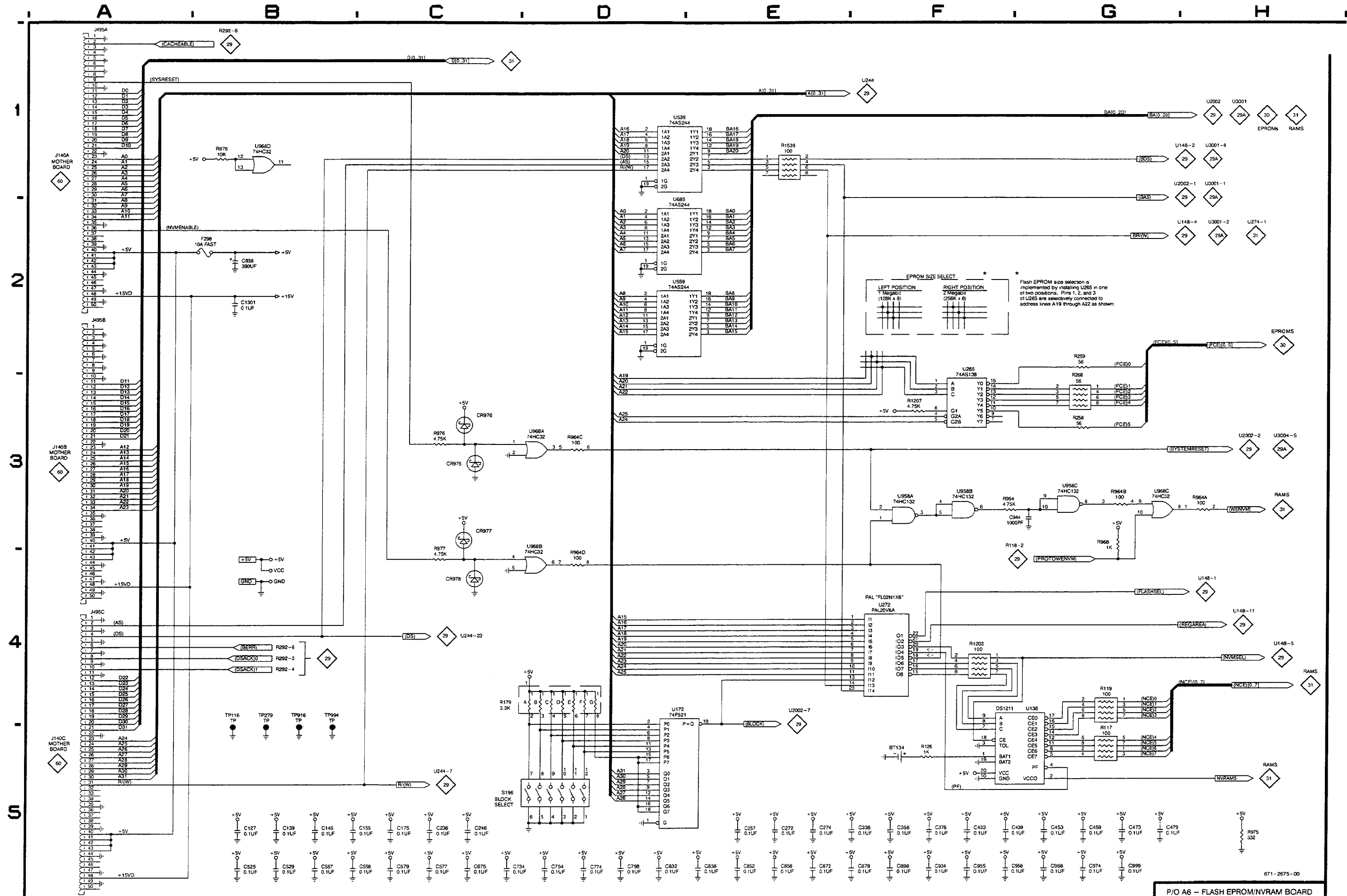
Comp No	Diag Loc	Bd Loc	Comp No	Diag Loc	Bd Loc
BT134	F5	D2	F298	B2	B8
C127	B5	E2	J495A	A1	H9
C139	B5	B3	J495B	A2	H9
C145	B5	B3	J495C	A4	H9
C155	B5	B4			
C175	C5	C8	R117	G5	E3
C236	C5	C3	R119	G4	E3
C246	C5	C4	R126	F5	E2
C257	E5	C4	R179A	D4	B7
C272	E5	C6	R179B	D4	B7
C274	E5	B7	R179C	D4	B7
C336	F5	D4	R179D	D4	B7
C356	F5	D5	R179E	D4	B7
C376	F5	D7	R179F	D4	B7
C433	F5	E4	R179G	D4	B7
C439	F5	F4	R258	G3	F5
C453	G5	E5	R259	G2	F7
C459	G5	F5	R268	G3	C5
C473	G5	E7	R954	F3	K5
C479	G5	E7	R964A	H3	J6
C525	B5	G3	R964B	G3	J6
C529	B5	G3	R964C	D3	J6
C557	B5	G5	R964D	D4	J6
C558	B5	G5	R968	G3	B5
C577	C5	F7	R975	H5	K6
C579	C5	G7	R976	C3	K7
C675	C5	G7	R977	C4	K7
C734	C5	I3	R978	B1	K7
C754	D5	H5	R1203	F4	D3
C774	D5	H7	R1207	F3	B6
C798	D5	H9	R1539	E1	F3
C832	D5	H3	S196	D5	A8
C838	E5	J3	TP116	B5	C2
C852	E5	I5	TP279	B5	A8
C858	E5	J5	TP916	B5	K2
C872	E5	I6	TP994	B5	K8
C878	F5	J6	U138	F4	E2
C898	F5	I9	U172	D4	C7
C934	F5	J3	U265	F3	C6
C938	B2	K4	U272	F4	C6
C944	G3	J5	U539	D1	G4
C955	F5	J5	U559	D2	F5
C958	F5	K4	U685	D2	G7
C968	G5	K6	U958A	F3	J5
C974	G5	J6	U958B	F3	J5
C999	G5	J9	U958C	G3	J5
C1301	B2	B8	U968A	D3	K5
CR975	C3	K7	U968B	D4	K5
CR976	C3	K7	U968C	G3	K5
CR977	C3	K7	U968D	B1	K5
CR978	C4	K7			

A6 Flash EPROM/
NVRAM board loca-
tor chart on front of
this page.

J495A
J495B
J495C

⊗ Static Sensitive Devices
See Maintenance Section

A6 Flash EPROM/NVRAM Board



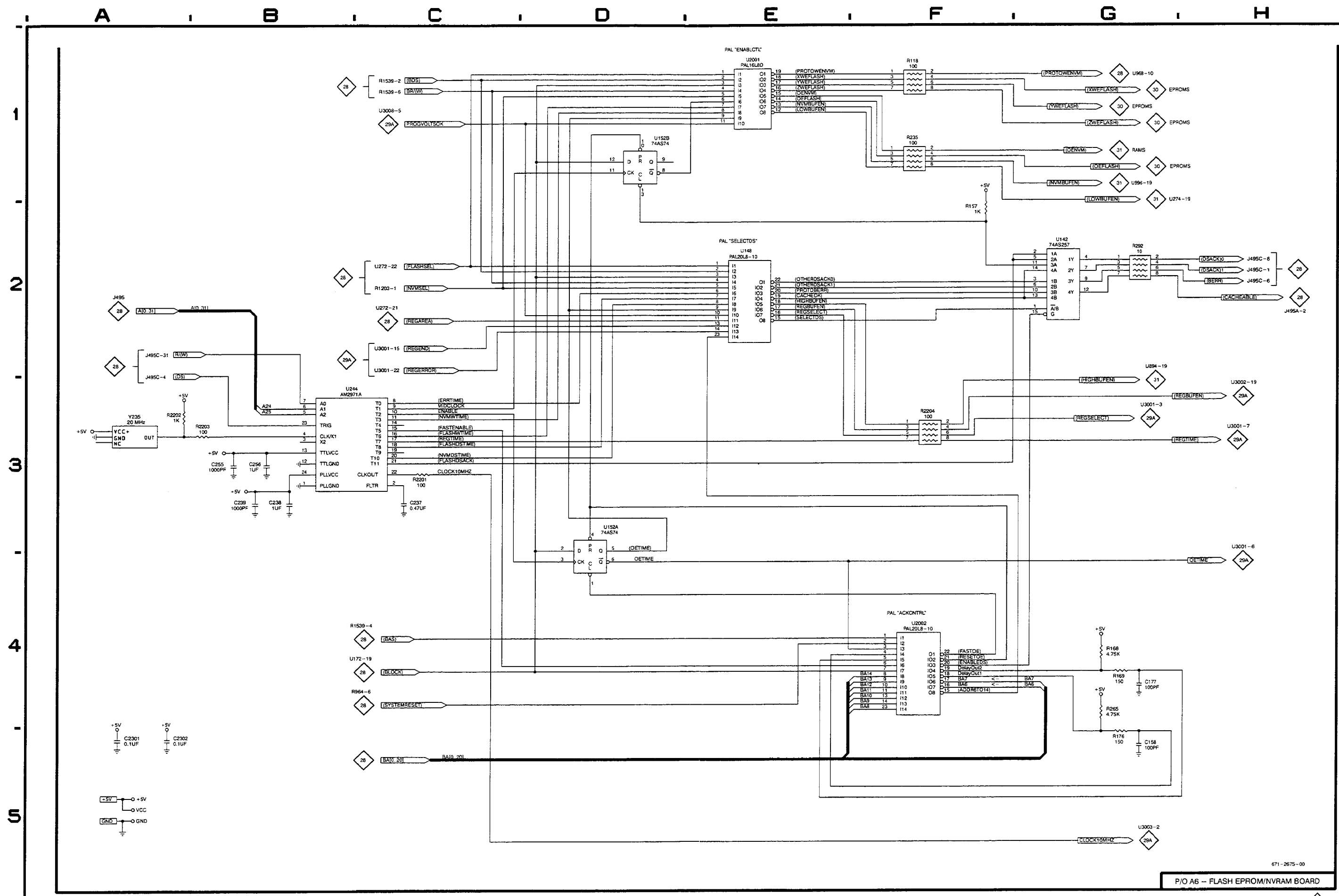
P/O A6 - FLASH EPROM/NVRAM BOARD

671-2675-00

Schematic Diagram <29> Component Locator Chart

Assembly A6. Partial Assembly A6 also shown on Diagrams 28, 29A, 30, and 31.

Comp No	Diag Loc	Bd Loc
C158	G5	A4
C177	G4	A3
C237	C3	C3
C238	B3	C3
C239	B3	B4
C255	B3	C5
C256	B3	C5
C2301	A5	B5
C2302	A5	B4
R118	F1	B4
R157	F2	B6
R168	G4	B3
R169	G4	A3
R176	G5	B4
R235	F1	B5
R265	G4	B4
R292	G2	A4
R2201	C3	B4
R2202	A3	B4
R2203	B3	C3
R2204	F3	B2
U142	G2	A3
U148	E2	B3
U152A	D3	A4
U152B	D1	A4
U244	B3	B4
U2001	E1	B4
U2002	F4	B4
Y235	A3	C3



VM700A

ACCESS CONTROL & TIMING

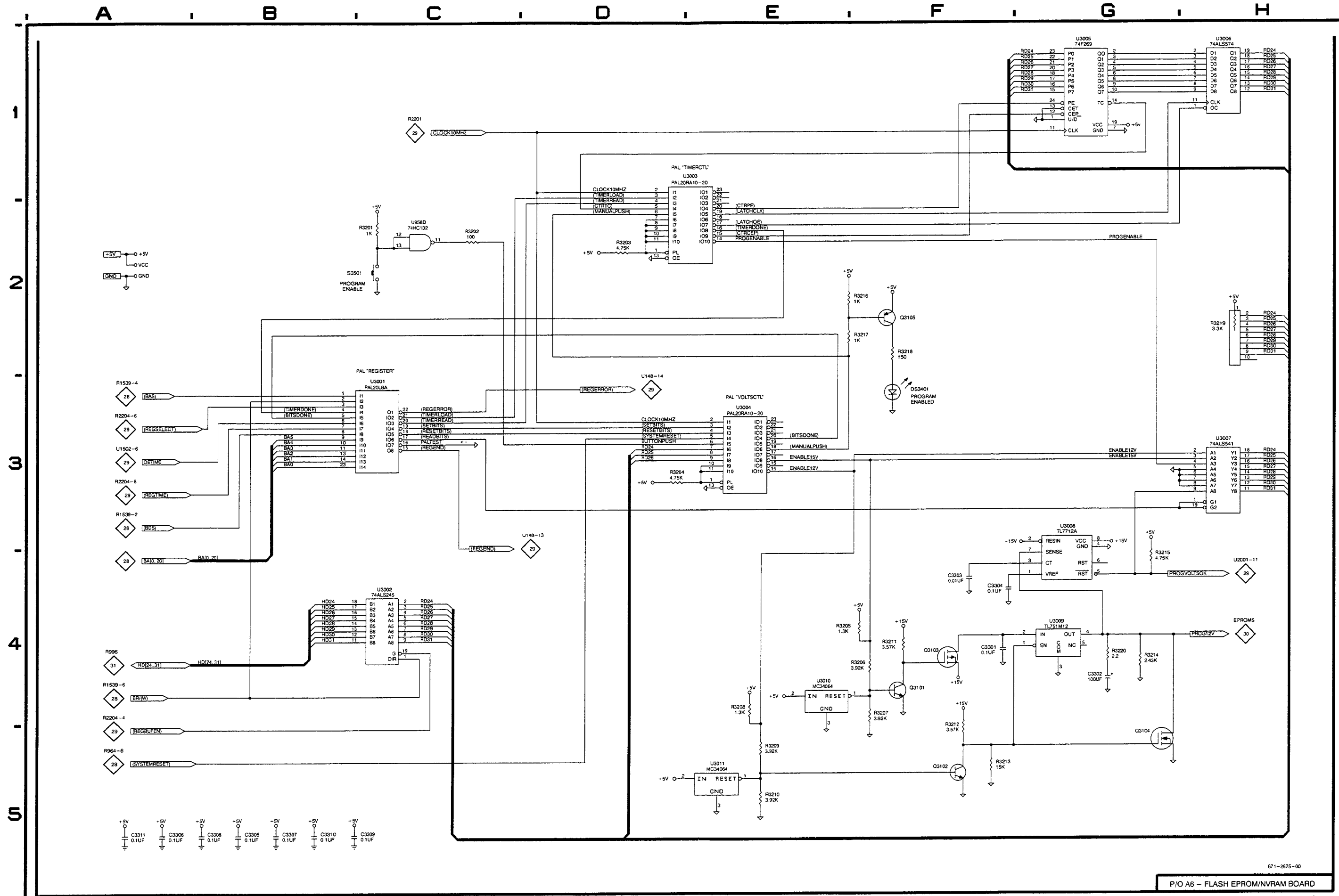
P/O A6 - FLASH EPROM/NVRAM BOARD

671 - 2675 - 00

Schematic Diagram <29>A Component Locator Chart

Assembly A6. Partial Assembly A6 also shown on Diagrams 28, 29, 30, and 31.

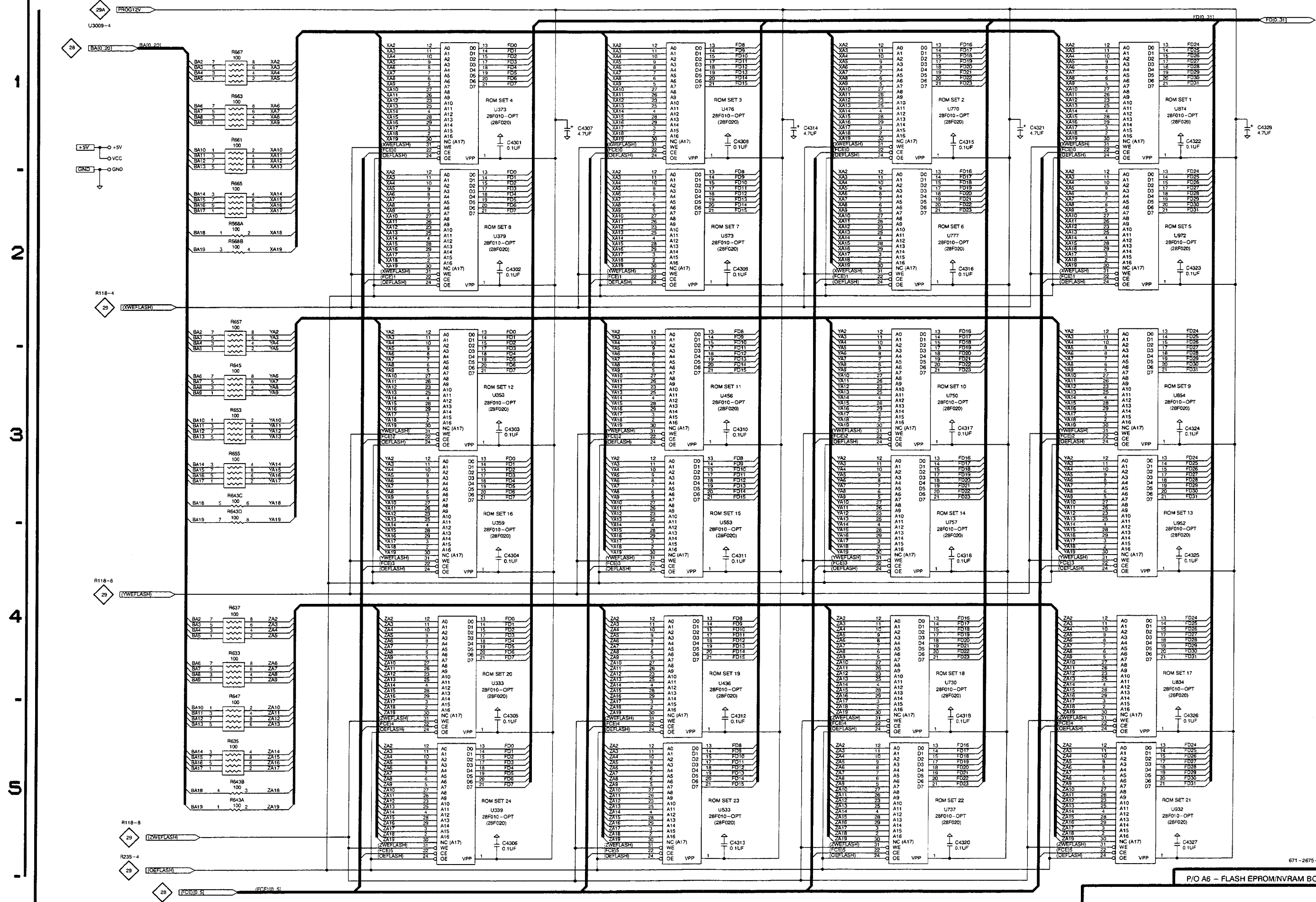
Comp No	Diag Loc	Bd Loc
C3301	F4	B2
C3302	G4	C3
C3303	F4	D2
C3304	F4	D2
C3305	B5	B5
C3306	A5	B7
C3307	B5	A5
C3308	B5	B4
C3309	B5	A6
C3310	B5	A8
C3311	A5	B6
DS3401	F3	B2
Q3101	F4	C2
Q3102	F5	C2
Q3103	F4	B2
Q3104	G5	C2
Q3105	F2	B2
R3201	C2	D2
R3202	C2	H5
R3203	D2	A5
R3204	D3	B6
R3205	F4	D2
R3206	F4	D2
R3207	F4	D2
R3208	E4	B7
R3209	E5	B6
R3210	E5	B6
R3211	F4	D2
R3212	F4	C3
R3213	F5	B3
R3214	G4	J7
R3215	G4	A7
R3216	E2	B6
R3217	E2	B5
R3218	F2	B2
R3219	H2	A6
R3220	G4	B2
S3501	C2	E2
U958D	C2	J5
U3001	C3	B5
U3002	C4	B7
U3003	D1	A4
U3004	E3	B5
U3005	G1	A6
U3006	H1	A7
U3007	H3	A6
U3008	G3	E2
U3009	G4	B2
U3010	E4	D2
U3011	E5	C2



Schematic Diagram <30> Component Locator Chart

Assembly A6. Partial Assembly A6 also shown on Diagrams 28, 29, 29A, and 31.

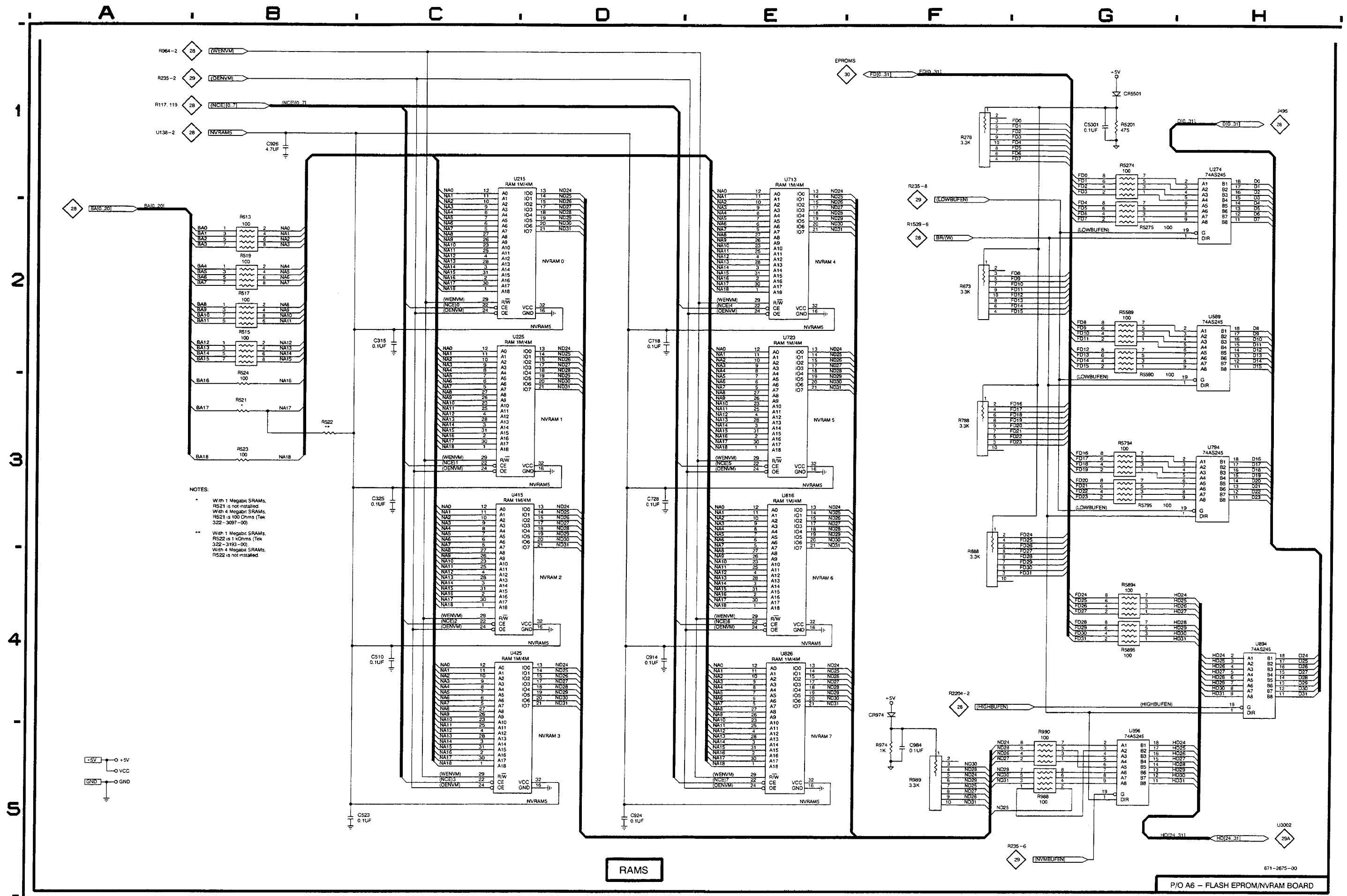
Comp No	Diag Loc	Bd Loc	Comp No	Diag Loc	Bd Loc
C4301	C1	C7	R643D	B3	G4
C4302	C2	D7	R645	B3	G4
C4303	C3	D5			
C4304	C4	E5	R647	B5	G4
C4305	C5	D3	R653	B3	G5
			R655	B3	G5
C4306	C5	E3	R657	B2	G5
C4307	D1	D2	R661	B1	G6
C4308	E1	E7			
C4309	E2	F7	R663	B1	G6
C4310	E3	E5	R665	B2	G6
			R667	B1	G6
C4311	E4	F5			
C4312	E5	F3	U333	C4	D3
C4313	E5	G3	U339	C5	D3
C4314	E1	E3	U353	C2	C5
C4315	F1	H6	U359	C3	D5
			U373	C1	C7
C4316	F2	H6			
C4317	F3	H5	U379	C2	D7
C4318	F4	H5	U436	D4	E3
C4319	F5	H3	U456	D2	E5
C4320	F5	H3	U476	D1	E7
			U533	D5	F3
C4321	F1	G3			
C4322	G1	I6	U553	D3	F5
C4323	G2	J6	U573	D2	F7
C4324	G3	I5	U730	F4	G3
C4325	G4	J5	U737	F5	H4
			U750	F2	G5
C4326	G5	I3			
C4327	G5	J3	U757	F3	H6
C4328	H1	K3	U770	F1	G7
			U777	F2	H6
R568A	B2	G6	U834	G4	I4
R568B	B2	G6	U854	G2	I5
R633	B4	G3			
R635	B5	G3	U874	G1	I8
R637	B4	G3	U932	G5	J4
			U952	G3	J5
R643A	B5	G4	U972	G2	J6
R643B	B5	G4			
R643C	B3	G4			



Schematic Diagram <31> Component Locator Chart

Assembly A6. Partial Assembly A6 also shown on Diagrams 28, 29, 29A, and 30.

Comp No	Diag Loc	Bd Loc	Comp No	Diag Loc	Bd Loc
C315	C2	F2	R988	G5	K8
C325	C3	F2	R989	F5	J5
C510	C4	H2			
C523	B5	H2	R990	G5	K8
C718	D2	I2	R5201	G1	I8
			R5274	G1	B7
C728	D3	I3	R5275	G2	B7
C914	D4	J2	R5589	G2	F8
C924	D5	J3			
C926	B1	K3	R5590	G2	F8
C984	F5	K8	R5794	G3	H8
C5301	G1	J8	R5795	G3	H8
			R5894	G4	I8
CR974	F4	K7	R5895	G4	I8
CR5501	G1	H7			
			U215	C1	F2
R278	F1	C6	U225	C2	F2
R515	B2	H2	U274	H1	B7
R517	B2	H2	U415	C3	H2
R519	B2	H2	U425	C4	H2
R521	B3	G3			
			U589	H2	F7
R522	B3	F1	U713	E1	I2
R523	B3	G3	U723	E2	I2
R524	B3	G3	U794	H3	H9
R613	B2	H2	U816	E3	J2
R673	F2	F6			
			U826	E4	J2
R788	F3	I6	U894	H4	I9
R888	F3	J6	U996	G5	J9
R974	F5	J7			



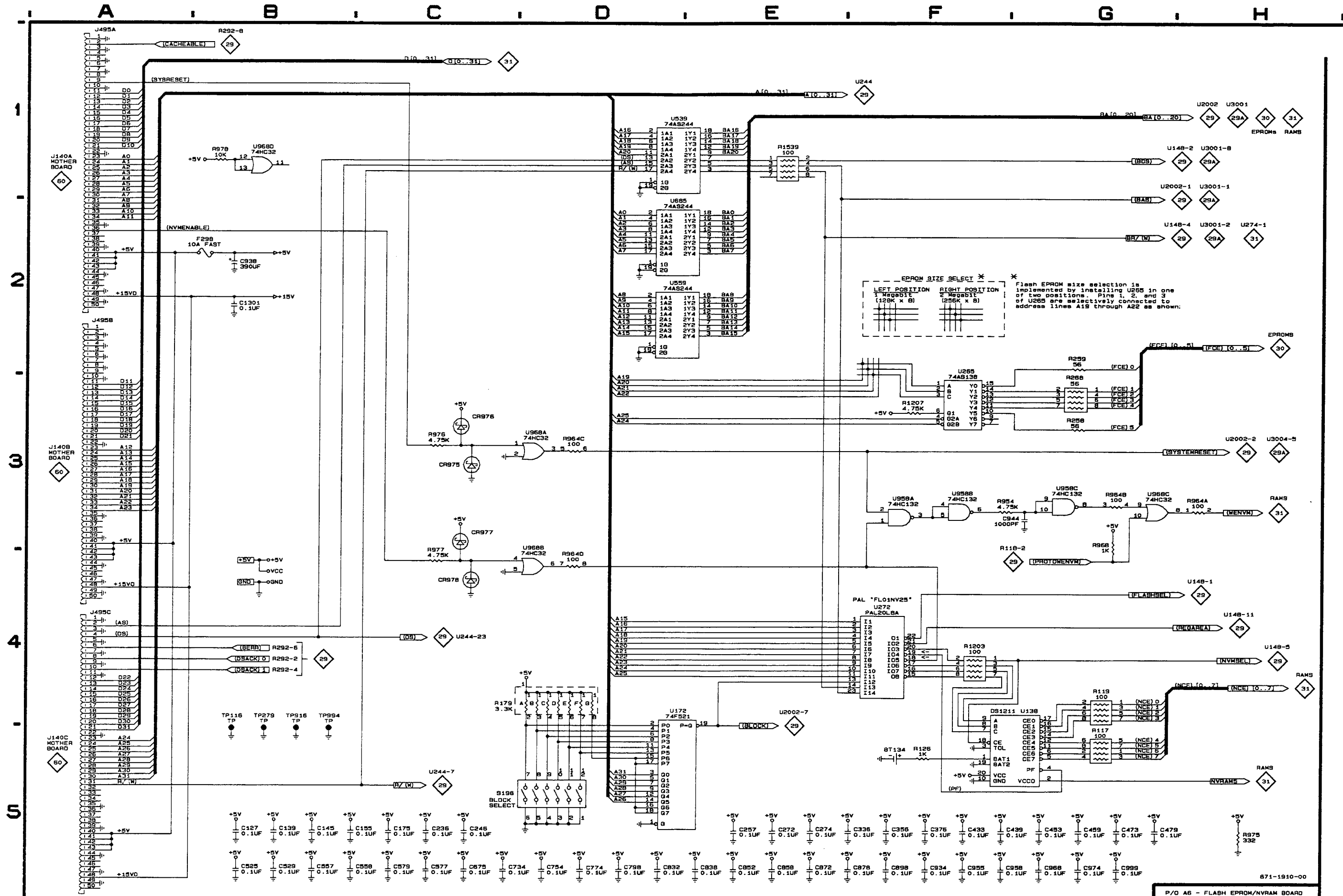
NOTES:

- With 1 Megabit SRAMs, R521 is not installed.
- With 4 Megabit SRAMs, R521 is 100 Ohms (Tek 322-3097-00).
- With 1 Megabit SRAMs, R522 is 1 kOhms (Tek 322-3193-00).
- With 4 Megabit SRAMs, R522 is not installed.

NVRAM ARRAY & DATA
BUS BUFFERS <31>



A6 FLASH/EPROM



EPROM SIZE SELECT *

LEFT POSITION	RIGHT POSITION
1 Megabit (128K x 8)	2 Megabit (256K x 8)

* Flash EPROM size selection is implemented by installing U265 in one of two positions. Pins 1, 2, and 3 of U265 are selectively connected to address lines A19 through A22 as shown.

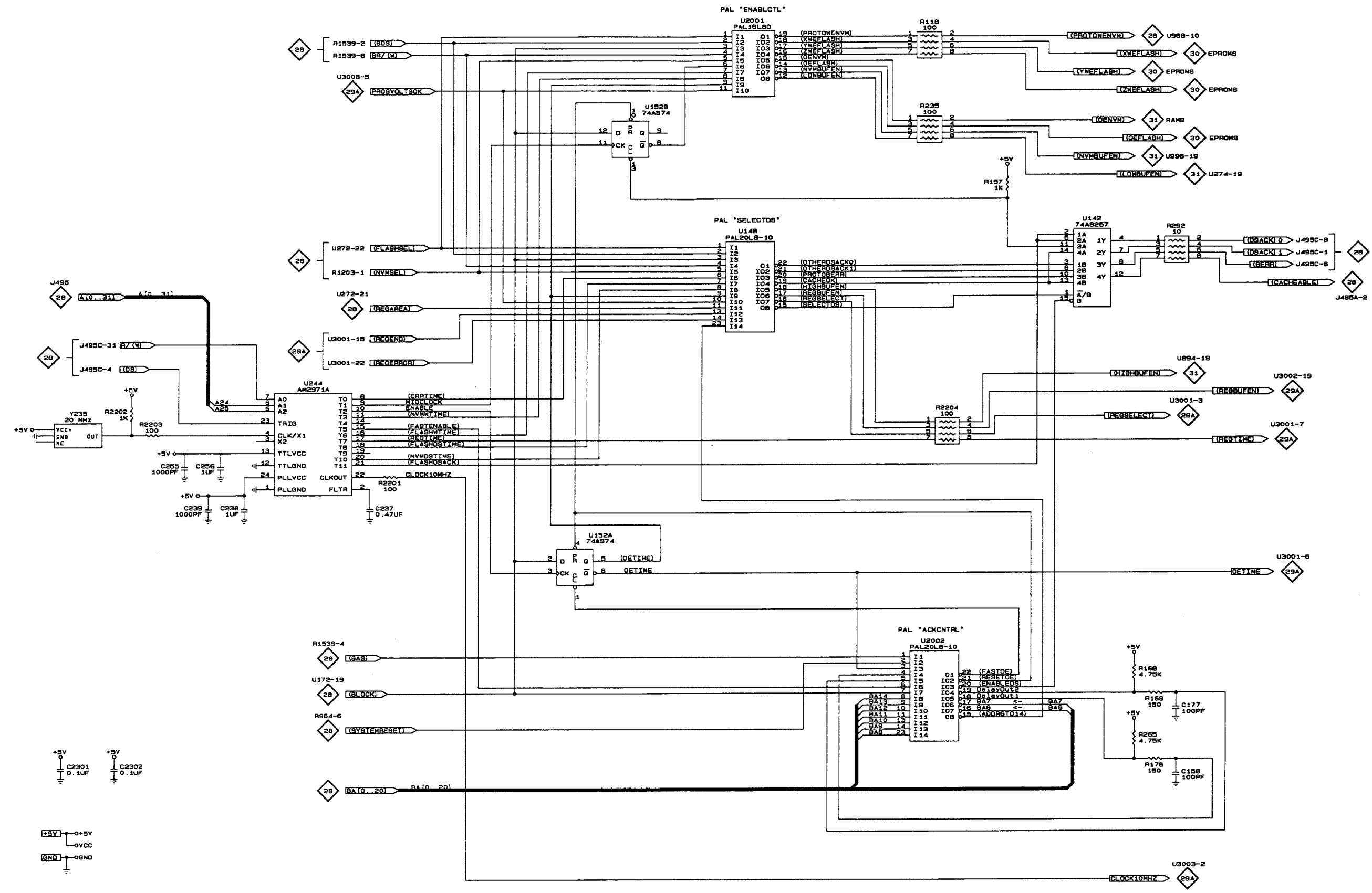
**FLASH EPROM/NVRAM
BOARD
Schematic <29> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

Assembly A6. Partial Assembly A6 also shown on schematics 28, 29A, 30 and 31.

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C158	G5	A3
C177	G4	A2
C237	C3	B2
C238	B3	C2
C239	B3	B3
C255	B3	B4
C256	B3	C4
C2301	A5	B4
C2302	A5	B3
R118	F1	B4
R157	F2	B5
R168	G4	B2
R169	G4	A2
R176	G5	A3
R235	F1	B5
R265	G4	A3
R292	G2	A2
R2201	C3	B3
R2202	A3	B3
R2203	B3	B2
R2204	F3	B2
U142	G2	A2
U148	E2	B2
U152A	D3	A3
U152B	D1	A3
U244	B3	C3
U2001	E1	B4
U2002	F4	A2
Y235	A3	C2

1
2
3
4
5

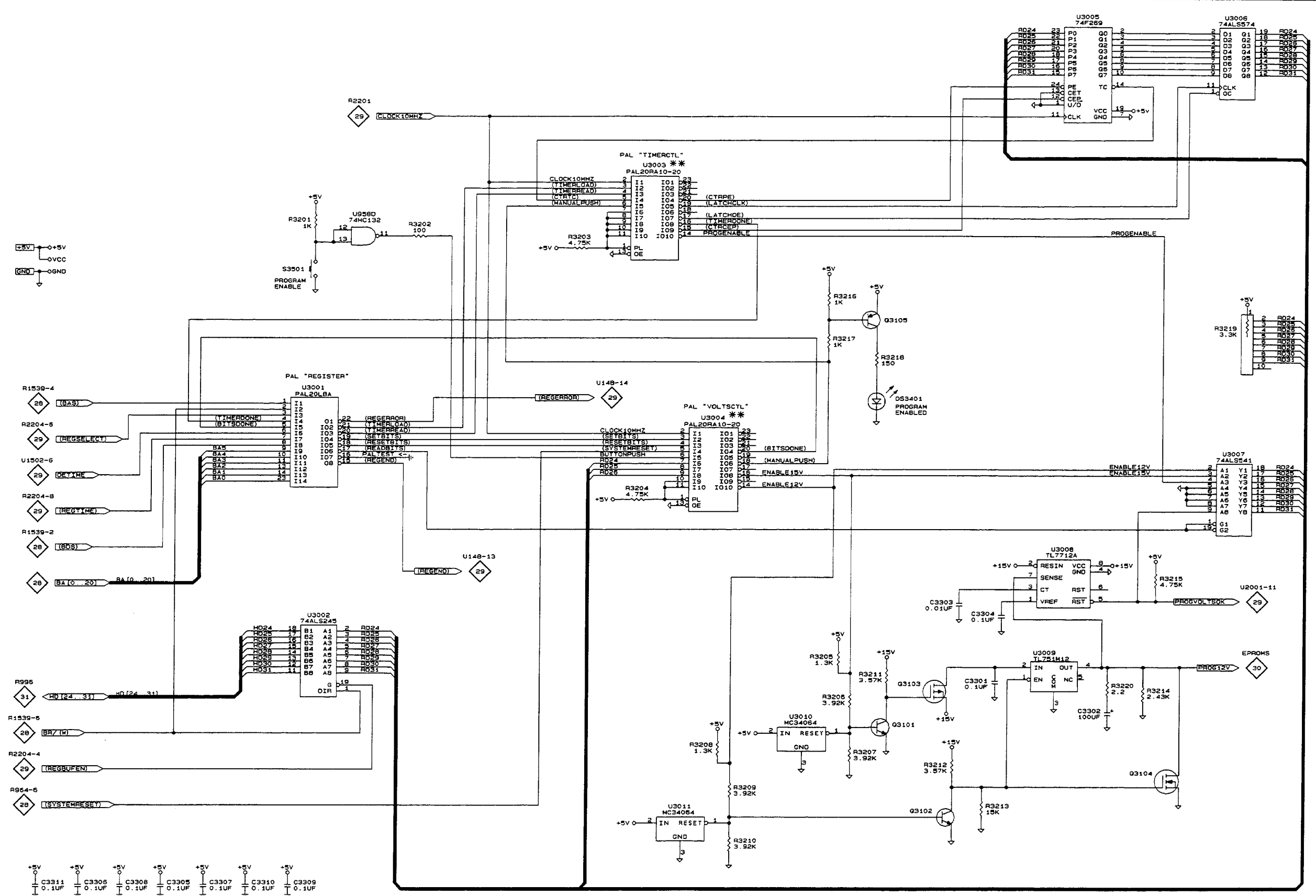


**FLASH EPROM/NVRAM
BOARD
Schematic <29A> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

Assembly A6. Partial Assembly A6 also shown on schematics 28, 29, 30 and 31.

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C3301	F4	B1	U958D	C2	K4
C3302	G4	C2	U3001	C3	B5
C3303	F4	D1	U3002	C4	A7
C3304	F4	D1	U3003	D1	A4
C3305	B5	B4	U3004	E3	A4
			U3005	G1	A5
C3306	A5	B6			
C3307	B5	A4	U3006	H1	A7
C3308	B5	B4	U3007	H3	B5
C3309	B5	A5	U3008	G3	D2
C3310	B5	A7	U3009	G4	A1
C3311	A5	B5	U3010	E4	D1
			U3011	E5	C1
DS3401	F3	B1			
Q3101	F4	C1			
Q3102	F5	C1			
Q3103	F4	C1			
Q3104	G5	C1			
Q3105	F2	B1			
R3201	C2	D1			
R3202	C2	H4			
R3203	D2	A4			
R3204	D3	A5			
R3205	F4	D1			
R3206	F4	D1			
R3207	F4	D1			
R3208	E4	B6			
R3209	E5	A5			
R3210	E5	A5			
R3211	F4	D1			
R3212	F4	C2			
R3213	F5	B2			
R3214	G4	J6			
R3215	G4	A6			
R3216	E2	A5			
R3217	E2	B4			
R3218	F2	B1			
R3219	H2	A5			
R3220	G4	B1			
S3501	C2	E1			



- +5V C3311 0.1UF
- +5V C3306 0.1UF
- +5V C3308 0.1UF
- +5V C3305 0.1UF
- +5V C3307 0.1UF
- +5V C3310 0.1UF
- +5V C3309 0.1UF

NOTE: ** SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

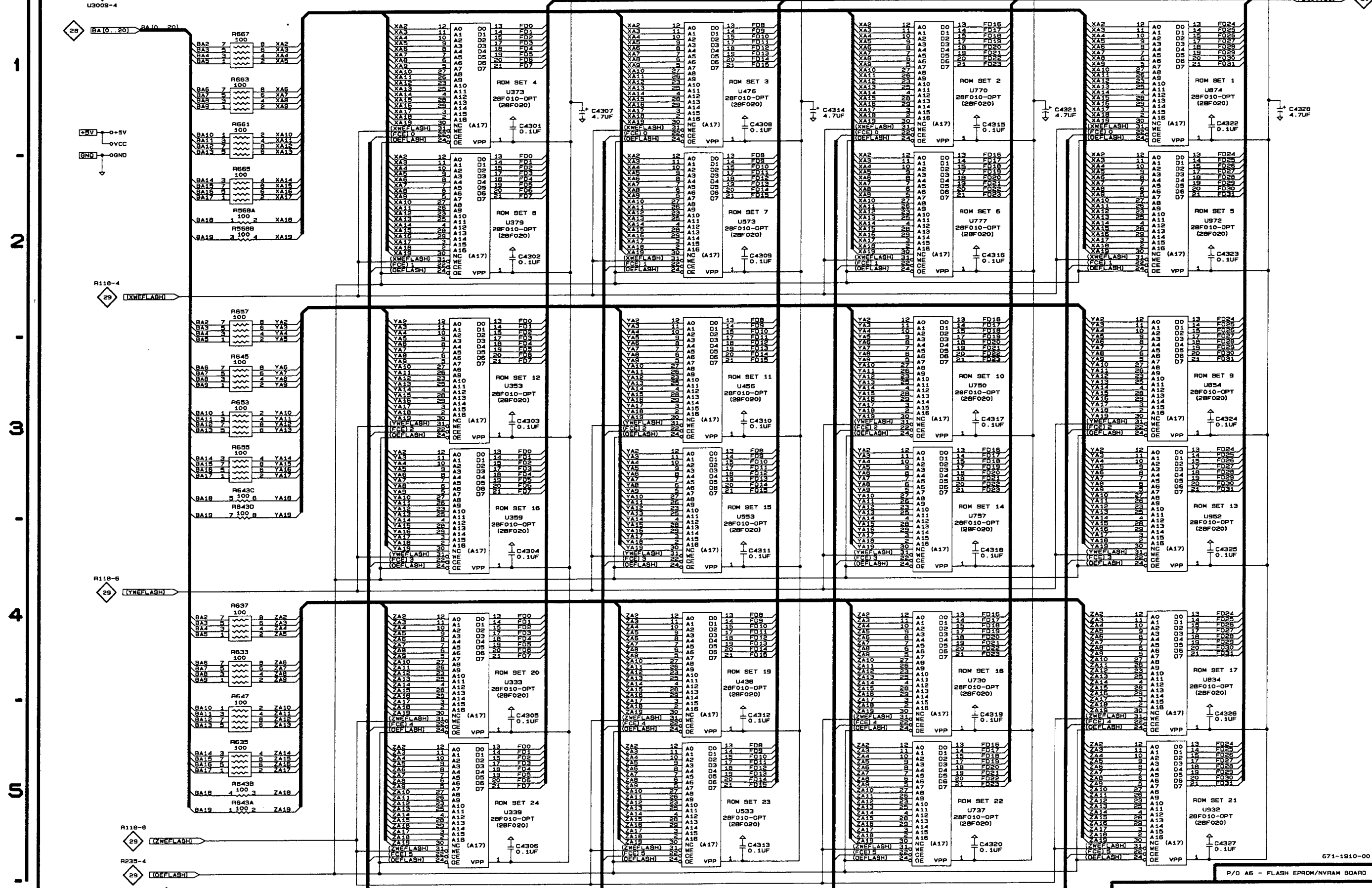
671-1910-00 & ABOVE
P/O A5 - FLASH EPROM/NVRAM BOARD

**FLASH EPROM/NVROM
BOARD
Schematic <30> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

Assembly A6. Partial Assembly A6 also shown on Schematics 28, 29, 29A, and 31.

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C4301	C1	C6	U436	D4	E3
C4302	C2	D6	U456	D2	E5
C4303	C3	C4	U476	D1	E6
C4304	C4	D4	U533	D5	F3
C4305	C5	D2	U553	D3	F5
			U573	D2	F6
C4306	C5	E2			
C4307	D1	D2	U730	F4	H3
C4308	E1	E6	U737	F5	H3
C4309	E2	F6	U750	F2	H5
C4310	E3	E4	U757	F3	H5
			U770	F1	H6
C4311	E4	F4			
C4312	E5	F2	U777	F2	H6
C4313	E5	G2	U834	G4	I3
C4314	E1	E2	U854	G2	I5
C4315	F1	G5	U874	G1	I6
			U932	G5	J3
C4316	F2	H5	U952	G3	J5
C4317	F3	G4	U972	G2	J6
C4318	F4	H4			
C4319	F5	G2			
C4320	F5	H2			
C4321	F1	G2			
C4322	G1	I5			
C4323	G2	I5			
C4324	G3	I4			
C4325	G4	I4			
C4326	G5	I2			
C4327	G5	J2			
C4328	H1	J2			
R568A	B2	G6			
R568B	B2	G6			
R633	B4	G2			
R635	B5	G2			
R637	B4	G2			
R643A	B5	G4			
R643B	B5	G4			
R643C	B3	G4			
R643D	B3	G4			
R645	B3	G4			
R647	B5	G4			
R653	B3	G5			
R655	B3	G5			
R657	B2	G5			
R661	B1	G6			
R663	B1	G6			
R665	B2	G6			
R667	B1	G6			
U333	C4	C3			
U339	C5	D3			
U353	C2	D4			
U359	C3	D5			
U373	C1	C6			
U379	C2	D6			

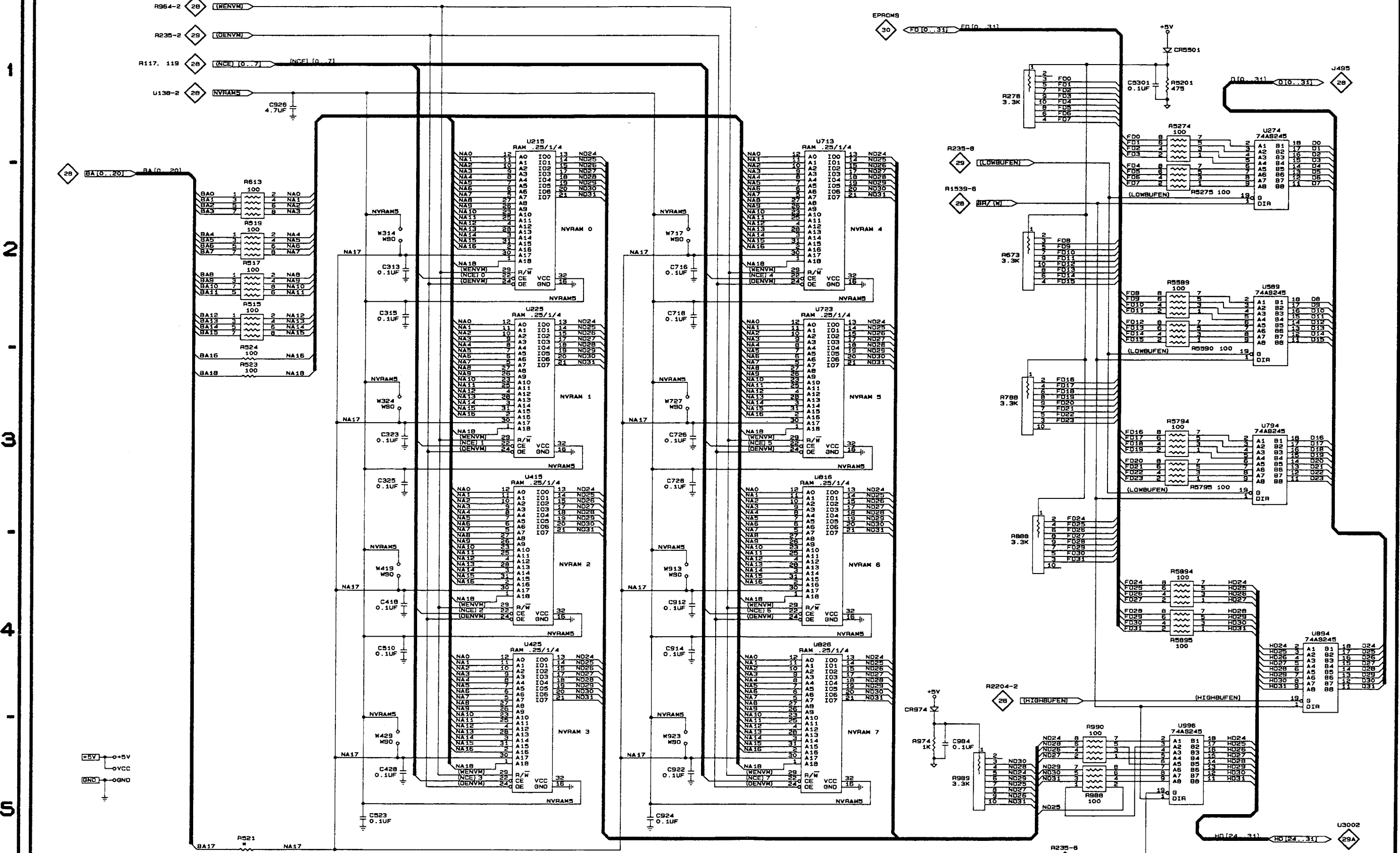


**FLASH EPROM/NVRAM
BOARD
Schematic <31> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

Assembly A6. Partial Assembly A6 also shown on Schematics 28, 29, 29A and 30.

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C313	C2	F1	U589	H2	G7
C315	C2	G1	U713	E1	I1
C323	C3	F1	U723	E2	I2
C325	C3	G1	U794	H3	H8
C418	C4	H1	U816	E3	J1
C428	C5	H1	U826	E4	J2
C510	C4	H1	U894	H4	I8
C523	B5	H1	U996	G5	J8
C716	D2	I1	W314	C2	F1
C718	D2	I1	W324	C3	F1
C726	D3	I1	W419	C4	H1
C728	D3	I1	W429	C5	H1
C912	D4	J1	W717	D2	I1
C914	D4	K1	W727	D3	I1
C922	D5	J1	W913	D4	J1
C924	D5	K1	W923	D5	J1
C926	B1	K2			
C984	F5	K7			
C5301	G1	J7			
CR974	F4	K6			
CR5501	G1	H6			
R278	F1	C6			
R515	B2	H1			
R517	B2	H1			
R519	B2	H1			
R521	B5	G2			
R523	B3	G2			
R524	B3	G2			
R613	B2	H1			
R673	F2	F6			
R788	F3	I6			
R888	F3	J6			
R974	F5	J6			
R988	G5	J7			
R989	F5	J5			
R990	G5	J7			
R5201	G1	I7			
R5274	G1	B7			
R5275	G2	B7			
R5589	G2	G7			
R5590	G2	G7			
R5794	G3	H7			
R5795	G3	H7			
R5894	G4	I7			
R5895	G4	I7			
U215	C1	F1			
U225	C2	F2			
U274	H1	B7			
U415	C3	G1			
U425	C4	G2			



* R521 is installed only when 4 Megabit RAMs are used. For 256 kilobit and 1 Megabit RAMs, R521 is left out.
When R521 is used, its value is 100 Ohms.

RAMS

P/O A6 - FLASH EPROM/NVRAM BOARD

VM 700A SERVICE

**NVRAM ARRAY & DATA
BUS BUFFERS <31 >**

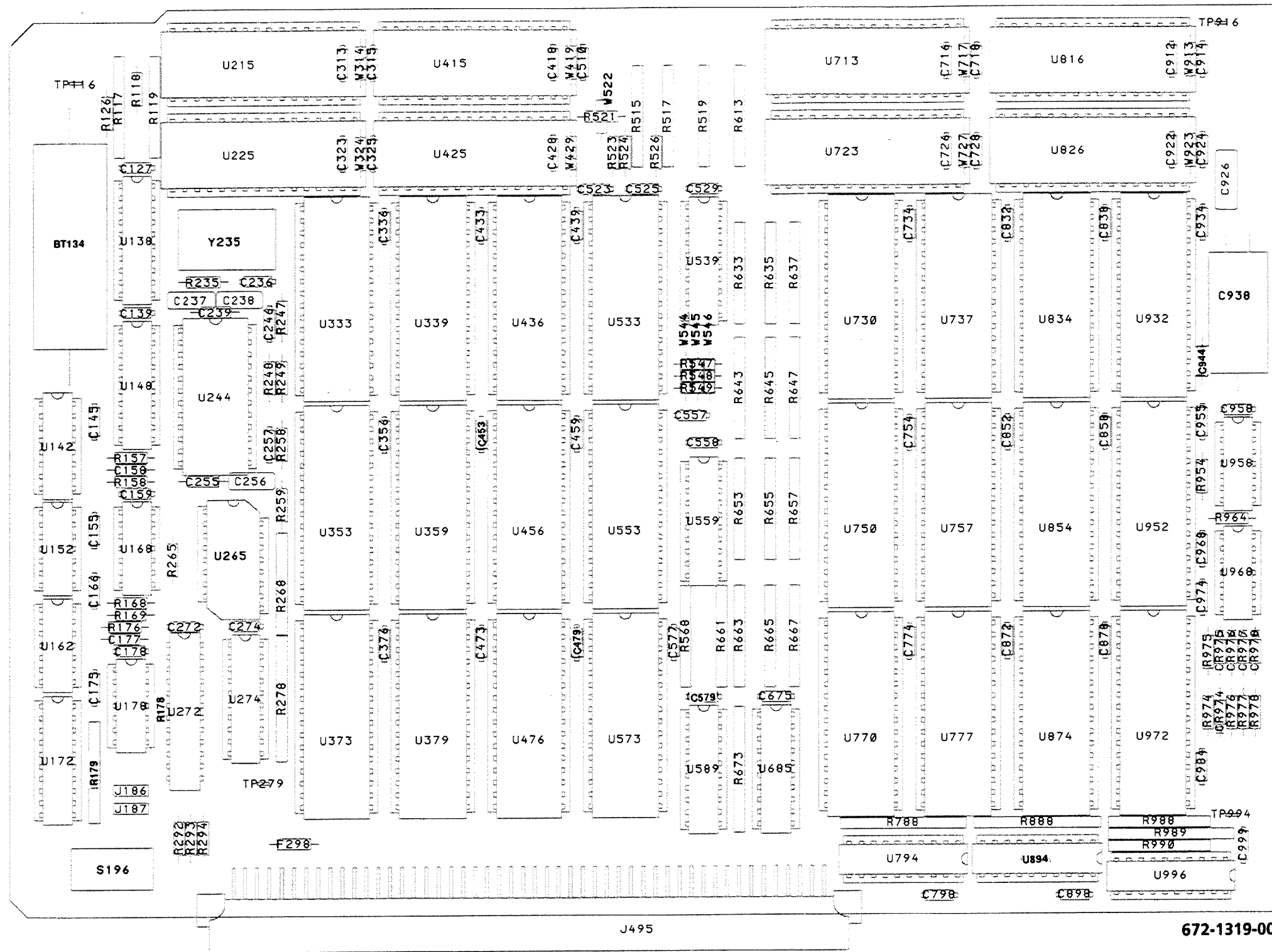


A6 EPROM

EPROM BOARD
Schematic <28> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A6. Partial Assembly A6 also shown on Schematics 29, 30, and 31.

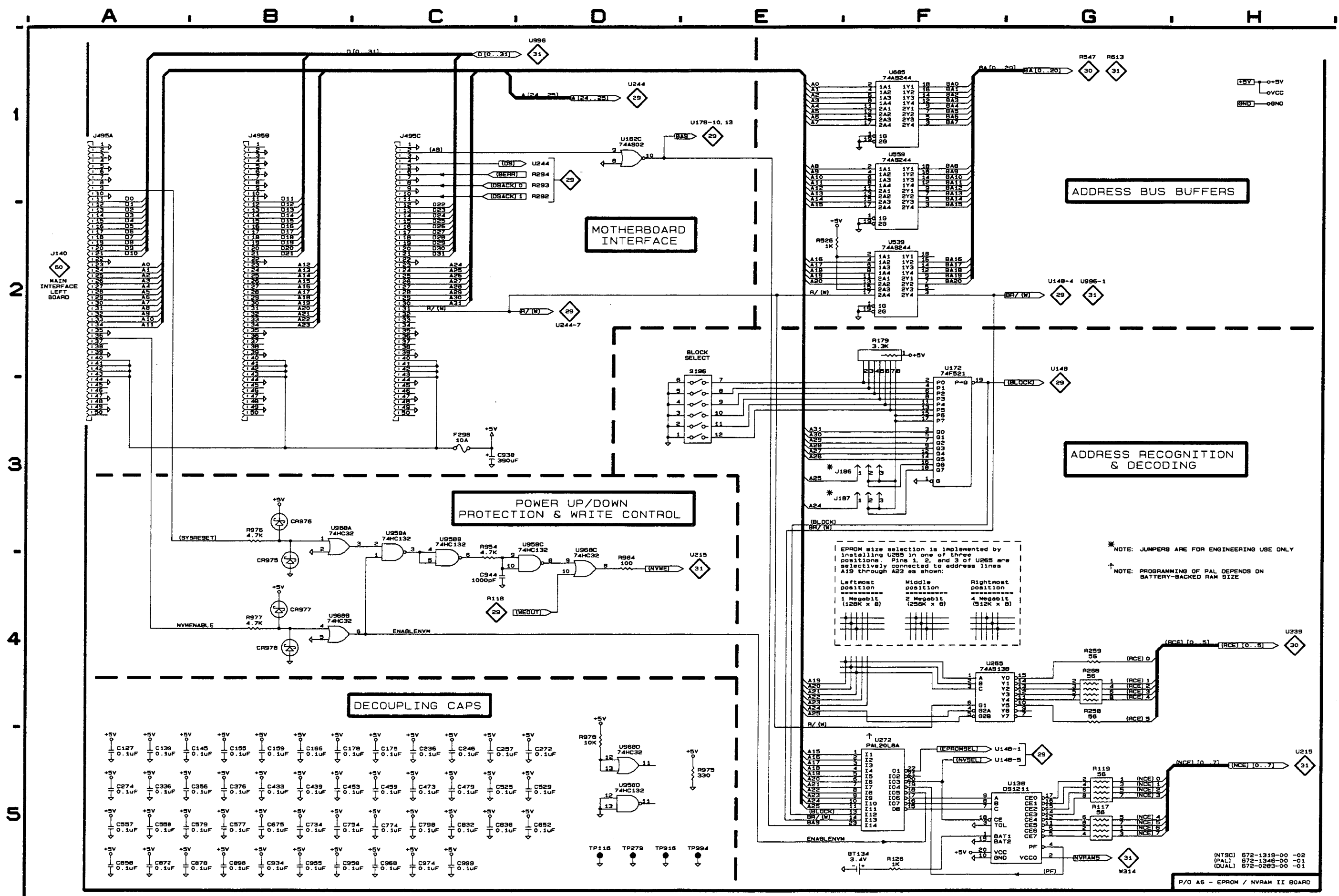


A6 EPROM BOARD

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
BT134	F5	CR975	B4
C127	A5	CR976	B3
C139	A5	CR977	B4
C145	A5	CR978	B4
C155	B5	F298	C3
C159	B5	J186	F3
C166	B5	J187	F3
C175	C5	J495A	A1
C178	B5	J495B	B1
C236	C5	J495C	C1
C246	C5	R117	G5
C257	C5	R119	G5
C272	D5	R126	F5
C274	A5	R179	F2
C336	A5	R258	G4
C356	A5	R259	G4
C376	B5	R268	G4
C433	B5	R526	E2
C439	B5	R954	C4
C453	B5	R964	D4
C459	C5	R975	E5
C473	C5	R976	B3
C479	C5	R977	B4
C525	C5	R978	D5
C529	D5	R978	D5
C557	A5	S196	E2
C558	A5	TP116	D5
C577	B5	TP279	D5
C579	A5	TP916	D5
C675	B5	TP994	E5
C734	B5	U138	F5
C754	B5	U162C	D1
C774	C5	U172	F3
C798	C5	U265	F4
C832	C5	U272	F5
C838	C5	U539	F2
C852	D5	U559	F1
C858	A5	U685	F1
C872	A5	U958A	C3
C878	A5	U958B	C3
C898	B5	U958C	D4
C934	B5	U958D	D5
C938	C3	U968A	B3
C944	C4	U968B	B4
C955	B5	U968C	D4
C958	B5	U968D	D5
C968	C5		
C974	C5		
C999	C5		

*See parts list for earlier serial number ranges.

Static Sensitive Devices
See the section in this manual on handling precautions for static sensitive components.



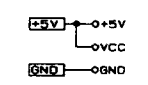
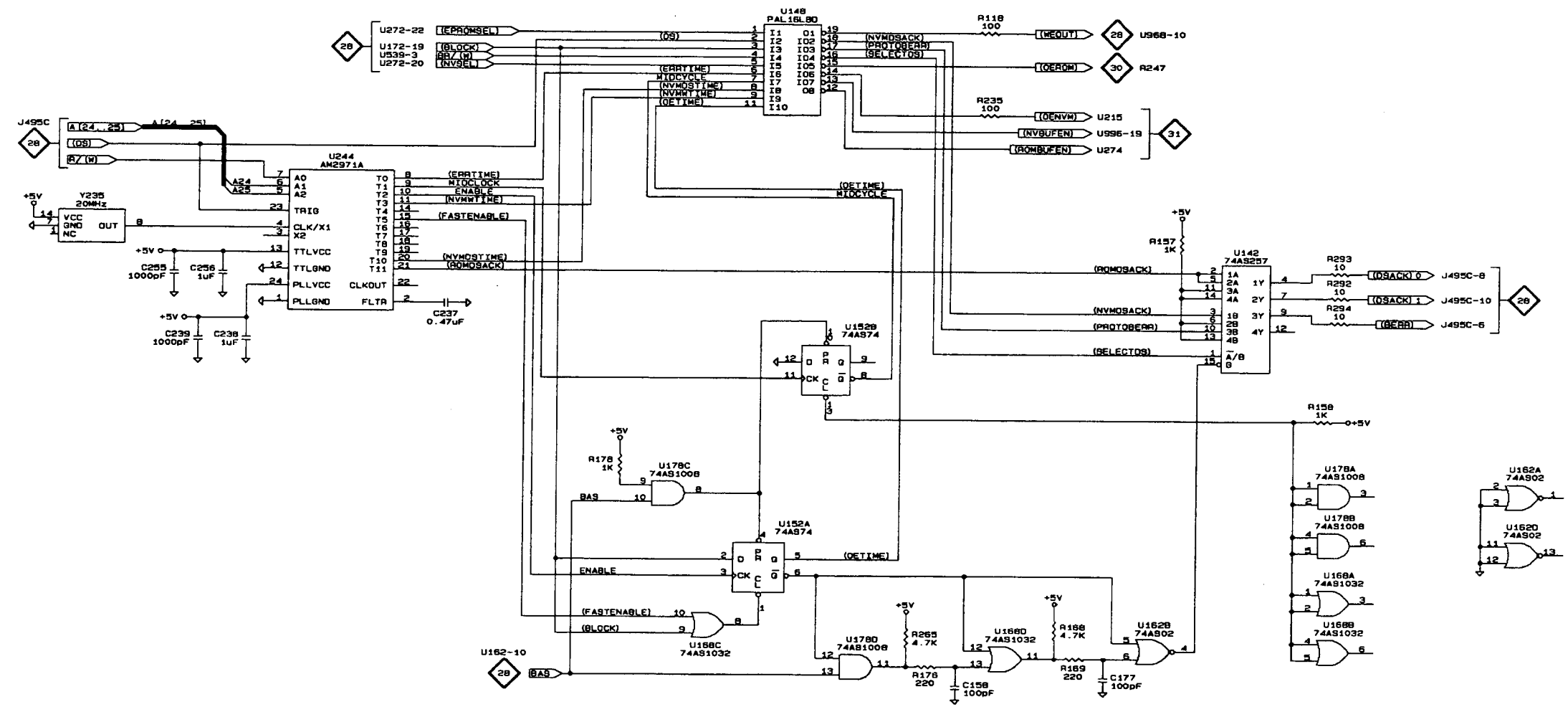
**EPROM BOARD
Schematic <29> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A6. *Partial Assembly A6 also shown on Schematics 28, 30, and 31.*

CIRCUIT NUMBER	SCHEM LOCATION
C158	E4
C177	F4
C237	C3
C238	B3
C239	B3
C255	B3
C256	B3
R118	E2
R157	F2
R158	G3
R168	F4
R169	F4
R176	E4
R178	D3
R235	E2
R265	E4
R292	G3
R293	G3
R294	G3
U142	F3
U148	D2
U152A	D4
U152B	E3
U162A	G3
U162B	F4
U162D	G4
U168A	G4
U168B	G4
U168C	D4
U168D	E4
U178A	G3
U178B	G4
U178C	D3
U178D	E4
U244	C2

*See parts list for earlier serial number ranges.



INTSC) 672-1319-00 -02
 (PAL) 672-1346-00 -01
 (DUAL) 672-0283-00 -01

P/O A5 - EPROM / NVRAM II BOARD

**EPROM BOARD
Schematic <30> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A6. *Partial Assembly A6 also shown on Schematics 28, 29, and 31.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
R247	B5	U553	D3
R248	B2	U573	D1
R249	B4	U730	F4
R547	B5	U737	F5
R548	B3	U750	F2
R549	B2	U757	F3
R568A	B2	U770	F1
R568B	B2	U777	F1
R633	B4	U834	G4
R635	B5	U854	G2
R637	B4	U874	G1
R643A	B5	U932	G5
R643B	B5	U952	G3
R643C	B3	U972	G1
R643D	B3		
R645	B3	W544	B2
R647	B4	W545	B4
R653	B3	W546	B5
R655	B3		
R657	B2		
R661	B1		
R663	B1		
R665	B2		
R667	B1		
U333	C4		
U339	C5		
U353	C2		
U359	C3		
U373	C1		
U379	C1		
U436	D4		
U456	D2		
U476	D1		
U533	D5		

*See parts list for earlier serial number ranges.

+5V -> VCC
[GND] -> GND

1

2

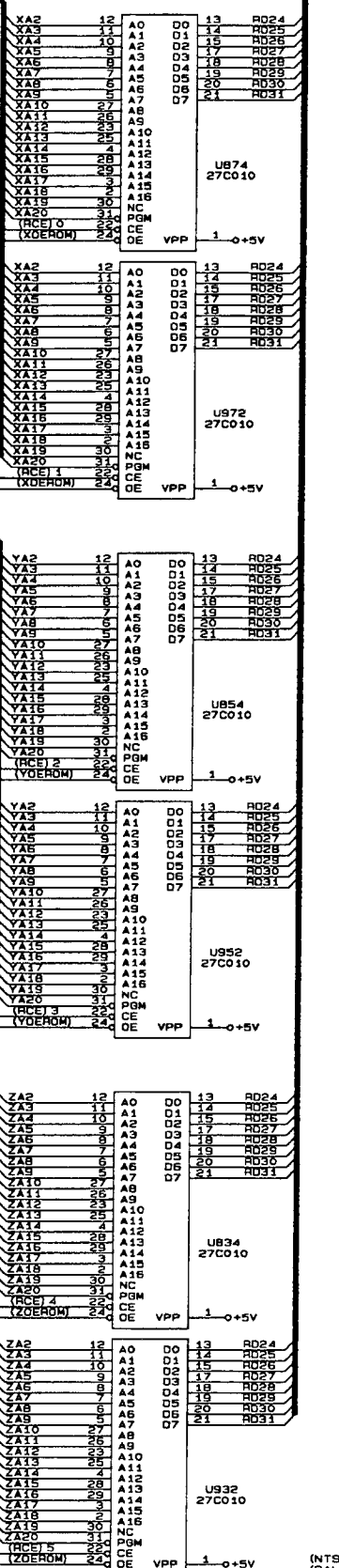
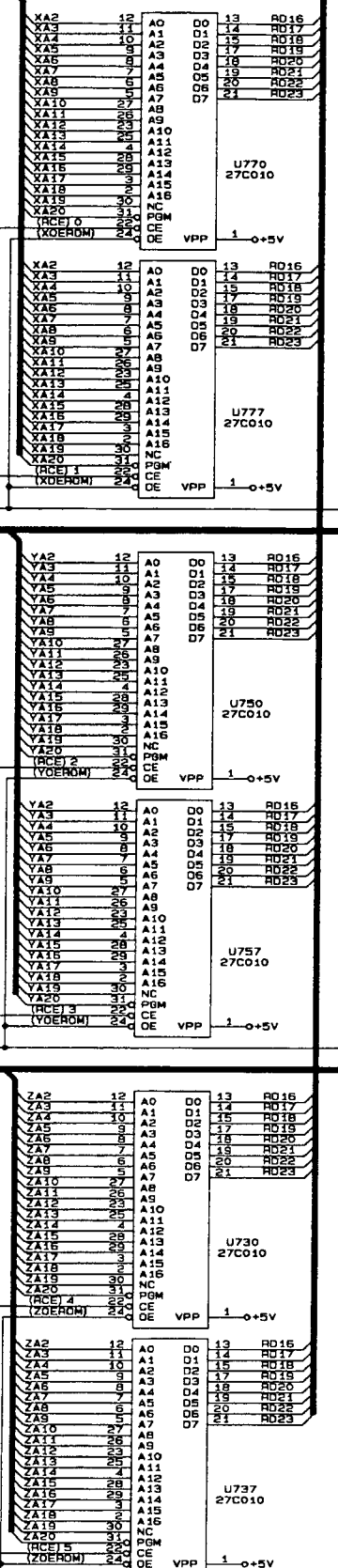
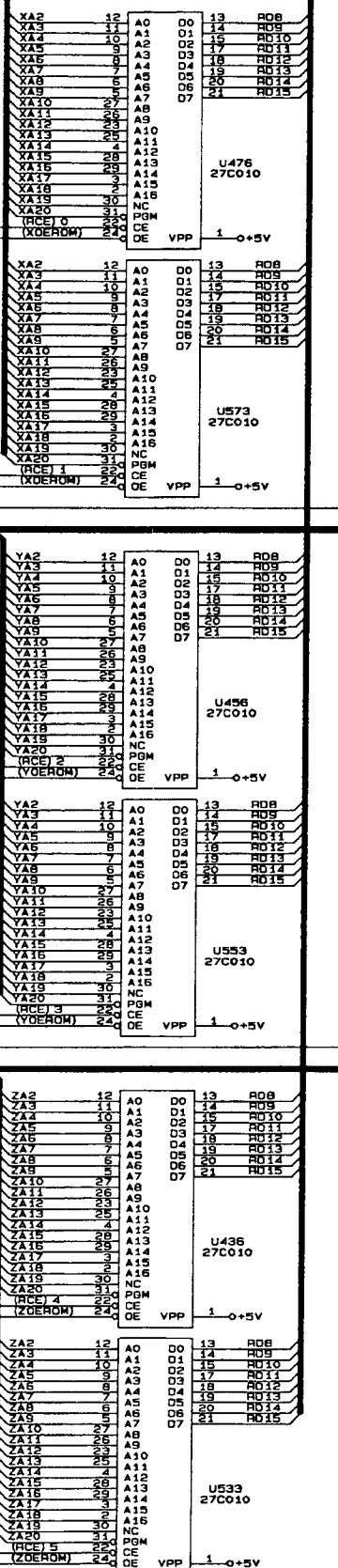
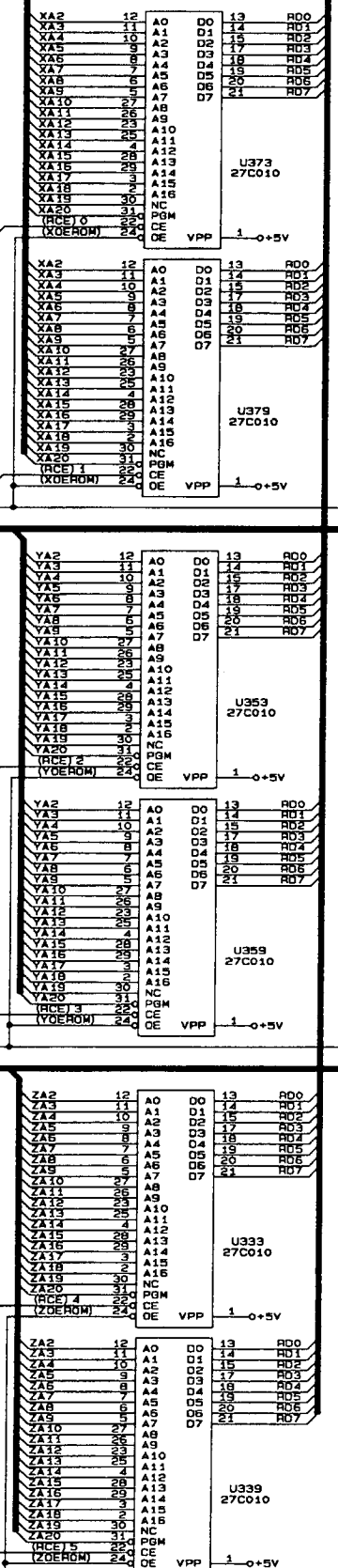
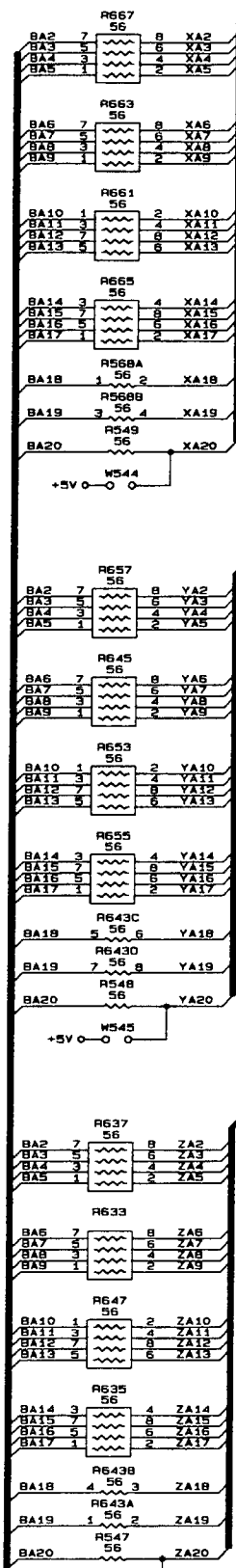
3

4

5

U685

VM 700A



(NTSC) 872-1318-00 -02
(PAL) 872-1346-00 -01
(DUAL) 872-0283-00 -01

P/O A6 - EPROM / NVRAM II BOARD

EPROM ARRAY

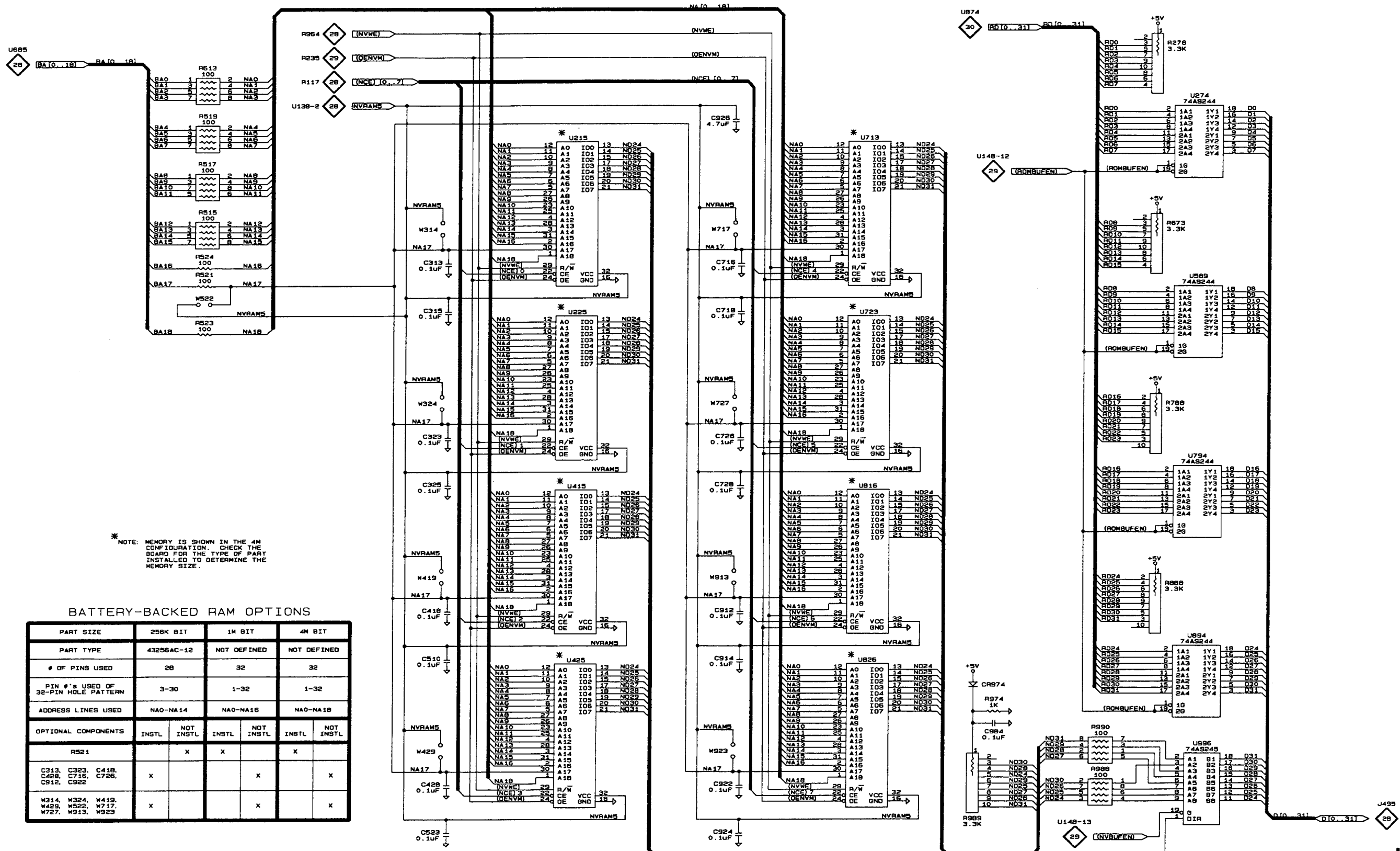
**EPROM BOARD
Schematic <31> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A6. *Partial Assembly A6 also shown on Schematics 28, 29, and 30.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C313	C2	R990	G4
C315	C2		
C323	C3	U215	D1
C325	C3	U225	D2
C418	C4	U274	G1
		U415	D3
C428	C5	U425	D4
C510	C4		
C523	C5	U589	G2
C716	E2	U713	E1
C718	E2	U723	E2
		U794	G3
C726	E3	U816	E3
C728	E3		
C912	E4	U826	E4
C914	E4	U894	G4
C922	E5	U996	G5
C924	E5	W314	C2
C926	E1	W324	C3
C984	F4	W419	C4
		W429	C5
CR974	F4	W522	B2
R278	G1	W717	E2
R515	B2	W727	E3
R517	B2	W913	E4
R519	B1	W923	E5
R521	B2		
R523	B2		
R524	B2		
R613	B1		
R673	G2		
R788	G3		
R888	G4		
R974	F4		
R988	G5		
R989	F5		

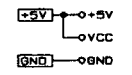
*See parts list for earlier serial number ranges.



* NOTE: MEMORY IS SHOWN IN THE 4M CONFIGURATION. CHECK THE BOARD FOR THE TYPE OF PART INSTALLED TO DETERMINE THE MEMORY SIZE.

BATTERY-BACKED RAM OPTIONS

PART SIZE	256K BIT	1M BIT	4M BIT
PART TYPE	43256AC-12	NOT DEFINED	NOT DEFINED
# OF PINS USED	28	32	32
PIN #'S USED OF 32-PIN HOLE PATTERN	3-30	1-32	1-32
ADDRESS LINES USED	NA0-NA14	NA0-NA15	NA0-NA18
OPTIONAL COMPONENTS	INSTL	NOT INSTL	INSTL
R521	X	X	X
C313, C323, C418, C428, C716, C726, C912, C922	X		X
W314, W324, W419, W429, W522, W717, W727, W913, W923	X		X



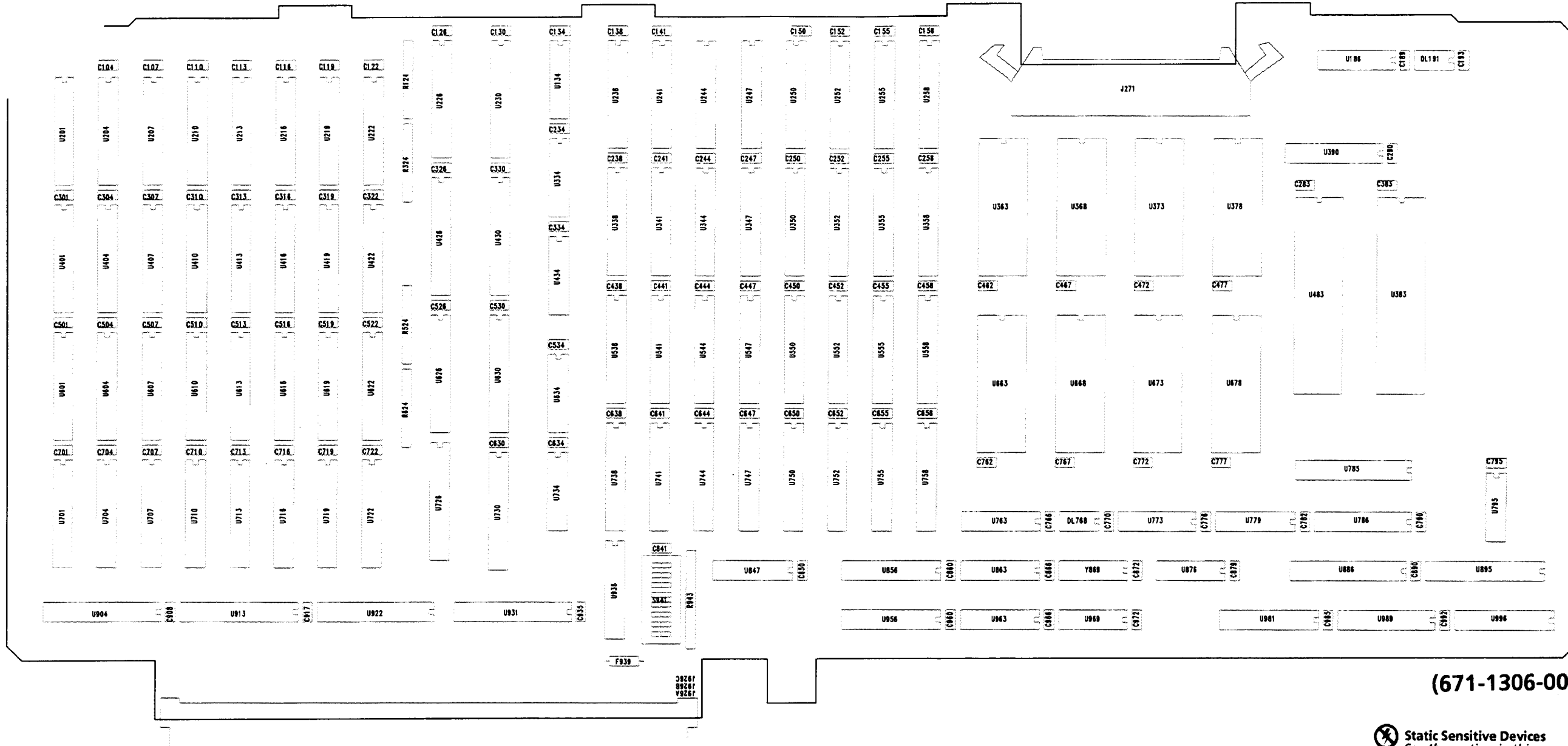
(NISC) 672-1319-00 -02
(PAL) 672-1346-00 -01
(DUAL) 672-0283-00 -01

VM 700A SERVICE



A7 DATA ACQUISITION

VM 700A SERVICE



A7 DATA ACQUISITION 2 BOARD

(671-1306-00)

Static Sensitive Devices
See the section in this manual on handling precautions for static sensitive components.

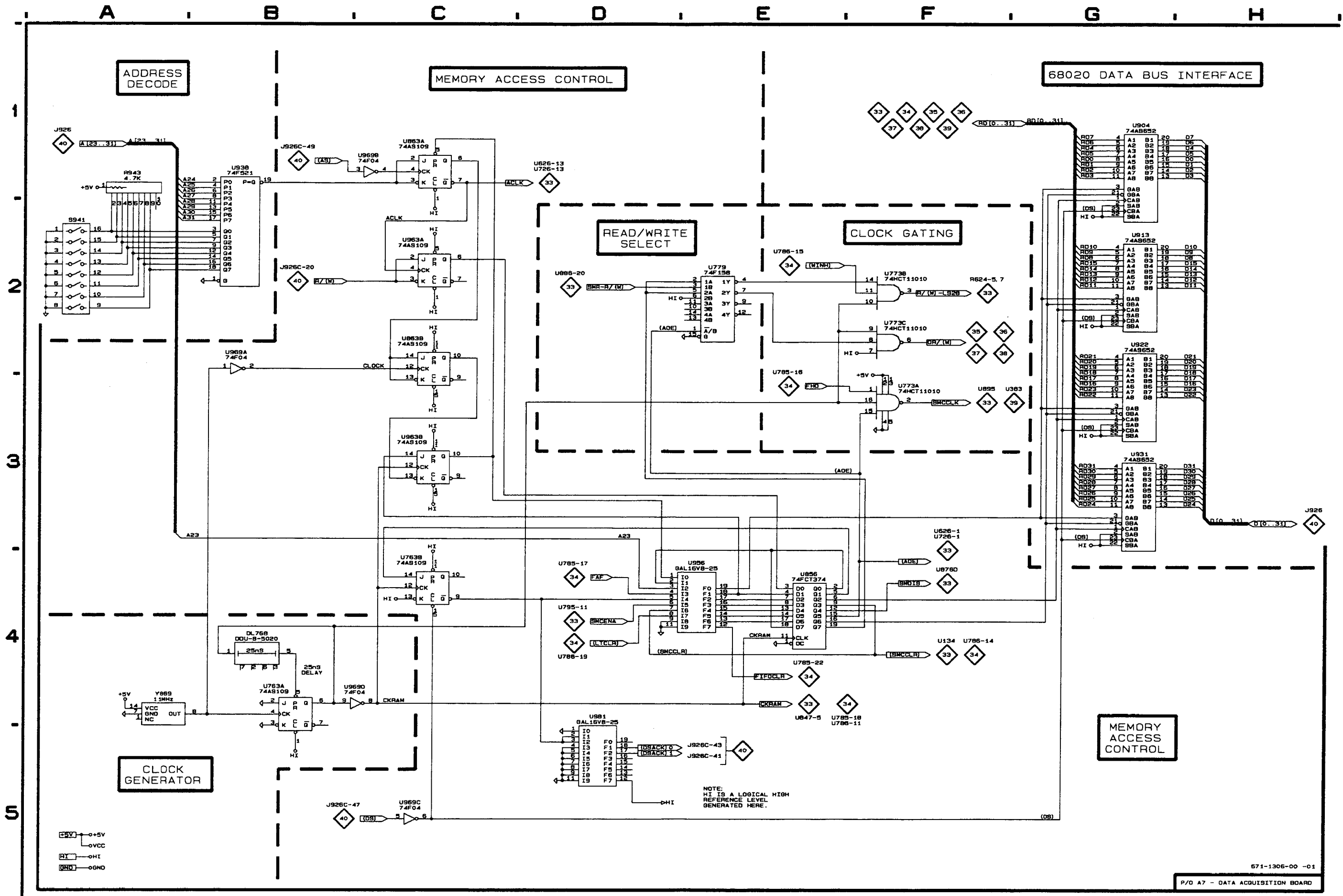
DATA ACQUISITION BOARD
Schematic <32> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A7. Partial Assembly A7 also shown on Schematics 33, 34, 35, 36, 37, 38, 39, and 40.

*See parts list for earlier serial number ranges.

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
DL768	B4	U904	G1
R943	A1	U913	G2
S941	A2	U922	G2
		U931	G3
		U938	B1
		U956	E4
U763A	B4	U963A	C2
U763B	C4	U963B	C3
U773A	F3	U969A	B2
U773B	F2	U969B	C1
U773C	F2	U969C	C5
U779	E2	U969D	B4
U856	E4	U981	D5
U863A	C1		
U863B	C2	Y869	A4



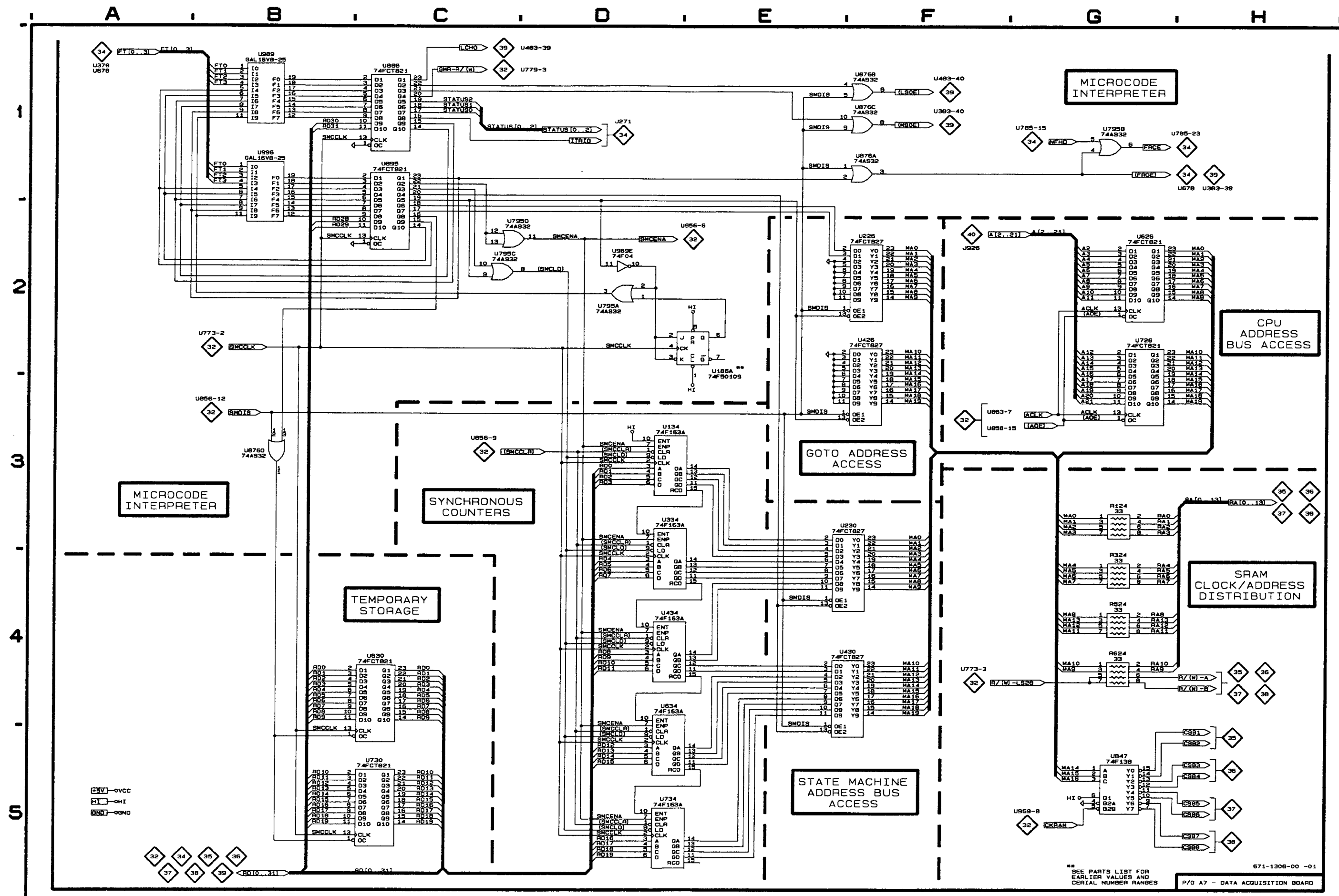
**DATA ACQUISITION BOARD
Schematic <33> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A7. *Partial Assembly A7 also shown on Schematics 32, 34, 35, 36, 37, 38, 39, and 40.*

CIRCUIT NUMBER	SCHEM LOCATION
R124	G3
R324	G4
R524	G4
R624	G4
U134	D3
U186A	D2
U226	F2
U230	E3
U334	D3
U426	F2
U430	E4
U434	D4
U626	G2
U630	C4
U634	D4
U726	G2
U730	C5
U734	D5
U795A	D2
U795B	G1
U795C	C2
U795D	C2
U847	G5
U876A	F1
U876B	F1
U876C	F1
U876D	B3
U886	C1
U895	C1
U969E	D2
U989	B1
U996	B1

*See parts list for earlier serial number ranges.



CSV - OVCC
 HI - OHI
 GND - OGND

** SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES
 671-1306-00 -01
 P/O A7 - DATA ACQUISITION BOARD

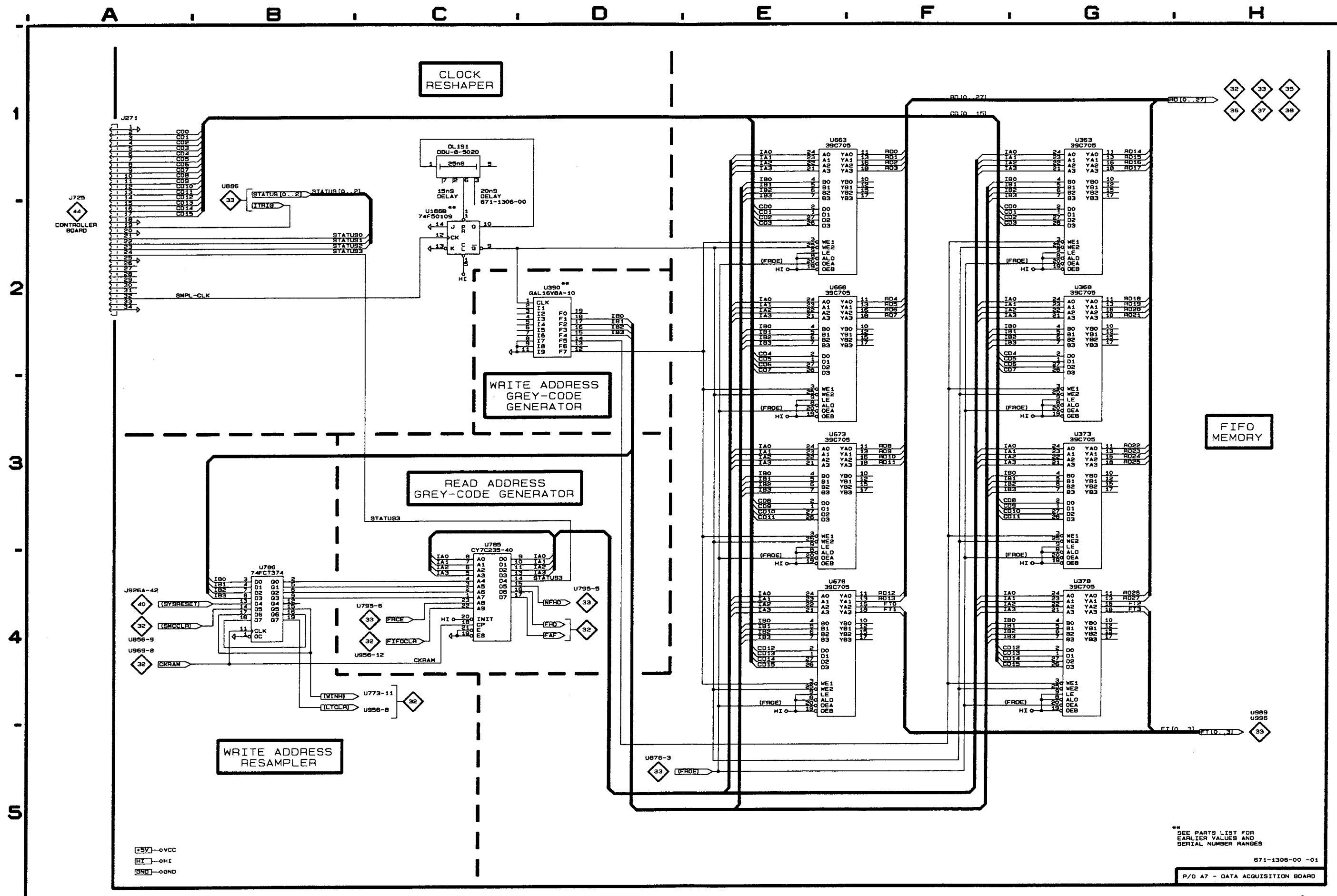
**DATA ACQUISITION BOARD
Schematic <34> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A7. *Partial Assembly A7 also shown on Schematics 32, 33, 35, 36, 37, 38, 39, and 40.*

CIRCUIT NUMBER	SCHEM LOCATION
DL191	C1
J271	A1
U186B	C2
U363	G1
U368	G2
U373	G3
U378	G4
U390	D2
U663	E1
U668	E2
U673	E3
U678	E4
U785	C4
U786	B4

*See parts list for earlier serial number ranges.



**DATA ACQUISITION BOARD
Schematic <35> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

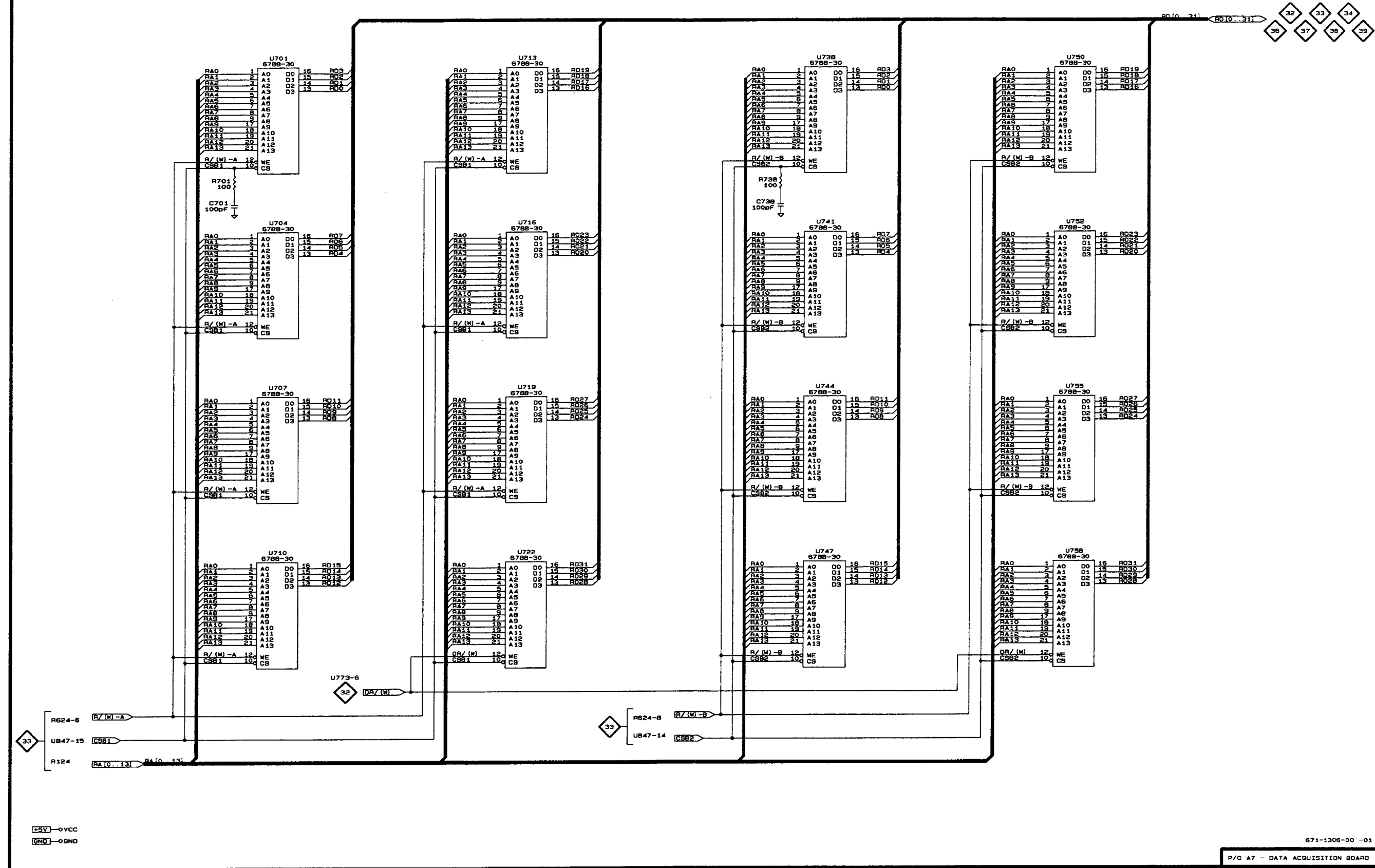
ASSEMBLY A7. *Partial Assembly A7 also shown on Schematics 32, 33, 34, 36, 37, 38, 39, and 40.*

CIRCUIT NUMBER	SCHEM LOCATION
U701	B1
U704	B2
U707	B3
U710	B4
U713	C1
U716	C2
U719	C3
U722	C4
U738	E1
U741	E2
U744	E3
U747	E4
U750	G1
U752	G2
U755	G3
U758	G4

*See parts list for earlier serial number ranges.

A B C D E F G H

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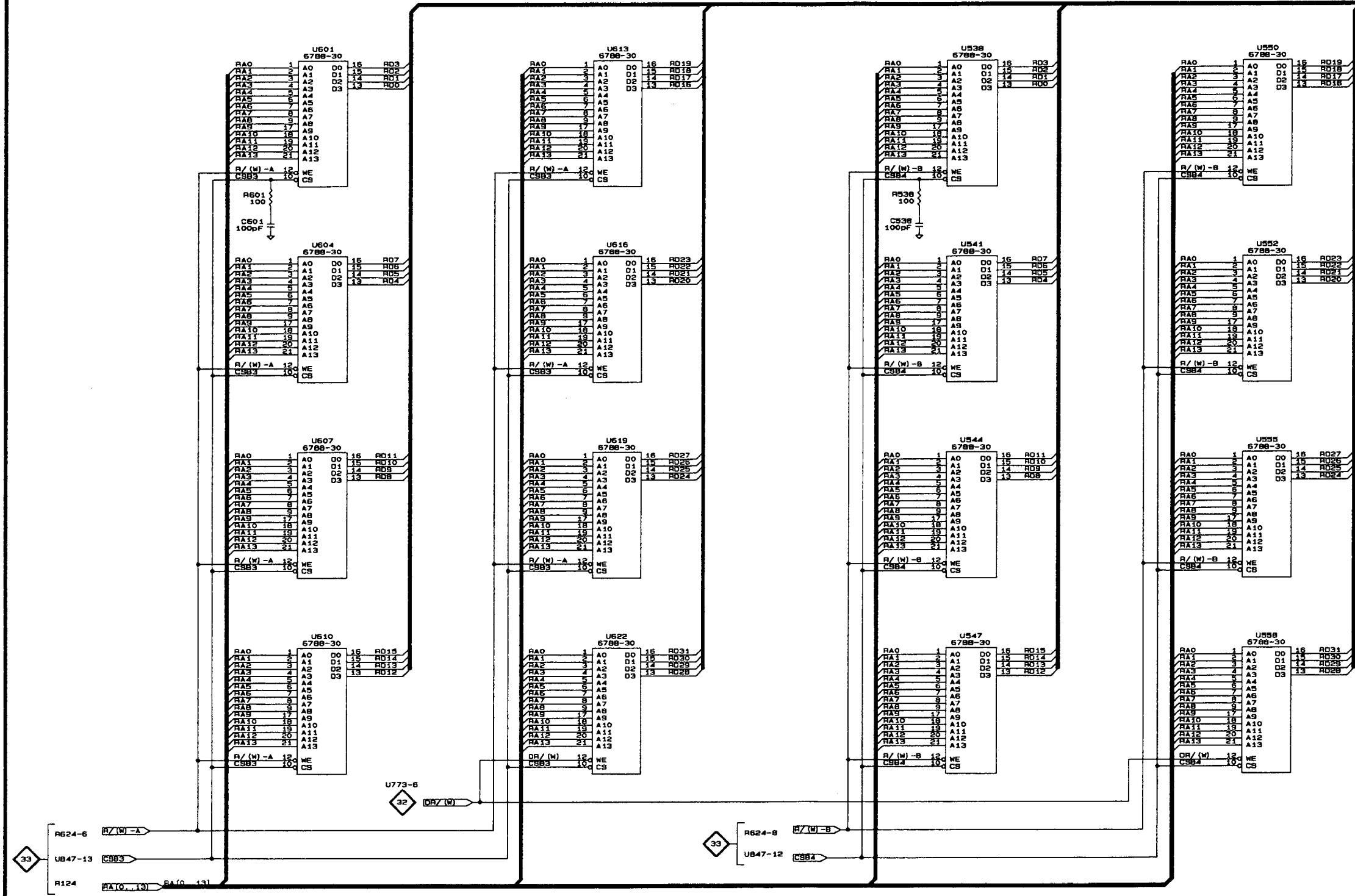
**DATA ACQUISITION BOARD
Schematic <36> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A7. *Partial Assembly A7 also shown on Schematics 32, 33, 34, 35, 37, 38, 39, and 40.*

CIRCUIT NUMBER	SCHEM LOCATION
U538	E1
U541	E2
U544	E3
U547	E4
U550	G1
U552	G2
U555	G3
U558	G4
U601	B1
U604	B2
U607	B3
U610	B4
U613	C1
U616	C2
U619	C3
U622	C4

*See parts list for earlier serial number ranges.



CSV - OVCC
GND - OGND

**DATA ACQUISITION BOARD
Schematic <37> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A7. *Partial Assembly A7 also shown on Schematics 32, 33, 34, 35, 36, 38, 39, and 40.*

CIRCUIT NUMBER	SCHEM LOCATION
U338	E1
U341	E2
U344	E3
U347	E4
U350	G1
U352	G2
U355	G3
U358	G4
U401	B1
U404	B2
U407	B3
U410	B4
U413	C1
U416	C2
U419	C3
U422	C4

*See parts list for earlier serial number ranges.

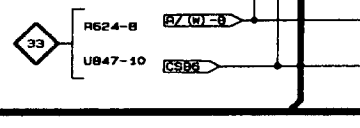
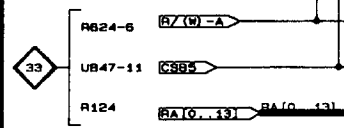
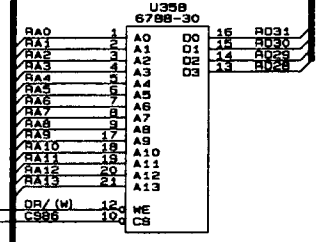
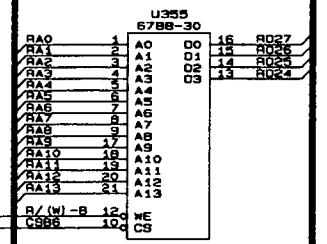
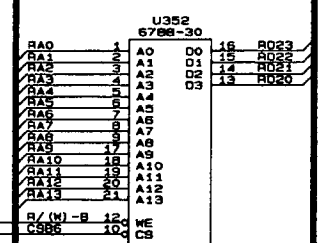
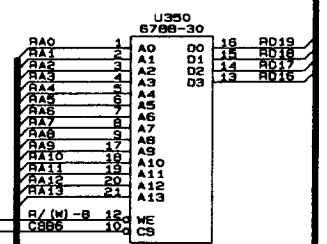
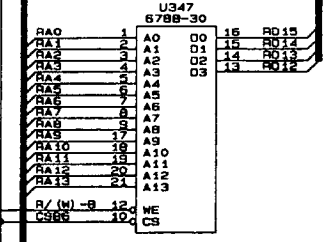
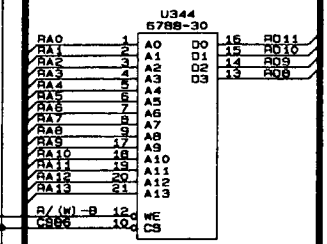
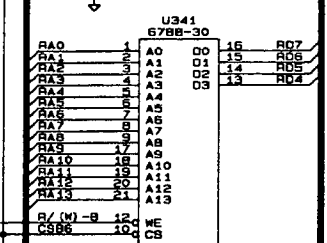
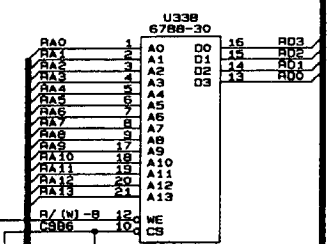
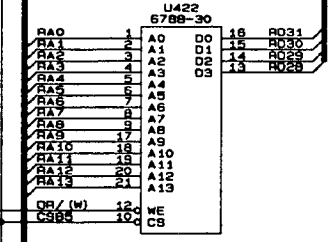
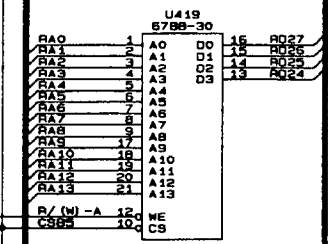
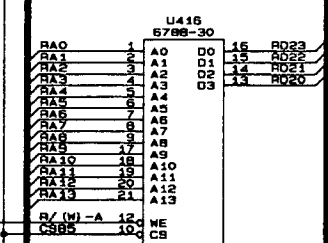
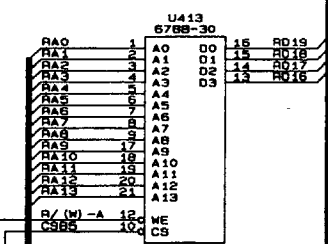
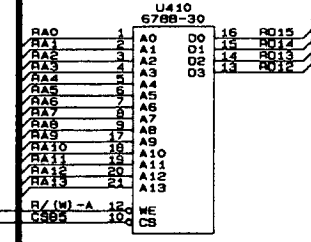
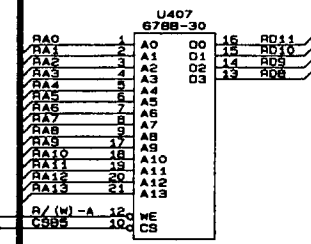
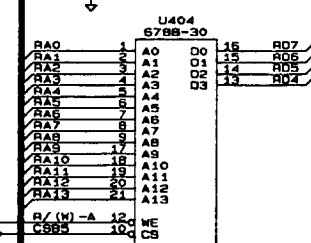
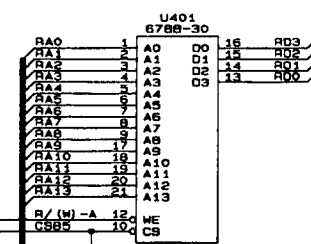
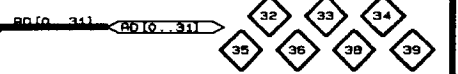
1

2

3

4

5



5V - OVCC
 GND - OGND

**DATA ACQUISITION BOARD
Schematic <38> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

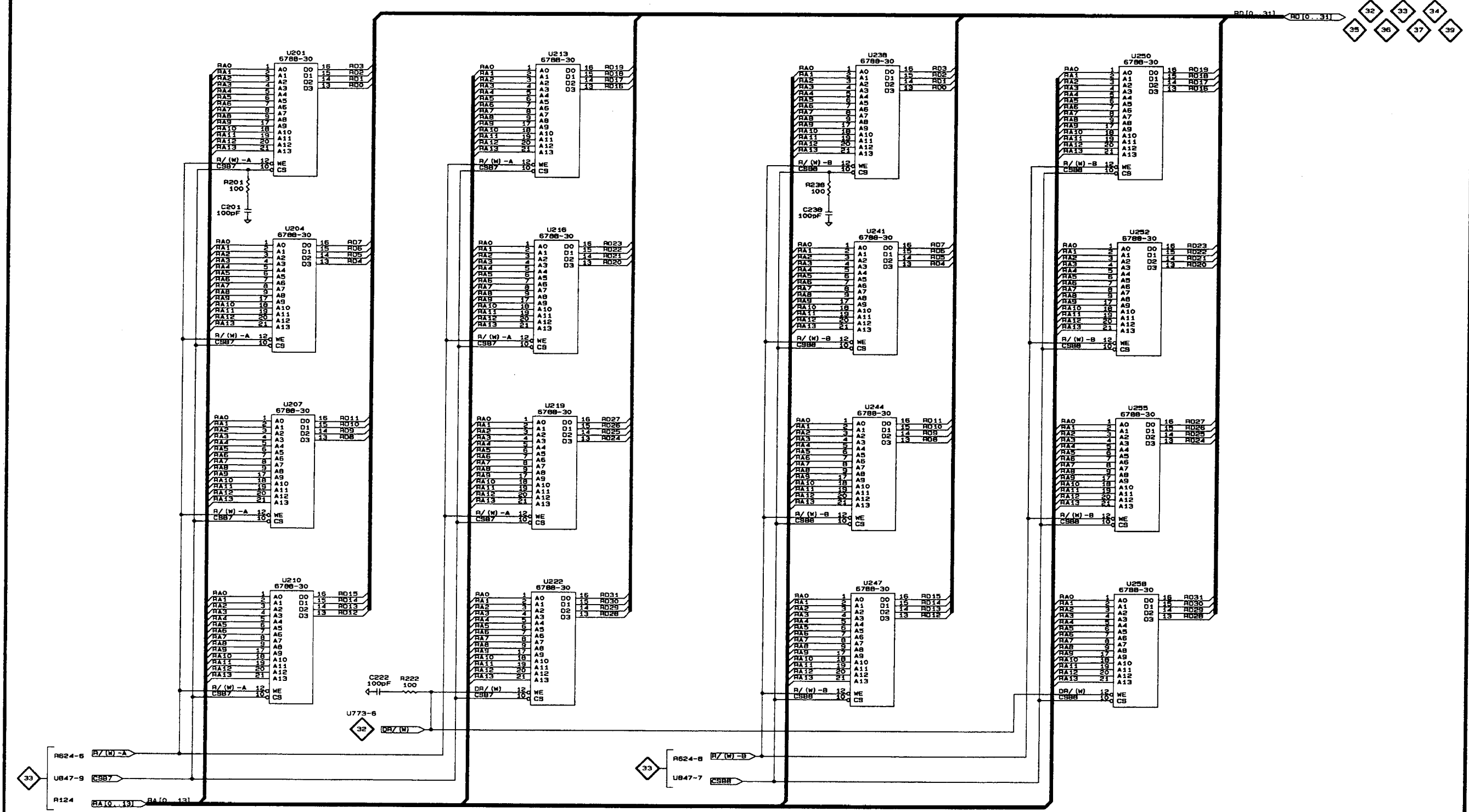
ASSEMBLY A7. *Partial Assembly A7 also shown on Schematics 32, 33, 34, 35, 36, 37, 39, and 40.*

CIRCUIT NUMBER	SCHEM LOCATION
U201	B1
U204	B2
U207	B3
U210	B4
U213	C1
U216	C2
U219	C3
U222	C4
U238	E1
U241	E2
U244	E3
U247	E4
U250	G1
U252	G2
U255	G3
U258	G4

*See parts list for earlier serial number ranges.

A B C D E F G H

1
2
3
4
5



(VCC) - VCC
 (GND) - GND

671-1308-00 -01

P/O A7 - DATA ACQUISITION BOARD

VM 700A

STATIC RAM - 4

38

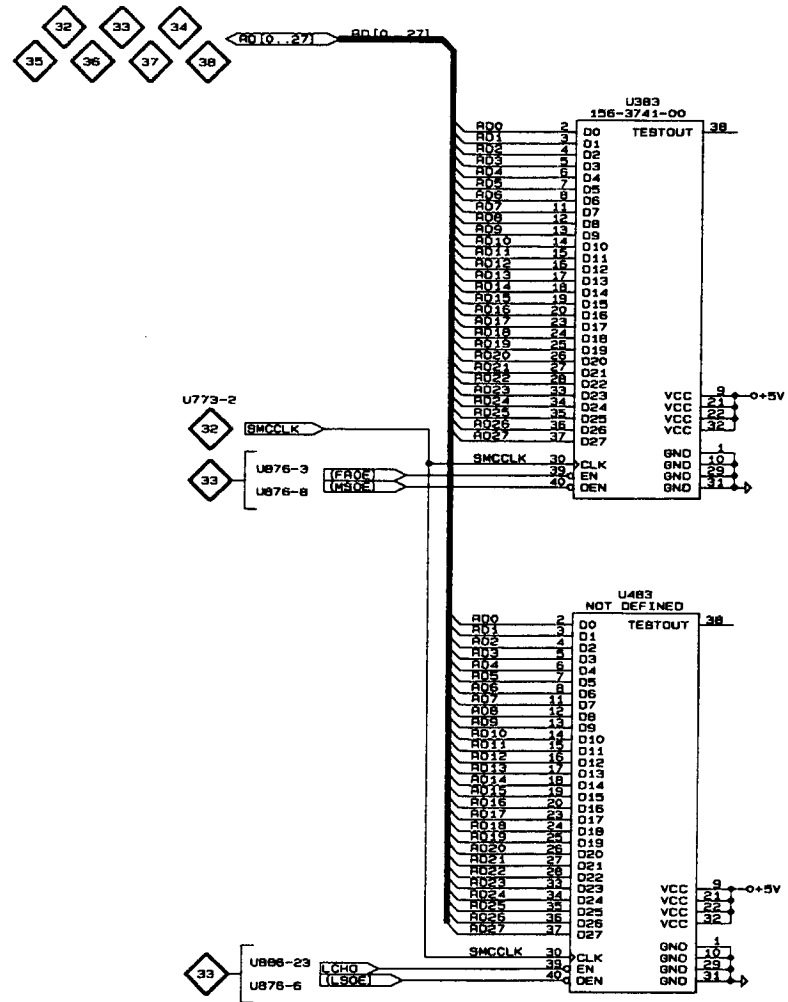
**DATA ACQUISITION BOARD
Schematic <39> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A7. *Partial Assembly A7 also shown on Schematics 32, 33, 34, 35, 36, 37, 38, and 40.*

CIRCUIT NUMBER	SCHEM LOCATION
U383	E2
U483	E3

*See parts list for earlier serial number ranges.



-o+5V
 ->

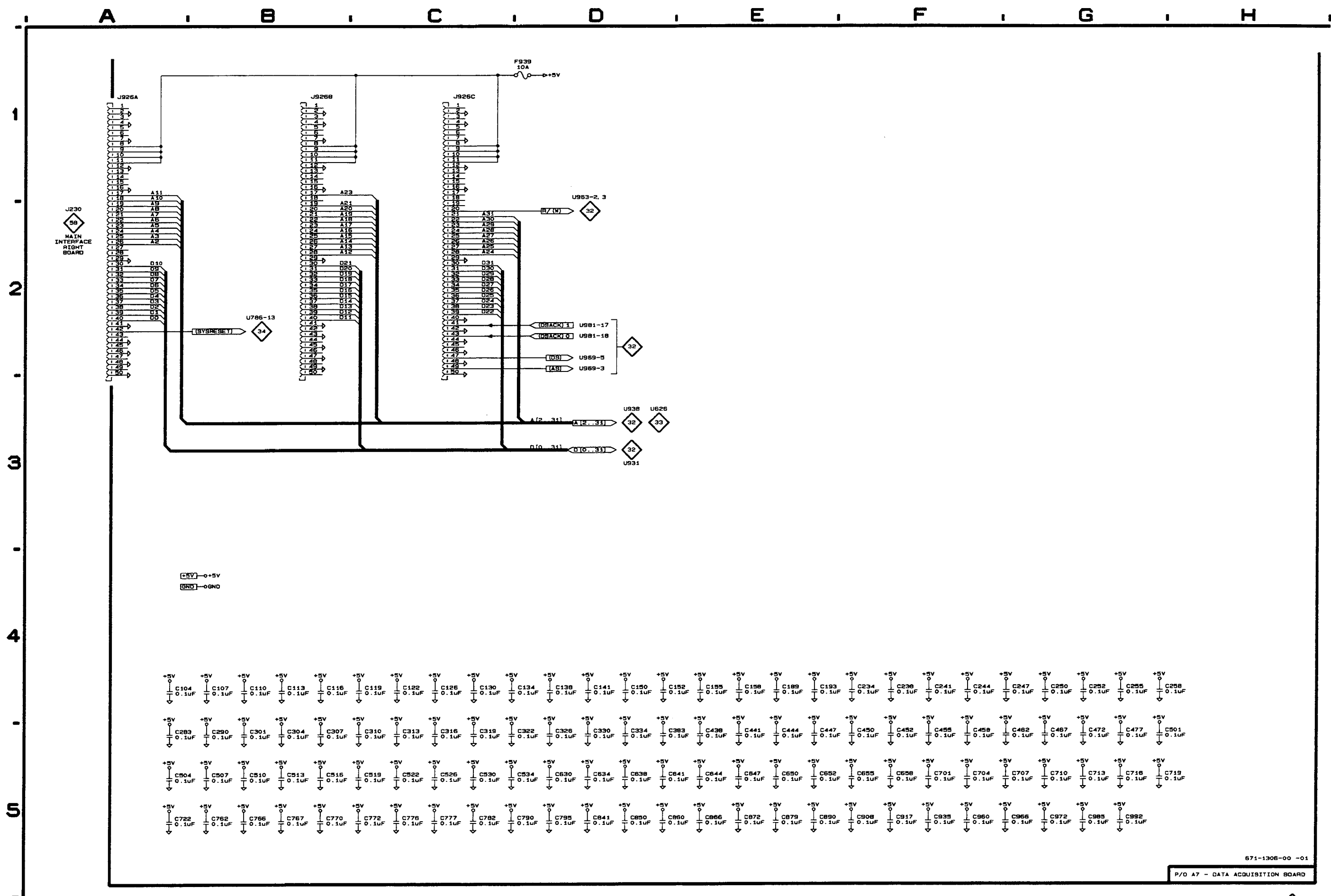
**DATA ACQUISITION BOARD
Schematic < 40 > Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A7. *Partial Assembly A7 also shown on Schematics 32, 33, 34, 35, 36, 37, 38, and 39.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C104	A4	C383	D5	C719	G5
C107	B4	C438	E5	C722	A5
C110	B4	C441	E5	C762	B5
C113	B4	C444	E5	C766	B5
C116	B4	C447	E5	C767	B5
C119	C4	C450	F5	C770	B5
C122	C4	C452	F5	C772	C5
C126	C4	C455	F5	C776	C5
C130	C4	C458	F5	C777	C5
C134	C4	C462	G5	C782	C5
C138	D4	C467	G5	C790	C5
C141	D4	C472	G5	C795	D5
C150	D4	C477	G5	C841	D5
C152	D4	C501	G5	C850	D5
C155	E4	C504	A5	C860	D5
C158	E4	C507	B5	C866	E5
C189	E4	C510	B5	C872	E5
C193	E4	C513	B5	C879	E5
C234	F4	C516	B5	C890	E5
C238	F4	C519	C5	C908	F5
C241	F4	C522	C5	C917	F5
C244	F4	C526	C5	C935	F5
C247	G4	C530	C5	C960	F5
C250	G4	C534	C5	C966	G5
C252	G4	C630	D5	C972	G5
C255	G4	C634	D5	C985	G5
C258	G4	C638	D5	C992	G
C283	A5	C641	D5		
C290	B5	C644	E5	F939	D1
C301	B5	C647	E5		
C304	B5	C650	E5	J926A	A1
C307	B5	C652	E5	J926B	B1
C310	C5	C655	F5	J926C	C1
C313	C5	C658	F5		
C316	C5	C701	F5		
C319	C5	C704	F5		
C322	C5	C707	G5		
C326	D5	C710	G5		
C330	D5	C713	G5		
C334	D5	C716	G5		

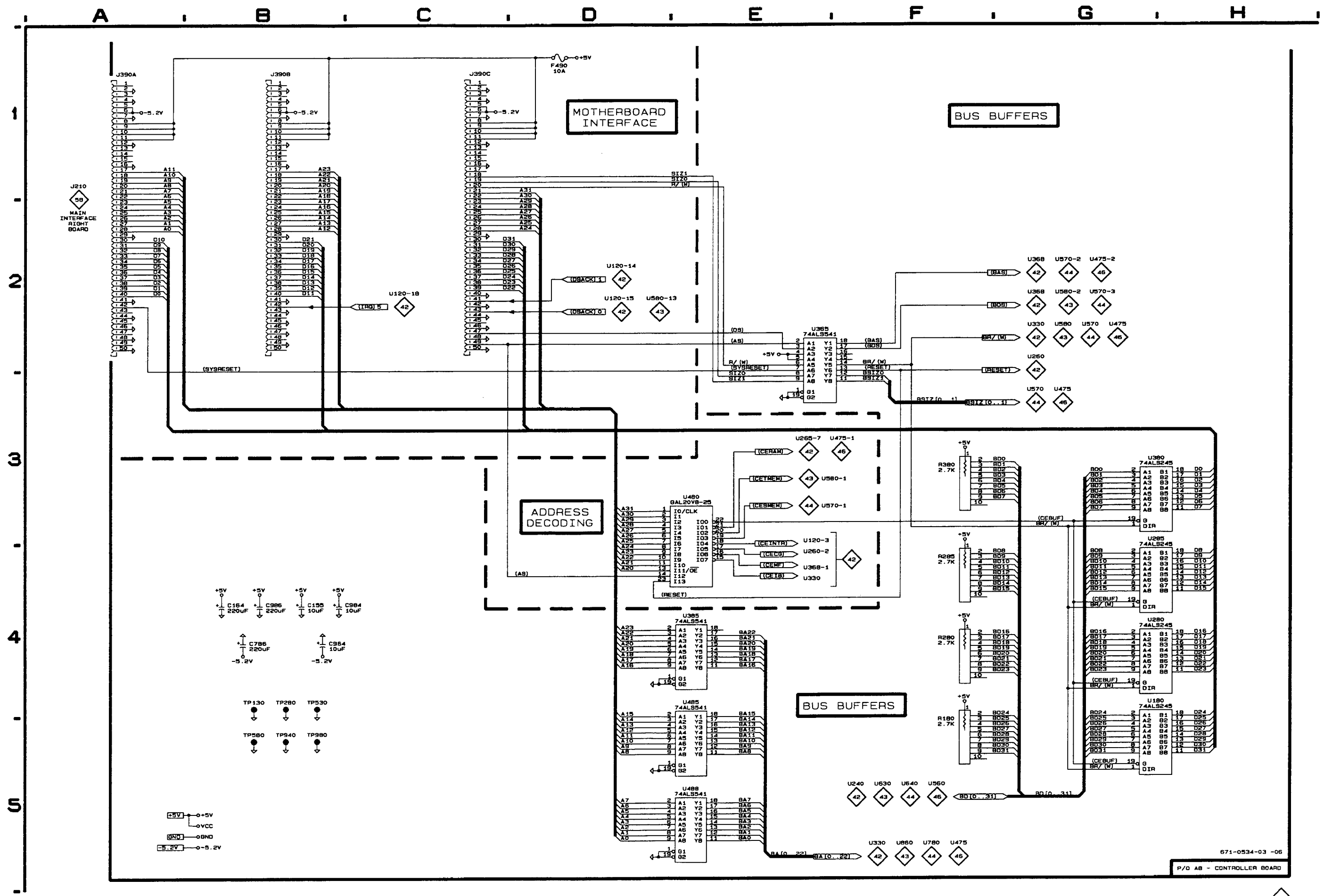
*See parts list for earlier serial number ranges.



VM 700A SERVICE



A8 CONTROLLER



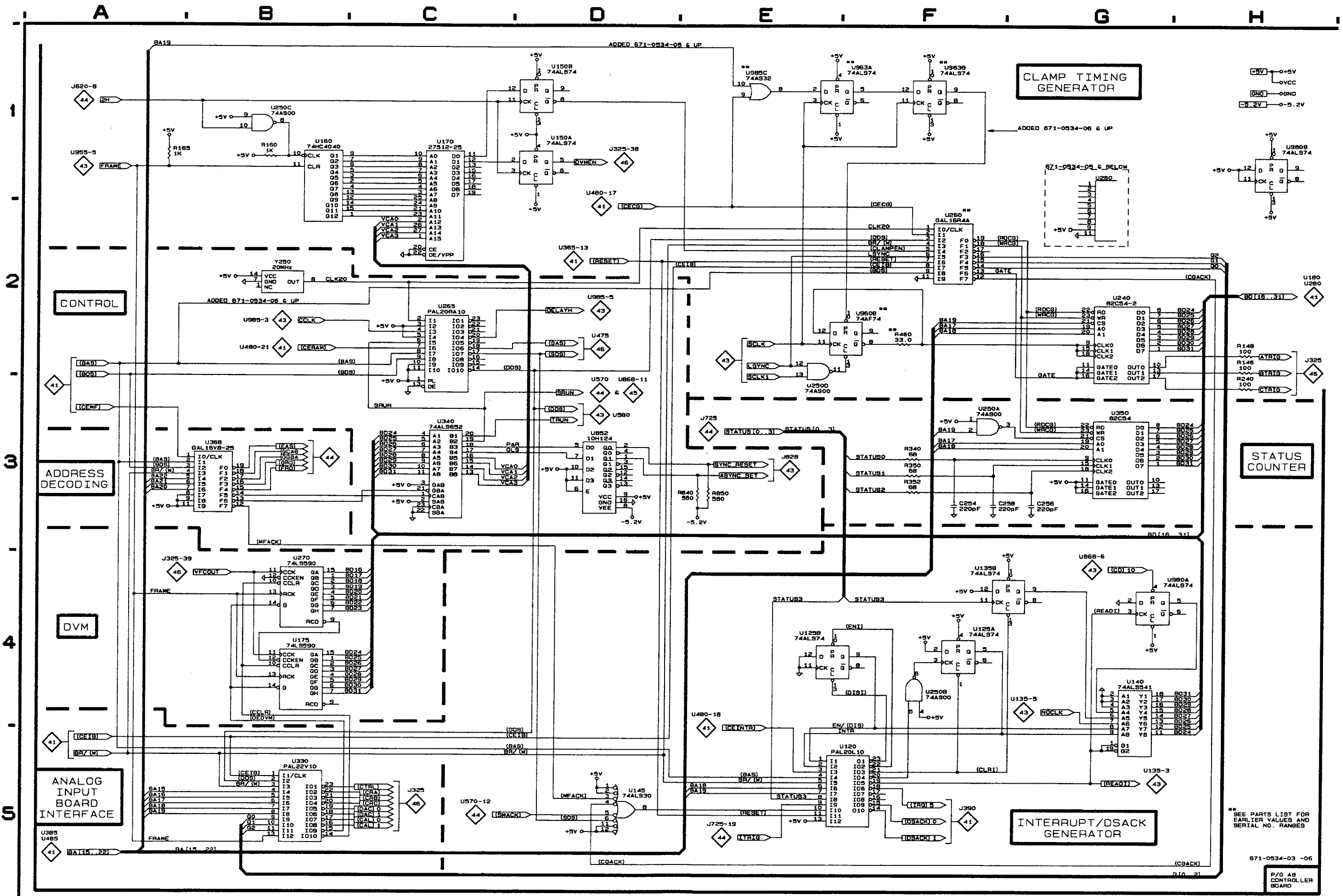
**CONTROLLER BOARD
Schematic <42> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A8. *Partial Assembly A8 also shown on Schematics 41, 43, 44, 45, and 46.*

CIRCUIT NUMBER	SCHEM LOCATION
C254	F3
C256	G3
C258	F3
R146	H2
R148	H2
R160	B1
R165	A1
R240	H3
R340	F3
R350	F3
R352	F3
R840	E3
R850	E3
R960 *	F2
U120	E5
U125A	F4
U125B	E4
U135B	F4
U140	G4
U145	D5
U150A	D1
U150B	D1
U160	B1
U170	C1
U175	B4
U240	G2
U250A	F3
U250B	F4
U250C	B1
U250D	F2
U260	F2
U265	C2
U270	B4
U330	B5
U340	C3
U350	G3
U368	B3
U852	D3
U960B	F2
U963 *	
U980A	G4
U980B	H1
Y250	B2

*See parts list for earlier serial number ranges.



** SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NO. RANGES

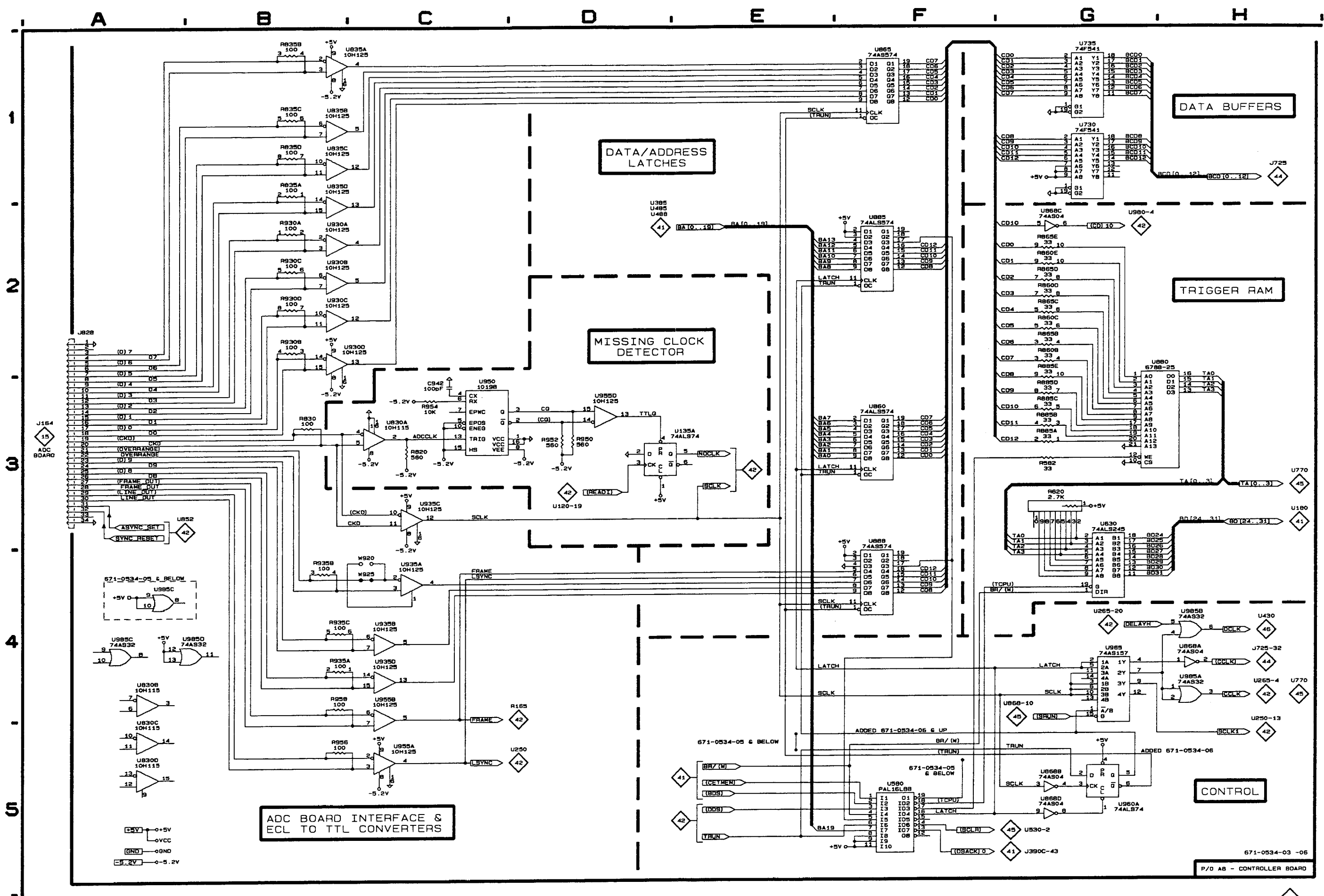
**CONTROLLER BOARD
Schematic <43> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A8. *Partial Assembly A8 also shown on Schematics 41, 42, 44, 45, and 46.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C942	C3	U830C	A5
		U830D	A5
J828	A2	U835A	B1
		U835B	B1
R582	G3	U835C	B1
R620	G3		
R820	C3	U835D	B1
R830	B3	U860	F3
R835A	B1	U865	F1
		U868A	H4
R835B	B1	U868B	G5
R835C	B1		
R835D	B1	U868C	G2
R860B	G2	U868D	G5
R860C	G2	U880	G3
		U885	F2
R860D	G2	U888	F4
R860E	G2		
R865B	G2	U930A	B2
R865C	G2	U930B	B2
R865D	G2	U930C	B2
		U930D	B2
R865E	G2	U935A	C4
R885A	G3		
R885B	G3	U935B	C4
R885C	G3	U935C	C3
R885D	G3	U935D	C4
		U950	C3
R885E	G3	U955A	C5
R930A	B2		
R930B	B2	U955B	C4
R930C	B2	U955D	D3
R930D	B2	U960A	G5
		U965	G4
R935A	B4	U985A	H4
R935B	B4		
R935C	B4	U985B	H4
R950	D3	U985C	A4
R952	D3	U985D	A4
R954	C3	W920	C4
R956	B5	W925	C4
R958	B4		
U135A	D3		
U580	F5		
U630	G3		
U730	G1		
U735	G1		
U830A	C3		
U830B	A4		

*See parts list for earlier serial number ranges.



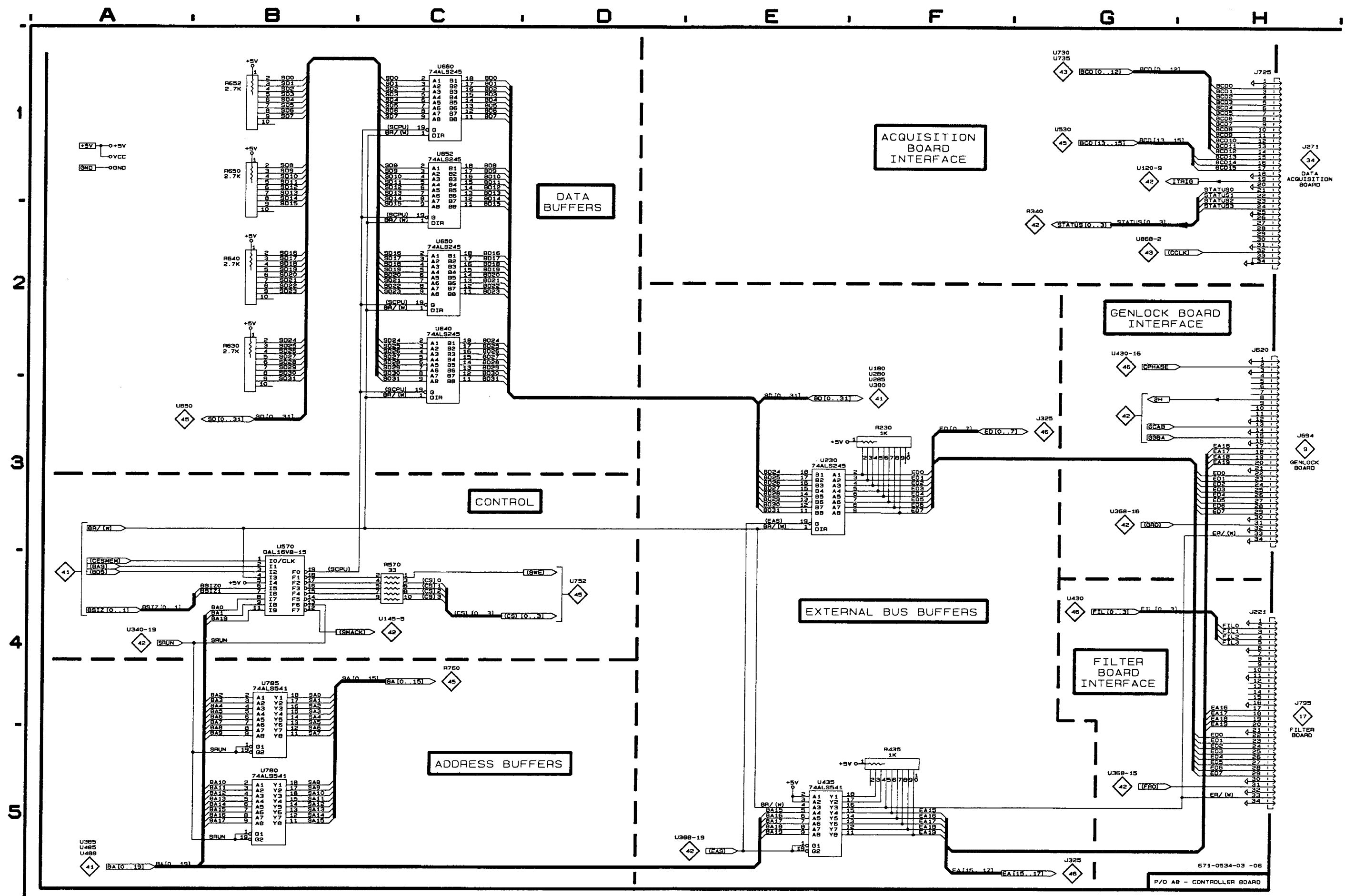
**CONTROLLER BOARD
Schematic <44> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A8. *Partial Assembly A8 also shown on Schematics 41, 42, 43, 45, and 46.*

CIRCUIT NUMBER	SCHEM LOCATION
J221	H4
J620	H2
J725	H1
R230	F3
R435	F5
R570	C4
R630	B2
R640	B2
R650	B1
R652	B1
U230	E3
U435	E5
U570	B4
U640	C2
U650	C2
U652	C1
U660	C1
U780	B5
U785	B4

*See parts list for earlier serial number ranges.



**CONTROLLER BOARD
Schematic <45> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A8. *Partial Assembly A8 also shown on Schematics 41, 42, 43, 44, and 46.*

CIRCUIT NUMBER	SCHEM LOCATION
R760A	B2
R760B	B3
R760C	B3
R760D	B2
R760E	B2
R765A	B1
R765B	B2
R765C	B2
R765D	B2
R770A	B2
R770B	B3
R770C	B3
R775A	B1
R775B	B2
R775C	B2
R775D	B2
U530	G5
U670	G3
U680	G4
U740	E4
U745	E3
U750	E2
U752	D4
U755	E2
U758	D3
U760	D2
U765	D2
U770	B4
U775	B3
U840	G2
U850	G2
U868E	B4
U868F	G3

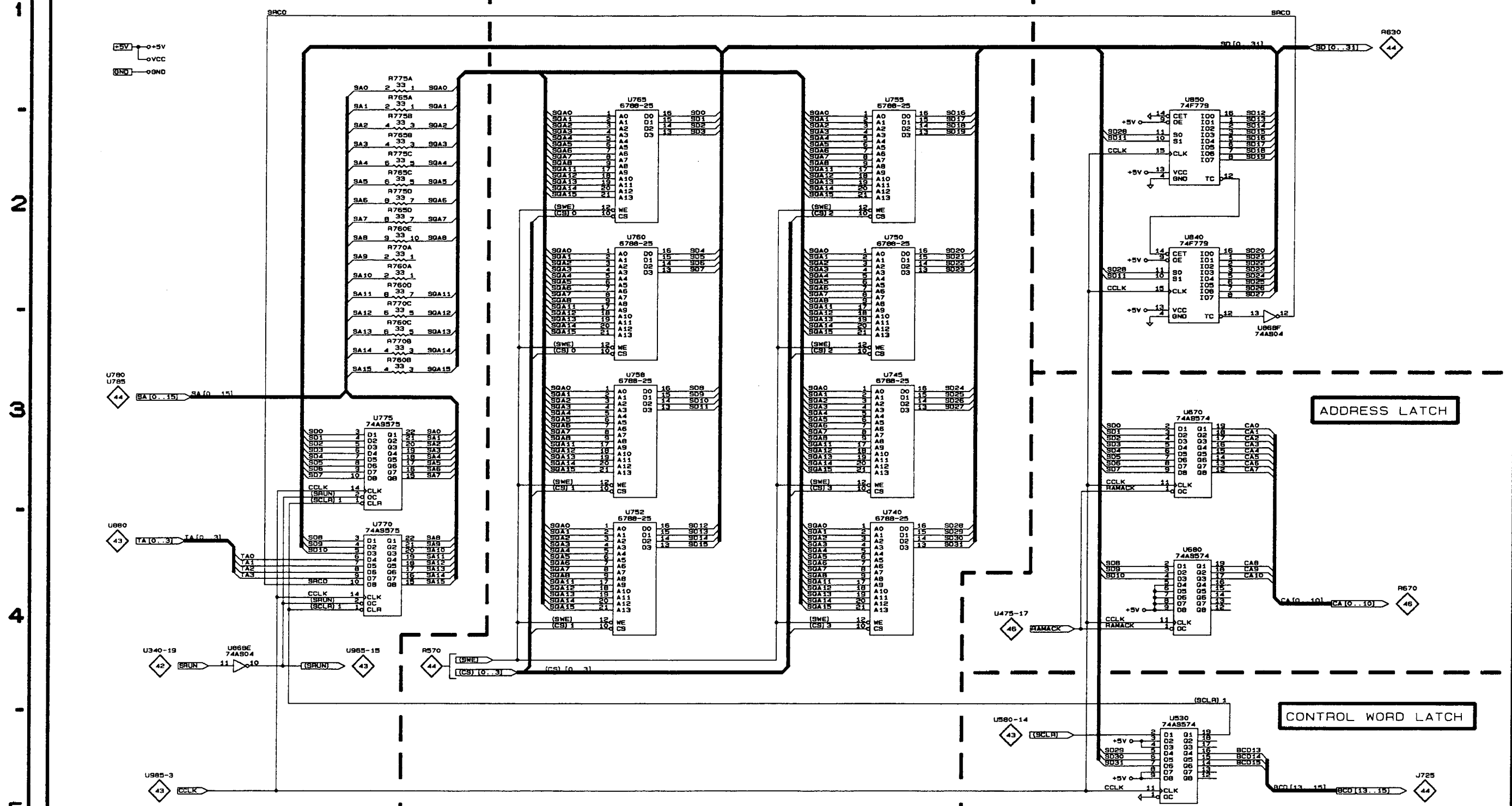
*See parts list for earlier serial number ranges.

A B C D E F G H

ADDRESS REGISTER

STATIC RAM

16 BIT COUNTER



ADDRESS LATCH

CONTROL WORD LATCH

1
2
3
4
5

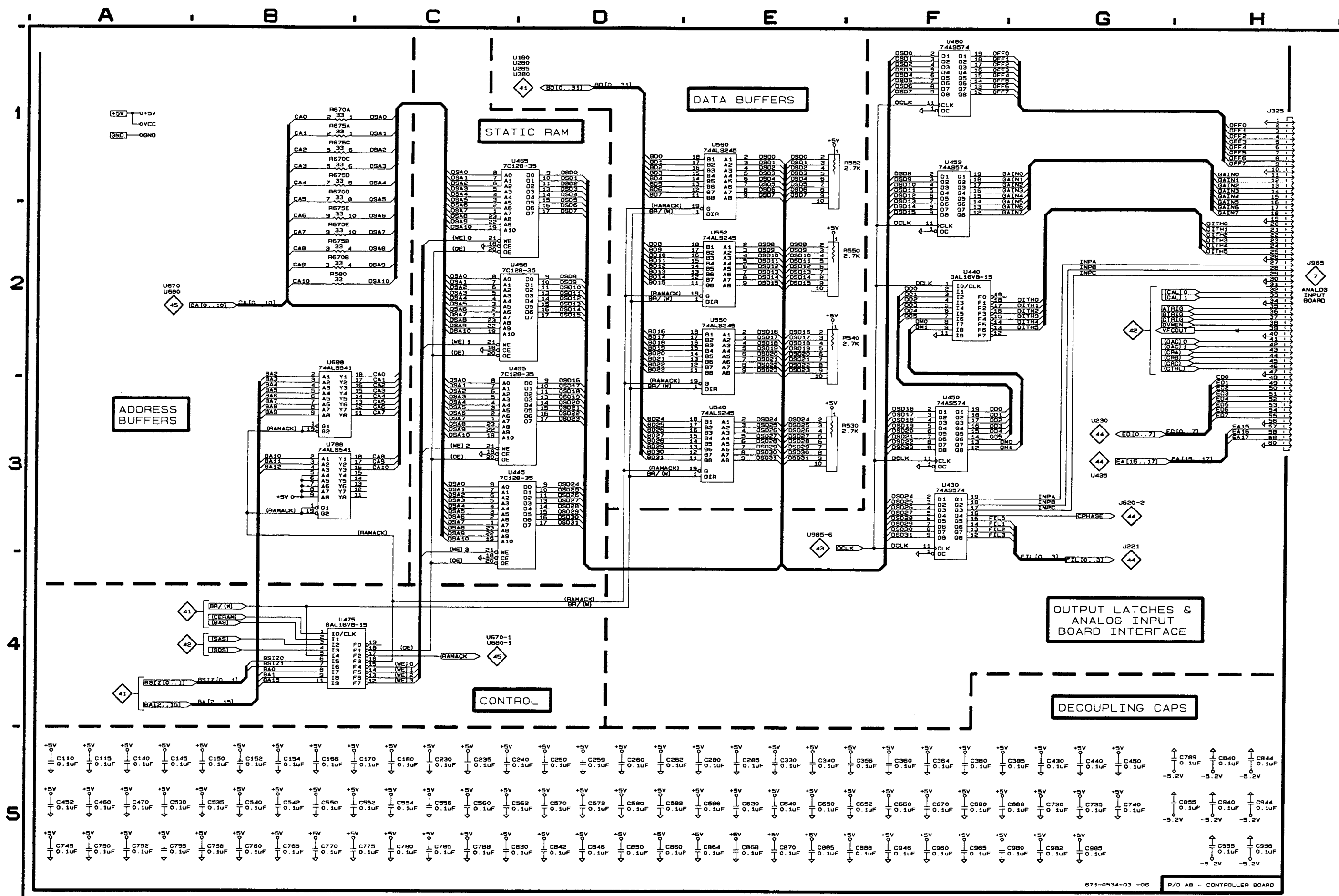
**CONTROLLER BOARD
Schematic <46> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A8. *Partial Assembly A8 also shown on Schematics 41, 42, 43, 44, and 45.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C110	A5	C630	E5	J325	H1
C115	A5	C640	E5		
C140	A5	C650	E5	R530	E3
C145	A5	C652	F5	R540	E2
C150	B5	C660	F5	R550	E2
				R552	E1
C152	B5	C670	F5	R580	B2
C154	B5	C680	F5		
C166	B5	C688	F5	R670A	B1
C170	C5	C730	G5	R670B	B2
C180	C5	C735	G5	R670C	B1
				R670D	B1
C230	C5	C740	G5	R670E	B2
C235	C5	C745	A5		
C240	C5	C750	A5	R675A	B1
C250	D5	C752	A5	R675B	B2
C259	D5	C755	A5	R675C	B1
				R675D	B1
C260	D5	C758	B5	R675E	B2
C262	D5	C760	B5		
C280	E5	C765	B5	U430	F3
C285	E5	C770	B5	U440	F2
C330	E5	C775	C5	U445	C3
				U450	F3
C340	E5	C780	C5	U452	F1
C356	F5	C785	C5		
C360	F5	C788	C5	U455	C3
C364	F5	C789	H5	U458	C2
C380	F5	C830	C5	U460	F1
				U465	C1
C385	F5	C840	H5	U475	B4
C430	G5	C842	D5		
C440	G5	C844	H5	U540	E3
C450	G5	C846	D5	U550	E2
C452	A5	C850	D5	U552	E2
				U560	E1
C460	A5	C855	H5	U688	B2
C470	A5	C860	D5	U788	B3
C530	A5	C864	E5		
C535	B5	C868	E5		
C540	B5	C870	E5		
C542	B5	C885	E5		
C550	B5	C888	F5		
C552	C5	C940	H5		
C554	C5	C944	H5		
C556	C5	C946	F5		
C560	C5	C955	H5		
C562	C5	C958	H5		
C570	D5	C960	F5		
C572	D5	C965	F5		
C580	D5	C980	F5		
C582	D5	C982	G5		
C586	E5	C985	G5		

*See parts list for earlier serial number ranges.

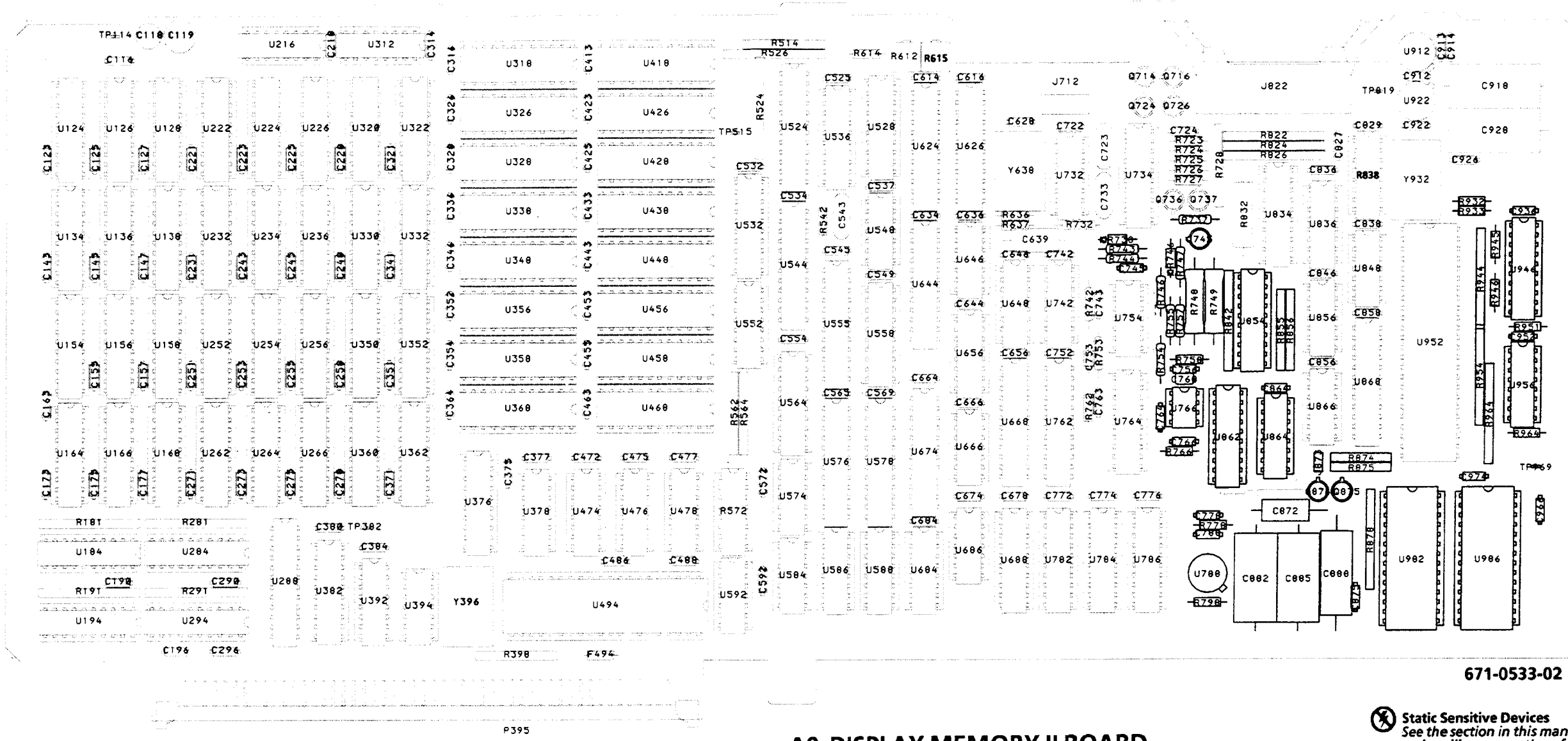


VM 700A SERVICE



A9 DISPLAY MEMORY II

VM 700A SERVICE



671-0533-02

A9 DISPLAY MEMORY II BOARD

Static Sensitive Devices
See the section in this manual on handling precautions for static sensitive components.

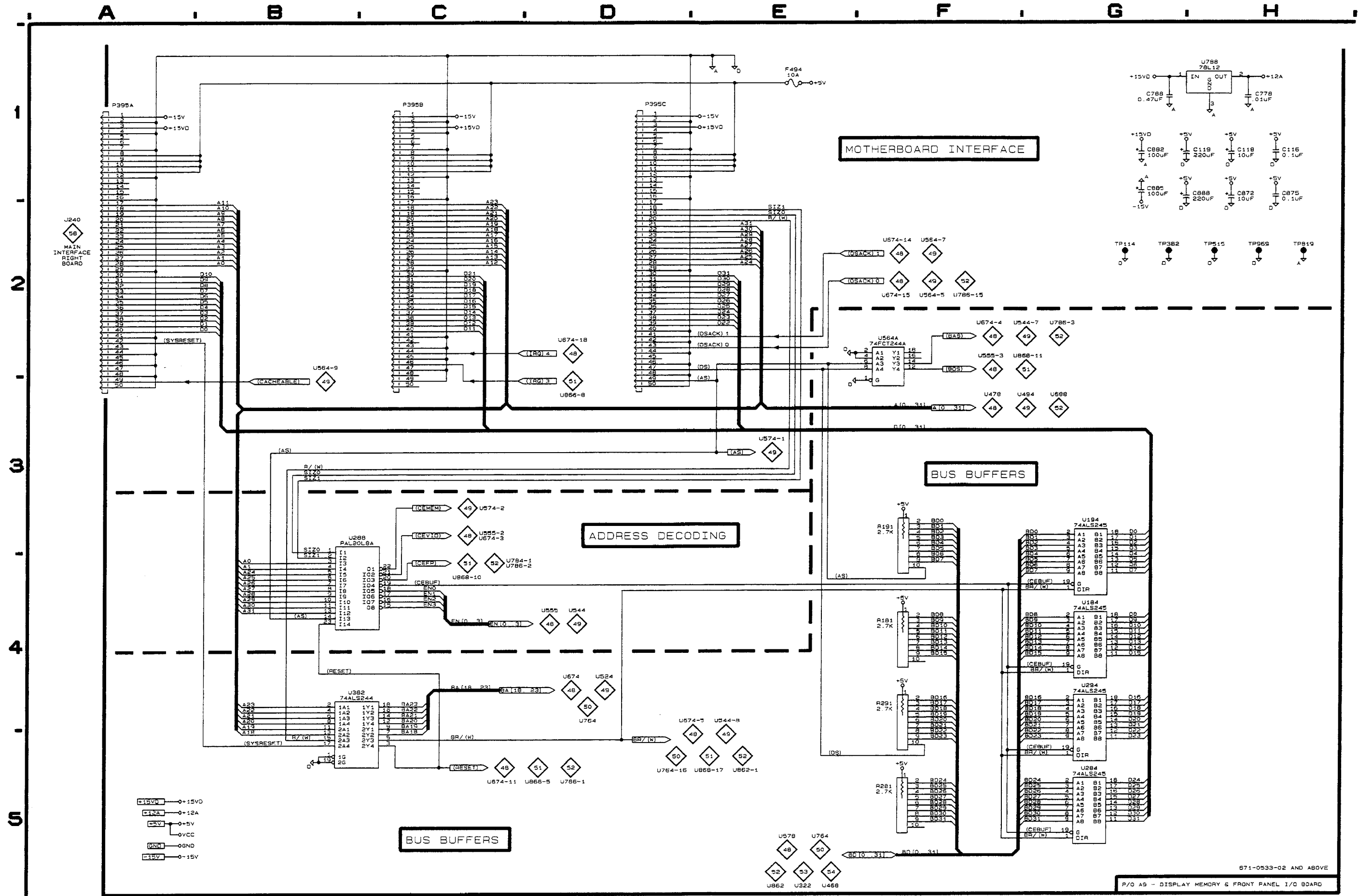
DISPLAY MEMORY BOARD
Schematic <47> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A9. Partial Assembly A9 also shown on Schematics 48, 49, 50, 51, 52, 53, and 54.

*See parts list for earlier serial number ranges.

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C116	H1	R191	F3
C118	H1	R281	F5
C119	G1	R291	F4
C778	H1	TP114	G2
C788	G1	TP382	G2
C872	H1	TP515	H2
C875	H1	TP819	H2
C882	G1	TP969	H2
C885	G1		
C888	G1		
F494	E1	U184	G4
		U194	G3
		U284	G5
P395A	A1	U288	B3
P395B	C1	U294	G4
P395C	D1	U382	B4
		U564A	F2
		U788	H1



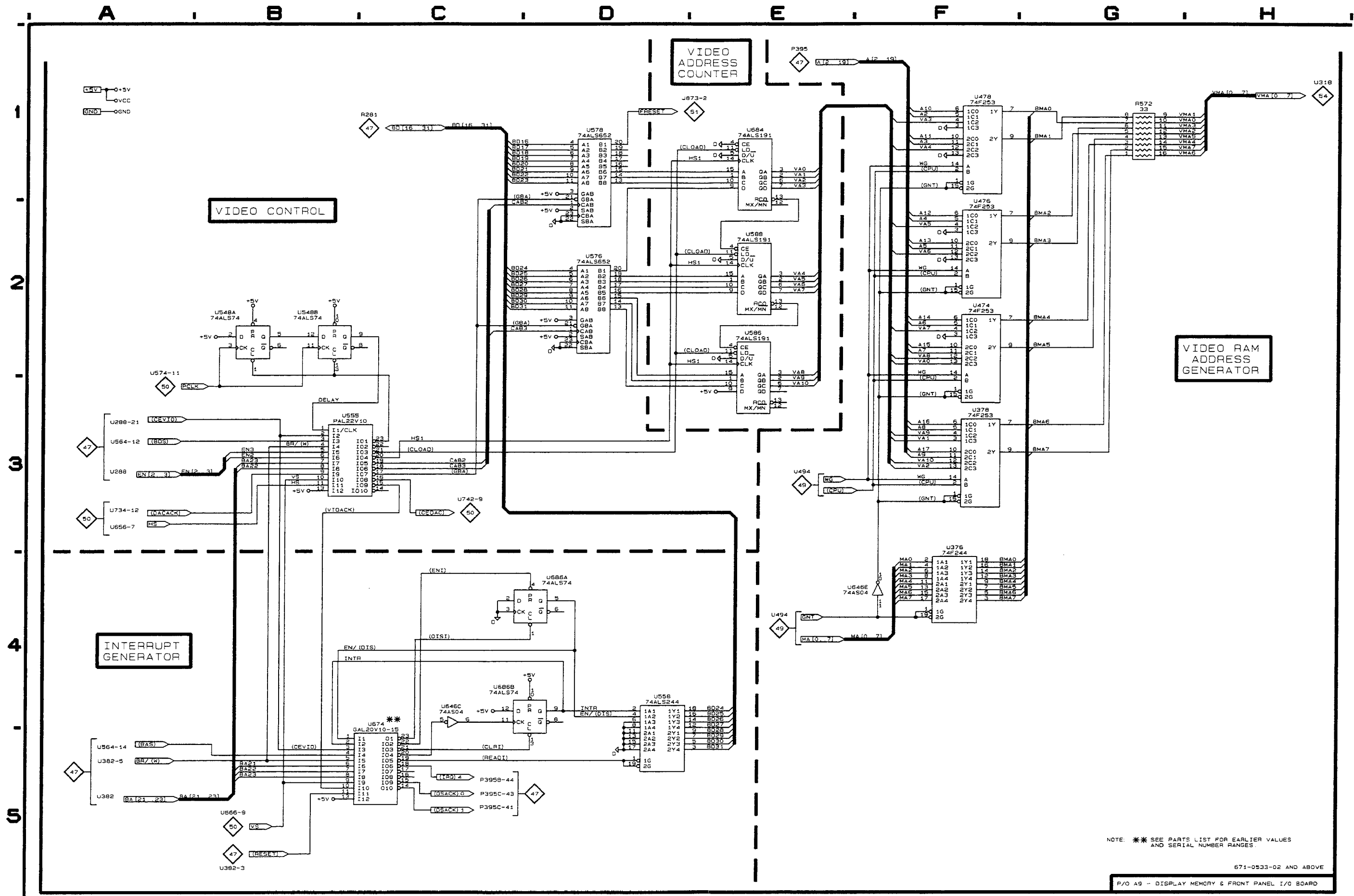
**DISPLAY MEMORY BOARD
Schematic <48> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A9. *Partial Assembly A9 also shown on Schematics 47, 49, 50, 51, 52, 53, and 54.*

CIRCUIT NUMBER	SCHEM LOCATION
R572	G1
U376	F4
U378	F3
U474	F2
U476	F2
U478	F1
U548A	B2
U548B	B2
U555	B3
U558	D4
U576	D2
U578	D1
U586	E2
U588	E2
U646C	C4
U646E	F4
U674	C5
U684	E1
U686A	C4
U686B	C4

*See parts list for earlier serial number ranges.



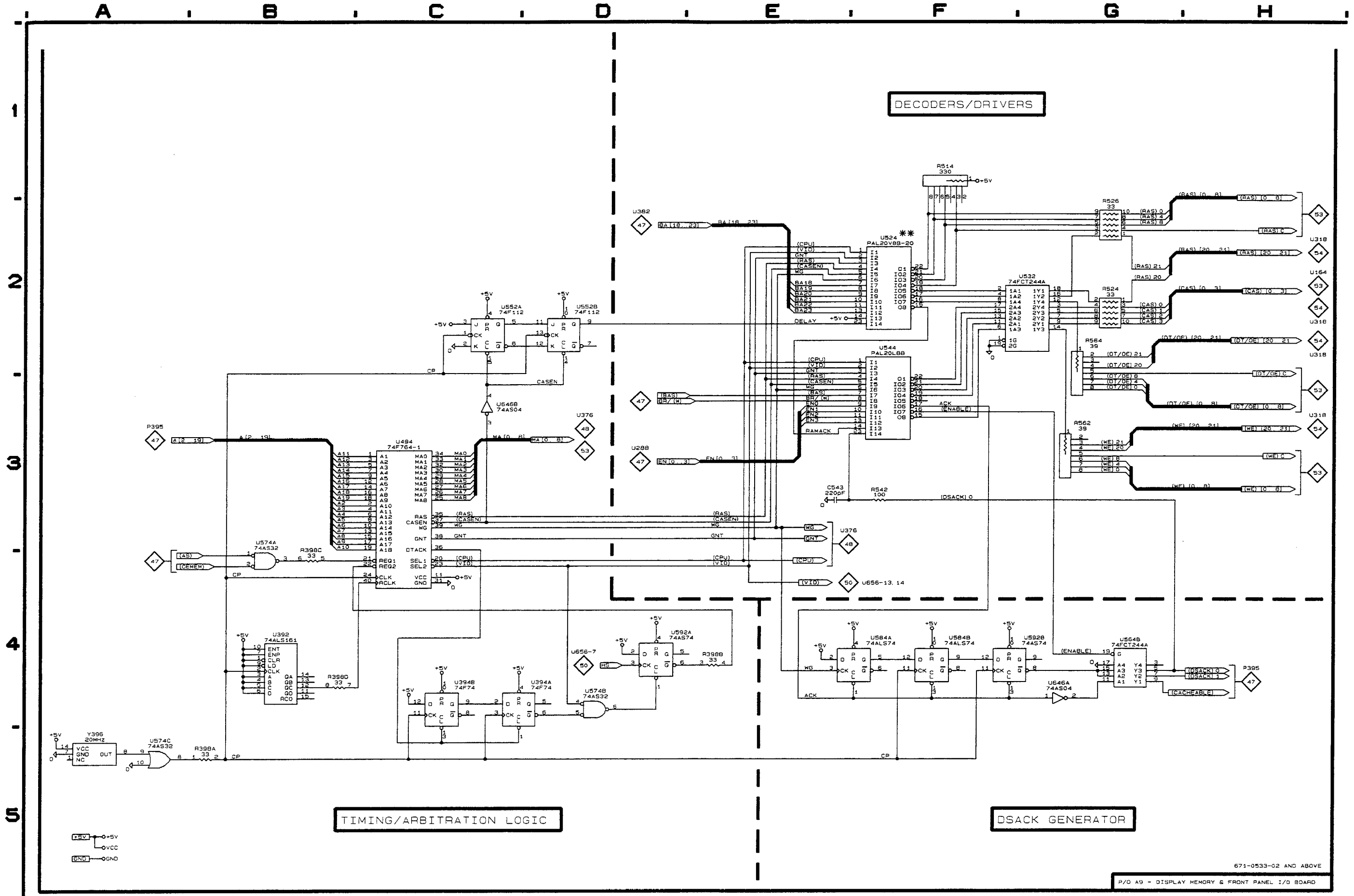
**DISPLAY MEMORY BOARD
Schematic <49> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A9. *Partial Assembly A9 also shown on Schematics 47, 48, 50, 51, 52, 53, and 54.*

CIRCUIT NUMBER	SCHEM LOCATION
C543	E3
R398A	B5
R398B	E4
R398C	B4
R398D	B4
R514	F1
R524	G2
R526	G2
R542	F3
R562	G3
R564	G2
U392	B4
U394A	C4
U394B	C4
U494	C3
U524	F2
U532	F2
U544	F2
U552A	C2
U552B	D2
U564B	G4
U574A	B4
U574B	D4
U574C	A5
U584A	E4
U584B	F4
U592A	D4
U592B	F4
U646A	G4
U646B	C3
Y396	A5

*See parts list for earlier serial number ranges.



671-0533-02 AND ABOVE
P/O A9 - DISPLAY MEMORY & FRONT PANEL I/O BOARD

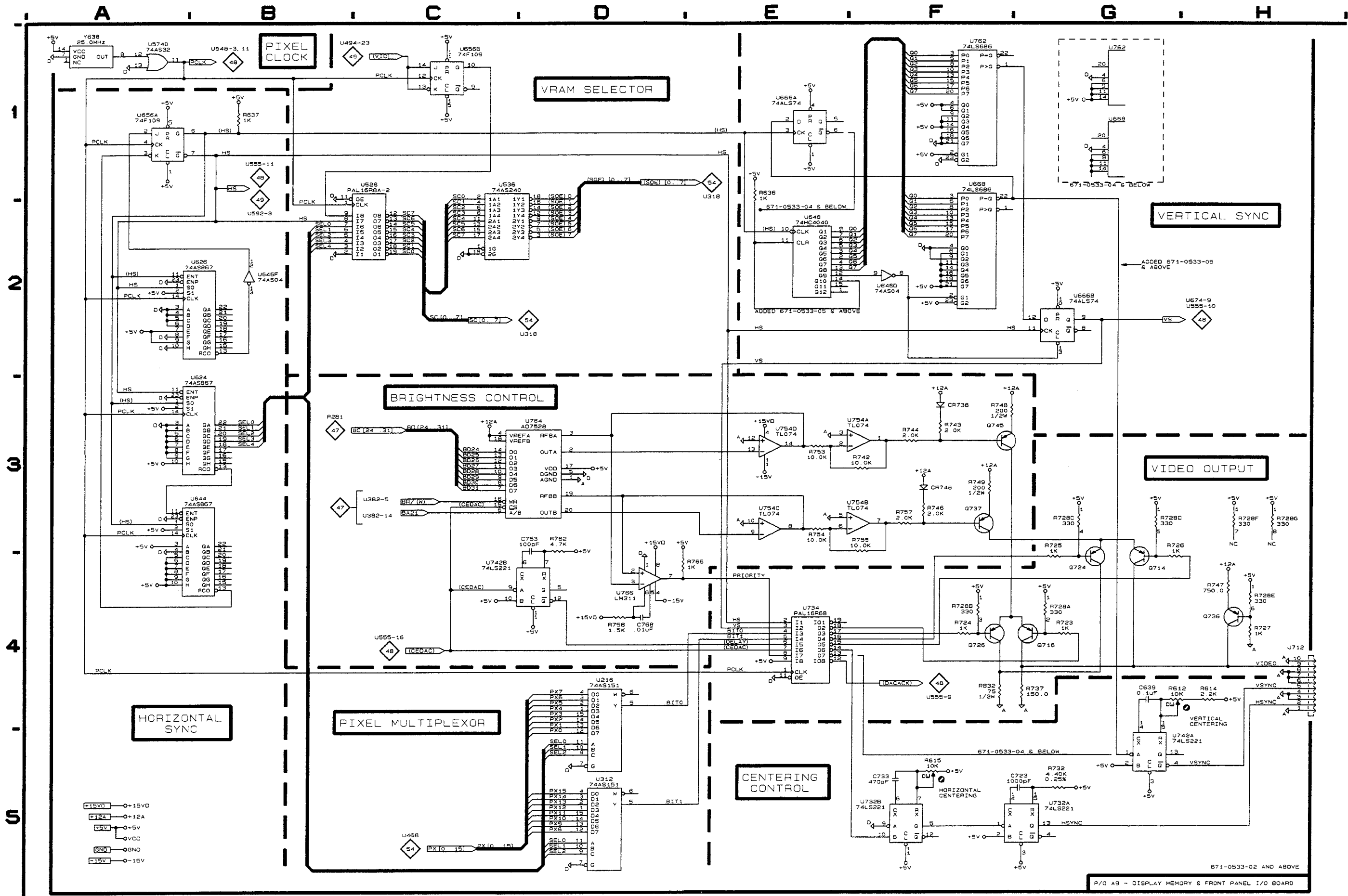
**DISPLAY MEMORY BOARD
Schematic <50> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A9. *Partial Assembly A9 also shown on Schematics 47, 48, 49, 51, 52, 53, and 54.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C639	G4	R758	D4
C723	G5	R762	D4
C733	F5	R766	D4
C753	D4	R832	F4
C768	D4		
CR738	F3	U216	D4
CR746	F3	U312	D5
		U528	C1
		U536	C1
J712	H4	U574D	A1
Q714	G4	U624	A3
Q716	G4	U626	A2
Q724	G4	U644	A3
Q726	F4	U646D	F2
Q736	H4	U646F	B2
Q737	F3	U648	E2
Q745	F3	U656A	A1
		U656B	C1
R612	G4	U666A	E1
R614	H4	U666B	G2
R615	F5		
R636	E2	U668	F1
R637	B1	U732A	F5
		U732B	F5
R723	G4	U734	E4
R724	F4	U742A	G5
R725	G4		
R726	G4	U742B	D4
R727	H4	U754A	F3
		U754B	F3
R728A	G4	U754C	E3
R728B	F4	U754D	E3
R728C	G3		
R728D	G3	U762	F1
R728E	H4	U764	C3
		U766	D4
R728F	H3		
R728G	H3	Y638	A1
R732	G5		
R737	G4		
R742	F3		
R743	F3		
R744	F3		
R746	F3		
R747	H4		
R748	F3		
R749	F3		
R753	E3		
R754	E3		
R755	F4		
R757	F3		

*See parts list for earlier serial number ranges.



**DISPLAY MEMORY BOARD
Schematic <51> Look-Up Chart**

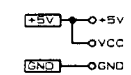
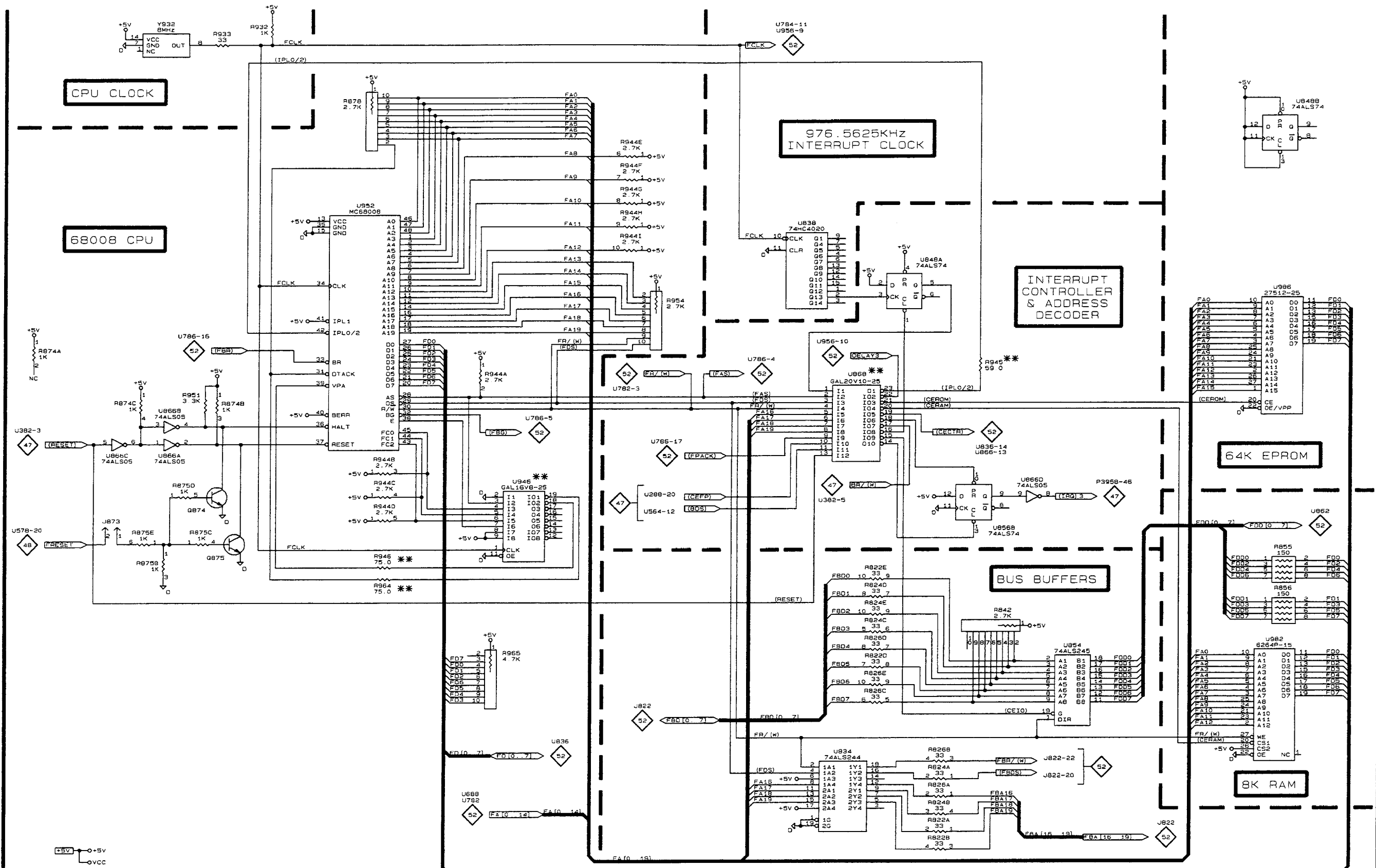
The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A9. *Partial Assembly A9 also shown on Schematics 47, 48, 49, 50, 52, 53, and 54.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
J873	A3	R944E	D1
Q874	B3	R944F	D2
Q875	B3	R944G	D2
		R944H	D2
R822A	F5	R944I	D2
R822B	F5	R945	F2
R822C	F5	R946	C4
R822D	F4	R951	B3
R822E	F4	R954	D2
R824A	F5	R964	C4
R824B	F5	R965	C4
R824C	F4		
		U834	E5
R824D	F4	U838	E2
R824E	F4	U848A	F2
R826A	F5	U848B	H1
R826B	F5		
		U854	G4
R826C	F4	U856B	F3
R826D	F4	U866A	B3
R826E	F4	U866B	B3
R842	F4		
		U866C	A3
R855	H4	U866D	F3
R856	H4	U868	E3
R874A	A2	U946	C3
R874B	B3		
		U952	B2
R874C	A3	U982	H4
R875B	B4	U986	H2
R875C	B3		
R875D	B3	Y932	A1
R875E	A3		
R878	C1		
R932	B1		
R933	B1		
R944A	C3		
R944B	C3		
R944C	C3		
R944D	C3		

*See parts list for earlier serial number ranges.

1
2
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NOTE: ** SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES. 671-0533-02 AND ABOVE
 P/O A9 - DISPLAY MEMORY & FRONT PANEL I/O BOARD

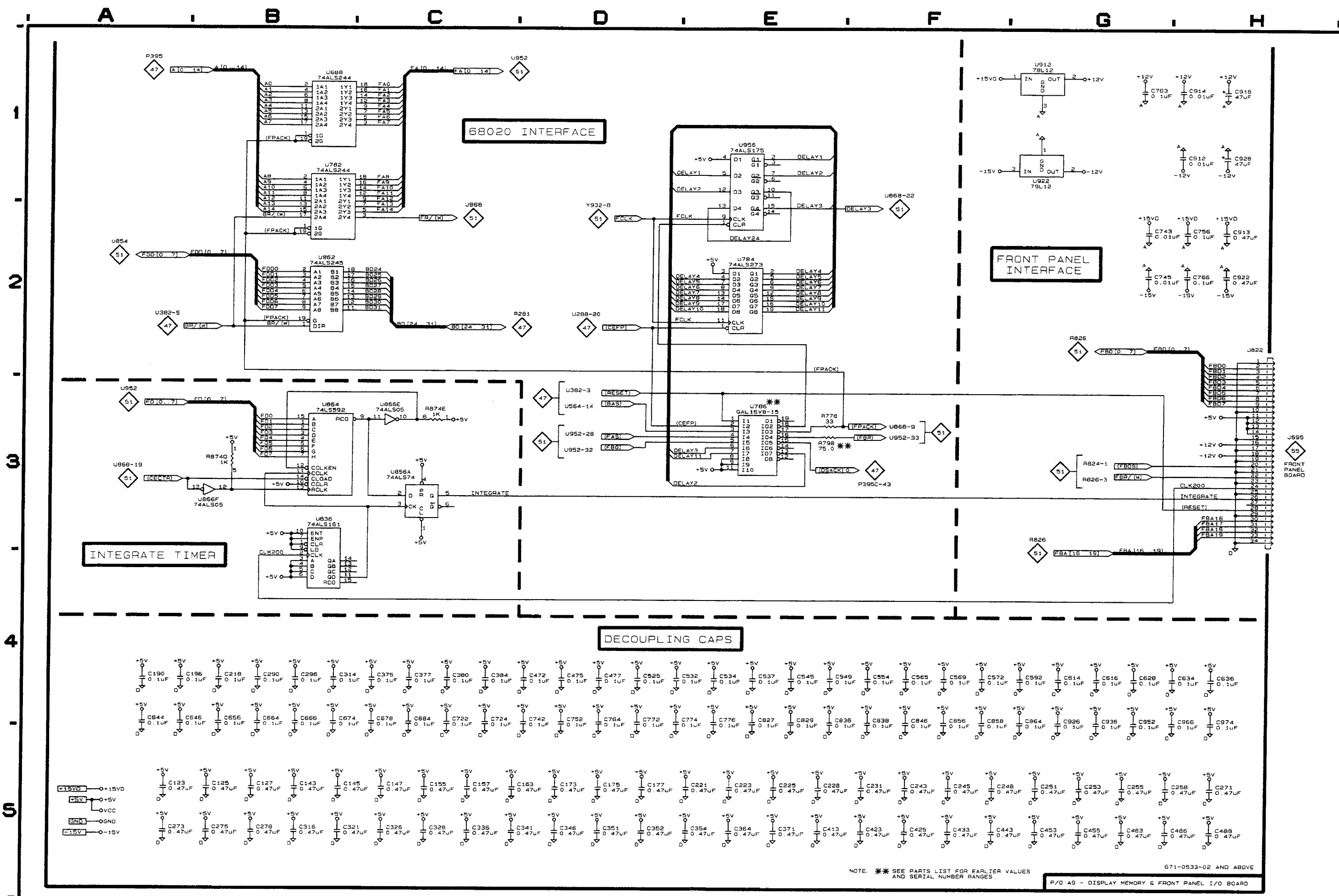
**DISPLAY MEMORY BOARD
Schematic <52> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A9. *Partial Assembly A9 also shown on Schematics 47, 48, 49, 50, 51, 53, and 54.*

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
C123	A5	C413	E5	C827	E4
C125	B5	C423	F5	C829	E4
C127	B5	C425	F5	C836	E4
C143	B5	C433	F5	C838	F4
C145	B5	C443	F5	C846	F4
C147	C5	C453	G5	C856	F4
C155	C5	C455	G5	C858	F4
C157	C5	C463	G5	C864	G4
C163	C5	C472	D4	C912	H1
C173	D5	C475	D4	C913	H2
C175	D5	C477	D4	C914	H1
C177	D5	C486	G5	C918	H1
C190	A4	C488	H5	C922	H2
C196	A4	C525	D4	C926	G4
C218	B4	C532	D4	C928	H1
C221	E5	C534	E4	C936	G4
C223	E5	C537	E4	C952	G4
C225	E5	C545	E4	C966	H4
C228	E5	C549	E4	C974	H4
C231	F5	C554	F4	J822	H2
C243	F5	C565	F4	R778	E3
C245	F5	C569	F4	R798	E3
C248	F5	C572	F4	R874D	B3
C251	G5	C592	G4	R874E	C3
C253	G5	C614	G4	U688	B1
C255	G5	C616	G4	U782	B1
C258	G5	C628	G4	U784	E2
C271	H5	C634	H4	U786	E3
C273	A5	C636	H4	U836	B3
C275	B5	C644	A4	U856A	C3
C278	B5	C646	A4	U862	B2
C290	B4	C656	B4	U864	B3
C296	B4	C664	B4	U866E	C3
C314	B4	C666	B4	U866F	B3
C316	B5	C674	B4	U912	G1
C321	B5	C678	C4	U922	G1
C326	C5	C684	C4	U956	E1
C328	C5	C722	C4		
C336	C5	C724	C4		
C341	C5	C742	D4		
C346	D5	C743	G2		
C351	D5	C745	G2		
C352	D5	C752	D4		
C354	E5	C756	H2		
C364	E5	C763	G1		
C371	E5	C764	D4		
C375	C4	C766	H2		
C377	C4	C772	D4		
C380	C4	C774	D4		
C384	C4	C776	E4		

*See parts list for earlier serial number ranges.



NOTE: ** SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

671-0533-02 AND ABOVE

P/O A9 - DISPLAY MEMORY & FRONT PANEL I/O BOARD

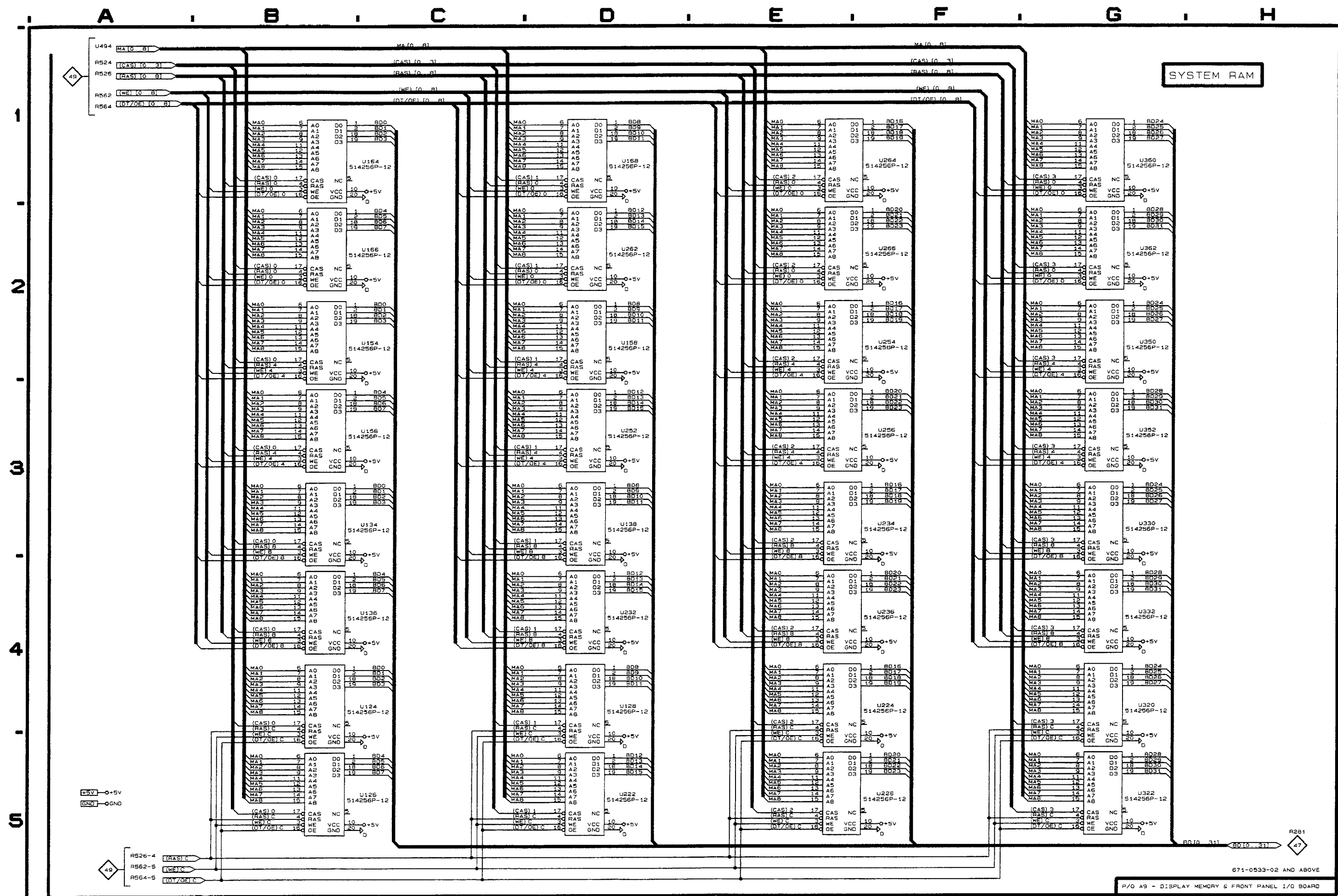
**DISPLAY MEMORY BOARD
Schematic <53> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A9. *Partial Assembly A9 also shown on Schematics 47, 48, 49, 50, 51, 52, and 54.*

CIRCUIT NUMBER	SCHEM LOCATION
U124	B4
U126	B5
U128	D4
U134	B3
U136	B4
U138	D3
U154	B2
U156	B3
U158	D2
U164	B1
U166	B2
U168	D1
U222	D5
U224	E4
U226	E5
U232	D4
U234	E3
U236	E4
U252	D3
U254	E2
U256	E3
U262	D2
U264	E1
U266	E2
U320	G4
U322	G5
U330	G3
U332	G4
U350	G2
U352	G3
U360	G1
U362	G2

*See parts list for earlier serial number ranges.



**DISPLAY MEMORY BOARD
Schematic <54> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

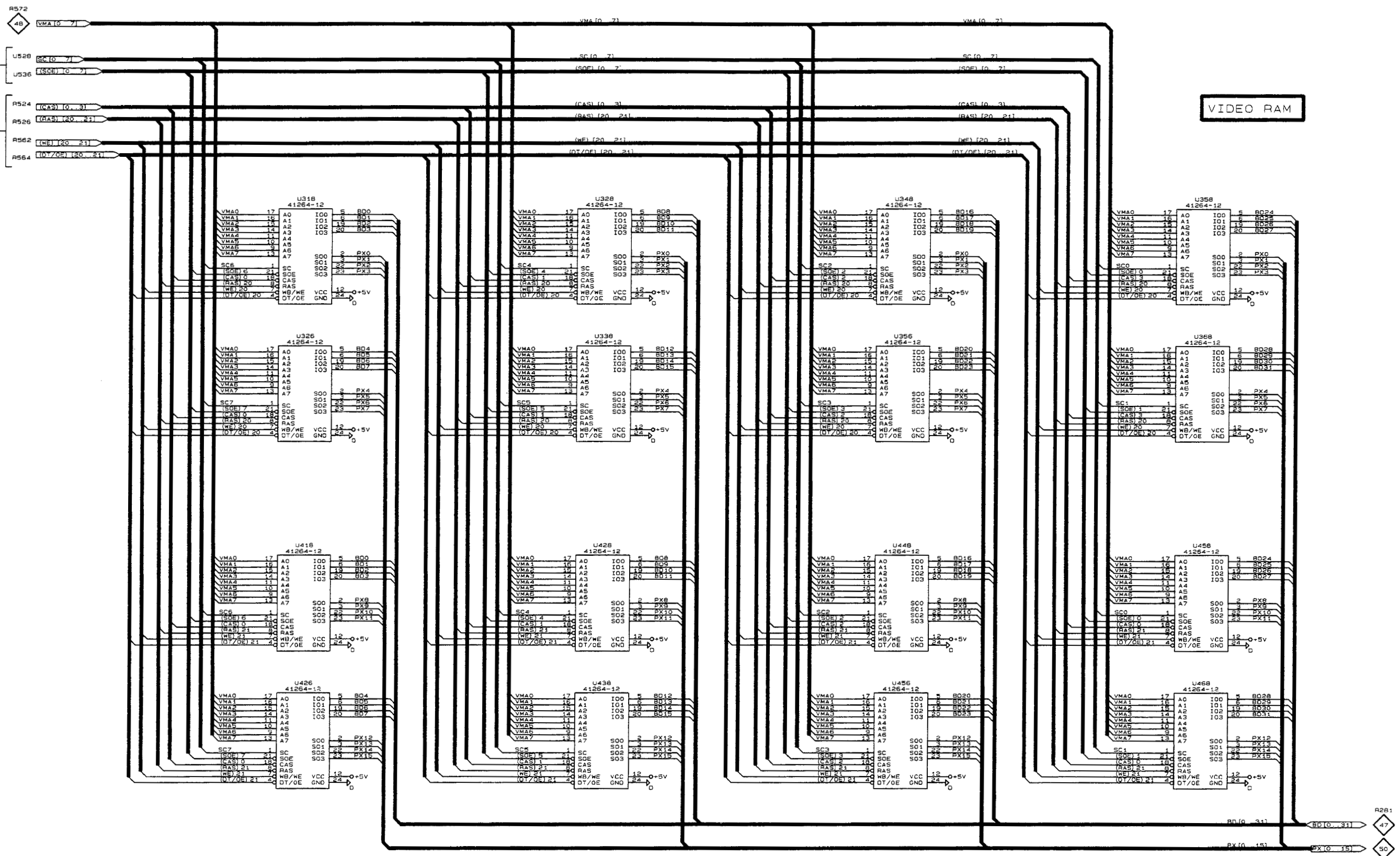
ASSEMBLY A9. *Partial Assembly A9 also shown on Schematics 47, 48, 49, 50, 51, 52, and 53.*

CIRCUIT NUMBER	SCHEM LOCATION
U318	B2
U326	B2
U328	D2
U338	D2
U348	F2
U356	F2
U358	G2
U368	G2
U418	B4
U426	B4
U428	D4
U438	D4
U448	F4
U456	F4
U458	G4
U468	G4

*See parts list for earlier serial number ranges.

A B C D E F G H

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VIDEO RAM

+5V - 0+5V
GND - 0GND

R281
47
50
U312

671-0533-02 AND ABOVE
P/O 49 - DISPLAY MEMORY & FRONT PANEL I/O BOARD

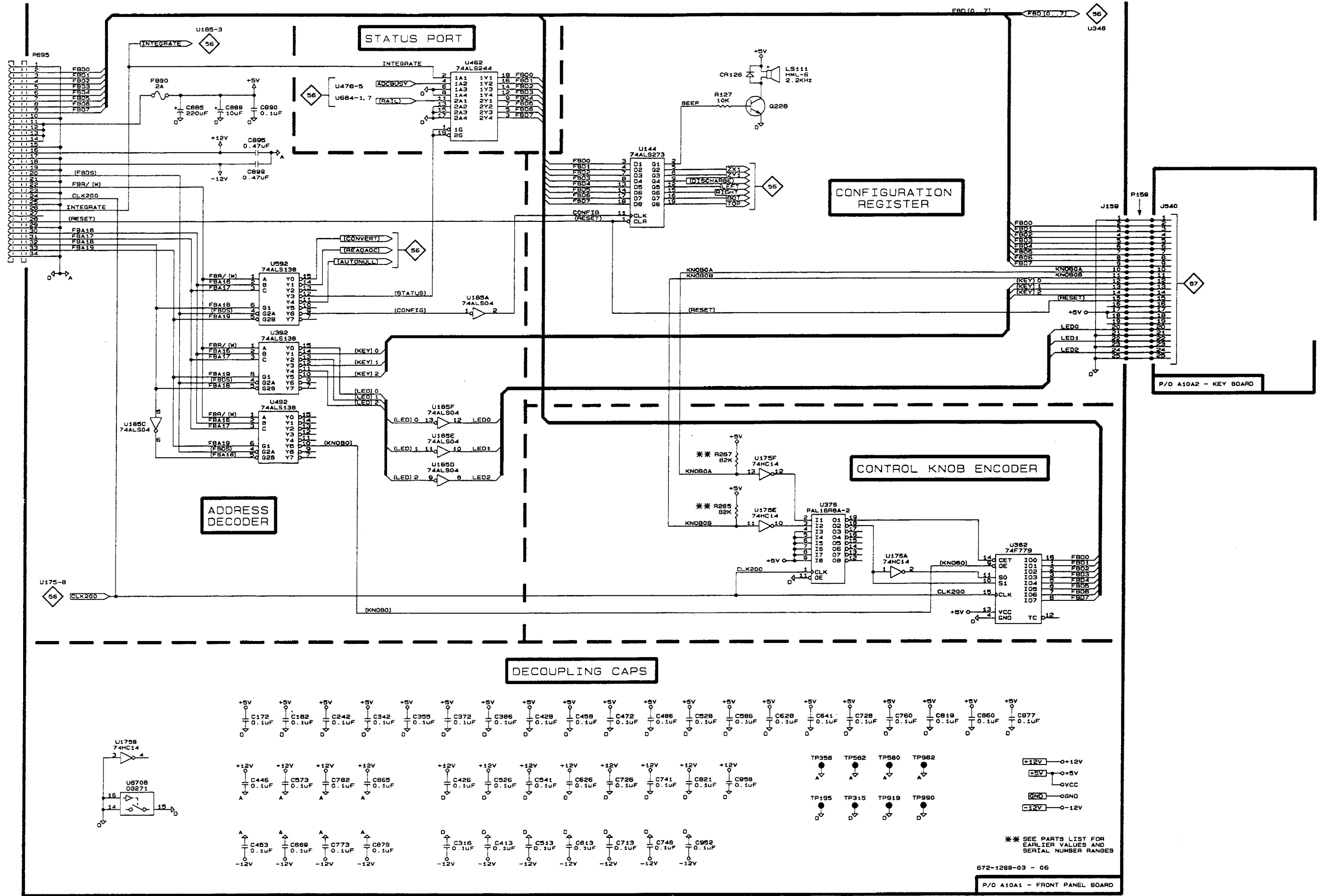
VM 700A SERVICE



A10A1 FRONT PANEL

A B C D E F G H

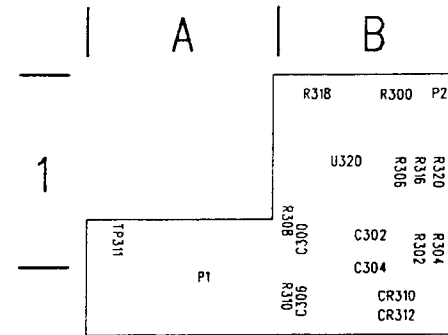
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**FRONT PANEL & OSCILLATOR BOARD
Schematic <56> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A10A1. Partial Assembly A10A1 also shown on Schematic 56.



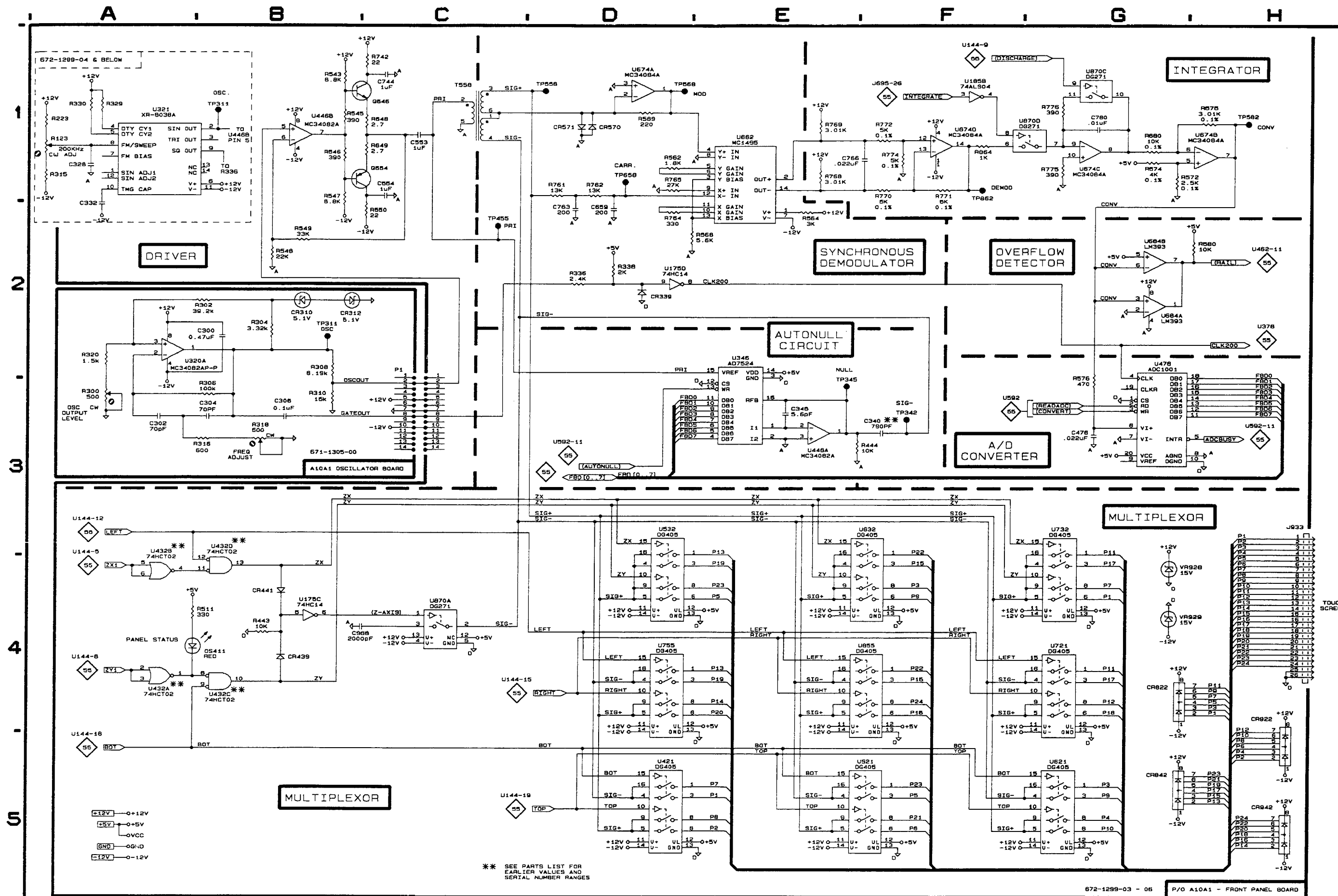
671-1305-00

A10A1 Oscillator Board

The Oscillator board is located on the upper left hand corner of the front panel bd, at silk screening U321.

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
Front Panel Board					
C328 *	A1	R569	D1	U532	D3
C332 *	A2	R572	G1	U621	G5
C340	E3	R574	G1	U632	E3
C345	E3	R575	H1	U662	E1
C476	G3	R576	G2	U674A	D1
C553	C1	R580	H2	U674B	H1
C554	C1	R648	C1	U674C	G1
C659	D2	R649	C1	U674D	F1
C744	C1	R680	G1	U684A	G2
C763	D2	R742	C1	U684B	G2
C766	F1	R761	D1	U721	G4
C780	G1	R762	D1	U732	G3
C968	C4	R764	D2	U755	D4
CR339	D2	R765	D1	U855	E4
CR439	B4	R768	E1	U870A	C4
CR441	B4	R769	E1	U870C	G1
CR570	D1	R770	F1	U870D	F1
CR571	D1	R771	F1	VR928	G4
CR822	G4	R772	F1	VR929	G4
CR842	G5	R774	F1	Oscillator bd	
CR922	H4	R775	G1	C300	B2
CR942	H5	R776	G1	C302	A3
DS411	A4	R864	F1	C304	B3
J933	H3	T558	C1	C306	B3
Q646	B1	TP311 *	B1	CR310	B2
Q654	B1	TP342	F3	CR312	B2
R123 *	A1	TP345	E3	R300	A3
R223 *	A1	TP455	C2	R302	B2
R315 *	A1	TP558	D1	R304	B2
R329 *	A1	TP568	D1	R306	B2
R330 *	A1	TP582	H1	R308	B3
R336	D2	TP658	D1	R310	B3
R338	D2	TP862	F1	R316	B3
R443	B4	U175C	B4	R318	B3
R444	E3	U175D	D2	R320	A2
R511	A4	U185B	F1	U320	A3
R543	B1	U321 *	A1	TP311	B2
R545	B1	U346	E3		
R546	B1	U421	D5		
R547	B1	U432A	A4		
R548	B2	U432B	A4		
R549	B2	U432C	B4		
R550	C2	U432D	B4		
R562	D1	U446A	E3		
R564	E2	U446B	B1		
R568	D2	U476	G2		
		U521	E5		

*See parts list for earlier serial number ranges.



VM 700A SERVICE



A10A2 KEY BOARD

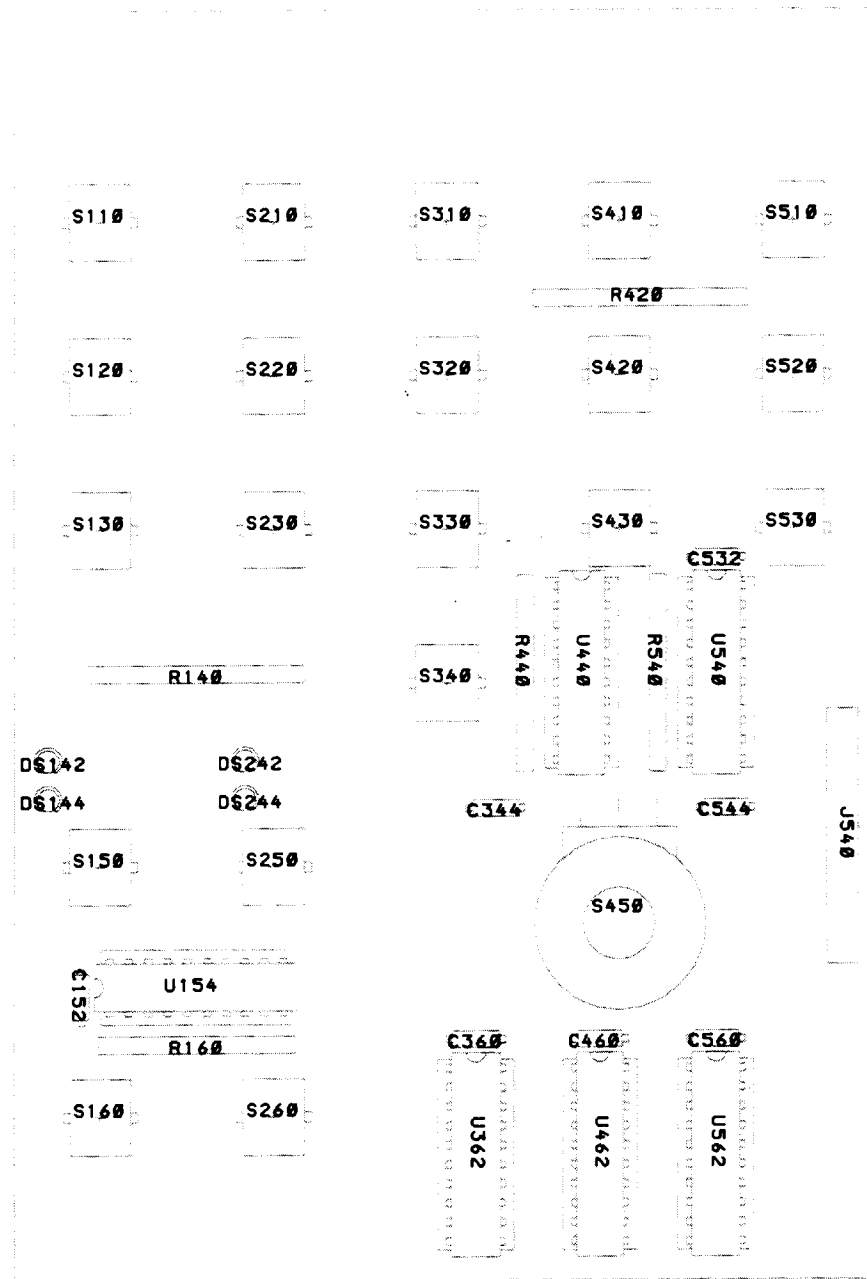
KEYBOARD
Schematic <57> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLIES A10A2 AND A16.

CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A10A2		S120B	E2
C152	G3	S130A	A3
C344	G3	S130B	E3
C360	H3	S150	A4
C460	G4	S160	A5
C532	G4	S210A	A1
C544	H4	S210B	E2
C560	G4	S220A	A2
DS142	E4	S220B	E3
DS144	E5	S230A	A3
DS242	E5	S230B	E3
DS244	E5	S250	A4
J540	H1	S260	A5
R140A	F5	S310A	A1
R140B	F3	S310B	E2
R140C	F5	S320A	A2
R140D	F2	S320B	E3
R140E	F2	S330A	A3
R140F	F4	S330B	E4
R140G	F5	S340A	A4
R140H	F4	S340B	E4
R140I	F5	S410A	A2
R140J	F4	S410B	E2
R160	B4	S420A	A3
R420A	F3	S420B	E3
R420B	F3	S430A	A3
R420C	F2	S430B	E4
R420D	F3	S450	G3
R420E	F2	S510A	A2
R420F	F2	S510B	E2
R420G	F4	S520A	A3
R420H	F4	S520B	E3
R420I	F2	S530A	A4
R420J	F3	S530B	E4
R440	B3	U154	C5
R540	B1	U362	D5
S110A	A1	U440	C3
S110B	E2	U462	D4
S120A	A2	U540	C1
		U562	D2
CIRCUIT NUMBER	SCHEM LOCATION	CIRCUIT NUMBER	SCHEM LOCATION
A16		J140	H4
DS155	G4	R150	H5
DS160	H5	S145	G5
DS165	G5		

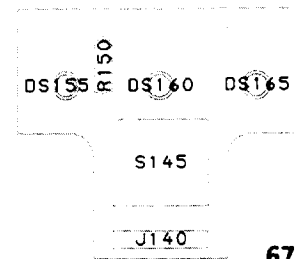
*See parts list for earlier serial number ranges.



671-0109-01

A10A2 KEY BOARD

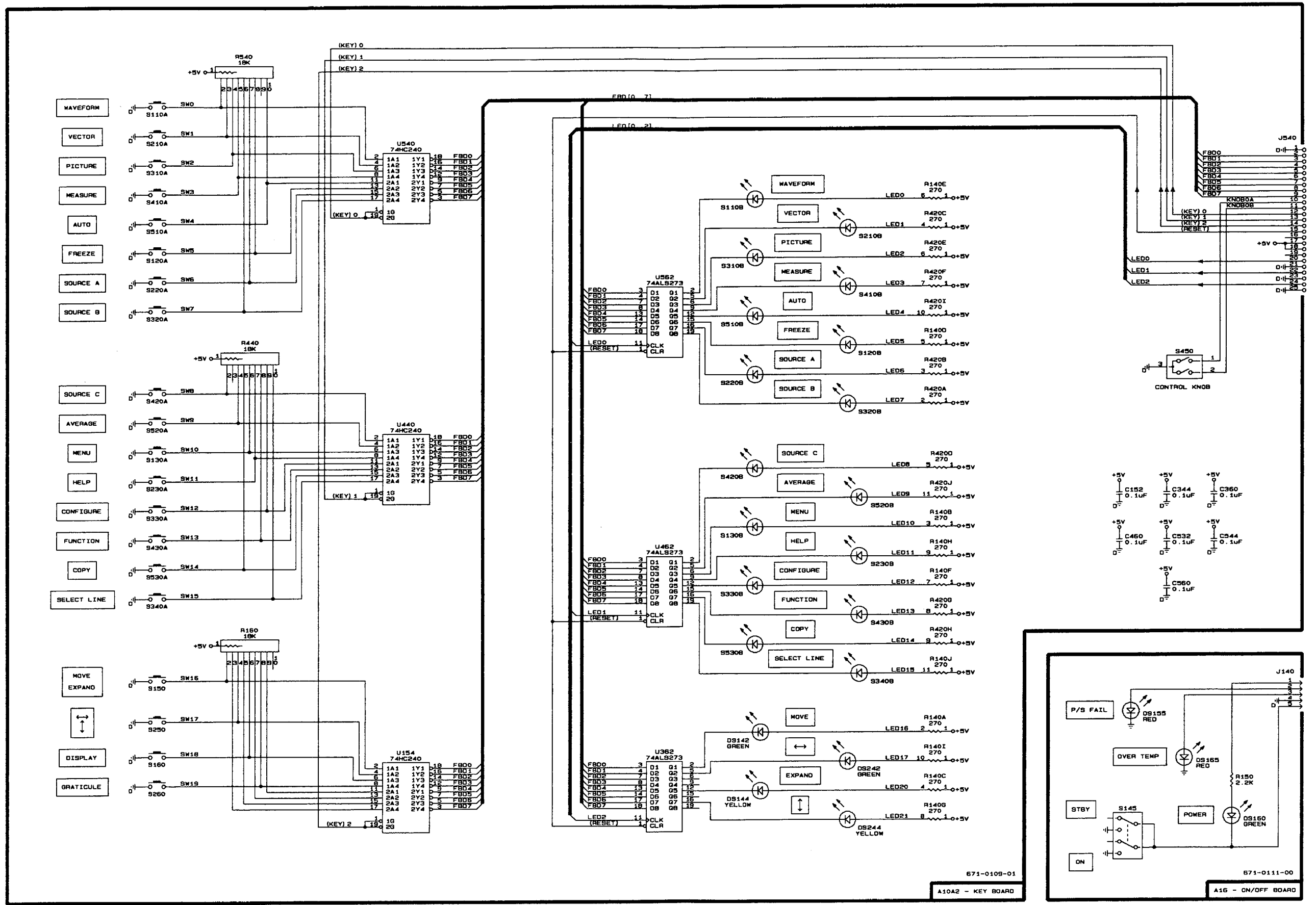
Static Sensitive Devices
See the section in this manual on handling precautions for static sensitive components.



671-0111-00

A16 ON/OFF BOARD

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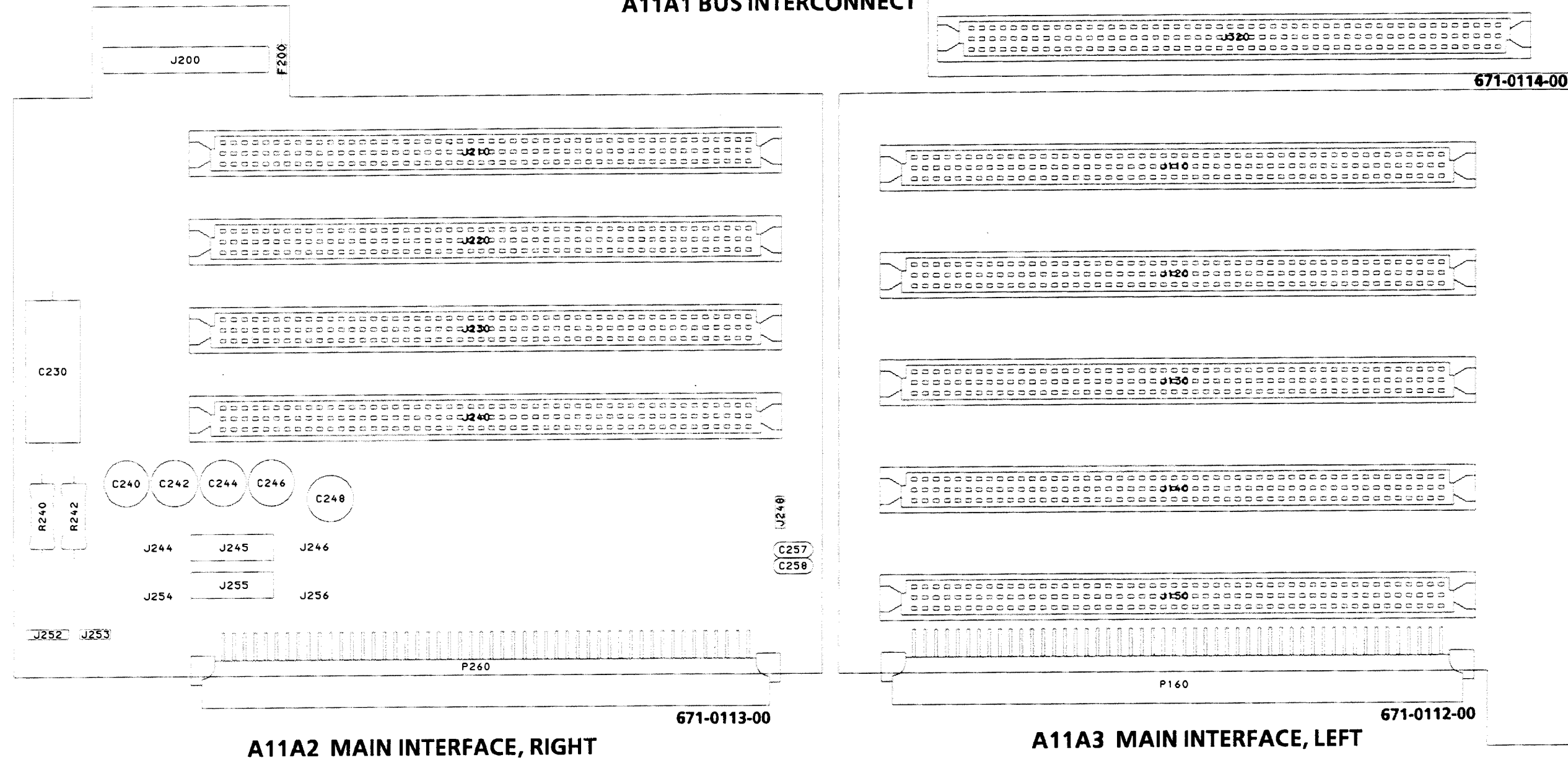


VM 700A SERVICE



A11 MAIN INTERCONNECT

A11A1 BUS INTERCONNECT



⊗ Static Sensitive Devices
See the section in this manual on handling precautions for static sensitive components.

A11 Main Interconnect Board
672-1298-00

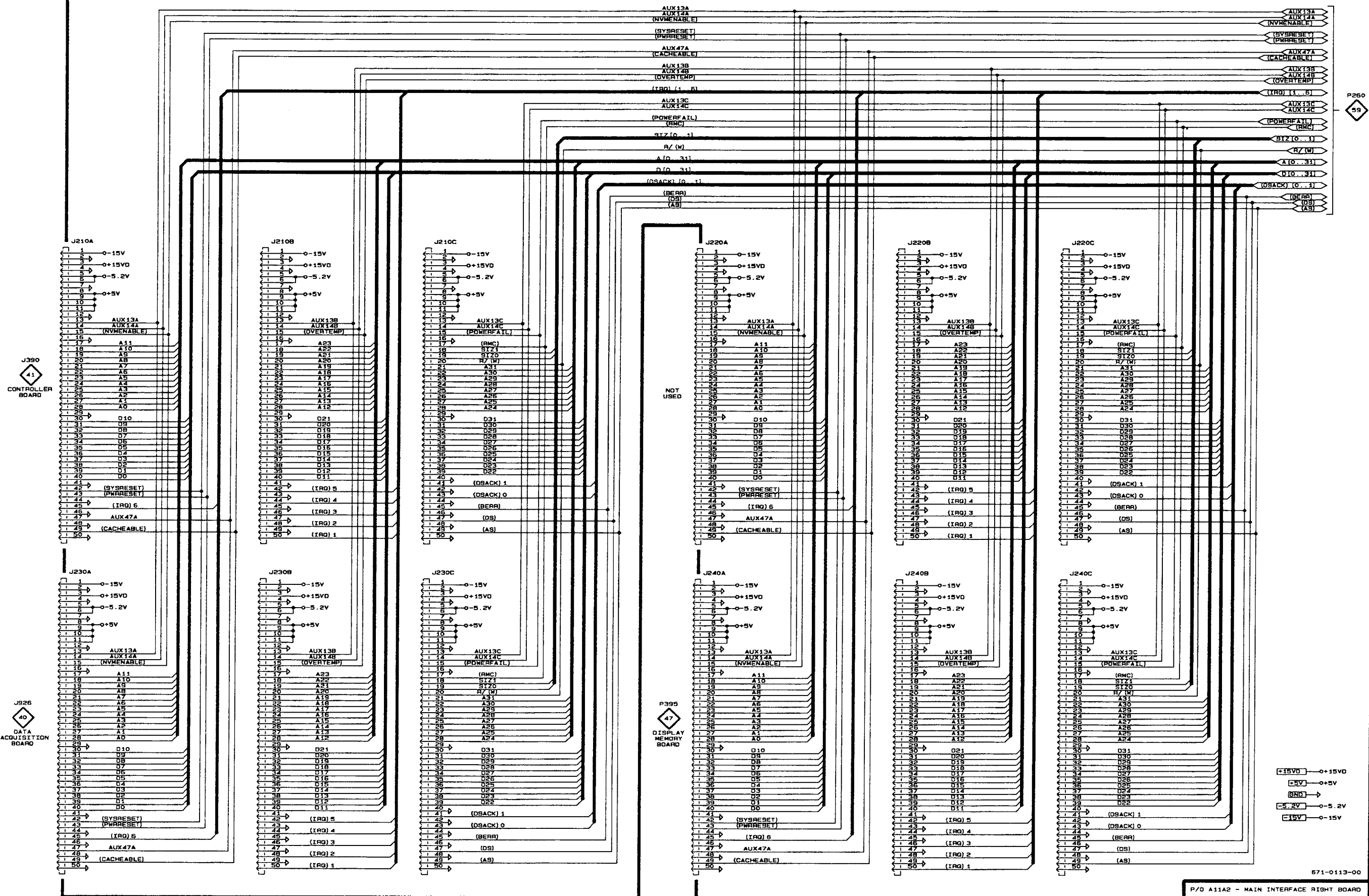
MAIN INTERCONNECT BOARD Schematic <58> Look-Up Chart

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A11. Partial Assembly A11 also shown on Schematics 59, 60, and 61.

*See parts list for earlier serial number ranges.

CIRCUIT NUMBER	SCHEM LOCATION
J210A	A2
J210B	B2
J210C	C2
J220A	E2
J220B	F2
J220C	G2
J230A	A4
J230B	B4
J230C	C4
J240A	E4
J240B	F4
J240C	G4



P260
59

671-0113-00

P/D A11A2 - MAIN INTERFACE RIGHT BOARD

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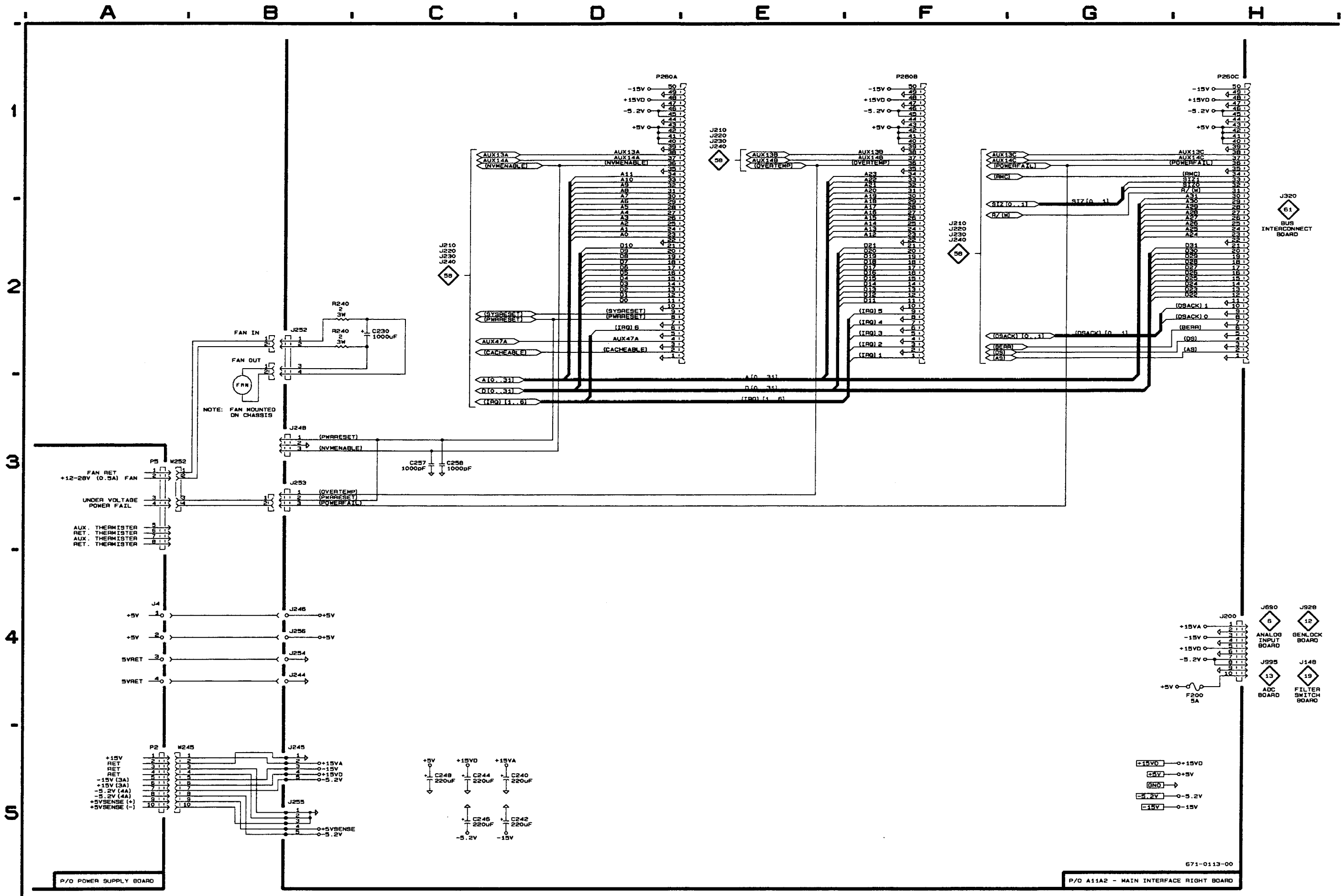
**MAIN INTERCONNECT BOARD
Schematic <59> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A11. *Partial Assembly A11 also shown on Schematics 58, 60, and 61.*

CIRCUIT NUMBER	SCHEM LOCATION
C230	C2
C240	C5
C242	C5
C244	C5
C246	C5
C248	C5
C257	C3
C258	C3
F200	H4
J200	H4
J244	B4
J245	B5
J246	B4
J248	B3
J252	B2
J253	B3
J254	B4
J255	B5
J256	B4
P260A	E1
P260B	F1
P260C	H1
R240	B2
R242	B2

*See parts list for earlier serial number ranges.



**MAIN INTERCONNECT BOARD
Schematic < 60 > Look-Up Chart**

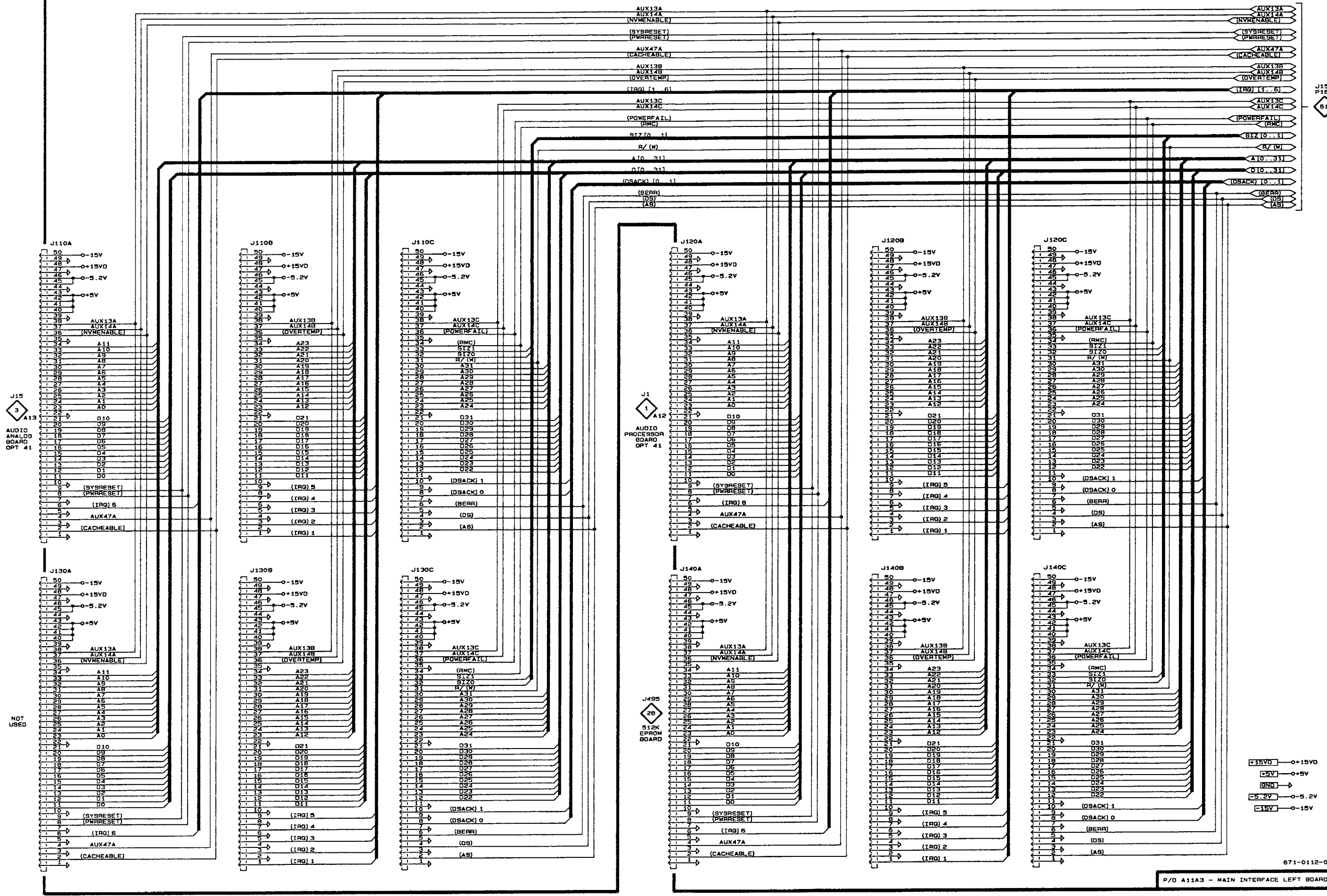
The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A11. *Partial Assembly A11 also shown on Schematics 58, 59, and 61.*

CIRCUIT NUMBER	SCHEM LOCATION
J110A	A2
J110B	B2
J110C	C2
J120A	E2
J120B	F2
J120C	G2
J130A	A4
J130B	B4
J130C	C4
J140A	E4
J140B	F4
J140C	G4

*See parts list for earlier serial number ranges.

1
2
3
4
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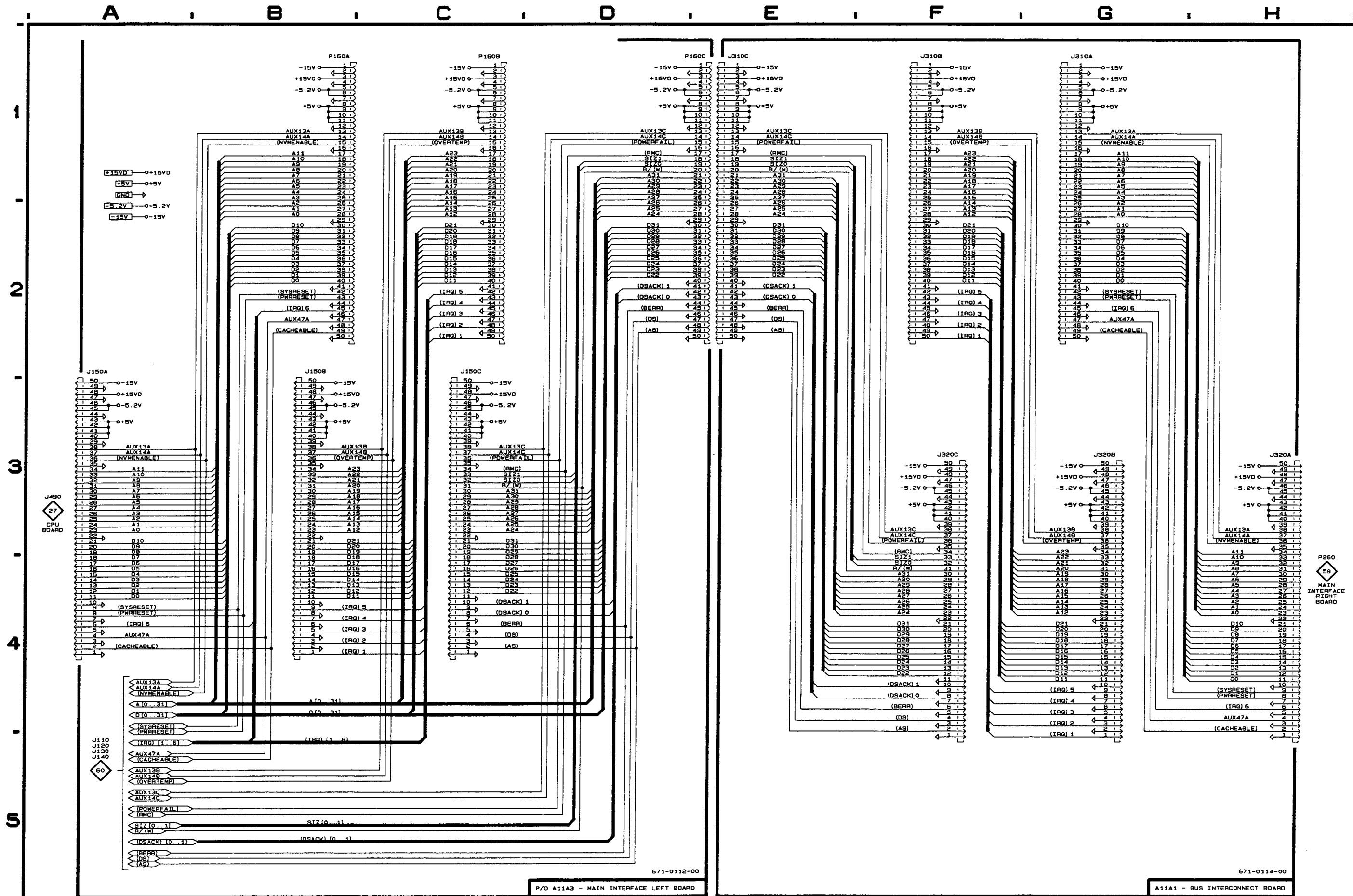
**MAIN INTERCONNECT BOARD
Schematic <61> Look-Up Chart**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

ASSEMBLY A11. *Partial Assembly A11 also shown on Schematics 58, 59, and 60.*

CIRCUIT NUMBER	SCHEM LOCATION
J310A	G1
J310B	F1
J310C	E1
J320A	H3
J320B	G3
J320C	F3
J150A	A3
J150B	B3
J150C	C3
P160A	B1
P160B	C1
P160C	E1

*See parts list for earlier serial number ranges.



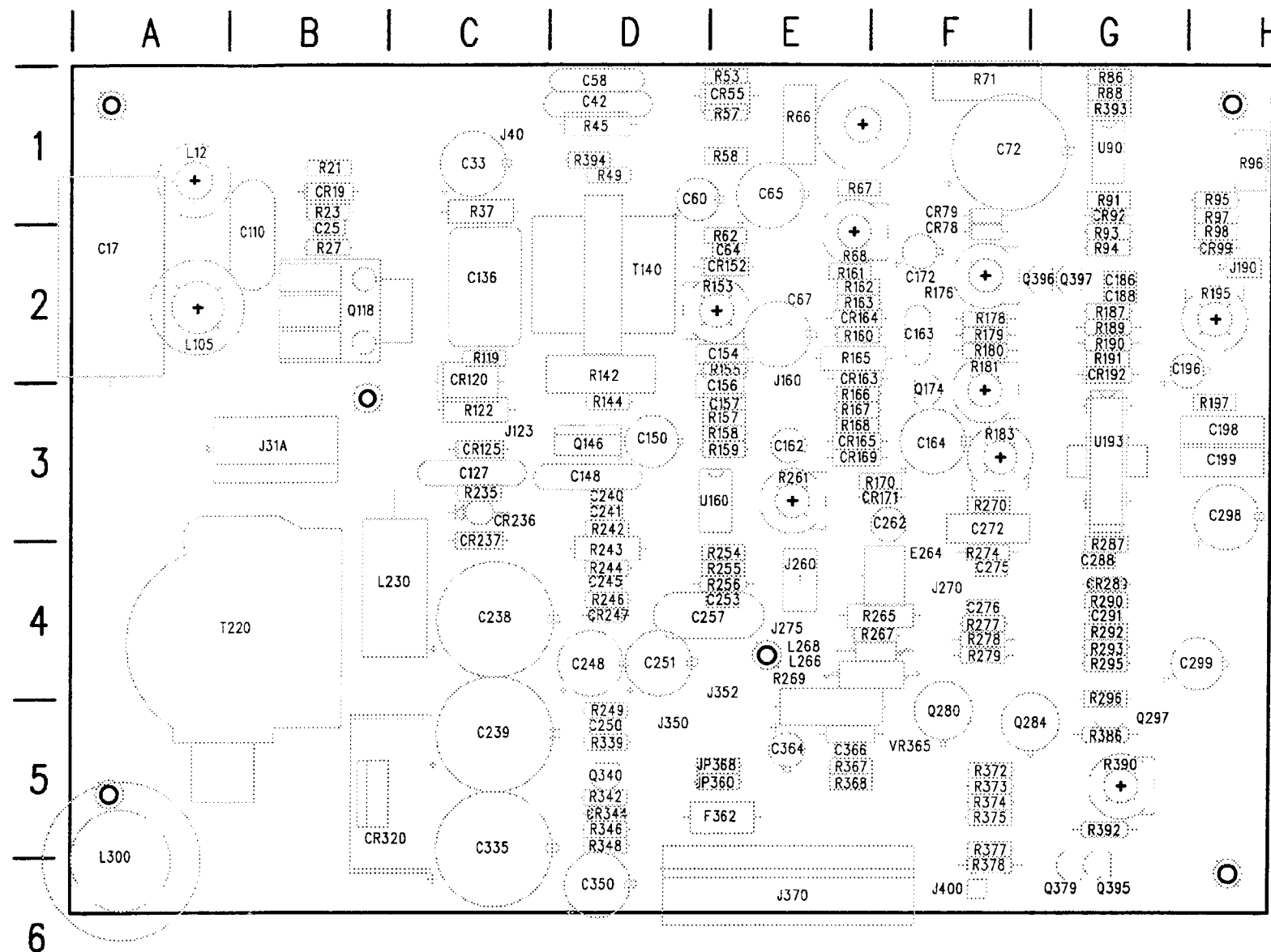
VM 700A SERVICE

**MAIN INTERFACE LEFT - 2
& BUS INTERCONNECT <61>**



A14 DISPLAY MONITOR

VM 700A SERVICE

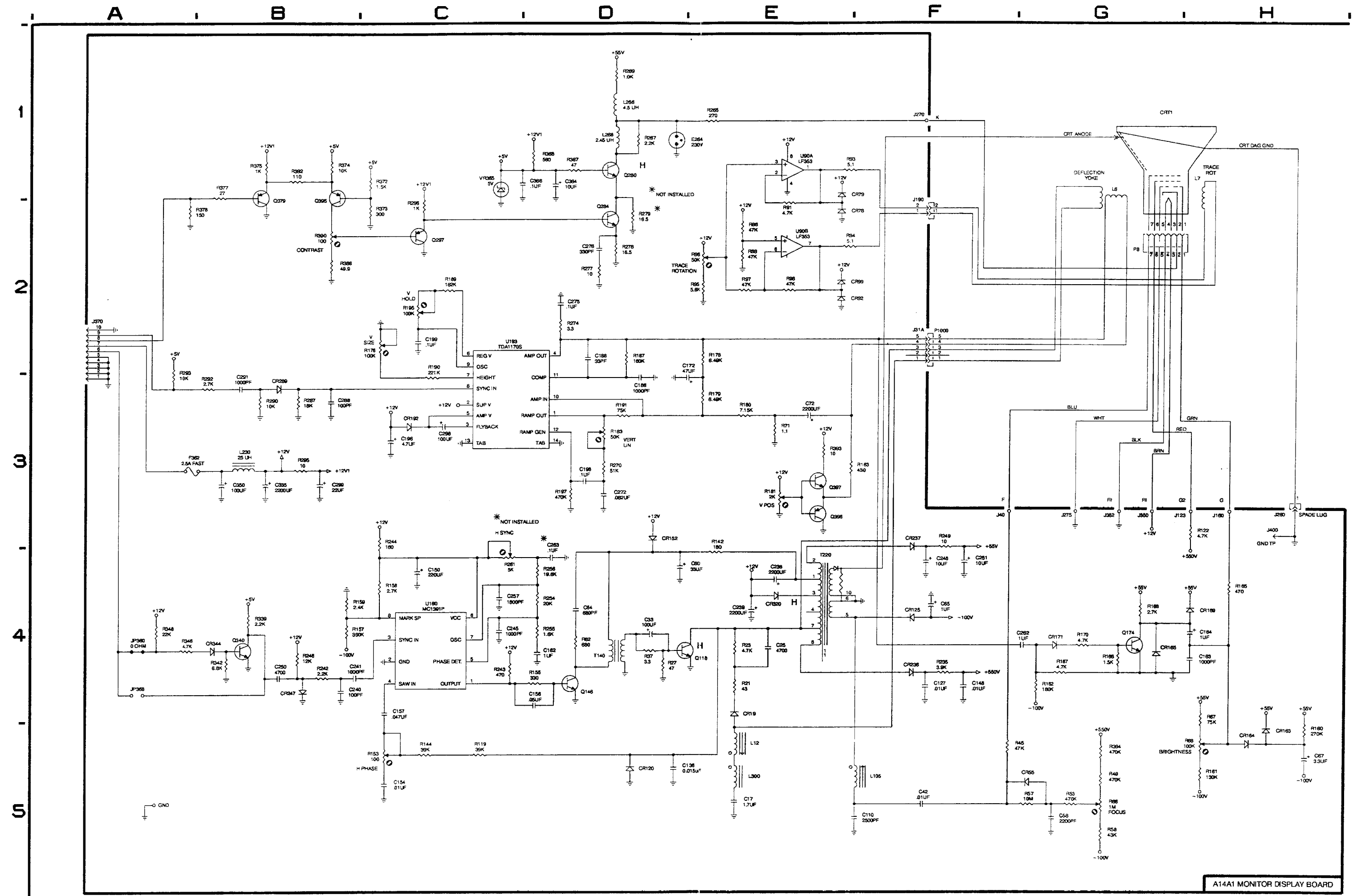


Assembly A14.

Schematic Diagram <1> Component Locator Chart

The schematic diagram has an alphanumeric grid to assist in locating parts within that diagram.

Comp No	Diag Loc	Bd Loc	Comp No	Diag Loc	Bd Loc	Comp No	Diag Loc	Bd Loc	Comp No	Diag Loc	Bd Loc	Comp No	Diag Loc	Bd Loc	Comp No	Diag Loc	Bd Loc	Comp No	Diag Loc	Bd Loc			
C17	E5	A3	C198	D3	G3	CR78	E2	F2	J260	H3	E4	R21	E4	B1	R144	C5	D3	R197	D3	H3	R339	B4	D5
C25	E4	B2	C199	C2	G3	CR79	E1	F1	J270	F1	F4	R23	E4	B1	R153	C5	E2	R235	F4	C3	R342	B4	D5
C33	D4	C1	C238	E4	C4	CR92	E2	G1	J275	G3	E4	R27	D4	B2	R155	D4	E2	R242	B4	D3	R346	A4	D5
C42	F5	C1	C239	E4	C5	CR99	E2	H2	J350	G3	D5	R37	D4	C1	R157	B4	E3	R243	C4	D4	R348	A4	D5
C58	G5	C1	C240	B4	D3	CR120	D5	C2	J352	G3	E4	R45	F5	D1	R158	C4	E3	R244	C3	D4	R367	D1	E5
C60	D4	D1	C241	B4	D3	CR125	F4	C3	J370	A2	D6	R49	G5	D1	R159	B4	E3	R246	B4	D4	R368	D1	E5
C64	D4	E2	C245	C4	C4	CR152	D3	E2	J400	H3	F6	R53	G5	E1	R160	H5	E2	R249	F3	D5	R372	C1	F5
C65	F4	E2	C248	F4	C4	CR163	H5	E3	JP360	A4	D5	R57	G5	E1	R161	H5	E2	R254	D4	E4	R373	C2	F5
C67	H5	E2	C250	B4	D5	CR164	H5	E2	JP368	A4	D5	R58	G5	E1	R162	G4	E2	R255	D4	E4	R374	B1	F5
C72	E3	F1	C251	F4	D4	CR165	G4	E3	L12	E5	A1	R62	D4	E2	R163	E3	E2	R256	D4	E4	R375	B1	F5
C110	F5	B2	C253	D4	E4	CR169	H4	E3	L105	F5	A2	R66	G5	E1	R165	H4	E2	R261	C4	E4	R377	B1	F5
C127	F4	C3	C257	C4	D4	CR171	G4	F3	L230	B3	B4	R67	H4	E1	R166	G4	E3	R265	E1	E4	R378	A2	F6
C136	D5	C2	C262	G4	E4	CR192	C3	G2	L266	D1	E4	R68	H5	E2	R167	G4	E3	R267	D1	E4	R386	B2	G5
C148	F4	D3	C272	D3	F3	CR236	F4	C3	L268	D1	E4	R71	E3	F1	R168	G4	E3	R269	D1	E4	R390	B2	G5
C150	C4	D3	C275	D2	F4	CR237	F3	C4	L300	E5	A5	R86	E2	G1	R170	G4	E3	R270	D3	F3	R392	B1	G5
C154	C5	D2	C276	D2	F4	CR247	B4	D4	L118	D4	C2	R88	E2	G1	R176	C2	F2	R274	D2	F4	R393	E3	G1
C156	D4	D3	C288	B3	G4	CR289	B3	G4	Q146	D4	C3	R91	E2	G1	R178	E2	F2	R277	D2	F4	R394	G5	D1
C157	C4	E3	C291	B3	G4	CR320	E4	B5	Q174	G4	F2	R93	E1	G2	R179	E3	F2	R278	D2	F4	T140	D4	D2
C162	D4	E3	C298	C3	H4	CR344	B4	D5	Q280	D1	F4	R94	E2	G2	R180	E3	F2	R279	D2	F4	T220	E4	A4
C163	H4	F2	C299	B3	G5	E264	D1	F4	Q284	D2	F4	R95	E2	H1	R181	E3	G3	R287	B3	G4	U90A	E1	G1
C164	H4	F3	C335	B3	C5	F362	A3	D5	Q297	C2	G5	R96	E2	H1	R183	D3	F3	R290	B3	G4	U90B	E2	G1
C172	E3	F2	C350	B3	C5	J31A	F2	A3	Q340	B4	D5	R97	E2	H1	R187	D2	G2	R292	B3	G4	U160	C4	D3
C186	D3	G2	C364	D1	E5	J40	F3	C1	Q342	B4	D5	R98	E2	H2	R189	C2	G2	R295	A2	G4	U193	C2	G3
C188	D2	G2	C366	C1	E5	J123	H3	C3	Q344	B4	D5	R99	E2	H1	R190	C3	G2	R295	B3	G4	VR365	C1	F5
C196	C3	G3	CR19	E4	B1	J160	H3	E3	Q346	B4	D5	Q379	B1	G6	R191	D3	G2	R296	C2	G5			
			CR55	G5	E1	J190	F2	H2	Q348	B4	D5	Q395	B1	G6	R192	H3	C3						
									Q396	E3	F2				R195	C2	G2						
									Q397	E3	G2												



A14A1 MONITOR DISPLAY BOARD

VM700A

MONITOR DISPLAY



A15 POWER SUPPLY

VM 700A SERVICE

CKT NO.	SCHEM LOC	SCHEM NO.	SCHEM BD LOC	CKT NO.	SCHEM LOC	SCHEM NO.	SCHEM BD LOC	CKT NO.	SCHEM LOC	SCHEM NO.	SCHEM BD LOC	CKT NO.	SCHEM LOC	SCHEM NO.	SCHEM BD LOC	CKT NO.	SCHEM LOC	SCHEM NO.	SCHEM BD LOC
C1	B1	1	A3	CR4	D2	1	G6	L13	G1	2	M5	R85	C4	2	O3	R646	H5	1	L4
C2	C1	1	B5	CR5	D2	1	G6	R86	B5	2	O3	R647	H5	1	L4	R648	H4	1	L4
C3	C1	1	D3	CR6	C2	1	F5	P7	A1	1		R87	C5	2	O3	R649	H3	1	L4
C4	C1	1	D5	CR7	C2	1	F5	P10	A5	1		R88	B4	2	O2	R650	G1	2	N6
C5	D1	1	C3	CR9	E1	1	F2	P12	F1	2		R89	E5	2	O3	R651	G3	1	N2
C6	D1	1	C2	CR10	E1	1	G1	P13	D1	1		R90	F5	2	O3	R652	G4	1	L4
C7	D1	1	C2	CR12	E2	1	F1					R94	A2	2	P1	R653	G5	1	L5
C8	D1	1	C1	CR14	G1	1	J1	Q2	F1	1	G1	R95	A2	2	P1				
C9	D1	1	C1	CR15	G1	1	L1	Q3	F2	1	F1	R96	A3	2	P1				
C10	D1	1	E2	CR16	G1	1	L1	Q8	E2	1	E1	R97	A2	2	Q2	RT1	B1	1	B4
C11	C2	1	F6	CR17	A5	1	H6	Q10	E2	1	E1	R98	A2	2	Q2	RT5	D1	2	L1
C16	D2	1	G6	CR22	D2	1	E1	Q11	E4	1	F4	R99	A2	2	Q2				
C23	E1	1	G2	CR26	D3	1	E1	Q12	E4	1	E4	R100	A2	2	Q2	RV1	B1	1	B4
C24	E2	1	G2	CR27	E3	1	F4	Q13	A4	1	F5	R101	A3	2	Q2	RV2	B1	1	B4
C25	F1	1	K2	CR28	E3	1	F4	Q16	G3	1	N2	R102	A3	2	Q2				
C26	G1	1	J4	CR29	E4	1	F4	Q17	G4	1	K4	R103	A4	2	P1	S1	A1	1	B3
C27	G1	1	J4	CR30	E4	1	F4	Q18	H4	1	L4	R104	A3	2	P1	S2	B1	1	A5
C28	G1	1	J4	CR31	B4	1	G4	Q19	G5	1	L4	R105	A3	2	Q2				
C30	H1	1	I5	CR32	B4	1	G4	Q20	H5	1	M4	R106	A4	2	Q2	T1	B2	1	E5
C31	H1	1	K5	CR33	F2	1	M1	Q23	E5	2	O4	R107	B3	2	Q2	T2	F1	1	H1
C32	F2	1	L2	CR35	G2	1	L2	Q24	G1	2	M5	R108	A4	2	P2	T3	D4	1	F4
C33	G2	1	L3	CR36	G2	1	L2	Q25	F4	2	O3	R109	A4	2	P2	T4	D2	1	D4
C34	G2	1	K3	CR37	G2	1	L2	Q26	F4	2	P3	R110	B3	2	P2	T5	D3	1	F4
C35	G2	1	L3	CR38	G2	1	M2	Q27	H5	2	P3	R111	B3	2	P2				
C36	G2	1	L3	CR46	D4	2	O4	Q130	H1	1	K6	R112	B2	2	Q3	TP2	D2	1	H6
C37	E4	1	F5	CR47	D3	2	O3	Q560	H3	1	M3	R113	B2	2	Q3	TP3	H1	1	J4
C38	B3	1	H5	CR48	A5	2	O4					R114	C3	2	P3	TP4	H4	1	K6
C39	A4	1	G5	CR49	D4	2	O2	R1	A1	1	B2	R121	C3	2	O3	TP5	H4	1	L6
C40	A4	1	G5	CR50	D5	2	O2	R2	B1	1	B3	R122	C4	2	O4	TP6	H3	2	Q4
C41	A4	1	G4	CR51	E1	2	O5	R5	C1	1	D4	R123	C4	2	O4	TP10	F2	2	O0
C42	A4	1	H5	CR52	E2	2	P6	R6	C1	1	C2	R124	C4	2	O4	TP11	A2	2	O0
C43	B5	1	G4	CR53	E1	2	P5	R8	D1	1	D1	R125	D3	2	O3	TP12	A2	2	O0
C44	C4	1	H3	CR56	G1	2	M6	R9	D1	1	B1	R126	C3	2	N4	TP13	A3	2	O0
C45	D4	1	F4	CR84	B4	2	N3	R18	A4	1	G5	R127	C3	2	N4	TP14	A3	2	P0
C46	D4	1	G4	CR88	B4	2	O2	R20	E1	1	G1	R128	C3	2	N4	TP15	A4	2	O0
C49	G3	1	M4	CR89	E5	2	O3	R21	E2	1	F1	R129	C3	2	N4	TP16	G3	2	O0
C51	H3	1	N3	CR151	C2	2	O2	R22	F1	1	K2	R132	D5	2	O4	TP17	G5	2	O0
C52	E2	2	P6	CR201	B5	2	O5	R23	F2	1	K2	R134	E5	2	O4	TP18	G4	2	O0
C53	D2	2	P5	CR202	H3	1	M4	R27	G1	1	I4	R135	F3	2	P3	TP19	G5	2	P0
C54	G2	1	N1	CR258	G5	2	P3	R28	G1	1	K4	R136	D1	2	O5	TP20	G2	1	K3
C56	G2	1	N2	CR259	G5	2	P3	R33	D2	1	E1	R137	E2	2	P6	TP21	H3	1	M3
C57	F4	1	N4	CR260	H3	1	M3	R34	D2	1	E1	R138	D1	2	P5	TP22	H4	1	K6
C58	G4	1	N5	CR261	H5	1	M4	R35	E4	1	F4	R139	E1	2	P5				
C59	G5	1	O5	CR262	H4	1	L4	R36	E4	1	F4	R140	E1	2	O6	U2	C2	1	G5
C60	H4	1	L4	CR640	G3	1	N2	R37	E4	1	F4	R141	F1	2	O6	U5	E4	1	N4
C61	G4	1	L5					R38	A4	1	H6	R142	F1	2	O6	U6A	F4	1	N5
C62	G4	1	M5	DS1	C1	1	C2	R39	A4	1	G5	R143	F1	2	O5	U6B	F5	1	N5
C64	D4	2	P4	DS2	A2	2	O1	R40	A4	1	H5	R144	F1	2	O5	U7A	B4	1	H4
C74	A5	2	P2	DS3	A2	2	O1	R41	A5	1	H5	R145	E3	2	P5	U7B	B5	1	H4
C75	B2	2	P2	DS4	A3	2	O1	R42	A5	1	H5	R146	E3	2	P6	U8	B4	1	G4
C76	B3	2	P2	DS5	A4	2	P1	R43	A5	1	H5	R147	E3	2	O6	U10A	C4	1	H4
C81	C4	2	O4	DS6	A4	2	O1	R45	A4	1	G5	R150	G1	2	O5	U11	C4	1	G4
C82	D3	2	N3	DS7	F4	2	P1	R46	A4	1	G4	R151	F1	2	N5	U12A	F3	1	O2
C83	D3	2	N3	DS8	F3	2	P1	R47	A4	1	F5	R152	F1	2	N5	U12B	F3	1	O2
C84	C3	2	N3	DS9	F5	2	P1	R48	A4	1	F4	R153	G1	2	N6	U16	B2	2	P2
C85	E5	2	O2	DS10	F3	2	P1	R49	A4	1	F4	R154	G1	2	N5	U20A	E5	2	O3
C86	E5	2	O4	DS11	F2	2	N1	R50	A4	1	H5	R155	G2	2	M6	U20B	C2	2	O3
C87	H5	1	M4					R52	A5	1	H5	R156	F4	2	P3	U21A	D3	2	N3
C88	F1	2	N5	E3	B1	1	C4	R53	B4	1	H4	R157	F4	2	P4	U21B	D4	2	N3
C89	F1	2	N6					R54	B4	1	H5	R158	F4	2	P3	U22A	E3	2	P5
C90	G2	2	N5	F1	A1	1		R55	C3	1	H5	R159	F4	2	P4	U22B	E3	2	P5
C91	H1	2	L6	F3	B2	1	F5	R56	D4	1	G4	R160	F4	2	P3	U24A	E1	2	O5
C92	E1	2	P5	F4	B2	1	F6	R57	D4	1	G4	R161	F5	2	P1	U24B	E1	2	O5
C125	D5	2	O3					R61	G2	1	M2	R162	F3	2	P1	U25	F1	2	N5
C147	E4	2	P6	FL1	A1	1	B1	R63	G2	1	M2	R163	F5	2	P1	U26A	E4	2	P4
C150	C3	2	O2					R64	F3	1	N2	R164	F3	2	P1	U26B	H4	2	P4
C151	C2	2	O2	J1	H3	2	Q3	R65	F3	1	N2	R165	G3	2	P3	U26C	G5	2	P4
C157	F4	2	O3	J2	H4	1	M6	R67	H3	1	M3	R166	H5	2	P3	U28A	F5	2	O4
C158	F4	2	P3	J3	H3	1	M6	R69	F4	1	N5	R167	E3	2	P5	U28B	E4	2	O4
C185	C4	2	N2	J4	H1	1	I6	R70	F4	1	N5	R168	F2	2	O1	U28C	E4	2	O4
C201	G4	2	O4	J5	H1	2	M6	R71	F4	1	O4	R169	A5	1	H5	U28D	G4	2	O4
C290	A1	1	A3	J7	A1	1	B2	R72	F4	1	O4	R201	G4	2	O4	U28E	G3	2	O4
C291	A1	1	A1	J10	A5	1	H6	R73	F4	1	N4	R230	H1	1	K6	U28F	E4	2	O4
C292	B1	1	A4	J12	F1	2	O6	R74	F5	1	N4	R258	G5	2	P3	U30A	D4	2	N2
C293	B1	1	A4	J13	D1	1	D1	R75	F5	1	O5	R260	B2	2	O2	U30B	D5	2	N2
C420	A5	1	G5					R76	F5	1	O5	R261	C2	2	Q3				
C470	A4	1	G5	L2	D1	1	C1	R77	F5	1	O5	R262	G3	2	Q3	VR2	C4	2	O4
C570	G4	1	N4	L3	E2	1	E2	R78	G4	1	L4	R420	A5	1	H5	VR3	C3	2	N4
C640	G3	1	O1	L4	G1	1	I4	R79	G3	1	L3	R640	F3	1	N3	VR130	H1	1	K5
C900	F1	2	M5	L5	G1	1	I4	R80	H4	1	L4	R641	G3	1	N2				
				L6	G1	1	K3	R81	G5	1	L5	R642	G3	1	N2	W20 *	A1	1	B2
CR1	C1	1	B5	L8	G2	1	M1	R82	G5	1	M3	R643	E1	1	F2	W21 *	A1	1	B1
CR2	C2	1	F5	L10	G2	1	L2	R83	H5	1	M4	R644	H3	1	M3				
CR3	C2	1	F5	L12	G2	1	L3	R84	B4	2	O3	R645	H2	1	M3				

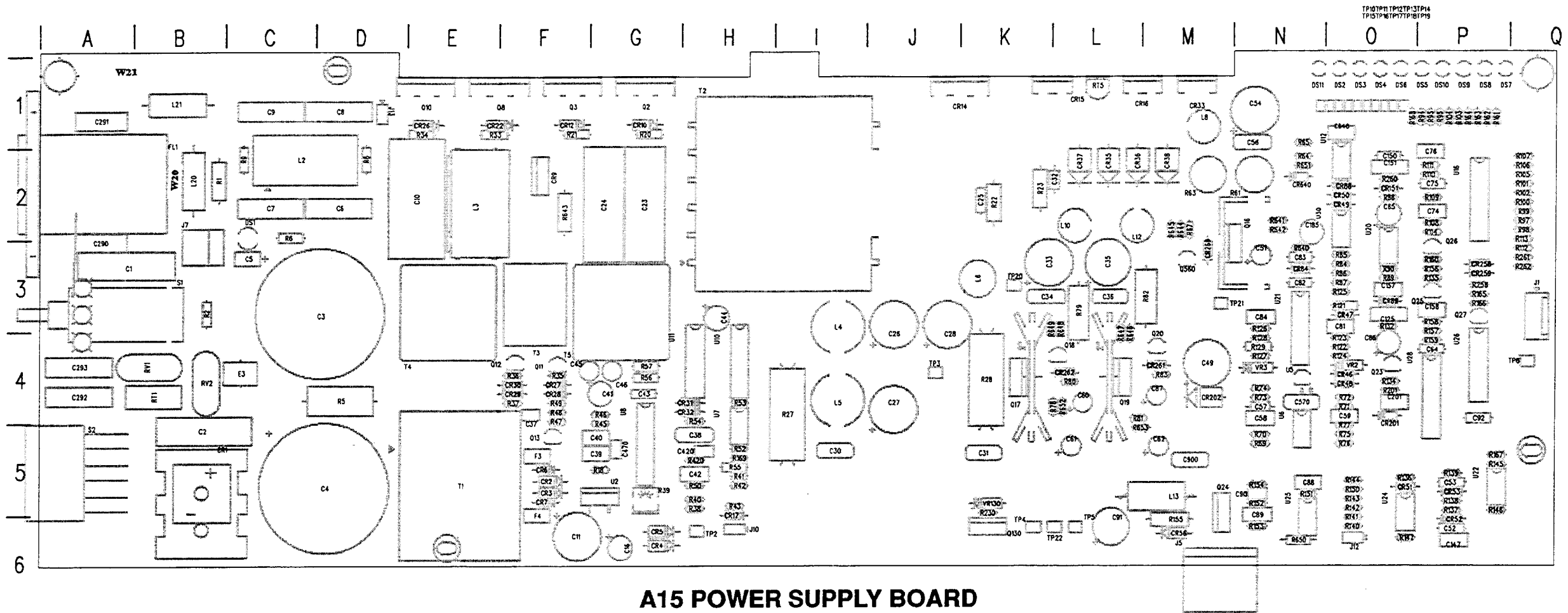
A15 POWER SUPPLY BOARD LOOKUP CHART

Use the circuit board lookup table, at left, for schematic <1>.

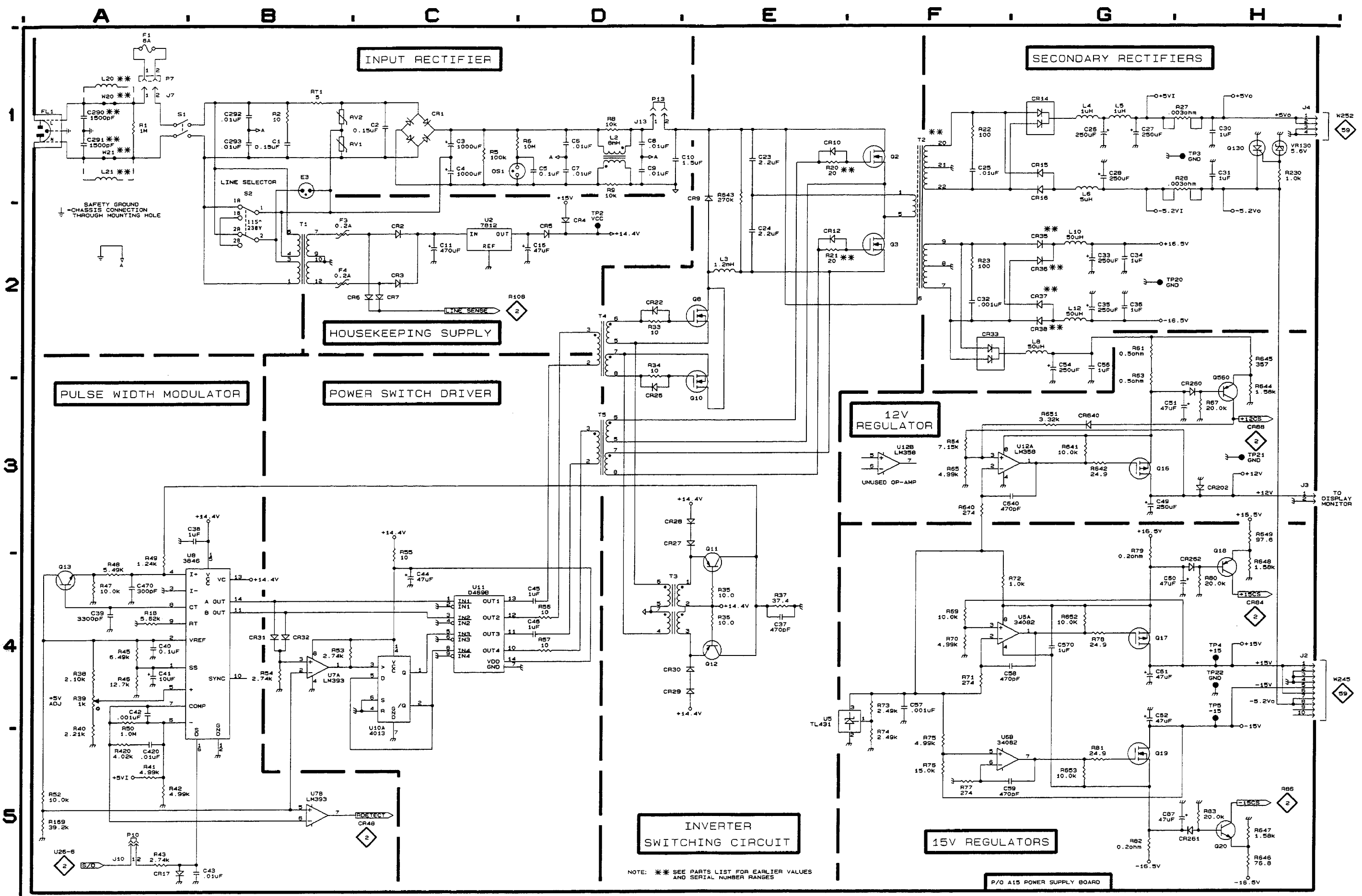
ASSEMBLY A15. Partial Assembly A15 also shown on Schematic 2.

** See Parts List for earlier serial number ranges.

VM 700A SERVICE



A15 POWER SUPPLY BOARD



NOTE: ** SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES

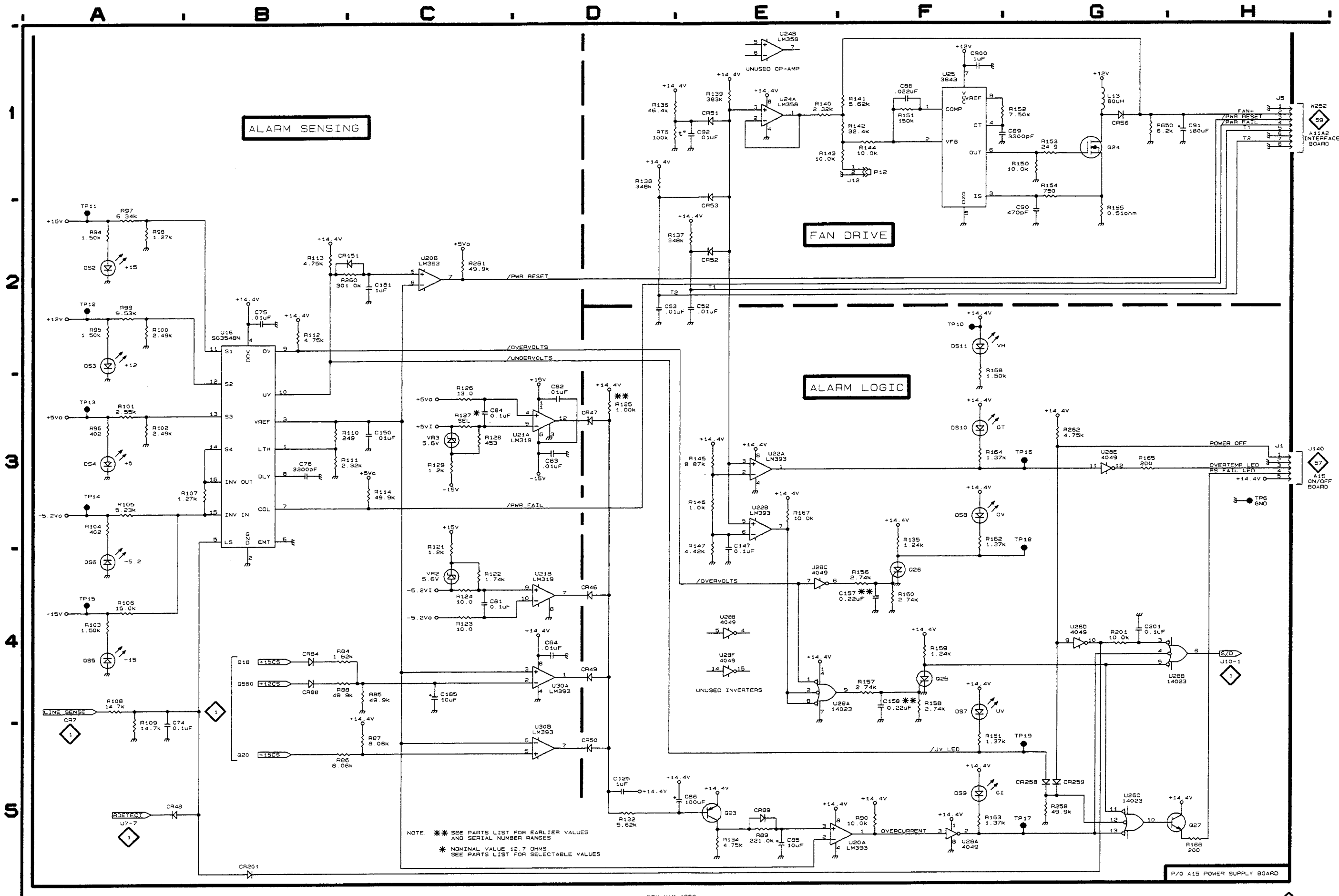
P/O A15 POWER SUPPLY BOARD

**SCHEMATIC DIAGRAM A15 < 2 >
POWER SUPPLY BOARD**

The schematic diagram has an alphanumeric grid to assist in locating parts within that diagram.

ASSEMBLY A15. Partial Assembly A15 also shown on Schematic 1.

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C52	E2	P6	Q23	E5	O4	R153	G1	N6
C53	D2	P5	Q24	G1	M5	R154	G1	N5
C64	D4	P4	Q25	F4	O3	R155	G2	M6
C74	A5	P2	Q26	F4	P3	R156	F4	P3
C75	B2	P2	Q27	H5	P3	R157	F4	P4
C76	B3	P2				R158	F4	P3
C81	C4	O4	R84	B4	O3	R159	F4	P4
C82	D3	N3	R85	C4	O3	R160	F4	P3
C83	D3	N3	R86	B5	O3	R161	F5	P1
C84	C3	N3	R87	C5	O3	R162	F3	P1
			R88	B4	O2			
C85	E5	O2	R89	E5	O3	R163	F5	P1
C86	E5	O4	R90	F5	O3	R164	F3	P1
C88	F1	N5	R94	A2	P1	R165	G3	P3
C89	F1	N6	R95	A2	P1	R166	H5	P3
C90	G2	N5	R96	A3	P1	R167	E3	P5
C91	H1	L6				R168	F2	O1
C92	E1	P5	R97	A2	O2	R201	G4	O4
C125	D5	O3	R98	A2	O2	R258	G5	P3
C147	E4	P6	R99	A2	O2	R260	B2	O2
C150	C3	O2	R100	A2	O2	R261	C2	O3
			R101	A3	O2			
C151	C2	O2	R102	A3	O2	R262	G3	O3
C157	F4	O3	R103	A4	P1	R650	G1	N6
C158	F4	P3	R104	A3	P1			
C185	C4	N2	R105	A3	O2	RT5	D1	L1
C201	G4	O4	R106	A4	O2			
C900	F1	M5				TP6	H3	O4
			R107	B3	O2	TP10	F2	O0
CR46	D4	O4	R108	A4	P2	TP11	A2	O0
CR47	D3	O3	R109	A4	P2	TP12	A2	O0
CR48	A5	O4	R110	B3	P2	TP13	A3	O0
CR49	D4	O2	R111	B3	P2	TP14	A3	P0
CR50	D5	O2	R112	B2	O3			
CR51	E1	O5	R113	B2	O3	TP15	A4	O0
CR52	E2	P6	R114	C3	P3	TP16	G3	O0
CR53	E1	P5	R121	C3	O3	TP17	G5	O0
			R122	C4	O4	TP18	G4	O0
						TP19	G5	P0
CR56	G1	M6						
CR84	B4	N3	R123	C4	O4	U16	B2	P2
CR88	B4	O2	R124	C4	O4	U20A	E5	O3
CR89	E5	O3	R125	D3	O3	U20B	C2	O3
CR151	C2	O2	R126	C3	N4	U21A	D3	N3
CR201	B5	O5	R127	C3	N4	U21B	D4	N3
CR258	G5	P3	R128	C3	N4	U22A	E3	P5
CR259	G5	P3	R129	C3	N4	U22B	E3	P5
			R132	D5	O4	U24A	E1	O5
DS2	A2	O1	R134	E5	O4	U24B	E1	O5
DS3	A2	O1	R135	F3	P3	U25	F1	N5
DS4	A3	O1						
DS5	A4	P1	R136	D1	O5	U26A	E4	P4
DS6	A4	O1	R137	E2	P6	U26B	H4	P4
DS7	F4	P1	R138	D1	P5	U26C	G5	P4
DS8	F3	P1	R139	E1	P5	U28A	F5	O4
DS9	F5	P1	R140	E1	O6	U28B	E4	O4
DS10	F3	P1	R141	F1	O6	U28C	E4	O4
DS11	F2	N1	R142	F1	O6	U28D	G4	O4
			R143	F1	O5	U28E	G3	O4
J1	H3	O3	R144	F1	O5	U28F	E4	O4
J5	H1	M6	R145	E3	P5	U30A	D4	N2
J12	F1	O6						
			R146	E3	P6	U30B	D5	N2
L13	G1	M5	R147	E3	O6	VR2	C4	O4
			R150	G1	O5	VR3	C3	N4
P12	F1		R151	F1	N5			
			R152	F1	N5			




ALARM SENSING AND LOGIC,
FAN DRIVE A15<2>

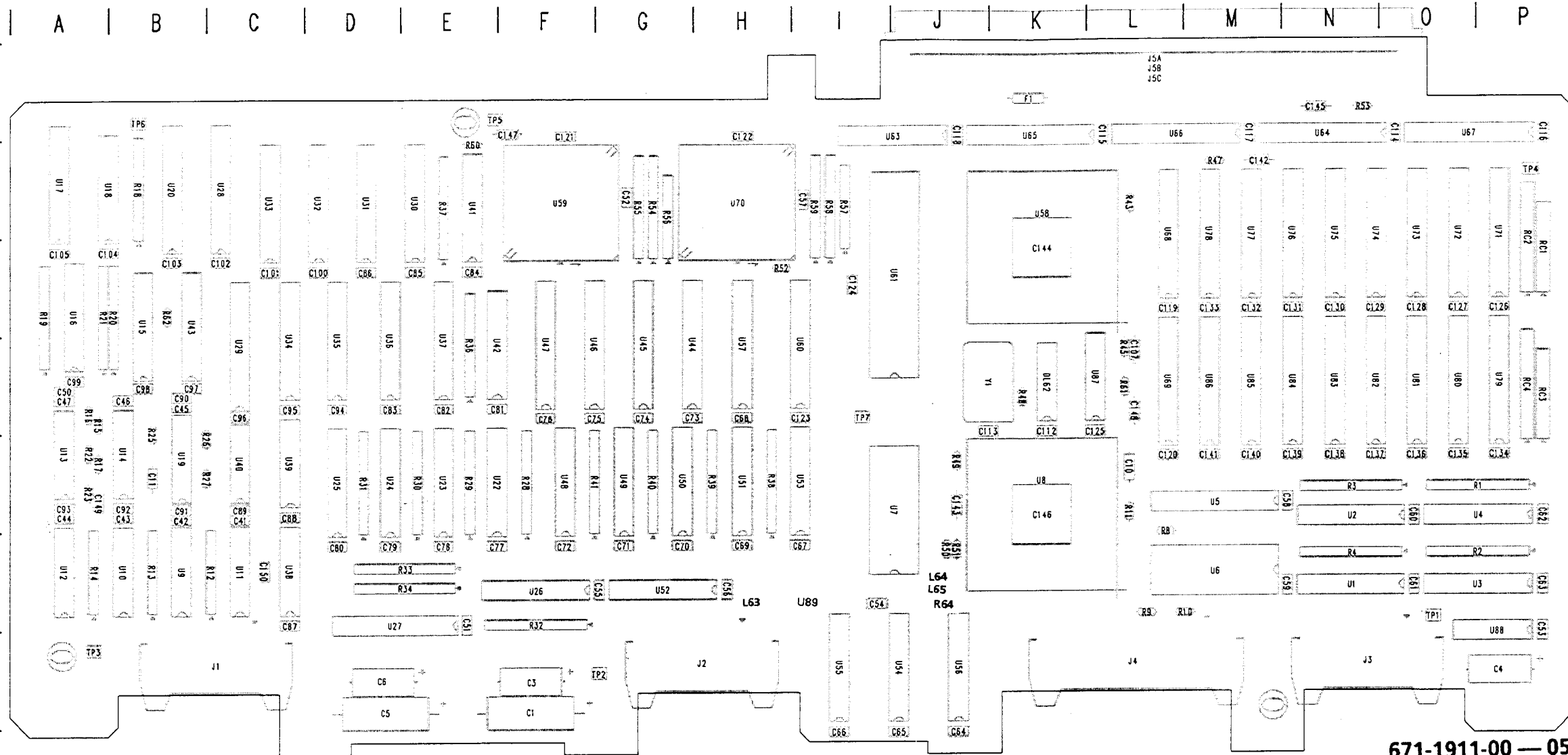


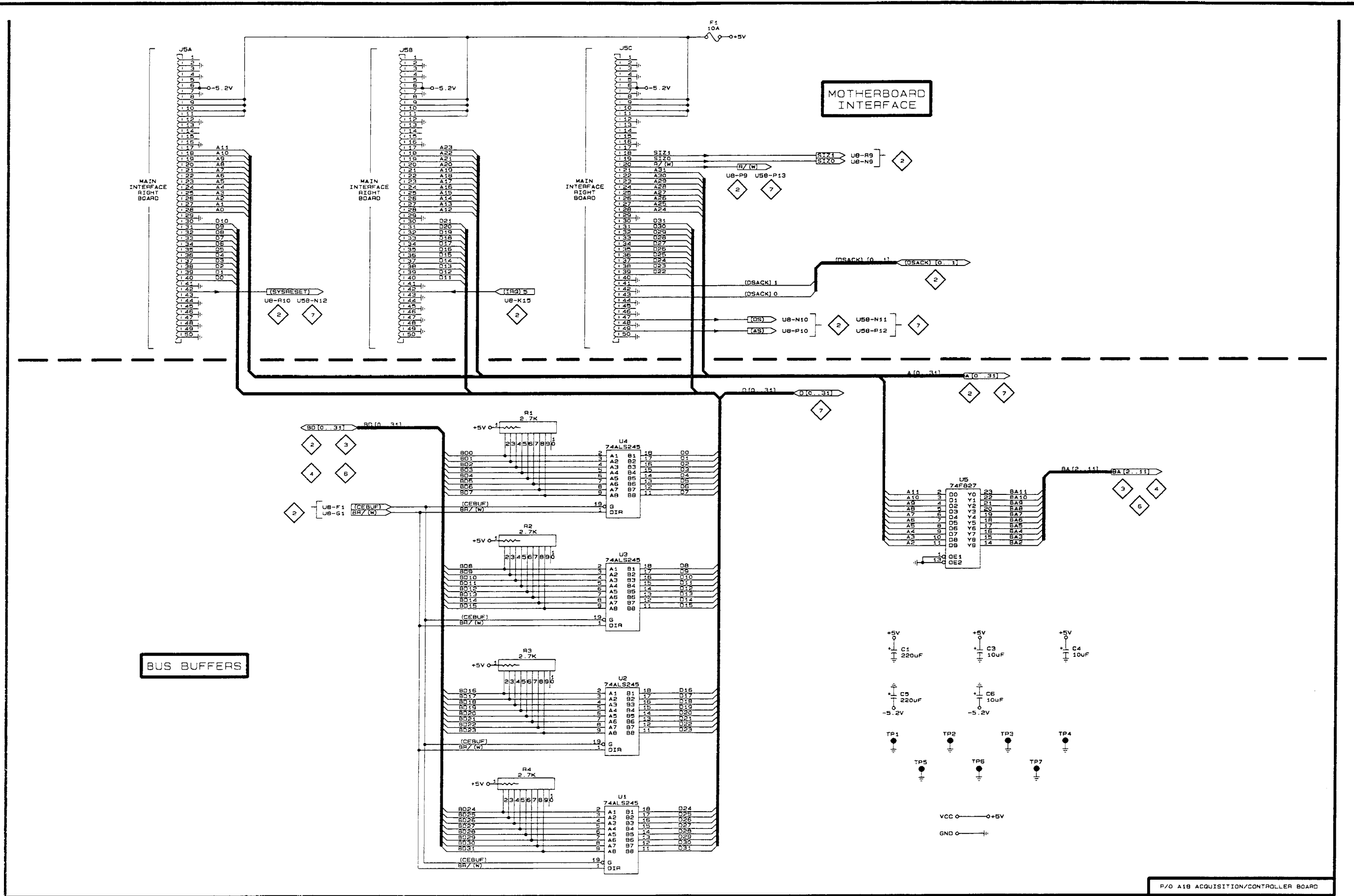
A18 ACQUISITION/CONTROLLER

VM 700A SERVICE

 **Static Sensitive Devices**
See the section in this manual on handling precautions for static sensitive components.

Use the circuit board lookup table, below, for schematic <1>





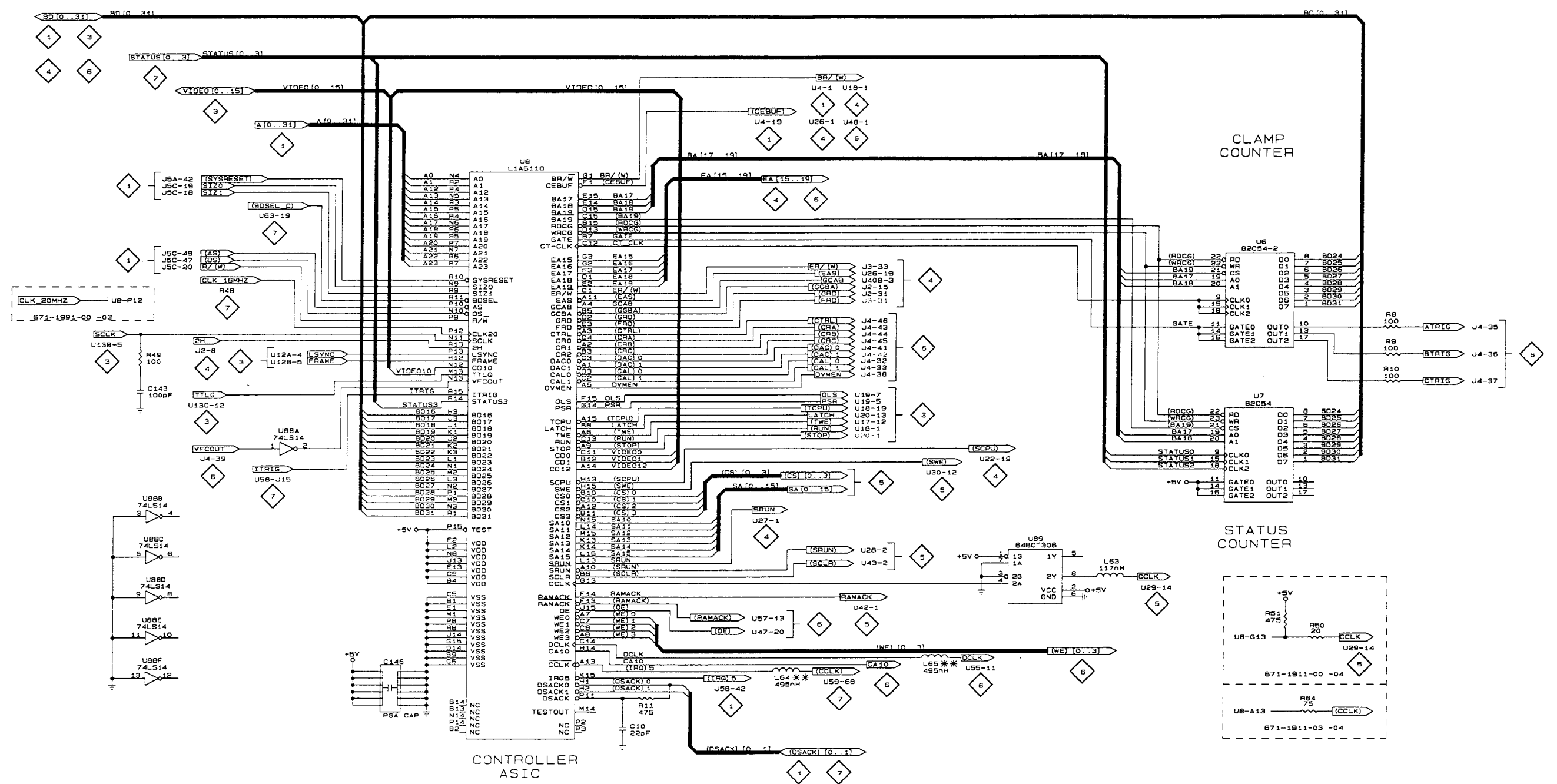
P/O A18 ACQUISITION/CONTROLLER BOARD

**ACQUISITION/CONTROLLER
BOARD
Schematic <2> Look-Up Chart**

Assembly A18. Partial Assembly A18 also shown on schematics 1, 3, 4, 5, 6, 7, and 8.

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C10	D5	L5
C143	A3	J5
C146	C4	K5
L63 *	F4	H6
L63 *	D4	J6
L63 *	E4	J6
R8	G3	L6
R9	G3	L6
R10	G3	L6
R11	D4	L5
R49	A3	J5
R50 *	F4	J6
R51 *	E4	J6
R64	G4	J6
U6	G2	M6
U7	G3	J5
U8	C2	K5
U88A	B3	P7
U88B	A4	P7
U88C	A4	P7
U88D	A4	P7
U88E	A4	P7
U88F	A4	P7
U89 *	F4	I6

*See parts list for serial number ranges.

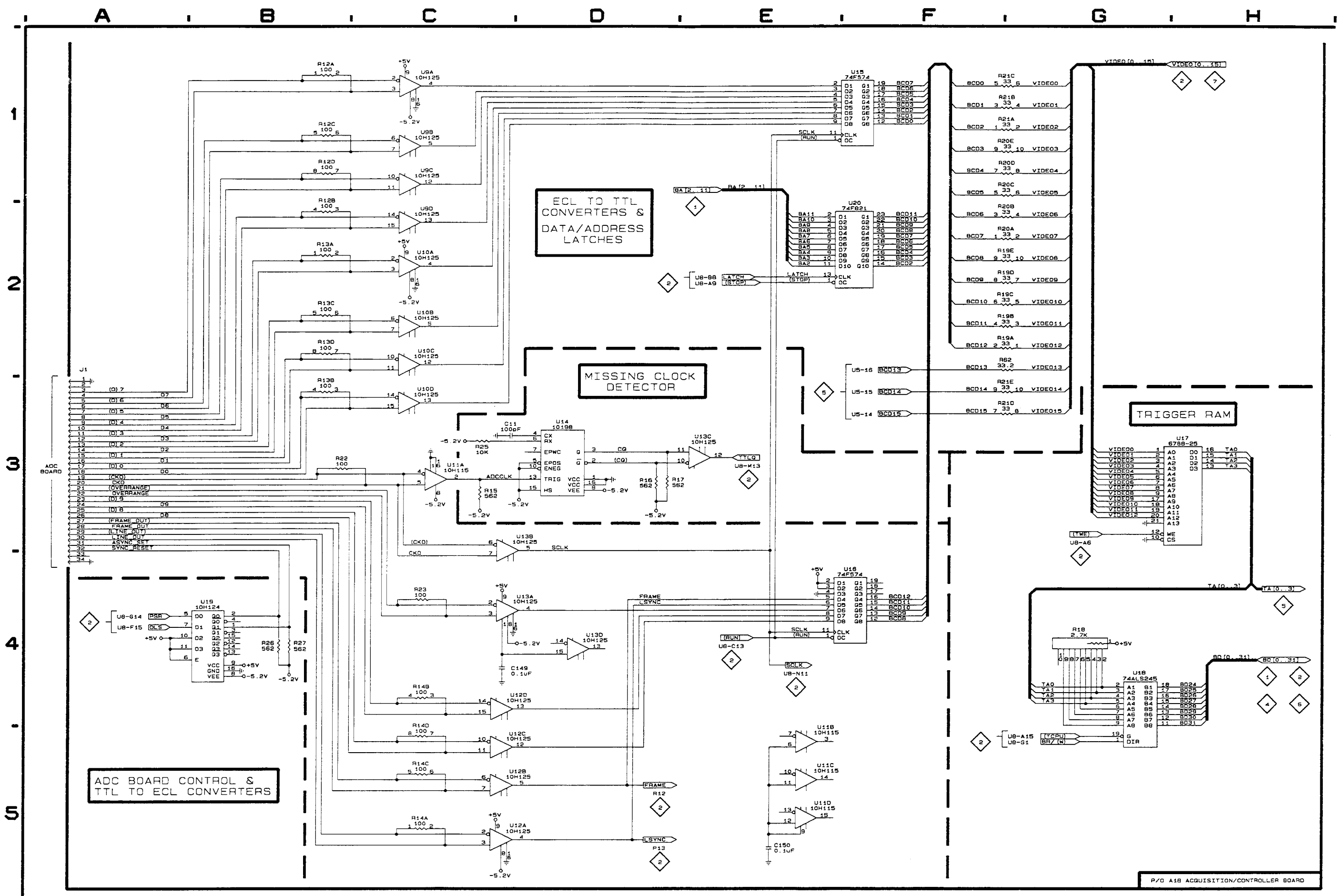


NOTE: ** SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.
P/O A18 ACQUISITION/CONTROLLER BOARD

**ACQUISITION/CONTROLLER
BOARD
Schematic <3> Look-Up Chart**

Assembly A18. Partial Assembly A18 also shown on schematics 1, 2, 4, 5, 6, 7, and 8.

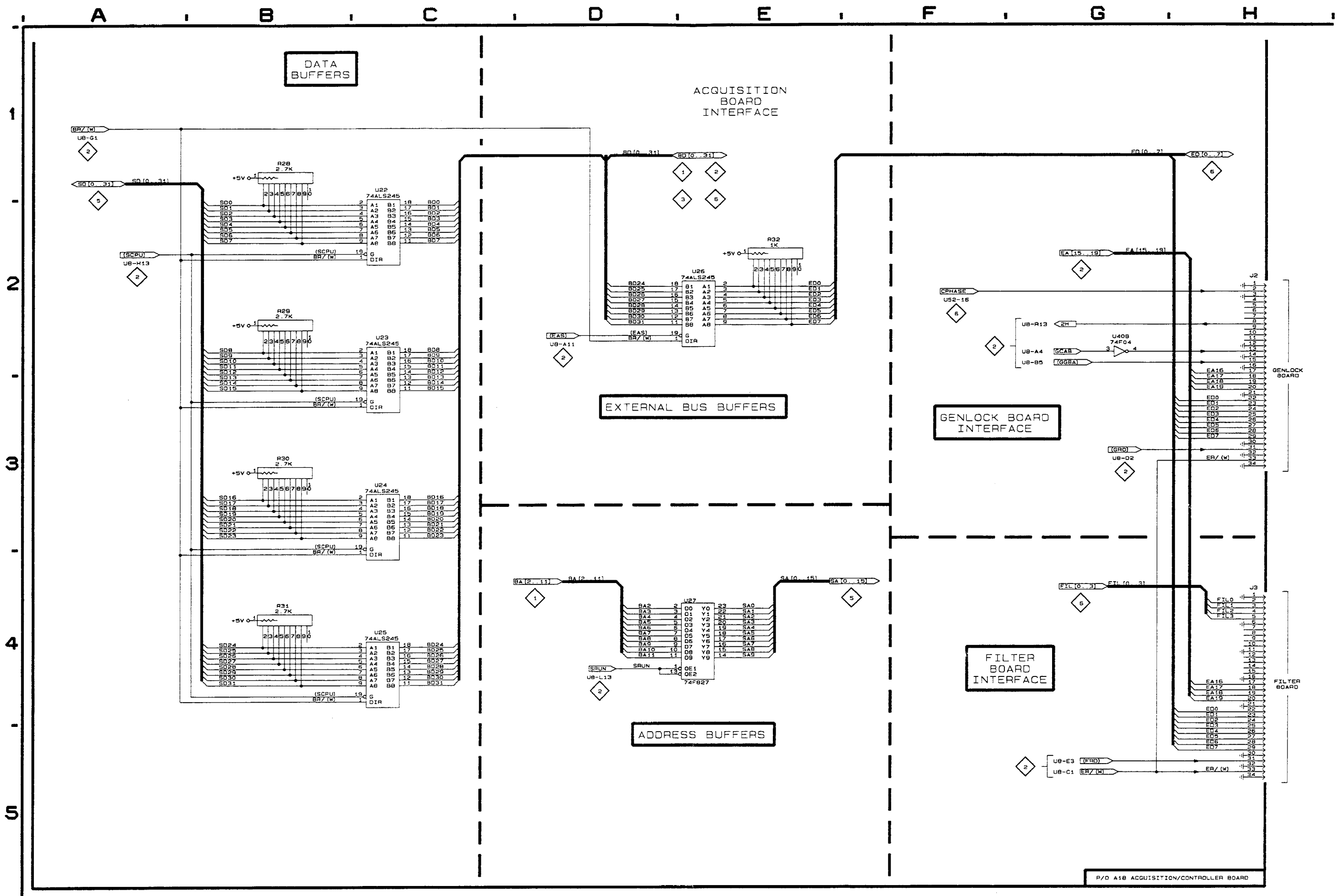
CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C11	C3	B5	U9A	C1	B6
C149	C4	A5	U9B	C1	B6
C150	E5	C6	U9C	C1	B6
J1	A3	C7	U9D	C2	B6
			U10A	C2	B6
R12A	B1	C6	U10B	C2	B6
R12B	B2	C6	U10C	C2	B6
R12C	B1	C6	U10D	C3	B6
R12D	B1	C6	U11A	C3	C6
R13A	B2	B6	U11B	E5	C6
R13B	B3	B6	U11C	E5	C6
R13C	B2	B6	U11D	E5	C6
R13D	B2	B6	U12A	C5	A6
R14A	C5	A6	U12B	C5	A6
R14B	C4	A6	U12C	C5	A6
R14C	C5	A6	U12D	C4	A6
R14D	C5	A6	U13A	C4	A5
R15	C3	A4	U13B	C3	A5
R16	D3	A4	U13C	E3	A5
R17	D3	A5	U13D	D4	A5
R18	G3	B2	U14	D3	B5
R19A	F2	A3	U15	F1	B3
R19B	F2	A3	U16	E4	A3
R19C	F2	A3	U17	G2	A2
R19D	F2	A3	U18	G4	A2
R19E	F2	A3	U19	B4	B5
R20A	F2	B3	U20	E2	B2
R20B	F2	B3			
R20C	F1	B3			
R20D	F1	B3			
R20E	F1	B3			
R21A	F1	A3			
R21B	F1	A3			
R21C	F1	A3			
R21D	F3	A3			
R21E	F3	A3			
R22	B3	A5			
R23	C4	A5			
R25	C3	B4			
R26	B4	B4			
R27	B4	B5			
R62	F2	B3			



**ACQUISITION/CONTROLLER
BOARD
Schematic <4> Look-Up Chart**

Assembly A18. Partial Assembly A18 also shown on Schematics 1, 2, 3, 5, 6, 7, and 8.

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
J2	H2	H7
J3	H4	N7
R28	B1	F5
R29	B2	E5
R30	B3	E5
R31	B4	D5
R32	E2	F6
U22	C2	E5
U23	C2	E5
U24	C3	D5
U25	C4	D5
U26	E2	F6
U27	E4	D6
U40B	G2	C5



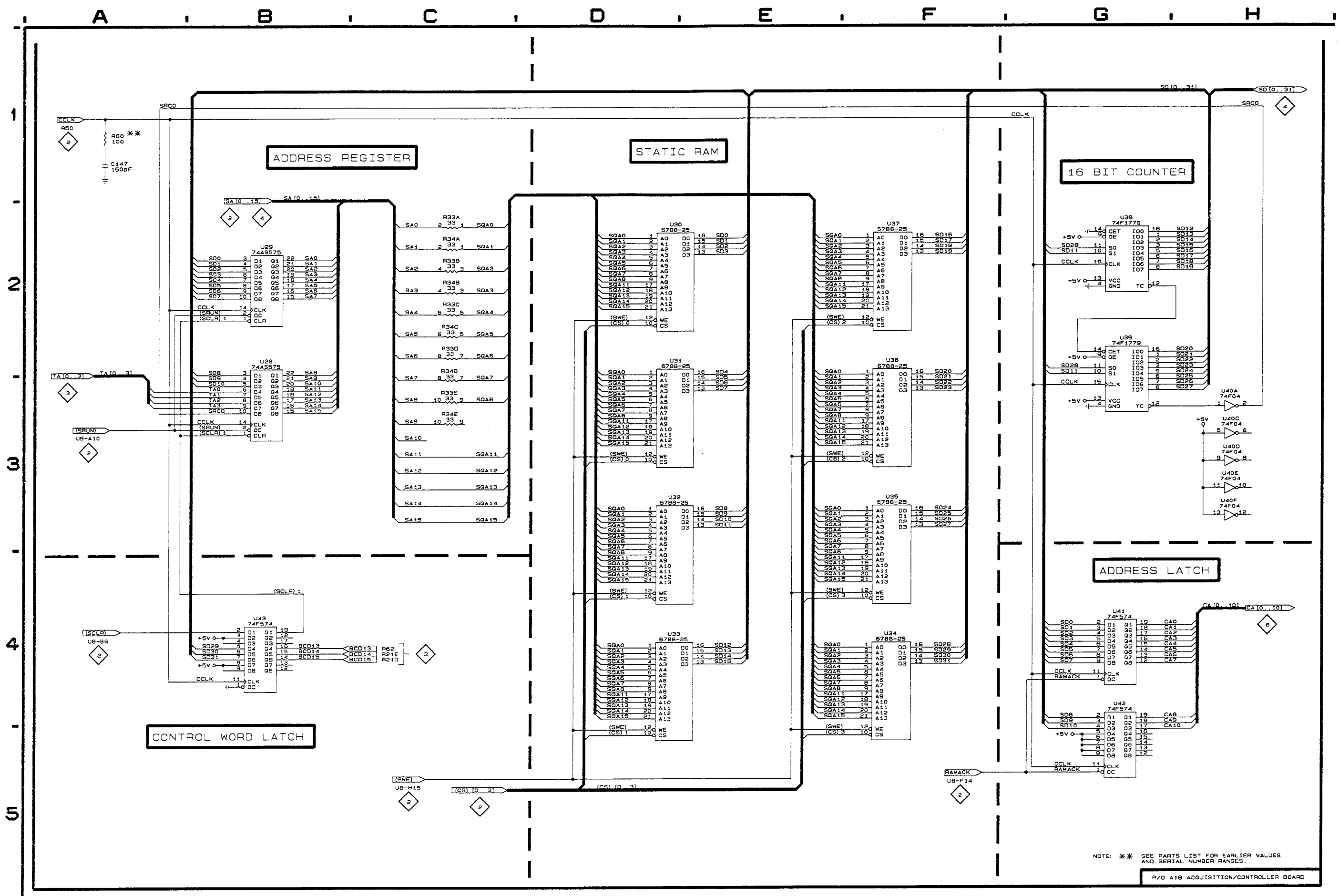
P/O A18 ACQUISITION/CONTROLLER BOARD

**ACQUISITION/CONTROLLER
BOARD
Schematic <5> Look-Up Chart**

Assembly A18. Partial Assembly A18 also shown on Schematics 1, 2, 3, 4, 6, 7, and 8.

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C147 *	A1	F1
R33A	C2	D6
R33B	C2	D6
R33C	C2	D6
R33D	C2	D6
R33E	C3	D6
R34A	C2	D6
R34B	C2	D6
R34C	C2	D6
R34D	C3	D6
R34E	C3	D6
R60	A1	E2
U28	B2	C2
U29	B2	C4
U30	D2	E2
U31	D2	D2
U32	D3	D2
U33	D4	C2
U34	F4	C3
U35	F3	D3
U36	F2	D3
U37	F2	E3
U38	G2	C6
U39	G2	C5
U40A	H3	C5
U40C	H3	C5
U40D	H3	C5
U40E	H3	C5
U40F	H3	C5
U41	G4	E2
U42	G4	E4
U43	B4	B3

* See parts list for serial number ranges.



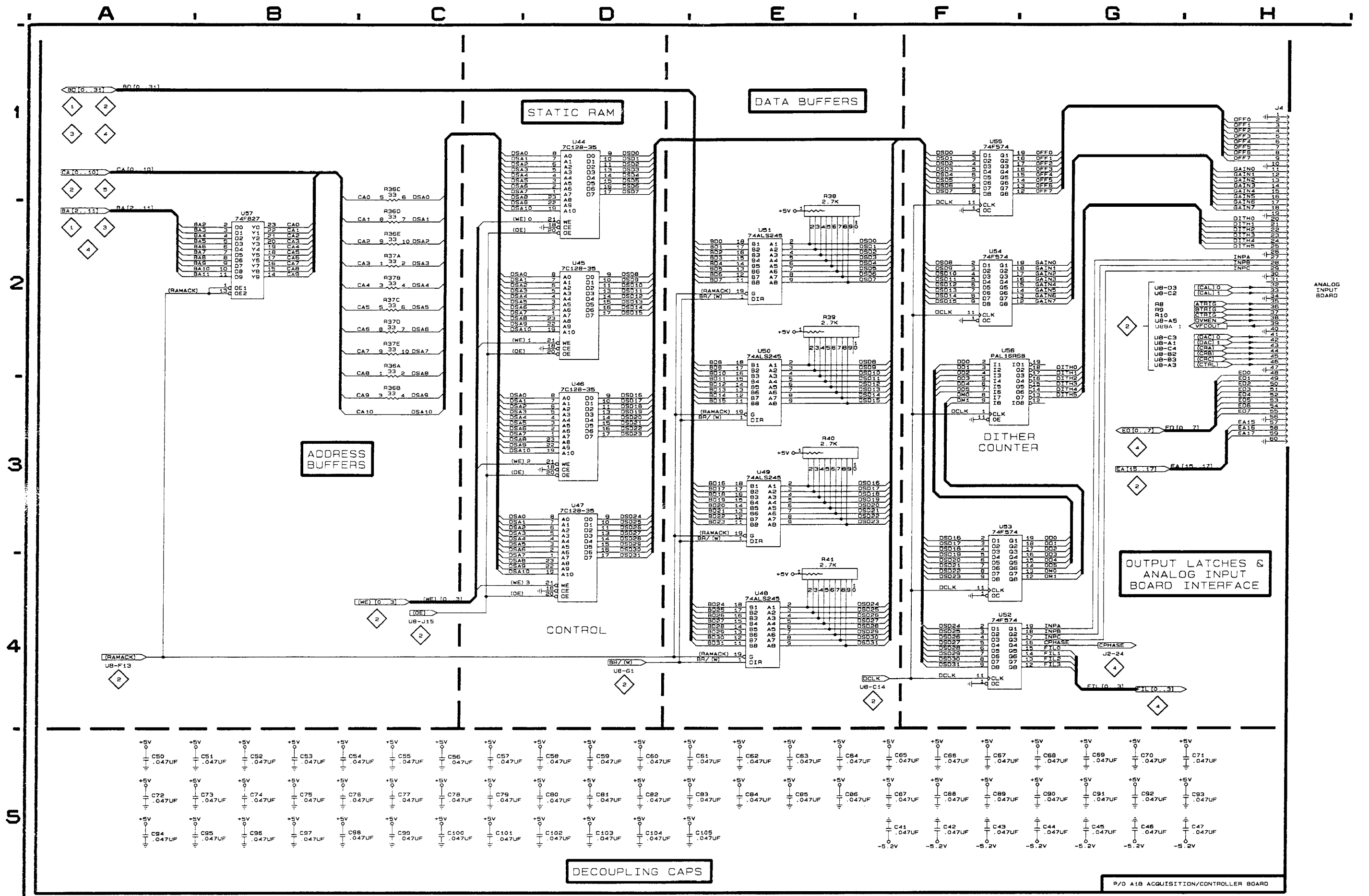
NOTE: ** SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

P/O A18 ACQUISITION/CONTROLLER BOARD

**ACQUISITION/CONTROLLER BOARD
Schematic <6> Look-Up Chart**

Assembly A18. Partial Assembly A18 also shown on Schematics 1, 2, 3, 4, 5, 7, and 8.

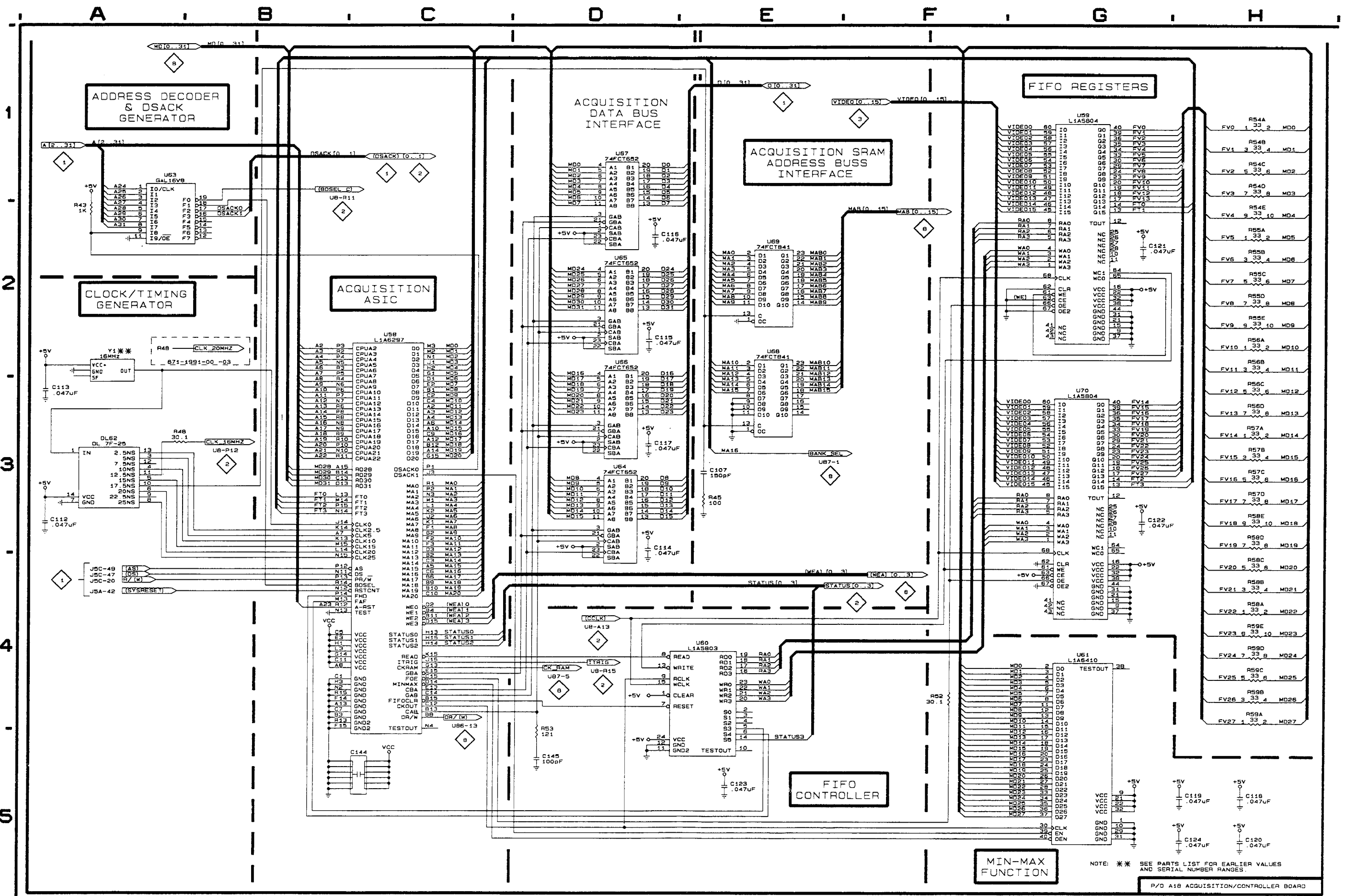
CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C41	F5	C5	C93	H5	A5
C42	F5	B5	C94	A5	D4
C43	F5	B5	C95	B5	C4
C44	G5	A5	C96	B5	C4
C45	G5	B4	C97	B5	B4
C46	G5	B4	C98	B5	B4
C47	H5	A4	C99	C5	A4
C50	A5	A4	C100	C5	D3
C51	B5	E6	C101	C5	C3
C52	B5	G2	C102	D5	C3
C53	B5	P6	C103	D5	B3
C54	B5	I6	C104	D5	A3
C55	C5	G6	C105	E5	A3
C56	C5	H6	J4	H1	L7
C57	C5	I2	R36A	C2	E4
C58	D5	N5	R36B	C3	E4
C59	D5	N6	R36C	C1	E4
C60	D5	O5	R36D	C2	E4
C61	E5	O6	R36E	C2	E4
C62	E5	P5	R37A	C2	E2
C63	E5	P6	R37B	C2	E2
C64	E5	J8	R37C	C2	E2
C65	F5	J8	R37D	C2	E2
C66	F5	I8	R37E	C2	E2
C67	F5	I6	R38	E2	H5
C68	G5	H4	R39	E2	H5
C69	G5	H6	R40	E3	G5
C70	G5	G6	R41	E4	F5
C71	H5	G6	U44	D1	G4
C72	A5	F6	U45	D2	G4
C73	B5	G4	U46	D3	F4
C74	B5	G4	U47	D3	F4
C75	B5	F4	U48	E4	F5
C76	B5	F4	U49	E3	G5
C77	C5	E6	U50	E2	G5
C78	C5	E6	U51	E2	H5
C79	C5	D6	U52	F4	G6
C80	D5	D6	U53	F3	I5
C81	D5	E4	U54	F2	J7
C82	D5	E4	U55	F1	I7
C83	E5	D4	U56	F2	J7
C84	E5	E3	U57	B2	H4
C85	E5	E3			
C86	E5	D3			
C87	F5	C6			
C88	F5	C5			
C89	F5	C5			
C90	G5	B4			
C91	G5	B5			
C92	G5	B5			



**ACQUISITION/CONTROLLER BOARD
Schematic <7> Look-Up Chart**

Assembly A18. Partial Assembly A18 also shown on Schematics 1, 2, 3, 4, 5, 6, and 8.

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C107	E3	L4	R57B	H3	I2
C112	A3	K5	R57C	H3	I2
C113	A3	J5	R57D	H3	I2
C114	D3	O1	R58A	H4	I2
C115	D2	L1	R58B	H4	I2
C116	D2	P1	R58C	H4	I2
C117	D3	M1	R58D	H3	I2
C118	H5	J1	R58E	H3	I2
C119	H5	L3	R59A	H4	I2
C120	H5	L5	R59B	H4	I2
C121	G2	F2	R59C	H4	I2
C122	G3	H2	R59D	H4	I2
C123	E5	I4	R59E	H4	I2
C124	H5	I3			
C144	C5	K3	U58	C2	K2
C145	D5	N1	U59	G1	F2
DL62	A3	K4	U60	D4	I4
			U61	G4	J3
			U63	A1	I2
R43	A2	L2			
R45	E3	L4	U64	D3	N2
R48	A3	K4	U65	D2	K2
R52	F4	H3	U66	D2	L2
R53	D4	N1	U67	D1	O2
			U68	E2	L2
R54A	H1	G2			
R54B	H1	G2	U69	E2	L4
R54C	H1	G2	U70	G3	H2
R54D	H1	G2			
R54E	H2	G2	Y1	A2	J4
R55A	H2	G2			
R55B	H2	G2			
R55C	H2	G2			
R55D	H2	G2			
R55E	H2	G2			
R56A	H2	G2			
R56B	H2	G2			
R56C	H3	G2			
R56D	H3	G2			
R57A	H3	I2			



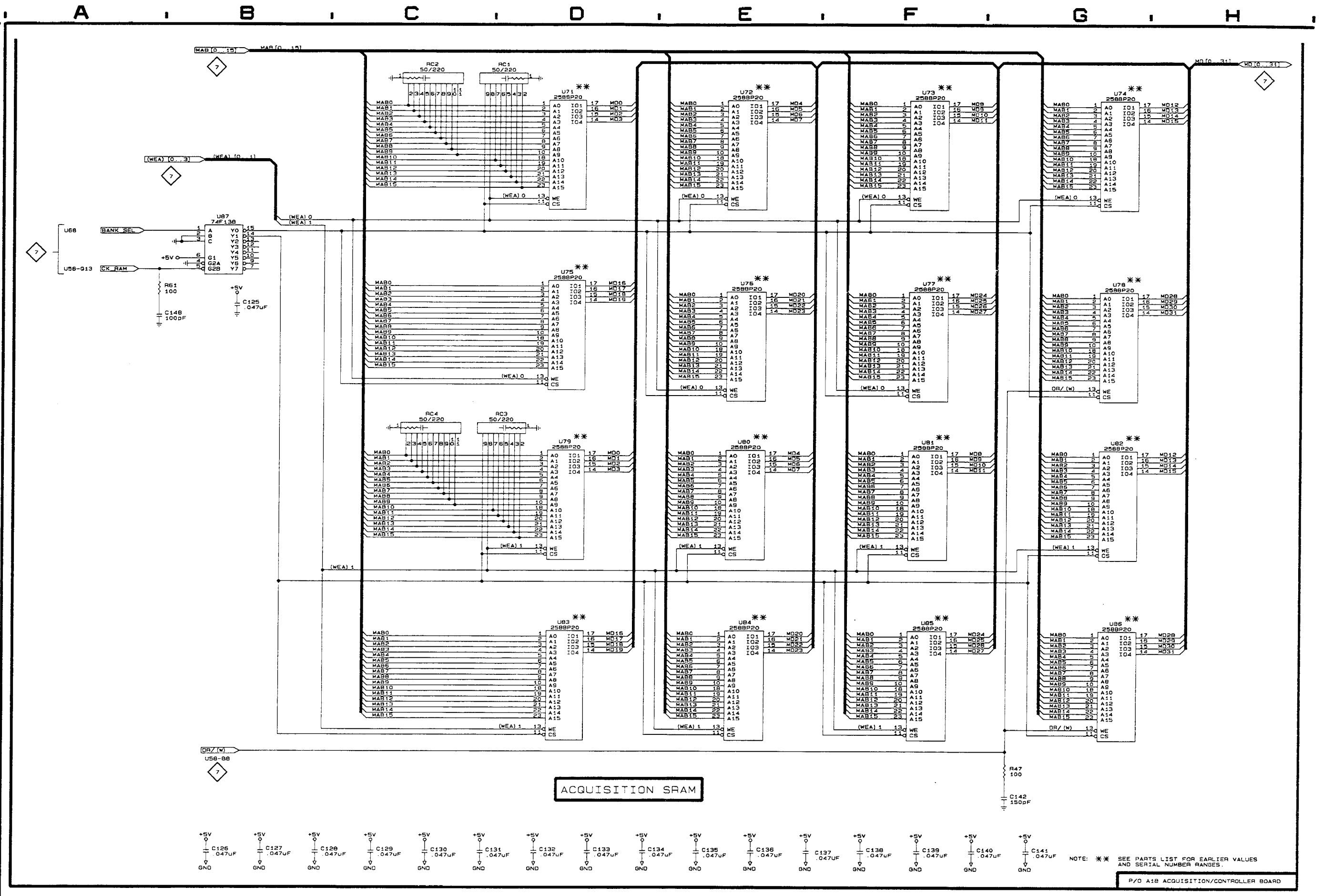
NOTE: ** SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

P/O A18 ACQUISITION/CONTROLLER BOARD

**ACQUISITION/CONTROLLER
BOARD
Schematic <8> Look-Up Chart**

Assembly A18. Partial Assembly A18 also shown on Schematics 1, 2, 3, 4, 5, 6, and 7.

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C125	B2	L5
C126	B5	P3
C127	B5	O3
C128	B5	O3
C129	C5	N3
C130	C5	N3
C131	C5	N3
C132	D5	M3
C133	D5	M3
C134	D5	P5
C135	E5	O5
C136	E5	O5
C137	E5	N5
C138	F5	N5
C139	F5	N5
C140	F5	M5
C141	G5	M5
C142	G5	M2
C148	A2	L4
R47	G5	M2
R61	A2	L4
RC1	C1	P3
RC2	C1	P2
RC3	C3	P4
RC4	C3	P4
U71	D1	P2
U72	E1	O2
U73	F1	O2
U74	G1	N2
U75	D2	N2
U76	E2	N2
U77	F2	M2
U78	G2	M2
U79	D3	P4
U80	E3	O4
U81	F3	O4
U82	G3	N4
U83	D4	N4
U84	E4	N4
U85	F4	M4
U86	G4	M4
U87	B2	L4



ACQUISITION SRAM

NOTE: ** SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

P/O A18 ACQUISITION/CONTROLLER BOARD

VM 700A SERVICE

ACQUISITION SRAM
(512K BYTES) <8>_{A18}



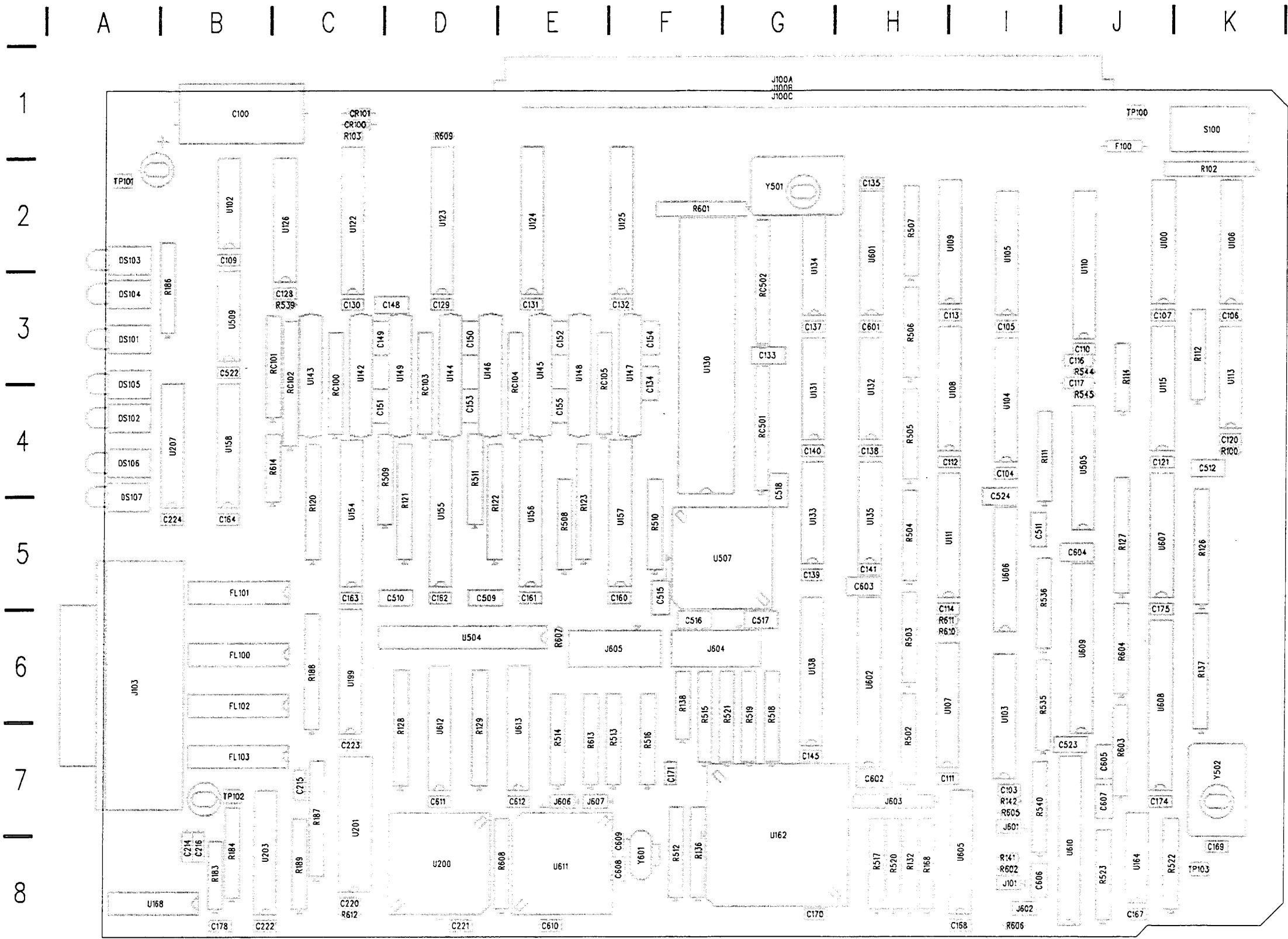
A19 GPIB

GPIB CIRCUIT BOARD LOOKUP TABLE

The schematic diagram and circuit board illustration have an alphanumeric grid to assist in locating parts within that diagram or circuit board.

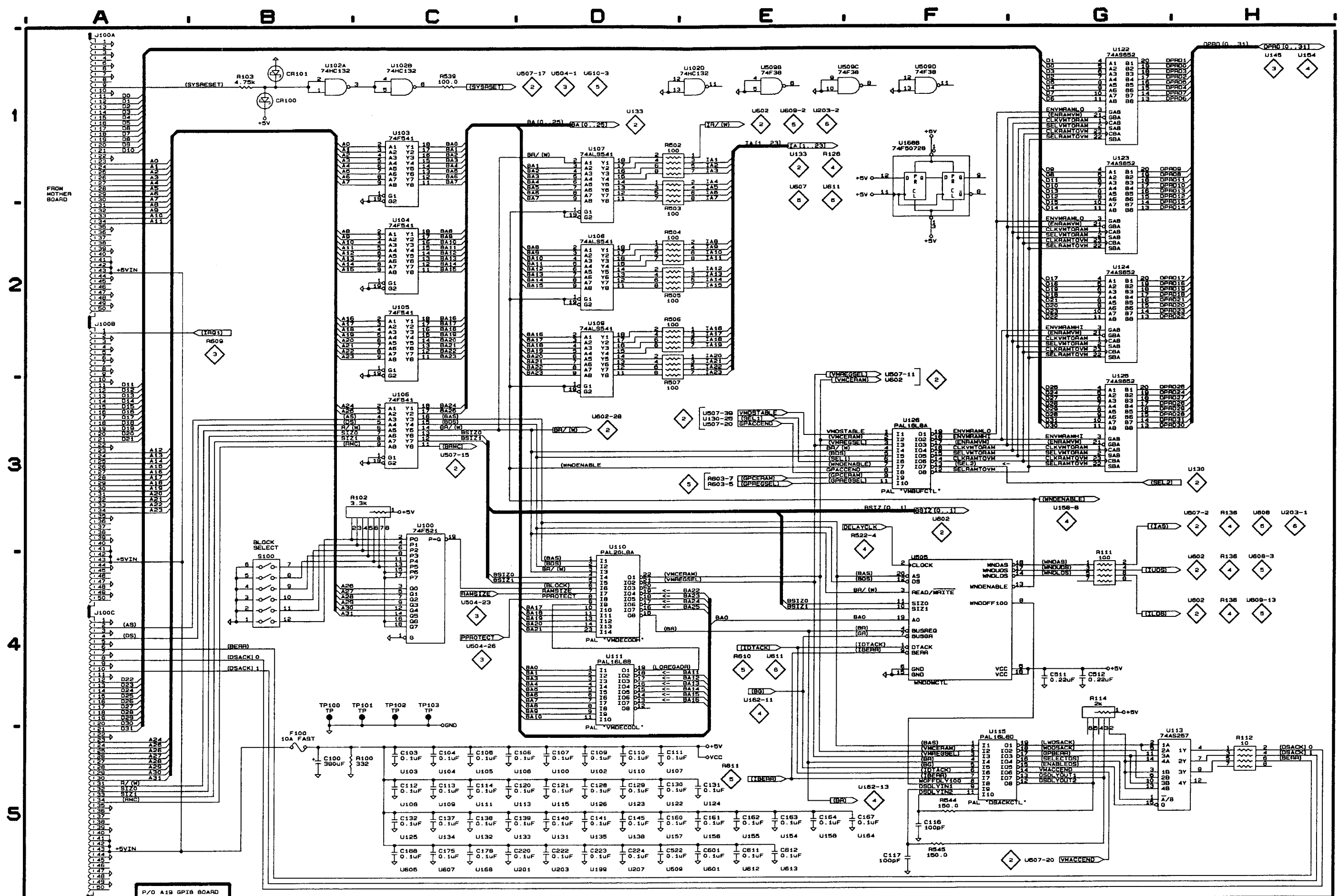
ASSEMBLY A19. Partial Assembly A19 shown on Schematics 1, 2, 3, 4, 5, and 6. Use this circuit board lookup table for schematic <1>.

CKT NO.	SCHEM LOC	SCHEM BD LOC	CKT NO.	SCHEM LOC	SCHEM BD LOC	CKT NO.	SCHEM LOC	SCHEM BD LOC	CKT NO.	SCHEM LOC	SCHEM BD LOC	CKT NO.	SCHEM LOC	SCHEM BD LOC	CKT NO.	SCHEM LOC	SCHEM BD LOC	CKT NO.	SCHEM LOC	SCHEM BD LOC	CKT NO.	SCHEM LOC	SCHEM BD LOC			
C100	1	B5 B1	C152	3	F2 E3	C523	5	G5 I6	FL101C	6	G1 B5	R126	4	E1 J5	R510B	4	G3 E4	R605	5	A1 H7	U105	1	C2 I2	U162	4	B3 F7
C103	1	C5 H7	C153	3	F2 D3	C524	5	H5 H4	FL101D	6	G1 B5	R127	4	E1 J5	R510C	4	G3 E4	R606	5	C2 I8	U106	1	C3 K2	U164A	4	B2 J7
C104	1	C5 H4	C154	3	F3 E3	C601	1	E5 G3	FL102A	6	G4 B6	R128	4	D2 C6	R510D	4	G3 E4	R607	6	B3 E5	U107	1	D1 H6	U164B	4	B2 J7
C105	1	C5 H3	C155	3	F4 E3	C602	2	G3 G7	FL102B	6	G3 B6	R129	4	D3 D6	R511A	4	G4 D4	R608	6	D5 D7	U108	1	D2 H3	U168A	6	A2 A8
C106	1	C5 J3	C160	1	D5 E5	C603	2	G3 G5	FL102C	6	G4 B6	R132	4	C4 H7	R511B	4	G4 D4	R609	3	G5 C1	U109	1	D2 H2	U168B	1	F1 A8
C107	1	D5 J3	C161	1	E5 D5	C604	5	C2 I5	FL102D	6	G3 B6	R136	4	D4 F7	R511C	4	G4 D4	R610	5	H5 H5	U110	1	D4 I2	U199	6	F1 C6
C109	1	D5 B2	C162	1	E5 C5	C605	5	C2 I7	FL103A	6	G3 B6	R137	4	D1 J6	R511D	4	G4 D4	R611	5	H5 H5	U111	1	D4 H5	U200	6	D1 C7
C110	1	D5 I3	C163	1	E5 C5	C606	5	E3 I8	FL103B	6	G3 B6	R138	4	B1 F6	R512	4	D3 F7	R612	6	C3 C8	U113	1	G5 K3	U201	6	F3 C7
C111	1	D5 H7	C164	1	E5 B4	C607	5	E3 I7	FL103C	6	G4 B6	R141	4	D5 H7	R513	4	D3 E6	R613	6	A3 E6	U115	1	F5 J3	U203	6	B1 B7
C112	1	C5 H4	C167	1	F5 J8	C608	6	A4 E7	FL103D	6	G3 B6	R142	4	D5 H7	R514	4	D4 E6	R614	4	D4 B4	U122	1	G1 C2	U207	6	F5 A4
C113	1	C5 H3	C168	1	C5 H8	C609	6	A4 E7				R168	5	E2 H7	R515	4	D4 F6				U123	1	G1 D2	U504	3	F4 D5
C114	1	C5 H5	C169	4	A2 J7	C610	6	C4 D8	J100A	1	A1 F0	R183	6	B1 B8	R516	4	D1 E6	RC100	3	D2 C3	U124	1	G2 D2	U505	1	F4 I4
C116	1	F5 I3	C170	4	B4 G8	C611	1	E5 C7	J100B	1	A2 F1	R184B	6	B2 B7	R517	4	D1 G7	RC101	3	C4 B3	U125	1	G3 E2	U507	2	F4 F5
C117	1	F5 I3	C171	4	B4 F7	C612	1	E5 D7	J100C	1	A4 F1	R184C	6	B2 B7	R518	4	D1 F6	RC102	3	B5 B3	U126	1	F3 B2	U509A	3	G5 B3
C120	1	C5 J4	C174	5	C4 J7				J101	4	B5 I8	R184D	6	B2 B7	R519	4	D2 F6	RC103	3	D4 C3	U130	2	E1 F3	U509B	1	E1 B3
C121	1	D5 J4	C175	1	C5 J5	CR100	1	B1 C1	J103	6	H2 A6	R186	6	H4 A2	R520	4	D2 H7	RC104	3	F2 D3	U131	2	B2 G3	U509C	1	E1 B3
C128	1	D5 B2	C178	1	C5 A8	CR101	1	B1 C1	J601	5	A1 I7	R187	6	E3 B7	R521	4	D2 F6	RC105	3	F4 E3	U132	2	B2 G3	U509D	1	F1 B3
C129	1	D5 C2	C214	6	B2 A7				J602	5	B2 I8	R188	6	E1 B6	R522A	4	A2 J7	RC501	2	D2 F4	U133	2	B1 G4	U601	2	B3 G2
C130	1	D5 C2	C215	6	B2 B7	DS101	6	G5 A3	J603	5	B3 G7	R189	6	C1 B7	R522B	4	A2 J7	RC502	2	D2 F2	U134	2	B3 G2	U602	2	F2 G6
C131	1	E5 D2	C216	6	B2 A7	DS102	6	G5 A3	J604	6	D4 F5	R502	1	D1 H6	R522C	4	C2 J7				U135	2	B1 G4	U605	4	F5 H7
C132	1	C5 E2	C220	1	C5 C8	DS103	6	F5 A2	J605	6	D4 E5	R503	1	D1 H5	R523A	4	B3 I8	S100	1	B4 J1	U138	2	G2 G6	U606	5	G5 I5
C133	2	F1 F3	C221	6	E2 D8	DS104	6	F5 A2	J606	6	A5 E7	R504	1	D2 H5	R523B	4	C2 I8				U142	3	C1 C3	U607	5	B5 J5
C134	2	F1 E3	C222	1	D5 B8	DS105	6	G5 A3	J607	6	A5 E7	R505	1	D2 H4	R523C	4	C1 I8	TP100	1	B4 J1	U143	3	C2 B3	U608	5	B4 J6
C135	2	C4 G1	C223	1	D5 C6	DS106	6	H5 A4				R506	1	D2 H3	R523D	4	C2 I8	TP101	1	C4 A1	U144	3	C3 D3	U609	5	B1 I6
C137	1	C5 G3	C224	1	D5 A4	DS107	6	H5 A4	R100	1	B5 J4	R507	1	D2 H2	R535	5	C1 I6	TP102	1	C4 B7	U145	3	E1 D3	U610	5	D2 I7
C138	1	C5 G4	C509	3	F5 D5				R102	1	B3 J1	R508A	4	G2 E4	R536	5	C1 I5	TP103	1	C4 J7	U146	3	E2 D3	U611	6	B4 E7
C139	1	C5 G5	C510	3	G5 C5	F100	1	B5 I1	R103	1	B1 C1	R508B	4	G2 E4	R539	1	C1 B2				U147	3	E3 E3	U612	6	B3 D6
C140	1	D5 G4	C511	1	G4 I4				R111	1	G4 I4	R508C	4	G2 E4	R540	5	B3 I7	U100	1	C3 J2	U148	3	E3 E3	U613	6	B3 D6
C141	1	D5 G5	C512	1	G4 J4	FL100A	6	G1 B6	R112	1	H5 J3	R508D	4	G2 E4	R544	1	F5 I3	U102A	1	B1 B2	U149	3	C3 C3			
C145	1	D5 G6	C515	2	F5 E5	FL100B	6	G2 B6	R114	1	G4 J3	R509A	4	G3 C4	R545	1	F5 I3	U102B	1	C1 B2	U154	4	H2 C4	Y501	2	D4 F1
C148	3	C2 C2	C516	2	G5 F5	FL100C	6	G2 B6	R120	3	C1 B4	R509B	4	G3 C4	R601	2	D4 F2	U102C	6	D5 B2	U155	4	H3 D4	Y502	4	A2 J7
C149	3	C2 C3	C517	2	G5 F5	FL100D	6	G2 B6	R121	3	C2 C4	R509C	4	G3 C4	R602	4	C5 H7	U102D	1	E1 B2	U156	4	H3 D4	Y601	6	A4 E7
C150	3	C3 D3	C518	2	G5 G4	FL101A	6	G1 B5	R122	3	F1 D4	R509D	4	G3 C4	R603	5	E4 J6	U103	1	C1 I6	U157	4	H4 E4			
C151	3	C4 C3	C522	1	D5 B3	FL101B	6	G1 B5	R123	3	F2 E4	R510A	4	G3 E4	R604	5	E4 J6	U104	1	C2 I3	U158	4	G4 B4			



A19 GPIB BOARD

671-2337-00



VM700A GPIB INTERFACE

MAIN PROCESSOR ADDRESS BUFFERS, DECODING, ACCESS CONTROL AND TIMING

**SCHEMATIC DIAGRAM <2>
GPIB BOARD**

The schematic diagram and circuit board illustration have an alphanumeric grid to assist in locating parts within that diagram or circuit board.

ASSEMBLY A19. *Partial Assembly A19 also shown on Schematics 1 and 3 through 6.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C133	E1	F3
C134	F1	E3
C135	C4	G1
C515	F5	E5
C516	G5	F5
C517	G5	F5
C518	G5	G4
C602	G3	G7
C603	G3	G5
R601	D4	F2
RC501	D2	F4
RC502	D2	F2
U130	E1	F3
U131	B2	G3
U132	B2	G3
U133	B1	G4
U134	B3	G2
U135	B1	G4
U138	G2	G6
U507	F4	F5
U601	B3	G2
U602	F2	G6
Y501	D4	F1

**SCHEMATIC DIAGRAM <3>
GPIB BOARD**

The schematic diagram and circuit board illustration have an alphanumeric grid to assist in locating parts within that diagram or circuit board.

ASSEMBLY A19. *Partial Assembly A19 also shown on Schematics 1, 2, 4, 5, and 6.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C148	C2	C2
C149	C2	C3
C150	C3	D3
C151	C4	C3
C152	F2	E3
C153	F2	D3
C154	F3	E3
C155	F4	E3
C509	F5	D5
C510	G5	C5
R120	C1	B4
R121	C2	C4
R122	F1	D4
R123	F2	E4
R609	G5	C1
RC100	D2	C3
RC101	C4	B3
RC102	B5	B3
RC103	D4	C3
RC104	F2	D3
RC105	F4	E3
U142	C1	C3
U143	C2	B3
U144	C3	D3
U145	E1	D3
U146	E2	D3
U147	E3	E3
U148	E3	E3
U149	C3	C3
U504	F4	D5
U509A	G5	B3

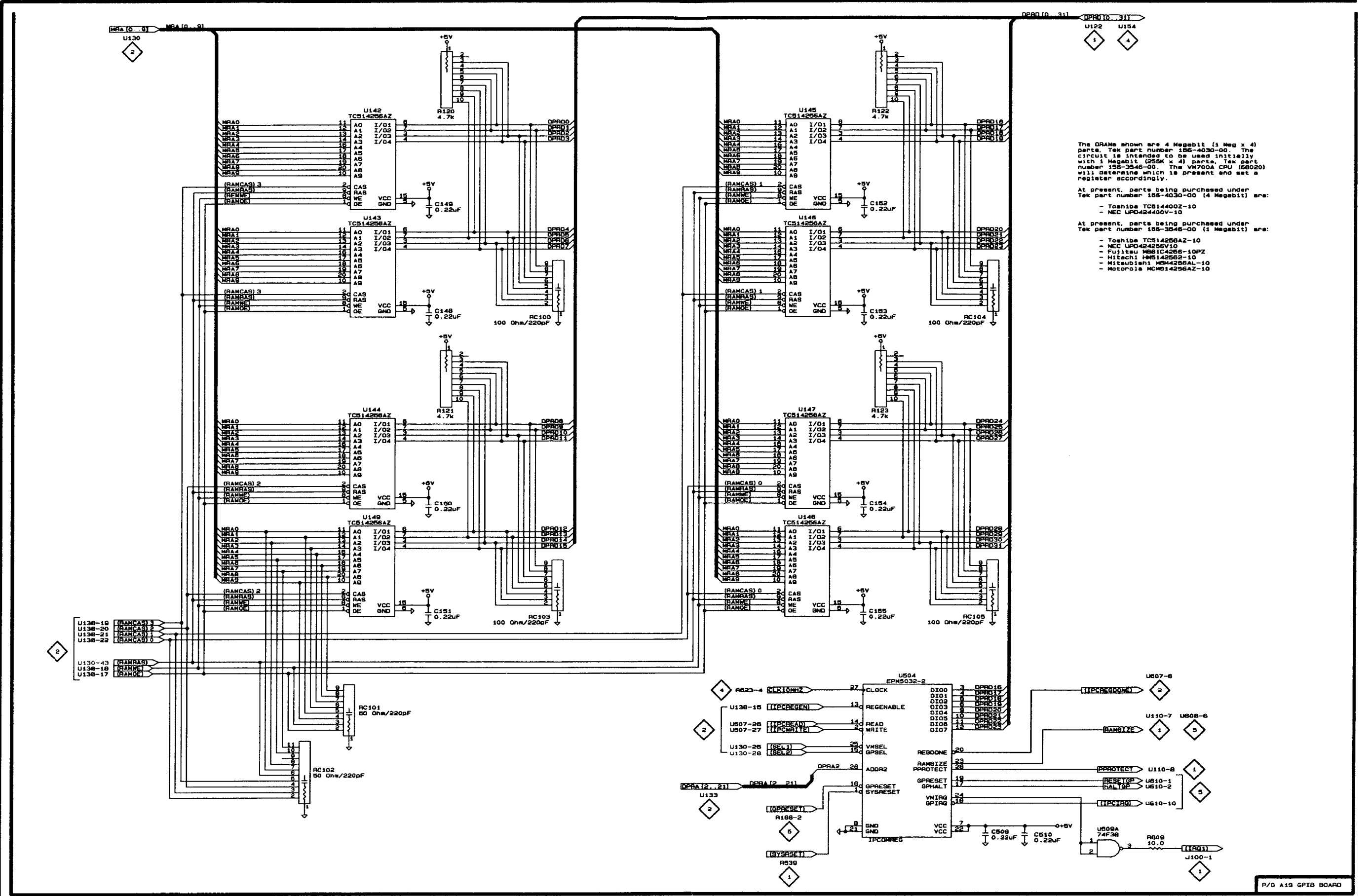
1

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4

5



The DRAMs shown are 4 Megabit (1 Meg x 4) parts. Tek part number 156-4030-00. The circuit is intended to be used initially with 1 Megabit (256K x 4) parts. Tek part number 156-3546-00. The VM700A CPU (68020) will determine which is present and set a register accordingly.

At present, parts being purchased under Tek part number 156-4030-00 (4 Megabit) are:

- Toshiba TCS14400Z-10
- NEC UPD42400V-10

At present, parts being purchased under Tek part number 156-3546-00 (1 Megabit) are:

- Toshiba TCS14256AZ-10
- NEC UPD42256V10
- Fujitsu MB61C4256-10PZ
- Hitachi H5M142562-10
- Mitsubishi M5M4256AL-10
- Motorola MCM514256AZ-10

**SCHEMATIC DIAGRAM <4>
GPIB BOARD**

The schematic diagram and circuit board illustration have an alphanumeric grid to assist in locating parts within that diagram or circuit board.

ASSEMBLY A19. *Partial Assembly A19 also shown on Schematics 1, 2, 3, 5, and 6.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C169	A2	J7	R516	D1	E6
C170	B4	G8	R517	D1	G7
C171	B4	F7	R518	D1	F6
			R519	D2	F6
J101	B5	I8	R520	D2	H7
			R521	D2	F6
R126	E1	J5	R522A	A2	J7
R127	E1	J5	R522B	A2	J7
R128	D2	C6	R522C	C2	J7
R129	D3	D6	R523A	B3	I8
R132	C4	H7			
R136	D4	F7	R523B	C2	I8
R137	D1	J6	R523C	C1	I8
R138	B1	F6	R523D	C2	I8
R141	D5	H7	R602	C5	H7
R142	D5	H7	R614	D4	B4
R508A	G2	E4	U154	H2	C4
R508B	G2	E4	U155	H3	D4
R508C	G2	E4	U156	H3	D4
R508D	G2	E4	U157	H4	E4
R509A	G3	C4	U158	G4	B4
R509B	G3	C4	U162	B3	F7
R509C	G3	C4	U164A	B2	J7
R509D	G3	C4	U164B	B2	J7
R510A	G3	E4	U605	F5	H7
R510B	G3	E4			
			Y502	A2	J7
R510C	G3	E4			
R510D	G3	E4			
R511A	G4	D4			
R511B	G4	D4			
R511C	G4	D4			
R511D	G4	D4			
R512	D3	F7			
R513	D3	E6			
R514	D4	E6			
R515	D4	F6			

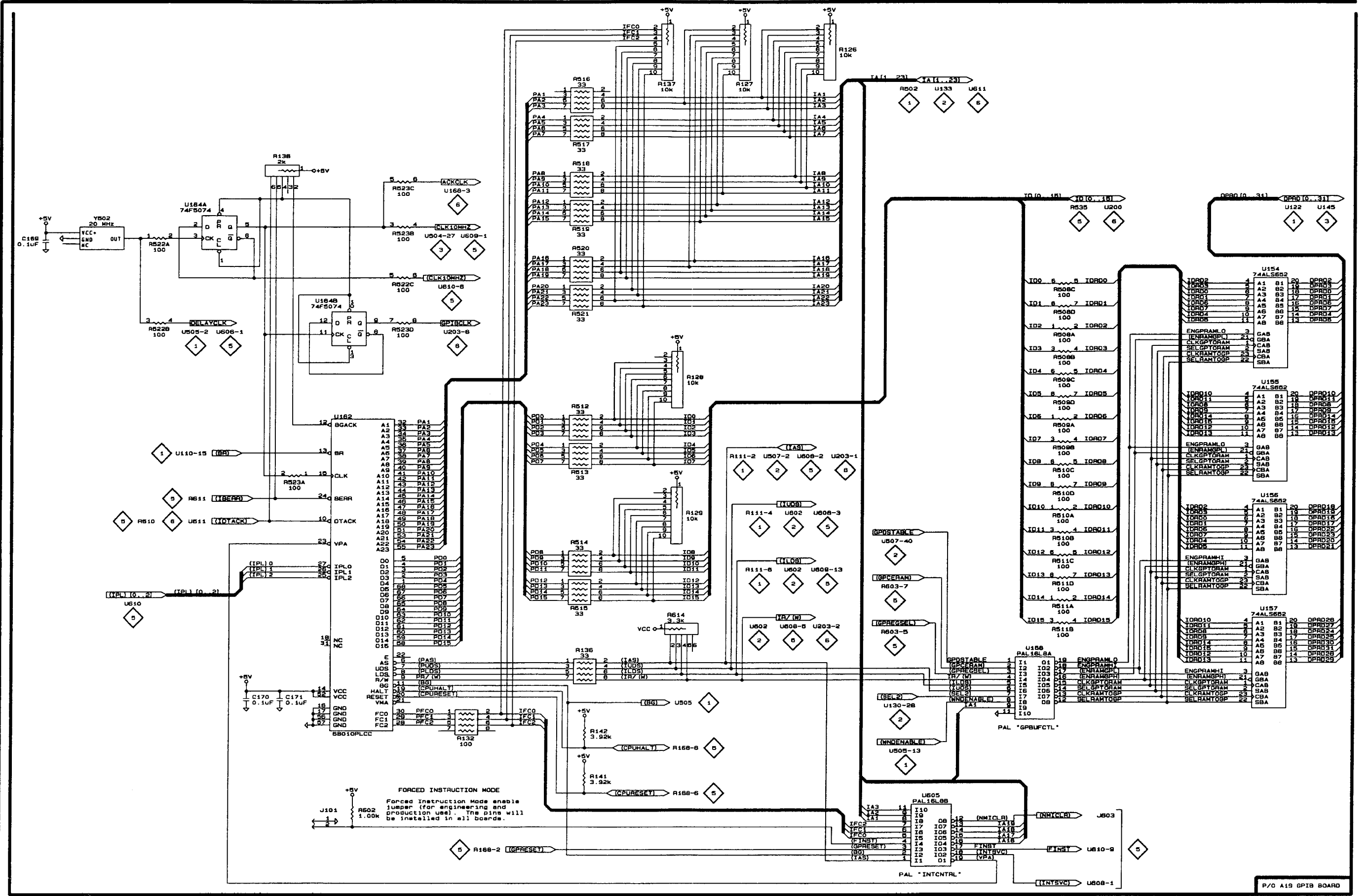
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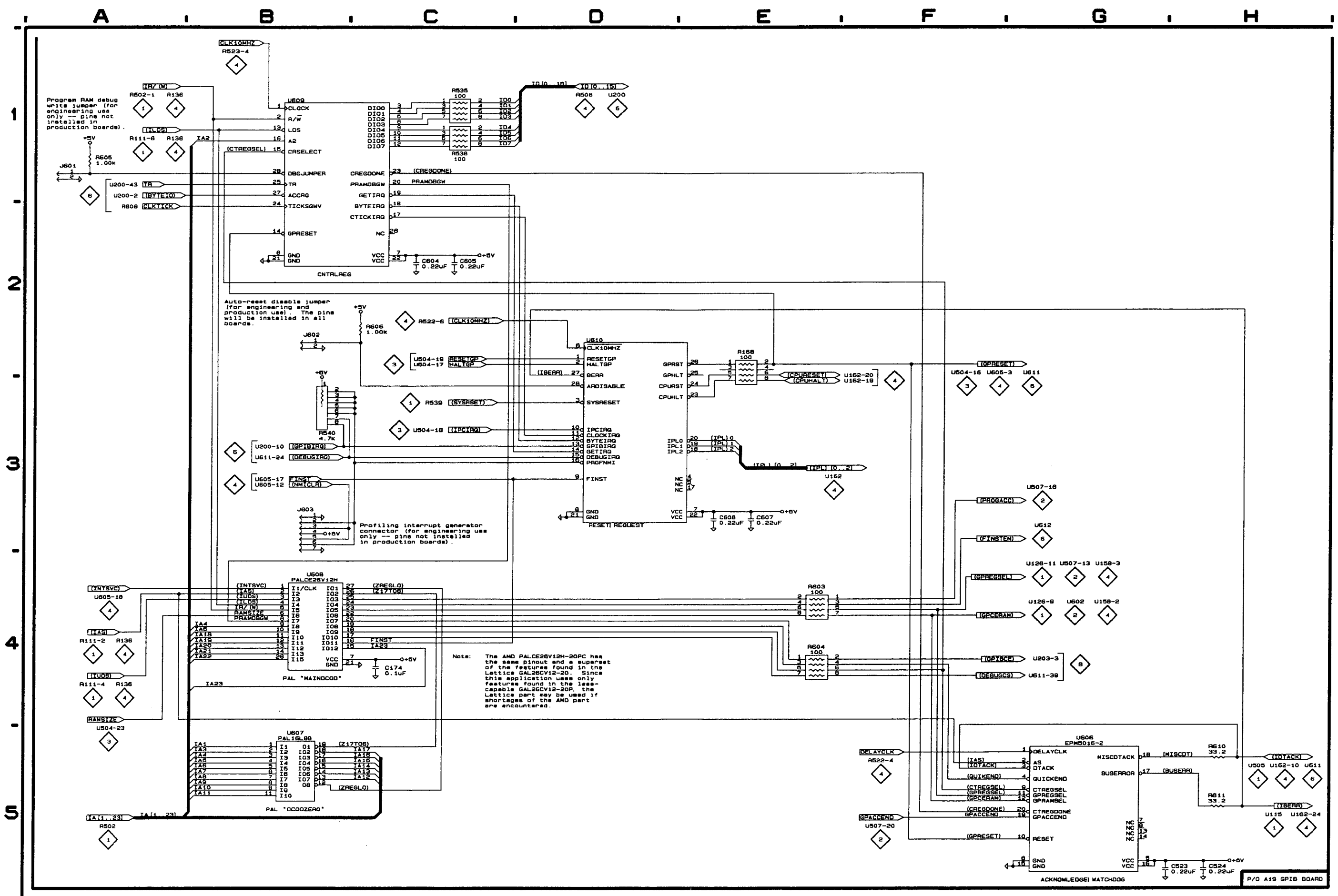


**SCHEMATIC DIAGRAM <5>
GPIB BOARD**

The schematic diagram and circuit board illustration have an alphanumeric grid to assist in locating parts within that diagram or circuit board.

ASSEMBLY A19. *Partial Assembly A19 also shown on Schematics 1, 2, 3, 4, and 6.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C174	C4	J7
C523	G5	I6
C524	H5	H4
C604	C2	I5
C605	C2	I7
C606	E3	I8
C607	E3	I7
J601	A1	I7
J602	B2	I8
J603	B3	G7
R168	E2	H7
R535	C1	I6
R536	C1	I5
R540	B3	I7
R603	E4	J6
R604	E4	J6
R605	A1	H7
R606	C2	I8
R610	H5	H5
R611	H5	H5
U606	G5	I5
U607	B5	J5
U608	B4	J6
U609	B1	I6
U610	D2	I7



Program RAM debug write jumper (for engineering use only -- pins not installed in production boards).

Auto-reset disable jumper (for engineering and production use). The pins will be installed in all boards.

Profiling interrupt generator connector (for engineering use only -- pins not installed in production boards).

Note: The AMD PALCE28V12H-20PC has the same pinout and a subset of the features found in the Lattice GAL28CV12-20. Since this application uses only features found in the less-capable GAL26CV12-20P, the Lattice part may be used if shortages of the AMD part are encountered.

**SCHEMATIC DIAGRAM <6>
GPIB BOARD**

The schematic diagram and circuit board illustration have an alphanumeric grid to assist in locating parts within that diagram or circuit board.

ASSEMBLY A19. *Partial Assembly A19 also shown on Schematics 1, 2, 3, 4, and 5.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C214	B2	A7	J103	H2	A6
C215	B2	B7	J604	D4	F5
C216	B2	A7	J605	D4	E5
C221	E2	D8	J606	A5	E7
			J607	A5	E7
C608	A4	E7			
C609	A4	E7	R183	B1	B8
C610	C4	D8	R184B	B2	B7
			R184C	B2	B7
			R184D	B2	B7
DS101	G5	A3			
DS102	G5	A3			
DS103	F5	A2	R186	H4	A2
DS104	F5	A2	R187	E3	B7
			R188	E1	B6
DS105	G5	A3	R189	C1	B7
DS106	H5	A4			
DS107	H5	A4	R607	B3	E5
			R608	D5	D7
FL100A	G1	B6	R612	C3	C8
FL100B	G2	B6	R613	A3	E6
FL100C	G2	B6			
FL100D	G2	B6	U102C	D5	B2
			U168A	A2	A8
FL101A	G1	B5	U199	F1	C6
FL101B	G1	B5	U200	D1	C7
FL101C	G1	B5			
FL101D	G1	B5	U201	F3	C7
			U203	B1	B7
FL102A	G4	B6	U207	F5	A4
FL102B	G3	B6	U611	B4	E7
FL102C	G4	B6			
FL102D	G3	B6	U612	B3	D6
			U613	B3	D6
FL103A	G3	B6			
FL103B	G3	B6	Y601	A4	E7
FL103C	G4	B6			
FL103D	G3	B6			

Section 9: Replaceable Mechanical Parts List

Section 9: Replaceable Mechanical Parts

This section contains a list of the components that are replaceable for the VM700A. Use this list to identify and order replacement parts. There is a separate Replaceable Mechanical Parts list for each instrument.

Parts Ordering Information

Replacement parts are available from or through your local Tektronix, Inc., Field Office or representative.

Changes to Tektronix instruments are sometimes made to accommodate improved components as they become available and to give you the benefit of the latest circuit improvements. Therefore, when ordering parts, it is important to include the following information in your order.

- Part number
- Instrument type or model number
- Instrument serial number
- Instrument modification number, if applicable

If a part you have ordered has been replaced with a new or improved part, your local Tektronix, Inc., Field Office or representative will contact you concerning any change in part number.

Change information, if any, is located at the rear of this manual.

Using the Replaceable Mechanical Parts List

The tabular information in the Replaceable Mechanical Parts list is arranged for quick retrieval. Understanding the structure and features of the list will help you find all of the information you need for ordering replaceable parts.

Cross Index–Mfr. Code Number to Manufacturer

The Mfg. Code Number to Manufacturer Cross Index for the mechanical parts list is located immediately after this page. The cross index provides codes, names, and addresses of manufacturers of components listed in the mechanical parts list.

Abbreviations

Abbreviations conform to American National Standards Institute (ANSI) standard Y1.1.

Chassis Parts

Chassis-mounted parts and cable assemblies are located at the end of the Replaceable Electrical Parts list.

Column Descriptions

Figure & Index No. (Column 1)	Items in this section are referenced by figure and index numbers to the illustrations.																																																												
Tektronix Part No. (Column 2)	Indicates part number to be used when ordering replacement part from Tektronix.																																																												
Serial No. (Column 3 and 4)	Column three (3) indicates the serial number at which the part was first used. Column four (4) indicates the serial number at which the part was removed. No serial number entered indicates part is good for all serial numbers.																																																												
Qty (Column 5)	This indicates the quantity of mechanical parts used.																																																												
Name and Description (Column 6)	<p>An item name is separated from the description by a colon (:). Because of space limitations, an item name may sometimes appear as incomplete. Use the U.S. Federal Catalog handbook H6-1 for further item name identification.</p> <p>Following is an example of the indentation system used to indicate relationship.</p> <table border="0" style="margin-left: 20px;"> <tr> <td style="padding-right: 5px;">1</td> <td style="padding-right: 5px;">2</td> <td style="padding-right: 5px;">3</td> <td style="padding-right: 5px;">4</td> <td style="padding-right: 5px;">5</td> <td>Name & Description</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Assembly and/or Component</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Mounting parts for Assembly and/or Component</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>*MOUNTING PARTS*/*END MOUNTING PARTS*</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Detail Part of Assembly and/or Component</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Mounting parts for Detail Part</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>*MOUNTING PARTS*/*END MOUNTING PARTS*</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Parts of Detail Part</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Mounting parts for Parts of Detail Part</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>*MOUNTING PARTS*/*END MOUNTING PARTS*</td> </tr> </table> <p>Mounting Parts always appear in the same indentation as the Item it mounts, while the detail parts are indented to the right. Indented items are part of and included with, the next higher indentation. Mounting parts must be purchased separately, unless otherwise specified.</p>	1	2	3	4	5	Name & Description						Assembly and/or Component						Mounting parts for Assembly and/or Component						*MOUNTING PARTS*/*END MOUNTING PARTS*						Detail Part of Assembly and/or Component						Mounting parts for Detail Part						*MOUNTING PARTS*/*END MOUNTING PARTS*						Parts of Detail Part						Mounting parts for Parts of Detail Part						*MOUNTING PARTS*/*END MOUNTING PARTS*
1	2	3	4	5	Name & Description																																																								
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					MOUNTING PARTS/*END MOUNTING PARTS*																																																								
Mfr. Code (Column 7)	Indicates the code number of the actual manufacturer of the part. (Code to name and address cross reference can be found immediately after this page.)																																																												
Mfr. Part Number (Column 8)	Indicates actual manufacturer's part number.																																																												

Cross Index – Mfr. Code Number To Manufacturer

Mfr. Code	Manufacturer	Address	City, State, Zip Code
S3109	FELLER U.S. CORPORATION	72 VERONICA AVE UNIT 4	SUMMERSET NJ 08873
TK0435	LEWIS SCREW CO	4300 S RACINE AVE	CHICAGO IL 60609-3320
TK0588	UNIVERSAL PRECISION PRODUCTS	1775 NW 216TH	HILLSBORO OR 97123
TK0941	BEARINGS INC (DIST)	2720 NW 29TH PO BOX 3005	PORTLAND OR 97210-1702
TK1161	DTM INDUSTRIES	4725 NAUTILUS COURT SOUTH	BOULDER CO 80301
TK1163	POLYCAST INC	9898 SW TIGARD ST	TIGARD OR 97223
TK1547	MOORE ELECTRONICS INC (DIST)	19500 SW 90TH COURT PO BOX 1030	TUALATIN OR 97062
TK1591	EASTMAN PLASTICS INC	4605 SW 180TH	ALOHA OR 97007
TK1907	CRESCENT MFG	P O BOX 40000	HARTFORD CT 06151
TK1908	PLASTIC MOLDED PRODUCTS	4336 SO ADAMS	TACOMA WA 98409
TK2039	MULTIPOWER INC	3005 SW 154 TERRACE #1	BEAVERTON OR 97006
TK2122	INDUSTRIAL GASKET INC	1623 SE 6TH AVE	PORTLAND OR 97214-3502
TK2193	PHOTO AND SOUND	820 NW 18TH AVENUE	PORTLAND OR 97209
TK2225			
TK2469	UNITREK CORPORATION	3000 LEWIS & CLARK WAY SUITE #2	VANCOUVER WA 98601
TK2548	XEROX BUSINESS SERVICES DIV OF XEROX CORPORATION	14181 SW MILLIKAN WAY	BEAVERTON OR 97077
OACZ1	QUALTEK ELECTRONICS CORP.	7675 JENTHER DRIVE	MENTOR, OH 44060
OJR05	TRIQUEST CORP	3000 LEWIS AND CLARK HWY	VANCOUVER WA 98661-2999
OJ260	COMTEK MANUFACTURING OF OREGON (METALS)	PO BOX 4200	BEAVERTON OR 97076-4200
OJ7N4	ARCHER PRECISION SHEET METAL INC	10950 SW 5TH ST	BEAVERTON OR 97005
OJ7P6	CUSTOM WIRE PRODUCTS INC	815 NE 8TH ST	GRESHAM OR 97030
OKBZ5	MORELLIS Q & D PLASTICS	1812 16TH AVE PO BOX 487	FOREST GROVE OR 97116-0487
OKB01	STAUFFER SUPPLY	810 SE SHERMAN	PORTLAND OR 97214
OKB05	NORTH STAR NAMEPLATE	5750 NE MOORE COURT	HILLSBORO OR 97124-6474
00779	AMP INC	2800 FULLING MILL PO BOX 3608	HARRISBURG PA 17105
02697	PARKER-HANNIFIN CORP SEAL GROUP-O-RING DIV	2360 PALUMBO DR PO BOX 11751	LEXINGTON KY 40512
06666	GENERAL DEVICES CO INC	1410 S POST RD PO BOX 39100	INDIANAPOLIS IN 46239-9632
07416	NELSON NAME PLATE CO	3191 CASITAS	LOS ANGELES CA 90039-2410
09422	PLASTIC STAMPING CORP	2216 W ARMITAGE AVE	CHICAGO IL 60647-4461
12327	FREEWAY CORP	9301 ALLEN DR	CLEVELAND OH 44125-4632
2K262	BOYD CORP	6136 NE 87th AVE PO BOX 20038	PORTLAND OR 97220
30817	INSTRUMENT SPECIALTIES CO INC	EXIT 53 RT 80 BOX A	DELAWARE WATER GAP PA 18327
32559	BIVAR INC	4 THOMAS ST	IRVINE CA 92718-2512
34641	INSTRUMENT SPECIALTIES CO INC	1111 STANLEY DR PO BOX 365	EULESS TX 76039
5Y400	TRIAx METAL PRODUCTS INC DIV OF BEAVERTON PARTS MFG CO	1800 NW 216TH AVE	HILLSBORO OR 97124-6629
61153	A & B PLASTICS INC P.D.S. DIVISION	50 W ARLINGTON ST	YAKAMA, WA 98902
71400	BUSSMANN DIV OF COOPER INDUSTRIES INC	114 OLD STATE RD PO BOX 14460	ST LOUIS MO 63178
72228	AMCA INTERNATIONAL CORP CONTINENTAL SCREW CO DIV	459 MT PLEASANT	NEW BEDFORD MA 02742

Replaceable Mechanical Parts

Mfr. Code	Manufacturer	Address	City, State, Zip Code
72653	GC ELECTRONICS CO SUB OF HOUSEHOLD INTERNATIONAL CORP	1801 MARGAN ST PO BOX 1209	ROCKFORD IL 61105-1209
73743	FISCHER SPECIAL MFG CO	111 INDUSTRIAL RD	COLD SPRING KY 41076-9749
78189	ILLINOIS TOOL WORKS INC SHAKEPROOF DIV	ST CHARLES ROAD	ELGIN IL 60120
78553	EATON CORP ENGINEERED FASTENER DIV	14701 DETROIT AVE	LAKEWOOD, OH 44107-4101
79136	WALDES KOHINOOR INC	47-16 AUSTEL PLACE	LONG ISLAND CITY NY 11101-4402
80009	TEKTRONIX INC	14150 SW KARL BRAUN DR PO BOX 500	BEAVERTON OR 97077-0001
83486	ELCO INDUSTRIES INC	1101 SAMUELSON RD	ROCKFORD IL 61101
85471	BOYD CORP	13885 RAMOMA AVE	CHINO CA 91710
85480	BRADY W H CO CORP H Q INDUSTRIAL PRODUCTS DIV	2221 W CAMDEN RD PO BOX 2131	MILWAUKEE WI 53209
86928	SEASTROM MFG CO INC	456 SEASTROM STREET	TWIN FALLS, ID 83301
9M860	ELECTRONIC SUB ASSEMBLY MFG CORP (ESAM)	930 SE M STREET PO BOX 376	GRANTS PASS OR 97526-3248

Replaceable Mechanical Parts

Fig. & Index No.	Tektronix Part No.	Serial Number		Qty	Name & Description	Mfr. Code	Mfr. Part No.
		Effective	Dscont				
1-1	331-0508-01	B022000	B022405	1	SCALE,CRT:BEZEL,VM700	0JR05	331-0508-01
	331-0508-02	B022406	B030337	1	SCALE,CRT:FRAME,FRONT (FINISHED)	0J260	331-0508-02
	331-0508-04	B030338		1	SCALE,CRT:FRAME,FRONT (FINISHED) *MOUNTING PARTS*	0JR05	331-0508-04
-2	211-0517-00			4	SCREW,MACHINE:6-32 X 1.0,PNH,STL	TK1907	211-0517-00
-3	210-0055-00			4	WASHER,LOCK:#6 SPLIT,0.031 THK,STL	86928	ORDER BY DESC
-4	210-0802-00			4	WASHER,FLAT:0.15 ID X 0.312 OD X 0.032,STL *END MOUNTING PARTS*	12327	ORDER BY DESC
-5	334-0097-00			1	EMBLEM:SLATE GRAY W/STUD	TK1591	334-0097-00
-6	378-0322-00			2	FILTER,AIR:FOAM,#1 *MOUNTING PARTS*	85471	378-0322-00
-7	354-0691-00	B022000	B022129	4	O-RING:0.070 ID X 0.063,RUBBER	02697	2-004
	354-0691-01	B022130		4	O-RING:0.196 OD X 0.070 ID,ETHYLENE PROPYLENE *END MOUNTING PARTS*	02697	2-004 E803-70
-8	378-0323-00			1	FILTER,AIR:FOAM,#2 *MOUNTING PARTS*	85471	378-0323-00
-9	354-0691-00	B022000	B022129	2	O-RING:0.070 ID X 0.063,RUBBER	02697	2-004
	354-0691-01	B022130		2	O-RING:0.196 OD X 0.070 ID,ETHYLENE PROPYLENE *END MOUNTING PARTS*	02697	2-004 E803-70
-10	378-0325-00			1	FILTER,AIR:FOAM,#4 *MOUNTING PARTS*	85471	378-0325-00
-11	354-0691-00	B022000	B022129	2	O-RING:0.070 ID X 0.063,RUBBER	02697	2-004
	354-0691-01	B022130		2	O-RING:0.196 OD X 0.070 ID,ETHYLENE PROPYLENE *END MOUNTING PARTS*	02697	2-004 E803-70
-12	378-0324-00			1	FILTER,AIR:FOAM,#3 *MOUNTING PARTS*	85471	378-0324-00
-13	354-0691-00	B022000	B022129	4	O-RING:0.070 ID X 0.063,RUBBER	02697	2-004
	354-0691-01	B022130		4	O-RING:0.196 OD X 0.070 ID,ETHYLENE PROPYLENE *END MOUNTING PARTS*	02697	2-004 E803-70
-14	333-3521-00			1	PANEL,FRONT:VM700,ON/OFF	0KB05	ORDER BY DESC
-15	-----			1	CIRCUIT BD ASSY:ON/OFF(SEE A16 REPL) *MOUNTING PARTS*		
-16	210-0405-00			2	NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL	73743	12157-50
-17	210-0001-00			2	WASHER,LOCK:#2 INTL,0.013 THK,STL *END MOUNTING PARTS*	78189	1202-00-00-0541
-18	174-1163-00	B022000	B030874	1	CA ASSY,SP,ELEC:5,26 AWG,5.5 L,RIBBON	9M860	ORDER BY DESC
	174-1163-01	B030875		1	CA ASSY,SP,ELEC:5,26 AWG,7.7 L,RIBBON	80009	174116301
-19	-----			1	CIRCUIT BD ASSY:FRONT PANEL(SEE A10 REPL) *MOUNTING PARTS*		
-20	212-0040-00			7	SCREW,MACHINE:8-32 X 0.375,FLH,100 DEG,STL *END MOUNTING PARTS*	TK0435	ORDER BY DESC
					ASSEMBLY INCLUDES:		
-21	366-2159-01			1	KNOB:TV GRAY,SCROLL	TK1163	366-2159-01
-22	333-3809-00			1	PANEL,FRONT:VM700A *MOUNTING PARTS*	0KB05	333-3809-00
-23	211-0658-00			6	SCR,ASSEM WSHR:6-32 X 0.312,PNH,STL,POZ *END MOUNTING PARTS*	TK0435	17691-300
-24	-----			1	CIRCUIT BD ASSY:KEY(SEE A10A2 REPL) *MOUNTING PARTS*		
-25	211-0507-00			6	SCREW,MACHINE:6-32 X 0.312,PNH,STL *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-26	-----			1	CIRCUIT BD ASSY:FRONT PANEL(SEE A10A1 REPL) *MOUNTING PARTS*		
-27	211-0658-00			6	SCR,ASSEM WSHR:6-32 X 0.312,PNH,STL,POZ *END MOUNTING PARTS*	TK0435	17691-300
-28	407-4289-00			1	BRACKET,KEY BD:407-3922-00 & 337-3662-00	80009	407428900

Replaceable Mechanical Parts

Fig. & Index No.	Tektronix Part No.	Serial Number Effective	Dscont	Qty	Name & Description	Mfr. Code	Mfr. Part No.
-29	337-3662-00			1	SHIELD,ELEC:4.96 L,BE CU,CLIP ON,RIGHT	30817	97-0605-02-X
-30	-----			1	MODULAR SUBASSY:W/TOUCH PANEL(SEE A14 REPL) *MOUNTING PARTS*		
-31	212-0023-00			4	SCREW,MACHINE:8-32 X 0.375,PNH,STL *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-32	440-3786-01			1	ASSEMBLY INCLUDES: PANEL,CONDCT:ETCHED,CONVEX TYPE 0927 *MOUNTING PARTS*	80009	440378601
-33	213-1014-00			4	SCREW,TPG,TF:10-16 X 0.5,HEX HD,STL,ZN PL	TK0435	213-1014-00
-34	210-1454-00			4	WASHER,FLAT:	5Y400	ORDER BY DESC
-35	210-1456-00			4	WASHER,SHLDR:0.5 DIA,W/0.203 DIA ID0.105 THK,STL NI *END MOUNTING PARTS*	TK0588	ORDER BY DESC
-36	348-0085-00			1	GROMMET,PLASTIC:GRAY,U-SHAPE,0.48 ID	0KBZ5	NA
-37	337-3448-00			1	SHIELD,ELEC:CRT *MOUNTING PARTS*	5Y400	ORDER BY DESC
-38	211-0507-00			12	SCREW,MACHINE:6-32 X 0.312,PNH,STL	TK0435	ORDER BY DESC
-39	220-0625-00			12	NUT,SHEET SPR:6-32,STL CD PL,C *END MOUNTING PARTS*	78553	C8090-632-24
-40	-----			1	CIRCUIT BD ASSY:TRP (SEE A14A1A1 REPL)		
-41	441-1814-01			1	CHASSIS,CRT:VM700	OJ260	441-1814-01
-42	337-3972-00			1	SHIELD,EMI:337-3648-00,337-3660-00,337-3661-00 ASSEMBLED *MOUNTING PARTS*	80009	337397200
-43	212-0040-00			7	SCREW,MACHINE:8-32 X 0.375,FLH,100 DEG,STL *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-44	337-3660-00			1	SHIELD,ELEC:7.46 L,BE CU,CLIP ON,TOP	30817	97-0605-02-X
-45	337-3661-00			1	SHIELD,ELEC:6.46 L,BE CU,CLIP ON,LEFT	30817	97-0605-02-X
-46	174-0844-01			1	CA ASSY,SP,ELEC:8,22 AWG,16.18 L,RIBBON	TK2469	174-0844-01
-47	407-3613-00			1	BRACKET,CA HSG:VM700 *MOUNTING PARTS*	5Y400	ORDER BY DESC
-48	211-0661-00			1	SCR,ASSEM WSHR:4-40 X 0.25,PNH,STL,CD PL,POZ,MACH *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-49	343-0088-00			2	CLAMP,CABLE:0.062 DIA,PLASTIC	80009	343008800
-50	-----			1	POWER SUPPLY:IN 115/230 47-63 HZ, OUT 5V 40A, 15V 3A, -15V 3A,12V2.5A, -5.2V 8A, VAR FAN OUT 9-29V (SEE A15 REPL) *MOUNTING PARTS*		
-51	211-0507-00			6	SCREW,MACHINE:6-32 X 0.312,PNH,STL *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-52	386-5736-00			1	PLATE,COVER:CONNECTOR,ALUMINUM *MOUNTING PARTS*	5Y400	ORDER BY DESC
-53	211-0661-00			2	SCR,ASSEM WSHR:4-40 X 0.25,PNH,STL,CD PL,POZ,MACH *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-54	134-0026-00			1	BUTTON,PLUG:U/W 0.375 HOLE	72653	11-352
-55	334-7221-00	B022000	B031236	1	LABEL:BNC PANEL	07416	334-7221-00
-56	337-3653-00			1	SHIELD,ELEC:CABLE *MOUNTING PARTS*	5Y400	ORDER BY DESC
-57	211-0661-00			6	SCR,ASSEM WSHR:4-40 X 0.25,PNH,STL,CD PL,POZ,MACH *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-58	407-4290-00			1	BRACKET,ELEC:407-3780-01,333-3532-00,337-3669-00, 337-3670-00 ASSEMBLED *MOUNTING PARTS*	80009	407429000
-59	211-0504-00			5	SCREW,MACHINE:6-32 X 0.250,PNH,STL *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-60	337-3670-00			1	SHIELD,ELEC:CLIP ON,CU-BE,5.25 L	34641	337-3670-00
-61	337-3669-00			1	SHIELD,ELEC:CLIP ON,CU-BE,9.0 L	34641	337-3669-00
-62	337-3532-00			2	SHIELD,ELEC:BE CU,CLIP ON,1 X 2	80009	337353200

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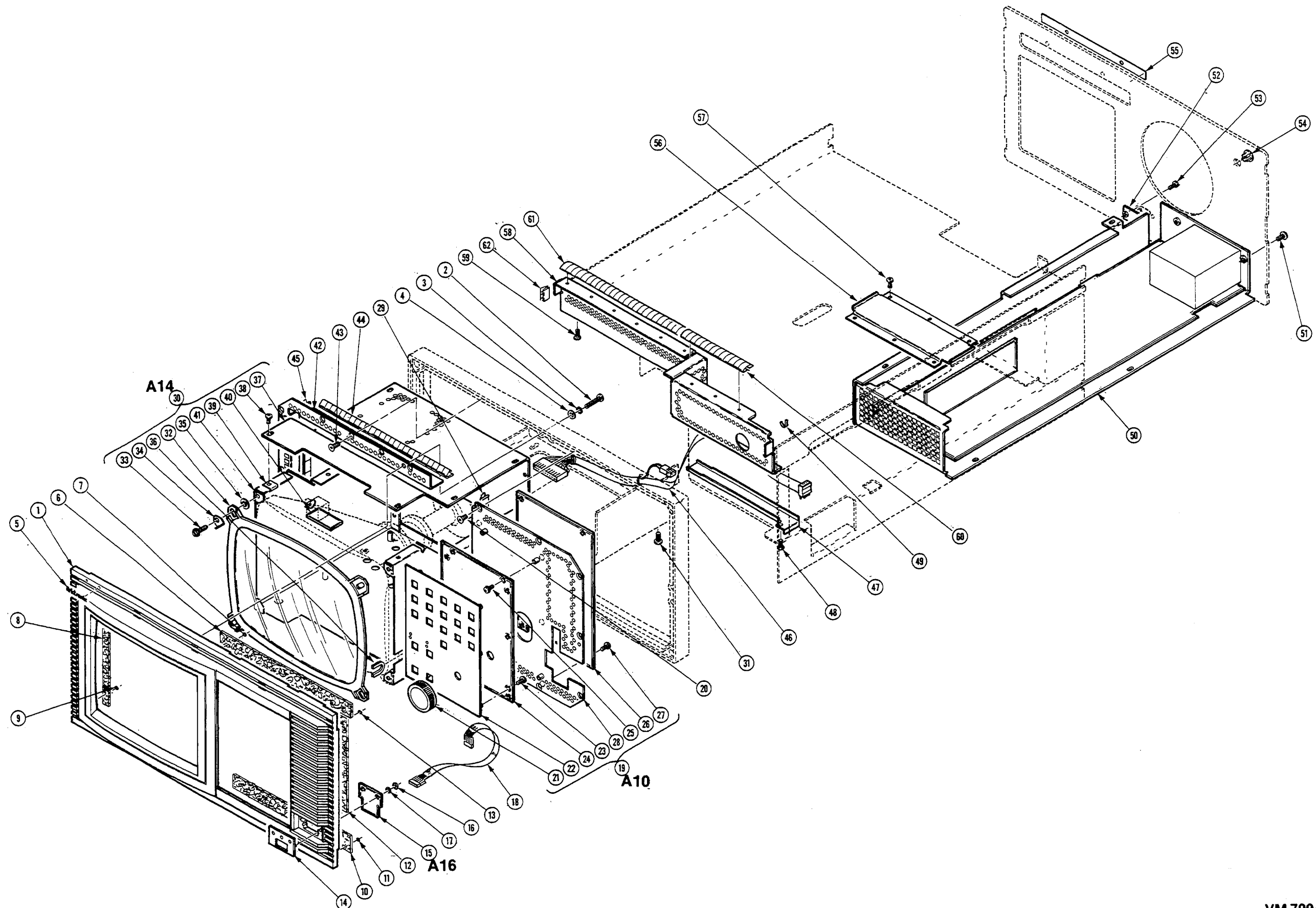
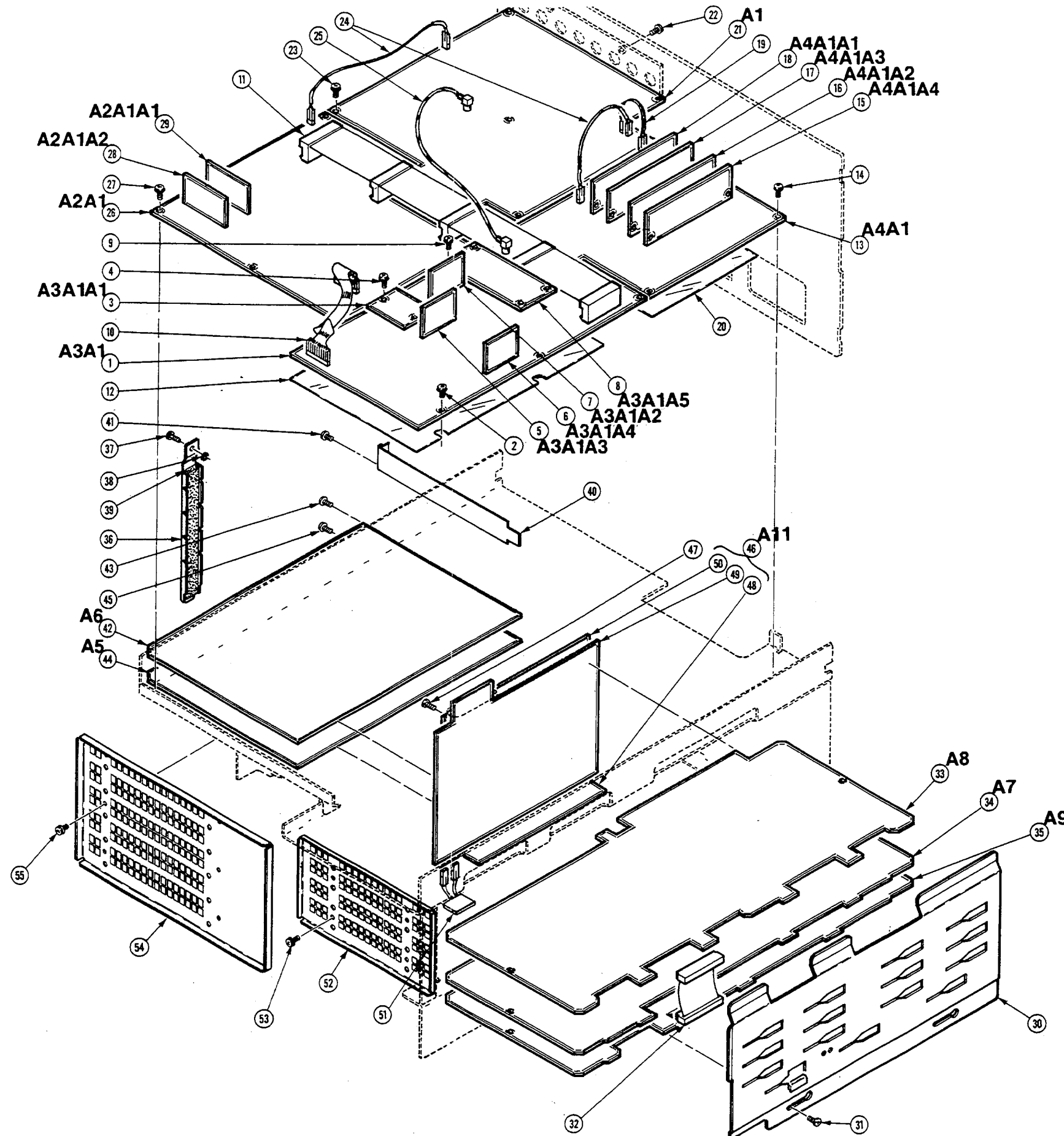


FIG 1 FRONT ASSEMBLIES & PWR SUPPLY



Replaceable Mechanical Parts

Fig. & Index No.	Tektronix Part No.	Serial Number Effective	Dscont	Qty	Name & Description	Mfr. Code	Mfr. Part No.
2-1	-----			1	CIRCUIT BD ASSY:ADC(SEE A3A1 REPL) *MOUNTING PARTS*		
-2	211-0661-00			5	SCR,ASSEM WSHR:4-40 X 0.25,PNH,STL,CD PL,POZ,MACH *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-3	-----			1	CIRCUIT BD ASSY:VIDEO DELAY LINE(SEE A3A1A1 REPL) *MOUNTING PARTS*		
-4	211-0008-00			2	SCREW,MACHINE:4-40 X 0.25,PNH,STL *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-5	-----			1	CIRCUIT BD ASSY:REFERENCE GEN(SEE A3A1A3 REPL)		
-6	-----			1	CIRCUIT BD ASSY:REFERENCE GEN(SEE A3A1A4 REPL)		
-7	-----			1	CIRCUIT BD ASSY:REFERENCE GEN(SEE A3A1A2 REPL)		
-8	-----			1	CIRCUIT BD ASSY:PAL,ADC FILTER(SEE A3A1A5 REPL) *MOUNTING PARTS*		
-9	211-0008-00			4	SCREW,MACHINE:4-40 X 0.25,PNH,STL *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-10	174-1164-00			1	CA ASSY,SP,ELEC:10,26 AWG,6.5 L,RIBBON	9M860	ORDER BY DESC
-11	174-0837-00			1	CA ASSY,SP,ELEC:10,18 AWG,14.05 L,RIBBON SAFETY CONTROLLED	00779	ORDER BY DESC
-12	337-3470-00			1	SHIELD,ELEC:PROTECTIVE,POLYIMIDE,ADC *MOUNTING PARTS*	2K262	ORDER BY DESC
	211-0001-00			2	SCREW,MACHINE:2-56 X 0.25,PNH,STL	TK0435	ORDER BY DESC
	210-0405-00			4	NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL *END MOUNTING PARTS*	73743	12157-50
-13	-----			1	CIRCUIT BD ASSY:FILTER (SEE A4A1 REPL) *MOUNTING PARTS*		
-14	211-0661-00			5	SCR,ASSEM WSHR:4-40 X 0.25,PNH,STL,CD PL,POZ,MACH *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-15	-----			1	CIRCUIT BD ASSY:LF NOISE FILTER (SEE A4A1A3 REPL)		
-16	-----			1	CIRCUIT BD ASSY:DIFF STEP FILTER (SEE A4A1A2 REPL)		
-17	-----			1	CIRCUIT BD ASSY:HIGHPASS FILTER (SEE A4A1A1 REPL)		
-18	-----			1	CIRCUIT BD ASSY:LOWPASS FILTER (SEE A4A1A4 REPL)		
-19	174-2008-00			1	CABLE ASSY,RF:75 OHM COAX,3.75 L,0-N	TK2469	174-2008-00
-20	337-3515-00			1	SHIELD,ELEC:POLYIMIDE	2K262	ORDER BY DESC
-21	-----			1	CIRCUIT BD ASSY:ANALOG INPUT(SEE A1 REPL) *MOUNTING PARTS*		
-22	211-0658-00			2	SCR,ASSEM WSHR:6-32 X 0.312,PNH,STL,POZ	TK0435	17691-300
-23	211-0661-00			8	SCR,ASSEM WSHR:4-40 X 0.25,PNH,STL,CD PL,POZ,MACH *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-24	174-1165-00			2	CABLE ASSY,RF:75 OHM COAX,7.5 L	9M860	ORDER BY DESC
-25	174-0843-00			1	CABLE ASSY,RF:50 OHM COAX,13.0 L	TK2469	ORDER BY DESC
-26	-----			1	CIRCUIT BD ASSY:GEN LOCK(SEE A2A1 REPL) *MOUNTING PARTS*		
-27	211-0661-00			7	SCR,ASSEM WSHR:4-40 X 0.25,PNH,STL,CD PL,POZ,MACH *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-28	-----			1	CIRCUIT BD ASSY:GENLOCK VCO,NTSC(SEE A2A1A2 REPL)		
-29	-----			1	CIRCUIT BD ASSY:GENLOCK VCO,PAL(SEE A2A1A1 REPL)		
-30	343-1331-01			1	RETAINER,CKT BD:RIGHT *MOUNTING PARTS*	5Y400	ORDER BY DESC
-31	211-0507-00			2	SCREW,MACHINE:6-32 X 0.312,PNH,STL *END MOUNTING PARTS*	TK0435	ORDER BY DESC

Replaceable Mechanical Parts

Fig. & Index No.	Tektronix Part No.	Serial Number Effective	Dscont	Qty	Name & Description	Mfr. Code	Mfr. Part No.
-32	174-0840-00			1	CA ASSY,SP,ELEC:34,28 AWG,2.0 L,RIBBON	TK1547	ORDER BY DESC
-33	-----			1	CIRCUIT BD ASSY:CONTROLLER(SEE A8 REPL)		
-34	-----			1	CIRCUIT BD ASSY:DATA ACQUISITION 2(SEE A7 REPL)		
-35	-----			1	CIRCUIT BD ASSY:DISPLAY MEMORY II(SEE A9 REPL)		
-36	343-1328-00			1	RTNR,CKT BOARD:LEFT,VM700	5Y400	ORDER BY DESC
-37	213-0919-00			1	THUMBSCREW:6-32,0.312 X 0.25 OD,SST *MOUNTING PARTS*	OKB01	213-0919-00
-38	354-0163-00			1	RING,RETAINING:TYPE E EXT,U/O 0.125 ID SFT *END MOUNTING PARTS*	79136	5133-12ZD
-39	348-0102-00			1	PAD,CUSHIONING:13.76 X 0.67 X 0.188,RUBBER	2K262	ORDER BY DESC
-40	386-5592-00	B022000	B031236	3	PANEL,BLANK:VM700	5Y400	ORDER BY DESC
	386-6662-00	B031237		1	PANEL,REAR:386-6404-01 & 337-3892-00 ASSEMBLED	80009	386666200
	386-6667-00	B031237		1	PANEL,BLANK:386-5592-01 & 337-3892-00 ASSEMBLED *MOUNTING PARTS*	80009	386666700
-41	211-0661-00			3	SCR,ASSEM WSHR:4-40 X 0.25,PNH,STL,CD PL,POZ,MACH *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-42	-----			1	CIRCUIT BD ASSY:EPROM(SEE A6 REPL) *MOUNTING PARTS*		
-43	211-0661-00			1	SCR,ASSEM WSHR:4-40 X 0.25,PNH,STL,CD PL,POZ,MACH *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-44	-----			1	CIRCUIT BD ASSY:CPU II(SEE A5 REPL) *MOUNTING PARTS*		
-45	211-0661-00			1	SCR,ASSEM WSHR:4-40 X 0.25,PNH,STL,CD PL,POZ,MACH *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-46	-----			1	CIRCUIT BD ASSY:MOTHER(SEE A11 REPL) *MOUNTING PARTS*		
-47	211-0661-00			6	SCR,ASSEM WSHR:4-40 X 0.25,PNH,STL,CD PL,POZ,MACH *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-48	-----			1	ASSEMBLY INCLUDES: CIRCUIT BD ASSY:BUS INTERCONNECT(SEE A11A1 REPL)		
-49	-----			1	CIRCUIT BD ASSY:MAIN INTERFACE,RIGHT (SEE A11A2 REPL)		
-50	-----			1	CIRCUIT BD ASSY:MAIN INTERFACE,LEFT (SEE A11A3 REPL)		
-51	-----	B022000	B030874	1	CA ASSY,SP,ELEC:2,26 AWG,3.75 L,RIBBON		
	-----	B030875		1	CA ASSY,SP,ELEC:2,26 AWG,4.50 L,RIBBON (SEE W252 REPL)		
-52	337-3658-00	B022000	B022476	1	SHIELD,ELEC:RIGHT,ALUMINUM (PART OF 441-1729-01 CHASSIS ASSEMBLY) *MOUNTING PARTS*	80009	337365800
-53	211-0507-00			4	SCREW,MACHINE:6-32 X 0.312,PNH,STL (PART OF 441-1729-01 CHASSIS ASSEMBLY) *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-54	337-3656-00	B022000	B022476	1	SHIELD,ELEC:LEFT,ALUMINUM (PART OF 441-1729-01 CHASSIS ASSEMBLY) *MOUNTING PARTS*	80009	337365600
-55	211-0507-00			6	SCREW,MACHINE:6-32 X 0.312,PNH,STL (PART OF 441-1729-01 CHASSIS ASSEMBLY) *END MOUNTING PARTS*	TK0435	ORDER BY DESC

Replaceable Mechanical Parts

Fig. & Index No.	Tektronix Part No.	Serial Number Effective	Dscont	Qty	Name & Description	Mfr. Code	Mfr. Part No.
3-0	441-1729-01	B022000	B022476	1	CHASSIS ASSY:VM700A	0J260	441-1729-01
	441-1729-02	B022477	B030874	1	CHASSIS ASSY:VM700A	0J260	441-1729-02
	441-1729-03	B030875	B031236	1	CHASSIS ASSY:VM700A	0J7N4	441-1729-03
	441-1729-04	B031237		1	CHASSIS ASSY:VM700A	80009	441172904
-1	407-3649-00			1	BRKT,MTG,CRT:VM700 *MOUNTING PARTS*	0J260	407-3649-00
-2	212-0040-00			2	SCREW,MACHINE:8-32 X 0.375,FLH,100 DEG,STL	TK0435	ORDER BY DESC
-3	211-0507-00			3	SCREW,MACHINE:6-32 X 0.312,PNH,STL *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-4	426-1629-03	B022000	B031236	1	FRAME ,CABINET:OPEN FR,8.75 FULL RACK,FINISHED	0J260	426-1629-03
	426-1629-04	B031237		1	FRAME ,CABINET:OPEN FR,8.75 FULL RACK,FINISHED *MOUNTING PARTS*	80009	426162904
-5	213-0760-00			4	SCREW,TPG,TF:8-32 X 0.875,SPCL TAPTITE,FILH,STL *END MOUNTING PARTS*	72228	ORDER BY DESC
-6	426-2204-00			1	FRAME SECT,CAB.:BOTTOM LEFT,VM700 *MOUNTING PARTS*	0J7N4	426-2204-00
-7	211-0507-00			1	SCREW,MACHINE:6-32 X 0.312,PNH,STL *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-8	426-2203-00			1	FRAME SECT,CAB.:BOTTOM,RIGHT,VM700 *MOUNTING PARTS*	0J7N4	426-2203-00
-9	211-0507-00			3	SCREW,MACHINE:6-32 X 0.312,PNH,STL *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-10	426-2202-00			2	FRAME SECT,CAB.:TOP RIGHT/LEFT,VM700 *MOUNTING PARTS*	0J7N4	426-2202-00
-11	211-0507-00			7	SCREW,MACHINE:6-32 X 0.312,PNH,STL *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-12	124-0430-00			4	STRIP,TRIM:CORNER,W/STEP,20.0	61153	124-0430-00
-13	348-0632-00			4	SHLD GSKT,ELEK:FINGER TYPE,19.0 L,CORNERLEFT	80009	348063200
-14	348-0633-00			4	SHLD GSKT,ELEK:FINGER TYPE,19.0 L,CORNERRIGHT	80009	348063300
-15	343-1070-00			8	RTNR,ELEK SHLD:STAINLESS STEEL	0J7N4	343-1070-00
-16	333-3520-01	B022000	B030874	1	PANEL,REAR:VM700A	80009	333352001
	333-3520-02	B030875	B031236	1	PANEL,REAR:VM700A	0J7N4	333-3520-02
	333-3520-03	B031237		1	PANEL,REAR:VM700A *MOUNTING PARTS*	0J7N4	333-3520-03
-17	211-0507-00			4	SCREW,MACHINE:6-32 X 0.312,PNH,STL	TK0435	ORDER BY DESC
-18	213-0808-00			4	SCREW,TPG,TR:8-32 X 0.625 L,TAPTITE,FILH *END MOUNTING PARTS*	83486	ORDER BY DESC
-19	200-2222-00			1	GUARD,FAN:7912AD	0ACZ1	08213
-20	119-2616-02			1	FAN:24VDC,28A,6.7W,W/LEADS 17.0L,VM700 *MOUNTING PARTS*	0J260	119-2616-02
-21	212-0010-00			4	SCREW,MACHINE:8-32 X 0.625,PNH,STL	TK0435	ORDER BY DESC
-22	210-0458-00			4	NUT,PL,ASSEM WA:8-32 X 0.344,STL CD PL *END MOUNTING PARTS*	0KB01	210-0458-00
-23	348-0014-00			4	FOOT,CABINET:BLACK PHENOLIC *MOUNTING PARTS*	0KBZ5	N/A
-24	212-0010-00			4	SCREW,MACHINE:8-32 X 0.625,PNH,STL *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-25	348-0276-01			6	SHLD GSKT,ELEK:MESH TYPE,0.124 OD,7.442 L	80009	348027601
-26	252-0571-00			1	NEOPRENE EXTR:CHAN,0.234 X 0.156	85471	ORDER BY DESC
-27	348-0150-00			1	GROMMET,PLASTIC:DK GRAY,U-SHAPE,0.66 ID	0KBZ5	NA
-28	351-0602-00			10	GUIDE,CKT BOARD:MAIN CHASSIS,POLYAMIDESAFETY CONTROLLED	80009	351060200
-29	351-0752-00			8	GUIDE,LIGHT:ACRYLIC GRATICULE	TK1908	PER TEK DRAWING
-30	407-3687-00			1	BRACKET,AIR:ALUMINUM *MOUNTING PARTS*	80009	407368700
-31	211-0507-00			1	SCREW,MACHINE:6-32 X 0.312,PNH,STL *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-32	351-0817-00			5	GUIDE,CKT BD:NYLON,6.0 L	32559	DC-600
-33	348-0089-00			3	BUMPER,PLASTIC:0.312 DIA X 0.855 L,BLACKVINYL	0JR05	348-0089-00

Replaceable Mechanical Parts

Fig. & Index No.	Tektronix Part No.	Serial Number Effective	Dscont	Qty	Name & Description	Mfr. Code	Mfr. Part No.
-34	426-2221-04	B022000	B022476	1	FRAME ASSEMBLY:VM700A	80009	426222104
	426-2221-05	B022477	B031236	1	FRAME ASSEMBLY:VM700A	80009	426222105
	426-2221-06	B031237		1	FRAME ASSEMBLY:VM700A	80009	426222106

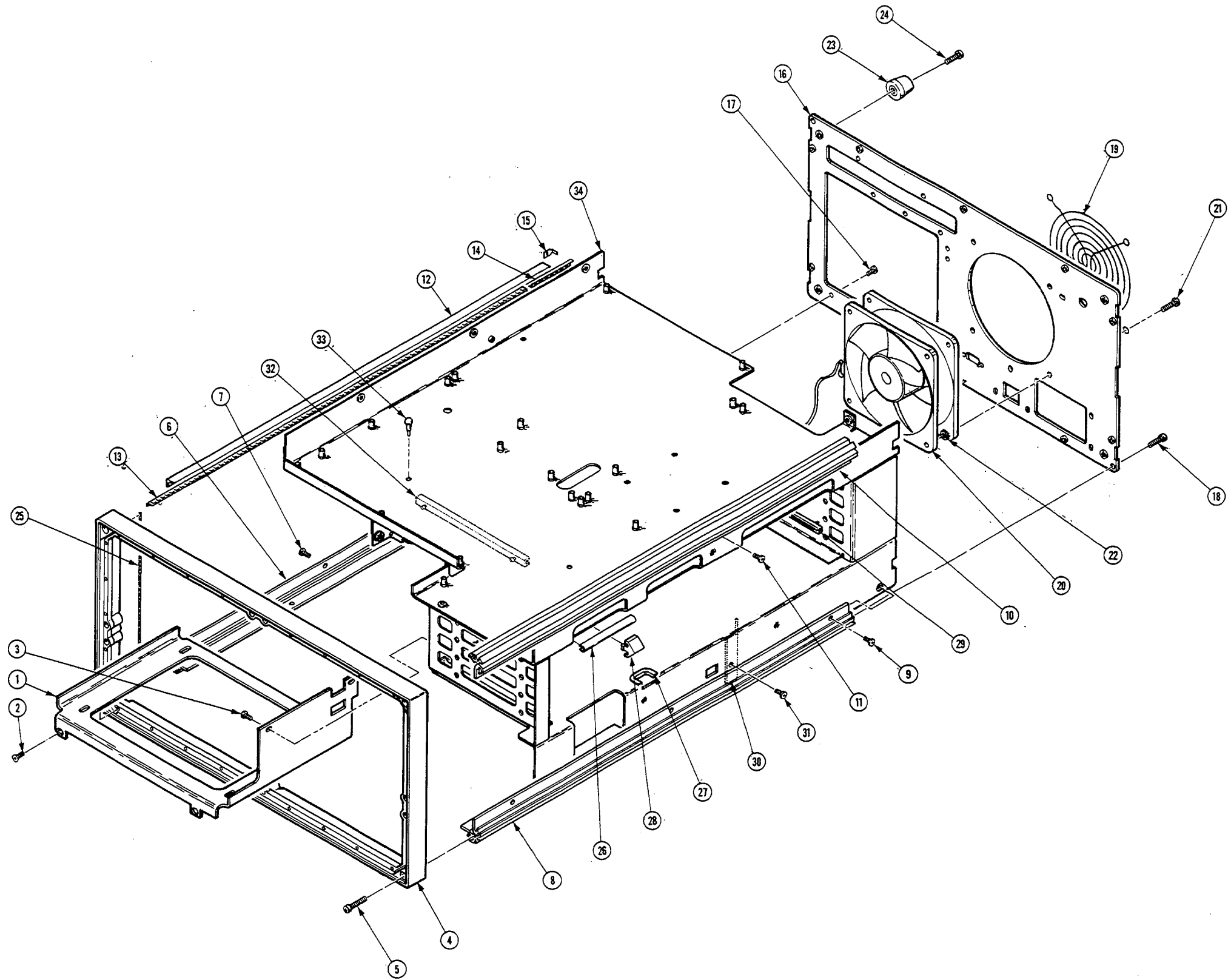
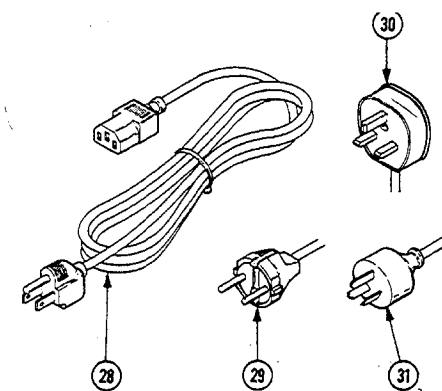
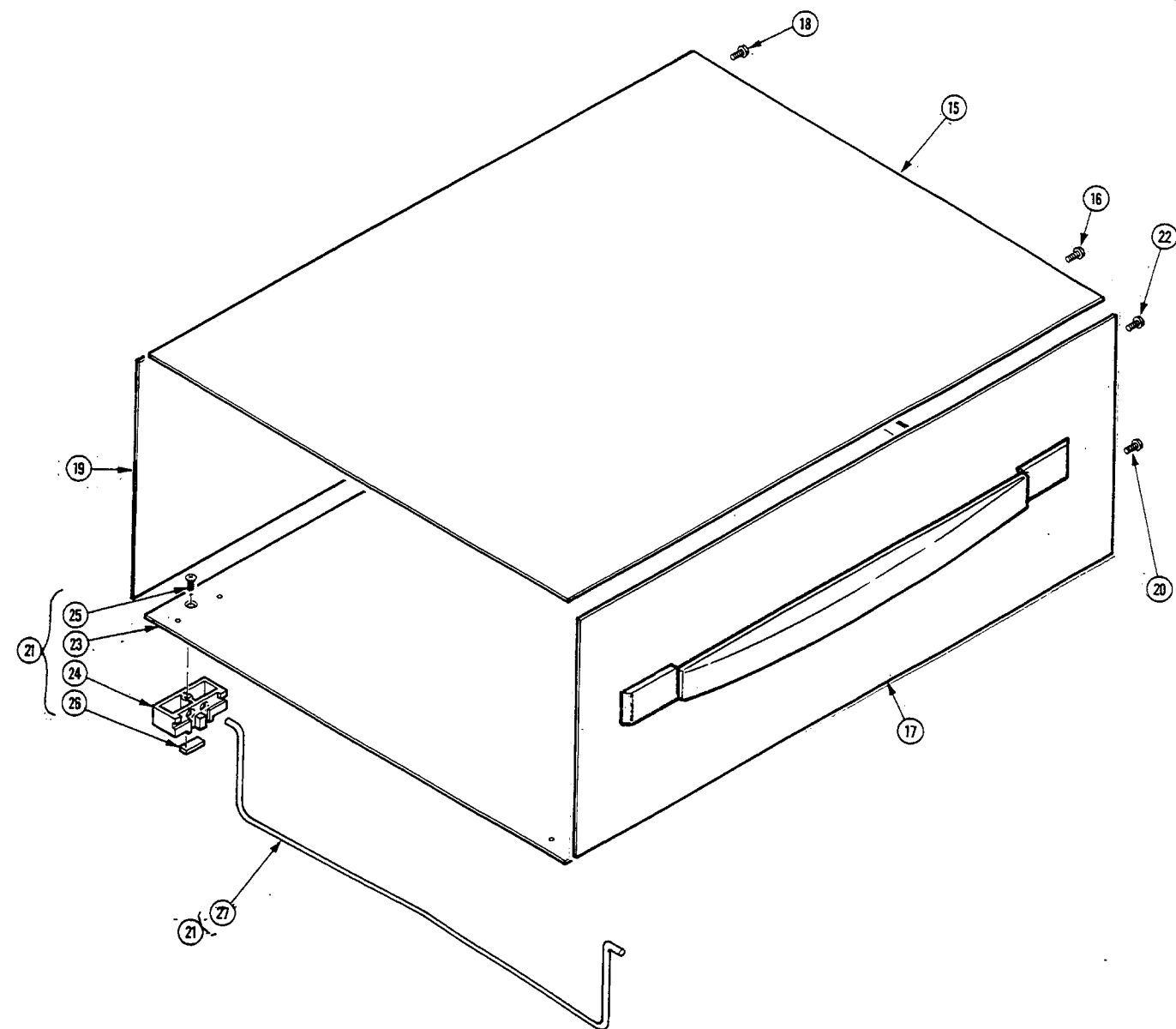
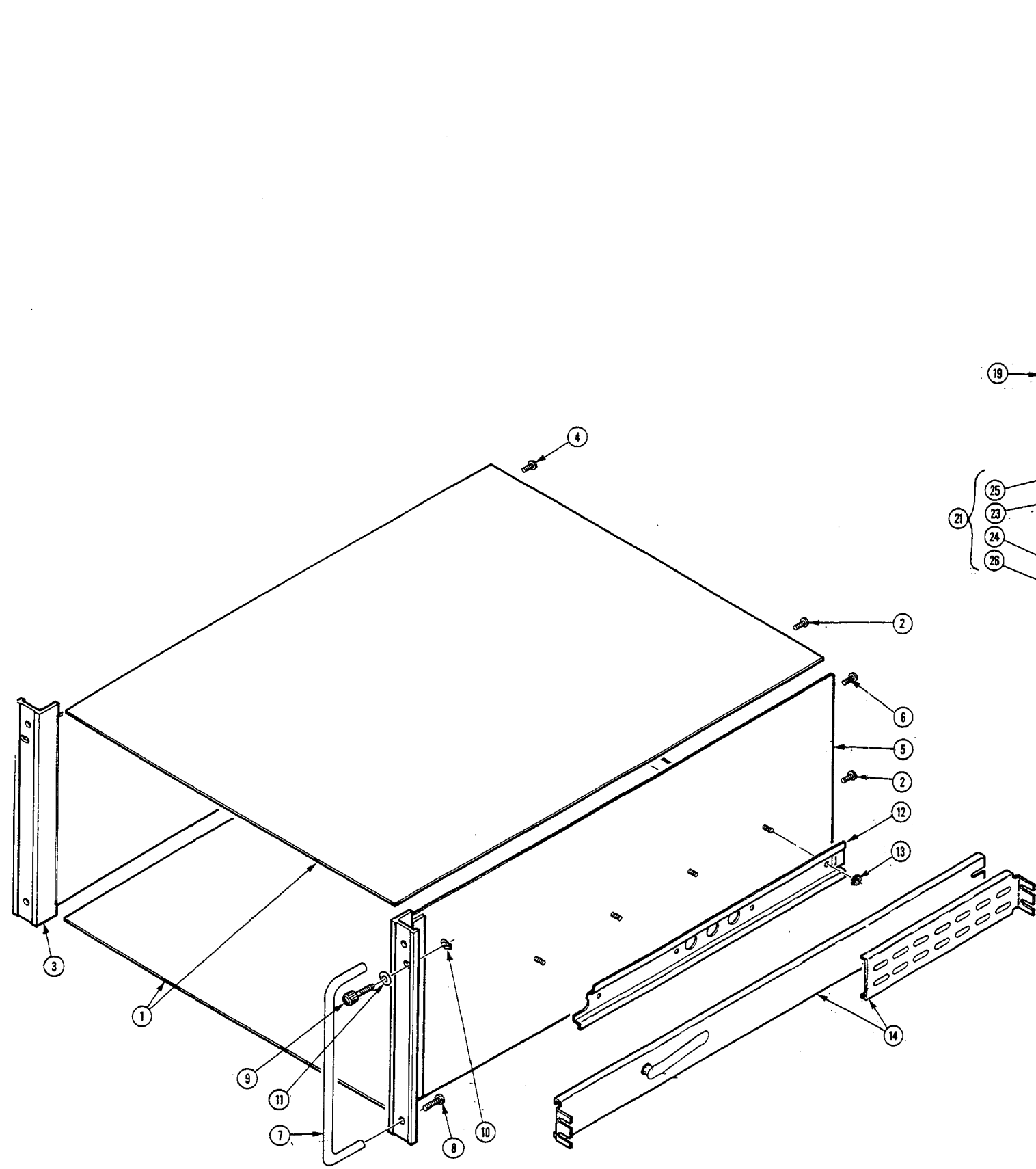


FIG 3 CHASSIS ASSEMBLY



Replaceable Mechanical Parts

Fig. & Index No.	Tektronix Part No.	Serial Number Effective	Dscont	Qty	Name & Description	Mfr. Code	Mfr. Part No.
4-1	390-1020-00	B010100	B030487	2	CABINET,COVER:RACK MOUNT, TOP & BOTTOM	5Y400	ORDER BY DESC
	390-1020-03	B030488		2	CABINET,COVER:RACK MOUNT, TOP & BOTTOM *MOUNTING PARTS*	5Y400	390-1021-03
-2	211-0658-00			4	SCR,ASSEM WSHR:6-32 X 0.312,PNH,STL,POZ *END MOUNTING PARTS*	TK0435	17691-300
-3	390-1023-00			1	CAB.,SIDE ASSY:LEFT,RACK MOUNT *MOUNTING PARTS*	80009	390102300
-4	211-0658-00			2	SCR,ASSEM WSHR:6-32 X 0.312,PNH,STL,POZ *END MOUNTING PARTS*	TK0435	17691-300
-5	390-1022-00			1	CAB.,SIDE ASSY:RIGHT,RACK MOUNT *MOUNTING PARTS*	80009	390102200
-6	211-0658-00			2	SCR,ASSEM WSHR:6-32 X 0.312,PNH,STL,POZ *END MOUNTING PARTS*	TK0435	17691-300
-7	367-0366-00			2	HANDLE, CARRYING:VM700 *MOUNTING PARTS*	80009	367036600
-8	212-0509-00	B022000	B022531	4	SCREW,MACHINE:10-32 X 0.625,PNH,STL	TK0435	ORDER BY DESC
	211-0755-00	B022532		4	SCREW,MACHINE:10-32 X 0.5,PNH,POZI,STAINLESS STEEL,PASIVATED *END MOUNTING PARTS*	0KB01	211-0755-00
-9	213-0940-00			2	THUMBSCREW:10-32 X 1.15,0.375 OD,SST *MOUNTING PARTS*	TK0588	213-0940-00
-10	354-0025-00			2	RING,RETAINING:EXTERNAL,U/O 0.187 DIA SFT *END MOUNTING PARTS*	TK0941	555-18MI
-11	210-0894-00			2	WASHER,FLAT:0.19 ID X 0.438 OD X 0.031 POLTHN	09422	ORDER BY DESC
-12	351-0104-03			1	SL SECT,DWR EXT:12.625 L,W/O HARDWARE *MOUNTING PARTS*	06666	C-720-3 (WITHOU
-13	210-0458-00			8	NUT,PL,ASSEM WA:8-32 X 0.344,STL CD PL *END MOUNTING PARTS*	0KB01	210-0458-00
-14	351-0636-00			1	SLIDE,DWR,EXT:20.0 X 1.69,PAIR,R&L,VM7FC1:PORTABLE CABINET	06666	C-1252
-15	390-1020-02	B010100	B030487	1	CABINET, TOP:PORTABLE, VM700	5Y400	ORDER BY DESC
	390-1020-04	B030488		1	CABINET, TOP:PORTABLE, VM700 *MOUNTING PARTS*	5Y400	390-1020-04
-16	211-0658-00			2	SCR,ASSEM WSHR:6-32 X 0.312,PNH,STL,POZ *END MOUNTING PARTS*	TK0435	17691-300
-17	390-1028-00	B010100	B030487	1	CAB.,SIDE ASSY:RIGHT,PORTABLES	5Y400	ORDER BY DESC
	390-1028-01	B030488		1	CAB.,SIDE ASSY:RIGHT,PORTABLE *MOUNTING PARTS*	5Y400	390-1028-01
-18	211-0658-00			2	SCR,ASSEM WSHR:6-32 X 0.312,PNH,STL,POZ *END MOUNTING PARTS*	TK0435	17691-300
-19	390-1025-00	B010100	B030487	1	CABINET,SIDE:LEFT,PORTABLE,VM700	5Y400	ORDER BY DESC
	390-1025-01	B030488		1	CABINET,SIDE:LEFT,PORTABLE,VM700A *MOUNTING PARTS*	5Y400	390-1025-01
-20	211-0658-00			2	SCR,ASSEM WSHR:6-32 X 0.312,PNH,STL,POZ *END MOUNTING PARTS*	TK0435	17691-300
-21	390-1021-01	B010100	B030487	1	CABINET ASSY:BOTTOM,PORTABLE	5Y400	ORDER BY DESC
	390-1021-03	B030488		1	CABINET ASSY:BOTTOM,PORTABLE *MOUNTING PARTS*	5Y400	390-1021-03
-22	211-0658-00			2	SCR,ASSEM WSHR:6-32 X 0.312,PNH,STL,POZ *END MOUNTING PARTS*	TK0435	17691-300
-23	390-1021-00	B010100	B030487	1	CABINET,BOTTOM:PORTABLE	5Y400	390-1021-02
	390-1021-01	B030488		1	CABINET ASSY:BOTTOM,PORTABLE	5Y400	ORDER BY DESC
-24	348-0879-01			4	FOOT,CABINET:BOTTOM,BLACK,POLYCARBONATE *MOUNTING PARTS*	TK1161	ORDER BY DESC
-25	211-0538-00			4	SCREW,MACHINE:6-32 X 0.312,FLH,100 DEG,STL *END MOUNTING PARTS*	TK0435	ORDER BY DESC
-26	348-0596-00			4	PAD,CAB.FOOT:0.69 X 0.255 X 0.06,PU	TK2122	348-0596-00

Replaceable Mechanical Parts

Fig. & Index No.	Tektronix Part No.	Serial Number Effective	Dscont	Qty	Name & Description	Mfr. Code	Mfr. Part No.
-27	348-0988-00			4	FLIPSTAND,CAB.:VM700	OJ7P6	ORDER BY DESC
	200-3634-00	B022000	B022883	1	COVER,PROT:17.164 X 9.0,PLASTIC	TK2225	ORDER BY DESC
	200-3634-01	B022884		1	COVER,PROT:17.164 X 9.0,PLASTIC	80009	200363401
-28	161-0066-00			1	CA ASSY,PWR:3,18 AWG,250V/10A,98 INCH,STR,IEC320, RCPT X NEMA 5-15P,US,SAFTEY CONTROLLED (STANDARD ONLY)	S3109	161-0066-00
	011-0102-01			3	TERMN,COAXIAL:75 OHM,BNC	80009	011010201
	070-8165-00			1	MANUAL,TECH:SVC,VM700A,OPT 01,11,VIDEO MEASUREMENT SET	TK2548	070815600
	070-8166-00			1	MANUAL,TECH:OPER,VM700A,OPT 01 & 11,VIDEO MEASUREMENT SET	TK2548	PER TEK P/N
	159-0149-00	B022000		1	FUSE,CARTRIDGE:4 A,250 V, SLOW BLOW (FOR 119-2630-XX POWER SUPPLY)	71400	MSL-4
	159-0005-00	B030875		1	FUSE,CARTRIDGE:3AG,3A,250V,30SEC,UL LISTED CSA CERT (FOR 119-4258-XX POWER SUPPLY)	71400	MSL-3
	210-0863-00			1	WSHR,LOOP CLAMP:0.091 ID U/W 0.5 W CLP,STLCD PL	85480	C191
	343-0136-00			1	CLAMP,LOOP:0.25 ID,PLASTIC	80009	343013600
					OPTIONAL ACCESSORIES		
-29	161-0066-09			1	CA ASSY,PWR:3,0.75MM SQ,250V/10A,99 INCH,STR,IEC320, RCPT,EUROPEAN,SAFTEY CONTROLLED (EUROPEAN OPTION A1 ONLY)	S3109	86511000
-30	161-0066-10			1	CA ASSY,PWR:3,0.1MM SQ,250V/10A,2.5 METER,STR,IEC320,RCPT X 13A,FUSED UK PLUG(13A FUSE),UNITED KINGDOM,SAFTEY CONTROLLED (UNITED KINGDOM OPTION A2 ONLY)	S3109	BS/13-H05VVF3G0
-31	161-0066-11			1	CA ASSY,PWR:3,1.0MM SQ,250V/10A,2.5 METER,STR,IEC320,RCPT,AUSTRALIA,SAFTEY CONTROLLED (AUSTRALIAN OPTION A3 ONLY)	S3109	198-000
	118-7818-00	B010100	B030426	1	PRINTER:24 PIN,DOT MATRIX COMPUTER	80009	118781800
	118-8792-00	B030427		1	PRINTER:	80009	118879200
	174-1352-00	B010100	B030426	1	CA ASSY,SP,ELEC:6,28 AWG,74.0 L	TK2193	174-1352-00
	174-2740-00	B030427		1	CA ASSY,SP,ELEC:RS-232;4,28 AWG,72 INCH,25 POS FEMALE D-SUB X 25 POSMALE D-SUB	80009	174274000
	018-0225-00	B030427		1	CIRCUIT BD ASSY:SERIAL INTERFACE CARD W/MANUAL	80009	018022500