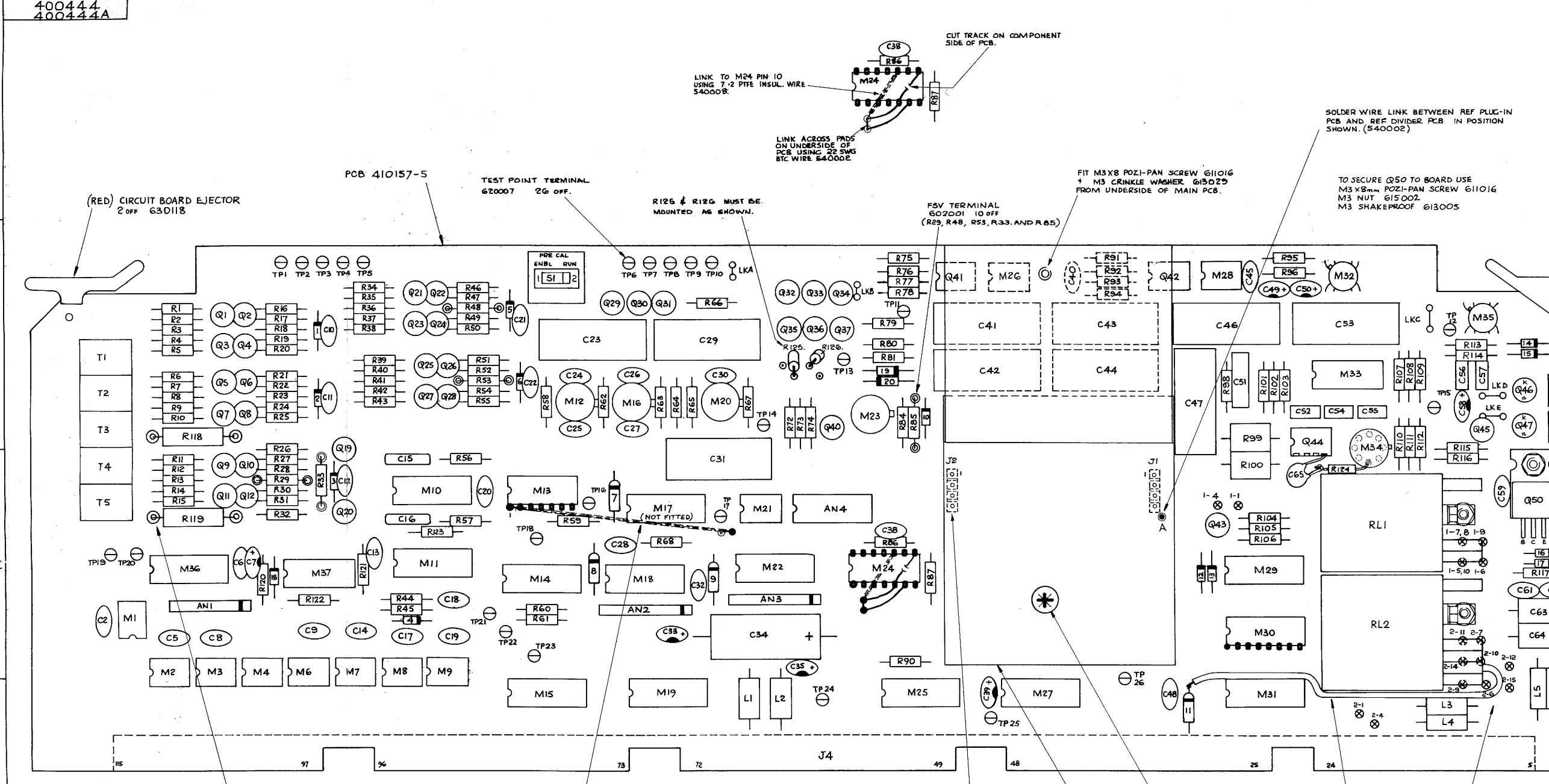


| SS | CHANGES |
|----|--|
| 1 | RELEASED 7.5.82 |
| 2 | ECO 1357 M32 AND M35 WERE FITTED IN SOCKETS. R33 NOW IN P.S.V. Q48 AND Q49 NOW DRAWN CORRECTLY. UFR 1.7.82 |
| 3 | ECO 1380, 1385 R18 WAS 866R R23 WAS 3K83 R29, R33, R48 & R53 WERE 110R. 11. 24.8.82 |
| 4 | ECO 1459. C65 & R124 ADDED. 11-FEB 83 |
| 5 | ECO 1801 & 1802 R15 WAS Q30. R16 " Q32. D19 " R82. R25 WAS 18K2. Q35 & Q36 WERE 25000-1. CONT. BELOW |

DRAWING No. 400444
400444A



MOUNT R118 AND R119 ON CERAMIC INSULATING BEAD (1 PER LEAD) G30024 4 off

3-48 UNC NUT G15005 2 off
M2.5 WASHER G13014 2 off

LINK M13 PIN 1 AND PAD SHOWN USE 7-2 PTFE INSUL WIRE 540008

4 WAY .1" PCB PLUG G04053 2 off
SOLDERED INTO MAIN PCB.
N.B. SOCKETS ON REF PCB ASSY TO PLUG BOARD ONTO PINS, NOT SHOWN.

REFERENCE PCB ASSY
400452 (4000)
400452 A (4000A)

M3x4mm SWAGED STANDOFF G12004- SECURED TO REV. DIV. PCB ON COMP. SIDE
M3x8 POZI-PAN SCREW G11016
M3 CRINKLE WASHER G13025

SOLDER TERMINAL 16 off G20003

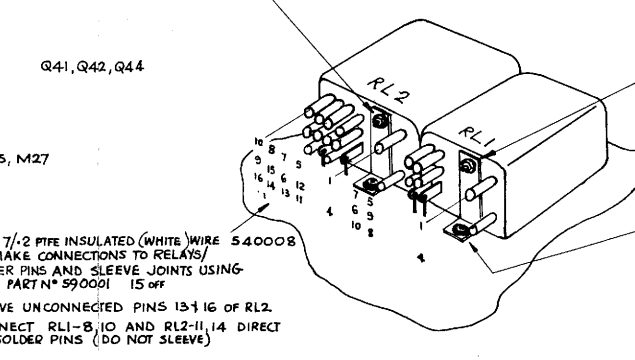
WIRE LEAD 7/2 PTFE INSULATED WIRE 540008
120mm LONG TO CONNECT RL2-8 TO DII CATHODE

ECO 1511
R88 R83 & LKF DELETED. TRACK UNDER M24 CUT. WIRE LINKS FROM M13 & M24 ADDED. 11. 14.7.85

MOUNTING I.C.s.
FIT M1-M4, M6-M9, M21, M26, M28, ON 8WAY DIL. SOCKET G05059 14 off

FIT M13, M24, M33, M37 ON 14WAY DIL. SOCKET G05060 4 off

FIT M10, M11, M14, M15, M18, M19, M22, M25, M27, M29, M30, M31, M36 ON 16WAY DIL. SOCKET G05061 13 off



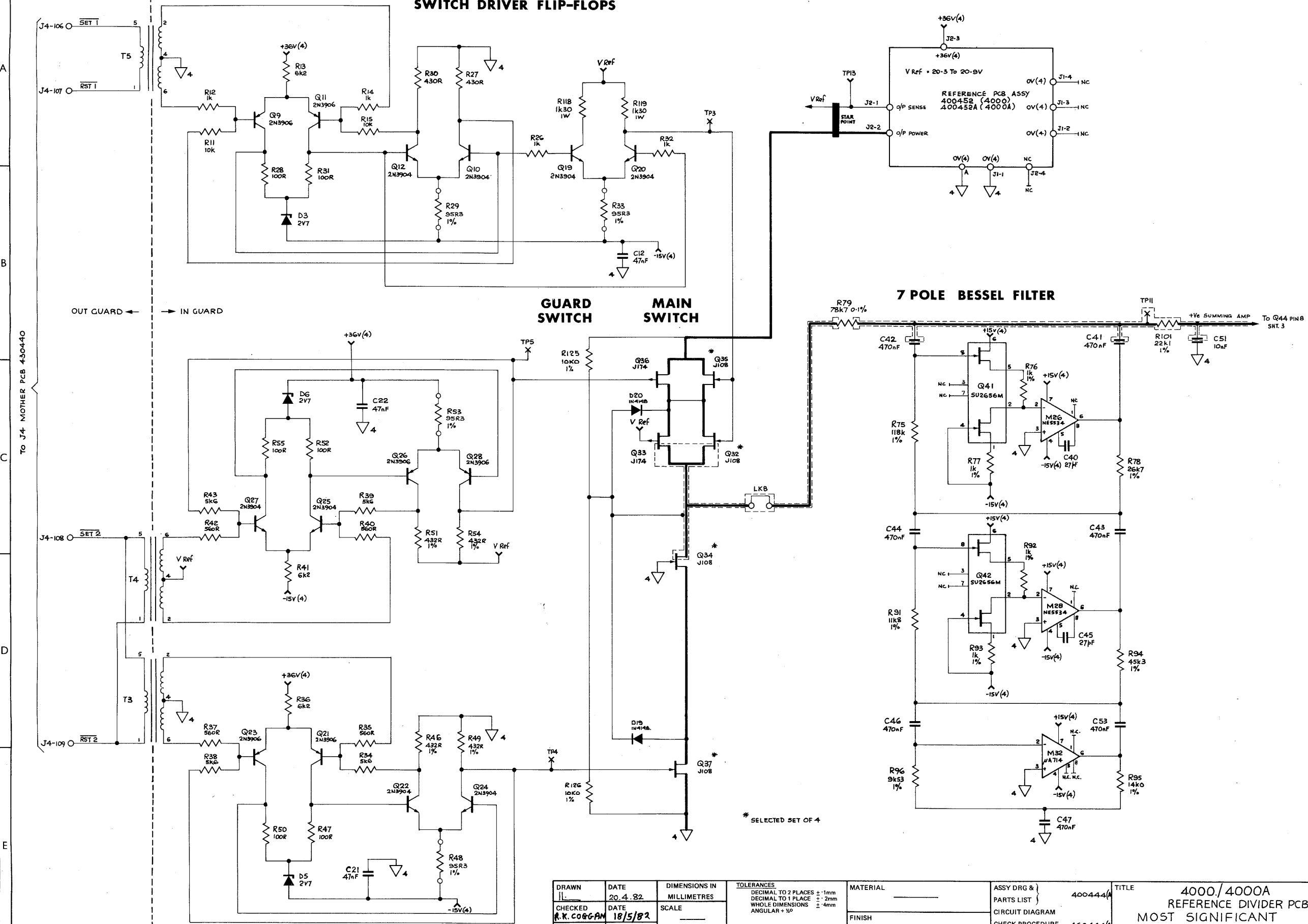
VIEW TO RELAY PIN LAYOUTS

| RELAY WIRING | | |
|--------------|----------|-------------|
| FROM | TO | LENGTH (mm) |
| RL1-1 | PIN 1-1 | 100 |
| -4 | " 1-4 | 100 |
| -5 | " 1-5,10 | 30 |
| -6 | " 1-6 | 25 |
| -7 | " 1-7,8 | 30 |
| -9 | " 1-9 | 25 |
| RL2-1 | PIN 2-1 | 90 |
| -4 | " 2-4 | 80 |
| -5 | RL2-8 | 30 |
| -6 | PIN 2-6 | 25 |
| -7 | " 2-7 | 30 |
| -9 | " 2-9 | 25 |
| -10 | " 2-10 | 30 |
| -12 | " 2-12 | 25 |
| -15 | " 2-15 | 25 |

| DRAWN | DATE | DIMENSIONS IN MILLIMETRES | TOLERANCES | MATERIAL | ASSY DRG & PARTS LIST | TITLE | DRAWING No. |
|---------|--------------|---------------------------|---|----------|--|--|-------------------|
| 11 | 18.9.81 | SCALE 2:1 | DECIMAL TO 2 PLACES ±.1mm DECIMAL TO 1 PLACE ±.2mm WHOLE DIMENSIONS ±.4mm ANGULAR ±30° | | 400444 (A) 430444 (A) 460444 (A) 470444 (A) | 4000. REFERENCE DIVIDER 4000A PCB ASSY. | 400444 400444A |
| CHECKED | DATE 13.5.82 | NOT TO BE SCALED | UNLESS OTHERWISE STATED | FINISH | CHECK PROCEDURE | | SHEET 1 OF 17 |
| APPR. | DATE 19-6-82 | | THIRD ANGLE PROJECTION | | CHECK LIST | | |

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DRAWING No.
430444. 430444A



To J4 MOTHER PCB 430440

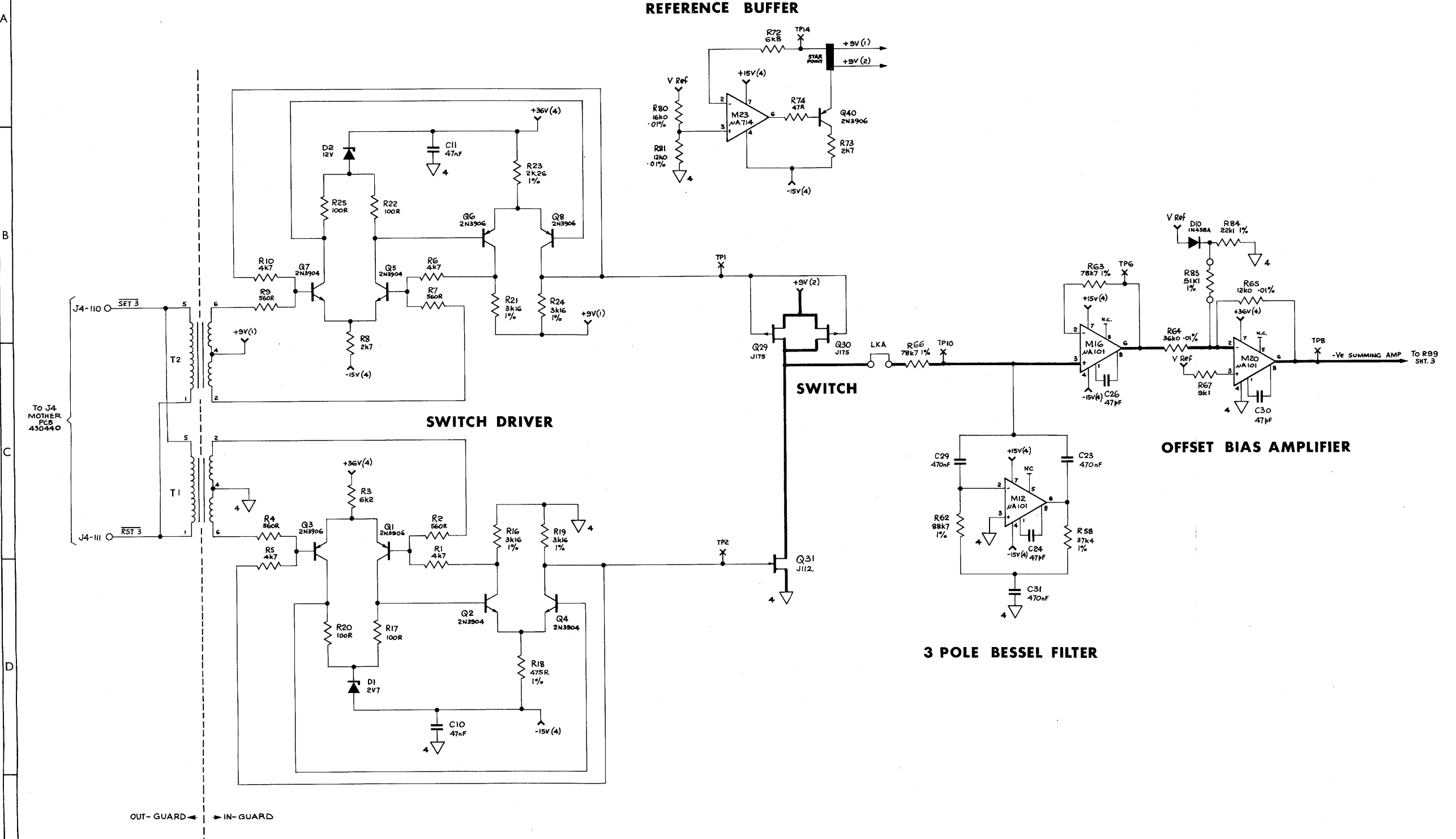
| ISS. | CHANGES |
|------|---|
| 1 | RELEASED 7.5.82 |
| 2 | ECO 1354 R29, R33, R48 & R53 NOW FITTED IN F.S.V.5 J.P. 1.7.82 |
| 3 | ECO 1383 R29, R33, R48 & R53 WERE 110R IL. 24.9.82 |
| 4 | SEE SHEET 3 |
| 5 | ECO 1501, 1502 R29 & R33 NOW D19 & D20. R128 WAS Q36. R128 = Q35. IL. 5.1.7.82 |
| 6 | ECO 1511 DETAILS INDICATED ON SHTS 4 & 5. IL. 14.7.82 |

| | | | | | | | |
|---------------------------|----------------------|---------------------------------------|---|--------------------|---|--|--|
| DRAWN CHECKED APPR. | DATE DATE DATE | DIMENSIONS IN MILLIMETRES SCALE | TOLERANCES DECIMAL TO 2 PLACES ± 0.1mm DECIMAL TO 1 PLACE ± 0.2mm WHOLE DIMENSIONS ± 0.4mm ANGULAR ± 30° UNLESS OTHERWISE STATED FIRST ANGLE PROJECTION | MATERIAL FINISH | ASSY DRG & PARTS LIST CIRCUIT DIAGRAM CHECK PROCEDURE CHECK LIST | TITLE 4000/4000A REFERENCE DIVIDER PCB. MOST SIGNIFICANT SWITCH & FILTER | DRAWING No. 430444 430444A SHEET 1 OF 6 |
|---------------------------|----------------------|---------------------------------------|---|--------------------|---|--|--|

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DRAWING No.
430444. 430444A

| ISS. | CHANGES |
|------|---|
| 1 | RELEASED 7.5.82 |
| 2 | SEE SHT 1 |
| 3 | ECO. 1383. 1380 R18 WAS 866R R23 WAS 3K93 R85 WAS 22K1 ILL. 24.8.82 |
| 4 | SEE SHEET 3 |
| 5 | R25 WAS 18K2. ECO 1501 & 1502 4-7-83. BU |
| 6 | SEE SHTS 4 + 5 |



TO J4 MOTHER PCB 430444D

OUT-GUARD ← → IN-GUARD

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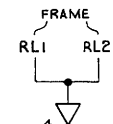
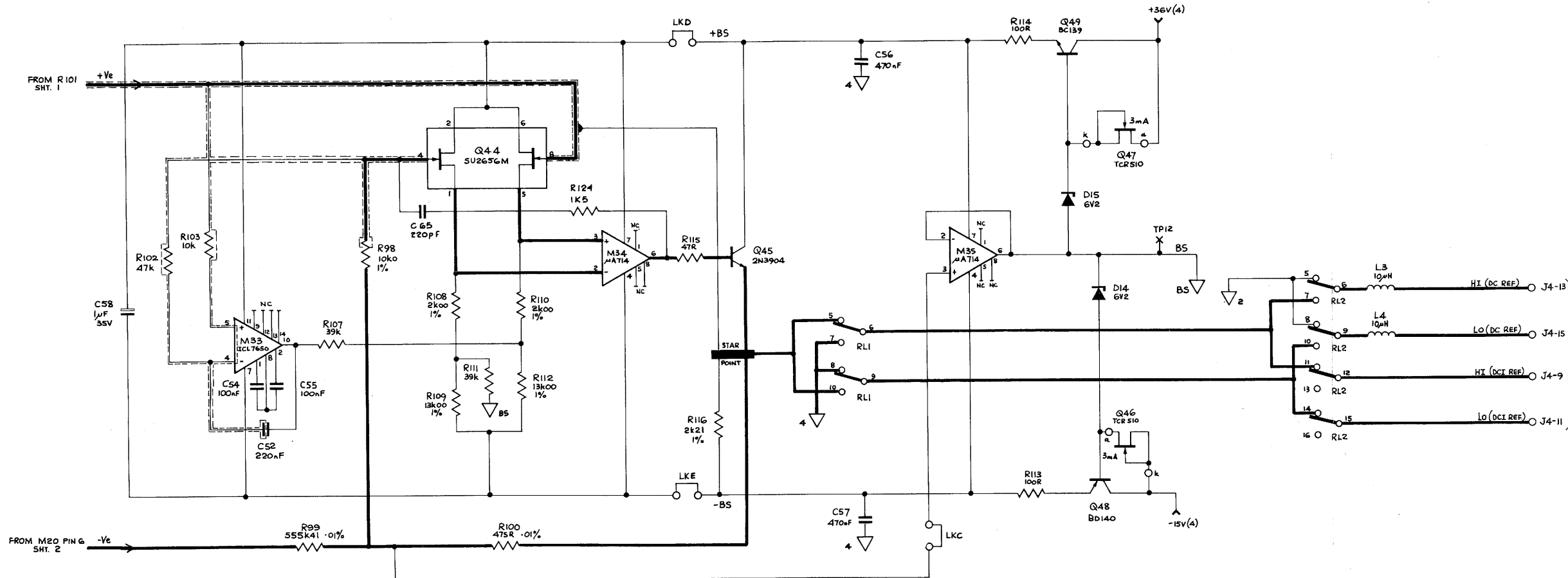
| | | | | | | | |
|-----------------------|-----------------|------------------------------|---|----------|--|--|----------------------------------|
| DRAWN 11 | DATE 20.4.82 | DIMENSIONS IN MILLIMETRES | TOLERANCES DECIMAL TO 2 PLACES ±.1mm DECIMAL TO 1 PLACE ±.2mm WHOLE DIMENSIONS ±.4mm ANGULAR ±30° | MATERIAL | ASSY DRG & PARTS LIST 400444A | TITLE 4000/4000A REFERENCE DIVIDER PCB LEAST SIGNIFICANT SWITCH AND FILTER | DRAWING No. 430444 430444A |
| CHECKED A.K.COOPER | DATE 18/5/82 | SCALE | UNLESS OTHERWISE STATED FIRST ANGLE PROJECTION | FINISH | CIRCUIT DIAGRAM CHECK PROCEDURE CHECK LIST 460444A 470444A | | SHEET 2 OF 6 |
| APP'D 3 | DATE 21.5.82 | NOT TO BE SCALED | | | | | |

| ISS. | CHANGES |
|------|--|
| 1 | RELEASED 1.5.82. |
| 2 | SEE SHT 1 |
| 3 | SEE SHTS 1 AND 2 |
| 4 | ECO 1439. 11-2-83 BY R124 & C65 MODIFIED |
| 5 | SEE SHTS 1 & 2 |
| 6 | SEE SHTS 4 & 5 |

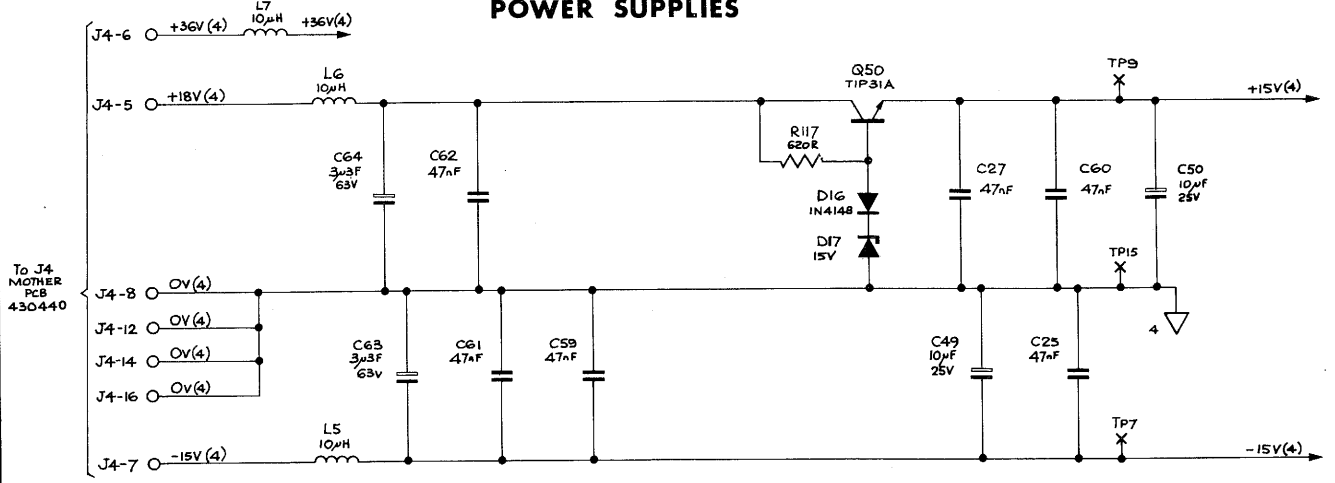
DRAWING No.
430444. 430444A

SUMMING AMPLIFIER

BOOTSTRAP SUPPLIES



POWER SUPPLIES

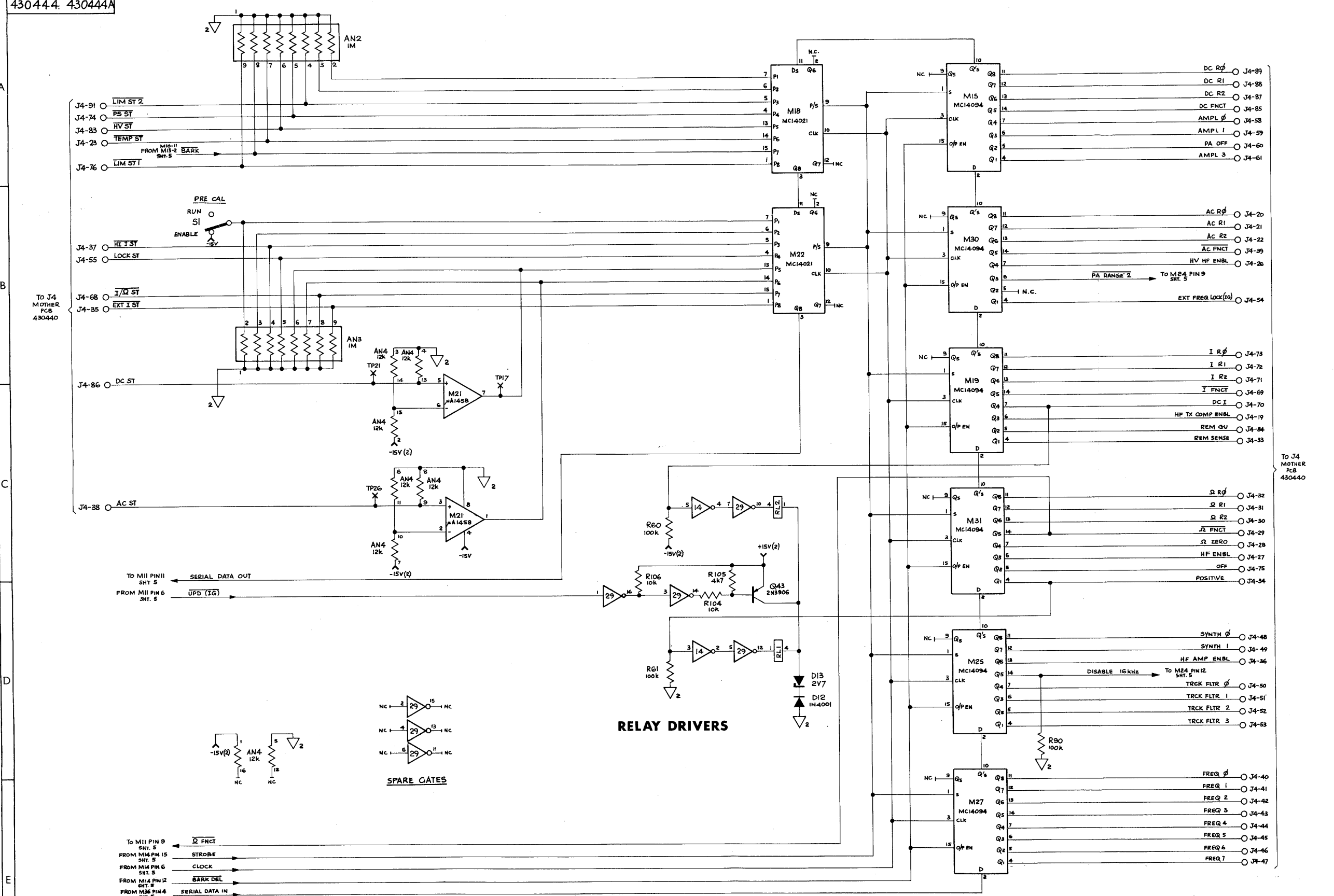


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| | | | | | | | | |
|--------------------------|---------------------------------------|---------------------------------------|---|--------------------|--|-------------------------------------|--|--|
| DRAWN CHECKED APPR | DATE 20.4.82 18/5/82 21.5.82 | DIMENSIONS IN MILLIMETRES SCALE | TOLERANCES DECIMAL TO 2 PLACES ± 0.1mm DECIMAL TO 1 PLACE ± 0.2mm WHOLE DIMENSIONS ± 0.4mm ANGULAR ± 30° UNLESS OTHERWISE STATED FIRST ANGLE PROJECTION | MATERIAL FINISH | ASSY DRG & PARTS LIST CHECK PROCEDURE CHECK LIST | 400444(A) 460444(A) 470444(A) | TITLE 4000/4000A REFERENCE DIVIDER PCB. SUMMING AMPLIFIER AND COMMON 4 SUPPLIES. | DRAWING No. 430444 430444A SHEET 3 OF 6 |
|--------------------------|---------------------------------------|---------------------------------------|---|--------------------|--|-------------------------------------|--|--|

DRAWING No.
430444. 430444A

| ISS. | CHANGES |
|------|--------------------------|
| 1 | RELEASED 7.5.82 |
| 2 | SEE SHT 1 |
| 3 | SEE SHTS 1 AND 2 |
| 4 | SEE SHT 3 |
| 5 | SEE SHEETS 1 & 2 |
| 6 | LINE FROM M30-5 NOT USED |



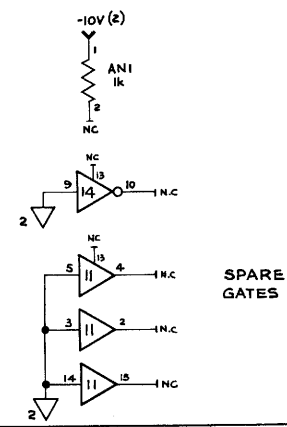
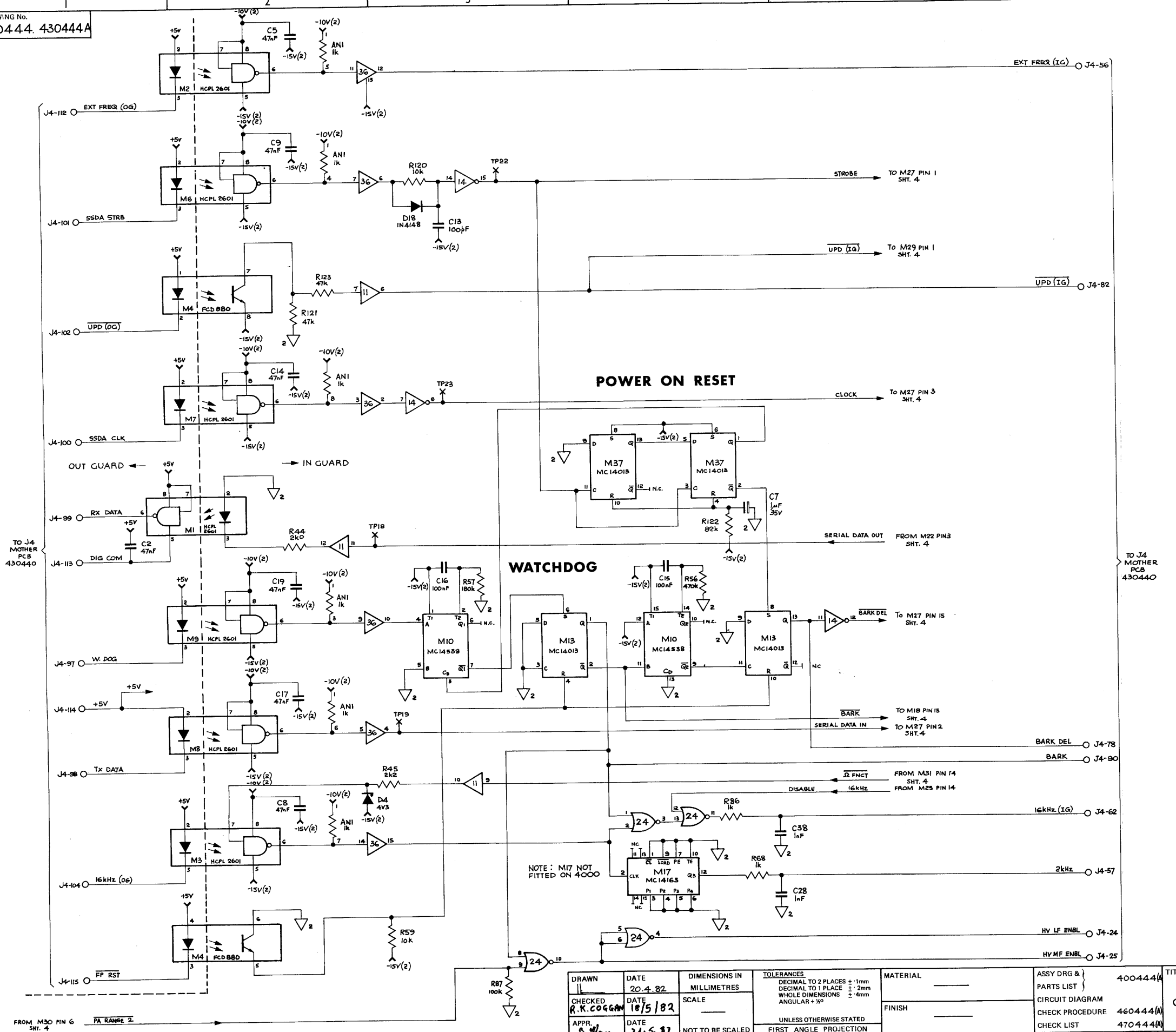
| | | | | | | | | |
|--|---|---|---|--------------------|---|-------------------------------------|--|--|
| DRAWN 11 CHECKED R.K. COGGAN APPR 3 | DATE 22.4.82 DATE 18/5/82 DATE 21.5.82 | DIMENSIONS IN MILLIMETRES SCALE NOT TO BE SCALED | TOLERANCES DECIMAL TO 2 PLACES ± 1mm DECIMAL TO 1 PLACE ± 2mm WHOLE DIMENSIONS ± 4mm ANGULAR ± 30° UNLESS OTHERWISE STATED FIRST ANGLE PROJECTION | MATERIAL FINISH | ASSY DRG & PARTS LIST CIRCUIT DIAGRAM CHECK PROCEDURE CHECK LIST | 400444(A) 460444(A) 470444(A) | TITLE 4000/4000A REFERENCE-DIVIDER PCB SERIAL/PARALLEL DATA CONVERTER | DRAWING No. 430444 430444A SHEET 4 OF 6 |
|--|---|---|---|--------------------|---|-------------------------------------|--|--|

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| ISS. | CHANGES |
|------|---|
| 1 | RELEASED 7.5.82 |
| 2 | SEE SHT 1 |
| 3 | SEE SHTS. 1 AND 2 |
| 4 | SEE SHEET 3 |
| 5 | SEE SHEETS 1 & 2 |
| 6 | R28 R29 1 LKF DELETED. M24-5/6 M24-10 LINKED. M24-5 TO M24-8 LINK DELETED. M24-6 TO M30-5 LINK DELETED. |

DRAWING No. 430444. 430444A

A
B
C
D
E



| | | | | | |
|------------------------|-----------------|------------------------------|---|----------|----------------------------------|
| DRAWN 11 | DATE 20.4.82 | DIMENSIONS IN MILLIMETRES | TOLERANCES DECIMAL TO 2 PLACES ±.1mm DECIMAL TO 1 PLACE ±.2mm WHOLE DIMENSIONS ±.4mm ANGULAR ±30° | MATERIAL | ASSY DRG & PARTS LIST 400444A |
| CHECKED R.K. COGGAN | DATE 18/5/82 | SCALE | UNLESS OTHERWISE STATED FIRST ANGLE PROJECTION | FINISH | CIRCUIT DIAGRAM 460444(A) |
| APPR. B. W. | DATE 21.6.82 | NOT TO BE SCALED | | | CHECK PROCEDURE 470444(A) |

TITLE
4000/4000A
REFERENCE DIVIDER PCB.
OUT/IN GUARD INTERFACE
AND WATCHDOG.

DRAWING No.
430444
430444A
SHEET 5 OF 6

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| ISS. | CHANGES |
|------|------------------|
| 1 | RELEASED 7.5.82 |
| 2 | SEE SHT 1 |
| 3 | SEE SHTS 1 AND 2 |
| 4 | SEE SHT 5 |
| 5 | SEE SHTS 2 & 1 |
| 6 | SEE SHTS 4 + 5 |

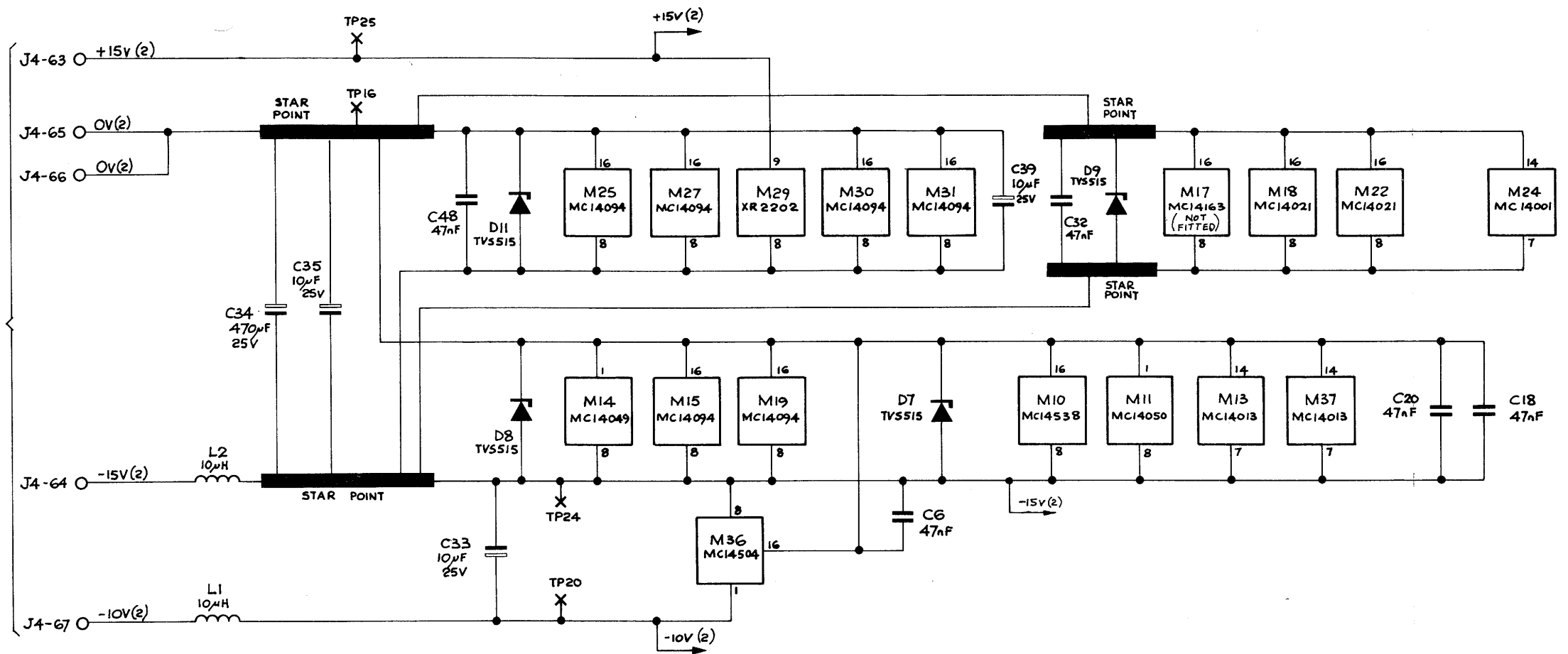
DRAWING No.
430444. 430444A
FIRST USED ON

THIRD ANGLE PROJECTION

DRAWN IN ACCORDANCE WITH BS 308

ALL BURRS TO BE REMOVED

NOTES



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| | | | | | |
|------------------------|-------------------|------------------------------|--|----------|---|
| DRAWN IL | DATE 29. 4. 82 | DIMENSIONS IN MILLIMETRES | TOLERANCES DECIMAL TO 2 PLACES ± .1mm DECIMAL TO 1 PLACE ± .2mm WHOLE DIMENSIONS ± .4mm ANGULAR + ½° | MATERIAL | ASSY DRG & PARTS LIST } 400444(A) |
| CHECKED R.K. COGGAN | DATE 18/5/82 | SCALE | UNLESS OTHERWISE STATED FIRST ANGLE PROJECTION | FINISH | CIRCUIT DIAGRAM |
| APPR B. Hume | DATE 21.5.82 | NOT TO BE SCALED | | | CHECK PROCEDURE 460444(A) CHECK LIST 470444(A) |

TITLE
4000/4000A
REFERENCE DIVIDER PCB
COMMON 2. POWER SUPPLIES

DRAWING No.
430444
430444A
SHEET 6 OF 6