Manual Supplement

Manual Title:	5700A/5720A Operator	Supplement Issue:	**5**
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This supplement contains information necessary to ensure the accuracy of the above manual. This manual is distributed as an electronic manual on the following CD-ROM:

CD Title:	5700A/5720A
CD Rev. & Date:	2, 2/2008
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FLUKE®

Change #1, 40695

On page 1-42, replace the entire page with the following:

Wideband AC Voltage (Option 5700-03) Specifications

Specifications apply to the end of the cable and 50 Ω termination used for calibration.

Range		Resolution	Absolute Uncertainty ±5 °C from calibration temperature 30 Hz - 500 kHz			
Volts	dBm		24 Hours	90 Days	180 Days	1 Year
			± (% output +µV)			
1.1 mV	-46	10 nV	0.4 + 0.4	0.5 + 0.4	0.6 + 0.4	0.8 + 2
3 mV	-37	10 nV	0.4 + 1	0.45 + 1	0.5 + 1	0.7 + 3
11 mV	-26	100 nV	0.2 + 4	0.35 + 4	0.5 + 4	0.7 + 8
33 mV	-17	100 nV	0.2 + 10	0.3 + 10	0.45 + 10	0.6 + 16
110 mV	-6.2	1 µV	0.2 + 40	0.3 + 40	0.45 + 40	0.6 + 40
330 mV	+3.4	1 µV	0.2 + 100	0.25 + 100	0.35 + 100	0.5 + 100
1.1 V	+14	10 µV	0.2 + 400	0.25 + 400	0.35 + 400	0.5 + 400
3.5 V	+24	10 µV	0.15 + 500	0.2 + 500	0.3 + 500	0.4 + 500

Frequency (Hz)	Frequency Resolution (Hz)	Amplitude Flatness, 1 kHz Reference Voltage Range			Temperature Coefficient ±ppm/°C	Settling Time To Full Accuracy (Seconds)	Harmonic Distortion (dB)
		1.1 mV	3 mV	>3 mV			
		± (% output + floor indicated)					
10 - 30	0.01	0.3	0.3	0.3	100	7	-40
30 - 120	0.01	0.1	0.1	0.1	100	7	-40
120 - 1.2 k	0.1	0.1	0.1	0.1	100	5	-40
1.2 k - 12 k	1	0.1	0.1	0.1	100	5	-40
12 k - 120 k	10	0.1	0.1	0.1	100	5	-40
120 k - 1.2 M	100	0.2 + 3 µV	0.1 + 3 µV	0.1 + 3 µV	100	5	-40
1.2 M - 2 M [1]	100 k	0.2 + 3 µV	0.1 + 3 µV	0.1 + 3 µV	100	0.5	-40
2 M - 10 M	100 k	0.4 + 3 µV	0.3 + 3 µV	0.2 + 3 µV	100	0.5	-40
10 M - 20 M	1 M	0.6 + 3 µV	0.5 + 3 µV	0.4 + 3 µV	150	0.5	-34
20 M - 30 M	1 M	1.5 + 15 µV	1.5 + 3 µV	1 + 3 µV	300	0.5	-34

[1] For output voltages < 50 % of full range in the 33 mV, 110 mV, 330 mV, 1.1 V , and 3.5 V ranges, add 0.1 % to the amplitude flatness specification.

Additional Operating Information:

dBm reference = 50 Ω

Range boundaries are at voltage points, dBm levels are approximate.

$dBm = 10 \log \left(\frac{Power}{1 mW} \right)$; 0.22361 V across 50 Ω = 1 mW or 0 dBm

Minimum Output ..... 300 µV (-57 dBm)

Frequency Uncertainty ..... ±0.01 %

Frequency Resolution ..... 11,999 counts to 1.1999 MHz, 119 counts to 30 MHz

Overload Protection ..... A short circuit on the wideband output will not result in damage. After settling time, normal operation is restored upon removal.

Change #2, 43432,45150

On page 1-27, replace **External Sense** with the following:

External Sense.....Applicable for 2.2 V, 22 V, 220 V, and 1100 V ranges; 5700A/5720A <100 kHz, 5725A <30 kHz. Specifications are the same as internal sense.

On page 1-29, change the following:

From:

Nominal Value (Ω)	24 Hours
1.9 M	1

To:

Nominal Value (Ω)	24 Hours
1.9 M	17

Change #3

On page 4-14, under ***When to Use External Sensing***, add the following between the first and second paragraphs:

For ACV, when calibrating digital multimeters with input impedance of 1 MΩ or greater, internal sense is more effective for all frequencies. See Figures 4-1 and 4-2 for recommended connections for both internal and external sense applications.

Change #4, 45727

On page 1-13, add the following to the bottom of the page:

Artifact Calibration Standards Requirements

Calibrating the 5700A Series II and 5720A to full specified absolute uncertainty requires using the following external standards, each with an uncertainty that is within the stated uncertainty limit.

Fluke Standard	Traceable Quantity	Nominal Value	Uncertainty Limit	5700A/5720A Series II Specifications Susceptible to Uncertainty Limit
732B	Voltage	10 V	±1.5 ppm	dc volts, ac volts, dc current, ac current
742A-1	Resistance	1 Ω	±10 ppm	1 Ω, 1.9 Ω
742A-10k	Resistance	10 kΩ	±4 ppm	ac current, dc current 10 Ω to 100 MΩ

On page 1-14, delete the drawings.

Change #5, 48458

On page 1-13, under ***General Specifications***, following **Safety**, add:

Operating Altitude ..... 2000 m

Pollution Degree 2

Change #6, 49361

On page 1-13, under ***General Specifications***,

Change: **Safety** ..... Designed to compy with UL3111; EN61010; CSA C22.2 No. 1010; ANSI/ISA S82.01-1994

To: **Safety** ..... Complies with IEC61010-1, (2nd Edition), CAN/CSA-C22.2 No. 61010-1-04, and UL Std. No. 61010-1 (2nd Edition)