

Manual Supplement

Manual Title:	5730A Getting Started	Supplement Issue:	3
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This supplement contains information necessary to ensure the accuracy of the above manual.

FLUKE®

Calibration

Change #1, 66057, 66398, 66301

On page 22, under **General Specifications**, delete the **Safety** and **Line Power** line and add:

Safety.....IEC 61010-1: Overvoltage Category II, Pollution Degree 2

Line Power

Line Voltage

5730A 100 V-120 V, 220 V- 240 V \pm 10 %

5725A 100 V, 110 V, 115 V, 120 V, 200 V, 220 V, 230 V, 240 V, \pm 10 %

Line Frequency..... 47 Hz-63 Hz

On page 25, under **5730A AC Voltage Specifications: 99 % Confidence Level:**

Change: 2.2 V Range, 500 kHz-1 MHz, 90 Days 1800 ppm + 600 μ V

To: 2.2 V Range, 500 kHz-1 MHz, 90 Days 1800 ppm + 400 μ V

On page 41, on both **Current Accuracy** tables, change the Note section to:

Notes:
1. t_{cal} is the temperature at which calibration adjustment took place.
Maximum inductance for stability LCOMP OFF is 100 μ H. Maximum inductance for stability LCOMP ON is 400 μ H for 2 A and 20 A ranges. 100 μ H on the 120 A range.
With LCOMP ON, the output is limited to 7.2e3 A-Hz. For example, a 100 A output is limited to 72 Hz.

Change #2, 391, 392, 396, 469

On page 22, replace the **Electromagnetic Environment** with:

Electromagnetic Compatibility (EMC)

International.....IEC 61326-1 Controlled Electromagnetic Environment

IEC 61326-2-1; CISPR 11: Group 1, Class A

Group 1 equipment has intentionally generated and/or use conductively coupled radio-frequency energy which is necessary for the internal functioning of the equipment itself.

Class A equipment is equipment suitable for use in all establishments other than domestic and those directly connected to a low voltage power supply network which supplies buildings used for domestic purposes.

Emissions which exceed the levels required by CISPR 11 can occur when the equipment is connected to a test object. The equipment may not meet the immunity requirements of 61326-1 when test leads and/or test probes are connected.

USA (FCC)47 CFR 15 subpart B, this product is considered an exempt device per clause 15.103

Korea (KCC).....Class A Equipment (Industrial Broadcasting & Communication Equipment)

This product meets requirements for industrial (Class A) electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.

On page 29, under **Frequency:**

Change: Accuracy \pm 0.01 %

To: Absolute Specification..... \pm 0.0025 %

On page 30, under **Phase Reference** (Selectable Rear Panel BNC Output), replace Frequency Range with:

Frequency Range..... 50 Hz to 1 kHz, usable 10 Hz to 1.999 MHz

Change #3, 469, 479

On page 39, in the **AC Current Secondary Performance Specifications and Operating Characteristics** table, replace note 4 with:

4. 5725A Amplifier may be used in range-lock mode down to 1 A.

On page 40, under **Frequency**, replace Specification with:

Specification ±0.0025 %

On page 40, replace the 2nd table with:

Frequency (Hz)	Frequency Resolution (Hz)	Amplitude Flatness, 1 kHz Reference Voltage Range, 1 Year			Temperature Coefficient ±ppm/°C	Settling Time To Published Specification (Seconds)	Harmonic Distortion (dB)
		1.1 mV	3.3 mV	>3.3 mV			
		±(% output + floor indicated)					
10 - 30	0.01	0.3	0.3	0.3	100	7	-40
30 - 119.99	0.01	0.1	0.1	0.1	100	7	-40
120 - 1.1999 k	0.1	0.1	0.1	0.1	100	5	-40
1.2 k - 11.999 k	1	0.1	0.1	0.1	100	5	-40
12 k - 119.99 k	10	0.1	0.1	0.1	100	5	-40
120 k - 1.1999 M	100	0.2 + 3 μV	0.1 + 3 μV	0.1 + 3 μV	100	5	-40
1.2 M - 2 M ^[1]	1 k ^[3]	0.2 + 3 μV	0.1 + 3 μV	0.1 + 3 μV	100	0.5	-40
2 M - 11.9 M	1 k ^[3]	0.4 + 3 μV	0.3 + 3 μV	0.2 + 3 μV	100	0.5	-40
12 M - 20 M	10 k ^[3]	0.6 + 3 μV	0.5 + 3 μV	0.4 + 3 μV	150	0.5	-34
20 M - 30 M	10 k ^[3]	1.5 + 15 μV	1.5 + 3 μV	1 + 3 μV	300	0.5	-34
30 M - 50 M ^[2]	10 k	3.0 + 15 μV	3.0 + 3 μV	2.0 + 3 μV	600	0.5	-34

Note:

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.

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

2. Applies to Option 5730A/05 only.
3. Resolution specified applies to 5730A/03 and 5730/05 models ordered or upgraded after October 2015. To easily identify newer models, output 20 MHz from the Calibrator. A newer model will show 20.00 MHz versus 20 MHz.

On page 41, under **52120A Specifications**, replace **Safety** with:

Safety EN/IEC 61010-1, Overvoltage II, Pollution Degree 2

On page 40, add:

Wideband AC Voltage (Option 5730A/03 and 5730A/05) Specifications (95 % Confidence Level)

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

Range		Resolution	Absolute / ± 5 °C from calibration temperature 30 Hz - 500 kHz			
Volts	dBm		24 Hours	90 Days	180 Days	1 Year
\pm (% output + mV)						
1.1 mV	-46	10 nV	0.32 + 0.32	0.39 + 0.32	0.47 + 0.32	0.63 + 2
3.3 mV	-37	10 nV	0.32 + 0.78	0.35 + 0.78	0.39 + 0.78	0.55 + 3
11 mV	-26	100 nV	0.16 + 3	0.28 + 3	0.39 + 3	0.55 + 7
33 mV	-17	100 nV	0.16 + 8	0.24 + 8	0.35 + 8	0.47 + 13
110 mV	-6.2	1 mV	0.16 + 32	0.24 + 32	0.35 + 32	0.47 + 32
330 mV	+3.4	1 mV	0.16 + 80	0.20 + 80	0.28 + 80	0.39 + 80
1.1 V	+14	10 mV	0.16 + 320	0.20 + 320	0.28 + 320	0.39 + 320
3.5 V	+24	10 mV	0.12 + 390	0.16 + 390	0.24 + 390	0.32 + 390

Frequency (Hz)	Frequency Resolution (Hz)	Amplitude Flatness, 1 kHz Reference Voltage Range, 1 Year			Temperature Coefficient \pm ppm/°C	Settling Time To Published Specification (Seconds)	Harmonic Distortion (dB)
		1.1 mV	3.3 mV	>3.3 mV			
		\pm (% output + floor indicated)					
10 - 30	0.01	0.24	0.24	0.24	100	7	-40
30 - 119.99	0.01	0.08	0.08	0.08	100	7	-40
120 - 1.1999 k	0.1	0.08	0.08	0.08	100	5	-40
1.2 k - 11.999 k	1	0.08	0.08	0.08	100	5	-40
12 k - 119.99 k	10	0.08	0.08	0.08	100	5	-40
120 k - 1.1999 M	100	0.16 + 2.4 mV	0.08 + 2.4 mV	0.08 + 2.4 mV	100	5	-40
1.2 M - 2 M ^[1]	1 k ^[3]	0.16 + 2.4 mV	0.08 + 2.4 mV	0.08 + 2.4 mV	100	0.5	-40
2 M - 11.9 M	1 k ^[3]	0.32 + 2.4 mV	0.24 + 2.4 mV	0.16 + 2.4 mV	100	0.5	-40
12 M - 20 M	10 k ^[3]	0.47 + 2.4 mV	0.39 + 2.4 mV	0.32 + 2.4 mV	150	0.5	-34
20 M - 30 M	10 k ^[3]	1.2 + 12 mV	1.2 + 2.4 mV	0.8 + 2.4 mV	300	0.5	-34
30 M - 50 M ^[2]	10 k	2.4 + 12 mV	2.4 + 2.4 mV	1.6 + 2.4 mV	600	0.5	-34

Note:

- 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.

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

- Applies to Option 5730A/05 only.
- Resolution specified applies to 5730A/03 and 5730/05 models ordered or upgraded after October 2015. To easily identify newer models, output 20 MHz from the Calibrator. A newer model will show 20.00 MHz versus 20 MHz.