

Manual Supplement

Manual Title:	5730A Operators	Supplement Issue:	3
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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:	5730A
CD Rev. & Date:	1, 1/2014
CD PN:	4290580

FLUKE®

Calibration

Change #1, 66057, 66398, 66301

On page 1-15, 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 ±10 %

5725A..... 100 V, 110 V, 115 V, 120 V, 200 V, 220 V, 230 V, 240 V, ±10 %

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

On page 1-18, under **5730A AC Voltage Specifications: 99 % Confidence Level:**

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

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

On page 1-34, on both **Current Accuracy** tables, change the Note section to:

Notes:
1. tcal is the temperature at which calibration adjustment took place.
Maximum inductance for stability LCOMP OFF is 100 μH. Maximum inductance for stability LCOMP ON is 400 μH for 2 A and 20 A ranges. 100 μH 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.

On page 7-5 replace the second item 11 with:

⑪	⚠ Fuse (220 V – 240 V, T 1.5 A 250 V)	109231
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Change #2, 251, 391, 392, 396, 469

On page 1-15, 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 <i>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.</i> <i>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.</i> <i>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.</i>
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 1-22, under **Frequency:**

Change: Accuracy±0.01 %

To: Absolute Specification.....±0.0025 %

On page 1-23, under **Phase Reference** (Selectable Rear Panel BNC Output), replace Frequency Range with:

Frequency Range 50 Hz to 1 kHz, usable 10 Hz to 1.1999 MHz

Change #3, 251, 469, 479

On page 1-27, replace the second table in the **Wideband AC Voltage (option 5730A/03 and 5730A/05) Specifications (99 % Confidence Level)** 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:

- 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.

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

- 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.

On page 1-28, replace **Safety** with:

SafetyEN/IEC 61010-1, Overvoltage II, Pollution Degree 2

On page 1-28, change:

From: **52120A Specifications when Operated with a 5730A**

To: **52120A Specifications**

On page 7-11, replace Figure 7-4 with:

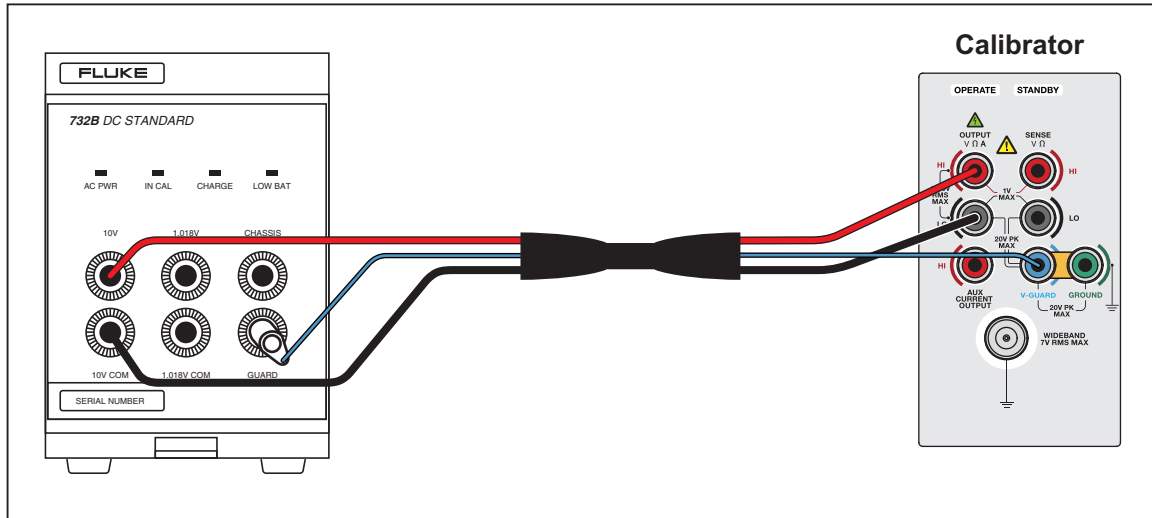


Figure 7-4. 732B External Calibration Connections

hhp027.eps

On page 7-12, replace Figure 7-5 with:

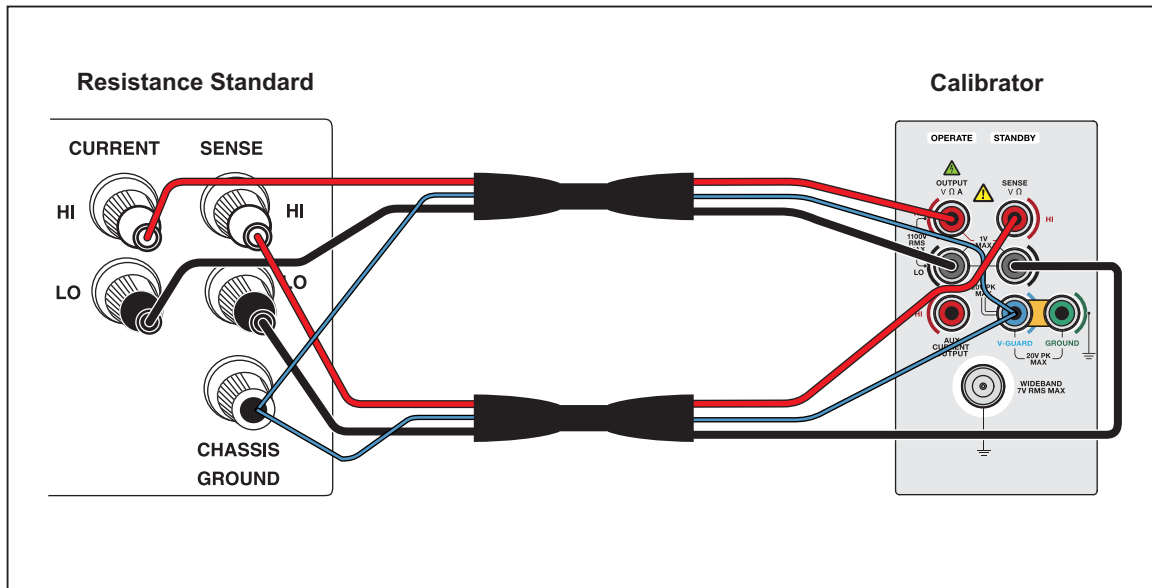


Figure 7-5. 742-1 and 742-10 k External Calibration Connections

hhp028.eps

In 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
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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:

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