

Manual Supplement

Manual Title: 114,115, 116, and 117 Calibration
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This supplement contains information necessary to ensure the accuracy of the above manual.

Change #1

On page 10, delete step 30.

Change #2

On page 4, replace **Table 2** with the following:

Table 2. Accuracy Specifications

Function	Range	Resolution	Accuracy ± ([% of Reading] + [Counts])		Model ^[1]
			DC, 45 to 500 Hz	500 Hz to 1 kHz	
DC millivolts	600.0 mV	0.1 mV	0.5 % + 2		114, 115, 116, 117
DC Volts	6.000 V	0.001 V	0.5 % + 2		114, 115, 116, 117
	60.00 V	0.01 V			
	600.0 V	0.1 V			
			DC, 45 to 500 Hz	500 Hz to 1 kHz	
Auto-V LoZ ^[2] True-rms	600.0 V	0.1 V	2.0 % + 3	4.0 % + 3	114, 116, 117
			45 to 500 Hz	500 Hz to 1 kHz	
AC millivolts ^[2] True-rms	600.0 mV	0.1 mV	1.0 % + 3	2.0 % + 3	114, 115, 116, 117
AC Volts ^[2] True-rms	6.000 V	0.001 V	1.0 % + 3	2.0 % + 3	114, 115, 116, 117
	60.00 V	0.01 V			
	600.0 V	0.1 V			
Continuity	600 Ω	1 Ω	Beeper on <20 Ω, off >250 Ω; detects opens or shorts of 500 μs or longer.		114, 115, 116, 117
Ohms	600.0 Ω	0.1 Ω	0.9 % + 2		114, 115, 116, 117
	6.000 kΩ	0.001 kΩ	0.9 % + 1		
	60.00 kΩ	0.01 kΩ	0.9 % + 1		
	600.0 kΩ	0.1 kΩ	0.9 % + 1		
	6.000 MΩ	0.001 MΩ	0.9 % + 1		
	40.00 MΩ	0.01 MΩ	5.0 % + 2		
Diode test	2.000 V	0.001 V	0.9 % + 2		115, 116, 117
Capacitance	1000 nF	1 nF	1.9 % + 2		115, 116, 117
	10.00 μF	0.01 μF	1.9 % + 2		
	100.0 μF	0.1 μF	1.9 % + 2		
	9999 μF	1 μF	100 μF - 1000 μF: 1.9 % + 2 >1000 μF: 5 % + 20		
Lo-Z Capacitance (Power-up option)	1 nF to 500 μF		10 % +2 typical		115, 116, 117
AC Amps True-rms ^[2] (45 Hz to 500 Hz)	6.000 A	0.001 A	1.5 % + 3		115, 117
	10.00 A ^[4]	0.01 A			
DC Amps	6.000 A	0.001 A	1.0 % + 3		115, 117
	10.00 A ^[4]	0.01 A			
	20 A overload for 30 seconds maximum, 10 minutes rest minimum.				

Temperature (Type K thermocouple)	-40 °C to 400 °C -40 °F to 752 °F	0.1 °C 0.2 °F	1.0 % + 10 ^[5] 1.0 % + 18 ^[5]	116
AC μ Amps True-rms ^[2] (45 Hz to 1 kHz)	600.0 μ A	0.1 μ A	1.5 % + 3 (2.5 % + 3 > 500 Hz)	116
DC μ Amps	600.0 μ A	0.1 μ A	1.0 % + 2	116
Hz (V or A input) ^[3]	99.99 Hz 999.9 Hz 9.999 kHz 50.00 kHz	0.01 Hz 0.1 Hz 0.001 kHz 0.01 kHz	0.1 % + 2	115, 116, 117
Notes:				
[1] Models listed in this column also refer to the "C" version of the model. For example, those rows containing model 115 are applicable to the 115C as well.				
[2] All ac ranges except Auto-V LoZ are specified from 1 % to 100% of range. Auto-V LoZ is specified from 0.0 V. Because inputs below 1 % of range are not specified, it is normal for this and other true-rms meters to display non-zero readings when the test leads are disconnected from a circuit or are shorted together. For volts, crest factor of ≤ 3 at 4000 counts, decreasing linearly to 1.5 at full scale. For amps, crest factor of ≤ 3 . AC volts is ac-coupled. Auto-V LoZ, AC mV, AC μ amps, and AC amps are dc-coupled.				
[3] AC Volts Hz is ac-coupled and specified from 5 Hz to 50 kHz. AC amps Hz is dc-coupled and specified from 45 Hz to 5 kHz.				
[4] >10 A unspecified.				
[5] Temperature uncertainty (accuracy) does not include the error of the thermocouple probe.				

Change #3

On page 2, under **Safety Information**:

Change: Do not use the Meter around explosive gas or vapor.

To: Do not use the Product around explosive gas, vapor, or in damp or wet environments

Change #4, 63151, 63405

On page 3, replace Table 1 with:

Table 1. Electrical Symbols

Symbol	Description	Symbol	Description
~	AC (Alternating Current)		Fuse
≡	DC (Direct Current)		Double Insulated
	Hazardous voltage		Important Information; Refer to manual
	Battery (Low battery when shown on the display.)		Earth ground
	Do not dispose of this product as unsorted municipal waste. Go to Fluke's website for recycling information.		
	Conforms to relevant South Korean EMC Standards		
CAT II	Measurement Category II is applicable to test and measuring circuits connected directly to utilization points (socket outlets and similar points) of the low-voltage MAINS installation.		
CAT III	Measurement Category III is applicable to test and measuring circuits connected to the distribution part of the building's low-voltage MAINS installation.		
CAT IV	Measurement Category IV is applicable to test and measuring circuits connected at the source of the building's low-voltage MAINS installation.		

On page 3, under **General Specifications**, delete **Surge Protection, Safety Compliance and Certifications** and add:

Safety IEC 61010-1: 600 V CAT III, Pollution Degree 2

Electromagnetic Environment IEC 61326-1: Portable

Electromagnetic Compatibility Applies to use in Korea only:

Class A Equipment (Industrial Broadcasting & Communication Equipment) ^[1]

[1] 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 is not to be used in homes.