Manual Supplement

Manual Title:	287/289 Calibration	Supplement Issue:	**7**
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This supplement contains information necessary to ensure the accuracy of the above manual.

FLUKE®

Change #1, 55189, 55213, 55269

On page 7, under ***Resistance Specifications,*** change the **Accuracy** for 500 kΩ:

From: 0.05 % + 2

To: 0.05 % + 15

On page 8, under ***Frequency Counter Specifications,*** add a footnote 3 to the Duty Cycle row.

[3] For 10 μs < pulse width <25 μs add 1%. For 2 μs < pulse width ≤10 Ωs add 3.5 %.

Under Pulse Width, change the **Accuracy** for 0.1000 ms:

From: 0.002 ms + 3 counts

To: 0.002 ms + 30 counts

On page 9, in the ***Input Characteristics*** table, under **Typical Short Circuit Current,** change 5 MΩ:

From: 0.3 μA

To: 1 μA

On page 18, Table 4, replace steps 22 and 29 with:

22.	AC mV	500.00 mV	250 mV	65 kHz	240.85	259.15
29.	VAC, HZ % (Duty Cycle)	5.0000 V	5 V p-p, Sq. wave @ 15 %	50 kHz	1.40	28.60

Change #2, 54932, 55354, 64414

On page 1, following the bullets, replace the sentence with:

For complete operating instructions, refer to the *Model 287 & 289 Users Manual*.

On page 2 & 3, delete the ***Safety Information*** section.

On page 3 add the following to the list of **Warnings**:

- **Measure a known voltage first to make sure that the Meter operates correctly. If you are unsure, have the Meter examined.**

On page 4, under the **Cautions** replace the fourth bullet with:

- **Before measuring current, check the Meter's fuses. (See "Testing the Fuses" in the Users Manual).**

On page 5, under ***General Specifications*** delete the **Vibration, Shock**, **Safety Standards**, **Electromagnetic Compatibility Standards (EMC)**, and the **Certifications** sections and replace with:

Safety

General ..... IEC 61010-1, Pollution Degree 2

Measurements ..... IEC 61010-2-033, CAT IV 600 V/CAT III 1000 V

Electromagnetic Compatibility (EMC)

International ..... IEC 61326-1: Protable Electromagnetic Environment; IEC 61326-2-2
CISPR 11: Group 1, Class A

Group 1: Equipment has intentionally generated and/or uses conductively-coupled radio frequency energy that is necessary for the internal function of the equipment itself.

Class A: Equipment is suitable for use in all establishments other than domestic and those directly connected to a low-voltage power supply network that supplies buildings used for domestic purposes. There may be potential difficulties in ensuring electromagnetic compatibility in other environments due to conducted and radiated disturbances.

Caution: This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.

Emissions that exceed the levels required by CISPR 11 can occur when the equipment is connected to a test object.

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

Class A: Equipment meets requirements for industrial 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 2, replace the **Symbols** Table with:

Symbol	Description	Symbol	Description
~	AC (Alternating Current or Voltage)		Fuse
⎓	DC (Direct Current or Voltage)		Double Insulated
	Hazardous voltage		Important Information; refer to manual
	Battery (Low battery when shown on the display)		Earth ground
	Continuity test or continuity beeper tone		Conforms to relevant Canadian and US standards
CE	Conforms to European Union directives	N10140	Conforms to relevant Australian standards
LISTED 950 Z	Underwriters Laboratory listed product		Inspected and licensed by TÜV Product Services
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.		This product complies with the WEEE Directive (2002/96/EC) marking requirements. The affixed label indicates that you must not discard this electrical/electronic product in domestic household waste. Product Category: With reference to the equipment types in the WEEE Directive Annex I, this product is classed as category 9 "Monitoring and Control Instrumentation" product. Do not dispose of this product as unsorted municipal waste. Go to Fluke's website for recycling information.
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.
	Conforms to relevant South Korean EMC Standards.		

On page 26, Table 8, replace the **Source Value** for step 4 with:

Source Value
50.0 mV, 0 Hz

Change #3, 66733

On page 6, replace Notes 2 and 3 in the ***AC Current Specifications*** table:

[2] 10 A to 20 A, 30 seconds on, 10 minutes off. >10 A not specified.

[3] 400 mA continuous; 400 mA to 550 mA for 2 minutes on, 1 minute off.

On page 7, replace Notes 2 and 4 in the ***DC Current Specifications*** table:

[2] 10 A to 20 A, 30 seconds on, 10 minutes off. >10 A not specified.

[4] 400 mA continuous; 400 mA to 550 mA for 2 minutes on, 1 minute off.

On page 18, Table 4, replace steps 8 and 9 with:

8.	DC mV, DC,AC	500.00 mV	50 mV	0 Hz	49.97	50.03
9.	DC mV, AC,DC	500.00 mV	250 mV	35 kHz	237.10	262.90

On page 19, Table 4, replace steps 39 and 40 with:

39.	DC V, DC,AC	5.0000 V	200 mV	0 Hz	0.1977	0.2023
40.	DC V, AC,DC	5.0000 V	2 V	5 kHz	1.9640	2.0360

Change #4, 82

On page 10, Table 2, under Frequency, change:

From: Frequency Source: 45 Hz-950 kHz
Accuracy: +/- 0.0026 %
Amplitude: 600 mV
Accuracy: +/- 5 %

To: Frequency Source: 45 Hz to 950 kHz
Accuracy: ±0.0026 %
Amplitude: .707 V p-p using 50 Ω output Z
Accuracy: ±3.5 % + 300 µV

Recommended Model
Fluke 5520A with Scope Option SC300 or SC600

On page 18, replace step 25 with:

25.	AC mV, Hz	500.00 mV	.707 V p-p [8]	950 kHz	949.90	950.10

On page 20, add footnote 8:

[8] Use 50 Ω output Z. For scope option, use levelsine mode.

Change #5, 575

On page 7, in the ***DC Voltage Specification*** table, replace note 1 with:

[1] Add 20 counts in dual display ac over dc, dc over ac or ac+dc. 289 only.

On page 9, in the ***Input Characteristics*** table **LoZ, Input Impedance**, change:

From: 3.2 kΩ <100 pF (ac-coupled)

To: 3.2 kΩ <100 pF (dc-coupled)