

Manual Supplement

Manual Title:	27 II/28 II Calibration	Supplement Issue:	3
Part Number:	Web-Only	Issue Date:	2/13
Print Date:	April 2010	Page Count:	2
Revision/Date:			

This supplement contains information necessary to ensure the accuracy of the above manual..


Change #1

On page 3, add the following under the **Warnings**:

The following Warnings apply when permitted for use by MSHA:

- **MSHA approved for use with three Energizer P/N E91 or three Duracell P/N MN1500 1.5 Volt, "AA" alkaline batteries only. All cells are to be replaced at the same time with identical part number cells in fresh air locations only.**
- **This multimeter is not to be used to check electrical blasting circuits.**
- **This multimeter is not to be connected to an electrically energized circuit in an area where permissibility is required.**

On page 4, add the following to the **Symbols** Table:

	United States Department of Labor, Mine Safety and Health Administration.
---	---

On page 10, add the following under the **Warning**:

- **MSHA approved for use with three Energizer P/N E91 or three Duracell P/N MN1500 1.5 Volt, "AA" alkaline batteries only. All cells are to be replaced at the same time with identical part number cells in fresh air locations only.**

Change #2

On page 2, under **Warning**, add:


- **Measure a known voltage first to make sure that the Product operates correctly.**
- **Do not exceed the Measurement Category (CAT) rating of the lowest rated individual component of a Product, probe, or accessory.**

On page 4, Table 1, replace CAT III, CAT IV and add CAT II to the Table:

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.
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.		

Change #3, 56307, 63409, 64064, 64649

On page 4, add the following to the **Symbols** table:

	Conforms to relevant South Korean EMC Standards.
---	--

On page 5, replace the entire **General Specification** with:

General Specifications

Maximum voltage between any

terminal and earth ground 1000 V rms

⚠ **Fuse for mA inputs** 440 mA, 1000 V FAST Fuse

⚠ **Fuse for A inputs** 11 A, 1000 V FAST Fuse

Display

Digital 6000 counts, updates 4/sec (Model 28 II also has 19,999 counts in high-resolution mode).

Bargraph 33 segments; updates 40/sec

Altitude

Operating 2,000 meters

Storage 10,000 meters

Temperature

Operating -15 °C to +55 °C, to -40 °C for 20 minutes when taken from 20 °C

Storage -55 °C to +85 °C (without battery)
-55 °C to +60 °C (with battery)

Temperature coefficient

28 II 0.05 X (specified accuracy) / °C (< 18 °C or > 28 °C)

27 II 0.1 X (specified accuracy) / °C (< 18 °C or > 28 °C)

Electromagnetic Compatibility In an RF field of 3 V/m, accuracy = specified accuracy +20 counts, except 600 µA dc range total accuracy = specified accuracy +60 counts. Temperature not specified

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.

Relative Humidity 0 % to 95 % (0 °C to 35 °C)

0 % to 70 % (35 °C to 55 °C)

Battery Type 3 AA Alkaline batteries, NEDA 15A IEC LR6, MSHA approved for use with three Energizer P/N E91 or three Duracell P/N MN1500 1.5 Volt, AA alkaline batteries only.

Battery Life 800 hrs typical without backlight (Alkaline)

Vibration Per MIL-PRF-28800 for a Class 2 instrument

Size (H x W x L) 1.80 in x 3.95 in x 8.40 in (4.57 cm x 10.0 cm x 21.33 cm)

Size with Holster 2.50 in x 3.95 in x 7.80 in (6.35 cm x 10.0 cm x 19.81 cm)

Weight 1.14 lb (517.1 g)

Weight with Holster and Flex-Stand 1.54 lb (698.5 g)

IP Rating IP 67

Safety IEC 61010-1: 600 V CAT IV / 1000 V CAT III, Pollution Degree 2

Electromagnetic Environment IEC 61326-1: Portable

MSHA Approval 18-A100015-0

On page 8, in the *Input Characteristics* table, add the following footnote to the **Overload Protection** column:

[1] 10 ⁶ V Hz Max
