FLUKE®

8808A
Digital Multimeter

Getting Started Manual

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3-Year Limited Warranty.
See the Users Manual for the full warranty.

Introduction

The Fluke 8808A Digital Multimeter (the Meter or Product) is a 5-1/2 digit dual-display multimeter designed for bench-top, field service, and system applications.

Contact Fluke

Fluke Corporation operates worldwide. For local contact information, go to our website: www.fluke.com .

To register your product, or to view, print, or download the latest manual or manual supplement, go to our website.

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Safety Information

This manual contains information and warnings that must be observed to keep the Meter in a safe condition and ensure safe operation.

A **Warning** identifies hazardous conditions and procedures that are dangerous to the user. A **Caution** identifies conditions and procedures that can cause damage to the Product or the equipment under test.

⚠⚠ Warning

To prevent possible electrical shock, fire, or death, carefully read the information in this section, before attempting to install, use, or service the Meter.

To use the Meter correctly and safely, read and follow all the safety instructions or warnings given throughout this manual that relate to specific measurement functions. In addition, follow all generally accepted safety practices and procedures required when working with and around electricity.

⚠⚠ Warning

To prevent possible electrical shock, fire, or death, read the following before using the Meter.

- **Use the Meter only as specified in this manual, or the protection provided by the Meter might be impaired.**
- **Do not use the Meter in wet environments.**
- **Inspect the Meter before using it. Do not use the Meter if it appears damaged.**
- **Inspect the test leads before use. Do not use them if insulation is damaged or metal is exposed. Check the test leads for continuity. Replace damaged test leads before using the meter.**
- **Verify the Meter's operation by measuring a known voltage before and after using it. Do not use the Meter if it operates abnormally. Protection may be impaired. If in doubt, have the Meter serviced.**
- **Whenever it is likely that safety protection has been impaired, make the Meter inoperative and secure it against any unintended operation.**
- **Have the Meter serviced only by qualified service personnel.**
- **Do not apply more than the rated voltage, as marked on the Meter, between the terminals or between any terminal and earth ground.**
- **Always use the power cord and connector appropriate for the voltage and outlet of the country or location in which you are working.**
- **Remove test leads from the Meter before opening the case.**
- **Never remove the cover or open the case of the Meter without first removing it from the main power source.**
- **Never operate the Meter with the cover removed or the case open.**
- **Use caution when working with voltages above 30 V ac rms, 42 V ac peak, or 42 V dc. These voltages pose a shock hazard.**
- **Use only the replacement fuses specified by the manual.**
- **Use the proper terminals, function and range for your measurements.**
- **Do not operate the Meter around explosive gas, vapor or dust.**
- **When using probes, keep your fingers behind the finger guards.**
- **When making electrical connections, connect the common test lead before connecting the live test lead. When disconnecting, disconnect the live test lead before disconnecting the common test lead.**
- **Disconnect circuit power and discharge all high voltage capacitors before testing resistance, continuity, diodes, or capacitance.**

- **Before measuring current, check the Meter's fuses and turn OFF power to the circuit before connecting the Meter to the circuit.**
- **When servicing the Meter, use only specified replacement parts.**

Table 1. Symbols

Symbol	Description	Symbol	Description
⚠	WARNING. RISK OF DANGER.		Consult user documentation.
⚠	WARNING. HAZARDOUS VOLTAGE. Risk of electric shock.		Standby power ON / OFF
~	AC (Alternating Current)		Earth
⎓	DC (Direct Current)		Capacitance
≂ or ≂	AC or DC (Alternating or Direct Current)		Diode
	Continuity test or continuity beeper tone.		Fuse
	Potentially hazardous voltage	**CAT I**	Measurement Category I is for measurements not directly connected to mains.
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 and its marking requirements. The affixed label indicates that you must not discard this electrical/electronic product in domestic household waste. Do not dispose of this product as unsorted municipal waste. For information about take-back and recycling programs available in your country, see the Fluke website.		

Unpack and Inspect the Meter

If the Meter has been subject to excessive handling in transit, there may be visible external damage to the shipping carton. In the event of damage, keep the shipping container and packing material for the carrier's inspection.

Carefully unpack the Meter from its shipping container and inspect the contents for damaged or missing items. If the Meter appears damaged or something is missing, contact the carrier and Fluke immediately. Save the container and packing material in case you have to return the Meter.

Power Considerations

The Meter operates on varying power distribution standards found throughout the world and must be set up to operate on the line voltage that will power it. The Meter is packed ready for use with a line voltage determined at the time of ordering. If the selected line voltage does not match the power that the Meter will be connected to the Meter's line-voltage setting must be changed and replacement of the line fuse may be required.

Select the Line Voltage

The Meter operates on four different input line voltages. The selected line-voltage setting is visible through the window in the line-fuse holder on the Meter's rear panel.

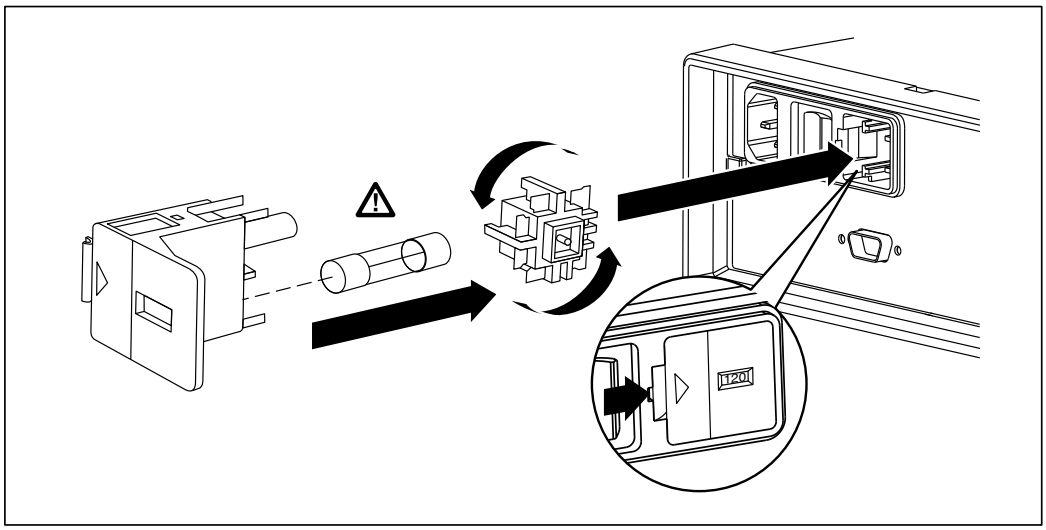
1. Unplug the power cord.
2. Insert a small screwdriver blade into the narrow recess to the left of the fuse holder and pry it to the right until the holder pops out. See Figure 1.
3. Remove the voltage-selector block from the fuse holder.
4. Rotate the selector block until the desired voltage rating faces outward.
5. Replace the selector block back into the fuse holder.
6. Install the fuse holder back into the Meter and reconnect the power cord.

   Changing the line-voltage setting may require a different line-power fuse for proper operation.

Table 2. Line Voltage to Fuse Rating

Line Voltage Selection	Fuse Rating
100 / 120	0.2 A, 250 V (slow blow)
220 / 240	0.1 A, 250 V (slow blow)

Figure 1. Replacing the Line-Power Fuse



Connect to Line Power

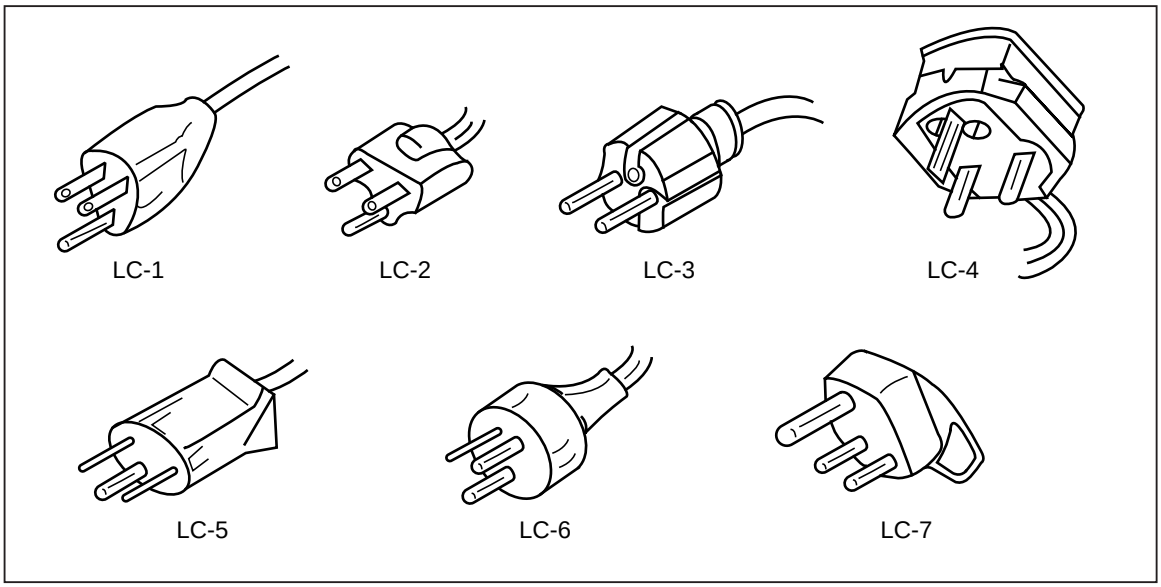
⚠⚠ Warning

To prevent possible electrical shock, fire, or personal injury, connect the factory supplied three-conductor line power cord to a properly grounded power outlet. Do not use a two-conductor adapter or extension cord, as this will break the protective ground connection. If a two-conductor power cord must be used, a protective grounding wire must be connected between the ground terminal and earth ground before connecting the power cord or operating the Meter.

To connect to line power:

1. Make sure that the line voltage is set to the correct setting.
2. Make sure that the correct fuse for the line voltage is installed.
3. Connect the power cord to a properly grounded three-prong outlet. See Table 3 for line-power cord types available from Fluke.

Table 3. Line-Power Cord Types Available from Fluke



Type	Voltage/Current	Fluke Model Number
North America	120 V /15 A	LC-1
North America	240 V /15 A	LC-2
Universal Euro	220 V /16 A	LC-3
United Kingdom	240 V /13 A	LC-4
Switzerland	220 V /10 A	LC-5
Australia	240 V /10 A	LC-6
South Africa	240 V /5 A	LC-7

Power On the Meter

To power on the Meter:

1. Connect the Meter to line power.
2. Toggle the power switch on the rear panel so the "**I**" side of the switch is depressed. The Meter turns on and briefly illuminates all LCD segments.

Note

To save on power consumption, the Meter can be set to a standby mode by pressing ⏻ on the front panel. Press it again to bring the Meter up to full power.

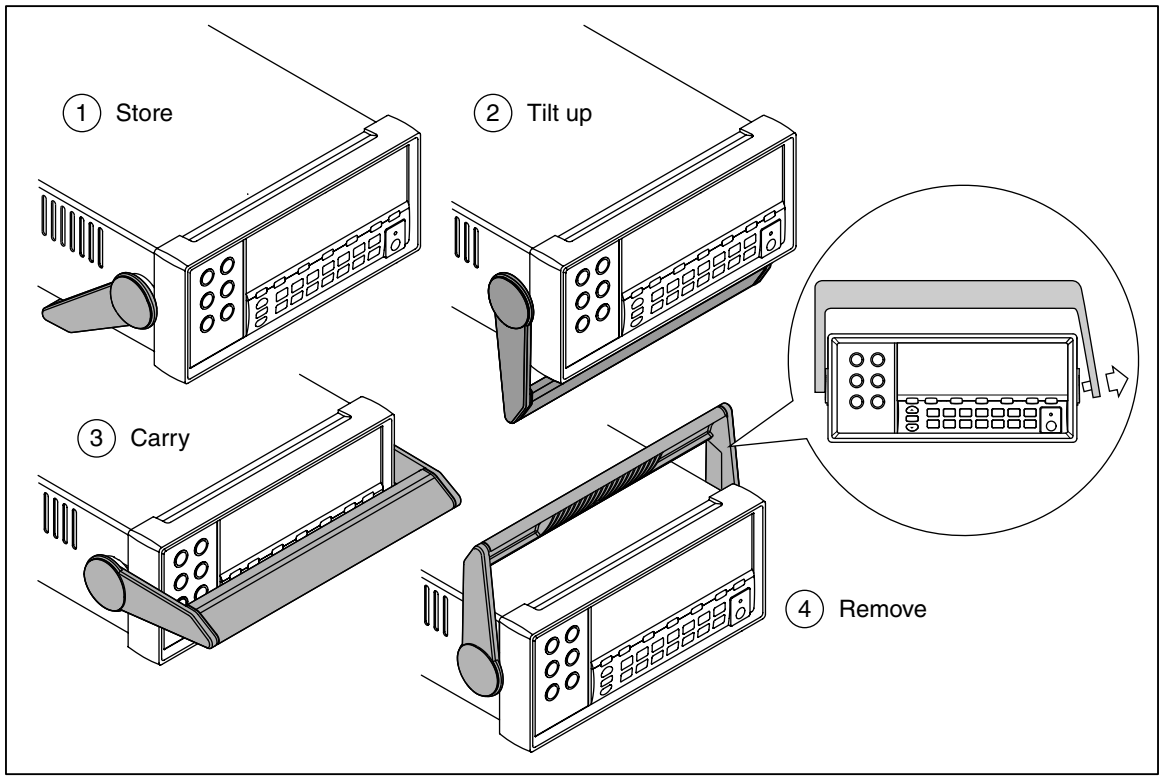
Adjust the Bail

The bail (handle) is adjustable to provide two viewing angles. The bail is also adjustable for carrying or storing the Meter.

To adjust the bail, pull the ends out to a hard stop (about 1/4-inch on each side) and then rotate it to one of the four stop positions as shown in Figure 2.

To remove the bail, adjust it to the vertical stop position and pull the ends all the way out.

Figure 2. Bail Adjustment and Removal



Specifications

Maximum voltage between any terminal and earth ground:	1000 V
Safety	61010-1: Overvoltage Category II, Pollution degree 2, 61010-2-030: CAT II 600 V.
Temperature	
Operating	0 °C to 50 °C (32 °F to 122 °F)
Storage	-40 °C to 70 °C (-4 °F to 158 °F)
Warm-up	1/2 hour to full uncertainty specifications
Relative humidity	
Operating	Uncontrolled (<10 °C) <90 % (10 °C to 30 °C) <75 % (30 °C to 40 °C) <45 % (40 °C to 50 °C)
Storage	-40 °C to 70 °C <95 %
Altitude	
Operating	2000 m
Storage	12 000 m
Voltage	
100 V Setting	90 V to 110 V
120 V Setting	108 V to 132 V
220 V Setting	198 V to 242 V
240 V Setting	216 V to 264 V
Frequency	47 Hz to 440 Hz
Power Consumption	15 VA peak (10 W average)
IEC 60068-2-75: Display window rated to IK7	

Electromagnetic Compatibility (EMC)	
International	IEC 61326-1: Basic Electromagnetic Environment; IEC 61326-2-1 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.* *The equipment may not meet the immunity requirements of this standard when test leads and/or test probes are connected.*	
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.	
USA (FCC)	47 CFR 15 subpart B. This product is considered an exempt device per clause 15.103.