FLUKE.

7-300/7-600
Electrical Tester
Instruction Sheet

⚠ Read First: Safety Information

To ensure that the meter is used safely, follow these instructions:

- Do not use the meter if the meter or test leads appear damaged, or if you suspect that the meter is not operating properly.
- Disconnect the live test lead before disconnecting the common test lead.
- When using the probes, keep your fingers behind the finger guards on the probes.
- Do not use the meter to measure voltages in circuits that could be damaged by the meter's low input impedance (≅2 kΩ).
- Turn off power to the circuit under test before cutting, desoldering, or breaking the circuit. Small amounts of current can be dangerous.
- Do not apply more than 600V rms between a 7-600 meter terminal and earth ground. Do not apply more than 300V rms between a 7-300 meter terminal and earth ground.
- Use caution when working with voltages above 60V dc or 30V ac rms. Such voltages pose a shock hazard.

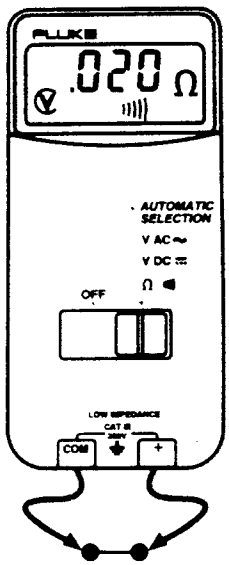
PN 602018 June 1996

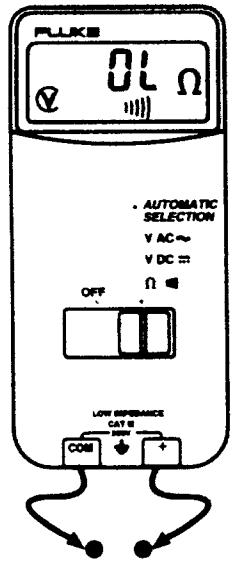
Automatic Selection

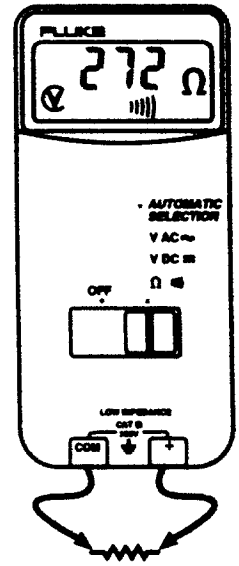
The meter automatically selects the appropriate measurement mode and range. When turned on, the meter powers up in resistance/continuity mode. If a dc or ac voltage greater than about 4.5V is present across the inputs, the meter switches to dc or ac voltage mode.

In dc and ac voltage modes, the meter has low input impedance (≅2 kΩ). This low impedance, which places a moderate load on the circuit under test, is appropriate only for measuring power supply voltages under load. Do not use the meter to measure voltage in circuits that could be damaged by a 2 kΩ load.

Continuity **Resistance**







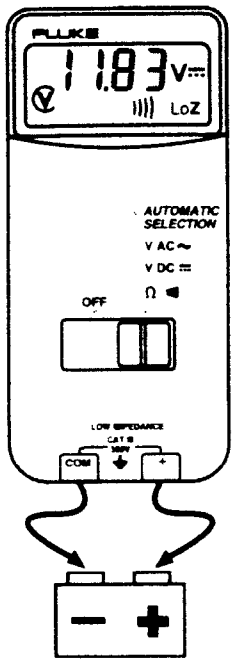
<25Ω

>400Ω = OL

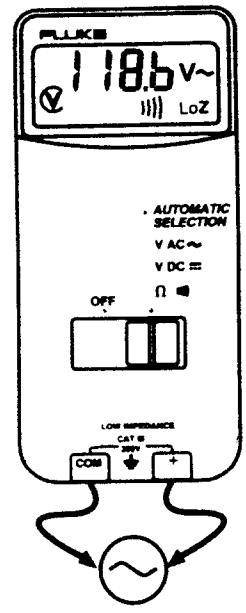
DC and AC Voltage

Refer to Automatic Selection.

Volts dc >4.5V
Input Impedance ≅2 kΩ



Volts ac >4.5 VRMS
Input Impedance ≅2 kΩ



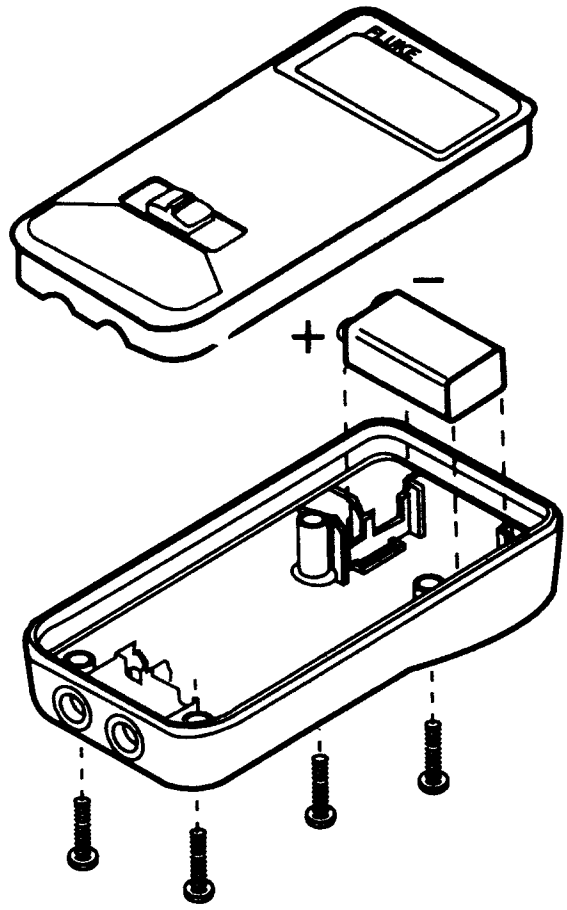
Standby Mode

If the meter is on but inactive and not connected to voltage for more than 45 min, the display goes blank to preserve battery life. To resume operation, switch the meter OFF for 2 seconds or more; then switch the meter on.

Maintenance

Clean the case with a damp cloth and detergent. Do not use abrasives or solvents.

Battery Replacement



Test Lead Replacement (⧈ Indicates double insulation.)

Replace the test leads with Fluke TL-75 PN 855705 double-insulated leads.

Service and Parts

This meter should be serviced only by a qualified service technician. For service information in the USA and Canada call 1-800-825-9810. In other countries, contact the nearest Fluke service center (see the list provided).

Specifications

Maximum Voltage Between any Terminal and Earth Ground	7-300: 300V rms 7-600: 600V rms
Display	3 3/4-digits, 4000 counts, updates 4/sec
Operating Temperature	-10°C to 50°C (14°F to 122°F)
Storage Temperature	-30°C to 60°C (-22°F to 140°F) indefinitely (to -40°C (-40°F) for 100 hrs)
Temperature Coefficient	0.1 x (specified accuracy)/°C (<18°C or >28°C; <64°F or > 82°F)
Relative Humidity	0% to 90% (-10°C to 35°C; 14°F to 95°F) 0% to 70% (35°C to 50°C; 95°F to 122°F)
Battery Type	9V, NEDA 1604 or IEC 6F22
Battey Life	650 continuous hours with alkaline 450 continuous hours with carbon-zinc
Shock, Vibration	1 meter shock. Per MIL-T-28800D for a Class 3 instrument
Size (HxWxL)	3.46 cm x 7.05 cm x 14.23 cm (1.35 in x 2.75 in x 5.55 in)
Weight	286g (10 oz)
Safety	Designed to Protection Class II requirement of UL1244, ANSI/ISA-S82, CSA C22.2 No 231, and VDE 0411, and IEC 1010 overvoltage Category III (CAT III).
EMI Regulations	Complies with FCC Part 15,Class B, and VDE 0871B.
TÜV PRODUCT SERVICE GS geprüfte Sicherheit	Trademark of TÜV Product Services. Complies with EN 601010-1: 1993.

Accuracy is specified for a period of one year after calibration, at 18°C to 28°C (64°F to 82°F) with relative humidity to 90%. AC conversions are ac-coupled, average responding, and calibrated to the rms value of a sine wave input. Accuracy specifications are given as follows:

±([% of reading] + number of least significant digits])

Function	Range	Resolution	Accuracy (50 to 400 hz)
V~	4.000v	0.001V	Not Specified
	40.00V	00.01V	±(2.9% + 3)
	300.0V (7-300)	00.1V	±(2.9% + 3)
	400.0V (7-600)	000.1V	±(2.9% + 3)
	0600V (7-600)	0001V	±(2.9% + 3)
V⎓	4.000v	0.001V	Not specified
	40.00V	00.01V	±(1.5% + 1)
	300.0V (7-300)	00.1V	±(1.5% + 1)
	400.0V (7-600)	000.1V	±(1.5% + 1)
	0600V (7-600)	0001V	±(1.5% + 1)
Ω*	400.0Ω	000.1Ω	±(1.5% + 2)
* The beeper typically comes on at <25Ω and turns off at >400Ω.			

Function	Overload Protection	*Input Impedance (Nominal)
V~	600V rms	>2 kΩ, 200 pF ac-coupled
V⎓	600V rms	>2 kΩ, 200 pF
Ω	600V rms	NA
*≅2 kΩ input voltage up to 50V. Impedance increases with input voltage to >300 kΩ at 600V.		

LIMITED WARRANTY & LIMITATION OF LIABILITY

Each Fluke product is warranted to be free from defects in material and workmanship under normal use and service. The warranty period is two years and begins on the date of shipment. Parts, product repairs and services are warranted for 90 days. This warranty extends only to the original buyer or end-user customer of a Fluke authorized reseller, and does not apply to fuses, disposable batteries or to any product which, in Fluke's opinion, has been misused, altered, neglected or damaged by accident or abnormal conditions of operation or handling. Fluke warrants that software will operate substantially in accordance with its functional specifications for 90 days and that it has been properly recorded on non-defective media. Fluke does not warrant that software will be error free or operate without interruption.

Fluke authorized resellers shall extend this warranty on new and unused products to end-user customers only but have no authority to extend a greater or different warranty on behalf of Fluke. Warranty support is available if product is purchased through a Fluke authorized sales outlet or Buyer has paid the applicable international price. Fluke reserves the right to invoice Buyer for importation costs of repair/replacement parts when product purchased in one country is submitted for repair in another country.

Fluke's warranty obligation is limited, at Fluke's option, to refund of the purchase price, free of charge repair, or replacement of a defective product which is returned to a Fluke authorized service center within the warranty period.

To obtain warranty service, contact your nearest Fluke authorized service center or send the product, with a description of the difficulty, postage and insurance prepaid (FOB Destination), to the nearest Fluke authorized service center. Fluke assumes no risk for damage in transit. Following warranty repair, the product will be returned to Buyer, transportation prepaid (FOB Destination). If Fluke determines that the failure was caused by misuse, alteration, accident or abnormal condition of operation or handling, Fluke will provide an estimate of repair costs and obtain authorization before commencing the work. Following repair, the product will be returned to the Buyer transportation prepaid and the Buyer will be billed for the repair and return transportation charges (FOB Shipping Point).

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