



INSTRUCTION MANUAL

MT955

DIGITAL CAPACITANCE METER



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1. SAFETY PRECAUTIONS

To ensure safe operation of the equipment and eliminate the danger of serious injury due to short-circuits (arcing) the following safety precautions must be observed.

Damages resulting from failure to observe these safety precautions are exempt from any legal claims whatever.

- Do not exceed the maximum permissible input ratings (Danger of serious injury and/or destruction of the equipment)
- Check test leads and probes for faulty insulation or bare wires before connection to the equipment.
- Replace a defective fuse only with a fuse of the original rating never short-circuit fuse or fuse housing.
- Never touch the tips of the test leads or probe.
- Comply with the warning labels and other info on the equipment.
- Conduct measuring works only in dry clothing and in rubber shoes i.e. on isolating mats.
- Do not connect voltage sources across the positive/negative terminals of the equipment.
- Do not conduct current measurements with the leads connected to the positive/negative terminals of the equipment.
- Always start with the highest measuring range when measuring unknown values.
- Disconnect test leads or probe from the measuring circuit before switching modes or functions.
- Do not subject the equipment to direct sunlight or extreme temperatures.
- Do not subject the equipment to extreme humidity or dampness.
- Do not subject the equipment to shocks or strong vibrations.
- Do not operate the equipment near strong magnetic fields (motors, transformers etc.).
- Keep hot soldering irons or guns away from the equipment.
- Allow the equipment to stabilize at room temperature before taking up measurements (important for exact measurements).
- Do not modify the equipment in any way.
- Do not place the equipment face-down on any table or work bench to prevent damaging the controls at the front.
- Opening the equipment and service- and repair work must only be performed by qualified service personal.

2. OPERATION



WARNING: To avoid electrical hazards, discharge the capacitor before measuring.

1. For capacitance measurement less than 200nF, use the "O-ADJ" knob to subtract the stray capacitance.
2. Set the range switch to the desired range.
3. Never apply an external voltage to the input terminals. This may damage the meter.
4. Observe polarity when measuring polarized capacitors.
5. Insert the capacitor leads into the receptacle socket or directly connect the test clip to the capacitor leads as required.
6. Read the capacitance directly from the display.

3. BATTERY REPLACEMENT

Power is supplied by a 9V "transistor" battery. (NEDA 1604,ICE 6F22). The "Battery" appears on the LCD Display when replacement is needed. To replace the battery, remove the two screws from the back of the meter and lift off the front case. Remove the battery from battery contacts.

4. FUSE REPLACEMENT

If no capacitance measurement is possible, check for a blown overload protection fuse. For access to fuses, remove the two screws at the back of the meter and lift off the front case. Replace fuse only with the original type 0.1A/250V fast acting fuse.

5. CLEANING THE CASING

Clean only with a damp, soft cloth and a commercially available mild household cleanser. Ensure that no water gets inside the equipment to prevent possible shorts and damage to the equipment.

6. SPECIFICATIONS

Function	Range
Display	3½ Digit Liquid Crystal Display (LCD) with a Maximum reading of 1999.
Polarity	Automatic positive implied, negative polarity indication
Overrange	(1) or (-1) is displayed.
Zero	Automatic
Low Battery Indication	The "Battery" is displayed when the battery voltage drops below the operating level.
Measuring Rate	2 Times per second, nominal
Operating Environment	0°C to 50°C at < 70% Relative Humidity
Storage Temperature	-20° to 60°C, 0% to 80% R.H with battery removed from meter.
Accuracy	Stated Accuracy at 23°C + 5°C, <75% Relative Humidity
Power	Single Standard 9V Battery, NEDA 1604, JIS 006 P, IEC 6F22
Battery Life	300 Hours typical with carbon-zinc
Dimensions	145mm (H) x 69mm (W) x 38mm (D)
Weight	Approx. 190g Incl. battery
Accessories	One pair of test leads, 9V Battery, Operating Instructions
Test Voltage	<3.5V
Input Protection	0.1A/250V Fast Acting Fuse
Zero Adjust Limited	±20pF Approx.

Range	Resolution	Accuracy	Test Frequency
200pF	0.1pF	±(0.5% rdg + 1 dgt + 0.5pf)	820Hz
2000pF	1pF	±(0.5% rdg + 1 dgt)	
20nF	10pF		
200nF	100pF		
2µF	1nF		
20µF	10nF	82Hz	
200µF	100nF		
2000µF	1µF	±(2.0% rdg + 1 dgt)	8.2Hz
20mF	10µF	±(4.0% rdg + 1 dgt)	



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