

REED

Model C-360

Insulation Tester

Instruction Manual



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Safety

Read the following safety information carefully before attempting to operate or service the meter.

- The circuit under test must be de-energized and isolated before connections are made except when taking voltage measurements
- Do not touch the circuit connections during a test
- Before disconnecting the test leads after testing insulation, the capacitance circuits must be allowed to discharge
- To avoid damaging the instrument do not apply signals which exceed the maximum limits listed in the specification section
- Do not use the meter or the test leads if they look damaged
- Use extreme caution when working around bare conductors or bus bars
- Use the meter only as specified in this manual to ensure your safety
- Caution when working with voltages above 60 DC or 30 AC RMS as they pose a shock hazard
- Before taking resistance measurements or testing acoustic continuity, disconnect all loads from the circuit and the circuit from the main power supply
- Only qualified personnel should perform repairs or servicing not covered in this manual
- Periodically wipe the case with a dry cloth. Do not use abrasives or solvents on these instruments

Safety symbols



Caution, refer to this manual before using the meter



Dangerous voltages, risk of electric shock



Meter is protected throughout by double insulation

Features

- Test voltage combinations: 250V, 500V or 1000V
- Insulation measurements to 4000M Ω
- Resistance measurements to 4000 Ω
- 600V test voltage range
- Continuity test with beeper
- Large, easy-to-read digital display
- Data hold switch
- Test button may be locked on for hands-free operation
- Automatic discharge when test button is released
- Low battery indication

Specifications

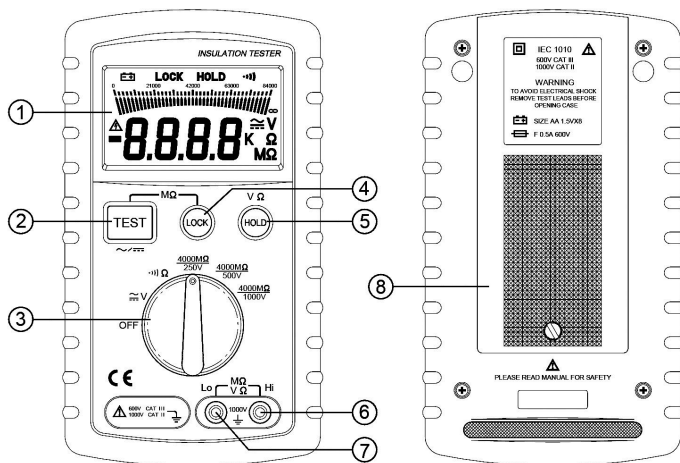
Insulation Tests:	Test Voltage: 250V, 500V, 1000V Resolution: 1K Ω Measurement Range: 0.1 to 4000M Ω Accuracy: $\pm 3\%$ rdg. +5 cts. <2M Ω $\pm 5\%$ rdg. +5 cts. <4M Ω
Resistance Tests:	Measurement Range: 400 to 4000 Ω Resolution: 400 Ω : 0.1 Ω 4000 Ω : 1 Ω Accuracy: $\pm 1\%$ rdg. + 5 cts.
Continuity Tests:	Measurement Range: Displays & beeps <40 Ω Protection: 600Vrms Accuracy: $\pm 5\%$ of reading
Voltage Tests:	Measurement Range: 0 to 600V AC or DC Resolution: 0.1V Accuracy: AC: $\pm 1\%$ rdg +5 cts. DC: $\pm 1\%$ rdg +3 cts.
Display:	76 x 42mm LCD panel with 40 segments analog bar indicator

continued ...

Sampling Rate:	Digital Display:2.5 times/sec Bar Graph:10 times/sec
Operating Temperature and Humidity:	0°C to 40°C (32°F to 104°F), bellow 80% RH
Storage Temperature:	-10°C to 60°C (14°F to 140°F)
Power Supply:	1.5V AA size Battery x 8
Power Consumption:	Battery = 9.5V
Dimensions:	196 x 112 x 64mm; 7.72 x 4.41x 2.52"
Weight:	Approx. 700g (with battery)
Includes:	Test leads, large jaw alligator clips, carrying case and batteries
Optional accessories:	Replacement fuse (Model CCC000A50-600V1)

Range	Condition	mA (approx.)
AC		16mA
DC		16mA
Ω	∞	22mA
Ω	0 Ω	190mA
250V	∞	50mA
250V	250K	120mA
500V	∞	60mA
500V	500K	150mA
1000V	∞	85mA
1000V	1M	220mA
M Ω	Stand by	16mA

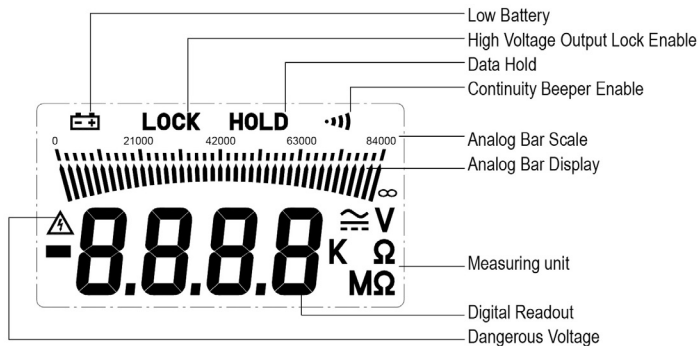
Instrument Description



- | | |
|----------------------|------------------------------|
| 1. LCD Display | 5. Data Hold Button |
| 2. Function Selector | 6. Lo Input Terminal |
| 3. TEST Button | 7. Hi Input Terminal |
| 4. Power Lock Button | 8. Battery Compartment Cover |

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LCD Display



Operating Instructions

Voltage Testing

Turn the function selector to the Voltage range. Connect a Black test lead to the Lo terminal and a Red test lead to the Hi terminal. Press the TEST button to change the mode from AC to DC function. Connect a test lead to the test circuit in parallel. Hold the reading by pressing the HOLD button.

Low Ohm and Continuity Functions

Turn the function selector to the Ω range. Connect a Black test lead to Lo terminal and a Red test lead to the Hi terminal. Connect a test lead to the test circuit in parallel. If the reading is less than 4Ω , the continuity beeper will sound. You can null the lead resistance (under 40Ω) by shorting the test lead rather than pressing the TEST button. When the lead resistance is recorded a ZERO symbol will display on the LCD. Press the TEST button again to go back to normal operation. If the lead resistance is greater than 40Ω an "Err" error message will show on the display. Because the test current provided by the meter could reach 200mA, do not use this range to test electronic components like a diode, transistor or fuse.

MegaOhm Function

Turn the function selector to the desired test voltage range. The LCD will display “----” to indicate the tester is standing by. Connect a Black test lead to the Lo terminal and a Red test lead to the Hi terminal. Connect a test lead to the test circuit in parallel. You can take a measurement under manual power mode or power lock mode:

Manual Mode: Press and hold the TEST button to activate the test voltage source. A periodic beeping will warn of the high voltage output. Release the TEST button to stop the test voltage output. A shorter series of beeps will indicate the discharging is in progress. When the beeping stops, the discharge is completed. The test result will be held on the display automatically.

Lock Mode: Press the LOCK button to enter the power lock operation mode. Press the TEST button once to activate the test source. A periodic beeping will warn of the high voltage output. Press the TEST button again to stop the test voltage output. A shorter series of beeping will indicate the discharging is in progress. When the beeping stops, the discharge is completed. The test result will be held on the display automatically. If test period extends for longer than 3 minutes the test source will shut down automatically.


Caution: Do not activate the test before the lead is connected to the test circuit properly.

Do not remove the test lead from the test circuit before the discharge process is completed.

Auto Power Off

When the meter is idle for thirty minutes it will turn itself off automatically. To turn the meter on again turn the function selector to the “OFF” position before choosing a function.

Battery Replacement

When  appears on the LCD, the batteries need to be replaced with new ones. To replace the batteries:

- Turn the function selector to the OFF position
- Open the battery compartment cover with a screwdriver
- Replace all eight AA 1.5V batteries, put the cover back and fasten the screw

Fuse Replacement

If the meter is connected to a source under the Ohm range > 10V the protective fuse will break the circuit and it will need to be replaced with a new one. To replace the fuse (Model CCC000A50-600V1), turn the meter off and remove the test leads. Remove the back cover and replace the fuse. Be sure to replace the cover before turning the meter back on.

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