Introduction

Congratulations on your purchase of Extech's Model 380580 Battery Powered Milliohm Meter. This device offers five resistance ranges with resolution as low as 0.1mΩ. The 4-wire Kelvin clip connection ensures optimum accuracy. Typical applications include transformer, motor coil, and PC Board resistance measurements. This professional meter, with proper care, will provide years of safe reliable service.

Specifications

General Specifications

Display	1.0" (25 mm) LCD (1999 counts)
Measurement terminals	4-Terminal Kelvin type
Measurement Range	Five ranges (see listing below)
Sampling Time	Approximately 3 times per second
Over input indication	Indication of "1 - - -"
Operating Temperature	5ºF to 131ºF (-15ºC to 55ºC)
Operating Humidity	<80% RH
Power Supply	8 x 1.5V AA Batteries
Weight	3.3 lbs (1.5kg)
Dimensions	9.8x7.5x4.3" (250x190x110 mm) with cover

Range Specifications

Range	Resolution	Test Current	Accuracy	Open Circuit Voltage
200.0mΩ	0.1mΩ	100mA	± 0.5% + 2 digits	4.2V
2000mΩ	1mΩ	100mA	± 0.5% + 2 digits	4.2V
20.00Ω	0.01Ω	10mA	± 0.5% + 2 digits	4.2V
200.0Ω	0.1Ω	10mA	± 0.5% + 2 digits	4.3V
2000Ω	1Ω	1mA	± 0.5% + 2 digits	4.4V

International Symbols

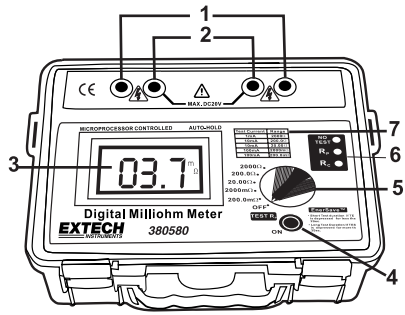
This symbol, adjacent to another symbol or terminal, indicates the user must refer to the manual for further information.

This symbol, adjacent to a terminal, indicates that, under normal use, hazardous voltages may be present

Double insulation

Meter Description

1. Current Terminals
2. Potential Measurement Terminals
3. LCD Display
4. Start/Stop Test Button
5. Range Select/Power Switch
6. LED Error Lights
   - No Test/Over Temperature
   - R_P Voltage Regulation
   - R_C Current Regulation
7. Current/Range Table



Leads

Current Leads- Banana plug to alligator clip

C1- Green

C2- Blue

Voltage Potential Leads- Banana plug to alligator clip

P1- Red

P2- Black

Kelvin Clips- Banana Plugs (2) to Kelvin Clip

Red (P1) Green (C1)

Black (P2) and Blue (C2)

Measurement Considerations

1. Do not apply voltage to the meter input terminals. Meter damage may result.
2. Always insure that the circuit to be measured is switched OFF, isolated and completely de-energized before connecting the test leads.
3. If the Over Temperature LED (NO TEST) indicator is lit, allow the instrument to cool down before proceeding further.
4. The R_C led indicates when the test current falls out of regulation. Selecting a higher range may eliminate the condition.
5. The R_P led indicates when the voltage on the device under test is too high. Selecting a lower range may eliminate the condition.
6. If either the R_C or R_P led is on, the measurement may be in error.
7. The current terminals are fuse protected.
8. Keep the potential test leads as short as possible. Long leads may introduce noise.
9. When using the four separate alligator clip leads always place the current leads outside the potential leads.