Introduction

The Milliohm Meter TP-MM3000 is an instrument used to measure small resistances with high accuracy. The Milliohm Meter TP-MM3000 measures the resistance by running a current through the components measured upon. Special Kelvin clips are used to perform a 4-wire sensing measurement, an electrical impedance measuring technique that uses separate pairs of current-carrying and voltage-sensing electrodes to make more accurate measurements than the simpler and more usual 2-wire sensing. Separation of current and voltage electrodes eliminates the lead and contact resistance from the measurement. This is an advantage for precise measurement of low resistance values.

Operating instructions

1. Connect your Automotive Test Scope to the computer and start the measurement software.
2. Set the scope input range to 4 V and select the TP-MM3000 **probe** for the scope input.
3. Press the **Power** button (see Power button for more information.)
4. Connect a TP-C1812B differential measuring lead to an input of the Automotive Test Scope.
5. Connect the red and black banana plugs of the TP-C1812B differential measuring lead to the corresponding sockets of the **SCOPE** output of the Milliohm Meter TP-MM3000.
6. Connect the kelvin clips to the component of which the resistance needs to be measured.

When measuring an in-circuit resistance, make sure to remove the power from the circuit first, to avoid damaging the Milliohm Meter TP-MM3000.

Power button

The **Power** button of the Milliohm Meter TP-MM3000 has three auto power off settings:

- Pressed 1 time: the Milliohm Meter TP-MM3000 is swiched off after 10 minutes.
- Pressed 2 times: the Milliohm Meter TP-MM3000 is swiched off after 30 minutes.
- Pressed 3 times: the Milliohm Meter TP-MM3000 is never swiched off.

The Milliohm Meter TP-MM3000 can always be switched off by pressing the **Power** button when the instrument is powered on.

Battery

When the battery capacity is no longer adequate the power led will start to blink. Replacing the battery is recommended to keep resistance measurements accurate.

Specifications

Input range	0 Ω - 2.5 Ω
Accuracy	1 %
Output ratio	1 mΩ = 1 mV
Output voltage	Depending on resistance measured, 0 V to 2.65 V max
Connections	
Input	Kelvin clips on 85 cm leads
Output	4 mm banana sockets

Operating temperature	25 °C
Dimensions	
Length	145 mm excluding leads
Width	85 mm
Thickness	25 mm
Weight	235 g including battery
Oil resistant	Yes
Power	9 V PP3 battery

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