

Instruction Manual

Surface Resistivity Meter and Kit

(SRM100 / SRM100K)



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Introduction

Thank you for purchasing a Surface Resistance Meter/Kit. Please read this instruction manual in great detail before operating the device. Keep this manual readily accessible for later reference.

Description

This unique meter is extremely accurate and indicates resistance to 'half a decade' through the important static dissipative range using 10/100 volt test voltages to ensure more accurate readings. The SRM100/K has been designed specifically for the purpose of testing surfaces used in an EPA. It measures in Ohms per Square and meets the requirements of IEC 61340-5 and EN100 015/1 European standard. Automatic auto-ranging 10v and 100v test voltages are incorporated into the tester, switching as you move from conductive, dissipative and insulative surfaces. The SRM100/K is also capable of testing resistance-to-ground and point-to-point resistance. Custom logos and printing can be quoted on request. Manufactured in the United Kingdom.

SRM100K Packing List

Make sure each of the following items are included in the kit.

- 1) SRM100 meter.....
- 2) Two weights (2.5 kg / 5 lb).....
- 3) All required test leads.....
- 4) 9V battery.....
- 5) Conductive foam discs.....
- 6) Conductive carry case.....
- 7) Instruction manual.....
- 8) Calibration certificate.....



SRM100K
(Full kit with conductive carry case)



SRM100
(Surface Resistivity Meter)

Specifications

Method of Measurement	Surface Resistivity (Ω per square) Point-to-point (Ω)
Indicators	Conductive - Green LED - $1\text{K}\Omega$ (10^3) to $100\text{K}\Omega$ (10^5) Dissipative - Yellow LED - $300\text{K}\Omega$ (3×10^5) to $1\text{G}\Omega$ (10^9) Conductive - Green LED - $3\text{G}\Omega$ (3×10^9) to $10\text{G}\Omega$ (10^{10}) Insulative - Red LED - $100\text{G}\Omega$ (10^{11}) to $1\text{T}\Omega$ (10^{12})
Relative Humidity	0% to 90% (non-condensing)
Accuracy	+/- 0.5 Decade in Conductive Range +/- 0.25 Decade in Dissipative Range
Test Range	$1\text{K}\Omega$ (10^3) to $1\text{T}\Omega$ (10^{12}) Displayed in 1/2 Decade Steps
Temperature Range	Operating 5°C to 49°C (40°F to 120°F) Storage - 15°C to $+60^\circ\text{C}$
Repeatability	+/- 10%
Weight	150g
Dimensions	130mm x 70mm x 25mm
Calibration	Every 12 months by manufacturer
Test Voltage	Nominal 9 volts-stepped to 100 volts
Power Supply	9 volt PP3 alkaline battery

User Guide

Testing and auditing all elements within the EPA is essential to comply with industry standards. All test instruments are manufactured to the very highest quality allowing qualification to council directives 89/336/EEC.

The SRM100/K has been designed specifically for the purpose of testing surfaces used in an EPA and measures in Ohms per Square and meets the requirements of IEC 61340-5-1/2 and EN100015/1 European standard.

Automatic auto ranging 10v and 100v test voltages are incorporated into the tester, switching as you move from conductive, dissipative and insulative surfaces. The SRM100/K is also capable of testing resistance-to-ground and point-to-point resistance.

Setup and Operation

1) Fit the supplied 9V battery; the battery compartment is located at the rear of the enclosure. The unit is now ready to use. If at any time the battery voltage drops below 6.5 volts, the blue battery low indicator will light.

2) To test surface resistance, place the unit on the surface to be tested and press the test button.

3) To measure resistance-to-ground, insert one of the supplied test leads into one of the two 3.5mm sockets, located on the top panel of the meter, attaching the other end to your ground point. Press the test button.

4) **SRM100K ONLY**- To measure the point-to-point resistance, insert the 3.5mm Jack plug test leads into the 2 x 3.5mm Jack sockets located on the top panel of the meter. Connect the two 2.5kg (51b) weights to the other end of the test leads via the 4mm banana plugs (Red & Black). Place the weights gently onto the surface that requires testing. Press the test button. The resistance of the surface under test will be displayed in Ohms.

5) **GREEN LEDs** indicate a conductive reading. Measurements are taken at a test voltage of 10V.

YELLOW / ORANGE LEDs indicate a dissipative reading. Measurements are taken automatically at a test voltage of 100 volts.

RED LEDs indicate an insulative reading. Measurements are taken automatically at a test voltage of 100 volts.