TRANSFORMING TECHNOLOGIES
OUTSTANDING ALTERNATIVES IN STATIC CONTROL

Ohm Metrics™

Continuous Workstation Monitors
Model SRM330

Instruction Manual

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Description

Ohm Metrics™ Surface Resistance Meter: SRM330

The SRM330 is a digital surface resistance test kit designed to test all conductive, anti-static and static dissipative surfaces for electrical resistivity/resistance according to EOS/ESD, CECC, ANSI, ASTM test procedures. It accurately and quickly measures resistance between two points (RTT) and surface to ground resistance (RTG). Equipped with built-in parallel electrodes for quick surface measurements and two banana jacks for connection for two external probes. Included in the kit are two "Press & Test" travel probes that similar the 5lbs of pressure necessary for some measurements. Suitable for factory audits and test lab evaluations.

Features include:

- 10v and 100v range voltage selection
- Two "Press & Test" lightweight travel probes
- Built in resistivity probes
- Carrying case

The SRM330meets periodic test requirements per Compliance Verification ESD TR53 and conforms to ANSI/EOS/ESD (S4.1, S7.1, S12.1, S2.1).

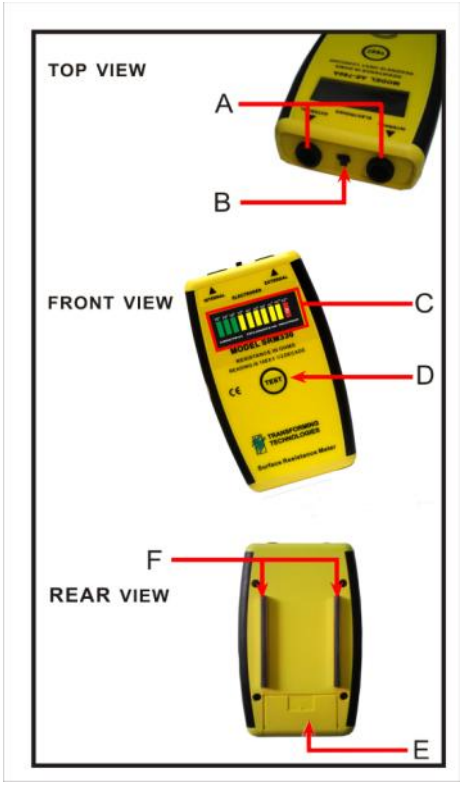
About Ohm Metrics™

Ohm Metrics™ test and measurement products are useful, reliable tools for characterizing and identifying the electrical resistance of materials and the performance of personal grounding products.

- All Ohm Metrics™ products are designed to support ESDA Compliance Verification TR53.
- All Ohm Metrics™ products can be calibrated.
- All Ohm Metrics™ test and measurement products are warranted for 1 full year.

Features

A. Electrode banana Jacks.
B. Electrode toggle switch. Position the switch to “Internal” to measure using the built-in parallel probes on the back of meter. Switch to “External” when using one or two of the external electrodes.
C. Readout LCD. Resistance is displayed in Ohms and is read as 10^X ±1/2 decade where “X” is the range illuminated on the checker.
D. Test Button. Pres and hold until the readout displays a measurement.
E. Battery compartment. Remove cover to insert battery.
F. Parallel Electrodes.



Parts Included

One - Surface Resistance Meter
Two - Travel Probes
Two - Test Leads
One - Metal Plate
One - Alligator Clip

Power Options

The SRM330 is powered by a 9 volt battery. Insert battery into compartment on the back of meter.

Set Up

The SRM330 has two methods to measure resistivity: Parallel Probe Resistivity (PPR) and Probe Resistivity (CRP) method. The PPR method uses built in probes on the back of the SRM330 and the CRP method uses two external probes attached to the meter by lead wires.

Parallel Probe Resistivity Method

The PRP method is used to give fast electrical resistivity measurements on flat materials.

Resistance Point-To-Point
Remove all items on surface that may interfere with the test.

1. Place the meter on the surface to be tested.
2. Move the toggle switch to “Internal”.
3. Press and hold the test button until measurement is displayed.
4. If measurement is outside acceptable limits, clean the surface and re-test to determine if cause of failure is an insulative layer of dirt/contamination or the surface of the material itself.

Note: Use only approved Anti-Static Mat Cleaner such as Transforming Technologies StaticCare^{MT} mat cleaner. Be sure the surface is dry before testing.

The meter will keep updating the display while the button is held down and will continue to display the last test reading for approximately 45 seconds after the button is released.

Probe Resistivity (CRP) method

The SRM330can take specific measurements: Resistance between Two Points (RTT) and Surface to Ground Resistance (RTG). Procedures vary regarding sample preparation, probe preparation and spacing of the external probes. Select and read the correct test procedure for the desired measurement.

“Press & Test Travel Electrodes

The Press & Test Travel Electrodes can be substituted for the common 5lb external probes. To use the Press & Test probes, position the probes in the intended test surface and press down on the spring loaded probes. Have a 2nd person press the test button and hold both the probes and the button until a the measurements are displayed. The SRM330 can be used with 5lb probes as well.

Note: Ensure the material being tested is electrically isolated (placed on an isulative surface) as the meter will measure the lowest resistance path.

RTT test procedure

This procedure measures resistance between two points independent of a ground point.

1. Connect the plug ends of the test leads into the banana jacks of the meter.
2. Connect the banana plugs of the test coil cords into the ends of the external probes.
3. Switch the toggle switch to “External”.

RTT test procedure cont.

4. Place both probes on the material according to test procedures.
5. Placements of note may include the most commonly used portion, most worn, center, and the furthest from the groundable point.
6. Press and hold the test button until power is applied to the meter and a value is displayed. Keep the button depressed with sufficient force until the electrical resistance. Relative humidity and temperature readings are displayed on the meter screen.

RTG test method

This procedure measures the surface resistance between a ground point on the material surface and specific positions on the material being tested. This procedure complies with the EOS/ESD S4.1 standard.

1. Meter set-up: with both test leads connected to the meter, attach the alligator clip to one lead and the other to the one of the external probe.
2. Attach the alligator clip to a known ground point.
3. Position the probe on the surface to be tested in accordance with the desired test procedure.
4. Press the test button until the test values are displayed on the LCD screen.
5. These readings will conform to: EIA, EOS/ESD ANSI, IEC-93 CECC and ASTM test procedures.

Note: When performing test, especially with high resistance materials be sure the test lead wires do not touch or overlap and that your

Product Specifications

Product Number

SRM330	Resistance Meter with travel probes, testing plate and carrying case

Specifications:

Dimensions/Weight	5.8” H x 3.50” W x 1 D / 7.05 oz
Test range:	10^3-10^{12}
Test voltage:	10V/100V
Accuracy	$\pm$ 5%
Power Supply	9V-Battery (PP3)
Probes:	Two travel probes Two 3”parallel probes
Read Out	LCD

Test Range

Resistivity:	10^3-10^{12} ohms/sq.
Resistance:	10^3-10^{12} ohms
Accuracy	$\pm$ 1/2 decade

Service and Warranty

Transforming Technologies, LLC provides a limited warranty for the Model SRM330. All new products are guaranteed to be free from defects in material and workmanship for a period of one (1) year from the date of shipment. Liability is limited to servicing (after evaluating, repairing or replacing) any product returned to Transforming Technologies. The company does not warrant damage due to misuse, neglect, alteration or accident. In no event shall Transforming Technologies be liable for collateral or consequential damages. To receive service under warranty, please contact Transforming Technologies Technical Support.

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