

## Specification

ESDMAN P/N:001-9802

### Measures resistivity/resistance, temperature and humidity

“Humidity and temperature affect resistivity so they must be measured.”

- Measures resistivity:  $10^3$ - $10^{12}$  ohms/sq.
- Measures resistance:  $10^3$ - $10^{12}$  ohms
- Measures relative humidity: 10% to 90%RH
- Measures temperature:  $0^{\circ}\text{C}$ - $37.7^{\circ}\text{C}$  ( $32^{\circ}\text{F}$  to  $100^{\circ}\text{F}$ )
- 10v/100v test voltage range
- Include probes:-- two 5 pound weight, 2.5"RTT, RTG disk probes  
-- two 3"parallel surface resistivity probes
- LCD alpha-numeric scale-no LED'S
- Rechargeable battery capability
- Test mats, floor finishes, paints, wrist straps, smocks, foot wear, bags and containers

ESDMAN 001-9802 Megohmmeter is 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's easy to use and is of high quality and dependability. The meter also measures Relative humidity and temperature, both of which affect electrical properties.

## 01 Features:

Measures resistivity, temperature and humidity

10v/100v test ranges

Light weight meter-15oz

Automatic power shut off

Two 5 lb. disk probes and built in resistivity probes

9 volt DC battery or 120 volt AC adapter

Concentric ring resistivity probe(optional)

$10^3$ - $10^{12}$  ohms/sq test range

Blow molded travel case

Alpha-numeric LCD scale

Auto zeroing

Replaceable probes

Cleanroom probes available

One year warranty

## 02 > Operation Instructions:

### Operation:

Before testing ,please make sure that surfaces to be tested are clean and free of contaminants.

#### 1. Parallel Probe Resistivity Method:

The parallel resistivity probe method,complies with EOS/ESD-S11.11-1993.It is used to give fast electrical resistivity measurements on flat homogeneous materials.It may be used on multilayered materials,but this should be noted along with the temperature and Humidity value on the data report.

- A. Place the meter on the requested surface to be tested.
- B. Move switch to desired test voltage position,either 10 or 100 volts.
- C. Press and hold the test button with approximately 5 pounds of applied force.After the meter has had time to measure the resistivity,humidity and temperature these values will be displayed on the LCD screen.This will happen in approximately 15 seconds.

The resistivity reading will be in ohms per square inch,temperature in centigrade,and relative humidity in percent.

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.

#### 2. Concentric Ring Probe Resistivity Method:

Concentric Ring Probe is an optional part

Insert both coils using the monaural plugs into the 3.5mm meter jacks.Attach the banana plug coil cord terminations to the concentric ring probe.

Place the probe on the surface to be tested.Press the test button and wait 15 seconds.The correct temperature and humidity will be displayed on the LCD screen.The resistivity value displayed must be multiplied by a factor of ten to achieve the actual test value.These values will read in ohms/square.e.g. $3.5 \times 10^4$  ohms/square(displayed value).Actual resistivity value will be  $3.5 \times 10^5$  ohms/square.

### 3. Resistance Between Two Points(RTT):

This procedure which complies with EOS/ESD S4.1 measures resistance between two points independent of a ground point. Procedures vary regarding sample preparation, Probe preparation and spacing of the 5 pound probes. Select and read the correct test Procedure for the desired measurement.

A. Connect the monaural plug ends of the test leads into the 3.5mm jacks of the meter.

Connect the banana plugs of the test coil cords into the 2.5 inch disc ends of the 5 pound probes.

B. Place both probes on the material according to test procedures.

C. Move switch to desired test voltage position, either 10 or 100 V.

D. 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.

## 03 Product Pictures:



Front View



Back View