Trek Model 152P-CR-1
Surface/Volume Concentric Ring Probe

The Trek Model 152P-CR-1 Concentric Ring Probe is capable of measuring surface and volume resistance in materials as per IEC or ESDA standards. A three (3) position switch on the probe selects surface resistance or volume resistance measurements with either a guarded or unguarded outer electrode. (See page 2.)

An optional Test Plate Set [CN 17530] consists of two separate plates. A stainless steel conductive plate can act as a second electrode to apply the test voltage to the sample under test and also provides a mini-banana plug connection for a secure ground connection. An insulative plate is utilized as needed. The use of these plates are described in the ESD STM11.12 and in IEC 61340-2-3 standards.

The Trek Model 152-1 Resistance Meter used with the 152P-CR-1 system, is designed to precisely measure surface resistance on a wide variety of conductive, dissipative, and insulative materials.

The Model 152-1 Resistance Meter employs a measurement technique which conforms to ANSI/ESD Association standards for measuring surface resistance, resistivity, and volume resistance and features exceptional measurement accuracy and wide measurement ranges of 10^3 to 10^{13} ohms using either a point-to-point probe or the two-point probe. Measured resistance values are clearly displayed on a high-contrast LCD display. Various probes are available and accessory options include a Walking Test Adapter which allows analysis of resistance levels on the human body [STM 97.1].

Trek MODEL 152-1 Resistance Meter

Measurement Range

10^3 to 10^{13} ohms

Probe Electrode Test Voltage

User selectable for 10 V or 100 V, ±2%.

Test Current Limit

Limited to less than 13 mA in the 10 V range and less than 1.7 mA in the 100 V range.

MODEL 152P-CR-1 Surface / Volume Resistance Probe

A three (3) position switch on the probe selects performance options.

Optional Test Plate Set

These plates provide additional ESD STM standard options for guarded and unguarded resistance and volume measurements.

Optional Probe Calibration Fixture

Provides measurement accuracy verification of resistance/resistivity probes.

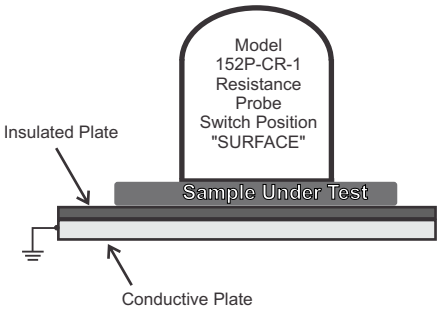
Model 152-CR-1 Concentric Ring Probe and Test Plate Set

The Trek Model 152P-CR-1 Concentric Ring Probe, when used with the Trek Model 152-1 Resistance Meter, is capable of measuring surface and volume resistance in materials as per IEC or ESDA standards. A three (3) position switch on the probe selects for SURFACE resistance measurements or VOLUME resistance measurements either with a GUARDED or UNGUARDED outer electrode.

In addition to the Model 152P-CR-1 Concentric Ring Probe [CN 17529], Trek offers a Test Plate Set [CN 17530] that consist of two separate plates, each approximately 5 inches square. A stainless steel conductive plate acts as a second electrode for the application of the test voltage to the sample under test. An insulative plate is utilized as needed. The use of the plates are described in the ESD STM11.12 and IEC 61340-2-3 standards.

Test Position SURFACE

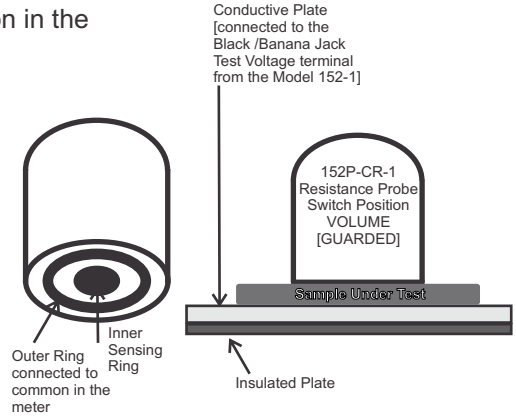
The test voltage is applied to the outer ring during surface measurements. Model 152P-CR-1 switch is positioned at SURFACE designation.



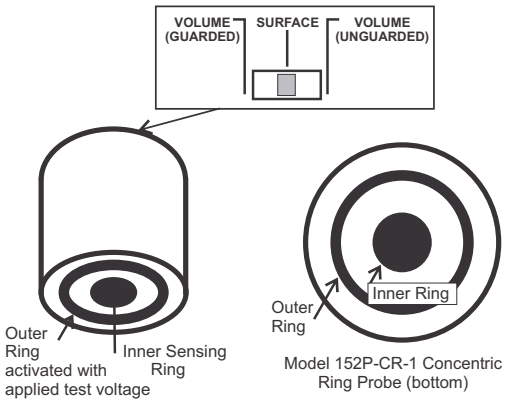
Resistivity - Resistance X Factor 10 = Resistivity

Test Position VOLUME [GUARDED]

The outer ring is connected to common in the 152-1 meter (guarded) during volume measurements. As per IEC 61340-2 standard, when performing volume measurements the outer ring is guarded (connected to common in the meter).

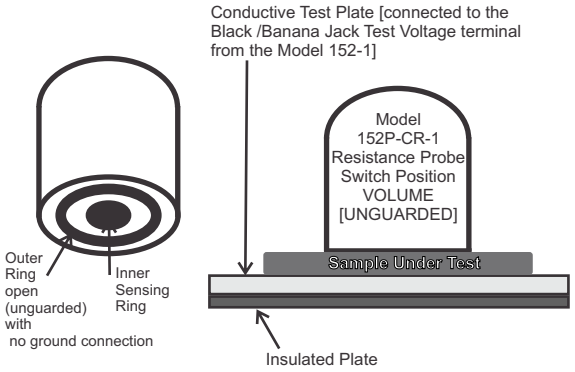


Model 152P-CR-1 [3 Position Switch]



Test Position VOLUME [UNGUARDED]

The test voltage is removed and outer ring is open (unguarded) during volume measurements. Model 152P-CR-1 switch is positioned at VOLUME [UNGUARDED] designation. As per ESD STM11.12 standard, the outer ring is unguarded with no ground connection.



Optional Accessories

CR Probe Calibration Fixture [CN 16160]

Surface Resistance Calibration Test Fixture

This surface resistance calibration test fixture is designed to check the electrode alignment of resistance/resistivity probes, the electrification time of the probe/cable meter test setup and verify overall measurent accuracy of the test setup at both ends of the static dissipative measurement range. It consists of a 502K ohm test surface and a teraohm test surface.

Test Plate Set [CN 17530]

Includes two separate plates, approx. 5” X 5”:
- Stainless Steel Conductive Plate
- Insulative Test Plate

TREK, INC. • 190 Walnut Street • Lockport, NY 14094 • USA • 800-FOR TREK
716-438-7555 • 716-201-1804 (fax) • www.trekinc.com • sales@trekinc.com