

Model 706A/1

Portable Electrostatic Voltmeter



Switch Selectable
Polarity Ranges:

0 to +1 kV DC
or
0 to -1 kV DC

3½ Digit LCD Display

The Trek Model 706A/1 portable electrostatic voltmeter is specifically designed as a field-service tool to perform ESD noncontacting surface voltage measurements. Applications include measurement of photoreceptor surfaces in copiers and laser printers.

Battery Test Switch

The Trek Model 706A/1 portable electrostatic voltmeter has a measurement range of 0 to +1 kV or 0 to -1 kV (switch selectable) and employs an easy to read 3½ digit liquid crystal display to indicate the measured electrostatic potential in volts. Electrostatic measurements can be performed by holding the probe at a distance of 1 mm to 5 mm from a surface.

DC-Stable Probe with
Side Viewing Aperture
Orientation

Model 706A/1 employs a voltage-nulling technique that achieves DC stability and high accuracy even if the probe-to-measured surface spacing varies during use. For example, this permits measurement of rotating electrophotography drums without concern for the effects of measurement accuracy from drum run-out.

Low Noise

The probe design provides low noise and drift performance even in the presence of contaminating toner particles, or under conditions of high humidity and temperature. The small durable probe has a cable length of 183 cm (72").

Durable Design

The Model 706A/1 is lightweight, battery operated, and packaged in rugged enclosure that provides a place for convenient probe storage.

CONTROL WITHOUT COMPROMISE



Model 706A/1 Specifications

All specifications are at a probe-to-surface separation of 3.2 mm unless otherwise noted.

PERFORMANCE

Measurement Range (switch selectable)
0 to +1 kV or -1 kV DC.

Accuracy
Better than 0.5% of full scale.

PROBE

Probe-to-Measured Surface Distance
1 mm to 5 mm is the recommended probe-to-measured surface distance range to limit measurement errors due to extraneous voltage sources in the vicinity of the probe.

Trek Model 701P-76S Probe Dimensions
8.7 mm diameter x 70 mm L
(0.35" diameter x 2.75" L).

Cable Length
1830 mm (72").

Aperture Size (oval shaped)
3.18 mm W x 6.35 mm L
(0.125" W x 0.25" L).

Aperture Orientation
Side viewing.

FEATURES

Battery TEST/READ Switch
A two-position switch. In the battery TEST position, the batteries should be replaced if the digital display indicates a value lower than 1100. In the READ position, the Model 706A/1 measures surface voltage.

Voltage Display
3½ digit liquid crystal display.
Range
0 to ±1000 V.
Resolution
1 V.
Zero Offset
Less than ±1 count.
Sampling Rate
3 readings per second.

Polarity Switch
A two-position toggle switch to select either the measurement range of 0 to +1 kV or 0 to -1 kV.

GENERAL

Power Requirements
Two (2) 9-volt alkaline batteries.

Operating Time
10 hours from new batteries.

Operating Conditions
Temperature
5 °C to 35 °C.
Relative Humidity
To 85%, noncondensing.

Dimensions
39 mm H x 130 mm W x 134 mm D,
(1.6" H x 5.2" W x 5.3"L).

Weight
455 g (1 lb), with batteries.

Ground Receptacle
Green banana jack.

***NOTE:** The Model 706A/1 is designed to make electrostatic voltage measurements only! For safety, the Model 706A/1 should never be used to perform measurements of "hard" voltage sources or voltage sources which can deliver currents high enough to cause harmful shocks or personal injury.*

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Model 706A/1

<u>Item</u>	<u>Part No.</u>
Portable Electrostatic Voltmeter	706A/1

Certification

TREK, INC. certifies that each Model 706A/1 is tested and calibrated to specifications using measurement equipment traceable to the National Institute of Standards and Technology or traceable to consensus standards.



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