

Model 706B

Portable Electrostatic Voltmeter



The Trek Model 706B portable electrostatic voltmeter is designed to perform highly accurate noncontacting surface electrostatic voltage measurements. Applications include measurement of photoreceptor surfaces in copiers and laser printers.

The Trek Model 706B E.S.V.M [Electrostatic Voltmeter] provides measurement ranges 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 voltage. Accurate electrostatic measurements can be performed over a probe to test surface spacing of 1 mm to 5 mm.

A voltage-nulling technique is employed in the Model 706B that achieves DC stability and high accuracy even if the probe-to-measured surface spacing varies during use, this permits measurement of rotating electrophotography drums without concern for the effects of measurement accuracy due to drum eccentricities.

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").

The Model 706B is lightweight, battery operated, and packaged in a rugged enclosure that provides a convenient probe storage area.

Switch Selectable Ranges:

0 to +1 kV DC

or

0 to -1 kV DC

3½ Digit LCD Display

Battery Test Switch

DC-Stable Probe with Side Viewing Aperture Orientation

Low Noise

Durable Design

RoHS Compliant

CE Compliant

CONTROL WITHOUT COMPROMISE



Model 706B Specifications

All specifications are at a probe-to-surface separation of 3 mm unless otherwise noted.

PERFORMANCE

Measurement Range

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

Accuracy

Better than 0.5% of full scale.

PROBE

Recommended Probe-to-Surface Separation Distance

1 mm to 5 mm.

Trek Model 701P-76S Probe Dimensions

8.7 mm diameter x 70 mm L
(0.35" diameter x 2.75" L).

Caution: The metallic components of the probe are driven to the measured surface voltage level with a current capability of ± 0.5 milliamperes. These metallic surfaces should not be connected to ground or touched during operation.

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

Range Switch

A two-position switch is used to select the measurement range of either 0 to +1 kV or 0 to -1 kV.

TEST/READ Switch

In the TEST position, if the digital display indicates a value lower than 1100, the batteries should be replaced. In the READ position, the measurements are displayed.

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.

NOTE: The Model 706B is designed to make electrostatic voltage measurements only!
For safety, the Model 706B 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.

GENERAL

Power Requirements

Two (2) 9-volt alkaline batteries.

Operating Time

10 hours after battery replacement.

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

The green banana jack must be connected to ground to maintain measurement accuracy.

Power On/Off

A two-position toggle switch.

Certification

TREK, INC. certifies that each Model 706B is tested and calibrated to specifications using measurement equipment traceable to the National Institute of Standards and Technology.

RoHS and CE compliant.

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All specifications are subject to change.
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Model 706B Included Accessories

Item	Part No.
Portable Electrostatic Voltmeter	706B
Operator's Manual	23389
Two (2) (9 V) Alkaline Batteries	F1003R

Certification (cont.)

RoHS compliant

Low Voltage Safety Compliance (IEC 61010)

Overvoltage Category

CAT I: Peripheral level outputs (less than 60 volts).

Pollution Category

Degree 1: Operate in environments where no pollution or only dry, nonconductive pollution occurs.



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