

TREK 706B

Portable electrostatic voltmeter designed for highly accurate non-contacting surface electrostatic voltage measurements.



The Trek® 706B 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. A voltage-nulling technique is employed in the Trek 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.

PRODUCT HIGHLIGHTS

- Lightweight, battery operated, and packaged in a rugged enclosure with a probe storage area
- 3 ½ digit LCD display
- Battery test switch
- Accurate measurements over a probe-to-test surface spacing of 1 to 5 mm
- DC-stable probe with side viewing aperture orientation also features low noise and drift performance even in the presence of contaminating toner particles or under high humidity or temperature
- Low noise
- Durable design
- NIST-traceable Certificate of Calibration provided with each unit

APPLICATIONS

- Measurement of photoreceptor surfaces in copiers and laser printers

AT A GLANCE

Measurement Range

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

Measurement Accuracy

Better than 0.5% of full scale

TREK ELECTROSTATIC VOLTMETER 706B

TECHNICAL DATA

Performance Specifications¹

Measurement Range	0 to +1 kV or -1 kVDC (switch selectable).
Accuracy	Better than $\pm 0.5\%$ of full scale

Trek 701P-76S Probe²

Recommended Probe-to-Surface Separation Distance	1 to 5 mm
Dimensions (Diameter x L)	8.7 x 70 mm (0.35 x 2.75 in)
Cable Length	1830 mm (72 in)
Aperture Size (W x L)	3.18 x 6.35 mm (0.125 x 0.25 in) (oval shaped)
Aperture Orientation	Side viewing

Mechanical Specifications

Dimensions (H x W x D)	39 x 130 x 134 mm (1.6 x 5.2 x 5.3 in).
Weight	455 g (1 lb)
Ground Receptacle	The green banana jack must be connected to ground to maintain measurement accuracy.

Operation Conditions

Temperature	5 to 35°C (41 to 95°F)
Relative Humidity	To 85%, noncondensing

Electrical Specifications

Power Requirements	Two 9 V alkaline batteries
Power On/Off	A two-position toggle switch
Operating Time	10 hours after battery replacement

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

¹ All specifications are at a probe-to-surface separation of 3 mm unless otherwise noted.

² 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.

REFERENCE NUMBERS

Trek 706B

706B	Portable Electrostatic Voltmeter
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Included Accessories

23389	Operator's Manual
F1003R	Two 9 V Alkaline Batteries
N9044	Ground Patch Cord



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AE's power solutions enable customer innovation in complex semiconductor and industrial thin film plasma manufacturing processes, demanding high and low voltage applications, and temperature-critical thermal processes.

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