

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

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

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|--|--|
| 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

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|------------------------|---|
| 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

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

Electrical Specifications

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

Features

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|------------------|---|-------------------------|
| 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

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| 706B | Portable Electrostatic Voltmeter |
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Included Accessories

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