

TREK 876 AND TREK 884

Electrostatic voltmeters for accurate non-contacting measurements of the electrostatic surface voltage for ESD applications in ionized or non-ionized environments.

The Trek® 876 ($\pm 2\text{kV}$) and Trek 884 ($\pm 20\text{kV}$) hand held electrostatic voltmeters provide accurate, noncontacting measurements of electrostatic surface voltage for ESD applications in either ionized or non-ionized environments. These two voltmeters utilize a measurement technique that overcomes the disadvantage of the typical hand held field-meter by providing surface voltage measurements which are essentially independent of the sensor probe-to-measured surface spacing.

PRODUCT HIGHLIGHTS

- Accurately measures surface voltage at a wide range of spacings
- No need to maintain a fixed spacing
- Chopper stabilized for drift-free operation in ionized environments
- NIST-traceable Certificate of Calibration provided with each unit

APPLICATIONS

- Measurement of electrostatic surface charge build up
- Manufacturing processes
- Electronic assembly testing
- Semiconductor material testing
- Dissipative material testing
- Automotive electronics testing
- ESD Auditing and troubleshooting



AT A GLANCE

Measurement Range

Trek 876: 0 to ± 2 kVDC
Trek 884: 0 to ± 20 kVDC

Measurement Accuracy

Better than $\pm 5\%$ of full scale over the entire recommended probe-to-surface separation:
Trek 876: 5 to 25 mm
Trek 884: 30 to 60 mm

TECHNICAL DATA

Performance Specifications

	Trek 876 ¹	Trek 884 ²
Measurement Range	0 to ±2 kVDC	0 to ±20 kVDC
Measurement Accuracy		

Mechanical Specifications

	Trek 876	Trek 884
Dimensions (H x W x D)	31 x 59 x 173 mm (1.2 x 2.4 x 6.8 in)	31 x 59 x 183 mm (1.2 x 2.4 x 7.3 in)
Weight	0.2 kg (0.44 lb) with battery	0.2 kg (0.44 lb) with battery

Features

	Trek 520	Trek 523
Power On/Off	Push-button switch	
Stability	Drift with Time: Less than 600 ppm/hour, noncumulative	
	Drift with Temperature: Less than 600 ppm/°C	
Operating Time	Approximately 8 hours with a full battery	
Hold	A momentary push-button will command the voltage display to hold the value displayed until the switch is released	
Voltage Display Range	3 ½ digit liquid crystal display	
Range	0 to ±1999 V	0 to ±19.99 kV
Resolution	1 V	10 V
Zero Offset	Less than ±1 count	Less than ±4 counts
Sampling Rate	2.5 readings per second	

Electrical Specifications

Power Requirements	One 9 V NEDA 1604 battery, IEC 6R61 battery or equivalent
Ground Receptacle	Snap-on connector

Environmental Specifications

Temperature	15 to 35°C (59 to 95°F)
Relative Humidity	To 85%, noncondensing

¹ All Trek 876 specifications are with a probe-to-surface separation of 15 mm, ±10 mm

² All Trek 884 specifications are with a probe-to-surface separation of 45 mm, ±15 mm

REFERENCE NUMBERS

Included Accessories	
23206	Operator's Manual (Trek 876)
23207	Operator's Manual (Trek 884)
N9079	Ground Reference Cable Assembly ¹
F1003R	9 V Battery

Optional Accessories	
43469	Carrying Case

¹ Always use the original grounding cord without any safety resistor. Failure to do so will lead to measurement errors.



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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.

With deep applications know-how and responsive service and support across the globe, AE builds collaborative partnerships to meet rapid technological developments, propel growth for its customers and power the future of technology.

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