

# 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 (±2kV) and Trek 884 (±20kV) 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

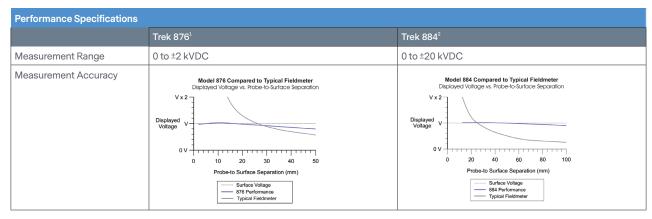
### **Measurement Accuracy**

Better than ±5% of full scale over the entire recommended probeto-surface separation:

Trek 876: 5 to 25 mm
Trek 884: 30 to 60 mm

## TREK ELECTROSTATIC VOLTMETERS 876 / 884

# **TECHNICAL DATA**



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 876	Trek 884
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	85%, noncondensing

 $<sup>^{</sup>f 1}$  All Trek 876 specifications are with a probe-to-surface separation of 15 mm,  $\pm 10$  mm



<sup>&</sup>lt;sup>2</sup> 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 <sup>1</sup>
F1003R	9 V Battery

Optional Accessories	
43469	Carrying Case

 $<sup>{\</sup>color{red}^{1}} \ \, \text{Always use the original grounding cord without any safety resistor.} \\ \text{Failure to do so will lead to measurement errors.} \\$ 





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## **ABOUT ADVANCED ENERGY**

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

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.

PRECISION | POWER | PERFORMANCE | TRUST

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