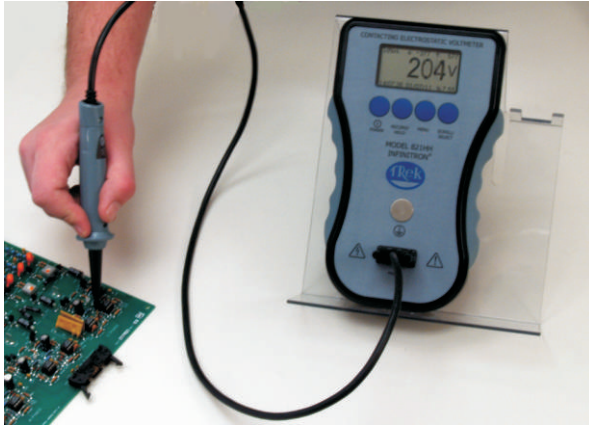


NEW!

INTRODUCTORY SPECIFICATION

Model 821HH Infinitron®

Hand-Held Electrostatic Voltmeter



TREK, INC. is introducing the Model 821HH Infinitron® Hand-Held Electrostatic Voltmeter which represents the next generation of contacting precision surface voltage measuring instruments by providing input characteristics far beyond the limits of any currently available hand-held voltmeter product.

Featuring an input capacitance of less than 0.01 picofarad and an input resistance of greater than 100 teraohm, the Model 821HH can easily measure the voltage level of both conductive and insulative objects and surfaces with virtually zero charge transfer to the measurement probe.

This results in stable high accuracy voltage measurement capability for ESD sensitive components such as semiconductors, LCDs, MR head sensors, etc., without the fear of generating an ESD event upon contact.

The “no ESD event” capability is due to the probe tips assuming the voltage level of the measured object surface as the tip approaches. Thus at the point of actual contact the tip is already at the voltage level of the measured object/surface, which results in no current flow at the time of contact.

- **Measurement Range:**
0 to ± 2 kV DC or peak AC
- **Voltage Display Accuracy:**
Better than 1% of full scale, ± 1 digit
- **Input Characteristics:**
Resistance $> 1 \times 10^{14} \Omega$
Capacitance $< 1 \times 10^{-14} \text{ F}$
- **Voltage Monitor Output:**
Scale Factor at 1/1000
- **Battery or Line Operation**
- **Easy-to-Read LCD Display**
- **Records Voltage, Temperature and Humidity**
- **Data Graphing Capabilities**



Measurement and Power Solutions™

www.trekinc.com

INTRODUCTORY SPECIFICATION

Model 821HH ±2 kV Electrostatic Voltmeter Specifications

Performance

Measurement Range

0 to ±2kV DC.

Accuracy

At the Voltage Monitor Output

Better than ±1% of full scale.

At the Voltage Display

Better than ±1% of full scale, ±1 digit.

Bandwidth (-3 dB)

1000Vpp sine wave: better than 1kHz (-3dB).

Input Characteristics

Resistance greater than $1 \times 10^{14} \Omega$.

Capacitance less than 1×10^{-14} F.

Current less than 1×10^{-14} A.

Stability

Drift with Time (probe in free air)

Less than 2V/second.

Displayed Information

Voltage

0 to ±2000V with a resolution of 1V.

Zero Offset

Battery Status

Time/Date

Temperature

Maximum and Minimum Readings

Features

Automatic Shutoff

User setable: 5 minutes, 10 minutes, 15 minutes or disabled.

Voltage Monitor Output (2.5 mm jack)

An output provides a low-voltage replica of the measured voltage.

Features (cont.)

Scale

1/1000th of measured voltage.

Offset Voltage

Less than ±10 mV.

Output Noise

Less than 10mV rms (measured using the true rms feature of the Hewlett Packard Model 34401A digital multimeter).

Speed of Response (10% to 90%)

Less than 500 μS for an input step change of 1kV.

Power ON/OFF

A push-button.

Record / Hold

Pressing the Record/Hold push-button will hold the measurement, while pressing and holding the Record / Hold button for a period of greater than 3 seconds will store the measurement.

Menu

A push-button for entering the menu system to Review Data, Erase Memory and Set Auto Off functions.

General

Power Requirements

Internal NiMH battery or an External 15V @ 1 Amp supply/charger.

Battery Operating Time

>8 hours of continuous operation.

General (con't.)

Ground Reference Receptacle

Banana jack.

Operating Conditions

Temperature

15°C to 35° C.

Relative Humidity

5% to 75%, noncondensing.

Dimensions

240 mm H x 140 mm W x

52 ½ mm D

(9 ½"H x 6" W x 2" D)

Weight

1.13 kg (2.5 lb) with battery.

Voltage Monitor Connector

2.5 mm plug.

Accessories Supplied

Operator's Manual.

15V @ 1 Amp, universal input AC/DC adapter.

Output Monitor Cable with 2.5 mm plug.

USB Cable.

Copyright © 2011 TREK, INC.
Introductory specifications are subject to change.
1134/DEC

