

Model 920 Combo Tester X3



The Trek Model 920 Combo Tester X3 simultaneously tests the integrity of an operator's wrist strap, footwear and the presence of an inline current limiting resistor to determine proper operator grounding without the necessity of conducting separate tests. The 920 can be used as one of the tools to fulfill the requirements of the ANSI ESD S20.20 paragraph 6.1.3.2 entitled, *Compliance Verification Plan*, by providing easy, convenient equipment testing.

The 920 is factory set to provide testing of wrist straps in the range of 750 kilohm to 10 megohm and footwear in the range of 750 kilohm to 100 megohm. Other ranges can be selected, using convenient operator selected DIP switches, to provide compliance testing to meet other ESD Control Plan requirements.

Red and green LED indicators and an audible alarm are used to indicate pass/fail test results. The 920 is calibrated to NIST traceable standards. A Limit Comparator is optionally available to aid in recalibrating the 920 to its factory settings. Other optional equipment includes a rugged, steel pedestal stand, along with its appropriate mounting hardware, that can be used to conveniently mount the Stainless Steel Split Foot Plate.



Wall Mount Option



Optional Pedestal Stand



Optional Limit Comparator

- **Stainless Steel Split Foot Plate for Testing Grounders or Shoes**
- **30 V Test Signal**
- **Includes Relay for Use with Automatic Doors or Other Locking Systems**
- **Multiple Options for Mounting**



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Model 920 Specifications

All specifications are with no load unless otherwise specified.

Features

Simultaneous Testing

Provides simultaneous testing of an operator's wrist strap and footwear to determine whether they are operating properly, while testing for the presence of the minimum resistance normally used in the wrist strap.

LED Indicators and Audible Alarm

- i) A circular array of blue LED lights between the inner and outer contacts indicate power to the unit.
- ii) A green LED light indicates to the operator that wrist strap and footwear are passing.
- iii) A red LED light and an audible alarm signal that the wrist strap or footwear (left or right) is failing.
- iv) A red LED light also alerts the operator that the circuit resistance is too low or too high.

Stainless Steel Split Foot Plate

For testing foot grounders (or shoes).
Easy to clean and maintain.

Solid State Touch Test Button

With no moving parts.

30V Test Signal

Provides accurate tests that are not humidity dependent

Relay Terminal

A single pole safety relay, which supports both "normally open" and "normally closed" contact settings, is provided to operate an automatic door or other locking systems.

Calibration

Standards

- i) Calibrated to NIST-traceable standards.
- ii) Frequency of recalibration should be based on the critical nature of the ESD sensitive items being handled and the risk of failure for ESD protective equipment and materials.
- iii) Trek, Inc. recommends that recalibration be performed annually.

Accuracy

- i) $\pm 5\%$ for < 1 megohm range.
- ii) $\pm 10\%$ for > 1 megohm resistance ranges.
- iii) Check periodically (once every 6 to 12 months) using precision resistance box.

Limit Comparator

A limit comparator is optionally available for the Model 920 for recalibration to factory settings.

General

Factory Settings

- i) Wrist Strap: 750 k Ω to 10 megohm.
- ii) Footwear: 750 k Ω to 100 megohm.

Rated Tester Supply Voltage

12V DC (2.5mm connector - center positive).

Relay Contact Setting

1A @ 30V DC max.

Operating Conditions

Temperature Range

41 °F - 104 °F
(5 °C - 40 °C)

Indoor Use Only

At altitudes less than 6500 ft. (2km)

Maximum Relative Humidity

- i) Maximum 80% up to 88 °F (31 °C) decreasing linearly up to 50% @ 104 °F (40 °C)
- ii) Maximum 50% at GW setting

Accessories

- i) The Model 920 is supplied with the accessories listed at the bottom of this page.
- ii) Additional accessories are available. Please contact Trek, Inc. regarding the purchase of the following items:
 - a. Limit Comparator; comes complete with:
 - (2) Test Leads, Banana to Banana
 - (1) NIST Certificate of Calibration
 - b. Steel Pedestal Stand for mounting the Dual Foot Plate; comes complete with:
 - (2) Pedestal Bolts
 - (2) Tester Backplate Screws
 - (2) Nuts for Backplate Screws
 - (4) Footplate Screws

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Model 920 Accessories (supplied)

- Operator's Manual
- Dual Foot Plate
- Universal Line Input to 12V DC Adapter with 2.5mm connector - center positive plug
- Stereo Plug to Stereo Plug Cord
- Banana Plug to Ring Terminal Cord



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