

= TECHNICAL BULLETIN RS-122-9143

Portable Wrist Strap Tester Installation, Operation and Maintenance







Figure 1. RS 122-9143 Portable Wrist Strap Tester

Description

Per EN 61340-5-1, test equipment is required to enact the Compliance Verification Plan Requirement. Wrist Straps are to be tested while worn per EN 61340-5-1 Clause A.1. Test equipment shall be selected to make measurements of appropriate properties of the technical requirements that are incorporated into the ESD program plan. The Wrist Strap Tester can be used to fulfill ANSI/ESD S1.1, "The wrist strap system should be tested daily to ensure proper electrical value" (Annex A3). Being a portable battery powered tool, it is perfect for small labs or for a supervisor to spotcheck workers and/or ensure compliance.

The Portable Wrist Strap Tester is a battery operated "on demand" wrist strap tester. When the wearer of a wrist strap plugs in their coiled cord and pushes the metallic electrode of the Portable Wrist Strap Tester, a path for current flow is completed from the wearer's skin, through the wrist strap. This action will cause the green "test good" LED to illuminate as long as the resistance of the circuit path is between 750 kilohms and 35 megohms. This meets the required limits of ANSI/ESD S20.20 and ANSI/ESD S1.1 tested per ESD TR53.

Packaging

- 1 Wrist Strap Tester
- 1 9V Alkaline Battery
- 1 Hook and Loop Fastener Strip
- 1 Certificate of Calibration

Installation

Open the Wrist Strap Tester's battery compartment and install the included 9V battery. If desired, use the included hook and loop fastener strip to mount the tester to a wall or worksurface.

NOTE: The low battery indicator flashes briefly every time the unit is used. Replace the battery once the indicator becomes constant during testing.

Operation

- 1. Fit the wristband snugly onto your wrist.
- 2. Snap the coiled cord to the wristband.
- 3. Plug the coiled cord into the Portable Wrist Strap Tester's banana jack.
- 4. Push and hold the test button until the test results are displayed.
- 5. An audible alarm will sound if the test fails. Verify that your wrist strap is being worn correctly or needs to be replaced. If your test result fails high, try applying an approved dissipative hand lotion such as Reztore™ ESD Hand Lotion to your wrist.

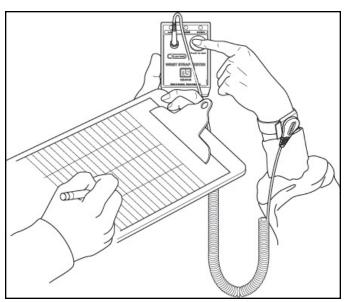


Figure 2. Using the Portable Wrist Strap Tester and recording results

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Calibration

The RS Portable Wrist Strap Tester is calibrated to NIST traceable standards. There are no user adjustments necessary. We recommend that calibration be performed annually using the RS <u>685-8757</u> Calibration Unit. It is a convenient product which allows the customer to perform NIST traceable calibration on single-wire personnel testers. The <u>685-8757</u> is designed to be used on the shop floor at the workstation, virtually eliminating downtime, verifying that the tester is operating within tolerances.

View technical bulletin <u>PPE-5034.E</u> for more information on the <u>685-8757</u> Calibration Unit and instructions to calibrate the Portable Wrist Strap Tester.



Figure 3. RS 685-8757 Tester Calibration Unit

Specifications

Power Supply 9V Alkaline Battery

Operating Temperature 0 to 40°C

Test Limits 750 kilohms - 35 megohms

Test Voltage 4 VDC

Dimensions 9 cm x 7 cm x 3 cm

Weight 0.1 kg

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