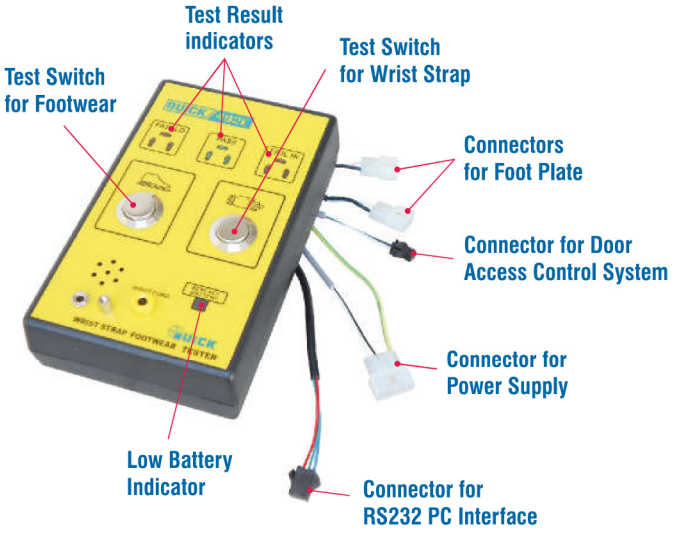
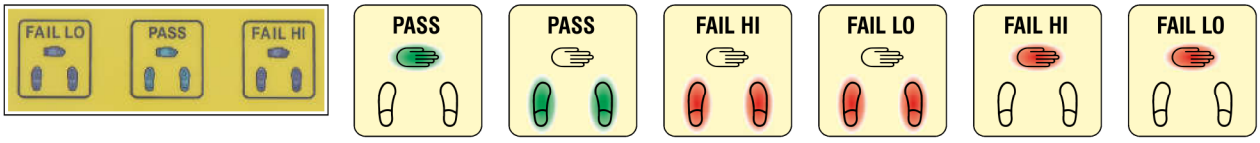
Top-of-the-line Wrist Strap & Footwear Combo ESD Tester Model 492E

used by many MNCs in repeat orders • ANSI ESD S20.20 Compliant



Test Result Indications



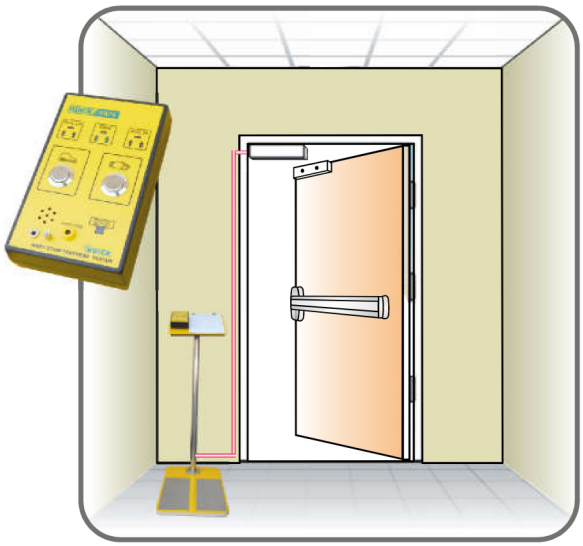
Nine Test Lights for Wrist Strap and Foot Wear testing (3 Pass Green, 3 Fail Low & 3 Fail high)	Wrist Strap PASS Resistance in range	Foot Wear PASS Resistance in range	Foot Wear FAIL Resistance High	Foot Wear FAIL Resistance Low	Wrist Strap FAIL Resistance High	Wrist Strap FAIL Resistance Low

Features

- Has 2 Test Modes:
  - Single Test Mode: Checks the ESD status of Wrist Strap or Footwear.
  - Comprehensive Test Mode: Checks the ESD status of both Wrist Strap and Footwear.
- Customer can connect it to Door Control System thru Access System Control Signal from this Tester.
- This Model uses micro-current testing for stable and accurate results.
- Low Voltage Alarm Function: when the battery goes low in this Tester, there will be alarm indication.

Specifications

Power supply	: 9V Battery
Touch-Point	: Voltage ≤ 400V (peak, DC or AC)
Switching Output	Switch Current ≤ 130 mA Touch-Point Resistance of < 30Ω Test PASS: Touch-Point Close Test FAIL: Touch-point open
Accuracy	: Wrist Strap testing: ± 10% Footwear testing: ± 10% (100 KΩ), ± 20% (100 MΩ), ± 30% (1 GΩ)
Access Control Signal Output	: ±400V (Peak DC/AC); 100mA (Recommended Relay KAQW214)
Dimensions (approx.)	: 160 mm x 100 mm x 40 mm
Weight (approx.)	: 0.6 kg (Test Unit only)



This Combo Tester can be connected to Door Control System thru Access Control System Signal from this Tester. It gives signal of ±400V (Peak DC/AC); 100mA to operate relay (KAQW214) of Access Control System

Wrist Strap Tester P/N: 498

Wrist straps are the primary method to minimize the static charge on the human body. They must be able to drain this charge as rapidly as it is generated. For this reason it is important to test wrist straps on a regular basis to ensure they are working properly. To ensure the proper working of Wrist Straps, this model 498 is used to check the grounding quickly.

- Use anywhere to check personnel ESD grounding quickly
- Checks contact resistance between Wrist Strap and skin

Specifications:

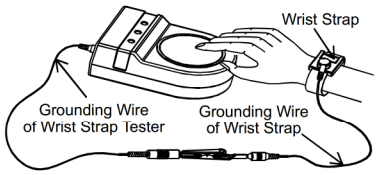
- Resistance Test Range : 750KΩ ~ 10MΩ
- Power Supply : 9-volt battery
- Changeover Point : ±10%
- Dimensions (approx.) : 117mm (L) x 80mm (W) x 40mm (H)
- Weight (approx.) : 110 grams

Scope of Supply:

- Wrist Strap Tester Model 498
- Power Supply: 9V Battery
- Grounding Wire: 2.5 meter

Operation

Simply touch circular surface on Tester with your hand and connect ground wire. In case of a safe ground, LED will be 'Green'. Opposite Table summarizes test indications.



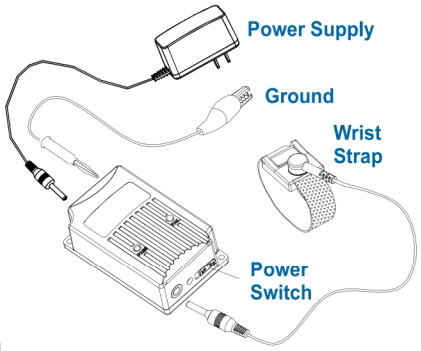
LED Indication	Resistance	Buzzer
Power Low (Red)	<750KΩ	OFF
Good (Green)	750KΩ ~ 10MΩ	ON
High (Red)	>10MΩ	OFF

Continuous Wrist Strap Monitor P/N: 495

Model 495 Continuous Wrist Strap Monitor continuously monitors the ESD integrity of wrist strap and its ground. It provides instant notification of the wrist strap or ground failure. When the production process is of very high value, reliable ESD safety and ground is must for continuous monitoring at operator level.

Features:

- Sound and light alarm
- Portable and compact, easy to use
- Real time monitoring of Wrist Straps
- Real time monotoring of groudning



Specifications:

- Input Voltage : 6 ~ 12 VDC
- Working Current : <50mA (12VDC)
- Weight (approx.) : 50 grams
- Dimensions (approx.) : 75Lx46Wx27H mm

LED	Value
OK (Green)	825KΩ ~ 9MΩ
Fail (Red)	11MΩ and above
Fail (Red)	765KΩ and below

Scope of Supply:

- Wrist Strap Monitor
- Grounding Cord
- Power Supply Adaptor (DC 6-12V)

ESD Audit Test Kit P/N: 499ZC
Heavy Hammer type for surface impedance

Features:

- Testing by putting on the surface to be tested
- Testing voltage switches automatically
- Various testing modes can meet different testing requirement.
- LCD display, easy to read.
- Chargeable battery (via USB Adaptor)

Specifications:

Measurement Range	$10^{2.5}$ ~ $10^{13.5}$ Ohm
Testing Modes	Standard surface impedance test mode ESD material and ground terminal test mode IEC specified heavy hammer test mode
Power Supply	3.7V chargeable battery (standard USB or adapter)
LCD Display	Test result displayed in digital form Test time display, Battery display
Testing Time	15s/30s/60s
Testing Voltage	Automatic switches 1-$10_{2.5}$-10_{6} Ohm 10V, 10mA max 2-10^{6}-$10^{13.5}$ Ohm 100V, 1mA max
Resolution	0.1 digit
Accuracy	±0.5 digit
Dimensions	114(L)×78(W)×69(H)mm (approx.)
Weight	5kg (Including battery) (approx.)

This kit is designed to take measurements in accordance with the test methods in:

- Floors - ANSI/ESD S7.1
  Resistive Characterization
  Floor Materials
- Workstations - ESD-ADV53.1
  ESD Protective Workstations
- Work Surfaces - ANSI/ESD S4.1
  Worksurfaces Compliance Verification
  ESD TR35-Resistance Measurements

Routine ESD Surface Resistivity & Grounding Tester P/N: 499D
Digital Display (not mere LEDs indication as in low priced models)

Surface Impedance Tester is used for measuring the surface coefficient and grounding resistance of objects, as well as the antistatic and insulating material.

Specifications:

Test range	: 10^{3} ~$10^{12}\Omega$
Power	: 9V battery
Resolution ratio	: 0.1 order of magnitude
Precision	: ±10%
Condition	: 0°C ~ 49°C, RH 0%–80%
Size	: 130(L)×72(W)×35(H)mm (approx.)
Weight	: about 170 g (battery included)

Electrods on the back side

Digital display readout

Test Results reading

X.X E XX display means X.X raise to the power 10 (10^{xx})
Example: If display shows 9.5E10, it means 9.5*$10^{10}\Omega$ = 95GΩ

Interpretation of Digital Display

bL --- It needs Battery replacement.
CE --- It means Calibration Error, needs re-calibration.
Lr --- Test resistance is less than 300Ω (3*$10^{2}\Omega$).
Hr --- Test resistance is more than 3TΩ (3*$10^{12}\Omega$).