

# **Instruction Manual**

# ESD Wrist Strap And Footwear Tester

(WST1, WST2, WST3)



Registered at Cardiff No. 2933918
Registered Office: Bondline Electronics, Unit 4,
Rivermead Industrial Estate, Rivermead Drive,
Swindon, Wiltshire, SN5 7EX



#### Introduction

Thank you for purchasing an ESD Wrist Strap / Footwear Tester (WST1 / WST2 / WST3). Please read this instruction manual in great detail before operating the device. Keep this manual readily accessible for later reference.

## **Description**

**WST-1** - Portable instrument for checking the continuity of fitted wrist-strap and cord. The unit has a banana socket and 10mm stud. Standard Wrist-Strap Tester has a single test range 0.75 meg-ohm to 35 meg-ohm (other resistance ranges available on request). A 9V battery is required. The instrument has a green light for pass (i.e. resistance between 0.75 meg-ohm and 35 meg-ohm) and 2 red lights which indicate either high resistance fail or low resistance fail. A buzzer sounds in any fail situation. Very easy to use. Manufactured in the United Kingdom.

**WST-2** - Wall mounted unit for checking the continuity of fitted wrist-strap and cord. The WST2 unit is supplied with the WST1 meter, wall mounting board, 6 inch cord (0 meg ohm) and 9V battery. Manufactured in the United Kingdom.

**WST-3** - ESD Footwear / Wrist Strap Test Station (WST3) is the full station, supplied with a WST1 meter, wall mounting board, 6 inch cord (0 meg ohm), 6ft cord (0 meg ohm), footplate and 9V battery. This unit checks the continuity of fitted anti-static wrist-straps and cords, fitted shoes, heel straps or toe grounders. The WST1 meter has a banana socket and 10mm stud. The unit has a single test range of 0.75 meg-ohm to 35 meg-ohm, meeting the IEC 61340-5-1 specification (other resistance ranges available on request).



ESD Wrist Strap Tester (WST-1)



**ESD Wrist Strap Test Station**(WST-2)



ESD Footwear / Wrist Strap Test Station (WST-3)



# **Specifications**

ovolt PP3 alkaline battery
Operating - 5°C to 49°C (40°F to 120°F) Storage -15°C to +60°C
Nominal 9 volts-stepped to 100 volts
Pass Between 750K $\Omega$ and 35M $\Omega$ Fail <750K $\Omega$ and > 35M $\Omega$
0% to 90% (non-condensing)
-/- 10%
-/- 10%
50g
30mm x 70mm x 25mm
every 12 months by manufacturer

# **Setting Up**

#### **WST-1:**

- **1)** Remove the battery cover and connect the supplied battery.
- **2)** Replace the battery cover.

#### WST-2:

- **1)** Remove the battery cover and connect the supplied battery.
- 2) Replace the battery cover.
- **3)** Place the meter in the bracket on the wall plate.
- **4)** Connect the meter via short lead from the banana socket on the meter to the 10mm stud on the wall plate bracket.

#### **WST-3**:

- 1) Install the WST as per WST-2 instructions above.
- 2) Using the longer lead, connect the footplate from the stud on the footplate to the wall plate bracket.



## **Operation**

#### WST-1 and WST-2:

- 1) Ensure that your wrist strap is in good condition and correctly adjusted for your wrist.
- **2)** Connect your wrist strap cord to the WST, either directly, or if fitted, to the wall plate.
- **3)** Make finger contact with the stainless steel push button and press firmly. A green LED will illuminate to indicate a PASS. If the resistance through the coil cord, wrist band and operator exceeds  $35M\Omega$  the "HIGH FAIL" red LED will light and a buzzer will sound. If the resistance through the coil cord, wrist band and operator is below  $750K\Omega$  the "LOW FAIL" red LED will light and a buzzer will sound. If the 9 volt PP3 battery falls below 6.5 volts during test the yellow battery low LED will light.

#### **WST-3:**

- 1) Test wrist straps as per above instructions.
- 2) To test footwear, ensure that your wrist strap has been disconnected.
- 3) Ensure that your footwear or foot grounding device is correctly fitted.
- **4)** Place one foot onto the footplate and make finger contact with the stainless steel push button and press firmly. A green LED will illuminate to indicate a PASS. If the resistance through the footwear and operator exceeds  $35M\Omega$  the "HIGH FAIL" red LED will light and a buzzer will sound. If the resistance through the footwear and operator is below  $750K\Omega$  the "LOW FAIL" red LED will light and a buzzer will sound. If the 9 volt PP3 battery falls below 6.5 volts during test the yellow battery low LED will light.
- **5)** Repeat for the other foot.