

# **SURFACE RESISTIVITY CHECKER**

## **RS392-113**

### Surface Resistivity Operation

Remove the end panel and connect a good battery of the PP3 Alkaline type (supplied). Suitable replacement battery RS stock number 591-792.

Ensure that the earth lead is not plugged into the earth leakage socket.

Place the meter onto the surface that requires testing, press and hold the green TEST button. The LED that illuminates in a steady state is the decade measured. If, for example,  $10^6$  is lit, this means that the measurement is between  $5 \times 10^5$  and  $5 \times 10^6$  ohms per square.

If the LED labelled  $10^3$  is lit, the surface under test has a surface resistivity of  $10^3$  ohms per square or less. If the INSULATIVE LED is lit, the surface under test has a surface resistivity of  $10^{13}$  ohms per square or greater.

If two LEDs flicker permanently when measuring, this indicates that the measurement is between decade changeovers.

DO NOT SCRUB the meter on the surface to try and get better contact, as this may damage the sensitive bar electrodes.

### Resistance to Ground Operation

Push the jack plug fully into the earth leakage socket and connect the other end of the lead (crocodile clip) to your ground connection.

Place the meter onto the surface to be tested, press and hold the green TEST button. The LED which illuminates is your measurement as described above. The measurement will be resistance to ground in ohms instead of surface resistivity in ohms per square.

If two LEDs flicker permanently when measuring, this indicates that the measurement is between decade changeovers.

DO NOT SCRUB the meter on the surface to try and get better contact, as this may damage the sensitive bar electrodes.

### Battery Test

Hold the meter in the air so that the parallel bar electrodes are not in contact with any surface. The INSULATIVE LED should light if the battery has enough life to make good measurements. If no LEDs are lit or the INSULATIVE LED is only dimly lit, replace the battery. If any other LEDs are lit, clean the space between the parallel bar electrodes with isopropyl alcohol and re-check.

### Calibration

The meter should be calibrated, on average every 12 months. A test resistance can be put across the parallel bars to verify if it is within specification.

### Specifications

Dimensions:	130mm x 70mm x 25mm
Operation:	One 9 volt PP3 Alkaline battery giving over 40 hours of use
Test Voltage:	9 volts
Range:	$10^3$ to $10^{12}$ ohms per square
Accuracy:	+ or - 1/2 decade
Changeover point accuracy:	+ or - 10%
Readings less than $10^3$	light the $10^3$ LED
Readings greater than $10^{12}$	light the INSULATIVE LED.