

## MIT510

# 5 kV Insulation Resistance Tester



- Mains or battery powered
- Digital/Analogue backlit display
- Selectable test voltage from 500 to 5000V
- Automatic IR test
- Measures to 15 TΩ
- Complete with calibration certificate

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### DESCRIPTION

The new 5 kV insulation resistance testers from Megger are designed specifically to assist you with the testing and maintenance of high voltage electrical equipment. The case is incredibly rugged and easy to carry, being made of tough polypropylene and achieving an ingress protection rating of IP54. In addition, the model number is marked on both the top and side of the case for ease of identification in stores or vehicles.

The instrument has a large easy to read backlit LCD display making it equally suitable for use in both bright sunlight and poorly lit environments. Information displayed includes resistance, voltage, leakage current, capacitance, battery status and time constant. In addition, the elapsed time of the test is displayed constantly removing the need for separate timers.

The instrument can test when being powered by the mains or its internal rechargeable battery, a great benefit when site conditions are unknown or long term testing is required.

The controls of the instrument are clear and unambiguous and a "quick start" guide is included in the lid of the instrument removing the need to carry bulky manuals under site conditions.

The instrument is fitted with a guard terminal to enhance accuracy. The guard test lead is included as standard with the instrument.

To further enhance the flexibility of the instrument the MIT510 has the facility to set the test voltage in steps from 500 V to 5000 V avoiding the expense of several insulation resistance testers to meet your application needs.

The IR tester is designed to meet the highest safety standards and meets the requirements of EN61010. In addition, the instrument measures the voltage at the terminals and if this is above 50V then the instrument will display the high voltage warning and inhibit testing. At the end of the test the instrument will automatically discharge the energy transferred to the equipment during the test phase.

**ELECTRICAL SPECIFICATIONS****Voltage input range:**

85-260 V, 50/60Hz

**Battery life:**

8 hours continuous testing at 5 kV

**Test voltages:**

500 V, 1000 V, 2500 V, 5000 V

**Accuracy (23°C):**

±5% to 100 GΩ

±10% to 15 TΩ

**Display range:**

Digital display 10 kΩ to 15 TΩ

Analogue display 100 kΩ to 1 TΩ

**Short circuit/charge current:**

3 mA

**Capacitor charge time:**

≤5 seconds per μF at 3 mA

**Capacitor discharge time:**

≤5 seconds per μF to discharge from 5000 V to 50 V

**Capacitance measurement:**

1nF to 50 μF (measured with test voltage ≥ 500 V)

**Capacitance measurement accuracy (23°C):**

±5% ±5 nF

**Voltage output accuracy (0°C to 30°C):**

±2% ±1 V of nominal test voltage at 100 MΩ load

±25 V for test voltages less than 500 V

**Current measurement range:**

±0.01 nA to ±5 mA

**Current measurement accuracy (23°C):**

±5% ±0.2 nA at all voltages

**Display:**

Analogue/Digital 3 digits

**Interference rejection:**

1mA rms per kV test voltage, 2 mA rms maximum

**Timer range:**

Up to 99 minutes

**Test regimes**

Auto IR

Three leads with compact clamp, flexible silicon insulated.

**Environmental****Operating temperature:**

-10°C to 55°C

**Storage temperature:**

-20°C to 70°C

**Ingress protection (lid closed):**

IP54

**Humidity:**

90% RH non-condensing at 40°C

**ORDERING INFORMATION**

Item (Qty)	Order Code
5kV insulation resistance tester	MIT510
<b>Included Accessories</b>	
3m lead set	8101-180
User guide on CD-ROM	
<b>Optional Accessories</b>	
3m lead set with straight jaw clamps	