

# Megger

## TRANSCAT

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### Description

If you need simple, no fuss electrical testers that are tough, reliable and easy to use, the new Megger Electrician's test range provide the answers. Available in separate instruments, the series consists of the:

- **MIT300 range** - Insulation and continuity
- **LT300 range** - Loop testing
- **RCDT300 range** - RCD testing

Between them they meet all the requirements of modern electrical testing.

### MIT300 series features:

#### Digital or Analogue

The MIT300, MIT310 and MIT320 all feature the established Megger Digital/Analogue LCD display. Large 20mm high characters provide very clear readout, combined with an analogue arc for the 'feeling' of an analogue instrument, with a true analogue response.

Alternatively, the MIT310A has a moving coil display for those that prefer a real moving needle. Black decals on a white background give high contrast, even in poor light conditions.

**Tough:** - Made from rubber armoured and reinforced polypropylene, the MIT insulation testers are designed to take the typical abuse instruments can receive in the course of a days work. A self contained display cover locks away underneath the instrument during use. The cover simply folds out and snaps down to protect the display when not in use.

**Simple to use:**-No buried functions means the instruments are intuitive to use and remember. Colour coded ranges help in test range selection, with more features on the top range instruments to reduce testing times and help with fault location. A user guide in the instrument lid provides all the basic information required for simple operation.

## Electricians Testers MIT 300 series Insulation and continuity testers

- Tough rubber armoured case
- 250V 500V and 1000V
- Extremely easy to use
- Self contained protective Cover
- Live circuit warning
- Weatherproof to IP54
- Intelligent Safety System for protection.

**Hands free use:**- the instruments are carefully designed to hang comfortably around the neck for hands-free, or for bench use. Continuity and buzzer testing starts automatically on connection to the circuit. Insulation tests being started by pressing the test button on the instrument or on the switch probe.

**Backlighting:**- the MIT 320 has not only a backlit display, but also backlit ranges. These ensure not only the display can be read in the dark but also the range being selected.

**Safety features:**- The MIT series all have an extensive range of safety features to protect the user and the instrument from damage through incorrect use:

#### Test Lead connection -

- **Safety Interlock** – prevents unsafe connection of test leads
- **Intelligent Safety System** - Even if the MIT is connected to a live circuit whilst on continuity setting the tester will remain safe and not be damaged.
- **Live voltage warning** – alerts the operator when a circuit voltage over 25V exists when insulation testing.
- **Safety lockout** - Prevents the test from operating when the circuit voltage is > 50V.
- **Continuity check** – prevents a continuity test or buzzer test on a live circuit.

All the MIT instruments meet or exceed the UK and International Wiring Regulations, including requirements of BS7671 and VDE 0413 parts 1 and 4, HD 384, IEC 364, NFC15-100, NEN3140, ES59009 and EN 61557. In addition the range meets the requirements of BSEN 61010-1 for safe connection to a 440V Installation Category III supply (600 V Phase to Earth).

### Applications:

The MIT300 series has applications in all aspects of domestic, commercial and industrial electrical



contracting, building maintenance, testing, inspection and servicing.

Combining both Insulation testing and continuity testing, each instrument caters for all aspects of fixed wiring installations.

Designed for testing un-powered installations, the MIT300 test voltage ranges of 250V, 500V are suitable for extra low voltage applications especially SELV installations and Low voltage installations to 500V respectively. Where required, the 1000V option is available on all other instruments for higher voltage installations.

Any capacitive circuits can be safely tested as after insulation testing the cable is automatically

**Other MIT300 series benefits include:**

## Electricians Testers

discharged to ensure the cable is safe to handle without risk of injury.

Further applications can be found in panel building, testing of motors, generators, switchgear and power tools, street lighting and low volume manufacturing environments etc.

All the MIT300 range meet the relevant requirements of EN61557, BS 7671, HD 384, IEC 364 and VDE 0413, and are supplied with a full 3 years warranty.

	MIT300	MIT310	MIT320	MIT310A Analogue
<b>Insulation testing</b>				
250V	⊕	⊕	⊕	⊕
500V	⊕	⊕	⊕	⊕
1000V		⊕	⊕	⊕
Test range	<b>999MΩ</b>			
Insulation limit alarm (0.01M to 1G )			⊕	
<b>Continuity testing</b>				
Continuity to 100	⊕	⊕	⊕	⊕
Continuity buzzer	⊕	⊕	⊕	⊕
Lead null to 9ohms	⊕	⊕	⊕	<2
Adjustable buzzer 1 to 100			⊕	
Audible buzzer disable			⊕	
<b>Voltage measurement</b>				
Volts AC/DC		600 V	600 V	600V
Backlit display			⊕	
<b>Resistance measurement</b>				
10 to 1M range			⊕	
<b>Features</b>				
Voltage warning	⊕			
Default voltmeter		⊕	⊕	⊕
Backlit display			⊕	
Backlight selector ranges			⊕	
Locking test button	⊕	⊕	⊕	⊕
30 minute power-down	⊕	⊕	⊕	
Switched test probe			⊕	
IP54 weatherproof		⊕	⊕	⊕
Calibration certificate	⊕	⊕	⊕	⊕
3 years warranty	⊕	⊕	⊕	⊕

## SPECIFICATIONS

### Insulation ranges

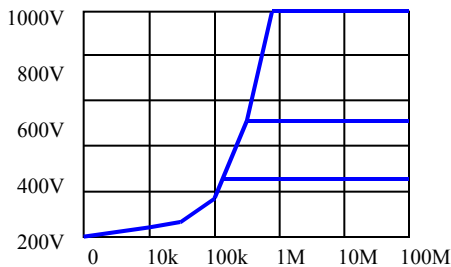
**Nominal Test Voltage** (d.c.) 1000V, 500 V, 250 V

**Measuring Range**  
All instruments 10k - 999 M on all ranges

**Short Circuit Current Test Current on Load**  
1 mA nominal  
1 mA at min. pass values of insulation (as specified in BS 7671, HD 384 and IEC 364)

**Accuracy (at 20° C)**  
MIT300, 310, 320, 330 ±3%, ±2 digits  
MIT310A <2.5% of scale length (or 30% of reading 200kohm to 10Megohms)

### Terminal characteristics



### Continuity ranges

**Measuring Range:** 0,01 - 99,9  
(0 -50 on analogue scale)

**Open Circuit Voltage:** 5 V ± 1 V  
**Short Circuit Current:** 205 mA, ± 5 mA

**Accuracy (at 20° C)**  
MIT300, 310, 320 ±3% ±2 digits  
MIT310A +/- 2.5% of scale length (or 30% of reading 0.2 ohm to 200 ohms)

**Zero Offset Adjust:**  
MIT300, 310,320 0 - 9  
MIT310A 0-2

**Continuity Buzzer**  
MIT300, 310 Operates at < 5 .  
MIT320 Adjustable 1 to 20  
MIT310A Operates at < 2 .  
Response time <50ms

### Resistance range MIT 320 only

(can be used for diode testing)

**Measuring Range:** 10 - 1M  
**Open Circuit Voltage:** 5 V  
**Short Circuit Current:** 200 µA,  
**Accuracy (at 20° C):** ±5% ±2 digits up to 100k

## Electricians Testers

### Voltage range

**Measuring Range** 0 - 600 V a.c. (50/60 Hz) or d.c.

**Accuracy (at 20° C)**  
MIT300, 310, 320

<450 V d.c. or a.c. (50/60 Hz): ± 1%, ± 2 digits  
>450 V d.c. or a.c. (50/60 Hz): ± 2%, ± 2 digits

MIT310A

+/- 2.5% of scale length for 50/60Hz

**Temperature coefficient** <0,1% per °C on all ranges.

**Default voltmeter** all modes except off  
M310, 320

>25 V a.c. or d.c. is applied display will operate as a voltmeter. Beeps and flash 'V' on the display

M300

**Test inhibit** If more than 50 volts is detected, testing will be inhibited.

### AutoPower Down

Auto power down operates after 30 minutes if left in standby mode.

### Temperature and humidity

**Operating Range** -5°C to +55°C  
**Operating Humidity** 93% R.H. at +40°C max.  
**Storage Range** -25°C to +70°C  
**Environmental Protection** IP54

### Fuses

**Terminals** 500 mA (F) 600 V, 32 x 6 mm  
Ceramic HBC 10 kA minimum.  
Display shows if fuse is ruptured.

### Safety

Meets the requirements of EN61010-1 Cat III 600V phase to earth.

### Automatic discharge

After an insulation test the item under test will be discharged automatically. Any voltage present will be indicated on the display so that the discharge can be monitored.

### Power supply

**Battery** 8 x 1,5 V cells IEC LR6 type(AA alkaline).

Rechargeable NiCd or NiMH cells may be used. Battery condition is constantly shown on the display as a four-section bar-graph.



## Electricians Testers

**Battery Life**

5000 consecutive tests (5 seconds per test) on any test using 2Ah batteries.

**E.m.c**

In accordance with IEC61326 including amendment No.1

**Weight**

All units 980gms

**Dimensions**

All units 190 x 140 x 75 mm

ORDERING INFORMATION				
Item	Description	Order Code	Included Accessories	Order Code
MIT300	250V,500V insulation tester	MIT300-EN	Test lead set and crocodile clips	
MIT310	250V,500V, 1000V insulation tester	MIT310-EN	Test lead set and crocodile clips	
MIT310A	250V,500V,1000V analogue insulation tester	MIT310A-EN	Test lead set and crocodile clips	
MIT320	250V,500V, 1000V insulation tester	MIT320-EN	Test lead set and crocodile clips SP? switched Probe	
Optional Accessories		Order Code		
Fused lead set	2 wire fused probe and clip set			
SP3	Switch probe			
SPL1000	Illuminated switch probe			



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