

Electrical test instruments

Megger[®]
Power on



New products



MFT1741 multifunction installation tester

High-speed loop tester with confidence meter



DCM305E earth leakage and diagnostic clamp

Brings new resolution to solving your RCD and RCBO tripping problems



MIT480/2 series insulation and continuity meter

3-terminal testing simplified with internal switching



AVO800 series multimeters

The multimeters with all the features an electrical contractor would use

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Don't miss out!

You can extend the warranty of many Megger test instruments shown in this catalogue to three years, free of charge, simply by registering the purchase of the product. This is in addition to the free technical support available for the life of your new Megger instrument. Product registration is available either using the Megger web site or the supplied reply paid card.

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Trying to decide which Megger tester is best for you?

Why not call the Megger technical desk? They'll talk through your needs and the way you work and help you make the right decision for your business.

Call
01304 502 102

There's more happening than you think . . .

Electrical testing is one of those areas where nothing much seems to have changed for the last ten or more years. The tests are still the same and, at first glance, we're still using the same sorts of instruments. But dig a little deeper and you'll find the reality is rather different.

While it's true that the basic principles of testing were set many years ago, Megger continues to push forward with innovation in this sector, always with the aim of making life easier, safer and more convenient for its customers.

In 2006, for example, we pioneered two-wire non-trip loop testing which built on existing principles and techniques. And now, with our new MFT1741 multifunction tester, we've introduced an entirely new model for loop impedance testing. This gives faster and more accurate measurements than are possible with current methods, especially when testing on systems with high electrical noise levels or circuits with phantom impedances.

Take a few minutes to look through this catalogue, and you'll find a whole range of other innovations, all developed specifically to help you work more efficiently and more profitably. Maybe not much has changed in recent years with instruments from other suppliers but, at Megger, the innovation never stops!

Power on

Keeping your customers' power on is essential for the success of your business. That is why we are dedicated to creating, reliable, easy-to-use portable test equipment that makes your business more efficient; and backing them up with world-leading support and expertise when you need a helping hand.

We can assist your certification and maintenance testing for predictive, diagnostic or routine purposes. By working closely with electrical contractors, both large and small, standards bodies and scheme providers, we contribute to the dependability and advancement of the electrical installation industry.

Power on with Megger!



Multifunction testers

MFT1701 series

AWARD
WINNING
PRODUCT
OF 2018!

The MFT1701 series is tough, even tougher than its popular predecessor. It won't go bang when connected across phases, when it gets dropped or bounced, when it's used in the rain, when the wrong range is selected or when accidentally connected to live circuits – even with the test locked on!

Dust and rain proof to IP54, the MFT1701 series offers CAT IV safety, meaning that you can use it in any environment without a second thought. To make it more convenient, test buttons are located at either end of the tester meaning you can use the hand that is available to initiate testing, or you can use the CAT IV probe with test button if you prefer.

We have changed the features on each of the testers, introducing useful functions such as Z_{MAX} and Auto RCD on the complete range. Even the carry case has been re-thought; there is now a large soft carry case on the MFT1731. The MFT1711 is the perfect single-phase tester for domestic work while the MFT1721 and MFT1731 are three-phase testers extending the applications in to the commercial and industrial arenas.

With the changing market, and the opportunity that installation of vehicle charging points affords, the MFT1731 now offers a selection of earth electrode tests.

Trade
Tool of The
year at
Electrical
Industry
Awards 2018

Loop testing ranges

- 2 and 3-wire non-trip with resolution of 0.01Ω L-PE
- L-PE 48 V to 280 V, 45 Hz to 65Hz
- High current loop testing L-L and L-N
- L-L 48 V to 480 V, 45 Hz to 65Hz dependant on model
- Tests through 30 mA RCDs
- PFC or PSSC measurement at same time as loop resistance
- Auto-start loop test

RCD testing ranges

- Auto RCD on all testers
- RCD Ramp test to measure exact RCD tripping current
- Type A, AC, B, Selective, programmable and 3-phase RCDs dependant on model
- Auto-start RCD test dependant on model

Continuity and resistance testing range

- 200 mA test with an option of 15 mA on MFT1721, MFT1731 and MFT1741
- Auto-start continuity test
- Easy test lead null – stored even when switched off
- Fast buzzer with adjustable threshold on all testers
- Resistance measurement from 0.01 Ω to 99.9 kΩ

Insulation testing ranges

- 250 V, 500 V and 1000 V on all models and 1100V on MFT1721, MFT1731 and MFT1741
- Test voltage displayed during insulation resistance measurement
- Adjustable buzzer threshold on MFT1721, MFT1731 and MFT1741
- 25 V or 50 V test inhibit option
- Protection against live circuits up to 600 V even when test locked-on

Voltage, phase rotation and frequency test range

- 10 V – 600 V a.c. / d.c. Trms on all models
- Phase rotation on MFT1721, MFT1731 and MFT1741
- Frequency measurement 15 Hz to 400 Hz
- Touch voltage

Large bright dual parameter display

- Displays test voltage at the same time as insulation resistance
- Displays loop resistance and prospective fault current
- Enhanced viewing angle with intelligent backlight

Earth electrode testing on MFT1731 and MFT1741

- Tests unconnected earth electrode resistance - 3-wire test
- Tests with electrode connected to system - ART 3-wire test requires optional MCC1010 clamp
- Stakeless or clamp-on technique – Requires optional MCC1010 and MVC1010 clamps
- 2-wire testing

Communications on MFT1731 and MFT1741

- Bluetooth downloading
- On-board memory
- Cells rechargeable in situ on MFT1731 and MFT1741

Take a closer look

uk.megger.com/MFT1701



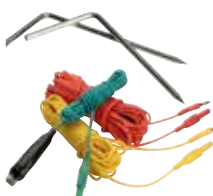
MFT series accessories



1001-991B
3-wire test lead set



1001-975B
3-wire 10 A fused test lead set



1001-810
3-wire earth electrode test set



1002-490B
Red, blue and green probes and clips

		MFT1711	MFT1721	MFT1731	NEW MFT1741
Earth loop impedance ranges	Conventional 3-wire no-trip test L-PE	■	■	■	■
	New algorithm 3-wire no-trip test L-PE				■
	Confidence meter				■
	Tests through 10 mA RCDs				■
	Tests through 30 mA RCDs	■	■	■	■
	2-wire no-trip test L-PE	■	■	■	■
	L-PE 48 V to 280 V, 45 Hz to 65 Hz	■	■	■	■
	2-wire high current test	■	■	■	■
	L-N / L-E 48 V to 280 V, 45 Hz to 65 Hz	■	■	■	■
	L-N / L-E 48 V to 480 V, 45 Hz to 65 Hz		■	■	■
	PSCC or PFC calculations displayed with loop impedance	■	■	■	■
	Up to 20 kA fault current	■	■	■	■
	ZMAX value retained	■	■	■	■
	Calculated R1 + R2		■		
Insulation resistance range	250 V, 500 V and 1 kV test voltages	■	■	■	■
	100 V test voltage		■	■	■
	Applied voltage display	■	■	■	■
	Adjustable buzzer threshold		■	■	■
	Full protection against live circuits	■	■	■	■
Continuity and resistance range	200 mA test current for certification	■	■	■	■
	15 mA test current to prolong battery life		■	■	■
	Auto-start continuity test	■	■	■	■
	Adjustable buzzer threshold	■	■	■	■
Voltage, frequency and phase rotation range	10 V to 600 V AC and DC	■	■	■	■
	True RMS	■	■	■	■
	Frequency 15 Hz to 400 Hz	■	■	■	■
	Phase rotation		■	■	■
RCD testing range	10, 30, 100, 300, 500 mA RCDs	■	■	■	■
	1000 mA RCDs		■	■	■
	1/2 I, I and 5 I tests	■	■	■	■
	0° and 180° phase angle	■	■	■	■
	High speed auto RCD test	■	■	■	■
	Ramp test for RCD fault finding	■	■	■	■
	Type A, type AC and type S RCDs	■	■	■	■
	Programmable RCDs	■		■	■
	Type B (pure DC) RCDs		■	■	■
	3-phase (no earth) RCDs		■	■	■
Earth electrode resistance range	Touch voltage display 0 V to 253V	■	■	■	■
	Stakeless or clamp on testing**			■	■
	3-wire testing for fall of potential or 62% rule			■	■
	Attached rod technique 3-pole testing			■	■
	Option of 25 V and 50 V output			■	■
Intelligent safety system	Ground noise check			■	■
	Test inhibit	■	■	■	■
	Safe contact	■	■	■	■
	Live safety warning	■	■	■	■
Additional benefits	Auto discharge	■	■	■	■
	Analogue arc	■			
	Probe incorporating test button		■	■	■
	Current measurement 0.1 mA to 200 A*		■	■	■
	On-board recharging			■	■
	On-board memory			■	■
	Bluetooth® downloading from memory or blobbing			■	■
	Hard plastic carry case	■	■		
	Large soft carry case			■	■
	Weather and dust proof to IP54	■	■	■	■
	Safety rated to CAT IV 300 V	■	■	■	■
	FREE calibration certificate	■	■	■	■
	1 year warranty, upgradeable to 3 years FREE	■	■	■	■

*Requires optional MCC1010

**Requires optional MCC1010 and MVC1010



Multifunction tester with loop test confidence meter

MFT1741

- Faster, smarter 3-wire non-trip loop testing
- Confidence meter for stable results on noisy 3 wire circuits
- Results unaffected by RCD and RCBO impedance
- Tests through 10 mA RCDs and RCBOs
- 2-wire non-trip loop testing where there is no neutral
- High speed 2-wire high current loop testing for unprotected circuitst
- Insulation testing
- Continuity and resistance measurement
- Phase rotation
- True RMS voltage and frequency measurement
- Single and 3-phase RCD testing
- Earth electrode testing
- Test results storage
- Rechargeable batteries

**AWARD
WINNING
PRODUCT
OF 2018!**

Have renewed confidence in your 3-wire non-trip loop testing. The key differences between MFT1741 and rest of the multifunction tester range is the completely new internal hardware architecture, a unique loop testing algorithm that shows the degree of confidence that can be placed on the results.

When loop testing on a quiet circuit, the MFT1741 quickly returns a provisional reading and an arc is displayed. This very rapidly diminishes to a single element, indicating that the user can be highly confident of the result. The final result is normally available within 8 seconds compared with the standard test time of 15 seconds.

On noisy circuits the tester displays a reading as the arc gradually shrinks. The result can be taken while the meter is in this 'less confident' phase but, given time, the arc will diminish to the single element, high confidence state. If additional noise is detected while the arc is diminishing, it will expand again, indicating increased uncertainty, before reducing to a single element, high confidence state, this is accompanied by a noise symbol appearing on the display.

The results delivered by the MFT1741 are unaffected by any impedance of the RCD or RCBO in the circuit. The likelihood of tripping the RCD or RCBO during test is now all but removed, whilst the meter retains the capability of testing Type AC, Type A and Type B breakers. In addition, the MFT1741 can carry out a no-trip loop test on circuits protected by 10mA RCDs or RCBOs, often seen in special locations, schools and hospitals.

In all other functions and features the MFT1741 is identical to the MFT1731. **See page 5 for features.**



On starting the test the complete arc is shown displaying a lack of confidence in the reading.



The arc diminishes until only one element remains showing high confidence in the result.



As confidence in the reading increases, the arc shrinks unless there is additional electrical noise.



The MFT1741 confidently reports the full result.

**Trade Tool
of The year
at Electrical
Industry
Awards 2018**

**Top
Product
2018 by
Professional
Electrician
& Installer
2018**



Take a closer look

uk.megger.com/MFT1741

Insulation and continuity testers

MIT200 series

MIT220 and MIT230 are two of the smallest insulation testers available

Both products have a combination of digital readout and analogue display, using Megger's patented DART display technology. The display includes a clear, accurate digital readout, and an analogue pointer response for evaluating circuit charge and discharge characteristics.

The tough ABS instrument housing is designed to withstand the rigours of hard use, whilst small enough to drop into your pocket when not in use. In addition, a useful battery status indication is always displayed.

Continuity testing

- Automatic continuity testing is performed at 200 mA to ensure compliance with international requirements. No need to press the test button
- All instruments will measure up to 100 Ω on continuity, of which 0-10 Ω is performed at greater than 200 mA
- Lead null is possible up to 9.99 Ω ensuring the ability to null fused test leads as well as standard leads
- Voltage protection should you touch a live circuit
- Continuity buzzer provides a means of rapid cable testing and circuit identification, with voltage protection should you accidentally touch a live circuit
- The buzzer operates at a 5 Ω threshold
- Insulation testing

MIT200 series accessories



1002-001B
2 wire test lead set



1002-015B
2-wire 500 mA fused test lead set

	MIT220	MIT230
250 V and 500 V test ranges to 1000 M Ω	■	
250 V, 500 V and 1000 V test ranges to 1000 M Ω		■
Continuity (200 mA) measurement	■	■
Voltage detection	■	■
Intelligent safety system	■	■
Fast buzzer range	■	■
Display backlight	■	■
CATIII 600 V	■	■
IEC61010	■	■
Warranty upgradeable to 3 years FREE	■	■

- There is a choice of two or three test voltage ranges providing an ideal solution to most low voltage insulation testing applications
- Insulation measurement up to 1000 M Ω on all ranges
- Auto discharge ensures all circuits are safely discharged after testing
- 1000 V insulation test ranges have a high voltage warning prior to test voltage being applied

Special Features

- Exceptional value for money
- Pocket sized tester
- Live circuit protected



Take a closer look

uk.megger.com/MIT200

Insulation and continuity testers

MIT300 series

The Megger insulation testers are like no other testers you have used

Megger insulation testers are designed to take the knocks that happen when working on site.

They are rubber armoured and have an integral solid lid to protect the display.

The heavy-duty hinge allows the lid to be locked away beneath when in use, making it easy to use and impossible to lose.

And you don't need to pull out the test leads to shut the lid.

The Megger MIT insulation testers are easy to use and quick to learn

There are no buried functions, so it is easy to use these insulation testers.

The colour coding helps test selection, speeding up testing time and helping you identify faults fast.

The quick start guide in the lid keeps all the basic information at hand if you need it.

No need for third hand!

The best place for a test button is on the probe.

By using a switched probe rather than a standard one there is no longer a need to look away from the probe to find the TEST button on the instrument, or use a third hand if both are already holding the probes. Simply press the button already under your finger. Definitely safer and quicker.

These safety features look after you and the tester –

- **Safety interlock to prevent unsafe connection of the test leads**
- **Safe contact detector keeping you and your tester safe during continuity testing if it's accidentally connected to a live circuit**
- **Live voltage warning alerts the user to a circuit voltage over 25 V when insulation testing**
- **Safety lockouts –**
 - Prevents continuity testing on live circuits
 - Prevents insulation testing when circuit voltage is greater than 50 V

Hands free operation

MIT300 series insulation testers are well balanced to hang comfortably around your neck enabling hands free operation when you need it.

The continuity test and buzzer start automatically when you connect to a circuit, saving you time.

Insulation tests can be started using a switched probe or the test button on the front of the tester.

Packed with features

- Thick rubber armoured case
- Clear colour coded selectors
- Large, easy to read display
- Super grip test-leads with lock on croc clips
- Auto-start continuity test
- Tough and easy to use
- Safe
- Weatherproof to IP54
- USB downloading on MIT330



Insulation and continuity testers

Features



Handy neck strap for hands free operation.



Clear range selector for poor light conditions.



Double hinge keeps screen free from scratches or swings under to snap out of sight.



Shutter to prevent hazardous lead combinations.



MIT320 comes with switched probe and calibration certificate

Take a closer look

uk.megger.com/MIT300

MIT series accessories



1002-491B
Red and black probes and clips



1002-001B
2 wire test lead set



1002-015B
2-wire 500 mA fused test lead set



1007-156
Remote switched probe with special plug

		MIT300	MIT310	MIT320	MIT310A Analogue	MIT330
Insulation testing	250 V	■	■	■	■	■
	500 V	■	■	■	■	■
	1000 V		■	■	■	■
	Test range	1000 MΩ	1000 MΩ	1000 MΩ	1000 MΩ	1000 MΩ
Continuity testing	Insulation limit alarm 0.01 MΩ to 999 MΩ			■		■
	Continuity to 100 Ω	■	■	■	■	■
	Continuity buzzer	■	■	■	■	■
	Lead null to 9 Ω	■	■	■	<1/2 Ω	■
	Adjustable buzzer 1 to 100 Ω			■		■
Voltage measurement	Audible buzzer disable			■		■
	Volts AC/DC		600 V	600 V	600 V	600 V
	Resistance measurement			■		■
Features	10 Ω to 1 MΩ range				■	
	10 Ω to 2 KΩ range				■	
	Voltage warning	■				
	Default voltmeter		■	■	■	■
	Backlit display			■		■
	Backlit selector ranges			■		■
	Locking test button	■	■	■	■	■
	Auto power-down	■	■	■		■
	Switched test probe			■		■
	Data storage					■
	Download via USB port					■
	IP54 weatherproof	■	■	■	■	■
	Accepts rechargeable batteries	■	■	■	■	■
	Included accessories					
	2 wire lead set	■	■	■	■	■
	Free calibration certificate	■	■	■		■
	Warranty upgradeable to 3 years FREE	■	■	■	■	■

Insulation and continuity tester for electrical and industrial maintenance

MIT400/2 series



A range of insulation and continuity testers in an ergonomic design with the latest measurement techniques and live circuit protection.

The MIT400/2 series insulation and continuity testers now have faster continuity testing and stabilised insulation test voltages for more accurate and productive installation testing.

Insulation testing has the addition of feedback control to stabilise the test voltage to less than +2% over voltage, for safer and more accurate measurement.

Variable test voltage is also available from 10V to 1000V.

Continuity testing is now fully automatic from 0.01 ohms to 1 MΩ with fast contact detection whilst continuously protecting against accidental contact with live circuits.

The diagnostic insulation tests, such as Polarisation Index and Dielectric Absorption Ratio, offered by the MIT400/2 series allow trending of the performance of motors. This makes it ideal for the engineer working in the industrial maintenance sector who needs to plan maintenance or some more solid evidence when taking a motor out of service.

Features include:

- Designed for the electrical and industrial markets
- Stabilised insulation test to -0% +2% test voltage to minimise installation stress
- Variable insulation test voltage from 10 V to 1000 V
- Single range, faster continuity testing from 0.01 ohm to 1 Mohm
- Insulation testing up to 1000 V and 200 Gohm in a hand held instrument
- Rechargeable options for mains and car charging
- 600 V Trms AC and DC voltage measurement
- Test result storage and Bluetooth® downloading
- Live circuit detection and protection
- CATIV 600 V application and IP54 environmental protection

Take a closer look

uk.megger.com/MIT400-2

Accessories



1002-001B
2 wire test lead set



1007-637
MIT2500 only



1002-015B
2-wire 500 mA fused test lead set



1007-464 Charger kit
MIT430/2 and MIT2500 only

Hand-held insulation and continuity tester for higher voltage applications

MIT2500

The MIT2500 is the smallest 2500V hand held insulation tester on the market.

Additional "Variable Voltage" allows any voltage from 50 V to 2500 V to be selected.

Output voltage is stabilised to -0% +2% for accurate test measurement without risking over-voltage on the circuit.

Complete with Polarisation Index (PI) and Dielectric Absorption Ratio (DAR) testing, test result storage and downloading.



Features include:

- Tough enough for the industrial and electrical maintenance
- Insulation testing up to 2500 V and 200 Gohm in a hand held instrument
- Guard terminal for high insulation resistance accuracy
- Variable insulation test voltage from 50 V to 2500 V
- Stabilised insulation test to -0% +2% test voltage
- Single range, faster continuity testing from 0.01 ohm to 1 Mohm
- Diagnostic testing with Polarisation Index (PI) and Dielectric Absorption Ratio (DAR)
- Rechargeable options for mains and car charging
- Test result storage and Bluetooth® downloading
- Live circuit detection and protection
- CAT IV 600 V application and IP54 environmental protection

Take a closer look

uk.megger.com/MIT2500

		MIT400/2	MIT410/2	MIT420/2	MIT430/2	MIT2500
Insulation test voltages	2.5 kV					■
	250 V , 500 V and 1 kV	■	■	■	■	■
	50 V and 100 V			■	■	■
	Variable from 10 V to 1 kV			■	■	
	Variable from 50 V to 2.5 kV					■
	Insulation resistance to	200 GΩ	200 GΩ	200 GΩ	200 GΩ	200 GΩ
	PI, DAR and timed		■	■	■	■
	Lock on	■	■	■	■	■
	Guard terminal					■
Continuity	0.01 Ω to 1 MΩ	100 Ω	■	■	■	■
	Auto reverse polarity		■	■	■	■
	Test lead null	< 10 Ω	< 10 Ω	< 10 Ω	< 10 Ω	< 10 Ω
Voltage measurement	600 V AC / DC	■	■	■	■	■
	mV AC / DC	■	■	■	■	■
	Frequency measurement		15 - 400 Hz	15 - 400 Hz	15 - 400 Hz	15 - 400 Hz
Capacitance	Capacitance 0.1 nF - 10 μF			■	■	■
Additional benefits	PASS / FAIL limit alarm		■	■	■	■
	Auto power down	■	■	■	■	■
	Can be powered by AA alkaline or NiMH batteries	■	■	■	■	■
	Recharger ready				■	■
	On-board memory			■	■	■
	Bluetooth® downloading and software				■	■
	2-wire silicone lead set	■	■	■	■	3 -wire sets
	Probe incorporating test button		■	■	■	Optional
	Safety	CAT IV 600 V	CAT IV 600 V	CAT IV 600 V	CAT IV 600 V	CAT IV 600 V
	Dust and weather-proof to IP54	■	■	■	■	■
	FREE calibration certificate	■	■	■	■	■
	Warranty upgradeable to 3 years FREE	■	■	■	■	■

2-wire non-tripping loop testers

LTW series

2 wire testing

The loop test is performed with only 2 test leads. This can be either:

- **Phase to Earth**
- **Phase to Neutral**
- **Phase to Phase (depending on model)**

Testing is simple. There is no need for a third wire which could cause confusion in identifying the part of the circuit under test.

Non-trip loop testing

LTW series testers do not trip working RCDs or RCBOs of 30 mA or greater, using the non-trip loop test.

Noise detection on non-trip tests

LTW uses sophisticated noise detection circuitry which continually monitors the supply during a loop test to ensure the accuracy of the result has not been affected by electrical noise from plant and services.

Two operational modes are available:

- a) Performs a 10 second test and if noise is detected a warning is displayed.
- b) Automatically extends a test to improve the accuracy.

High current loop testing

For supplies that are not RCD protected the high current test can be used, as there is no risk of tripping the RCD.



The popular LTW325 comes complete, ready for work

Auto start

An auto-start function will start the test as soon as the circuit voltage is detected, removing the need of a third hand and allowing for much faster testing.

Three-phase safe

The instruments will operate from 50 V phase to earth, up to 440 V phase to phase with the exception of the LTW315 which operates between 110 V and 280 V.

High resolution test

LTW425 offers a high current, high resolution loop test to three decimal places (0.001 Ω).

PFC Display

All instruments can calculate PFC and PSSC up to 20 kA and the LTW425 can calculate up to 40 kA using the 0.001 high current, resolution test range.

Packed with features

- Uses only two wires to loop test
- Will not trip RCDs while loop testing
- Will not take out 6 A MCBs
- Clear easy to read display
- 3-phase safe
- 50 V to 480 V operation
- PFC display
- Stable test results
- USB downloading on LTW335
- Max Z facility, not on LTW315
- Calculated R1 + R2, not on LTW315



Take a closer look

uk.megger.com/LTW300 and
uk.megger.com/LTW400

High current loop tester

LT300

The LT300 offers high current loop testing over a wide range of frequencies and supply voltages with simple, fast, two wire operation making it ideal for use on generator supplies.

Frequency range

Supply frequency is indicated upon connection and the LT300 will automatically set to the supply frequency either 16 Hz, 33 Hz, 50/60 Hz, 125 Hz or 400 Hz. Testing will commence automatically.

Loop measurement

Two loop impedance ranges are provided.

20 Ω - Resolution to 0.01 Ω

200 Ω - Resolution to 0.1 Ω

Supply voltage

Operational supply range extends from 50 V to 550 V

(400 V @ 16 Hz), with a warning for voltages over 330 V highlighting accidental phase to phase connections on a nominal 230 V system.

Take a closer look

uk.megger.com/LT300

Special features

- High current loop testing
- Wide range of frequencies
- Wide range of supply voltages
- CATIV 300 V

LT300 series accessories



1003-132B
2 wire test lead set



1004-323B
UK mains test lead set



1001-977B
2-wire 10 A fused test lead set

		LTW315	LTW325	LTW335	LTW425	LT300
Loop testing	2-wire non-tripping loop testing	■	■	■	■	
	2-wire high current, fast, loop testing	■	■	■	■	■
	Operating range 110 V to 280 V	■	■	■	■	■
	Operating range 50 V to 440 V		■	■	■	■
	Operating range 50 V to 550 V					■
	Phase to phase testing		■	■	■	■
	PFC range 20 kA	■	■	■	■	■
	PFC range 40 kA				■	
	Resolution 0.01 ohm	■	■	■	■	■
	Resolution 0.001 ohm				■	
	Automatic noise detection	■	■	■	■	
	Automatic test start	■	■	■	■	■
	Frequency measurement	■	■	■	■	■
	16 Hz to 400 Hz operation					■
	Max Zs display		■	■	■	
	Calculated R1 + R2 display		■	■	■	
Features	Back lit display	■	■	■	■	
	Built-in fold away cover	■	■	■	■	■
	Quick start guide in cover	■	■	■	■	■
	Test result storage			■		
	Downloading of test results			■		
Included accessories	Accepts rechargeable batteries	■	■	■	■	■
	Storage and carry case	■	■	■	■	■
	2-wire lead set complete with crock clips	■	■	■	■	Optional
	Mains socket lead set	■	■	■	■	Optional
	Free calibration certificate	■	■	■	■	
Standards	IEC61010-1 CATIV 300 V	■	■	■	■	■
	EN61557	■	■	■	■	■
	Weather- and dust-proof to IP54	■	■	■	■	■
	Warranty upgradeable to 3 years FREE	■	■	■	■	■

1000 A loop impedance meter

NIM1000

With a selectable test current up to 1000 A, the NIM1000 at last provides the commissioning engineer with the ability to accurately measure the loop impedance of a circuit, even close to the source of supply.

The impedance meter triggers load-sensitive as well as neutral faults, allowing detection of weak contacts and other hidden flaws. Depending on the earthing conditions of the test grid, it is possible to carry out multi-phase measurements to calculate the impedance of the neutral conductor to detect defects that can cause severe safety issues.

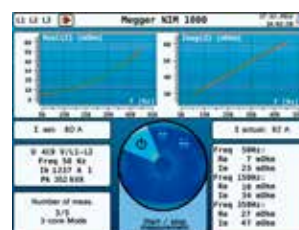
Given the complexity of the measurements the NIM1000 is capable of taking, it remains a versatile, easy to use device, measuring current capacity under real-life conditions, determining voltage dips from given loads and performing tests on cables, supply lines as well as bus bars. It can be used to confirm design parameters when commissioning as well as a routine preventative maintenance tool.



Features

- Automatic single and three phase testing
- High resolution to 0.001 Ω for loop testing close to transformer CATIV systems
- Absolute impedance measurement or separate Resistance and Reactance
- Measures both phase and neutral conductors – up to the 10th harmonic
- Variable test current up to 1000 Amps
- Result storage and download to USB stick
- Simple to operate with numerical and graphical results on a colour display

Test current	80 A to 1000 A (input voltage dependant)	≥ 1000 A at 400 V ≥ 600 A at 230 V
Operational accuracy	3% \pm 1 digit (at sufficient test current)	Between 10 m Ω and 5 Ω
Test parameters	Z	Impedance (value and phase)
	R	Resistance (real part)
	X	Reactance (imaginary part)
	Z _{PEN}	Impedance value PEN (calculated)
	U _{rms}	RMS voltage
	I _{max}	Maximum test current
	I _s	Short circuit current
	S _{kv}	Continuous short circuit power
	f	Network frequency
	V _D	Voltage drop at nominal connected power (in %)
	P _{max}	Maximum connected power at nominal voltage drop
		Z, R, X and Z _{PEN} are displayed for the power frequency up to the 10th harmonic (phase-N, phase-phase)
Safety rating	CAT IV 300 V	
Dust and weather proof	IP53	



The NIM1000 gives a clear display of the real (Re) and imaginary (Im) components of the measured loop impedance.

Take a closer look

uk.megger.com/NIM1000

Combined loop and RCD testers

LRCD200 series

The LRCD200 series is a combined non-tripping loop test and RCD test instruments. It provides simple, affordable and flexible test tools for electrical contractors testing energised circuits. The instruments are supplied with a full Megger calibration certificate.

Both LRCD210 and LRCD220 testers offer

Loop testing

- Non-tripping 3 wire low current loop test provides measurements from 0.01 Ω to 2 k Ω
- RCDs and RCBOs rated at 30 mA or less are not tripped when loop impedance testing
- High current 2-wire fast loop test (LRCD220 only)
- 415 V Phase to phase loop measurement (LRCD220 only)
- Auto-ranging tests
- PFC button shows calculated PFC/PSCC result without re-testing
- Supply voltage displayed on connection to circuit
- Supply frequency measurement

RCD testing

- 10 mA to 500 mA RCD testing, 1000 mA on LRCD220
- 1/2 I, 1 x I, 5 x I RCD test
- Tests Type A, A Selective, Type AC & AC Selective
- 0°/180° selection
- Ramp testing
- 25 V or 50 V Touch voltage selection
- Optional Touch voltage display

Features

- Safety interlock to prevent unsafe connection of the test leads
- PFC calculation and display
- 3 phase safe – even when connected across phases, both you and the tester will remain safe
- Touch voltage limits and indication

Take a closer look

uk.megger.com/LRCD200

LRCD series accessories



1001-883
3-wire in to 1 plug test lead set



1001-977B
2-wire 10 A fused test lead set



6231-601
UK mains test lead set



1003-132B
2 wire test lead set

	LRCD210	LRCD220
Loop test		
Non tripping loop test	■	■
PFC calculation and display	■	■
Single phase testing	■	■
Phase to phase testing		■
High current loop test		■
3 phase safe	■	■
Voltmeter	■	■
RCD test		
1/2 x I test	■	■
1 x I test	■	■
5 x I test	■	■
Touch / contact voltage display	■	■
Selectable 25/50 V touch voltage	■	■
10, 30, 100, 300, 500 mA ranges	■	■
1000 mA		■
A, A selective, AC and AC selective	■	■
RCD test		
Automatic RCD testing		■
Selectable phase 0/180	■	■
Ramp test (20 % to 110 %)	■	■
Other features		
Frequency	■	■
Phase rotation		■
Backlight		■
Working voltage 230 V	■	■
Working voltage 110 V and 230 V		■
Free calibration certificate	■	■
Dust and weather proof to IP54	■	■
Warranty upgradeable to 3 years FREE	■	■



RCD testers

RCDT300 series

The Megger RCD testers provide the full solution to RCD testing

The RCDT tests not only Type A and Type AC RCDs, but also the selective (time-delayed) variants of both types, performing 1/2I, 1I and 5I tests on RCDs rated at 30 mA, 100 mA, 300 mA and 500 mA tested at 0° or 180°.

The RCDT320 offers additional tests for RCDs rated at 10 mA and 1000 mA.

Touch voltage is measured at the start of a test, and will automatically inhibit if it exceeds the preset level.

Touch voltage inhibit is selectable from 25 V to 50 V.

Save your valuable time

RCDT320 offers additional time saving features.

Auto RCD testing – RCDT320 will automatically cycle through the 1/2I, 1I and 5I tests at 0° or 180° recording the results, so you can stay with and reset the RCD. This means the job gets done faster, saving not only your time but your legs as well!

Ramp testing to measure the trip current of an RCD – the test current is slowly increased from 1/2I to 1I+10%. The trip current is held on the display, making it quicker and easier to diagnose nuisance tripping.

RCDs on 110 V (55 V - 0 - 55 V) centre tapped site supplies can be tested by the Megger RCDT320 due to its wide operating voltage range of 50 V to 280 V.

Your safety is Megger's number one concern

These RCD testers have built in safety features to look after you and the tester –

- **Safety interlock to prevent unsafe connection of the test leads**
- **Test inhibit, if the supply voltage exceeds 280 V**
- **3 phase safe – even when connected across phases, both you and the tester will remain safe**
- **LED connection indicators display correct test lead connection, making sure it is right first time**

Megger RCD testers are so easy to use and quick to learn

- **There are no buried functions, so they are easy to use**
- **Ramp test to quickly identify over-sensitive RCDs**
- **The quick start guide in the lid keeps all the basic information at hand when you need it**

Megger RCD testers will take the bashing that testers receive when they are on site

They are rubber armoured and have an integral solid lid to cover the display.

The lid has a heavy-duty hinge that locks away underneath when in use, making it easy to use and impossible to lose.

And you don't need to pull out the test leads to shut the lid.

Special features

- **Thick rubber armoured case**
- **Clear LED polarity indicator**
- **Large, easy to read display**
- **Super grip test-leads with lock on croc clips**
- **Tough**
- **Easy to use**
- **Safe**
- **Weatherproof to IP54**
- **Hands free auto-RCD testing**
- **USB downloading on RCDT330**



RCD testers

RCDT300 series accessories



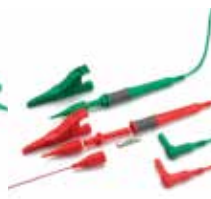
1003-132B
2 wire test lead set



6231-601
UK mains test lead



1002-490B
Red, blue and green
probes and clips



1001-977B 2-wire 10 A
fused test lead set

Use the 'ramp test'

Use the 'ramp test' to identify nuisance tripping RCDs.

An overly current sensitive or faulty RCD can cause nuisance tripping of the RCD, which can be very difficult to locate. By testing with a ramp test, the test current is slowly increased until the RCD trips. The tester displays the trip current in milliamps (not the trip time). If this is too low, replace the RCD.



RCDT testers come complete with calibration certificate in a tough carry case

Features



Heavy duty hinge locks away underneath



Clear range selector for poor light conditions



Clear LED polarity indicators help you get the right wiring and test lead connection



Shutter mechanism makes it easy to use the right leads

Take a closer look

uk.megger.com/RCDT300



		RCDT310	RCDT320	RCDT330
RCD testing	1/2I, 1I, 5I RCD trip time test	■	■	■
	Selective breakers	■	■	■
	Type A and AC breakers (1/2I, 1I, 5I)	■	■	■
	Programmable RCD			■
	30, 100, 300, 500 mA RCDs	■	■	■
	10, 1000 mA RCDs		■	■
	RCD trip current test (RAMP)		■	■
	Auto RCD test		■	■
	0°/180° polarity selection	■	■	■
	Touch voltage selectable	■	■	■
	Max touch voltage (25 V/50 V)	■	■	■
	Operating range 100 to 280 V	■		
	Operating range 50 to 280 V		■	■
	3-Phase safe	■	■	■
Features	Large clear display	■	■	■
	Backlight		■	■
	Battery status indication	■	■	■
	Auto power down	■	■	■
	Fuse blown indication	■	■	■
	Data storage			■
	Download via USB port			■
	IP54 weatherproof	■	■	■
	IEC61010-1 CATIII 300 V	■	■	■
	EN61557	■	■	■
	Accessories included	■	■	■
	UK mains test lead	■	■	■
	2 wire test lead with probes and clips	■	■	■
	Warranty upgradeable to 3 years FREE	■	■	■
	Free calibration certificate	■	■	■

Accessories

Volt finder with torch

VF2 and VF3

VF2 offers a simple means of identifying live conductors, and blown fuses, combined with a bright torch.

VF3 offers a more accurate sensor and an even brighter torch.



Voltage tester

TPT320

The TPT320 features LED and LCD displays that provide both AC and DC voltage measurement from 12 to 690 volts and a continuity buzzer operating between 0 to 500 kOhm.

Designed to be used on RCD and RCBO protected circuits without causing tripping, the unit also has the ability to indicate phase rotation, has an audible sounder to confirm continuity as well as the presence of voltage. With a built-in high power LED torch, IP64 case and CAT IV 600 V safety rating, the TPT320 is the ideal site tool to conform with

current safe isolation procedures. An additional safety feature is the ability to indicate the presence of voltage even in the event of the internal battery being exhausted.



Features

- AC / DC voltage from 12 to 690 V
- Continuity
- Phase rotation
- LCD / LED display
- CAT IV 600 V rating

Proving unit

MPU690

Good practice demands that a two-pole tester is proved on a known live source or proving unit both before and after use.

The Megger MPU690 is a convenient method to prove the safe operation of all two-pole testers and Drummond test lamps.

- Capable of testing two-pole voltage detectors and test lamps due to 10 W output
- Step voltage LEDs indicate voltage being generated. 50 V, 100 V, 230 V, 400 V and 690 V

- Generates a.c. waveform for a true test
- Compact design that has an integral magnet for attaching to the cabinet encourages routine safety checks



Socket tester

MST210

Simple and effective means of identifying faulty wiring of sockets using 2 green and 1 red LED for fault diagnosis. MST210 is tough and reliable and identifies 17 missing wire and wrong connection combinations.

To take a closer look at these products

uk.megger.com/VF3

uk.megger.com/TPT320

uk.megger.com/MPU690

uk.megger.com/MST210



Accessories

Phase sequence indicator

PSI410



Commercial and industrial installations often require working on motors with three phase supplies. Correct sequence of the phases is important as damage to brakes and valves will occur rapidly if incorrect phased.

PSI410 phase rotation indicator provides indication of correct phase sequence using a three bicoloured LED display and a specific audible tone. Clockwise rotation is indicated by clockwise rotating green LEDs with a continuous tone and counter clockwise rotation has counter-clockwise rotating red LEDs and a warbling tone.

Dual phase colour coding has been adopted for the PSI410 to allow ease of use on both Brown / Black / Grey and Red / Yellow / Blue colour coded supplies.

Features

- LED clockwise and counter clockwise phase rotation indication
- Audible indication of direction
- Phase connection condition LEDs
- Fused test leads
- Dual phase colour identification
- CAT IV 600 V
- Warranty upgradeable to 3 years FREE

The PSI410 indicates that all three phases are present.

A green LED indicates the phase is present while a red LED shows a missing phase connection. The unit is tough and is supplied with long fused test leads with croc-clips and prods.

Take a closer look

uk.megger.com/PSI410

Socket interface adaptor

SIA10

Sometimes known as a breakout lead, the SIA10 allows sockets to be tested without disassembly.

- Prevents damage to connections and leaves decoration intact
- Colour coded for simplicity of use
- Makes testing easy where access to socket is limited
- Remains safe if left inadvertently connected to live supply



Learn more

uk.megger.com/SIA10

Extension test lead

XTL30 and XTL50

In 30 metre and 50 metre versions

- Suitable for direct R2 measurements
- Easy to re-wind cable with tangle-free cable guide
- Compact and light design

Compact extension test lead for direct R2 measurements so eliminating the need for crossover connections. The furthest point in the circuit can be easily verified, and every earth point on the circuit checked for integrity prior to energising.



For more information go to

uk.megger.com/XTL30_XTL50

1500 A TRMS AC / DC clamp multimeter

DCM1500

- DC and AC current measurement up to 1500 A
- True RMS measurement for greater accuracy
- Large jaw size improves safety when working with uninsulated conductors
- 750 V AC and 1000 V DC
- Resistance, continuity and frequency measurement
- Peak, minimum, maximum and data-hold functions

The DCM1500 is the perfect clamp multimeter for electrical engineers working in the industrial, solar and power sectors. It is supplied ready for use with a pouch and test leads.



Find out more go to
uk.megger.com/DCM1500

600 A AC / DC, 600 V AC / DC clamp multimeter

DCM340

- AC / DC current range
- Frequency counter
- Analogue bar graph
- Back light
- Large jaws
- Auto off to conserve batteries

The DCM340 is an AC and DC current clamp and multimeter that offers exceptional value and is particularly suited to solar PV commissioning. It is supplied complete with test leads, batteries, user guide and carry case.



Find out more go to
uk.megger.com/DCM340

200 A AC open jaw clamp multimeter

DCM330

- 200 A AC open-jaw current measurement
- 0.1 V to 1000 V auto-ranging AC and DC voltage measurement
- 0.1 Ω to 20.00 M Ω Resistance range
- Continuity buzzer and diode check
- Non-contact detection of AC voltage
- CATIV 600 V

The Megger DCM330 is suitable for use anywhere where there is a requirement to measure a.c. current in single unshielded conductors less than 16mm diameter, AC / DC voltages up to 1000 V, or resistances up to 20 M Ω .



Find out more go to
uk.megger.com/DCM330

400 A AC clamp multimeter

DCM320

- 20 MΩ resistance range
- Continuity buzzer
- Auto-ranging
- Auto off to conserve batteries

The DCM320 is a low cost data hold current clamp and multimeter. It is supplied complete with test leads, batteries and carry case.



Find out more go to uk.megger.com/DCM320

400 A AC clampmeter

DCM310

- Easy to read
- Manual operation
- Low cost
- Tough

This easy to use clampmeter is ideal to rapidly check the current flowing with the minimum of fuss.



Accessories



1002-001B
2 wire test lead set



1002-015B
2-wire 500 mA fused test lead set

		DCM310	DCM320	DCM330	DCM340	DCM1500
Current ranges	A AC	20 A, 200 A, 400 A	40 A, 200 A, 400 A	200 A	60 A, 400 A, 600 A	400 A, 1,000 A, 1,500 A
	True RMS					■
	A DC				60 A, 400 A, 600 A	400 A, 1,000 A, 1,500 A
Voltage ranges	V AC		200 V, 600 V	200 V, 1000 V	400 V, 600 V	400 V, 750 V
	True RMS					■
	V dc		200 V, 600 V	200 V, 1000 V	400 V, 600 V	400 V, 1,000 V
Resistance	Ω		200, 2 k, 20 k, 200 k, 2 M, 20 M	200, 2 k, 20 k, 200 k, 2 M, 20 M	400	400
Continuity buzzer			■	■	■	■
Frequency measurement					20 Hz - 400 Hz	20 Hz - 400 Hz
Diode check				■		
Other features	Auto-ranging		■	■	■	■
	Backlight				■	■
	Data hold	■	■	■	■	■
	Max / min hold	Max hold only			■	■
Safety rating	Conductor size	27 mm	27 mm	16 mm	35 mm	51 mm
		CAT III 600 V	CAT III 600 V	CAT IV 600 V	CAT III 600 V	CAT IV 600 V

Earth leakage and diagnostic clamp

DCM305E

The DCM305E is designed for the fault finding electrician. With the ability to measure earth leakage values as low as 0.001mA, identifying problems that cause the nuisance tripping of RCDs or RCBOs is simple and straightforward.

With its high resolution and low pass filtering system the differential earth leakage is measured by placing the clamp around the live and neutral of the meter tails or each circuit in a distribution board. This eliminates the influence of parallel paths and permits the problem circuit to be identified for remedial action.

Furthermore the DCM305E can help discriminate between the sources of high leakage current, whether it is intentional, requiring some form of load spreading, or unintentional either due to a faulty installation or due to a faulty appliance, which will require repair. With a peak hold capability, leakage spikes caused by appliance switching can also be easily identified.

- **Versatile, very high resolution AC current clamp for identifying the cause of nuisance tripping and locating problem circuits**
- **6 auto or manual ranges: 6mA, 60 mA, 600 mA, 6 A, 60 A and 100 A**
- **Low pass filter to aid stability of readings.**
- **Auto, peak and data hold features for working in those difficult to access areas**

	DCM305E
Measurement function	TRMS leakage and load current
Ranges	6.000 mA, 60.00 mA, 600.0 mA, 6.000 A, 60.00 A 100.0 A
Maximum resolution	0.001 mA
Ranging	auto or manual
Low pass filter	50 to 60 Hz
Maximum Jaw diameter	40 mm
Hold features	peak, auto and data
Safety rating	CAT III 300 V



Take a closer look

uk.megger.com/DCM305E

Multimeters for electrical engineers

AVO®800 series

- Voltage and current, with TRMS, resistance, conductance, capacitance, frequency and temperature measurement
- Phase sequence detection
- Choice of input impedance without changing test ranges for fast and safe detection of unintentionally coupled voltages
- Integrated non-contact live circuit detection with high and low sensitivity settings
- Reading capture tools including minimum, maximum, average, manual and auto hold, smoothing and low pass filtering to ensure you get the measurement you need.
- CAT IV 600 V and CAT III 1000 V
- Dust and weather proof to IP54

Specifically designed for the electrical engineer and profession electrician, this range of tough, high quality multimeters offers the perfect selection of functions required. Useful innovations such as the high and low impedance switching allow a quick and safe method to identify capacitive coupled, ghost voltages. The introduction of the dual sensitivity non-contact voltage detector helps you identify a live circuit at a distance and then to pinpoint the exact conductor or circuit.

Exceptionally the AVO800 series multimeters offer phase sequence detection to prevent miss connection and the consequent damage to motors and generators.

These functions are in addition to the fact that this range offers a 10,000 count display with a basic accuracy of 0.01%, and shuttered 4mm inputs to ensure that the right connections are made every time.

Take a closer look

uk.megger.com/AVO800

Accessories



1002-001B
2 wire test lead set



1002-015B
2-wire 500 mA fused test lead set



TRMS electrician's multimeter

AVO410



- Voltage and current, with TRMS, resistance capacitance and frequency
- Auto ranging with the option for manual range selection
- Max and min measurement with data hold
- Tough rubber holster
- CAT IV 600 V safety rating

Take a closer look

uk.megger.com/AVO410

Basic CATIII multimeter

AVO210



- Small light and easy-to-use
- Auto ranging with manual over-ride
- Non-contact voltage sensor
- Max and min measurement and data hold function

Take a closer look

uk.megger.com/AVO210

		AVO835	AVO830	AVO410	AVO210
Current measurement	A ac (Overrange for 20s)	10 (15)	10 (15)	10	10
	TRMS	■	■	■	
Voltage measurement	A dc (Overrange for 20s)	10 (15)	10 (15)	10	10
	V ac	1000	600	750	750
	TRMS	■	■	■	
	V dc	1000	600	1000	1000
Basic accuracy		0.10%	0.10%	0.50%	1.00%
Resistance measurement		0.01 Ω to 50 MΩ	0.01 Ω to 50 MΩ	0.1 Ω to 60 MΩ	0.1 Ω to 20 MΩ
Continuity	Buzzer	■	■	■	■
Conductance measurement		0.1 nS to 60 nS	0.1 nS to 60 nS		
Diode measurement		1 mV to 2.8 V	1 mV to 2.8 V	10 mV to 3 V	10 mV to 2 V
Capacitance measurement		1 nF to 20.00 mF	1 nF to 20.00 mF	2 nF to 6.00 mF	2 nF to 2.00 mF
Frequency measurement		5 Hz to 100kHz	5 Hz to 100kHz	100 Hz to 60 MHz	100 Hz to 20 MHz
Phase rotation		■	■		
Temperature		■			
Non contact live circuit detection		hi/lo sensitivity	hi/lo sensitivity		■
Input impedance		10 MΩ or 10 kΩ	10 MΩ or 10 kΩ	10 MΩ	10 MΩ
Additional features	Display	10,000 count	10,000 count	6,000 count	2,000 count
	Analogue arc	■	■		
	Backlight	■	■	■	
Ranging	Auto	■	■	■	■
	Manual	■	■	■	■
Data capture	Max min hold	■	■	■	
	Average	■	■		
	Manual and auto hold	■	■	■	
	Noise suppression	■	■		
	Smoothing	■	■		
	Low pass filter	■	■		
	Relative	■	■		
	Relative (%)	■	■		
	Low Z Capacitance	■	■		
Terminals	Shuttered	■	■		
Weight	g	420g	420g	522g	320g
Warranty upgradeable to 3 years FREE		■	■	■	■
Ingress protection		IP54	IP54		
Safety rating		CAT IV 600 V & CAT III 1000 V	CAT IV 600 V	CAT IV 600 V	CAT III 600 V

Professional calibration check box

MTB7671/2

Works with all makes of testers actively measuring the output of the meter and confirming it is within the limits prescribed as well as checking the readings

Certification bodies like the NICEIC, ELECSA, NAPIT, ECA and others now request evidence of your tester's accuracy and consistency.

The MTB7671 makes that an easy job.

- Tests the full range of a tester's capability
- Does not trip RCD protected circuits
- Tests to the regulations BS7671, BS EN61557 and IEE On-Site Guide
- Checks insulation, continuity, loop, PFC and RCD functions
- Confirms tester's continued performance
- Colour coded test functions

Take a closer look

uk.megger.com/MTB7671-2

Spot a problem before it happens

Checking your testers on a regular basis is vital. You can spot a problem before it happens, making sure your meter is ready for use when you want it. But it is important that you check what the tester is putting out. If the test voltage or current is low it doesn't stress the system you're testing properly so you're not testing to the Wiring Regulations.



	BS7671, BS EN61557 and IEE On-Site Guide tester requirements	MTB7671 parameters tested
Continuity short circuit test current	>200 mA	>200 mA
Continuity test voltage range	4 V – 24 V	4 V - 24 V
Continuity resistance		Pass / fail indication
		0.5 Ω
		5.0 Ω
Insulation test current	1 mA	1 mA
		Pass / fail indication
Insulation test voltages	250 V +25% max	250 V +25% max
	500 V +25% max	500 V +25% max
	1 kV +25% max	1k V +25% max
		Pass / fail Indication
Insulation test resistances	0.25 MΩ min	0.25 MΩ
	0.5 MΩ min	0.5 MΩ
	1 MΩ min	1 MΩ
		9 MΩ
		90 MΩ
Loop		Local mains impedance
Loop + 10 Ω		Loop + 10 Ω
Loop + 180 Ω	200 Ω max	Loop + 180 Ω
(IEE On-Site Guide 10.3.5 Earth Electrode Resistance)		
RCD currents (I)		10 mA, 30 mA and 100 mA
RCD no trip (%I)	No trip	>1999 mS
RCD (I)	<200 mS	40 mS @ 0°
		50 mS @180°
RCD (5 x I)	<40 mS	10 mS @ 0°
		20 mS @ 180°

Photovoltaic kits

PVK300 series

PVK300 kits supply all the instrumentation you require – in addition to your MFT – to site, commission and test a solar PV installation to IEC62446, packed in a single pouch.

PVK320 includes the PVM210 and an auto-ranging, CAT IV, 10 A d.c. AVO410 multimeter that allows the short circuit current of a panel to be read directly.

PVK330 includes the PVM210 and a DCM340 a 600 A a.c./d.c. clamp multimeter which speeds the measurement of array stings without the need for disconnection. It can also measure d.c. voltages to 600 V.



	PVK320	PVK330
AVO410 CAT IV multimeter	■	
DCM340 Clamp multimeter		■
PVM210 Irradiance meter	■	■
MC3 to MC4 adaptor testleads	■	■
MC4 to 4 mm plug testleads	■	■

Take a closer look

uk.megger.com/PVK300

Solar PV testing

Irradiance meter PVM210

The pocket-size PVM210 is perfect for use on sloping roofs or at the top of ladders because it has the solar detector built in to the top. This is enhanced by its large clear display and hold function.



It is used for initially choosing optimum position for a PV installation and for measuring the solar power for the calculation of short circuit current to confirm the performance of the PV panel for certification.

On the rear of the meter is a universal camera thread that allows the PVM210 to be mounted on a tripod for precise readings if required. A protective pouch is included with each instrument.

Features

- Single unit for one handed use increasing safety on ladders and roofs
- Perfect for measurement of incident light for PV panel short circuit current calculation
- 1999 W/m² range on 3½ digit LCD display
- Camera mount fixing for accurate placement

Take a closer look

uk.megger.com/PVM210

Battery powered portable appliance tester

PAT100 series

PAT120 is the toughest, simplest and most economical PAT tester available that gives results that conform to the 4th Edition of the Code of Practice for In-service Inspection and Testing of Electrical Equipment.

Organising tests in to three test groups, Class I, Class II and Power and Extension leads, enables the correct sequence of tests to be performed automatically without the user's intervention, keeping testing simple and reducing test times. Pass limits are fixed. The default insulation test is 500 V d.c. but when testing IT or surge protected equipment 250 V d.c. is available.

To make testing easier, the connections required for each test are shown in the lid of the PAT120. Another key difference from ordinary testers is the detachable neck strap that makes testing simpler when there is no convenient surface on which to work and makes the tester easier to carry with the test leads, report books etc.

Packed with features

Simple tick or cross, pass or fail indication with measurement displayed
Safe testing of IT and surge protected devices
Battery powered with rechargeable option
Plus many additional features on PAT150



Scan to see a demonstration of the PAT100 series

Take a closer look uk.megger.com/PAT100

PAT150: For those jobs that may not warrant investing in a downloadable tester, like the PAT420, the PAT150 and PAT150R can't be bettered. It is really tough and the kit is supplied in a protective case which will occupy minimal space.

The PAT150s offer the functionality of testers that are almost twice the price. They will test both 10 mA and 30 mA portable RCDs as well as Class I, Class II and extension leads and power cords. Surge protected devices and IT equipment are safe-guarded by insulation testing at 250 V and leakage testing at 40 V. The quick test function allows individual testing of continuity, insulation and mains powered leakage tests as well as checking the output of SELV circuits. Performing a mains powered differential leakage test has the benefit that the equipment will function during the test sequence.

The mains supply can be checked for voltage and for socket polarity by the PAT150s. You can configure the test durations and pass limits to suit your applications, and the bond lead resistance can be nulled out to reduce measurement errors. The PAT150 is powered by standard 1.5 V AA cells while the PAT150R incorporates internal charging NiMH cells.



PAT100 series accessories

1005-739
Accessory kit



		PAT120	PAT150	PAT150R
Insulation test	500 V	■	■	■
	250 V	■	■	■
Earth bond test	200 mA	■	■	■
Earth leakage options	250 V	■	■	■
	500 V	■	■	■
Alternative leakage	Substitute	■	■	■
	Differential		■	■
	Touch current		■	■
Functional test	240 V		■	■
Test socket	BS1363	■	■	■
Test lead null			■	■
Automatic test sequence	Class I (earthed)	■	■	■
	Class II (double insulated)	■	■	■
	Extension lead and power cords	■	■	■
	Portable RCD		■	■
Manual tests	Continuity		■	■
	Insulation		■	■
	Main powered leakage		■	■
	SELV measurements		■	■
Combined continuity, earth bond and insulation test lead		■	■	■
On-board battery re-charging				■
FREE calibration certificate		■	■	■



Portable appliance testers

PAT 400 series

The PAT 400 series introduces a new level of convenience and speed to PAT testing using on-board test results storage.

With a large, bright and intuitive colour display, the PAT400 series offer sufficient memory for the storage of up to 10,000 assets. The proven long duty cycle, the simplicity of operation and the independently verified speed of test make for the best selling PAT Megger has ever produced.

The menus have been simplified to make operation quicker. Five soft-keys give direct access to frequently used functions making navigation through the menus quick and the tester more productive, offering a greater return on investment. A new feature is the expert and novice modes making testing even faster for experienced user.

For corporate users, the PAT400 series now has an optional security log-in for controlling access to test parameters and limits, while logging the active user within the results database.

Using a standard USB memory stick, results can be quickly backed up for downloading. The asset database is accessible from the tester and with a full QWERTY keyboard, rapid data entry or adjustment is possible.

Special features

- Expert mode to speed up testing
- Secure user log-in option
- Vast on-board memory to keep you on the job longer
- Continuous operation, no need to stop and wait for the tester to cool down
- Instant re-start as you move from room to room
- Soft keys to speed you through the testing process
- Automatic asset number generation
- Quick test for instant access to single test functions

PAT410 is perfect for those happy to bond test solely at 200 mA. The smallest and lightest of the PAT400 series weighs only 2.7 kg.

PAT420 tests both 100 V and 230 V appliances, as well as offering bond testing at all three test currents, 200 mA, 10 A and 25 A. This is the tester of choice for full-time industrial or commercial PAT testers.

PAT450 adds in the ability to carry out high voltage flash testing at 1.5 kV or 3.0 kV, making it the preferred choice for tool hire companies and service and repair workshops.

Packed with features

- 10,000 asset on-board data storage
- Large easy-to-read colour screen
- Instant re-start
- 25 A, 10 A and 200 mA "soft" bond test
- Test lead null
- Repeated high current bond testing possible
- Insulation testing at 250 V and 500 V
- Functional VA load test for 110 V and 230 V appliances
- Extension and IEC lead testing including polarity, earth continuity, L-N continuity and L-N-E insulation
- Standard differential leakage test plus
- Protective conductor or touch current leakage test
- Substitute earth leakage test at 40 V a.c.
- Simple RCD test or full 30 mA RCD testing $\frac{1}{2} \times I_n$
- I, 5 x I
- Integral fuse checker

Independent tests* show the Megger PAT400 is at least 8% more productive

*Testing conducted by Redford Charles Ltd, Rochester, see details at www.redfordcharles.com/resources/PAT_tester_analysis.pdf



Portable appliance testers

PAT400 series accessories



1005-423 Pass / fail
barcode printer



1000-770 415 V 5 pin adaptor
lead to BS1363 (16 A)



1001-047 Barcode
scanner



1000-971
Pass label roll
of 1000



6220-639 110 V
extension lead adaptor



1000-766 110 V
mains lead adaptor



1000-767 415 V 4 pin adaptor
lead to BS1363



1001-227 Fail label
roll of 1000



Scan to see a
demonstration
of the PAT400
series or
for more
information
go to

[uk.megger.com/
PAT400](http://uk.megger.com/PAT400)

		PAT410	PAT420	PAT450
Supply	230 V	■	■	■
	110 V		■	■
Earth bond/continuity	Supply measurement	■	■	■
	200 mA	■	■	■
	10 A		■	■
	25 A		■	■
Insulation test	Bond lead null	■	■	■
	250 V	■	■	■
	500 V	■	■	■
Alternative leakage tests	Substitute	■	■	■
	Differential	■	■	■
	Touch current	■	■	■
Functional test	VA measurement	■	■	■
Extension lead tests	Earth bond	■	■	■
	Insulation	■	■	■
	Polarity	■	■	■
	Portable RCD tests	■	■	■
Flash test	1.5 kV and 3.0 kV			■
Other features	Low-profile light weight	■		
	110 V test connection		■	■
	Auto test routine	■	■	■
	Manual testing	■	■	■
	Configurable tests times	■	■	■
	Selectable pass limits	■	■	■
	Fuse check	■	■	■
	Large colour display	■	■	■
	10,000 record on-board storage	■	■	■
	Download to USB memory stick	■	■	■
Supplied accessories	PowerSuite compatible	■	■	■
	Carry case with lead storage pouch	■	■	■
	Combined continuity, earth bond and insulation test lead	■	■	■
	Red extension lead adaptor	■	■	■
	Flash test lead	■	■	■
	FREE calibration certificate	■	■	■

Portable appliance testers

PAT300 series



A choice of two fast PAT testers which offer the operator manual and automatic operation without the complexity of data storage. The PAT300 series allows the user to select a range of tests, such as those for a CLASS I asset, simply by pressing the "CLASS I" button, and then initiate the test by pressing the "TEST" button. When the results are displayed they are coded green for a pass and red for a fail.

However, if a particular test needs to be repeated, there are direct access buttons dedicated to specific tests.

The instant-restart feature speeds testing when moving from one room to another, re-starting in exactly the same menu location where it was left.

PAT320 is the PAT tester for those electricians who occasionally do testing and don't want the complexity of database management and are happy to write out certificates by hand.

PAT350 is similar to the PAT320 but with the added benefit of flash testing. Because of its high through-put capabilities and the speed at which it gives results, it is ideal for applications such as tool hire companies and service centres.

Of particular interest to tool hire companies, as well as service and repair organisations, is the PAT300 series ability to run high current bond tests virtually continuously, without the fear of the tester over heating.

- **Instant re-start**
- **200 mA "soft" bond test and the option of high current 25 A and 10 A bond tests**
- **Test lead null**
- **Flash testing at 1.5 kV or 3 kV (PAT350 only)**
- **Repeated high current bond testing possible**
- **Insulation testing at 250 V and 500 V**
- **Fully tests 230 V and 110 V appliances**
- **Extension and IEC lead testing, including polarity, earth continuity, L-N continuity and L-N-E insulation**
- **Standard differential leakage test**
- **Protective conductor or touch current leakage test**
- **Substitute earth leakage test at 40 V a.c.**
- **Full plug-in 30 mA RCD testing ½ x I, I, 5 x I**
- **Integral fuse checker**

Packed with features

- **Full PAT functionality with the option of flash test**
- **Automatic or manual testing**
- **Continuous operation**
- **Full plug-in or lead mounted RCD testing**
- **Simple push button control**



Watch a Demonstration
uk.megger.com/PAT300



Accessories



1000-766
110 V mains
lead adaptor



1001-299 Portable appliance
test report book

1001-227
Fail label
roll of
1000



1000-971
Pass label
roll of
1000



1000-767
415 V 4 pin adaptor
lead to BS1363

MPQ2000

Portable Power Quality Analyzer

The Megger MPQ2000 Power Quality Analyser is a highly intuitive, advanced portable 3-phase analyser, delivering unmatched capability, in a rugged IP54 weatherproof enclosure. View RMS data, waveforms, demand data, phase angles, harmonics, unbalance, flicker and more in real time with the MPQ2000 scope mode and DVM mode. When data needs to be recorded, the MPQ2000 record verification automatically identifies the current clamps, recognises their range and verifies the unit is connected properly. Simply connect it and push the record button.

The MPQ2000 can record for extended periods of time because of its massive memory. It utilises an SD card which makes expanding the memory as easy as installing a new SD card. The recorded data can be viewed on the unit's color VGA display. The data can be transferred to the high-power Megger PQ Power Quality Analysis software via USB cable, USB stick, Ethernet, or directly from the SD card.

The free software, which requires no license, optimises the MPQ2000 to locate the power quality phenomenon such as lighting issues, computer problems, tripping breakers, and much more. It offers advanced charting, advanced waveform and advanced harmonic analysis.



MPQ2000

Features

- Powering off phase A makes the unit versatile, allowing its use in any location.
- IP54 weatherproof enclosure is designed for outdoor operation. The unit is robust enough to remain recording outdoors.
- Automated configuration in the Megger PQ software for quick and easy setup.
- Easy intuitive menus allow for simple navigation and operation.
- Record verification ensures the unit is configured correctly and you get the data you need — no wasted recordings.
- Automatic CT recognition means never having the unit programmed for a wrong range.
- CTs are powered by the unit so there's no need for additional connections or batteries.
- Full-featured Class A compliant (all parameters).
- On-board data analysis saves time by allowing an immediate examination of the data while still in the field.
- The expanded 1000 Vac range allows for more applications; no need for a second unit.
- 1000 DC measurement allows testing and analysis of renewable applications dismissing the need for additional equipment.
- Phase angle stability measurement lets you easily find tricky phasing problems caused by multiple erratic sources.
- CAT IV at 600 V ensures a safe unit for all applications.
- Multiple communication methods (USB, Ethernet, USB stick or SD card) allow flexible and convenient operation
- Removable SD card allows for large recording capabilities and simple memory expansion.
- Included PC software: data analysis, configuration wizard, analyse waveforms through 128th order.

Measured parameters

- RMS voltage / current
- DC voltage
- DC current (requires DC CT)
- Phase-to-phase voltage
- Power parameters (KW, KVAR, KVA, DPF, TPF)
- Voltage sag/dips and swells
- Phase angles
- Current sags/dips and swells
- Transient down to 1 msec
- Total harmonic distortion
- Total demand distortion
- Harmonics
- Inter-harmonics
- Energy parameters (KWH, KVARH, KVAH)
- Power harmonics
- Harmonic direction
- IEC flicker
- Rapid voltage change
- Phase angle deviation
- IEC unbalance and ANSI unbalance
- Frequency

Accessories



Split Code Current Clamp
1000 A (CP-1000WCE)



Split Code Current Clamp
Available options:
100 A (CP-100CE-ID)
20 A (CP-100CE-ID)
5 A (CP-5CE-ID)



MCCV Rain Tight Flexible
Current Clamps
Available diameters:
18 cm (MCCV6000-18)
27 cm (MCCV6000-27)
37 cm (MCCV6000-37)



Hall Effect Current Clamp
600 A dc and 400 A ac
(CP-600DC-ID)

Digital earth testers

DET3TD and DET3TC

DET3TD

- Three pole earth testing kit
- 2 and 3 pole testing
- Selectable 25 V or 50 V output
- DET3TD offers a complete kit for customers wishing to conduct earth electrode testing using the 2 and 3 pole techniques.

DET3TC

- ART or selective three pole earth testing kit
- 2 and 3 pole testing
- Selectable 25 V or 50 V output
- When used with the optional MCC1010 clamp, allows fall of potential testing without the need to disconnect the electrode under test.



DET3TC with optional clamp

Take a closer look

uk.megger.com/DET3TD or uk.megger.com/DET3TC

Earth resistance clamp testers

DET14C and DET24C

- For testing installations such as buildings, pylons and RF transmitter sites and lightning protection systems.
- Elliptical clamp shape improves access to earth cables and straps up to 50 mm
- Low maintenance flat jaw interface
- Automatically self calibrates and Auto ranging
- CAT IV 600 V safety rating



All models include these features

- Extra large selector switch
- Large, clear display for easy operation in outdoor conditions
- Simple one button operation
- Battery powered with a bar graph indicator
- Noise reduction up to 40 V peak to peak
- IP54 rated (water/dust ingress) for extra protection in harsh conditions
- Come complete with batteries, calibration certificate and rugged polypropylene carry case. DET3 also include test leads and stakes

Take a closer look

uk.megger.com/DET14C-DET24C



	DET3TD	DET3TC	DET14C	DET24C
Stakeless testing			■	■
3-wire testing	■	■		
2-wire testing	■	■		
ART (Attached Rod Technique) enabled		■		
Resistance range Ω	0.01 to 2000	0.01 to 2000	0.05 to 1500	0.05 to 1500
Earth Voltage range	0 to 100 V	0 to 100 V		
Earth Current range (with optional clamp)		0.5 mA to 19.9 A	0.5 mA to 35 A	0.5 mA to 35 A
Display	Digital	Digital	Digital	Digital
Datalogging			■	■
Downloading				■
Dust and weatherproof to IP54	■	■	■	■

Earth resistance testers

DET2/3

Advanced Earth (Ground) Tester

The Megger® DET2/3 automatic earth (ground) test instrument is robust, compact and designed to measure earth Electrode Resistance and Soil Resistivity. It provides a full range of test methods and excels at the four terminal method of measurement, which eliminates the resistance of the current circuit from the measurement.

The DET2/3 is a reliable instrument for use on large or more complex earth systems, which include communications earth systems and difficult test environments. It can be used to test in accordance with BS 7430 (earthing / grounding), BS-EN-62305 (Lightning Protection), IEEE Standard 81 and Railway Applications.

Soil Resistivity measurements are used to establish the optimum electrode design and site, as well as archaeological and geological investigations.

Features

- High resolution of 1 mΩ, ideal for large earth (ground) systems
- Versatile test modes
- High accuracy for earth (ground) electrode grid and soil resistivity tests
- Rechargeable battery power that can last all day with a fast re-charge
- Robust instrument with IP65 protection
- Automatic test frequency selection, with filters and high current features
- Diagnostic trace display
- Data storage
- Large colour display that shows numeric and graphical results



Earth Testing Kits (ETK)

This is the professional Cable kit to complete earth electrode testing and soil resistivity surveys. This all new design is housed in a holdall for easy/ neat storage and is well protected and is easily transportable. Much care has been taken to produce a family of kits to meet a variety of needs.

The new design is tougher, lighter, and better than previous products. In use the reels have a smoother action and are far more manageable with less chance of snagging, saving time and improving the user experience. The test leads in the reels can be linked in a daisy chain together offering the user the opportunity of longer distances but in easily manageable sections.



- Can be used with any of the DET2/2, DET2/3, DET3, DET4 Megger earth testers.
- An assortment of lengths are available 30, 50 & 100 metres
- Lightweight
- Large comfortable handles for easy wind and unwind
- Clips on reels to retain earth spikes/pins
- Ability to daisy chain, offering longer lengths

Insulation and continuity testers for communications engineers

MIT480/2 Series

A range of insulation and continuity testers designed for the communications markets and electrical installations. Developed to an ergonomic design with the latest measurement techniques and live circuit protection; the MIT480/2 has faster continuity testing and stabilised insulation test voltages for more accurate and productive installation testing.

Insulation testing has the addition of feedback control to stabilize the test voltage to less than +2% (+2V) over-voltage, for safer and more accurate measurement.

As well as offering all the functionality of the standard MIT400/2 models, the MIT480/2 series is now fitted with three terminal connection to allow the connections to be made simultaneously and tests switched between the 3 pairs A-B, A-E or B-E. All measurements, except mA, are possible across all three pairs.

Variable test voltage is also available from 10 V to 500 V in 1V steps.

Continuity testing is now fully automatic from 0.01 ohms to 1 M Ω with fast contact detection whilst continuously protecting against accidental contact with live circuits.

Take a closer look

uk.megger.com/MIT480-2

Features

- Designed for the Telecommunications, Cable TV and electrical markets
- Three terminal testing for Telecommunications (A-B-E) and 3 phase electrical measurement, 3 terminal switching – no need to disconnect test leads
- Stabilised insulation test to -0% +2% of selected test voltage
- Variable insulation test voltage from 10 V to 500 V in 1 V steps
- mA range for low current measurement applications
- Single range, faster continuity testing from 0.01 Ω to 1 M Ω
- Insulation testing up to 500 V and 100 G Ω in a hand held instrument
- 500 V gated test to prevent accidental testing of lower voltage networks at high voltage.
- 600 V Trms AC and DC voltage measurement
- Test result storage and Bluetooth® downloading
- Live circuit detection and protection
- CATIV 600V application and IP54 environmental protection
- Rechargeable options for mains and car charging



		MIT481/2	MIT485/2
Insulation test ranges	50 V, 100 V, 250 V and 500 V	■	■
	500 V gated operation	■	■
	Variable 10 V to 500 V		■
	μ A button (leakage)	■	■
	Lock button on M Ω	■	■
Ohms range	REN telephone count (discharge)	■	■
	Continuity 0.01 Ω to 1 M Ω	■	■
	Test current 200 mA R \leq 4 Ω	■	■
	Or battery saving 20 mA		
	Difference measurement [REL]	■	■
Voltage range	Lead null (< 10 Ω)	■	■
	AC / DC to 600 V	■	■
	mV AC / DC range	■	■
	True RMS	■	■
	Frequency measurement 15 – 400 Hz	■	■
Capacitance	Input impedance	10 M Ω	10 M Ω
	Capacitances 0.1 nF – 10 μ F	■	■
	Distributor by μ F (open loop)	■	■
	REN calculation	■	■
Other features	Current measurement mA AC / DC 0 to 400 mA	■	■
	Pass or fail on limit alarms		■
	Number of terminals	3	3
	A – B – E switching	■	■
	On-board memory	■	■
	Bluetooth downloading and software		■
	Recharger ready		■
	Accepts Alkaline and NiMH batteries	both	both
	Dust and weather proof to IP54	■	■
	Safety rated to CATIV 600 V	■	■
Included accessories	Red, green and blue silicone test leads	■	■
	Switched test probe	■	■

Two channel cable fault locators

TDR2000/3 and TDR2010

When chasing faults on paired metallic cables in applications such as telephony and CATV you can't do better than the TDR2000 series. It is a highly portable, high resolution, compact, dual channel TDR with a large colour screen making fault location easier by allowing trace comparison.

With a best resolution of 0.1m the TDR2000 series has a 20km maximum range, depending on the velocity factor and the cable type. Five output impedances are available (25, 50, 75, 100 and 125 ohms). There is an Auto Impedance matching feature and velocity factor can be adjusted from 0.2 to 0.99. TDR2000 series maximises the use of its large colour display, 800 px x 480 px, to help you locate your fault faster and identify it more accurately.



Packed with features

- Comprehensive dual channel capability with dual aspect display.
- Ultra-fast pulse for near end fault identification.
- Guidance to potential fault.
- IP54 rating offers real life working.
- Designed for use on all metallic paired cables.

Take a closer look

uk.megger.com/TDR20003-TDR2010

Two channel fault locator for power cables

TDR2050

Offering built-in CATIV 600 V safety rating, the TDR 2050 is designed for fault location on power circuits such as street lighting. Its IP54 rating means that it is perfectly at home working in the wind and rain of the real world. The step function trace improves the near-end performance of the TDR2050 as it prevents the trailing edge of the pulse masking faults. Auto find takes you to the first major event on the cable, press the button again and you are taken to the next disturbance. The find end function identifies the end of the cable and measures its length.

Distance dependant gain is useful if you are working with longer cables as the gain is increased along the returning signal to compensate for the attenuation due to distance. This means that a far-end fault has similar amplitude as if it were a near-end fault.



Take a closer look

uk.megger.com/TDR2050

Single channel cable fault locators

TDR500/3 and TDR1000/3 series

Using a Time Domain Reflectometer (TDR) is a well-established method for finding the location of faults in metallic power or data cables. In the past TDRs have had a reputation of being expensive and difficult to use but now, the Megger TDR1000/3 series has put paid to that.

An AUTO selection option, fast pulse and built in blocking filter ensures that the most effective selection depending on the range required, helping rapid diagnosis of the TDR trace. In addition on the TDR1000/3 and TDR1000/3P, dual cursors allow complete flexibility, giving the operator full control and instant indication of distance between two points.

Special features

- AUTO set up mode for instant use.
- Ultra-fast pulse for near end fault identification.
- Built-in power blocking filter.
- Weather and dust proof to IP54.



Take a closer look

uk.megger.com/TDR500-3 or uk.megger.com/TDR1000-3

		TDR500/3	TDR1000/3	TDR1000/3P	TDR2000/3	TDR2000/3P	TDR2010	TDR2050
Range capability		0.2 m to 5 km	0.2 m to 5 km	0.2 m to 5 km	0.2 m to 20 km	0.2 m to 20 km	0.2 m to 20 km	0.2 m to 20 km
Shortest pulse width		2 ns	2 ns	2 ns	2 ns	2 ns	2 ns	2 ns
Number of channels		1	1	1	2	2	2	2
Built-in blocking filter		■	■	■	■	■	■	■
Memory function	Trace hold	■	■	■	■	■	■	■
	Live trace overlay		■	■	■	■	■	■
	100 trace memory				■	■	■	■
	downloading				■	■	■	■
Auto fault find					■	■	■	■
Auto end find								■
Trace tagging							■	■
Step function								■
Distance dependant gain								■
Rechargeable					■	■	■	■
Auto power off	User set	■	■	■	■	■	■	■
Test lead type		Miniature clip	Miniature clip	10 A fused standard clip	Miniature clip	10 A fused standard clip	Miniature clip	10 A fused standard clip
Safety rating		CAT III 300 V	CAT III 300 V	CAT III 300 V	CAT III 300 V	CAT III 300 V	CAT III 300 V	CAT IV 600 V
Dust and weatherproof to IP54		■	■	■	■	■	■	■

Price list

Price £
exclusive of VAT



Pages 4 & 6	MFT1711	Single-phase multifunction tester.	£875.00
	MFT1721	3-phase multifunction tester, with phase sequence indication.	£1,200.00
	MFT1731	3-phase multifunction tester, with rechargeable cells, downloading & full earth electrode functionality.	£1,435.00
	MFT1741	3-phase multifunction tester, with looptest confidence meter rechargeable cells, downloading & full earth electrode functionality.	£1,515.00
Includes	1004-323B	Socket interface adaptor.	£43.00
	1001-991B	3-wire lead set, red, blue & green with prods & croc clips.	£61.00
	1007-161	MFT neck strap.	£11.00
	1007-157B	Test probe incorporating test button.	£72.00
Accessories	1004-319	Hard carry case - MFT1711 & MFT1721 only.	£32.00
	1007-463	Large soft-sided carry case - MFT1731 & 1741.	£54.00
	1002-736	Mains charger - MFT1731 & 1741 only.	£32.00
	1001-975B	3-wire 10 A fused lead set, red, blue & green with prod & croc clips.	£74.00
	1002-490B	Spare prods & clips, red, blue & green.	£39.00
	1001-810	3-wire earth electrode test lead set MFT 1731 & 1741.	£65.00
	1010-516	MCC1010 current clamp for ART & stakeless earth electrode testing - MFT 1731 & 1741 only or current measurement - MFT 1721, 1731 & 1741.	£280.00
	1010-518	MVC1010 Voltage clamp for stakeless earth electrode testing - MFT 1731 & 1741.	£280.00
	1004-183	Vehicle 12 v power outlet charging lead - MFT 1731 & 1741 only.	£21.00
	1006-408	Waist pouch (small) for tests & carrying of MFTs.	£50.00



Page 7	MIT220	Pocket sized insulation & continuity tester, 250V & 500V test voltages.	£325.00
	MIT230	Pocket sized insulation & continuity tester, 250V, 500V & 1,000V test voltages.	£405.00
Includes	1002-001B	2-wire lead set, red & black with prods & croc clips.	£42.00
	1007-168	Hard carry case.	£21.00
Accessories	1002-015B	2-wire 500mA fused lead set, red & black with prods & croc clips.	£70.00
	1007-166	Protective rubber holster.	£25.00
	1002-491B	Spare prods & clips, red & black.	£34.00



Pages 8 & 9	MIT300	Insulation & continuity tester, 250V & 500V test voltages.	£415.00
	MIT310	Insulation & continuity tester, 250V, 500V & 1,000V test voltages & 600V voltmeter.	£475.00
	MIT310A	Insulation & continuity tester, 250V, 500V & 1,000V test voltages & analogue display.	£435.00
	MIT320	Insulation & continuity tester, as MIT310 with resistance measurement & backlight.	£525.00
	MIT330	Insulation & continuity tester, as MIT320 with results storage & downloading.	£585.00
Includes	1002-001B	2-wire lead set, red & black with prods & croc clips.	£42.00
	1007-156	Test probe incorporating test button - MIT320 & MIT330 only.	£72.00
	1007-167	Hard carry case.	£21.00
Accessories	1002-015B	2-wire 500mA fused lead set, red & black with prods & croc clips.	£70.00
	1002-491B	Spare prods & clips, red & black.	£34.00



Pages 10 & 11	MIT400/2	Insulation & continuity tester, 250V, 500V & 1,000V test voltage.	£395.00
	MIT410/2	Insulation & continuity tester, as MIT400/2 with 50V & 100V test, PI, DAR & timed test.	£465.00
	MIT420/2	Insulation & continuity tester, as MIT410/2 with variable test voltages, results, storage & recall.	£525.00
	MIT430/2	Insulation & continuity tester, as MIT420/2 with Bluetooth® downloading & recharge ready.	£605.00
Includes	1002-001B	2-wire lead set, red & black, with prods & croc clips.	£42.00
	1007-157B	Test probe incorporating test button - MIT410/2, MIT420/2, MIT430/2 & MIT2500 only.	£72.00
	1007-169	Hard carry case.	£21.00
Accessories	1002-015B	2-wire 500mA fused lead set, red & black, with prods & croc clips.	£70.00
	1002-491B	Spare prods & clips, red & black.	£34.00

These prices
may be subject
to variation
without notice.

Price list



		Price £ exclusive of VAT
	1007-887 Carry pouch.	£53.00
	1007-464 Mains charger kit - MIT430/2 & MIT2500.	£61.00
	MIT2500 Insulation & continuity tester, up to 2,500 V test voltage with variable voltage.	£770.00
Includes	1007-781 1,000 V 3-wire lead set, red, blue & black with prods & clips.	£63.00
	1007-637 2,500 V 3-wire lead set, red, blue & black with clips .	£74.00
	1007-464 Mains charger kit - MIT430/2 & MIT2500.	£61.00
	1007-157B Test probe incorporating test button.	£72.00
	1007-169 Hard carry case.	£21.00
Accessories	1002-015B 2-wire 500mA fused lead set, red & black, with prods & croc clips.	£70.00
	1002-491B Spare prods & clips, red & black.	£34.00
	1007-887 Carry pouch.	£53.00



Pages 12 & 13	LTW315	Non-trip 2-wire loop impedance tester, 100V to 280 V.	£555.00
	LTW325	Non-trip 2-wire loop impedance tester, 50 V to 440 V with frequency measurements.	£575.00
	LTW335	Non-trip 2-wire loop impedance tester, as LTW325 with results storage & download.	£740.00
	LTW425	High resolution non-trip 2-wire loop impedance tester, 50 V to 440 V.	£615.00
Includes	1004-323B	Socket interface adaptor.	£43.00
	1003-132B	2-wire lead set, red & green with prods & croc clips.	£42.00
	1007-167	Hard carry case.	£21.00
Accessories	1001-977B	2-wire 10 A fused lead set, red & green with prods & croc clips.	£70.00
	LT300-EN-00	High current loop impedance tester, with 2-wire test lead set	£445.00
Includes	1003-132B	2-wire lead set, red & green with prods & croc clips.	£42.00
	1007-167	Hard carry case.	£21.00
	LT300-EN-BS	High current loop impedance tester, with UK mains test lead.	£445.00
Includes	1004-323B	Socket interface adaptor.	£43.00
	1007-167	Hard carry case.	£21.00
	LT300-EN-FS	High current loop impedance tester, with 10 A fused 2-wire test lead set.	£465.00
Includes	1001-977B	2-wire 10 A fused lead set, red & green with prods & croc clips.	£70.00
	1007-167	Hard carry case.	£21.00



Pages 14 & 15	NIM1000	Network impedance tester.	POA
	LRCD210	Combined non-trip loop impedance & RCD tester, single-phase.	£605.00
	LRCD220	Combined non-trip loop impedance & RCD tester, up to 1,000 mA RCDs 3-phase.	£710.00
Includes	6231-601	UK mains test lead set.	£20.00
	1001-883	3-wire test lead set with prods & croc clips.	£55.00
	1007-167	Hard carry case.	£21.00



Pages 16 & 17	RCDT310	RCD tester, 100 V to 280 V.	£425.00
	RCDT320	RCD tester, 50 V to 280 V, with auto RCD test.	£490.00
	RCDT330	RCD tester, as RCDT320, with results downloading.	£535.00
Includes	6231-601	UK mains test lead set.	£20.00
	1003-132B	2-wire lead set, red & green with prods & croc clips.	£42.00
	1007-167	Hard carry case.	£21.00



Pages 18 & 19	VF3	Non-contact Voltsticks + Light & Audible Tone.	£21.66
	VF2	Non-contact Voltsticks + Light & Audible Tone.	£20.50
	TPT320	Two-pole voltage detector, with dual LED & LCB display.	£84.00
	MPU690	Proving unit for two-pole testers & Drumond lamps.	£112.00
	MST210	MST210 Socket Tester, 3 LEDs (pack of 10).	£180.00
	PSI410	Phase rotation unit CAT IV 600 V.	£154.00
	SIA10	Socket interface adaptor, or breakout lead.	£43.00
	XTL30	30 m extension test lead on spool.	£95.00
	XTL50	50 m extension test lead on spool.	£108.00



Pages 20 & 21	DCM310	400 A AC clampmeter.	£101.00
	DCM320	400 A AC, 600 V AC & DC clamp multimeter.	£117.00
	DCM330	CAT IV 600 V fork multimeter.	£122.00
	DCM 340	400 A AC & DC, 600 V AC & DC clamp multimeter.	£165.00
	DCM1500	1500 A AC & DC clamp multimeter.	£305.00



These prices
may be subject
to variation
without notice.

Price list

Price £
exclusive of VAT



Includes		2-wire lead set with probes - not DCM310.	
Accessories	1002-001B	2-wire lead set, red & black with prods & clips.	£42.00
	1002-015B	2-wire 500 mA fused lead set, red & black with prods & clips.	£70.00

Page 22	DCM305E	Earth leakage & diagnostic clamp.	£260.00
Includes		Carry case.	



Page 23	AVO830	Specialist electricians, multimeter, 600 V with phase sequence detection.	£230.00
	AVO835	Specialist electricians, multimeter, 1,000 V CAT IV 600 V, CAT III 1,000 with temperature measurements.	£260.00
Includes		2-wire lead set, red & black with prods.	
Accessories	1002-001B	2-wire lead set, red & black with prods & clips.	£42.00
	1002-015B	2-wire 500 mA fused lead set, red & black with prods & clips.	£70.00



Page 24	AVO210	Basic multimeter CAT III 600 V.	£84.00
	AVO410	True RMS multimeter CAT IV 600 V.	£170.00
Includes		2-wire lead set, red & black with prods.	
Accessories	1002-001B	2-wire lead set, red & black with prods & clips.	£42.00
	1002-015B	2-wire 500 mA fused lead set, red & black with prods & clips.	£70.00



Page 25	MTB7671/2	Megger test box.	£510.00
Includes	1007-162	Test record card & label set.	£24.00
	1007-163	MTB7671 lead set.	£21.00



Page 26	PVM210	Solar irradiance meter.	£144.00
	PVK320	Photovoltaic kit with PVM210 irradiance meter & AVO410 multimeter.	£285.00
	PVK330	Photovoltaic kit with PVM210 irradiance meter & DCM340 CLAMP multimeter.	£285.00
Accessories	1002-549	PV Test Lead Set comprising of MC3 & MC4 Solar Test Leads.	£50.00



Page 27	PAT120	Battery powered Simple hand-held portable appliance tester.	£470.00
	PAT150	Battery powered Full functional hand-held portable appliance tester.	£605.00
	PAT150R	Rechargeable Full functional hand-held portable appliance tester.	£650.00
Includes	1001-233	Continuity, earth, bond & insulation test lead with prod & clip.	£34.00
	1001-234	Extension Lead Adaptor BS1363.	£18.00
	1005-077	SELV/mains voltage test lead, red - PAT150 & PAT150R only.	£34.00
	6231-601	Mains plug test lead, black - PAT150 & PAT150R only.	£20.00
	1003-436	Mains charger - PAT150R only.	£55.00
	1005-075	Hard Carry Case.	£29.00
	1005-739	Starter kit including report book, 1000 pass labels, 100 fail labels, PC power supply, lead test adaptor & PAT test guide book.	£78.00



Pages 28 & 29	PAT410	Downloading PAT tester with 200 mA bond test.	£1,320.00
	PAT420	Downloading PAT tester 25 A, 10 A & 200 mA bond tests.	£1,510.00
	PAT450	Downloading PAT tester 25 A, 10 A & 200 mA bond tests, with flash testing.	£1,630.00
Includes	1001-233	Continuity, earth, bond & insulation test lead with prod & clip.	£34.00
	1001-234	Extension Lead Adaptor BS1363.	£18.00
	1001-232	Plug Adaptor IEC C6-C13.	£17.00
	1007-165	Flash test lead - PAT350 & PAT450.	£39.00
	1006-225	Carry case with document & lead pouch.	£63.00
	1000-971	Roll of 1000 PASS test labels.	£32.00
	1001-227	Roll of 1000 FAIL test labels.	£32.00
	1000-766	110 V mains supply adaptor.	£39.00
	6220-639	110 V extension lead test adaptor.	£24.00
	1000-767	415 V 4-pin adaptor lead.	£72.00
	1000-770	415 V 5-pin adaptor lead.	£72.00
	1001-299	PATR210 PAT Report Book.	£29.00
	1001-047	Barcode scanner.	£325.00
	1005-423	Brother PT-P700 USB pass / fail barcode label printer.	£245.00
	2001-044	PAT accessory pouch for 1006-225.	£67.00

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Price list

Price £
exclusive of VAT



Pages 30	PAT320	Manual & automatic dual voltage PAT tester.	£1,010.00
	PAT350	Manual & automatic dual voltage PAT tester, with flash testing.	£1,200.00
Includes	1001-233	Continuity, earth, bond & insulation test lead with prod & clip.	£34.00
	1001-234	Extension Lead Adaptor BS1363.	£18.00
	1007-165	Flash test lead - PAT350 & PAT450.	£39.00
	1006-225	Carry case with document & lead pouch.	£63.00
Accessories	1000-971	Roll of 1000 PASS test labels.	£32.00
	1001-227	Roll of 1000 FAIL test labels.	£32.00
	1000-766	110 V mains supply adaptor.	£39.00
	6220-639	110 V extension lead test adaptor.	£24.00
	1000-767	415 V 4-pin adaptor lead.	£72.00
	1000-770	415 V 5-pin adaptor lead.	£72.00
	1001-232	Plug Adaptor IEC C6-C13.	£17.00
	1001-299	PATR210 PAT Report Book.	£29.00
	2001-044	PAT accessory pouch for 1006-225.	£67.00



Page 31	MPQ2000 -G-KIT	MPQ2000 Gold Kit 3 Phase PQ Analyser & 3 x 27 cm Flex CT's	£7165.00
	MPQ2000 -G-KIT-PLUS:	MPQ2000 Gold Plus Kit 3 Phase PQ Analyser & 4 x 27 cm Flex CT's	£7595.00



Page 32	DET3TD	3-wire earth electrode resistance tester.	£555.00
	DET3TC	3-wire earth electrode resistance tester, enabled for attached rod technique (ART).	£615.00
Includes	1001-810	3-wire earth electrode test lead set.	£65.00
	1000-527	Hard carry case.	£39.00
Accessories	1001-012	ICLAMP for attached rod technique (ART) - DET3TC only.	£290.00
	6220-803	Right angled adaptors, four of.	£32.00
	DET14C	Earth resistance clamp tester.	£1,070.00
	DET24C	Earth resistance clamp tester, with Bluetooth® downloading.	£1,180.00
Includes	1001-716	Wrist strap.	£12.00
	1001-715	Hard carry case.	£64.00



Page 33	1008-942	DET2/3 Pro Earth Tester	£3,345.00
	1010-176	ETK30 30 m Earth Test Cables & Spikes Kit	£130.00
	1010-177	ETK50 50 m Earth Test Cables & Spikes	£340.00
	1010-178	ETK100 100 m Earth Test Cables & Spikes Kit	£380.00



Page 34	MIT481/2	Insulation & continuity tester, for communications engineers with A-B-E switching.	£695.00
	MIT485/2	Insulation & continuity tester, for communications engineers with A-B-E switching & downloading.	£770.00
Includes	1002-780	3-wire lead set, red, black & green with prods & croc clips.	£63.00
	1007-157B	Test probe incorporating test button.	£72.00
	1007-169	Hard carry case.	£21.00
Accessories	1002-015B	2-wire 500mA fused lead set, red & black with prods & croc clips.	£70.00
	1007-887	Carry pouch.	£53.00
	1007-464	Mains charger kit.	£61.00

Pages 35 & 36	TDR500/3	Basic hand-held time domain reflectometer.	£615.00
	TDR1000/3	Single channel time domain reflectometer, with live trace overlay.	£950.00
	TDR1000/3P	Single channel time domain reflectometer, with live trace overlay, for power applications.	£970.00
Includes	6231-652	2-wire lead set, with miniature clips - TDR500/3 & TDR1000/3 & 3P only.	£38.00
	1006-511	2-wire 500mA fused lead set, red & black with prods & croc clips - TDR1000/3P only.	£82.00
	1007-169	Hard carry case.	£21.00
	TDR2000/3	Dual channel time domain reflectometer.	£2,290.00
	TDR2010	Dual channel time domain reflectometer, with trace tagging.	£2,565.00
	TDR2000/3P	Dual channel time domain reflectometer, for power applications.	£2,355.00
	TDR2050	CAT IV 600 V dual channel time domain reflectometer, for power applications.	£3,230.00
Includes	6231-654	4-wire lead set, with miniature clips - TDR2000/3 & TDR2010 only.	£72.00
	1006-511	2-wire 500mA fused lead set, red & black with prods & croc clips - TDR1000/3P only.	£82.00
	1003-352	Mains charger.	£65.00
	1008-017	BS1363 power lead for the charger.	£23.00
	1003-217	Carry case, web hand strap & cover.	£61.00



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without notice.

Other Megger products you may find useful



MIT515 5 kV insulation resistance tester

Tests insulation resistance up to 5 TΩ. MIT515 is easy to operate and very tough. It can perform automatic IR tests.

The built-in timer and high test ranges allow simple and quick evaluation of the condition of the insulation under

test. Now upgraded to CATIV 600 V, giving you even better operator safety. Other products in the range permit testing at 10 kV and 15 kV.



CI cable identifier

This cable identifier can identify a particular cable by means of a transmitter and receiver. The transmitter sends pulsed signals which are received by the receiver, by use of either a flexible CT or a pad style detector. The receiver

flashes green for the correct cable and if interconnected, red for others. This is useful if there are several cables in a hole or trench for example.



EZ-Thump cable fault locator

A practical and efficient solution for cable fault location. The EZ thump finds the distance to the fault and can pinpoint the exact location using an acoustic/magnetic

device, a digiphone. The EZ-Thump is the compact and light weight, battery or mains powered solution for the fault location in MV or LV cables.



MPQ1000 power quality analyser

MPQ1000 power quality analyser is an IEC61000-4-30 Class A compliant, 3-phase analysers, delivering unmatched capability. View RMS data, waveforms, demand data, phase angles, harmonics, unbalance, flicker and more in real time in scope mode and DMM mode. When data needs to be recorded, the record verification

automatically identifies the current clamps, recognizes their range and verifies the unit's connection. The data can be analysed and reports generated using to the powerful power quality analysis software.



DLRO10X and DLRO10HD low resistance ohmmeter or Ducter

Tests for earths and bonding in telecommunications towers, rail, aircraft, anything bimetal, switchgear (including LV switchgear), breakers, etc. Automatically detects continuity in potential and current connections. Gives accurate results in under three seconds, with auto

current reversal. Fuse protected to 600 V. NiMH battery reduces weight. Fully automatic. Select the most suitable test current, up to 10 A dc to measure resistance from 0.1 μΩ to 2000 Ω on one of seven ranges.



Torkel900 battery load unit

Batteries are becoming an increasingly important part of modern life with their use in standby power and maintained supply units. Megger has added to its BITE range of battery impedance testers with the new Torkel

range of battery load units which allow the batteries to be tested in service, by adjusting to include the load current in the test parameters.



SVERKER series relay testing units

For testing protection relays and small overcurrent devices, this secondary current injection test set is ideal. It has a current output of over 100A and there are controls for the variation of other parameters like voltage and frequency

for more complex applications. If a higher current is required, for testing circuit breakers for instance, the CSU 600 primary current injection set is available.



BITE3 battery impedance test equipment

The BITE3 allows you to test your battery bank on line, without disconnection. It measures the internal impedance of each battery cell and compares the results with a baseline value to identify faulty cells within the

battery bank. This test is complimentary to the load test and allows the operation time between load tests to be extended.

About Megger

Made in UK

All the 17th Edition and PAT products shown in this catalogue are engineered and made at our factory in Dover. If you've ever caught a ferry to France, you've probably seen our building – there's a big Megger logo on our car park, next to the roundabout as you enter Dover. Everyone hears about the decline in British manufacturing, but Megger employs hundreds of people at this site. As a professional electrician, you have a right to demand the very best electrical test equipment. By specifying Megger, not only will you get the best, but you'll also be supporting a great British success story.

Engineered for electrical contractors

Many of our engineers sit on UK and international technical committees, and we have regular meetings with all the big trade associations in England and Scotland. We also have close contacts with training organisations, scheme providers for self-certification schemes for installers, and government organisations. If anyone knows how important it is to understand the needs of electrical contractors in the UK, it's Megger. So when new legislation or rules are introduced – whether it's Part P of the Building Regulations, RoHS, the WEEE Directive or BS 7671, you can count on Megger to put your interests first.

Established originally in the late 1800s, the company has been manufacturing test and measurement instruments designed to perform preventive maintenance and troubleshooting for decades. Megger products help customers all over the world improve their efficiency, reduce costs, and meet standards.

It operates globally with dedicated field sales teams and distributors located all over the world and manufacturing plants in Germany, United States, Sweden and the United Kingdom.

The commitment of Megger to industry is reflected in its technical leadership and in being the first to design and introduce many key products.



Calibration and repair service

Megger offers a full Repair and Calibration accredited to ISO9001:2008. Our trained repair technicians use only production spare parts and the latest test equipment to ensure that we give customers the highest standard of service for any instrument.

For information on having your instrument calibrated or repaired and to obtain a Returns Authorisation number please call 01304 502101.

Certified to ISO 9001:2008 and ISO14001:2004

Megger's manufacturing plant in Dover is certified to the full operational requirements of ISO 9001:2008 and the manufacturing process strictly adheres to the highest standards for quality, reliability and safety. It is also certified to ISO14001:2004, the standard for environmental management systems.



Technical specifications are subject to change without notice.



Multifunction installation tester MFT1741

The tough all-in-one tester gives you new confidence in loop testing.

See page 6



Earth leakage and diagnostic clamp DCM305E

An awesome combination with the MFT ramp test to bust nuisance tripping.

See page 22



Multimeters for electrical engineers AVO®830 series

A unique feature set that you will use daily.

See page 23



PAT tester for quick, manual testing

Fast, easy to use battery PAT tester

See page 27

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