

Electrical Test Equipment Catalog

Megger[®]
Power on



Since 1889 Megger, and its predecessor companies, has been helping electrical engineers keep the power on by developing and manufacturing portable test and measurement tools. Insulation testers were first to be developed; this led to the registration of the Megger brand in 1903.

Five years later the low resistance ohmmeter (LRO) was invented, these later became known as Ducter testing. Housed in wooden cases, these testers had a long and admirable history. In 2006, Megger was given an early LRO that was still in calibration!

In 1923, Donald Macadie introduced the idea for the multimeter to Megger. Measuring amps, volts and ohms in a single instrument was revolutionary and the AVOMeter model 1 was born. 85 years later, Megger is launching the AVO830 range of multimeters.

Today with the help of digital electronics and revolutionary electronic components, Megger is continuing its mission of making your life easier by developing more powerful and safer testers that are light to carry, comfortable to hold and easier for you to use, helping you to power on.

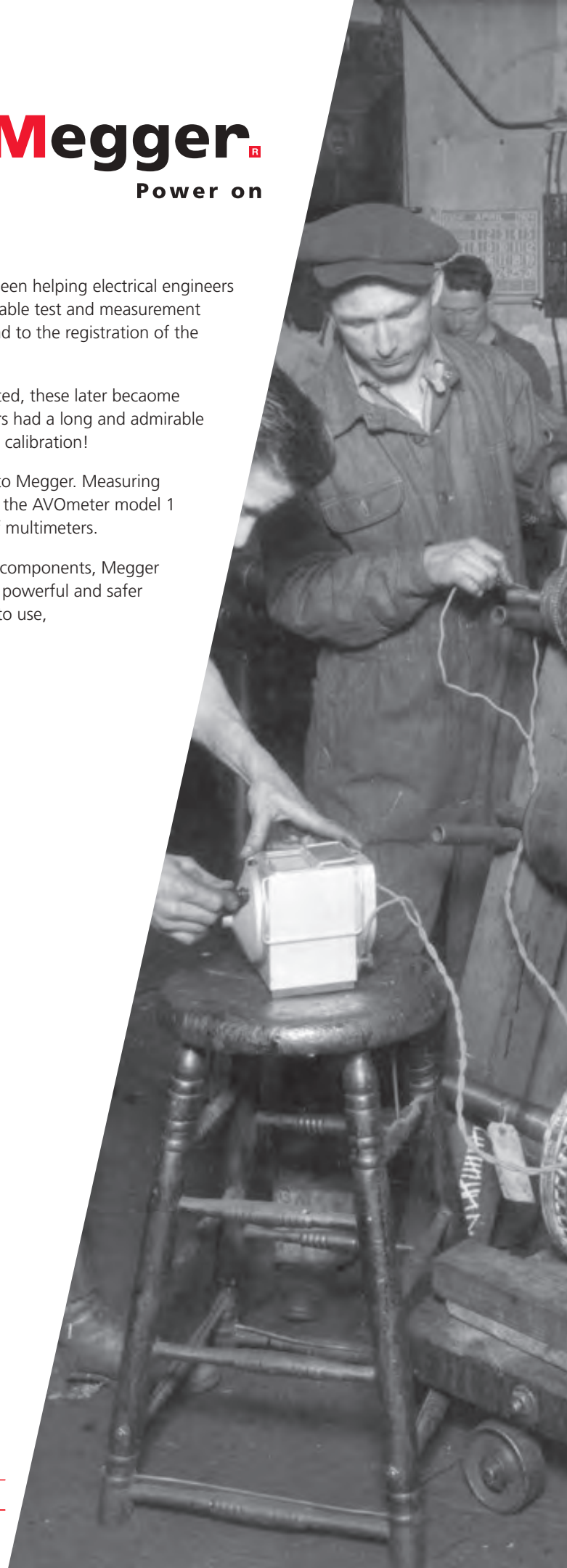


TABLE OF CONTENTS

5/10/15-KV INSULATION TEST EQUIPMENT.....	4
MIT515, MIT525, MIT1025.....	4
Transit case	4
MIT1525	5
MIT30	5
5/10/15-kV test leads.....	7
1-KV INSULATION TEST EQUIPMENT	8
MIT400/2 Series	8
MIT300 Series	9
MIT200 Series	9
2.5 KV INSULATION TEST EQUIPMENT.....	11
MIT2500	11
MAJOR MEGGER INSULATION	
RESISTANCE TESTERS	12
ADDITIONAL INSULATION TEST EQUIPMENT.....	12
GROUND RESISTANCE TEST EQUIPMENT	13
DET2/3 ground tester	13
DET3 Contractor Series	14
DET4T2 Enhanced Series	15
DET14C and DET24C ground tester.....	17
Professional Ground Testing Kit	18
MULTIFUNCTION TESTERS	
MFT70	18
LOW RESISTANCE OHMMETERS.....	19
DLRO100 Series.....	19
10 Amp models	20
DLRO-10 and DLRO-10X	20
DLRO10HD.....	20
DLRO10HDX	20
DLRO10LPU line power unit	21
Transit case	21
DLRO200 and DLRO200-115.....	21
General Purpose DLROs (247000 Series)	22
MOM2 Handheld Micro-ohmmeter	22
BT51 Milli-Ohmmeter	23
DLRO Leads	25
SOLAR PRODUCTS.....	26
PVM210 Irradiance Meter.....	26
PVK320 and PVK330 Photovoltaic Kits	27
MULTIMETERS/CLAMPMETERS.....	28
AVO830/835 True RMS Multimeter	28
DCM305E Clampmeters.....	28
DCM310, DCM320, DCM340 Clampmeters.....	28
DCM330 Forkmeter	28
DCM1500 1500 A TRMS clamp meter.....	28

TIME DOMAIN REFLECTOMETERS.....	29
CFL535G Time Domain Reflectometer.....	29
TDR2010 Time Domain Reflectometer.....	29
TDR2050 Time Domain Reflectometer.....	29
CFL510G Time Domain Reflectometer.....	30
TDR500/3.....	30
TDR900	30
SUBSTATION TEST EQUIPMENT.....	32
Handheld TTR20-1	32
Single-phase, Hand-crank TTR	32
OIL TEST SET.....	33
Semi-automatic Oil Test Set	33
POWER QUALITY.....	34
MPQ1000	34
MPQ1000 Kits.....	35
BATTERY TEST EQUIPMENT	36
BITE3.....	36
BITE2 and BITE2P.....	36
PORTABLE APPLIANCE TESTERS	37
PAT450	37
PAT320	37
SPECIAL MAINTENANCE	38
High-Pot Testers	38
Cable Height Meter.....	38
THREE-PHASE SEQUENCE	39
Motor & Phase Rotation Test Sets	39
Cable Phasing Meter	39
Phase Sequence Test Sets	39
SAFETY TEST EQUIPMENT	40
Voltage Detectors and Phasing Testers.....	40
DETEX® Voltage Detectors	40
DETEX® Phasing Testers	40
DETEX® Single-Pole Phase Comparator.....	40
Piezo Verifiers.....	41
Pneumatic Glove Tester	41
VF2 AC Voltage Detector.....	42
MPU690 Proving Unit.....	42
TEST AND MEASUREMENT SOFTWARE	42
Maintenance Test Data	
Management Software	42
CROSS-REFERENCE GUIDE	43



**PRODUCTS MARKED WITH THIS LOGO
WERE MANUFACTURED IN AN ISO 14001
COMPLIANT FACILITY.**

5/10/15-KV INSULATION TEST EQUIPMENT



Equipment with operating voltages above 1 kV requires commensurately higher test voltages. Therefore, to be fully in conformance with the most modern testing requirements, Megger offers a family of high-quality insulation testers at voltages above 1 kV. At the core of high-voltage testing, our 5/10/15 kV units afford the highest level of quality testing along with prime safety, convenience and portability.

For complete insulation testing capability of all high-capital equipment, Megger goes one step further! The universal testing standard for rotational equipment, IEEE 43-2000, increased the test voltage recommendation to 10 kV for equipment rated 12 kV and above. Full compliance with this standard can be attained with just one tester, our 10 kV models.



The **MIT515**, **MIT525**, **MIT1025** are the ideal instruments for industrial plant maintenance, commissioning and industrial/OEM use. Typical applications include insulation testing of:

- **Transformers**
- **Substation equipment**
- **Cables and industrial/OEM testing**
- **Quality control**

All models are CATIV 600 V safety rated on **all** terminals and assembled in a rugged IP65 dual case. To ensure operation in electrically noisy environments, the units have a 3 mA noise filtering capability.

In order to quickly charge capacitive loads and cables the new units not only have 3mA short circuit current but have “max power regulation technology” which provides faster charge times and ensures that correct voltage is maintained even at low load impedances outstripping the performance of many 5 mA instruments.

Test results are easily identified with the convenient and useful date and time stamp function providing essential traceability. Saved test data can be easily transferred via a 10-kV isolated USB device interface to PowerDB Lite software supplied with the MIT525 and MIT1025. New driver technology provides plug-and-play connection when connected to the internet.

Like all Megger 5/10 kV insulation testers, these units are housed in Megger’s dual case. This unique design allows for fire retardant protection without sacrificing ruggedness. They also include Megger’s industry best guard terminal.

These highly reliable and low maintenance products reduce the cost of ownership. Their unrivalled practicality performs even the most rigorous testing. For additional information and specifications, please turn to page 6.

OPTIONAL TRANSIT CASE

The new product transport case is designed to offer your Megger MIT5-10-15 kV, DLRO10HD/HDX, DLRO100, DET2/3 the best protection, while keeping all the required test leads and accessories together. It is ideal for storing instruments in trucks or vans.

The case is center hinged allowing the instruments to be operated without having to take them out. The two case halves then lay flat to form a work surface, keeping everything off the ground.



ORDERING INFORMATION TRANSIT CASE

Cat. No.	Description	List Price
1009-744	Transit case	\$535.00

MIT1525



The Megger MIT1525 is a 15 kV insulation tester with a full range of DC insulation test modes and the ability to save summary readings in addition to logging results to on-board memory once every five seconds. Real-time streaming data can be captured on a laptop/tablet at a rate of once a second. The MIT1525 timer settings are set to reference timings contained in IEEE 43 and IEEE 95 standards but a user can change timer settings to suit their particular test requirement.

The MIT1525 has been designed, specified and tested to meet international requirements in the industrial and OEM market sectors. In addition to being a tough, high performance insulation tester, the MIT1525 offers the ability to perform accurate insulation resistance measurements up to 15 kV test voltage with a maximum resistance of 30 TΩ. Resistance measurement accuracy is $\pm 5\%$ from 1 MΩ to 30 TΩ!

For utilities and service companies the MIT1525 is an all-round tester with its flexibility and future proofing capability. The Megger MIT1525 is designed to work wherever you work.



- 15 kV test voltage – increases test current, helping to avoid negative current when testing high resistance insulation
- CATIV 1000 V safety on all test terminals to 3000 m
- Rapid charge of capacitive loads such as HV power cables
- Always ready to test with Li-ion fast charge battery or from an AC source
- Designed to be durable and survive in the harshest of environments
- High noise immunity 6 mA
- High 3 mA short circuit current
- Download/stream results
- 2 year warranty

WHY TEST AT 15 KV?

- 5 kV to 15 kV will triple test current - this can prevent negative test current in the presence of high noise.
- 15 kV is specified for assets for 35,000 V to 69,000 V based on NETA ATS 2007.
- Motors above 34,500 V should be tested at 15 kV based on NETA ATS 2007.

For additional information and specifications for these products, see page 6.



MIT30

- Continuously variable test voltage, 0-30 kV
- User selectable current trip point, 0-330 μAmp
- Robust bright LEDs visible in direct sunlight
- Built-in adjustable ionization indicator
- Wide input power range

ORDERING INFORMATION FOR MIT30

Cat. No.	Test Voltage	Warranty (years)**	List Price
MIT30	30 kV	1	\$10,115.00

** Extended warranty available for some products



SELECTION GUIDE FOR 5/10/15-KV INSULATION TESTERS

Model Number		MIT515-US	MIT525-US	MIT1025-US	MIT1525-US
Cat. Number		1001-936	1001-940	1001-944	1002-909
Display	Analog/Digital	■	■	■	■
Power Supply	Line power	■	■	■	■
	Rechargeable	■	■	■	■
Lock test voltage V _Ⓢ		■	■	■	■
Test Voltage	15.0 kV				■
	10.0 kV			■	■
	5.0 kV	■	■	■	■
	2.5 kV	■	■	■	■
	1.0 kV	■	■	■	■
	500 V	■	■	■	
	250 V	■	■		
	10 V steps 40 V to 1 kV 25 V steps 1 kV to max test voltage 1 kV to 15 kV in 25 V steps for 15 kV				■
	10 V steps 100 V to 1 kV 25 V steps 1 kV to max test voltage	■	■	■	
Measurements	Max. reading	10 TΩ	10 TΩ	20 TΩ	30 TΩ
	Min. reading	10 kΩ	10 kΩ	10 kΩ	10 kΩ
	Voltage	■	■	■	■
	Capacitance and time constant	■	■	■	■
	Leakage current	■	■	■	■
Test Types	Auto Insulation Resistance (IR)	■	■	■	■
	Auto Polarization Index (PI)	■	■	■	■
	Auto Step Voltage (SV)		■	■	■
	Auto Dielectric Discharge (DD)		■	■	■
	Auto Dielectric Absorption Ratio (DAR)	■	■	■	■
	Auto ramp test		■	■	■
Other Features	Safety rating	CAT IV 600 V	CAT IV 600 V	CAT IV 600 V	CAT IV 1000 V
	Timer control	■	■	■	■
	Timer display	■	■	■	■
	3mA short circuit currents	■	■	■	■
	USB output (cable included)		■	■	■
	Calibration certificate included	■	■	■	■
	IP65 rating case closed	■	■	■	■
	Alarm limit mode	■	■	■	■
	Compatible with Power DB		■	■	■
	User programmable lock voltage range	■	■	■	■
	Real time clock		■	■	■
	Battery charge time max (hours)	2.5	2.5	2.5	2.5
	Noise rejection	3 mA	3 mA	3 mA	6 mA
	Guard terminal performance	2% error guarding 500 kΩ leakage with a 100 MΩ load			
	Transport case	■	■	■	■
Warranty (years)**		1	1	1	1
List Price		\$3,659.00	\$4,825.00	\$5,850.00	\$6,465.00

** Extended warranty available for some products

5/10/15-KV TEST LEADS



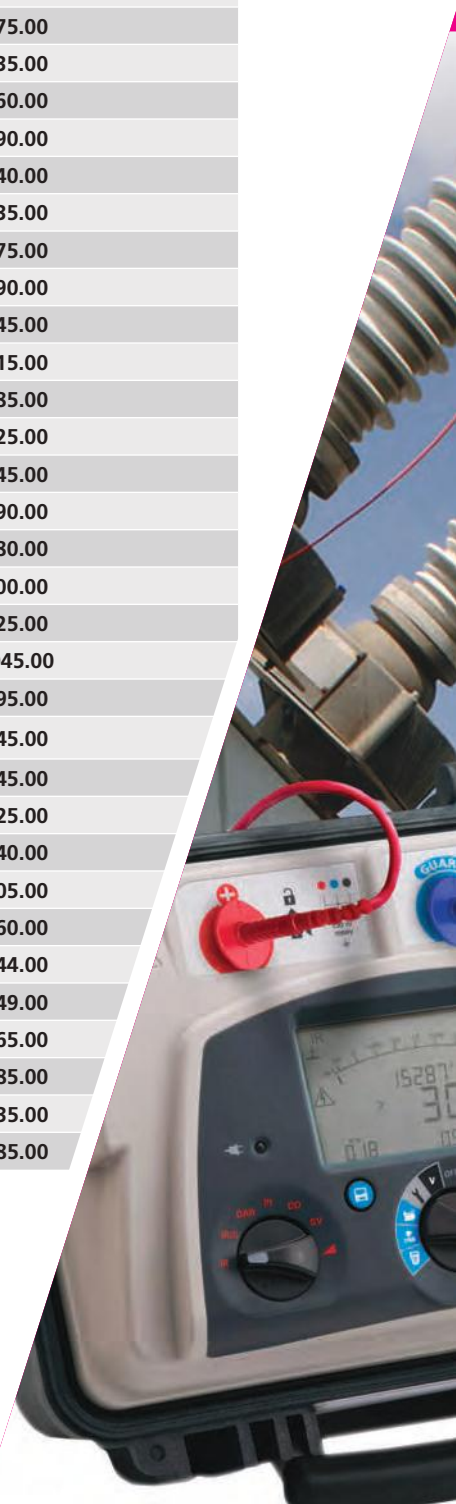
Megger provides a range of lead sets and clips of different sizes and electrical characteristics for use with Megger 5/10/15-kV insulation resistance testers, enabling the user to choose the most applicable set for the work at hand.

These leads are designed in full compliance with IEC61010-031:2008 which requires a fully insulated clip design.

For more information on our variety of test leads, visit our website us.megger.com.

ORDERING INFORMATION FOR 5/10/15-KV TEST LEADS

Cat. No.	Description	List Price
6220-861	30 ft (10 m) lead set, 10 kV screened, compact clips	\$775.00
6220-833	50 ft (15 m) lead set, 10 kV screened, compact clips	\$835.00
6220-834	10 ft (3 m) lead set, 10 kV screened, compact clips	\$660.00
1008-023	10 ft (3 m) lead set x 3, large 15 kV insulated slips for MIT1525 ONLY	\$290.00
1002-534	10 ft (3 m) lead set 10 kV insulated clips (set of 3)	\$240.00
1008-022	lead set 3kV medium clips (3 x 3 m) for 515/525/BM5200	\$235.00
6220-822	10 ft (3 m) control circuit lead set 1 kV for 5/10 kV ; 1 kV clips	\$175.00
6311-080	50 ft (15 m) 5 kV screened uninsulated small clips	\$590.00
1002-913	Fused 1 kV leadset for all 5/10/15kV Insulation Testers	\$245.00
1002-645	16.5 ft (5 m) lead set x 3, large insulated clips for 5 kV & 10 kV	\$315.00
1002-646	26.4 ft (8 m) lead set x 3, large insulated clips for 5 kV & 10 kV	\$385.00
1002-647	10 ft (10 m) lead set x 3, large insulated clips for 5 kV & 10 kV	\$525.00
1002-648	50 ft (15 m) lead set x 3, large insulated clips for 5 kV & 10 kV	\$745.00
1002-641	16.5 ft (5 m) lead set x 3, medium insulated clips for 5 kV & 10 kV	\$290.00
1002-642	26.4 ft (8 m) lead set x 3, medium insulated clips for 5 kV & 10 kV	\$380.00
1002-643	30 ft (10 m) lead setx 3, medium insulated clips for 5 kV & 10 kV	\$500.00
1002-644	50 ft (15 m) lead set x 3, medium insulated clips for 5 kV & 10 kV	\$725.00
1005-817	65 ft (20 m) Leadset x 10kV Screened 20m for 5 kV & 10 kV	\$1045.00
1003-201	80 ft (25 m) Leadset x 3 10 kV large size insulated clips for 5 kV & 10 kV	\$795.00
1003-202	100 ft (30 m) Leadset x 3 10 kV large size insulated clips for 5 kV & 10 kV	\$845.00
1005-259	15 kV Leadset 15 kV Plug 3x 5 m, 15kV Clip for MIT1525 only	\$245.00
1005-260	15 kV Leadset 15 kV Plug 3x 10 m,15kV Clip for MIT1525 only	\$325.00
1005-261	15 kV Leadset 15 kV Plug 3x 15 m,15kV Clip for MIT1525 only	\$440.00
1005-262	6 kV Leadset 15 kV Plug 3x 3 m, Medium Clip for MIT1525 only	\$205.00
1005-263	6 kV Leadset 15 kV Plug 3x 10 m, Medium Clip for MIT1525 only	\$360.00
1005-264	1 kV Control Leadset 15 kV Plug 2x 3 m for MIT1525 only	\$144.00
1005-265	1 kV Fused Leadset 15 kV Plug 2x 1.25 m for MIT1525 only	\$149.00
1005-266	15 kV Screened 3 m Leadset, 15 kV Clip for MIT1525 only	\$565.00
1005-267	15 kV Screened 10 m Leadset, 15 kV Clip for MIT1525 only	\$685.00
1005-268	15 kV Screened 15 m Leadset, 15 kV Clip for MIT1525 only	\$735.00
1005-269	15 kV Screened 20 m Leadset, 15 kV Clip for MIT1525 only	\$785.00



1-KV INSULATION TEST EQUIPMENT

Megger is the originator of insulation resistance testing and the world recognized leader in this area. The first instrument to perform such testing was introduced over 100 years ago. Based on valuable customer feedback and our many years of experience, we offer a complete range

of 1-kV insulation testers — the MIT200 Series, MIT300 Series and the MIT400/2 Series — designed to meet the varying needs and budgets of all types of customers.



CAT IV 600 V RATED

The MIT430/2 offers result storage, recall and Bluetooth downloading



Can also be used in solar applications when paired with the PV test lead kit. See page 26 for additional information.

The MIT400/2 series insulation and continuity testers are designed not just for Electrical and Industrial, but with an exceptionally wide range of applications from electrical installations, cable testing, motor testing, automotive, ESD, panel building, avionics, maintenance etc.

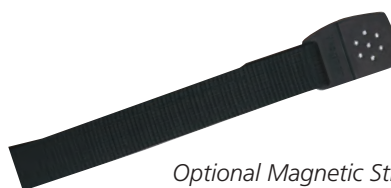
Insulation testing has been enhanced with feedback controlled test voltages to limit over-voltage to 2%, rather than the industry standard 10-20%.

A variable range has been added to allow any intermediate voltage from 10 V to 1000 V, where application-specific test voltages are required that do not appear in the standard ranges.

MIT400/2 SERIES



- Insulation testing up to 1000 V and 200 GΩ range
- Stabilized insulation test voltage (New)
- Single range, faster continuity testing from 0.01 Ω to 1 MΩ (New)
- 600 V Trms AC and DC voltage measurement
- Live circuit detection and protection
- User variable insulation test voltage from 100V to 1000V (New), depending on model
- Test result storage and Bluetooth® downloading, depending on model
- Rechargeable options for AC and car charging (New), depending on model
- CAT IV 600 V & IP54
- Available magnetic strap



*Optional Magnetic Strap,
Cat. No. 1010-013*

Continuity testing is now significantly faster, and a single auto-ranging 0.01 Ω to 1.0 MΩ function replaces the "ohms" and "kOhms" ranges. Retained are the 200 mA and 20 mA test options.

Replacing the original MIT400 instruments the new units feature a redesigned case, back-stand, and 6 cell battery compartment with separate fuse access. All instruments are over-moulded for increased protection and achieve an IP54 weatherproof rating.

SELECTION GUIDE FOR MIT400/2 SERIES

	Applications	Industrial				Telecom		
	Cat. No.	MIT400/2	MIT410/2	MIT420/2	MIT430/2	MIT410/TC3	MIT481/2-EN	MIT485/2-EN
Insulation voltage range	50 V, 100 V		■	■	■	■	■	■
	250 V, 500 V	■	■	■	■	■	■	■
	1000 V	■	■	■	■	■	■	■
	Variable			■	■			
	Insulation range (GΩ)	200	200	200	200	100	200	200
Additional functions	ac and dc voltage measurements (TRMS)	■	■	■	■	■	■	■
	Frequency: 40 Hz to 400 Hz		■	■	■	■	■	■
	Capacitance (0.1 nF to 10 μF)			■	■		■	■
	Insulation timed, PI, DAR tests		■	■	■		■	■
Additional features	Results storage			■	■		■	■
	Compatible with Megger download software				■			■
	Recharger options for AC line and car charging			■	■			
	Bluetooth downloading				■			■
Included Accessories	Remote switch probe		■	■	■		■	■
	Silicone test leads	■	■	■	■	■	■	■
	Calibration certificate	■	■	■	■	■	■	■
	Blow molded case	■	■	■	■	■	■	■
Warranty (years)**		1	1	1	1		1	1
List Price		\$685.00	\$775.00	\$810.00	\$935.00	\$775.00	\$1,250.00	\$1,175.00

** Extended warranty available for some products

MIT300 SERIES



The MIT300 Series of insulation testers includes five models to meet the needs of electrical contractors. They incorporate features such as automatic discharge, audio-visual warnings, and test inhibition to ensure operator safety and protection from accidental misuse.

The MIT310 adds a voltmeter function. The MIT320 has a backlight, illuminated panel, kΩ range, limit alarm and adjustable continuity buzzer. The MIT330 can store up to 1000 test results. The MIT310A features a genuine mechanical analog display.


The MIT300, MIT310, MIT320 and MIT330 feature an exclusive analog/digital display that clearly shows measurement results.

MIT200 SERIES




The MIT200 is one of the smallest insulation testers available on the market today. With four product options available, all the MIT200 instruments offer a range of safety and operation features expected from a Megger tester. The combined analog pointer and digital readout provide both accuracy and charge/discharge characteristics.

Voltage warning and display, plus voltage lockout protect both the user and the instrument, if accidentally connected to a live circuit. The MIT200 Series meet a wide range of international testing standards as well as BSEN 61557 and IEC61010.

SELECTION GUIDE FOR MIT300 SERIES						
	Cat. No.	MIT300-EN	MIT310-EN	MIT320-EN	MIT330-EN	MIT310A-EN Analog
Insulation testing	250 V	■	■	■	■	■
	500 V	■	■	■	■	■
	1000 V		■	■	■	■
	Range to 999 MΩ	■	■	■	■	■
	Insulation limit alarm (0.01 MΩ to 999 MΩ)			■	■	
Continuity testing	Continuity to 100Ω	■	■	■	■	■
	Continuity buzzer	■	■	■	■	■
	Lead null to 9Ω	■	■	■	■	0.5Ω
	Adjustable buzzer 1 to 20 Ω			■	■	
	Audible buzzer disable			■	■	
Resistance measurement	10 Ω to 1 MΩ range			■	■	
	0 Ω to 2 KΩ range					■
General	Voltage warning	■				
	Default voltmeter		■	■	■	■
	Backlit display			■	■	
	Backlight selector ranges			■	■	
	Locking test button	■	■	■	■	■
	Auto power-down	■	■	■	■	
	Switched test probe			■	■	
	IP54 weatherproof	■	■	■	■	■
	1000 test result storage				■	
	Downloading				■	
	Calibration certificate	■	■	■	■	
	Warranty (years)**	1	1	1	1	1
		■	■	■	■	■
	List Price	\$600.00	\$625.00	\$725.00	\$800.00	\$630.00

** Extended warranty available for some products

SELECTION GUIDE FOR MIT200 SERIES					
	Cat. No.	MIT200-EN	MIT210-EN	MIT220-EN	MIT230-EN
Insulation testing	250 V			■	■
	500 V	■		■	■
	1000 V		■		■
	1000 MΩ range	■	■	■	■
	Auto-ranging	■	■	■	■
	Auto discharge	■	■	■	■
	Test inhibit	■	■	■	■
	Live circuit voltage display	■	■	■	■
Continuity testing	Continuity @ >200 mA	■	■	■	■
	Continuity to 0.01 Ω	■	■	■	■
	Test lead null (9.99 Ω)	■	■	■	■
	Automatic continuity test	■	■	■	■
	Continuity buzzer with 5 Ω threshold	■	■	■	■
	Default volts warning	■	■	■	■
	Digital display + arc	■	■	■	■
General	Battery condition	■	■	■	■
	Auto power down	■	■	■	■
	Tough carry case	■	■	■	■
	Test leads	■	■	■	■
	CATIII 600 V	■	■	■	■
		■	■	■	■
	Warranty (years)**	1	1	1	1
	List Price	\$435.00	\$455.00	\$530.00	\$565.00

** Extended warranty available for some products



Model MIT230-EN

2.5 KV INSULATION TEST EQUIPMENT

The MIT2500 insulation and continuity tester has been designed for Electrical and Industrial test applications, where operation voltages exceed 1000 V and higher insulation test voltages are needed.

The MIT2500 offers both fixed range voltages of 50 V, 100V, 250 V, 500 V, 1000 V and 2500 V, as well as a variable range that allows any voltage between 50 V and 2500 V to be “dialed in”. This is supported by the new test voltage feedback control, which maintains the output

test voltage to within 2% of the selected range, even when under test.

The MIT2500 uses the redesigned case, back-stand, and 6 cell battery compartment, as well as incorporating a guard terminal to reduce surface tracking currents that reduce accuracy at higher voltages.

All instruments are over-moulded for increased protection and achieve an IP54 weatherproof rating.

NEW!

MIT2500



- Insulation testing up to 2.5 kV and 200 GΩ range in a hand held instrument
- Guard terminal for high resistance accuracy
- Adjustable insulation test voltage from 50 V to 2500 V
- Stabilized insulation test voltage
- Rechargeable options for ac and car charging
- Single range, faster continuity testing from 0.01 Ω to 1 MΩ
- Polarization Index (PI) & Dielectric Absorption Ratio (DAR)
- CAT IV 600 V applications
- Available magnetic strap



Optional Magnetic Strap, Cat. No. 1010-013


ORDERING INFORMATION FOR MIT2500

Cat. No.	Model	Description	Warranty (years)**	List Price
1006-764	MIT2500	2.5 kV Insulation Resistance Tester	1	\$1,535.00

** Extended warranty available for some products

MAJOR MEGGER INSULATION RESISTANCE TESTERS

This specialty line of instruments has become synonymous over the years for fine craftsmanship, something you have come to expect from Megger. These instruments continue to be very popular today with a choice of three outstanding models.

SELECTION GUIDE FOR MAJOR MEGGER MODELS								
	Cat. No		Test Voltage (V dc)	Insulation Resistance	Resistance range	Power source	Warranty (Years)**	List Price
General Purpose	212159	■	100, 250, 500, 1000	0 to 2000 MΩ	0 to 5000 Ω	Hand-cranked	1	\$1,230.00
	212359	■	100, 250, 500, 1000	0 to 2000 MΩ	0 to 5000 Ω	Line/Hand-cranked	1	\$1,355.00
High resistance	210170	■	100, 250, 500, 1000	0 to 20,000 MΩ	0 to 5000 Ω	Hand-cranked	1	\$1,490.00

** Extended warranty available for some products







General Purpose Model



High Resistance Model

ADDITIONAL INSULATION TEST EQUIPMENT

	Cat. No.	List Price	Test Voltages	Warranty (Years)**	Features
 BM5200	1001-289	\$2,155.00	250, 500, 1000, 2500, 5 kV	1	<ul style="list-style-type: none">■ 1 TΩ, 1.4 mA, 5 kV digital insulation tester with digital and analog display■ Five test ranges: 250 V, 500 V, 1000 V, 2500 V and 5000 V■ Insulation, Polarization Index and variable timed test modes■ Selectable DC or AC (including frequency) voltmeter functions■ Guard terminal to shunt surface leakage currents■ CATIII 600 V safety rating
 BM15	MJ15	\$3,055.00	500,1000, 2500, 5 kV	1	<ul style="list-style-type: none">■ Pass/Fail overlays for rapid “go/no go” testing and trend analysis■ Insulation resistance to 20 GΩ■ Voltage range to 600 V indicates auto discharge■ MJ15 hand-cranked and battery operated■ BM15 battery powered only
	BM15	\$2,720.00			
DC Dielectrics					
	220005	\$4,255.00	5 kV	1	<ul style="list-style-type: none">■ Ideal for insulation resistance measurements in medium voltage equipment, maintenance and field testing applications■ Leakage current measurement as low as 0.1 μA■ Fast charging of high capacitance equipment■ Analog metering range switching for greater accuracy■ Continuously adjustable Variac
	220015	\$5,715.00	15 kV	1	
Megohmmeters					
 15-kV Megohmmeter	210400	\$6,440.00	5 kV	1	<ul style="list-style-type: none">■ Suitable for step voltage and dielectric absorption testing■ Analog metering for monitoring of variable measurements■ Guard terminal eliminates surface leakage current from the measurement■ Analog metering range switching for greater accuracy■ Continuously adjustable Variac
	210415	\$8,475.00	15 kV	1	

** Extended warranty available for some products

GROUND RESISTANCE TEST EQUIPMENT

Megger is the expert in ground resistance testing. From time saving clamp-on ground testers to specialty models for high sensitivity testing, we have the ground resistance tester to fit your application and budget.

The Megger line of ground resistance testers provides high accuracy, a broad testing range and fast, reliable measurements. Megger ground testers are easy to use and lightweight.

The next few pages will outline the full line of ground testing equipment that Megger has to offer.

Our staff of professionals will help with your technical grounding questions and recommend the ground tester that best fits your need. Call us at 866-254-0962 or search the web at us.megger.com.

NEW!
DET2/3



The DET2/3 is a robust and compact advanced earth/ground test instrument designed to measure Earth electrode resistance and soil resistivity. The DET2/3 is a tester for use on large or more complex earth/ground systems, which include Power Stations, Substations, railways, communication systems and difficult test environments.

With its powerful processor controlled system it provides a flexible and 'user-friendly' approach to earth tests by the provision of excellent error detection capabilities and full test information shown on a large colour display. The DET2/3 can also provide a live trace of its measurements onscreen, which graphically shows the amount of changes and/or noise from the system under test - a powerful diagnostic tool for the ground testing professional.



DET2/3 SERIES SELECTION GUIDE			
Cat. No.	Description	Warranty	List Price
DET2/3	DET 2/3 ground tester without leads	1	\$4,950.00
1008-969	DET 2/3 ground tester plus lead kit - 50 m	1	\$5,735.00
1008-989	DET 2/3 ground tester plus lead kit -100 m	1	\$5,820.00

** Extended warranty available for some products



OPTIONAL TRANSIT CASE

The new product transport case is designed to offer your Megger MIT5-10-15 kV, DLRO10HD/ DLRO10HDX, DLRO100, DET2/3 the best protection, while keeping all the required test leads and accessories together. It is ideal for storing instruments in trucks or vans.



ORDERING INFORMATION TRANSIT CASE		
Cat. No.	Description	List Price
1009-744	Transit case for use with MIT5-10-15 kV DLRO10HD/HDX, DLRO100, DET2/3	\$535.00

DET3 CONTRACTOR SERIES



The DET3 Series of digital ground testing instruments from Megger is comprised of two models: an instrument for grounding and bonding tests and a unit that adds a current measuring function. With this added function, current on the ground rod can be measured for improved personnel safety and noise detection. The DET3TC includes the ART (Attached Rod Technique) method of testing which greatly reduces testing time.

These Megger digital ground testers are powered by eight AA batteries which give excellent testing time — the status of the batteries is given by a bar graph on the LCD. The Megger DET3 Series earth/ground testers is designed to meet stringent safety standards and is rated CAT IV 100V.

Each DET3 comes complete with test leads, stakes, batteries, calibration certificate and rugged polypropylene carry case.



DET3 SERIES SELECTION GUIDE		
	DET3TC	DET3TD
2-wire resistance	■	■
3-wire resistance	■	■
ART (attached rod technique) resistance measurement	■	
Resistance range	0.01 to 2000	0.01 to 2000
	2% ± 3d	2% ± 3d
Ground voltage range	0 to 100 V	0 to 100 V
Ground current range (with optional current measuring clamp)	0.5 mA to 19.9 A	
Warranty (years)**	1	1
List Price	\$1,040.00	\$915.00

** Extended warranty available for some products

WHAT’S IN THE DET3T NAME?

DIGITAL EARTH TESTER 3 TERMINAL

- D - Disposable Battery
- C - Works with MCC1010 (optional)

DET3TC works with MCC1010 (not included)



DET4T2 ENHANCED SERIES



These ground testers from Megger offer a comprehensive solution to ground resistance and soil resistivity testing needs. The instruments provide such functions as 2 pole, 3 pole, 4 pole, Attached Rod Technique (ART), stakeless, leakage current and ground noise voltage measurements. All models now include selectable output voltage (25 V or 50 V). The DET4TC2 and DET4TCR2 offer four selectable test frequencies (94, 105, 111 and 128 Hz) for improved testing in noisy environments.

An optional MCC1010 augments the traditional fall-of-potential measurement method with ART which allows electrode testing without disconnection and also leakage current measurement down to 1 mA. The MCV1010, a second optional clamp, enables true stakeless measurements to be made where driving a stake is not practical.

The DET4TC2 and DET4TD2 are powered by eight AA batteries which give excellent testing time. The DET4TR2 and DET4TCR2 are powered from rechargeable AA cells. For added convenience on all four units, the battery status is displayed using a bar graph.

The Megger DET4T2 Series earth/ground testers is designed to meet stringent safety standards and is rated CAT IV 100V.

THE ART OF GROUND TESTING

Ground testing using the ART (Attached Rod Technique) method is more convenient and reduces testing time. Models DET3TC, DET4TC2 and DET4TCR2 include this additional testing capability.

A nagging problem with traditional ground testing has been the requirement to disconnect the utility connection. Using the ART method you can reliably measure a grounding electrode while still connected and prove it!

The ART method is more convenient and significantly reduces your testing time as much as 40 percent!

The DET4TC2 and DET4TCR2 offer ART capability as well as stakeless testing and of course 4, 3 and 2 pole testing.

Find out about the Professional Ground Testing Kit See page 18

WHAT'S IN THE DET4T NAME?

DIGITAL EARTH TESTER 4 TERMINAL

- R** - Rechargeable Battery
- D** - Disposable Battery
- C** - Works with Clamp
- 2** - Second generation

DET4T2 SERIES SELECTION GUIDE					
	Model No.	DET4TD2	DET4TR2	DET4TC2	DET4TCR2
	Cat. No.	1000-347	1000-324	1000-345	1000-346
Tests	2-pole measurement	■	■	■	■
	3-pole measurement	■	■	■	■
	4-pole measurement	■	■	■	■
	Soil resistivity	■	■	■	■
	ART (attached rod technique) capability			■	■
	Stakeless (clamp-on) measurement capability			■	■
	Resistance range	0.01 to 20,000 Ω		0.01 to 200,000 Ω	
	Ground voltage range	0 to 100 V			
	Ground current range (with MCC1010) capability			0.5 mA to 19.9 A	
Output	Selectable voltage (25/50 V)	■	■	■	■
	Test frequency	128 Hz		94, 105, 111, 128 Hz	
Power supply	Alkaline batteries	■		■	
	Rechargeable batteries		■		■
Noise rejection	40 V peak-to-peak	■	■	■	■
Safety rating	CAT IV 100 V	■	■	■	■
Ingress protection	Rated to IP54	■	■	■	■
Included accessories	Hard carry case	■	■	■	■
	Test leads (50 ft, 30 ft, 10 ft) and spikes	■	■	■	■
	External ac/dc adapter		■		■
	Certificate of calibration	■	■	■	■
Warranty (years)**		1	1	1	1
List Price		\$1,505.00	\$1,805.00	\$1,905.00	\$2,235.00

** Extended warranty available for some products

[illegible]

** Extended warranty available for some products

DET14C AND DET24C CLAMP-ON EARTH/GROUND TESTERS



The DET14C and DET24C are advanced clamp-on ground testers used for measuring resistance of ground rods and associated installations. These instruments induce a test current into ground systems and measure ground resistance in multi-earth installations without the need to disconnect the electrical system. The technique effectively measures a loop resistance.

Hard-to-reach ground spikes are easily accessed with the instruments' short body length, a unique pre-test hold function, and display backlight for low light environments. The elliptical head shape greatly improves capacity enabling round cables up to 37 mm diameter and earth tapes (flat strip conductors) up to 50 mm wide to be clamped.

Good reliability is provided with smooth, flat core mating surfaces to prevent dirt build-up and ensure measuring integrity, and an extremely high battery life (24 hours continuous).

Both instruments feature date- and time-stamped test result storage reviewable on the large dual display. The DET24C offers a larger memory plus PC download capability.

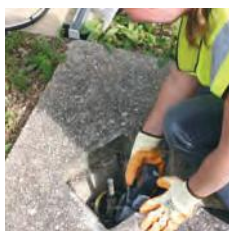
- Elliptical clamp shape with 39 mm x 55 mm inner jaw dimensions
- Low maintenance flat jaw interface
- Excellent safety rating of CAT IV 600V
- Automatic noise current warning safety feature
- Resistance and current ranges - auto ranging
- Automatic noise filter function
- Backlit display
- DET24C includes Bluetooth® and PowerDB Lite software
- 1 year warranty



These instruments are supplied in a hard carry case together with a calibration check loop, 4 x AA alkaline batteries, quick-start guide and a full user guide on a CD. The DET24C is supplied with Bluetooth® and Power DB Lite software on CD.



Smooth mating jaw surface



Large elliptical jaw allows testing at any angle



Backlit display



Largest jaw opening on the market

These instruments cannot be used to test an isolated electrode.

SELECTION FOR DET14C AND DET24C						
Model	Cat. No.	Ground resistance range	Power source	Memory capacity	Warranty (years)**	List Price
DET14C	1000-761	0.05 Ω to 0.99 Ω	Battery	256 records	1	\$1,600.00
DET24C	1007-331	1.00 Ω to 9.99 Ω		2000 records downloadable via Bluetooth	1	\$1,800.00
		10.0 Ω to 99.9 Ω				
		100.0 Ω to 199.9 Ω				
		200 Ω to 400 Ω				
		400 Ω to 600 Ω				
		600 Ω to 1200 Ω				
		1200 Ω to 1500 Ω				

** Extended warranty available for some products



PROFESSIONAL GROUND TESTING KIT



(Can be used with any of the DET3 or DET4 models)

Contents:

- Red and black cable reels (50 m); yellow and green cable reels (30 m)
- Earth electrode lead (4 m green, 4 mm shrouded plug and large croc clip)
- Auger style spikes - 4
- Fiberglass measuring tape, 50 m
- Molded polyethylene carrying case

ORDERING INFORMATION FOR THE GROUND TESTING KIT

Cat. No.	Description	Warranty (years)**	List Price
6320-245	Electrode and soil resistivity stake and wire kit	1	\$895.00

** Extended warranty available for some products

MULTIFUNCTION TESTER

NEW!



MFT70



The MFT70 Multifunction Tester provides all the tests required to complete the necessary electrical certification for industrial, commercial and domestic fixed wiring installations. All instruments are IEC 61010 CAT IV 300 V rated for connection to low voltage systems with no protective device, therefore, safe for connection anywhere on the system up to the source transformer without risk of damage from large transient spikes.

The unique modern styling allows it to be operated while placed on the floor, a ladder-shelf or platform, hung around the neck or hand-held. Dual TEST and LOCK buttons – one pair at each end – makes the tester easy to operate with either the left or right hand.

The MFT70 features internally rechargeable batteries and charger with a charge time of less than four hours, reducing the cost of ownership.

ORDERING INFORMATION FOR DET2/2

Model	Cat. No.	Description	Warranty (years)	List Price
MFT70	1007-044	Multifunction Tester	1	\$1,800.00

** Extended warranty available for some products

LOW RESISTANCE OHMMETERS

Megger has been manufacturing low resistance ohmmeters for many decades. In fact the first low resistance ohmmeter was launched in 1908. The first low resistance ohmmeter used a cross-coils meter movement.

Today, Megger has a comprehensive range of Low Resistance Ohmmeters, providing accurate and reliable measurements with test currents ranging from a few μA to 600 A suitable for many applications.

NEW!

DLRO100 SERIES

The new Megger DLRO100 series offers a unique range of 100 A digital low resistance testers. Never before has CATIV 600 V safety, operational IP54 ingress protection for dust and water, and lightweight, fast charge (2.5 hr), Li-ion battery technology been available on a continuous 100 A low resistance tester.

Providing low resistance measurements across a multitude of applications, including areas without access to line power, the DLRO100 is extremely flexible.

Applications include:

- Switchgear
- Circuit breaker
- Contact resistance
- Bus bar and cable joints
- Wire and cable resistance
- Lightning conductor bonding
- Welded joints
- Ground connections and joints



Megger has taken a no compromise approach when designing the new DLRO100 series. The range offers a unique combination of features with everything including DualGround™ testing, adjustable current ramping, high noise immunity, high power 100 A continuous testing and even remote control, yet still manages to be small and lightweight.

There are three models in the series. All three models can be line powered, are rated CAT IV 600 V and can test with currents from 10 to 110 A. "B" in the model name indicates the battery powered option (in addition to AC power).

- **DLRO100 E or EB** - The base model. B in the model name indicates the battery powered option.
- **DLRO100 X or XB** - This model includes all features in the basic model, with added data storage and DualGround™ testing capability.
- **DLRO100 H or HB** - The top-of-the-line model includes features in the E and X models, with asset tagging (enter unique asset ID's using the DLRO100 Asset Tag Windows app), Bluetooth® download and USB remote operation.

NOTE: The DLRO100 Units are not supplied with leads included.



A user replaceable high power lightweight Li-ion battery provides, from a single charge, 200 Manual/Auto 100 A tests or up to two 10 minutes continuous 100 A tests and takes 2.5 hours to charge when fully discharged.



A new terminal adapter has been designed to enable the use of user's own test leads.



A new tough adjustable clamp has been designed to ensure flexibility in many applications and provides a good connection with the test piece.

DLRO-10



DLRO-10X

10 AMP MODELS

DLRO-10 AND DLRO-10X



The DLRO-10 and DLRO-10X are built into a strong, lightweight case that is equally suitable in the field or in the laboratory. Light enough to be worn around the neck, they are small enough to be taken into areas which were previously too small to access. The DLRO-10 uses a large, bright 4½-digit LED display while the DLRO-10X has a large, backlit LCD.

The DLRO-10 displays the average of measurements achieved using forward and reverse current, while the DLRO-10X displays both individual measurements and the average. The DLRO-10X uses a menu system controlled by a two-axis paddle to allow the user to manually select the test current. The unit also adds real-time download of results and on-board storage for later download to a PC.

See ordering information on pages 23/24.

See page 21 for a convenient accessory for the DLRO10 and DLRO10X.



DLRO10HD



Common with the DLRO10 series, the DLRO10HD features output power limiting to 0.25 W so as not to heat the test piece. However, the DLRO10HD has the additional benefit of combining this with two high power*, high compliance ranges. Benefits include the ability to use much longer test leads if required, the ability to heat and, therefore, identify circuit weakness. In addition, with the ability to maintain 10 A for at least a minute, this allows for improved testing of inductive loads.

The DLRO10HD is designed to operate in the harshest of conditions, surviving knocks, drops, dusty and wet conditions. It can be used in the rain, and with the lid closed is sealed to IP65. There is no need to worry about inadvertent connection to live supplies. High input protection shrugs it off without even blowing a fuse.

The DLRO10HD is battery powered, and is equally convenient at home running on a line supply, even while charging the battery. This means the instrument is at home in manufacturing environments, never having to wait for the battery to charge. The DLRO10HD is always ready to test.

*25 W

See page 24 for industrial application kit



NEW!

DLRO10HDX



Augmenting Megger's DLRO10 and 10X range the DLRO10HDX combines ultimate simplicity of operation with a rugged IP65 case designed for stable ground and bench operation and provides memory storage.

- Onboard memory storage for test results up to 200 records
- Interchangeable test lead terminations

See page 24 for industrial application kit

OPTIONAL ACCESSORY

DLRO10LPU LINE POWER UNIT



The DLRO10 and DLRO10X can now be powered from a mains / line power supply.

The DLRO10LPU unit is simply fitted to the instrument in place of the standard battery pack.

When in use a red LED is illuminated when the instrument is powered from a mains/line power supply.



**This option also works with the BITE3. See page 36.*

ORDERING INFORMATION FOR LINE POWER UNIT		
Cat. No	Item	List Price
1003-171	DLRO10LPU-US Mains power attachment - US plug	\$515.00

DLRO200-EN, DLRO200-EN-NLS, DLRO200-115 AND DLRO200-115-NLS



- Small and weighs less than 15 kg
- Test currents from 10 A to 200 A dc
- 0.1 $\mu\Omega$ best resolution
- On board memory for up to 300 test results and notes
- RS232 port to download stored results or for real time output to a printer
- Supplied with download software
- Models DLRO200-EN and DLRO200-115 come complete with 5m test leads



DLRO200

See ordering information on pages 23/24.

OPTIONAL TRANSIT CASE

The new product transport case is designed to offer your Megger test instrument the best protection, while keeping all the required test leads and accessories together. It is ideal for storing instruments in trucks or vans.

The case is center hinged allowing the instruments to be operated without having to take them out. The two case halves then lay flat to form a work surface, keeping everything off the ground.



ORDERING INFORMATION TRANSIT CASE		
Cat. No.	Description	List Price
1009-744	Transit case for use with MIT5-10-15 kV, DLRO10HD/HDX, DLRO100, DET2/3	\$535.00



GENERAL PURPOSE DLROS (247000 SERIES)



Three models designed for general purpose testing applications. All units in this family feature digital readout, offer a resolution to 1 $\mu\Omega$ or better, and have a basic accuracy of $\pm 0.25\%$.

Dual-Pak DLRO (Cat. No. 247000)

- Separate measuring and charging modules
- Weighs less than 8 lbs (3.6 kg)
- Rechargeable battery with separate charger for hours of testing

Single-Pak DLRO (Cat. No. 247001)

- Measuring circuits, rechargeable batteries, and charger in one self-contained unit
- Housed in a tough case with hinged, removable lid and carrying handle
- Includes captive wing nuts

Single-Pak/Low-Range DLRO (Cat.No. 247002)

- Features a current-reversing switch to average out voltage offset
- Includes captive wing nuts
- Adds an extra decimal of resolution

See ordering information on pages 23-24.



General Purpose Model (247001)

Please note: These units do not include test leads

MOM2 HANDHELD MICRO-OHMMETER

- Up to 240 A
- Battery powered
- Lightweight – 1 kg
- Safe test – DualGround™
- Auto range: 1 $\mu\Omega$ to 1000 m Ω
- Bluetooth® PC communication
- Complies with IEEE and IEC standards

The revolutionary, MOM2 Micro-ohmmeter is designed to measure the resistance of circuit breaker contacts, bus-bar joints and other high-current links. This product is designed with safety, ease of use and versatility in mind.

The MOM2 uses an ultra capacitor to generate the high output current. The ultra capacitor is able to store a huge amount of energy compared to conventional capacitors and can deliver very high current during the discharge thanks to its very low internal resistance. The micro-ohmmeter can be used anywhere to measure a low resistance value with high accuracy.

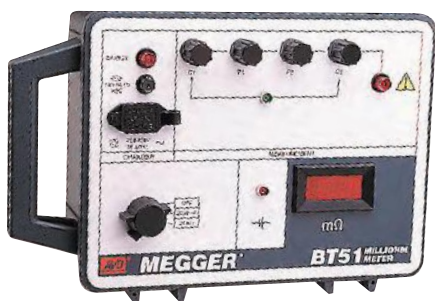
With MOM2 it is possible to make measurements according to the DualGround™ method. This means that the test object will be grounded on both sides throughout the test giving a safer, faster and easier workflow



SELECTION GUIDE FOR MOM2

Cat. No.	MOM2 + Clamps (BD-59092)	MOM2 + Probes (BD-59090)
Warranty (years)**	1	1
List Price	\$7,590.00	\$8,070.00

** Extended warranty available for some products



BT51 MILLI-OHMMETER



- Stable, accurate and reliable.
- Two measuring ranges (2000 mΩ and 20.00 mΩ).
- Four terminal measurement.

ORDERING INFORMATION FOR BT51

Model No.	Cat. No.	Description	Warranty (years)**	List Price
BT51/120	1006-606	Mill-ohmmeter	1	\$3,425.00

** Extended warranty available for some products

SELECTION GUIDE FOR DIGITAL LOW RESISTANCE OHMMETERS

		Cat. No																	
		DLRO100E	DLRO100X	DLRO100H	DLRO100EB	DLRO100XB	DLRO100HB	DLRO10HD (1006-603)	DLRO10HDX (1008-075)	DLRO-10 (1006-598)	DLRO-10X (1006-600)	247000	247001	247002	DLRO200-EN	DLRO200-EN-NLS	DLRO200-115	DLRO200-115-NLS (1000-565)	BT51
Output Current	2 amp																		
	10 amp	■	■	■	■	■	■	■	■	■	■	■	■						
	100 amp	■	■	■	■	■	■												
	200 amp*														■	■	■	■	
	Additional smoothing	■	■	■	■	■	■										■	■	
Resistance Range	0 to 599.9 μΩ													■					
	0 to 1.9999 mΩ								■	■									
	0 to 5.999 mΩ										■	■	■						
	0 to 19.999 mΩ									■	■								
	0 to 20.00 mΩ																		■
	0 to 59.99 mΩ											■	■	■					
	0 to 199.99 mΩ									■	■								
	0 to 599.9 mΩ											■	■	■					
	0 to 1.9999 Ω									■	■								
	0 to 5.999 Ω											■	■	■					
	0 to 19.999 Ω									■	■								
	0 to 59.99 Ω											■	■	■					
	0 to 199.99 Ω									■	■								
	0.1 mΩ to 1.999 Ω	■	■	■	■	■	■												
	0 to 1999.9 Ω									■	■								
	0.1 μΩ to 999.9 mΩ														■	■	■	■	
	0 to 2500.0 μΩ							■	■										
	0 to 25.000 mΩ							■	■										
	0 to 250.00 mΩ							■	■										
	0 to 2000 mΩ																		■
	0 to 2500.0 mΩ							■	■										
	0 to 25.000 Ω							■	■										
	0 to 250.00 Ω							■	■										
	0 to 2500.0 Ω							■	■										

continued on next page

*Configurable current output: 10 A to 200 A

SELECTION GUIDE FOR DIGITAL LOW RESISTANCE OHMMETERS (CONTINUED)

		Cat. No																	
		DLRO100E	DLRO100X	DLRO100H	DLRO100EB	DLRO100XB	DLRO100HB	DLRO10HD (1006-603)	DLRO10HDX (1008-075)	DLRO-10 (1006-598)	DLRO-10X (1006-600)	247000	247001	247002	DLRO200-EN	DLRO200-EN-NLS	DLRO200-115	DLRO200-115-NLS (1000-565)	BT51
Resolution	0.1 μΩ	■	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
	1 μΩ							■	■	■	■	■	■						
	10 μΩ							■	■	■	■	■	■						■
	100 μΩ							■	■	■	■	■	■						
	1 mΩ							■	■	■	■	■	■						■
	10 mΩ							■	■	■	■	■	■						
	100 mΩ							■	■	■	■								
Accuracy	0.25% + 1 lsd											■	■						
	0.3% + 2 lsd													■					
	1.00%													■	■	■	■		
	0.2% + 0.2 μΩ	■	■	■	■	■	■	■	■	■	■								
	0.2% + 2 μΩ							■	■	■	■								
	0.2% + 20 μΩ							■	■	■	■								
	0.2% + 200 μΩ							■	■	■	■								
	0.2% + 2 mΩ							■	■	■	■								
	0.2% + 20 mΩ							■	■	■	■								
Onboard Memory storage								■											
Power Source	Rechargeable battery				■	■	■	■	■	■	■	■	■						■
	Line power	■	■	■	■	■	■	■	■					■	■	■	■		
Warranty (years)**		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	List Price	\$5,370.00	\$5,790.00	\$6,470.00	\$5,680.00	\$6,210.00	\$6,890.00	\$4,015.00	\$4,885.00	\$3,595.00	\$4,365.00	\$4,720.00	\$4,320.00	\$5,630.00	\$6,775.00	\$6,260.00	\$7,285.00	\$6,775.00	\$3,425.00

† Configurable current output: 10 A to 200 A

** Extended warranty available for some products



DLRO10HD AND DLRO10HDX CATIII 300V INDUSTRIAL APPLICATION KIT

- Connect 4mm shrouded plugs to the DLRO10HD and DLRO10HDX
- Ideal for testing in Industrial locations
- Maintains instruments CATIII 300V rating of instruments
- Kelvin probe and clip lead sets supplied
- Bridging lead set supplied for accurately measuring cable resistance

ORDERING INFORMATION FOR INDUSTRIAL APPLICATION KIT

Cat. No.	Description	List Price
1011-376	Industrial Application Kit	Contact factory

DLRO LEADS

Megger DLROs require test leads, two potential and two current, to make low-resistance measurements. In addition to individual current and potential lead sets, duplex leads that combine current and potential connections in one set are offered. A variety of C-clamps, Kelvin clips, fixed point, and helical spring-point leads are available in various lengths.



Cat. No.
242011-7

Helical Spring Points

Tips rotate and compress into the probe's body to ensure accurate measurement. Cat. No. 242011-7, 242011-18, 242011-30, 242009-18



Cat. No.
242002-7

Heavy Duty Fixed Points

Economical, light weight and durable. Cat. No. 242002-7, 242002-18, 242002-30



Cat. No.
242004-18

Heavy Duty C-Clamps

Current passes through the C-Clamp and screw thread; potential passes through a four-point anvil insulated from the clamp metal Cat. No. 242004-7, 242004-18, 242004-30



Cat. No.
241005-7

Kelvin Clips

Feature spade lugs on outboard end and alligator clips with insulated, silver or gold plated jaws. Cat. No. 241005-7, 242005-7, 242006-7, 242006-18, 242006-30



Cat. No.
1006-444

Hand Spikes, DH Series

Feature indicator lights in one of the probes which duplicate warning and signal lights on the instruments. Cat. No. EV6111-503 (DH4), EV6111-517 (DH5).



Wind Turbine Lightning Protection Test Lead Set

Specially designed for measuring resistance of lightning protection circuit between wind turbine blade tip to ground. Cat. No. 1000-809

DUPLEX TEST LEADS

Cat. No.	EMS	Termination	Length	Current	List Price
242011-7	■	Helical hand spikes with spring points	7 ft. (2 m)	10 A	\$870.00
1006-442	■		8 ft. (2.5 m)	10 A	\$415.00
242011-18	■		18 ft. (5.5 m)	10 A	\$1,285.00
242011-30	■		30 ft. (9 m)	10 A	\$1,400.00
1006-444*	■	Duplex hand spikes	4 ft. (1.2 m)	10 A	\$555.00
1006-445*	■	Duplex hand spikes	8 ft. (2.5 m)	10 A	\$430.00
1006-446*	■	Duplex hand spikes	4 ft. (1.2 m)	10 A	\$620.00
242009-18	■	Helical hand spikes w/ spring points and current push-button switch	18 ft. (5.5 m)	10 A	\$940.00
242002-7	■	heavy-duty, fixed-point hand spikes	7 ft. (2 m)	10 A	\$845.00
242002-18	■		18 ft. (5.5 m)	10 A	\$995.00
242002-30	■		30 ft. (9 m)	10 A	\$1,185.00
242003-7	■	Replaceable needle points	7 ft. (2 m)	10 A	\$1,040.00
242104-2-16	■	Heavy-duty C-clamps	16 ft. (5 m)	100 A	\$2,060.00
242104-2-26	■		26 ft. (8 m)	100 A	\$2,405.00
242004-7	■		7 ft. (2 m)	10 A	\$625.00
242004-18	■		18 ft. (5.5 m)	10 A	\$745.00
242004-30	■		30 ft. (9 m)	10 A	\$1,305.00
241005-7**	■	0.5 in. (1.3 cm) Kelvin clips	7 ft. (2 m)	10 A	\$1,355.00
242005-7***	■		7 ft. (2 m)	10 A	\$220.00
242006-7	■	1.5 in. (4 cm) Kelvin clips	7 ft. (2 m)	10 A	\$385.00
242006-18	■		18 ft. (5.5 m)	10 A	\$550.00
242006-30	■		30 ft. (9 m)	10 A	\$1,515.00
1008-028	■	Current lead with HD clips and separate potential leads with clips	16 ft. (5 m)	600 A	\$930.00
6220-756	■		33 ft. (10 m)	600 A	\$1,740.00
6220-757	■		49 ft. (15 m)	600 A	\$3,035.00
1008-029	■		16 ft. (5 m)	200 A	\$845.00
1006-443*	■	Kelvin clip and hook ends on HD cable reel with friction brake	328 ft. (100 m)	10 A	\$250.00

* Used with DLRO10 and DLRO10X only

** Gold plated

*** Silver plated

DLRO100 TEST LEADS

Cat. No.	EMS	Termination	Length	Current	List Price
1004-448	■	DLRO100 CAT IV Lead Set	16 ft. (5 m)	100 A	\$765.00
1004-449	■		33 ft. (10 m)	100 A	\$1,045.00
1004-450	■		49 ft. (15 m)	100 A	\$1,455.00
1005-634	■	DLRO100 CAT IV Kelvin Lead Set	16 ft. (5 m)	100 A	\$765.00
1005-635	■		33 ft. (10 m)	100 A	\$1,045.00
1005-636	■		49 ft. (15 m)	100 A	\$1,455.00
1005-555	■	DLRO100 Terminal adapters (x2)	N/A	N/A	\$425.00

INDIVIDUAL TEST LEADS

Cat. No.	EMS	Type	Termination	Length	Current	List Price
242021-7	■	Potential	Hand Spikes	7 ft. (2 m)	N/A	\$515.00
242021-18	■			18 ft. (5.5 m)		\$710.00
242021-30	■			30 ft. (9 m)		\$735.00
242041-7	■	Current	Terminal Clips	7 ft. (2 m)	10 A	\$515.00
242041-18	■			18 ft. (5.5 m)		\$710.00
242041-30	■			30 ft. (9 m)		\$735.00
242144-16	■	Current	Clamps	16 ft. (5 m)	100 A	\$1,855.00

SOLAR PRODUCTS

PVM

Initially, the PVM210 may be used as an aid to select the most appropriate site for placing the solar panels. Once the installation is complete the PVM210 will be used to verify

the stated short circuit current, as marked on each panel, in conjunction with either a suitable multimeter or clampmeter.



PVM210 IRRADIANCE METER

The Megger PVM210 has been designed to provide the solar / photovoltaic engineer a compact, pocket size instrument that is easy to use. Single-handed operation is possible due to the solar detector and meter being housed in one neat unit. This feature is ideal when using the instrument on a sloping roof or when working at the top of a ladder.

The easy-to-read display and measurement hold feature allows fast accurate readings of solar power.

The PVM210 has a 3¾ digit LCD display with a measurement range up to 1999 W/m².

In addition to W/m² measurements, a selectable BTU (British Thermal Unit) measurement range up to 634 BTU / (ft 2*h) is also featured. The unit features a data hold function that freezes the display to allow easy reading of measurements. Range selection is featured on the PVM210.

A universal camera screw thread on the rear of the instrument allows accurate positioning if required when using a camera stand.

- Optimal incident angle and positioning of solar panels
- Measurement of solar power for panel short circuit calculation
- 3-3/4 digit LCD display with 1999 W/m² range
- Single handed use
- Pocket sized for easy carrying
- Standard camera mount fixing for accurate placement
- 1 year warranty

ORDERING INFORMATION FOR PVM

Cat. No.	Description	Warranty (years)**	List Price
1002-548	PVM210 Irradiance meter; 1999 W/m²	1	\$175.00

** Extended warranty available for some products



The **MIT400/2 series** has been proven to perform in the “renewable energy” industry. The MIT400/2 series has been used successfully in both wind and solar applications. From generators and cables to combiner boxes. Find pinched wires and leakage problems before they become dangerous with the Megger line of MIT400/2 series Insulation testers.

See page 8 for more details.

PVK

Both kits include the PVM210 irradiance meter. Additionally, two pairs of specialized solar test leads are included with the PVK units. The first pair is comprised of 4-ft leads terminated with standard 4 mm plugs and MC4-type solar panel connector.

The other pair consists of 6-in. adapter leads terminated with MC4 and MC3 solar connectors. Ratings of the leads are 19 A 1000 V.



PVK320 AND PVK330 PHOTOVOLTAIC KITS

- Choice of multimeter/clampmeter options for verifying solar panels
- Data hold allows easy measurements
- Single button operation
- Automatic on/off for prolonged battery life
- Compact instruments fit in pocket for easy carrying

The Megger PVK kits offer the photovoltaic engineer / electrician two choices of included test instruments for verifying a photovoltaic installation.

The PVK320 kit features the Megger PVM210 irradiance meter combined with the Megger AVO410 CATIV multimeter, while the PVK330 kit features the PVM210 with the DCM340 AC/DC clampmeter.

Both kits have a combined PV test lead / adapter set for MC3 and MC4 connection to solar panels. Also included is a zipped pouch for storing each kit.

The PV test leads, included with both kits, feature a set of red and black test leads with 4mm instrument plugs at one end, terminated with MC4 solar connectors at the other end.

The included adapter leads have MC4 connectors at one end with MC3 connectors at the other end. Ratings of the leads are 19A 1000V.

Both kits have a zipped pouch to store the instruments and leads.



ORDERING INFORMATION FOR PVK

Cat. No.	Description	Warranty (years)**	List Price
1002-550	PVK320	1	\$340.00
1002-551	PVK330	1	\$340.00
1002-549	PV Test leads	1	\$64.00

** Extended warranty available for some products

MULTIMETERS/CLAMPMETERS



DCM310

DCM310, DCM320, DCM340 CLAMPMETERS

- Resistance measurement up to 20 M Ω on DCM320; 400 Ω on DCM340
- Measure ac current up to 600 A
- Data hold feature
- Meet safety requirements of IEC 1010 CAT III 600V



DCM330 FORKMETER

- Open-jaw design enables simple and fast measurements
- ac and dc voltage measurements up to 1000 V
- Resistance range up to 20 M Ω
- Continuity buzzer and diode check
- Non-contact detection of ac voltage
- CAT IV, 600 V



DCM305E

- 0.001 mA resolution
- Up to 100 A range for standard AC current measurements
- Low pass filter to aid stability of readings
- Auto, data and peak hold
- 40 mm jaw
- Analog bargraph display for trending



DCM1500 1500 A TRMS CLAMP METER

- DC and AC current up to 1500 A
- True RMS measurement for greater accuracy
- Large jaw size safely assists with uninsulated conductor measurements
- 750 VAC and 1000 VDC
- Resistance, continuity and frequency
- Peak, min/max and data-hold functions

ORDERING INFORMATION DCM SERIES

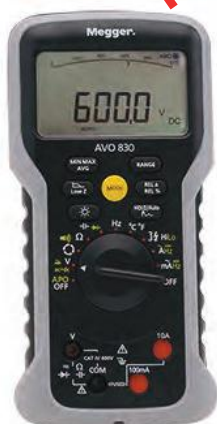
Cat. No.	Measurement Range	Warranty (years)**	List Price	Cat. No.	Measurement Range	Warranty (years)**	List Price
DCM305	100 A ac	1	\$305.00	DCM330-EN	200 A ac	1	\$143.00
DCM310-EN	400 A ac	1	\$80.00	DCM340-EN	600 A ac/dc	1	\$205.00
DCM320-EN	400 A ac	1	\$116.00				

** Extended warranty available for some products

NEW!

AVO830, AVO835 TRUE RMS MULTIMETER

- Voltage and current, with TRMS, resistance, conductance, capacitance, frequency and temperature measurement
- 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
- Phase sequence detection
- CAT IV 600 V and CATII 1000 V
- Dust and weather proof to IP64



ORDERING INFORMATION FOR AVO800 SERIES

Cat. No.	Description	Warranty (years)**	List Price
AVO830	Multimeter	1	\$265.00
AVO835	Multimeter	1	\$299.00

** Extended warranty available for some products

TIME DOMAIN REFLECTOMETERS

Whether locating cable faults or testing the integrity of communication, power, or control cables, TDRs available from Megger provide fast and accurate results. Models

with built-in or optional blocking filters can be used on energized cable up to a specified voltage limitation. Models without blocking filters are for de-energized cable only.

CFL535G TIME DOMAIN REFLECTOMETER



The CFL535G is a dual channel, compact Time Domain Reflectometer for locating faults on metallic cables. It has a minimum resolution of 0.1m/0.3ft and a 20km/60kft maximum range depending on velocity factor selected and cable type.

- Comprehensive dual channel capability with dual aspect display
- AUTO set up for instant use
- Ultra fast pulse for near-end fault identification
- One button press Xpert guidance to potential fault
- IP54 rating offers real life working conditions
- Designed for use on all metallic cable pairs
- Toughened and fully bonded LCD screen viewable in all light conditions
- CAT III 300 V, CAT IV 150 V



See CFL535G ordering information on page 31.



TDR2010 TIME DOMAIN REFLECTOMETER



The TDR2010 has the same features as the CFL535G with added trace tagging. The addition of the trace tagging function allows you to maintain accurate records of circuit details against every saved result.

See TDR2010 ordering information on page 31.



TDR2050 TIME DOMAIN REFLECTOMETER



The same as TDR2010 but with the addition of 600 V CAT IV rating, Step, Distance Dependant Gain (DDG) and FindEnd functions. This unit can also be used on energized circuits.

See TDR2050 ordering information on page 31.



CFL510G **TIME DOMAIN REFLECTOMETER**



- Single trace display with dual cursor
- 2 ns fast pulse for near-end fault identification
- Trace hold with live trace overlay
- Last setting memory
- 14 hour battery life



TDR500/3



- Simple operation
- AUTO selection of gain and pulse width
- Ultra fast pulse for near end fault identification
- Trace HOLD feature
- IP54 rating offers real life working
- Designed for use on all metallic cable pairs



TDR900



- Digital read-out TDR and cable length meter
- Autoranging for measuring power, telephony, CATV and LAN cable lengths
- Extra large, high resolution backlit LCD
- Internal library of 39 standard cable types
- Cable length calibration function
- Used only on de-energized circuits

SELECTION GUIDE FOR TDRS

Model	TDR900	TDR500/3	CFL510G	CFL535G	TDR2010	TDR2050
Measurement Ranges (full scale)	6200, 8000, 9800, 12,000 ft. (1900, 2400, 3000, 3700 m)	30, 75, 300, 750, 3000, 7500, 15000 ft (10, 25, 100, 250, 1000, 2500, 5000 m)	30, 75, 300, 750, 3000, 7500, 15,000 ft (10, 25, 100, 250, 1000, 2500, 5000 m)	Up to 65616 ft (20000 m) in 11 steps	Up to 65616 ft (20000 m) in 11 steps	Up to 65616 ft (20000 m) in 11 steps
Fault Location Modes	1	1	3	5	5	5
Display	Numeric	Graphic	Graphic LCD	Graphic LCD	Graphic LCD	Graphic LCD
Dual Cursors			■	■	■	■
Accuracy	±2 %	±1 %	±1 %	±1 %	±1 %	±1 %
Resolution	20 in. (50 cm)	1% of range	1% of range	1% of range	1% of range	1% of range
Gain	N/A	3 steps	3 steps	auto/manual	auto/manual	auto/manual
Velocity Factor	1.0 to 99.9%	0.2 to 0.99	0.2 to 0.99	0.2 to 0.99	0.2 to 0.99	0.2 to 0.99
Output Impedance (Ω)	25, 50, 75, 100, 125, 150 Automatically set	100	25, 50, 75, 100	25, 50, 75, 100, 125	25, 50, 75, 100, 125	25, 50, 75, 100, 125
Output Pulse	7 ns - 3 μs	2 ns for near fault location	2 ns for near fault location	2 ns for near fault location	2 ns for near fault location	2 ns for near fault location
Pulse Amplitude	5 V pk to pk	5 V pk to pk	5 V pk to pk	up to 20 V pk to ok	up to 20 V pk to pk	up to 20 V pk to pk
Low Battery Warning	■	■	■	■	■	■
Backlight	■	■	■	■	■	■
TX Null	N/A	■	■	■	■	■
Channels	1	1	1	2	2	2
Auto Shutdown	■	■	■	■	■	■
Result Storage	N/A	N/A	N/A	■	■	■
Download to PC	N/A	N/A	N/A	■	■	■
600V input protection						■
Rating	IP42	IP54	IP54	IP54	IP54	IP54
Trace Tagging	N/A	N/A	N/A	N/A	■	■
List Price	\$450.00	\$920.00	\$1,960.00	\$3,340.00	\$3,655.00	\$4,600.00

INCLUDED ACCESSORIES FOR TDRS

Model	TDR900	TDR500/3	CFL510G	CFL535G	TDR2010	TDR2050
Included Accessories						
Lead Set	■	■	■	■	■	■
Test/Carry Case	■	■	■	■	■	■
USB Download Lead	N/A	N/A	N/A	■	■	■
Download Software	N/A	N/A	N/A	TraceXpert	TraceXpert	TraceXpert
Batteries	■	■	■	■	■	■
Warranty (years)**	1	1	1	1	1	1

** Extended warranty available for some products

SUBSTATION TEST EQUIPMENT

Megger makes a line of test equipment specifically designed to test and maintain a variety of critical electrical apparatus found in electric utility and industrial substations. Also, these instruments are rugged, field proven and useful in the following markets:

- Airports
- Power Plants
- Government/Military
- Universities
- Mining



HANDHELD TTR20-1

The TTR20-1 is an excellent complement to the world-renowned hand-cranked TTR. It can measure the full range of transformers, even high MVA types. It measures three-phase transformers phase by phase.

The TTR20-1 is the perfect tool for testing transformers for turns ratio, polarity and excitation current. It is primarily designed to fill a need for simple, push-to-test transformer testing. The TTR20-1 allows the user familiar with transformer testing to obtain results without transformer configuration knowledge.

The significant features of the TTR20-1 include:

- Fewer buttons and no menus make it extremely easy to use and acquire data
- No PC software needed to learn to upload data. Simply use HyperTerminal
- Prints data in real-time to maintain hard copies of test results
- Replaceable “AA” (IEC LR6) batteries that last 12 hours or more (if using the specified batteries)
- Measures turns ratio, polarity and excitation current
- Rugged metal connectors for use in harsh conditions

ORDERING INFORMATION FOR TTR20

Cat. No.	Description	Warranty (years)**	List Price
TTR20-1	Handheld Transformer Turns Ratio Test Set	1	\$3,215.00

** Extended warranty available for some products

SINGLE-PHASE, HAND-CRANK TTR

- Measures turns ratio and exciting current of windings in power, PTs and CTs
- Used for testing single- and three-phase power and distribution transformers
- Applies 8 Vac with current up to 1 Amp

ORDERING INFORMATION FOR SINGLE-PHASE TTR

Cat. No.	Description	Warranty (years)**	List Price
550005B	Single-phase, hand-crank Transformer Turns Ratio Test Set	1	\$7,050.00

** Extended warranty available for some products



OIL TEST SET

SEMI-AUTOMATIC OIL TEST SET

- Robust oil chamber lid
- Sturdy and protective control panel lid
- Easy, semi-automatic operation
- Suitable for all oil breakdown testing to 60 kV
- Automatic 1 minute timer for easy withstand testing



ORDERING INFORMATION SEMI-AUTOMATIC OIL TEST SET			
Cat. No.	Description	Warranty (years)**	List Price
OTS60SX/2 (1005-272)	Semi-automatic Oil Test Set	1	\$4,445.00
OTS60SX/2 KIT (1008-225)	OTS60SX/2 US Kit (includes vessel, mushroom and cylindrical electrodes)	1	\$5,100.00
6320-233	Spherical-type vessel electrodes	1	\$420.00
6320-234	Mushroom-type electrodes	1	\$420.00
6111-356	Cylindrical-type electrodes	1	\$880.00

** Extended warranty available for some products

POWER QUALITY

NEW!

MPQ1000



The Megger MPQ1000 Power Quality Analyzer is an advanced handheld 3-phase analyzer. It is a highly intuitive analyzer that delivers unmatched capability in a smart ergonomic platform. View RMS data, waveforms, demand data, phase angles, harmonics, unbalance, flicker and more in real time with the MPQ1000 scope mode and DVM mode. When data needs to be recorded the MPQ1000 record verification will automatically identify the current clamps, recognize their range and verify the unit is connected properly. Simply connect it and push the record button.

The MPQ1000 can record for extended periods of time because of its massive memory. It utilizes an SD card, which makes expanding the memory as easy as installing a new SD card. The recorded data can be viewed on the MPQ1000 color VGA display or 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.

- Automatic CT recognition
- Automatic connection verification
- On-board data analysis
- SD card and USB stick support
- 1000 V ac and 1000 V dc range
- Scope and DMM modes
- CATIV @ 600 V
- IEC61000-4-30 Class A compliant



POWER QUALITY SIMULATOR

An optional accessory for the MPQ1000 is an ideal training tool. Creates a three-phase source, 50/60 Hz and loads off of single-phase dc adapter.

ORDERING INFORMATION FOR MPQ1000

Cat. No.	Description	Warranty (years)**	List Price
MPQ1000 - Basic	MPQ1000 Basic Kit	1	\$6,650.00
MPQ1000 - Silver	MPQ1000 Silver Kit	1	\$7,890.00
MPQ1000 - Silver Plus	MPQ1000 Silver Plus Kit	1	\$8,325.00
MPQ1000 - Gold	MPQ1000 Gold Kit	1	\$8,300.00
MPQ1000 - Gold Plus	MPQ1000 Gold Plus Kit	1	\$8,775.00
MPQ1000 - Platinum	MPQ1000 Platinum Kit	1	\$8,700.00
MPQ1000 - Platinum Plus	MPQ1000 Platinum Plus Kit	1	\$9,350.00
MPQ-SIM-01	PQ Simulator	1	\$5,195.00

** Extended warranty available for some products

MPQ1000 BASIC KIT

Includes MPQ1000 analyzer, voltage leads, 32GB SD card, USB cable, ethernet cable, universal power adapter, soft-sided carry bag plus fuse adapters and hanging strap.

Does not include current clamps..

See ordering information on page 34.



MPQ1000 Basic Kit - C/N MPQ1000-BASIC

MPQ1000 SILVER KITS

Includes MPQ1000 analyzer, voltage leads, 32GB SD card, USB cable, ethernet cable, universal power adapter, soft-sided carry bag, plus hanging strap, voltage lead plunger clips, and 3 MCCV6000-18 (four range flex 18 cm ID) CTs

Silver Plus kit: The same as the Silver kit above except with 4 MCCV6000-18 CTs.

See ordering information on page 34.



MPQ1000 Silver Kit - C/N MPQ1000-S-KIT



MPQ1000 Silver Plus Kit -
C/N MPQ1000-S-KIT-PLUS

MPQ1000 GOLD KITS

Gold kit: MPQ1000 analyzer, voltage leads, 32GB SD card, USB cable, ethernet cable, universal power adapter, soft-sided carry bag, plus hanging strap, voltage lead plunger clips, and 3 MCCV6000-27 (four range flex 27 cm ID) CTs

Gold Plus kit: The same as the Gold kit above except with 4 MCCV6000-27 CTs.

See ordering information on page 34.



MPQ1000 Gold Kit - C/N MPQ1000-G-KIT



MPQ1000 Gold Plus Kit -
C/N MPQ1000-G-KIT-PLUS

MPQ1000 PLATINUM KITS

Includes MPQ1000 analyzer, voltage leads, 32GB SD card, USB cable, ethernet cable, universal power adapter, soft-sided carry bag, plus hanging strap, voltage lead plunger clips, and 3 MCCV6000-37 (four range flex 37 cm ID) CTs

Platinum Plus kit: The same as the Platinum kit above except with 4 MCCV6000-37 CTs.

See ordering information on page 34.



MPQ1000 Platinum Kit - C/N MPQ1000-P-KIT



MPQ1000 Platinum Plus Kit -
C/N MPQ1000-P-KIT-PLUS

BATTERY TEST EQUIPMENT

Megger has the right equipment for your battery maintenance requirements regardless of whether you are testing flooded lead-acid, VRLA or Ni-Cd batteries. The BITE® products are so easy to use that the test can be performed quickly by one person. All BITE instruments have the ability to download to a PC for database use and further data analysis.



BITE3

The BITE3 determines the health of lead-acid cells up to 2000 Ah by taking measurements of the most important battery parameters. It measures cell impedance, cell voltage, intercell connection resistance and float and ripple currents. It also measures the harmonic content of the ripple current with its built-in spectrum analyzer.

The BITE3 comes complete with:

- Line charger
- Power DB lite software
- RS232 modem cable
- Dual point test leads (7 ft)
- Spare test lead tips
- Canvas carrying case

The BITE3, combined with Power DB, is extremely useful in determining the health of batteries and to plan their replacements in an orderly, non-emergency manner. The BITE3 and Power DB are the most powerful battery management system available today.

**Optional accessory DLRO10LPU also available enables the BITE3 to be powered by 120 Vac. See page 20.*

ORDERING INFORMATION FOR BITE3

Cat. No.	Description	Warranty (years)**	List Price
BITE3	Battery Impedance Test Equipment	1	\$6,500.00

** Extended warranty available for some products



BITE2P

BITE2

BITE2 AND BITE2P

The BITE2 and BITE2P determine the condition of lead-acid and nickel-cadmium cells up to 7000 Ah such as in telco, UPS, substation and many more.

The BITE2 is compact and is ideal for service companies and for those using laptops to interpret data on-site. Impedance measurements, along with other data such as ambient and pilot cell temperatures and ac ripple current, assist in determining the overall condition of battery systems.

The BITE2P has a built-in printer to review data, find weak cells, and leave a hard copy record at the site.

ORDERING INFORMATION FOR BITE2 AND BITE2P

Cat. No.	Description	Warranty (years)**	List Price
BITE2	Battery Impedance Test Equipment	1	\$8,400.00
BITE2P	Battery Impedance Test Equipment with built-in printer	1	\$9,450.00

** Extended warranty available for some products

PORTABLE APPLIANCE TESTERS

Implementing a regular inspection program that includes PAT testing of electrical equipment and appliances will help protect personnel from shock hazards, facilities from electrically induced fires and businesses from litigation. For

businesses that manufacture and ship electrical products to the European Union, PAT testing at the factory will ensure that products shipped will pass import testing and not become a costly problem.

PAT450



The PAT450 is the ideal instrument for companies who engage in portable appliance testing and have a requirement to customize and adapt testing routines. Because the PAT450 conforms to the latest European regulations and standards, it enables US companies shipping electrical products internationally to ensure that their export products will pass import testing.

The PAT450 can perform earth bond continuity tests; 250V and 500V insulation tests, and a touch current test. Others include a differential leakage test; a substitute/alternative leakage test; a functional load test; and a hi-pot/flash test. The PAT450 also tests extension and power cords.



- 10,000-record on-board memory
- Large 5.7 in. ¼ VGA backlit full color screen
- 200 mA; 10 A and 25 A bond test with high duty cycle
- Selectable PASS/FAIL limits
- Works with standard barcode scanners

ORDERING INFORMATION FOR PAT450

Cat. No.	Description	Warranty (years)**	List Price
1000-956 (PAT450-US)	Portable Appliance Tester	1	\$3,005.00

** Extended warranty available for some products



PAT320



The PAT320 is a full-featured portable bench-top appliance tester designed for customers who do not need the complexity of a fully configurable database of clients and results within the tester. It offers a complete range of functions to allow automatic or manual testing of the widest range of electrical equipment. It is ideal for testing the safety of electrical equipment by performing a ground bond test, an insulation test, specific ground leakage tests and operational VA tests to international standards.

- Simple pushbutton operation
- Pass/Fail indicator
- Full-color display
- Supports all regulatory test requirements (Class I and Class II equipment)

ORDERING INFORMATION FOR PAT320

Cat. No.	Description	Warranty (years)**	List Price
1001-366 (PAT320-US)	Portable Appliance Tester	1	\$1,800.00

** Extended warranty available for some products

SPECIAL MAINTENANCE

Megger offers a wide range of test and measuring instruments for unique applications. These high quality, easy to use instruments include:

- Electrical Appliance Testers
- Three-Phase Sequence



Cat. 230415
shown

HIGH-POT TESTERS

- Ground continuity check of 3-wire devices with high voltage interlock
- Leakage current adjustable on front panel from 0.3 to 12.3 mA
- One-second or continuous testing
- Automatic failure shutdown

ORDERING INFORMATION FOR HIGH-POT TESTERS

Cat. No.	Description	Warranty (years)**	List Price
230315	AC High-pot Tester, 0 to 3 kV ac	1	\$2,735.00
230415	AC High-pot Tester, 0 to 4 kV ac	1	\$2,735.00
230425	AC/DC High-pot Tester, 0 to 4 kV ac, 0 to 5 kV dc	1	\$3,425.00

** Extended warranty available for some products



CABLE HEIGHT METER

- Inherently safe
- No physical connection to cables under test
- Noise and stray signal rejection
- Measures the height of up to 6 overhead cables
- 3 ranges available

ORDERING INFORMATION FOR CABLE LOCATORS AND CABLE ROUTE TRACERS

Cat. No.	Description	Warranty (years)**	List Price
CHM2000	Telecom Cable Height Meter, 35 ft (11 m)	1	\$825.00
659600	Power Cable Height Meter, 50 ft (15 m)	1	\$975.00
659600E	Power Cable Height Meter, 75 ft (23 m)	1	\$1,115.00

** Extended warranty available for some products

THREE-PHASE SEQUENCE

The three-phase sequence equipment consists of a range of power line testing products including:

- Phase and motor rotation testers to determine motor rotation without energizing the motor.
- Cable phasing meters to measure voltage and determine phase rotation of underground distribution systems.
- Phase sequence indicators for identifying the phase sequence and any faulty or open phase of energized lines.



Cat. No. 560060

MOTOR & PHASE ROTATION TEST SETS

- Determine the rotation direction of single and three-phase motors before connection to the line
- Identify true phase sequence of energized 50/60 Hz power lines up to 600 V
- Supplied with easily connected alligator clip leads
- Determine polarity of power and instrument transformers



Cat. No. 830220-1

CABLE PHASING METER

- Designed to phase out cables
- Battery operated
- Measures capacitance of test point if system voltage is known
- Works on capacitance test points incorporated into elbow connectors



Cat. No. PSI-700

PHASE SEQUENCE TEST SETS

Model PSI-700

- Indicates A, B or C phase
- No moving parts, batteries or binding posts and requires no power source
- Housed in a rugged, insulated enclosure

SELECTION GUIDE FOR THREE-PHASE SEQUENCE EQUIPMENT

Cat. No.	Description	Max Voltage	Frequency	Warranty (years)**	List Price
560060	Motor and Phase Rotation Tester	600 V	50/60	1	\$1,665.00
560400	Motor and Phase Rotation Tester	600 V	25/50/60/400	1	\$2,310.00
830220-1	Cable Phasing Meter	30 kV	50/60	1	\$2,620.00
PSI-700	Phase Sequence Tester	700 V	50/60	1	\$645.00

** Extended warranty available for some products

SAFETY TEST EQUIPMENT

VOLTAGE DETECTORS AND PHASING TESTERS

DETEX® VOLTAGE DETECTORS

- Verify the absence of voltage on a line or terminal of any grounded electrical system
- Flashing LEDs and piercing tone warn of phase-to-ground voltages
- Self-test ensures detector is working properly
- Continuous monitoring with no ON/OFF switch
- Fits most standard hot sticks
- All ratings per ANSI C84.1, with conformance to IEC 61243-1 guidelines for capacitive high-voltage test instruments
- Telescopic 48-in. pole retracts to 34-in. for easy storage when not in use

See ordering information on page 41.



Cat. No. 514360-X
Voltage Detector



Cat. No. 514440-2
Voltage Detector



Cat. No. 514242
Transmission Line Voltage
Detector

DETEX® PHASING TESTERS

- Ideal for use on grounded and ungrounded ac systems to check high-voltage fuses
- Analog models (514500 series) are ideal for areas where an LED lamp is not easily visible
- Cat. No. 510836-1 provides bright LED indication for easy visibility where lighting conditions are poor
- Equipped with two fixed-length poles connected by flexible, insulated cable
- Handguards are standard on lower voltage models
- High voltage units are fitted with universal spline-fitting for attachment to a standard hot stick

See ordering information on page 41.



Analog Phasing
Tester
C/N 514500-2

DETEX® SINGLE-POLE PHASE COMPARATOR

- Performs phase comparison with a single pole
- No connecting cable to limit distance and mobility
- Memorizes reference phase, then visual and audible indicators signal whether additional phases are in phase or in opposition
- Unit is fitted with universal spline-fitting for attachment to a standard hot stick
- Battery operated
- Complies with IEC 61481

NOTE: This unit is not a voltage detector.

See ordering information on page 41.



Cat. No. 510900
Single-pole Phase
Comparator

PIEZO VERIFIERS

- Designed for use with both single pole and two-pole detectors
- Consist of a Piezo generator of very small dimensions enclosed in a case of insulating material
- Operated by a handle of molded material
- A high-voltage model (cat. no. 510006) provides selectable outputs of 10, 20, and 30 kV



ORDERING INFORMATION FOR PIEZO VERIFIERS

Cat. No.	Description	Warranty (years)**	List Price
510005	Piezo Verifier, generates 1800 V	1	\$620.00
510006	Piezo Verifier, generates 10, 20, 30 kV	1	\$645.00

** Extended warranty available for some products

PNEUMATIC GLOVE TESTER

- Rugged molded air pump designed to test all types of rubber gloves, with maximum convenience and minimum effort
- Built-in check valve retains pressure within the glove
- Two fabric covered elastic sealing rings are provided



ORDERING INFORMATION FOR PNEUMATIC GLOVE TESTER

Cat. No.	Description	Warranty (years)**	List Price
512117	Pneumatic Glove Tester	1	\$305.00

** Extended warranty available for some products

ORDERING INFORMATION FOR VOLTAGE DETECTORS & PHASING TESTERS

Cat. No.	Operating Voltage	Indicator Type	Warranty (years)**	List Price
Voltage Detectors			1	
514360-1*	2.3 to 7.2 kV	Red LED & audible	1	\$1,615.00
514360-5	4 to 14.5 kV	Red LED & audible	1	\$1,590.00
514360-6	11.7 to 36.2 kV	Red LED & audible	1	\$1,600.00
514360-7	24.3 to 72.5 kV	Red LED & audible	1	\$1,600.00
514242-1	67 to 235 kV	Red LED & audible	1	\$2,390.00
514242-2	200 to 550 kV	Red LED & audible	1	\$2,390.00
514440-2*	3.6 to 36.5 kV	White LED	1	\$1,090.00
Phasing Testers				
510836-1*	4.16 to 34.5 kV	LED	1	\$2,010.00
514500-1*	2.4 to 6.9 kV	Analog Meter	1	\$4,115.00
514500-2*	6.9 to 34.5 kV	Analog Meter	1	\$4,115.00
514500-3	34.5 to 69 kV	Analog Meter	1	\$5,300.00
514500-4	6.9 to 34.5 kV	Analog Meter	1	\$5,395.00
510900	10 to 30 kV, 50/60 Hz	LED	1	\$3,225.00

*Pole included

** Extended warranty available for some products

VF2 AC VOLTAGE DETECTOR

- Non-contact detection of ac voltage
- Automatic audible warning buzzer
- Also doubles as a flashlight
- 100-600 V ac 50/60 Hz



MPU690 PROVING UNIT

- 5 stepped nominal output voltages (50 to 690) V ac
- Automatic operation
- High output power suitable for test lamps
- Extended battery life
- Magnetic base
- Rugged case



ORDERING INFORMATION FOR VF2

Cat. No.	Description	Warranty (years)**	List Price
1000-213	VF2 AC Voltage Detector	1	\$20.00

** Extended warranty available for some products

ORDERING INFORMATION FOR MPU690

Cat. No.	Description	Warranty (years)**	List Price
1001-561	MPU690 Proving Unit	1	\$103.00

** Extended warranty available for some products

TEST AND MEASUREMENT SOFTWARE

MAINTENANCE TEST DATA MANAGEMENT SOFTWARE

PowerDB Lite software is used for managing instrument test results and archiving test forms that can be used for generating formal test reports. This cost-effective solution for test data form creation is supplied free of charge with selected Megger instruments.

For more information on PowerDB, log onto our website — us.megger.com

Turn to page 4 for information on our insulation testers and page 13 for information on Megger ground testers

Insulation Resistance Tests

The test forms supplied in PowerDB Lite work with the Megger MIT525, MIT1025, and MIT1525 insulation resistance test sets. Test results can either be downloaded from the instrument onboard memory or during the test with real time download.

Earth/Ground Resistance Tests

Two major challenges of earth ground resistance acceptance and maintenance testing are quickly addressed in this easy-to-use software package:

- Producing professional forms showing the test method utilized in a clear and easy to read format.
- Carrying out the required calculations for chosen test method. Many methods that offer real advantages are not utilized because of their complexity.

CROSS-REFERENCE GUIDE

Cat. No.	Description	Page	Cat. No.	Description	Page
210170.....	Major Megger.....	12	DCM300E.....	AC Leakage Clampmeter.....	28
212159.....	Major Megger.....	12	DCM330.....	Forkmeter.....	28
212359.....	Major Megger.....	12	DET2/3.....	Ground Tester.....	13
210400.....	Megohmmeter.....	12	DET14C.....	Clamp-on Ground Tester.....	16
210415.....	Megohmmeter.....	12	DET24C.....	Clamp-on Ground Tester.....	16
220005.....	DC Dielectric Test Set.....	12	DET3 Series.....	Earth/Ground Resistance Tester.....	13
220015.....	DC Dielectric Test Set.....	12	DET4T2 Series.....	Earth/Ground Resistance Tester.....	14
230315.....	AC High-pot Tester.....	38	DLRO10/10X.....	DLRO, 10 Amp.....	20
230415.....	AC High-pot Tester.....	38	DLRO10HD.....	DLRO, 10 Amp.....	20
230425.....	AC/DC High-pot Tester.....	38	DLRO10HDX.....	DLRO, 10 Amp.....	20
247000 Series.....	General Purpose DLROs.....	22	DLRO100.....	DLRO, 100 Amp.....	19
510005.....	Piezo Verifier.....	41	DLRO200.....	DLRO, 200 Amp.....	21
510006.....	Piezo Verifier.....	41	LT300-EN.....	High Current Loop Tester.....	18
510836-1.....	Detex Phasing Tester.....	40	MIT1025.....	10-kV Insulation Tester.....	4
510900.....	Single-pole Phase Comparator.....	40	MIT1525.....	10-kV Insulation Tester.....	5
512117.....	Pneumatic Glove Tester.....	41	MIT200 Series.....	1-kV Insulation Testers.....	9
514242-X.....	Detex Voltage Detectors.....	40	MIT2500.....	2.5-kV Insulation Tester.....	11
514360-X.....	Detex Voltage Detectors.....	40	MIT30.....	30-kV Insulation Tester.....	5
514440-2.....	Detex Voltage Detector.....	40	MIT300 Series.....	1-kV Insulation Testers.....	9
514500-X.....	Detex Phasing Testers.....	40	MIT400/2 Series...	1-kV Insulation Testers.....	8
550005B.....	Single Phase TTR.....	32	MIT515.....	5-kV Insulation Tester.....	4
560060.....	Motor and Phase Rotation Tester.....	39	MIT525.....	5-kV Insulation Tester.....	4
560400.....	Motor and Phase Rotation Tester.....	39	MJ15.....	5-kV Insulation Tester.....	12
659600.....	Power Cable Height Meter.....	38	MOM2.....	Handheld Micro-ohmmeter.....	22
830220-1.....	Cable Phasing Meter.....	39	MPQ1000.....	Power Quality Analyzer.....	34
AVO410.....	Multimeter.....	28	MPU690.....	Proving Unit.....	42
AVO830.....	TRMS Multimeter.....	28	OTS60SX2.....	Oil Test Set.....	33
AVO835.....	TRMS Multimeter.....	28	PAT320.....	Portable Appliance Tester.....	37
BITE 2/2P.....	Battery Impedance Tester.....	36	PAT450.....	Portable Appliance Tester.....	37
BITE 3.....	Battery Impedance Tester.....	36	PVK320/330.....	Photovoltaic Kits.....	27
BM15.....	5-kV Insulation Tester.....	12	PVM210.....	Irradiance Meter.....	26
BM5200.....	5-kV Insulation Tester.....	12	PSI-700.....	Phase Sequence indicator.....	39
BT51.....	Milliohmmeter.....	23	TDR500/3.....	Time Domain Reflectometer.....	30
CFL510G.....	Time Domain Reflectometer.....	30	TDR900.....	Time Domain Reflectometer.....	30
CFL535G.....	Time Domain Reflectometer.....	29	TDR2010.....	Time Domain Reflectometer.....	29
CHM2000.....	Telecom Cable Height Meter.....	38	TDR2050.....	Time Domain Reflectometer.....	29
DCM Series.....	Digital Clamp Meters.....	28	TTR20-1.....	Handheld TTR.....	32
DCM1500.....	TRMS Clampmeter.....	28	VF2.....	AC Voltage Detector.....	42



Megger makes high quality instruments for the following electrical testing applications:

- Insulation Testing
- Ground Testing
- Relay Testing
- Oil Testing
- Circuit Breaker Testing
- Power Quality Analysis
- Low Resistance Testing
- Battery Testing
- Watthour Meter Testing
- Transformer Testing
- Cable Fault Locating
- Power Factor Testing
- Hi Pot Testing

Megger manufactures electrical test and maintenance instruments for electrical power, process manufacturing, building wiring, engineering services and communications.

Valley Forge Corporate Center
2621 Van Buren Avenue
Norristown, PA 19403-2329
Phone: 866-254-0962
Phone: 610-676-8500
Fax: 610-676-8610
us.megger.com

