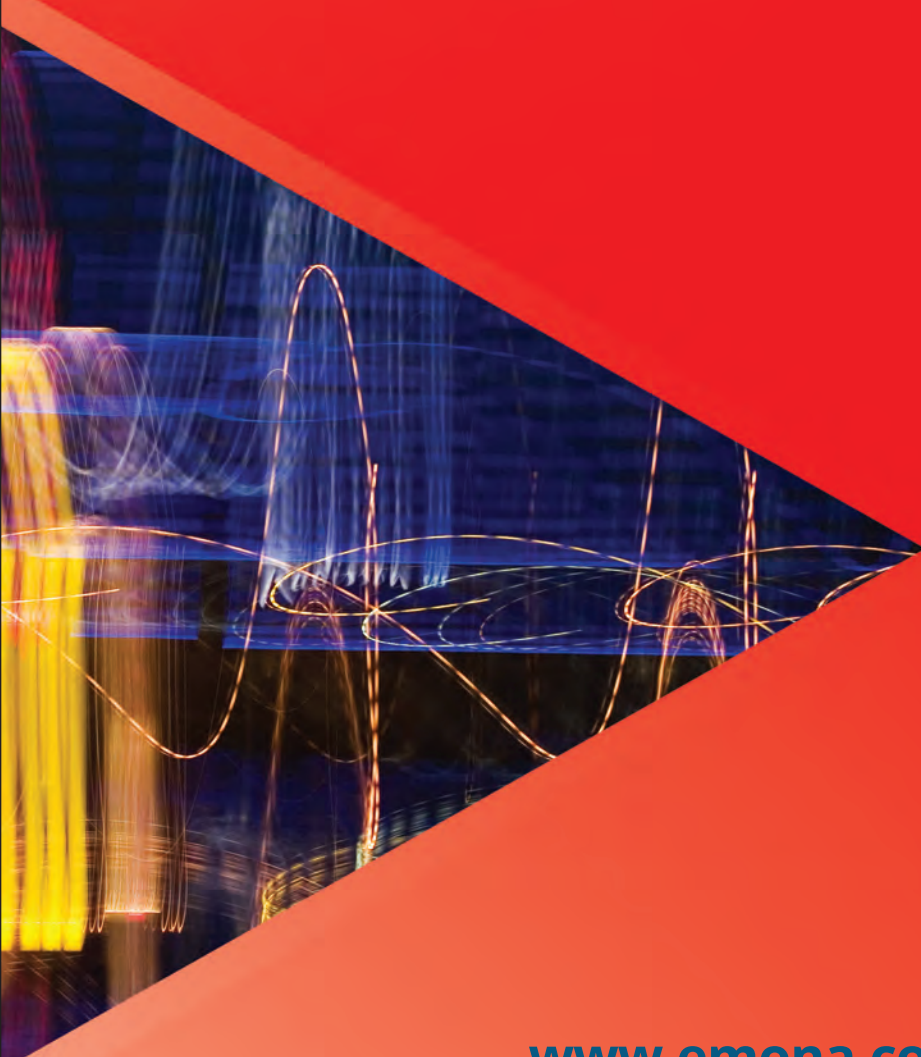


ELECTRICAL & INDUSTRIAL INSTRUMENTS

2024 SHORT FORM

Portable Appliance Testers
Installation Testing
Solar PV Testing
Electric Vehicle (EV) Testing
Multimeters
Clamp Meters
High Voltage Testing
Calibration Services



Welcome

Dear Customer,

Welcome to Emona's 2024 Electrical and Industrial Instruments shortform.

The 2024 shortform matches the product categories in our www.emona.com.au website. You can also refer to our website for:

- product specifications and detailed brochures
- product demonstration and training videos
- software and firmware updates under the SUPPORT tab
- calibration information and booking form under the CALIBRATION tab

Ordering

You can place orders on-line via our website at www.emona.com.au, or order via email, telephone or fax to your local Emona office. Payment by Mastercard, Visa and American Express is accepted. Account terms are available and subject to approval. Emona's Standard Terms & Conditions apply.

Technical Support

Emona's technical support and sales staff are ready to help you with your measurement needs and solutions. Our sales engineers are technically trained to support our wide range of instruments and equipment. For more information contact your Emona office or call toll free 1 800 632 953.

About Emona

Established in 1979, Emona Instruments has grown to become a leading supplier of electrical and electronic test and measuring instruments. With offices around Australia, AS/NZS ISO 9001-2008 Quality Management Requirements accreditation, NATA traceable calibration facilities and technically qualified sales staff, you can rely on Emona for your instrumentation requirements.

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Product Demonstration & Training Videos

Look for the VIDEO icon for products that have demonstration and training videos available. Just go to www.emona.com.au, click the VIDEOS tab at the top of the page and browse our selection of videos.



Portable Appliance Testers





Seaward has been the preferred choice for professional and high volume testing and tagging in Australia since 1991.

From government departments, universities and educational institutions through to industry, mining and test and tag service providers, Seaward testers lead the industry in professional testing and tagging hardware and software solutions.

ProTag System Quick Facts

- Seaward portable appliance testers have been available in Australia since 1991, with the launch of the world's first data logging appliance tester, the PAT1000s.
- In 2000, Emona Instruments revolutionised testing and tagging by launching the world's first automated testing and tag printing system, the Protag System based on the Seaward Supernova-XE appliance tester. For the first time in decades, users no longer had to handwrite hundreds of test tags daily.
- Since 1991, tens of thousands of Seaward appliance testers have been supplied in Australia.
- Since 2000, hundreds of millions of assets have been tested and tagged using ProTag test tag printers and printed on ProTag test tags.
- Seaward Electronic was established in 1982 in Durham England and all Seaward appliance testers are manufactured in the UK.
- With over 165 employees, Seaward is represented worldwide across 60 countries with branch offices in Florida USA and Malaysia.
- Seaward Electronic Ltd is part of the Metrawatt International GmbH's GMC-Instruments Group, with sales of over EUR 85 million and over 575 employees.

1 ProTag Systems Comparison Chart

	Seaward PT125 EL	ProTag PAC3760 DL	ProTag PrimeTest PRO Kit	ProTag Elite-PLUS
				
Tester Features:				
Display	LCD	LCD	Colour LCD	Colour LCD
Indication	Pass/Fail, Reading	Pass/Fail, Reading	Pass/Fail, Reading	Pass/Fail, Reading
Keypad	X	X	QWERTY Keyboard	QWERTY Keyboard
On-Board Camera	X	X	X	With In-Built Flash
Interfaces	X	Serial & USB	Bluetooth & USB Cable	Bluetooth, USB Cable, USB Stick
Email Data Via Device	X	X	Android	Android & iOS
Customisable Test Tag Logo	X	X	✓	✓
Power	Battery	Mains or Battery	Mains or Rechargeable Battery	Mains or Rechargeable Battery
On-Board Memory	X	999 Test Results	Approx 10,000 Test Results	Up To 50,000 Tests, 2,000 Photos
In-Built Isolation Transformer	X	✓	✓	✓
Tests Performed:				
Class I & II Appliances	✓	✓	✓	✓
Leads & Socket Polarity	✓	✓	✓	✓
RCD Trip Time	X	10mA & 30mA	10mA & 30mA	10mA & 30mA
3 Phase Earth & Leakage	Optional PAC-3P Adaptor	Optional PAC-TPL Adaptor	Optional PAC-TPL Adaptors	Optional PAC-TPL Adaptors
3 Phase Earth & Insulation	Optional TPI Adaptors	Optional TPI Adaptors	Optional TPI Adaptors	Probes & Optional TPI Adaptors
User Defined Inspections	X	X	X	✓
Compliance Modules:				
Exit Lights & Fire Protection	X	X	X	✓
Switchboard Inspections	X	X	X	✓
Scanner - Bluetooth:				
Tag Printer				
Print Type		Optional ProTag PAC-OPT Thermal Direct	Optional 1D Scanner ProTag Optima Thermal Direct	2D Scanner Protag XL Thermal Direct
Test Tag Type		General Indoor & Outdoor	General Indoor & Outdoor	UV/Heat Resistant XL Tags
Software:		CSV File Output	PATGuard 3 - 12 Month License	PATGuard Elite 3 - Full License
Test Result Download	X	✓	✓	✓
Asset Register Upload		X	✓	✓
Asset Register Photos		X	X	✓
Accessories:				
Carry Case	Optional	Carry Case	Heavy Duty Ruck Sack	Hard Transit Case
Leads	Optional Earth Bond, IEC	Earth Bond, IEC	Earth Bond, IEC, Mains	Earth Bond, IEC, Mains
Price ex GST	\$899 ex GST	\$2,549 ex GST	\$3,999 ex GST	\$7,999 ex GST

SECTION INDEX

Basic Appliance Testers
Tag Printing Appliance Testers
Single & Three Phase Adaptors
Test Tags & Log Book
RCD Adaptor & Isolation Transformer
Microwave Leakage Tester
Accessories

BASIC APPLIANCE TESTERS

PrimeTest 125 EL

Seaward

- Low Cost with Power Up/Leakage
- Simple 3 Button Operation



Australia's lowest cost and easiest to use appliance tester!

Simple select one of 3 push buttons, for Class I test, Class II test and leakage test. The unit also includes a mains voltage outlet voltage check to ensure socket outlet safety.

Test your Class I & II appliances, extension leads and powerboards with confidence.

PRIMETEST 125 EL Features

- Tests conducted: earth continuity, insulation resistance, leakage/power up, polarity & mains outlet check
- Battery powered
- Pass/Fail indication and readings
- Test sequences for faster testing
- Class I, Class II & LKG buttons
- Tests leads and powerboards

Ordering Code:

PRIMETEST 125 EL \$899 ex GST

PAC3760 DL

Seaward

- Australia's Lowest Cost Logging Appliance & RCD Tester



The Seaward PAC3760 DL is based on the PAC3760 series, Australia's most popular and easiest to use appliance testers. The new PAC3760 DL now includes even more useful features at the same affordable price.

The PAC3760 DL includes on-board memory of 999 test results, eliminating the need for writing log books. Conduct the test and press the SAVE button to store the result. Test results can be downloaded via USB as a CSV file that can be opened by any spreadsheet or database program.

PAC3760 DL Features

- Tests conducted: earth continuity, insulation resistance, Class I and Class II leakage current, MOV Class I and Class II leakage current, polarity
- 10mA & 30mA RCD trip time tests
- In-built isolation transformer
- Memory 999 test results
- Simple 9 push button operation
- Battery & mains powered
- Pass/Fail indication and readings
- Senses an IEC or extension lead and conducts a polarity test
- 3 phase insulation & leakage tests using optional PAC-TPL 3 phase adaptor

Ordering Code:

PAC3760 DL \$1,399 ex GST

PrimeTest PRO

Seaward

- QWERTY Keypad - No Need for Separate Tablet for Data Entry



The Seaward PrimeTest PRO provides users with AS/NZS3760 test and tag technology that is more advanced than any other tester on the Australian market at such an affordable price.

The unit is fully portable, data logging, easy to use and offers users great value in a package that includes a heavy duty ruck sack.

Primetest PRO Features

- Tests conducted: earth continuity, insulation resistance, Class I and Class II leakage current, MOV Class I and Class II leakage current, polarity
- 10mA & 30mA RCD trip time tests
- In-built isolation transformer
- Memory 10,000 test results
- High definition colour display.
- In-built QWERTY keyboard. No need for additional tablet or mobile device
- USB for Data upload/download. Just plug in your USB cable to download or back-up your data.
- Battery & mains power. Also automatically charges the batteries whenever you're plugged into mains power
- Android USB On-The-Go support. Email your data to the office, no additional software license required.
- PATGuard 3 FREE 1 year subscription.

Ordering Code:

PRIMETEST PRO \$2,599 ex GST

1 Portable Appliance Testers

LOW COST TAG PRINTING APPLIANCE TESTER

ProTag PAC3760 DL

Emona

- Australia's Lowest Price Logging Tester with Test Tag Printing



The ProTag PAC3760 DL Kit is Australia's lowest price logging appliance tester and test tag printer package. The ProTag PAC3760 DL Kit includes the PAC3760 DL and PAC-OPT test tag printer.

The PAC-OPT's unique "Plug N Print" operation simply requires connection to the PAC3760 DL via serial cable, conduct your test and press the print button to output your test tag. **No time consuming logo set-up required** as the PAC-OPT prints a generic test tag.

PROTAG PAC3760 DL Features

- Includes PAC3760 DL appliance tester and PAC-OPT test tag printer
- Simple "Plug N Print" operation
- Printer automatically prints FAIL tag
- Tags printed with tag number, test date and test result
- Printer interface via serial cable
- Test tags type is OPT with 250 test tags per roll

Ordering Code:

PROTAG PAC3760 DL \$2,549 ex GST

Test Tags Ordering Codes:

OPT YELLOW Tag Roll	\$31 ex GST
OPT-WHITE Tag Roll	\$31 ex GST
OPT-GREEN Tag Roll	\$31 ex GST
OPT-ORANGE Tag Roll	\$31 ex GST
OPT-BLUE Tag Roll	\$31 ex GST
OPT-RED Tag Roll	\$31 ex GST
OPT-BURGUNDY Tag Roll	\$31 ex GST
PRO-CLEAR Tag Roll	\$55 ex GST

TAG PRINTING & ASSET MANAGEMENT

ProTag PrimeTest PRO Kit

Emona

- Australia's Best Value Test & Tag System With Asset Management



The ProTag PrimeTest PRO Kit is Australia's best value logging appliance tester and test tag printer package for professional applications requiring an asset register. The ProTag PrimeTest PRO kit includes everything you need for a professional system: tester, printer, software and ruck sack.

The Optima test tag printer is customised with your corporate logo or graphics prior to despatch. The Kit is also supplied with user training (conditions apply), guaranteeing the best value in your test and tag investment.

Primetest PRO Features

- Tests conducted: earth continuity, insulation resistance, Class I and Class II leakage current, MOV Class I and Class II leakage current, polarity
- 10mA & 30mA RCD trip time tests
- In-built isolation transformer
- Memory 10,000 test results
- High definition colour display.
- In-built QWERTY keyboard. No need for additional tablet or mobile device
- USB cable for upload/download. Just plug in your USB cable to download or back-up your data.
- Battery & mains power. Also automatically charges the batteries whenever you're plugged into mains power
- Android USB On-The-Go support. Email your data to the office, no additional software license required.

ProTag PrimeTest PRO Kit Features

- Includes PrimeTest PRO appliance tester and Optima test tag printer
- Printer automatically prints FAIL tag
- Tags printed with asset number, test date, user name and test result
- Printer interface via Bluetooth
- Test tags type is OPT with 250 test tags per roll
- 1 Year License PATGuard 3 Software
- Includes heavy duty PRO ruck sack

PATGuard 3 Software



PATGuard 3 is Seaward's market leading testing and tagging software. The included 1 Year License provides professional level reporting and asset history software. After test result download, PATGuard automatically generates and updates the customer and test history database guaranteeing accountability and data reliability.

Ordering Code:

PRIMESTEST PRO KIT \$3,999 ex GST

Training Ordering Code:

PRO-UTW User Training POA

Test Tags Ordering Codes:

OPT YELLOW Tag Roll	\$31 ex GST
OPT-WHITE Tag Roll	\$31 ex GST
OPT-GREEN Tag Roll	\$31 ex GST
OPT-ORANGE Tag Roll	\$31 ex GST
OPT-BLUE Tag Roll	\$31 ex GST
OPT-RED Tag Roll	\$31 ex GST
OPT-BURGUNDY Tag Roll	\$31 ex GST
PRO-CLEAR Tag Roll	\$55 ex GST

Optional Accessory



The BCS-BT is an optional bar code scanner that lets users scan test tag barcodes to speed up re-testing.

Ordering Code:

BCS-BT \$649 ex GST

ADVANCED TEST & TAG SYSTEM

ProTag Elite-PLUS

Emona

- Australia's Most Advanced Testing and Tagging System



The ProTag Elite-PLUS is Australia's most advanced PAT system. It not only conducts appliance and RCD tests, but also offers user defined asset inspections and an built-in digital camera with flash, all in the one handheld tester.

ProTag Elite tests portable appliances & RCDs to AS/NZS3760, takes asset photos, prints XL UV/heat resistant test tags and download results to PC.

Advanced Features

- High definition colour display
- On-board camera for asset photos
- USB cable/flash drive for data download
- Email data via android or iOS
- Bluetooth interface for scanner & printer
- QWERTY keypad
- 50,000 test result memory
- Battery or mains powered
- Exit Lights & Fire Inspection sequences

New PLUS Features

- Enhanced user interface with Predictive Text & Auto Mode
- QR code printing and new test tag print formats
- Load printer logo graphic file from Elite tester as BMP file
- New test sequences incl Socket Test
- Includes Checkbox calibration verification accessory

Electrical Test Functions

- Mains supply check
- IEC lead test
- Earth continuity (200mA)
- Insulation resistance 250V and 500V
- Leakage current test
- Fixed & portable 10mA/30mA RCD test
- In-built isolation transformer
- 3 phase testing & test result logging (with PAC-TPL optional adaptor)



Flexible Data Transfer & Emailing

Download results onto a USB flash drive or via USB cable. For remote applications, transfer data via Bluetooth to your smartphone or tablet and email the data directly back to the office for invoicing.

Concise Latest Test Results									
SEAWARD									
Export to Excel									
Asset ID	Description	Serial	Test Instrument	Date	Result	Next Test	Result	Next Test	Result
1	Drill	123456789	100000000	10/10/2011	Pass	10/10/2012	Pass	10/10/2013	Pass
2	Drill	123456789	100000000	10/10/2011	Pass	10/10/2012	Pass	10/10/2013	Pass
3	Drill	123456789	100000000	10/10/2011	Pass	10/10/2012	Pass	10/10/2013	Pass
4	Drill	123456789	100000000	10/10/2011	Pass	10/10/2012	Pass	10/10/2013	Pass
5	Drill	123456789	100000000	10/10/2011	Pass	10/10/2012	Pass	10/10/2013	Pass
6	Drill	123456789	100000000	10/10/2011	Pass	10/10/2012	Pass	10/10/2013	Pass
7	Drill	123456789	100000000	10/10/2011	Pass	10/10/2012	Pass	10/10/2013	Pass
8	Drill	123456789	100000000	10/10/2011	Pass	10/10/2012	Pass	10/10/2013	Pass
9	Drill	123456789	100000000	10/10/2011	Pass	10/10/2012	Pass	10/10/2013	Pass
10	Drill	123456789	100000000	10/10/2011	Pass	10/10/2012	Pass	10/10/2013	Pass

Superb Software Management

PATGuard 3 allows users to record, store and report on their PAT testing and inspections. Generate a wide range of work and asset history reports and send automatic email alerts when next tests are due.



Seaward XL Printer

The Seaward XL printer utilises thermal direct printing technology. Choose OPTIMA (thermal direct) general purpose tags or XL (thermal direct) tags for all harsh environments outdoors or demanding indoor applications e.g. commercial kitchens.



BCS-BT-2D Bar Code Scanner

The BCS-BT-2D bar code scanner lets users scan 1D and 2D QR test tag barcodes. QR codes have Site, Location, Asset Description and Test Sequence data embedded in the QR code, eliminating the need for data uploads.



Complete Kit, User Training & Calibration

The ProTag Elite System is supplied complete with PrimeTest Elite tester, Seaward XL tag printer, BCS-OPT-2D scanner, PATGuard Elite 3 software and Elite hard transit case, all backed up by full after sales support with on-site training (conditions apply) and annual re-calibration to keep your tester up-to-date with latest firmware.

Ordering Code:

PROTAG ELITE-PLUS \$7,999 ex GST

Training Ordering Code:

PRO-UTW User Training POA

OPTIMA Test Tags Ordering Codes:

OPT YELLOW Tag Roll \$31ex GST
 OPT-WHITE Tag Roll \$31ex GST
 OPT-GREEN Tag Roll \$31 ex GST
 OPT-ORANGE Tag Roll \$31 ex GST
 OPT-BLUE Tag Roll \$31 ex GST
 OPT-RED Tag Roll \$31 ex GST
 OPT-BURGUNDY Tag Roll \$31 ex GST






XL Test Tags Ordering Codes:

XL WHITE Tag Roll \$49 ex GST

XL Tinted Overlays Ordering Codes:

XL YELLOW Overlay \$31 ex GST
 XL GREEN Overlay \$31 ex GST
 XL ORANGE Overlay \$31 ex GST
 XL BLUE Overlay \$31 ex GST
 XL RED Overlay \$31 ex GST
 XL BURGUNDY Overlay \$31 ex GST

1 Single & 3 Phase Appliance & Lead Adaptors

Price Ex GST	\$1,349.00	\$1,059.00	\$1,199.00	\$159	\$159	\$349	\$349
PrimeTest Series		●	●	●	●	●	●
PT300				●	●	●	●
PAC3760DL		●	●	●	●	●	●
PT125EL				●	●		
Standalone	●						
Pins	5	3	5	4 or 5	4 or 5	5	5
Rating	20A & 32A	10A, 15A & 20A	20A & 32A	10A & 20A	32A	20A	32A
Features	The PAC-3P stand-alone tester conducts a sequence test, starting with an earth continuity test and then proceeding with the leakage test. It indicates Pass/Fail and the actual measured readings on the LCD display, and provides on-screen user prompts. 20A and 32A extension lead test adaptor is included with an earth test pin terminal, which eliminates the need for probing.	The ProTag PAC-TPL1520 single phase leakage adaptor provides users of the Seaward PrimeTest Elite, PrimeTest PRO & PAC3760 DL with the capability of powering up 15A and 20A single phase appliances and carrying out a leakage current test. Also, protects fuse on PAT tester when leakage testing high powered appliances.	The PAC-TPL provides users of the PAC3760 DL and PrimeTest Elite and PrimeTest PRO with the capability of powering up 10A, 16A, 20A and 32A appliances and carrying out a leakage test. The test results are displayed on the PAC3760 DL unit or PrimeTest Elite, with both the actual leakage reading display and a Pass/Fail display. 4 pin adaptor available on request.	The TPI series can be used with any appliance testers and are designed for insulation and earth testing of 3 phase extension leads and 3 phase appliances.		The ProTag RCD-3P can be used with any RCD tester or appliance tester with RCD test function. It suits 5 pin three phase sockets. It features in-built 500V fuses for safety.	
Description	3 Phase Appliance & Lead Tester	Single Phase 10A, 15A & 20A Leakage Test Adaptor	3 Phase Appliance Testing Adaptor	3 Phase Appliance & Lead Tester		3 Phase RCD Test Adaptor	
Part Code	PAC-3P	PAC-TPL1520	PAC-TPL	TPI-20A	TPI-32A	RCD-3P-20A	RCD-3P-32A
Image							

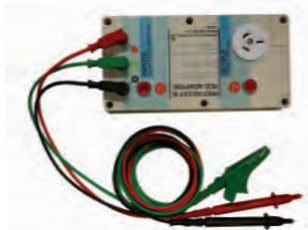
Note: 40A & 50A rated configurations are available

SWITCHBOARD RCD TEST CAT III ADAPTOR

PRO-RCD

Emona

- Use Any PAT Tester For Testing RCDs at the Switchboard



The PRO-RCD is a CAT III 600V rated adaptor for use by licensed electrical contractors for safe and compliant testing of RCDs at the switchboard when using CAT II 300V rated RCD testers, as typically found on portable appliance testers.

•PRO-RCD•

Input Three Sockets 4mm shrouded and color coded: RED = active/L, BLACK = neutral/N, GREEN – earth/PE

Live Input Neon Indication
Safety Rating CAT III 600V

Ordering Code:

PRO-RCD

\$499 ex GST

PATGUARD SOFTWARE

PATGuard Elite 3

Seaward

- Professional Management Software



PATGuard Elite allows users to record, store and report on their PAT testing and asset inspections. Print test reports with photos for visual evidence and asset history reports.

Ordering Codes:

PG3-ELITE \$1,499 ex GST
PG3-EL/LIC Additional User \$599 ex GST
PG3UPD-ELITE Upgrade \$599 ex GST

LOG BOOK & TEST TAGS

Log Book

Emona

- Record your Testing & Tagging



Log Books are designed for easy recording of Test Results. Plastic covered for extra protection, they feature 100 pages for test data.

Ordering Code:

PRO-LOGBOOK

\$17.76 ex GST

Test Tags

Emona

- For AS/NZS3760 Applications
- Custom Tags with Your Own Logo



•ST-002•

- Adhesive backed high quality vinyl
- With clear laminated layer
- 100 tags per pack.
- With permanent marker pen
- Custom tags with your logo available, min -+order 2,000 tags.

Ordering Code:

ST-002 Red Pack \$29 ex GST
ST-002-Blue Pack \$29 ex GST
ST-002-Orange Pack \$29 ex GST
ST-002-Green Pack \$29 ex GST
ST-002-White Pack \$29 ex GST
ST-002-Yellow Pack \$29 ex GST
ST-002-Mixed Pack \$29 ex GST
ST-002-Danger Pack \$29 ex GST



•ST-NTS•

Ordering Code:

ST-NTS New To Service

\$29 ex GST

RCD ISOLATION TRANSFORMER

PRO-ITX

Emona

- Test Portable RCD's Without Tripping the Main Switchboard RCD



Simply plug PRO-ITX into mains power outlet, plug the portable RCD under test into PRO-ITX, connect RCD tester and conduct the test.

•PRO-ITX•

Power Rating 240/230V 50VA

Thermal Protection

Fuses Output and input protected

Weight 1.55kg

Ordering Code:

PRO-ITX

\$199 ex GST

MICROWAVE LEAKAGE TESTER

TX-2000

Celtek

- Supplied with Calibration Certificate



Compact and robust, single range RF power measurement instrument operating at 2.45 GHz frequency.

•TX-2000•

Operating Frequency 2.45GHz

Calibration Accuracy +/-1dB

Response Time < 1 second

Resolution 0.1mW/cm2

Display 2 1/2 Digit LCD 10 point linear

Sensor - source spacing 5cm











Rigid Carry-Case with foam inserts.

Ordering Code:

TX-2000










\$699 ex GST

1 Portable Appliance Tester Accessories

Image	Part Code	Description	Application	PrimeTest 125 EL	PAC3760 DL	PT300	PrimeTest Series	Price Ex GST
	PAC-EXT	Extension Lead Adaptor	Adaptor for extension lead testing and powerboard testing.	●	●	●	●	\$54.00
	PAC-MSL	Mains Supply Lead	Lead for powering mains powered testers.	●	●	●	●	\$86.00
	PT-EC	Earth Clip Large	For conducting earth and insulation tests	●	●	●	●	\$97.00
	PT-EP	Earth Clip Small	For conducting earth and insulation tests	●	●	●	●	\$85.00
	ELT-LEADS	PrimeTest Elite Test Lead Set	Red and black test leads, probes and alligator clips	●	●	●	●	\$77.00
	IEC-C6	Cloverleaf to IEC Adaptor	Testing of mains cables which plug into laptop power supplies	●	●	●	●	\$30.00
	PAC-OPT-PC	Printer Cable for PAC-OPT Test Tag Printer	Cable to connect PAC3760DLto PAC-OPT Test Tag Printer	●	●	●	●	\$72.00
	PAC-OPT-AC	AC Adaptor for PAC-OPT	AC Adaptor for charging the PAC-OPT Test Tag Printer	●	●	●	●	\$130.00
	OPT-T-AC	AC Adaptor for PT-OPT-T	AC adaptor for charging PT-OPT-T Test Tag Printer	●	●	●	●	\$103.00
	PRO-XL-FC	Fast Charger	Fast charger for ProTag XL test tag printer	●	●	●	●	\$121.00

Portable Appliance Tester Accessories

1

Image	Part Code	Description	Application	PrimeTest 125 EL	PAC3760 DL	PT300	PrimeTest Series	Price Ex GST
	900172	Fuses	16A Fuses	●	●	●	●	\$25.00 Set of 10
	900163	Fuses T10A	Fuses for PT300 tester			●		\$20.00 Set of 10
	PT-ELTBAT	PrimeTest Elite Battery Pack	Replacement battery pack				●	\$175.00
	PT-PLUS-ELTBAT	PrimeTest Elite-PLUS Battery Pack	Replacement battery pack				●	\$175.00
	HR-3UWX	PT300 Rechargeable Batteries	Sanyo ENELOOP AA 2.5Ah	●	●	●		\$36.00 Set of 6
	ELT-POUCH	Hands Free Neck Pouch for PrimeTest Elite & PrimeTest PRO	Carry the PrimeTest Series around your neck for hands free operation				●	\$115.00
	PAC-CB	Carry Case	Padded carry case with zipper.	●	●	●		\$61.00
	PT-PRO-RS	Ruck Sack for PrimeTest Series	Padded carry bag ruck sack				●	\$195.00
	PRO-UTW	User Training	On and Off-Site Training on PrimeTest PRO & ProTag Elite			●	●	POA



Installation Testing





Emona has been supplying Metrel products into the Australian electrical contracting market since 1993.

With a user base of many thousands of testers, Metrel products have been supplied to utilities, Defence and electrical contractors. A particular strength of Metrel instruments is that they are often customised specifically to suit Australian Standards and testing practices.

Metrel & InstalTest Quick Facts

- In 2004 Metrel customised their popular MI-2121 RCD tester to suit the RCD testing requirements of the Australian Defence Force, resulting in the MI-2121ADF variant with 600 units supplied to ADF facilities around Australia.
- In 2006 we introduced the InstalTest 3017, the first multifunction installation tester with in-built AS/NZS3017 limits. This was the first time a multifunction tester provided users with Australian Pass/Fail limit tables, simplifying installation verification for electrical contractors and regulatory authorities.
- In 2007 we introduced the Polarity Plus, a variant of the popular InstalTest 3017. It provides utility line workers with polarity and neutral testing of electrical service connections. Almost 1,100 units were supplied to electrical utilities around Australia.
- The release of the InstalTest COMBO in 2010 further cemented Metrel's position as the leading innovator in multifunction installation testers, by introducing Socket Outlet Testing according to AS/NZS3017 test procedures.
- First launched in 2016, the InstalTest XC fast became the standard in installation verification and testing around Australia with its unique record keeping, touch screen and installation schematic upload functionality. This was followed in 2018 with the release of the InstalTest XD allowing operators to upload their own auto sequences.

Installation Testing Comparison Chart 2

	PowerTest 200	Instaltest COMBO	InstalTest XC	InstalTest XD
				
Tester Features:				
Display	LCD	LCD	Colour Touch Screen	Colour Touch Screen
Indication	Numerical	Graphical Pass/Fail, Reading	Graphical Pass/Fail, Reading	Graphical Pass/Fail, Reading
Keypad	X	X	✓	✓
Interfaces	X	X	Serial , USB & Bluetooth	Serial , USB & Bluetooth
Battery	6 x AA	Rechargeable 6 x AA NiMH	Rechargeable 6 x AA NiMH	Rechargeable Ah Li-Ion Pack
On-Board Memory	X	X	8 GB	8 GB
Tests Performed:				
Insulation Resistance	250V/500V/1000V	50V ... 1000V	50V ... 1000V	50V ... 2500V
Voltage	0 ... 440V	0 ... 550V	0 ... 550V	0 ... 550V
Frequency	X	0 ... 499.9Hz	0 ... 499.9Hz	0 ... 499.9Hz
Continuity	0.01 ... 199ohms, 200mA	0 ... 199ohms, 200mA	0 ... 199ohms, 200mA	0 ... 199ohms, 200mA
Fault Loop Impedance	No RCD and With RCD	No RCD and With RCD	No RCD and With RCD	No RCD and With RCD
Socket Verification	X	Dead Socket	Live & Dead Socket	Live & Dead Socket
RCD Tests Performed:				
Range	10mA, 30mA, 100mA	10mA, 30mA ... 1000mA	10mA, 30mA ... 1000mA	10mA, 30mA ... 1000mA
Trip Time & Trip Current	✓	✓	✓	✓
0° or 180° Starting Polarity	X	✓	✓	✓
Random Phase Medical	X	X	✓	✓
Scanner - Bluetooth:	X	X	Optional BCS-BT	Optional BCS-BT
Software:				
Reporting	X	X	ES Manager BASIC	ES Manager PRO
Excel Output	X	X	ES Manager PRO Upgrade	✓
Customise Auto Sequences	X	X	X	✓
Overvoltage Category:	300V CAT III	600V CAT III & 300V CAT IV	600V CAT III & 300V CAT IV	600V CAT III & 300V CAT IV
Accessories:				
Leads	3 x Leads, Probes & Clips	3 x Leads, Probes & Clips	3 x Leads, Probes & Clips Clips	3 x Leads, Probes & ClipsClips
Optional Measurements:				
Three Phase Testing	✓	✓	✓	✓
Power	X	X	✓	✓
Illuminance	X	X	✓	✓
Earth Resistance	X	X	✓	✓
Electric Vehicle Testing	X	X	✓	✓
Price ex GST	\$999 ex GST	\$1,299 ex GST	\$2,599 ex GST	\$3,399 ex GST

2 Installation Testing

SECTION INDEX

Installation Testers
Insulation Testers
Earth Resistance Testers
RCD Testers
Loop Impedance Meters
Cable Tracing & Locating
Installation Tester Field Calibrator
Accessories

LOGGING INSTALLATION TESTERS

InstalTest XC

Metrel

- The Ultimate Touch Screen Multi-Function Tester for Live and Dead Installation Testing



The InstalTest XC is a revolutionary touch screen multifunction installation tester for live and dead installation testing, verification and diagnosis. Test results can be saved for downloading and reporting.

INSTALTEST XC Highlights

- Touch screen guarantees quick and intuitive operation
- Basic and advanced live and dead socket and installation testing with tick or cross result and diagnosis
- Auto-sequences to verify sockets and installations in seconds by combining up to 6 single tests into a single push button sequence
- Power & total harmonic distortion
- Wire tracing and fuse identification

High Volume RCD Testing

- Bar-code scanner input of asset IDs for high volume testing applications
- Logging of RCD push-button tests with a couple of keypresses
- Random phase RCD test selection for medical installations

•INSTALTEST XC•

Voltage 0 - 550V

Frequency 0 - 499.9Hz

Continuity 0 to 199ohms, 200mA for earth resistance and equipotential

bonding

Insulation Resistance 50V to 1000V, 0.01Mohm to 200Mohm

RCD Testing trip time and trip current, 10mA, 30mA ... 1000mA, and with 0° or 180° starting polarity and with random phase for medical installations

Fault Loop Impedance No RCD and with RCD

Earth Resistance 3 wire and optional 2 clamp methods

Socket/ Installation Dead/Live Test Power Watts, VA, VAR, Amps, PF, THD (Opt)

Illuminance 0.01Lux to 19.99kLux (Opt)

Power Supply 9V DC (6 x 1.5V size AA)

COM Ports Bluetooth, USB, RS232

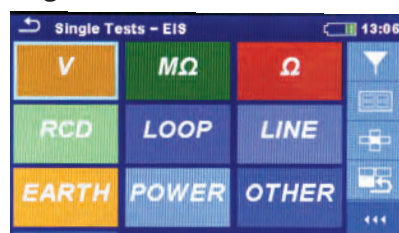
Weight 1.3kg

Size 230 x 103 x 115mm

Overvoltage Category 600V CAT III and 300V CAT IV

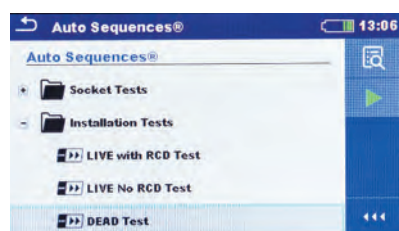
Kit Includes mains measuring cable, 3 x test leads, 3 x test probes, 3 x crocodile clips, AC adaptor, NiMH rechargeable batteries, ES Manager BASIC Reporting Software and carry case.

Single Test



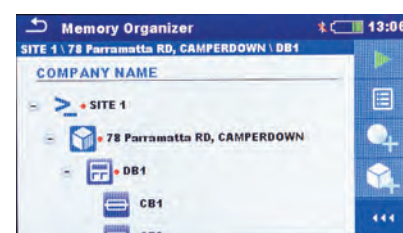
Single Tests include voltage, mohms & ohms, RCD, loop impedance, line impedance, earth resistance, power & THD measurements, illuminance and wire tracing & fuse identification.

Auto Sequence



The InstalTest's unique Auto Sequence combine up to 6 single tests into a single key press operation. Verify and diagnose sockets and installations, both dead and live, quickly and easily.

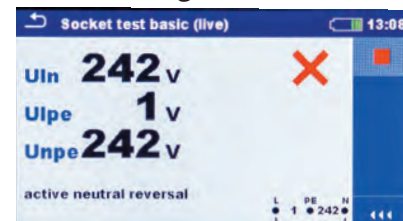
Installation Structure



The Site Schematic or Tree-Structure is a unique aspect of the InstalTest's test result reporting system.

The hierarchy starts with site name and address and then save your results according to DB, CB etc. The site schematic can be entered into the InstalTest on-site or prepared on the optional ES Manager PRO software and uploaded into the instrument. Structures can also be cloned to speed up result recording.

LIVE Fault Diagnosis



Active-Neutral Reversed FAIL Result



Neutral-Earth Reversal FAIL Result

Ordering Code:

INSTALTEST XC \$2,599 ex GST
Includes ES Manager BASIC Software

Training Ordering Code:

IT -UTW User Training POA

Bar Code Scanning Ordering Codes:

BCS-BT Bar Code Scanner \$649 ex GST
IT-ASSET RCD Labels \$15 ex GST

Optional Accessories Ordering Codes:

A1172 Type B Lux Meter	\$666 ex GST
A1173 Type C Lux Meter	\$494 ex GST
A1391 AC/DC 300A Clamp	\$391 ex GST
A1018 Leakage & Power	\$509 ex GST
A1019 Current & Power	\$425 ex GST
MD-9273 Leakage & Power	\$749 ex GST
A119X Cable Tracer	\$494 ex GST
MI-TPI-20A-4 20A, 4 Pin	\$269 ex GST
MI-TPI-20A-5 20A, 5 Pin	\$269 ex GST
MI-TPI-32A-4 32A, 4 Pin	\$269 ex GST
MI-TPI-32A-5 32A, 5 Pin	\$269 ex GST
P1101 MSEM PRO Upgrade	\$211 ex GST
P1102 aMSEM Android	\$154 ex GST

InstalTest XD

Metrel

- User Defined Auto Sequences
- User Defined Visual & Functional Inspections



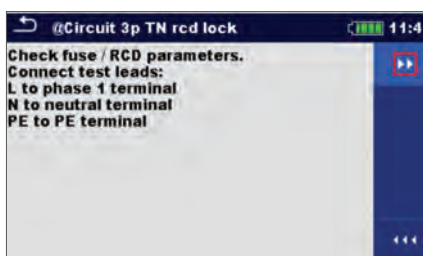
The InstalTest XD builds on the functionality of the InstalTest XC with unique user defined Auto Sequences and Visual/Functional Inspections programmability

Auto Sequences allow users to program testers with user defined test sequences, whether a sequence of electrical tests, text based tests such as visual inspections or any combination of these.

User Defined Auto Sequence Programming

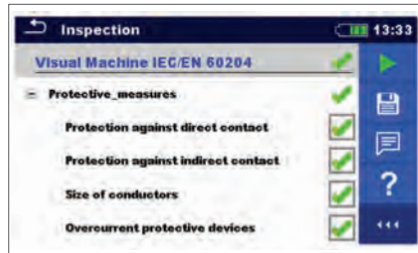


Auto Sequences are prepared and edited in the PC MSEM PRO software and then uploaded into the InstalTest XD tester.



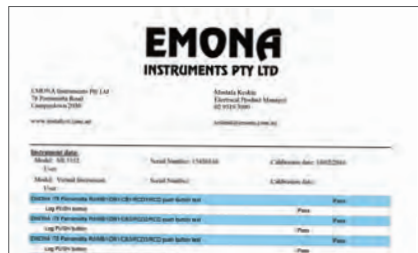
Auto Sequences can be made up of a combination of any single electrical test. Visual inspections can also be added to capture your entire work flow. For example a switch board inspection can capture RCD tests as well as visual inspections and maintenance e.g. dusting/cleaning.

User Defined Visual/Functional Inspections



User defined visual and functional inspections can be carried out on-screen and downloaded to the reporting software. This allows users to replace paper-based or third party check-lists and combine all electrical and inspection routines in the one process.

Reporting Generating



Generate PDF reports of all electrical and visual/functional inspections and verifications for customer reporting and record keeping.

Ordering Code:
INSTALTEST XD \$3,399 ex GST
Includes ES Manager PRO Software

Training Ordering Code:
IT-UTW User Training POA

Bar Code Scanning Ordering Codes:
BCS-BT Bar Code Scanner \$649 ex GST
IT-ASSET RCD Labels \$15 ex GST

Optional Accessories Ordering Codes:
P1102 aMSEM Android \$154 ex GST
A1172 Type B Lux Meter \$666 ex GST
A1173 Type C Lux Meter \$494 ex GST
A1391 AC/DC 300A Clamp \$391 ex GST
A1018 Leakage & Power \$509 ex GST
A1019 Current & Power \$425 ex GST
MD-9273 Leakage & Power \$749 ex GST
A119X Cable Tracer \$494 ex GST

Optional Accessory



Remote probe for single-handed operation.

Ordering Code:
A1401 Remote Probe \$269 ex GST

INSTALTEST XD AUTO-SEQUENCES

IT-AS/NZS3019

Metrel

- Meets Victorian "Residential Tenancies Regulation 2021"

CLIENT1/ADDRESS1/DB1/CB1/Rlow 0.5 ohm	
R low	
Results	
R	0.23 Ω
SubResults	
R+	0.2 Ω
R-	0.2 Ω
Cal	No
Limits	
Limit (R)	0.5 Ω

The rental provider, usually referred to as the landlord, is required to ensure that safety inspections been carried out and records kept. The inspection and testing must be done to the requirements of Section 4 of AS/NZS 3019:2007 Electrical Installations - Periodic Verification.

Ordering Code:
IT-AS/NZS3019 \$99 ex GST

IT-AS/NZS3003

Metrel

- AS/NZS3003 Testing Auto-Sequences

HOSPITAL ABC/Object/DB2/CB1/Medical RCD 6x RCD Triptime	
RCD I	
Results	
IΔ	7.0 mA
t IΔ	31.5 ms
Uc IΔ	1.0 V
Uc	1.4 V
RCD I	
Results	
I ΔN	28.9 ms
Uc	1.3 V
Phase	53 °
RCD I	

Traditionally inspections, testing and reporting for AS/NZS3003 work requires multiple instruments and labourious record keeping, either paper-based or manual entries into a laptop.

Features

- Medical Auto-Sequences
- RCD Random Phase Test
- Cardiac Protected Area Inspections
- Body Protected Area Inspections
- 4-Wire Earth Continuity Test- 0.01ohm Resolution
- Test & Installation Structure Reports
- Detailed Random Phase RCD Test Reports

Ordering Code:
IT-AS/NZS3003 \$99 ex GST

2 Installation Testing

MANUAL INSTALLATION TESTERS

InstalTest COMBO

Metrel

- In-Built AS/NZS3017 Limits



The InstalTest COMBO is a multifunction installation tester, replacing a multimeter, insulation tester, RCD tester, loop impedance tester and phase sequence tester in a single portable instrument.

It provides 9 tests, more than any other comparable tester and provides Pass/Fail indication for installation verification and compliance testing.

•InstalTest COMBO•

Voltage 0 - 550V

Frequency 0 - 499.9Hz

Continuity 200mA for earth resistance and equipotential bonding

Insulation Resistance 50V to 1000V, 0.01Mohm to 200Mohm

RCD Testing trip time and trip current, 10mA, 30mA ... 1000mA, and with 0° or 180° starting polarity

Fault Loop Impedance

Phase Rotation

Socket Test earth continuity, polarity and correct connections tests with a single push button and with Pass/Fail indication without trailing leads

Overvoltage Category 600V CAT III and 300V CAT IV

Includes mains measuring cable, 3 x test leads, 3 x test probes, 3 x crocodile clips, AC adaptor and NiMH rechargeable batteries

Ordering Code:

INSTALTEST COMBO	\$1,299 ex GST
A1289 Soft Carry Case	\$98.00 ex GST

PowerTest 200

Seaward

- Mains Audible & Visual Warning
- Remote Test Probe For More Efficient Single Handed Testing



Australia's newest and best value electrical installations multifunction tester! For \$999 ex GST, you get 6 meters. Better value and easier to use than many single function meters, and lower cost of ownership with only one instrument to calibrate.

Protection Features

PowerTest 200's screen turns from blue to red and an audible warning sounds if it detects mains voltage when conducting a "dead" test.

The PowerTest 200 is also fully protected against damage when accidentally connected to a wrong test setting, and meets the safety and performance requirements of AS/NZS3017

•PowerTest 200•

Voltage 0 - 440V

Continuity 0.01ohm to 200ohm

Insulation Resistance 250V, 500V & 1000V

RCD Testing trip time and trip current, 10mA, 30mA, 100mA, and 1/2x, 1x, 2x and 5x current.

Non-Trip Fault Loop Impedance

Phase Rotation

Overvoltage Category 300V Cat III

Includes mains lead, remote probe with test buttons, 1.2m black, green and red test leads, black, green and red crocodile clips, neck strap, 6 x AA batteries, tool box style hard carry case

Ordering Code:

POWERTEST 200	\$999 ex GST
<i>Includes Hard Carry Case & Test Leads</i>	

Optional Accessories Ordering Codes:

MFT-Probe	\$57 ex GST
MFT-Mains	\$39 ex GST
MFT-LeadSet	\$109 ex GST

3 PHASE INSTALLATION TESTING ACCESSORIES

MI-TPI Series

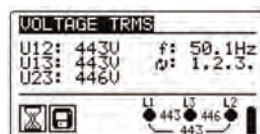
Emona

- Verify 3 Phase Installations from The Socket Outlet - No Probing Required
- Use with InstalTest Series Testers

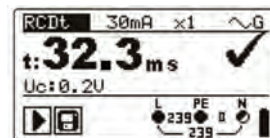


Verify 3 phase installations from the socket outlet, without the need for probing. The MI-TPI makes 3 phase installation verification safer, faster and more reliable than traditional methods requiring probing of the socket outlet.

Simply connect the MI-TPI to the mains socket on your InstalTest Series tester, select the test required on the tester, select the switch position on the MI-TPI then use the MI-TPI to switch between phases.



Phase Sequence & Voltage Display



3 Phase RCD Testing Display

SWITCH POSITIONS

Insulation Testing

Phases to Neutral, Between Phases, Phases & Neutral to Earth

Loop/Line Impedance

L1 - N/PE, L2 - N/PE, L3 - N/PE

RCD Testing

L1 - N/PE, L2 - N/PE, L3 - N/PE

Phase Sequence & Voltage

3 Phase Plugs standard and custom configurations available.

Ordering Code:

MI-TPI-32A-5 32A, 5 PIN	\$269 ex GST
MI-TPI-20A-5 20A, 5 PIN	\$269 ex GST
MI-TPI-32A-4 32A, 4 PIN	\$269 ex GST
MI-TPI-20A-4 20A, 4 PIN	\$269 ex GST

A1507

Metrel

- Three Phase Active Switch
- Use With InstalTest XC/XD Series



The A 1507 3-Phase Active Switch is an accessory intended for automating the process of electrical safety testing of three phase circuits. In combination with Auto Sequence@s and one of Metrel's electrical installation safety testers MI 3155 InstalTest XD or MI 3152 InstalTest XC it is possible to automate the process of 3-phase system testing even further.

Supports Automated Testing of:

- 3-phase systems via the added crocodile clips and probes;
- 3-phase sockets with the use of additional adapters

Key Features

- Banana socket outputs for connection to a 3-phase system;
- Motor driven through Bluetooth communication with Metrel's electrical safety testers;
- Automatic ON/OFF.

Supported Measurements

- Voltage and 3-phase sequence;
- Insulation resistances;
- Continuity of protective conductor;
- Resistance to earth;
- Resistance N-PE;
- RCD testing;
- Loop / Line impedances.

Ordering Code:

A1507

\$1,264 ex GST

BASIC INSULATION TESTERS

4132IN 1kV Analog

SEW

- High Quality Taut Band Movement



•4132IN•

Test Voltages

250V DC 100Mohm
500V DC 200Mohm
1000V DC 400Mohm

Accuracy $\pm 5\%$

Scale Multiplier 1/2, x1, x2

Insulation Output Short-Circuit

Current $\pm 1.3\text{mA}$

Continuity 0 - 3ohm, 0 - 500ohm

Continuity Output Short-Circuit

Current $\geq 210\text{mA}$

AC V 0 - 600V AC

Live Circuit Warning Light & Buzzer

Ordering Code:

4132IN

\$358 ex GST

MI-3121 Logging

Metrel

- Wide Range Up To 30Gohm



•MI-3121•

Test V 50/100/250/500/1000V DC

Insulation Resistance 0-30Gohm

Continuity 200mA, 0 - 1999ohm with automatic polarity exchange

TRMS AC V 0 - 550V AC

Frequency 0.00Hz - 500Hz

Analogue Scale & Digital Readings

Custom Limits set limits on insulation or continuity with PASS/FAIL indication

Built-in Charger/Rechargeable Batt

Optional PC software and probe

Ordering Code:

MI-3121

\$760 ex GST

A1291 Software

\$216 ex GST

EARTH RESISTANCE TESTERS

4120ER Low Cost

SEW

- Capable of Measuring Earth Voltage



•4120ER•

Earth Resistance 0 - 1999ohm

Earth Voltage 0 - 199.9V AC

Accuracy Earth Resistance

12/120/1200ohm $\pm 2.1\%$ $\pm 1\text{mm}$

Earth Voltage $\pm (1\% \text{rdg} + 2 \text{dgts})$

2mA Measuring Current permits

earth resistance tests without tripping earth leakage current breakers test.

Ordering Code:

4120ER

\$257 ex GST

MI-3123 Logging Tester

Metrel

- 2, 3 and 4 Pole Measurements



•MI-3123•

Standard 4-Wire Method

Display Range 0 - 9999ohm

Standard 4-Wire with Current

Clamp

Display Range 0 - 9999ohm

2-Clamp Method without

Junctions Disassembling

Display Range 0 - 99.9ohm

Specific Earth Resistance (soil resistance) Measurement with 4-Wire Method

Display Range 0 - $>100\text{kohm/m}$

True RMS Current 0 - 19.99A

Custom Limits with PASS/FAIL

Options Clamps & PC Software

Ordering Code:

MI-3123

\$1,167 ex GST

A1291 Software

\$216 ex GST

2 Installation Testing

RCD TESTERS

8012EL Low Cost

SEW

- Measures Trip Time



•8012EL•

Trip Current Setting (includes)

3mA to 500mA

Phase Start Selection 0° & 180°

Measure Voltage Between Line & Earth

Wiring Polarity Indicator

Timer Resolution 1mS

Current Accuracy % proportion to V **Over Temperature Indication**

Ordering Code:

8012EL

\$298 ex GST

MI-3122 Logging Tester

Metrel

- RCD Tester, Loop Impedance & Phase Sequence Tester



•MI-3122•

Voltage Range 50V - 264V

Trip Current Setting

10/30/100/300/500/1000mA

Test Current Factor x1/2, x1, x2, x5

Selectable Phase Angle

0° (positive), 180° (negative)

RCD Trip Current Measurement

with high resolution test ramp

RCD Trip Time Measurement

at nominal differential current in accordance with standards

Optional Software for result downloading and reporting

Ordering Code:

MI-3122

\$1,157 ex GST

A1291 Software

\$216 ex GST

LOOP IMPEDANCE TESTER

4126NA Low Cost

SEW

- Autoranging, One Button Operation



•4126NA•

Loop Impedance Range

0.03 - 2000ohm Auto-ranging

Prospective Short Circuit (PSC)

0 - 6kA @ 230V AC

Measures

L-E and L-N AC voltages

L-E and L-N Loop Impedance

PSC L-E & L-N

Earth Spike, Line & Neutral Imped

Autoranging

Ordering Code:

4126NA

\$305 ex GST

CABLE TRACING & LOCATING

MI-2093 Line Tracer

Metrel

- Universal Tracing & Locating System



The MI-2093 Line Tracer is an accurate wire and cable tracing system for energised and non-energised circuits.

MI-2093 Applications

- Tracing cables in walls, ceilings, floor and ground.
- Tracing live or voltage free cables.
- Locating cable interruptions and short-circuits in cables.
- Locating concealed sockets and distribution boxes.
- Locating fuses and assignment to circuits.

Ordering Code:

MI-2093 Line Tracer

\$703 ex GST

FIELD CALIBRATOR & PROVING UNIT

CS-2099

Metrel

- Verify Your Testing Instruments



The Metrel CS-2099 makes regular calibration checks of your test equipment quick and easy with simple field calibration of the the most frequently used functions for testing and verifying installations.

•CS-2099•

Insulation Resistance Reference

Value 2MΩ ±1% and 50MΩ ±1%

Low Resistance Reference Value

0.5Ω ±2%, 5Ω ±2% and 15Ω ±2%

Voltage & Frequency Reference

Value 50.0V@240V AC, ±5%

Fault Loop & Line Impedance

1.2Ω ±0.2Ω, 11.0Ω ±0.5Ω

RCD Trip Out Time Simulation & Current Measurement

Power 240V AC mains voltage

Ordering Code:

CS-2099

\$499 ex GST

CS-2090

Metrel

- Voltage Testing Proving Unit













The Metrel CS-2090 is an essential companion for any voltage tester. It generates a voltage to verify that the tester is functioning correctly and safe to operate. The CS-2090 gives audible warning of live side by operating as a proving unit for on-site testing and verification of test equipment.

Ordering Code:








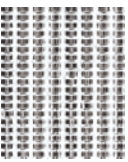


CS-2090 Proving Unit

\$249 ex GST











Installation Testing Accessories 2

Image	Part Code	Description	Application	InstalTest COMBO	InstalTest XC	InstalTest XD	Price Ex GST
	A-1310	Blue Alligator Clip		●	●	●	\$14.00
	A-1297	Brown Alligator Clip		●	●	●	\$14.00
	5004/LM-IEC-G	Green Alligator Clip		●	●	●	\$14.00
	A-1015	4mm Tip Probe - Blue		●	●	●	\$11.00
	A-1298	4mm Tip Probe - Brown		●	●	●	\$11.00
	A-1062	4mm Tip Probe - Green		●	●	●	\$11.00
	A1296	Universal Test Cable: Blue, Brown & Green		●	●	●	\$80.00
	20691918	Mains Measuring Cable		●	●	●	\$80.00
	A1195	Resistor Box		●	●	●	\$146.00
	A1289	Soft Carry Bag		●	●		\$98.00




2 Installation Testing Accessories

Image	Part Code	Description	Application	InstalTest COMBO	InstalTest XC	InstalTest XD	Price Ex GST
	83005447	AC Adaptor for COMBO & IT-XC		●	●		\$32.00
	A1569	AC Adaptor for IT-XD				●	\$87.00
	A1568	8800mAh Battery Pack for IT-XD				●	\$247.00
	MFT-LEADSET	Lead Set: 3 x Probes, 3 x Clips & 3 x Leads For PowerTest 200					\$109.00
	S2026	Earth Test Set - 20m			●	●	\$221.00
	S2027	Earth Test Set - 50m			●	●	\$419.00
	P1102	aMSEM Android Device License Key			●	●	\$154.00
	IT-ASSET	RCD Asset Bar Code Labels			●	●	\$15.00
	BCS-BT	Bar Code Scanner			●	●	\$649.00
	A119X	Cable Locator & Circuit Tracer			●	●	\$494.00

Installation Testing Accessories 2

Image	Part Code	Description	Application	InstalTest COMBO	InstalTest XC	InstalTest XD	Price Ex GST
	A1532XA	Electric Vehicle Supply Equipment Tester Adaptor			●	●	\$864.00
	MD-9273	Leakage Clamp with Bluetooth Connection for Data Logging			●	●	\$582.00
	A1172	Type B Lux Meter			●	●	\$666.00
	A1173	Type C Lux Meter			●	●	\$494.00
	A1391	AC/DC 300A Clamp			●	●	\$391.00
	A1018	Power & Leakage Current Clamp			●	●	\$509.00
	A1019	Power, Current & Earth Resistance Clamp			●	●	\$425.00
	A1507	3 Phase Active Switch			●	●	\$1,264.00
	A1401	Remote Probe			●	●	\$269.00
	IT-UTW	User Training	On and Off-Site Training on InstalTest XC and XD Testers		●	●	POA

3 Solar PV Testing Comparison Chart

	Seaward PV150-SLK	Metrel MI-3115	PVPM1540X
			
Tester Specifications:			
Maximum Voltage	1000 V DC	1699 V DC	1500V DC
Maximum Current	15A	20A	40A
Maximum Power	10kW	24kW	60kW
I-V Curve Test	✓	✓	✓
Electrical Safety Tests:			
Insulation	500V DC	250/500/1000/1500V DC	✓
Earth Bond	✓	✓	✓
Auto Sequence Testing	✓	✓	✓
Tester Features:			
Display	LCD	Colour TFT	Colour TFT
Multiple Strings	✓	✓	✓
Android Mobile App (NFC)	✓	✓	✓
PC Reporting Software	SolarCert Software	Metrel ES Manager Software	Optional
Memory Records	200 Records	SD Card 512 GB	1000+ Records
PC Connectivity	USB	USB, Bluetooth	USB
Cloud Storage & Reporting	✓	✓	✓
PV Module Database	✓	✓	✓
Manual PV Parameter Entry to Tester	✓	✓	✓
Import PV Parameter to Tester	✓	✓	✓
Remote Sensor Connectivity	Bluetooth	Wi-Fi	Physical
Irradiance Sensor	✓	✓	✓
Temperature Sensor	✓	✓	✓
Current Clamp Meter	✓	✓	✓
Battery Life	> 1000 Tests	> 800 Tests	8 Hours Operation
Calibration Certificate	✓	✓	✓
Price ex GST	\$2,729 ex GST	\$7,999 ex GST	\$20,763 ex GST

SECTION SUMMARY

1,000V Solar PV Testers
1,500V Solar PV Testers

1,000V SOLAR PV TESTERS

PV150-SLK

Seaward Solar

- 1000V DC, 15A DC
- Conducts O/C Voltage and S/C Current Tests, as well as Electrical Safety Tests



Solarlink connectivity enables the PV150 to wirelessly receive and record irradiance and temperature measurements in real time from the SS-200R.

- Connects Directly to PV Panel or String
- Safe - No Probing Required
- Records Irradiance & Temperature
- 200 Record Memory & USB Download
- Includes SolarCert Reporting Software
- 10A Max S/C Current

Technical Specifications

Earth Continuity 0.01ohm to 199ohm

Insulation Resistance 250/500/1000V
0.05Mohm to 199Mohm

Open Circuit Voltage 5.0V to 1000V

Short Circuit Current 0.5A to 15A

Operating Current (Using AC/DC Current Clamp) 0.5A to 40A

Memory 200 records

PC Connectivity USB

Display Custom LCD with backlight

Power Supply 6 x 1.5V Alkaline

Ordering Code

PV-150-SLK

\$2,729 ex GST

1,500V SOLAR PV TESTERS

MI-3115

Metrel

- 1500V DC, Up to 20A DC (24kW)
- With Insulation & Continuity



The Metrel MI-3115 tests 1,500V DC and I/V up to 24kW rating. The irradiation and cell temperature are measured in real time with the Wi-Fi wireless remote unit.

Measuring Functions

- 1500 V insulation resistance
- Continuity of PE conductors
- Polarity test
- Isc and Uoc test
- I/V characteristics
- Wireless acquisition of irradiation and temperature of PV modules

Key Features

- Capacitive measurement method.
- Wireless (Wi-Fi) remote unit for measuring and logging of irradiation and cell temperature of PV modules.
- Calculation of STC values and comparison with nominal data.
- Correction of previously wrong entered parameters on already executed measurement or group of measurements.
- The instrument is controlled via a large colour touch screen display.
- Memory organizer, operations on single or group of measurements, search functionality.
- PV modules database handler.
- PC SW Metrel ES Manager enables prepreparation of measurement structure and measurements, upload or download that structure and then reviews the results.

Ordering Code:

MI-3115

\$7,999 ex GST

PVPM1540X

PV Engineering

- 1500V DC, 40A DC Range
- Produces Precise I-V Curves



The PVPM1540X enables the measurement of the IV- curve of photovoltaic modules as well as of strings or arrays. By a patented procedure the device can measure and calculate the peak power directly at the installation site of the PV system. Calculation results and the diagram can be displayed on the internal colour TFT-display.

Technical Specifications

Voltage 25V / 100V / 500V / 1500V

Current 2A / 5A / 10A / 20A

Temperature -40°C - +100°C with Pt1000

Irradiance 0 - 1300W/m2 (Standard sensor)

Kit Includes

- Measuring instrument in sturdy plastic housing with carrying handle
- Battery supply, external power supply for battery charging and line operation
- 4-wire-lead (10 meters, other on request)
- Calibrated irradiation sensor (monocrystalline) and integrated temperature sensor Pt1000 with lead
- USB cable for PC connection
- Control software for MS Windows XP, Vista, 7, 8, 8.1, 10
- External Santon Security Switch 1500V/20A, disconnects all wires between PVPM and generator
- Software for MS Windows for the automatic generation of test reports (PVPMreport)
- Individually adapted test leads and extension cables

Ordering Code:

PVPM1540X

PVPM Report

\$20,763 ex GST

871 ex GST

4 Electric Vehicle (EV) Testing Comparison Chart

	A-1532XA EVSE Adaptor	A-1632 eMobility	MI-3132 EV Tester
			
Function:			
Electric Vehicle Safety Testing	✗	✗	✓
Electric Vehicle Supply Equipment	✓	✓	✗
Electrical Tests:			
DC & AC Voltage	With InstaITest XC/XD	With InstaITest XC/XD	✓
Earth Bond/Continuity	With InstaITest XC/XD	With InstaITest XC/XD	✓
Insulation Resistance	With InstaITest XC/XD	With InstaITest XC/XD	✓
EVSE Measurements:			
Proximity Pilot Test	✓	✓	✗
Control Pilot Test	✓	✓	✗
Line Impedance for Charging Station	✓	✓	✗
Loop Impedance for Charging Station	✓	✓	✗
Isolation Test for Charging Station	✓	✓	✗
1-Phase Charging Station Test	✓	✓	✗
3-Phase Charging Station Test	✓	✓	✗
Diode Short Error Simulation	✓	✓	✗
PE Open Error Simulation	✓	✓	✗
CP Short Error Simulation	✓	✓	✗
Load Test Up To 13A	✓	✗	✗
EV Measurements:			
Automatic R100 Insulation Test	✗	✗	✓
Features:			
Pre-Programmed AutoSequences	With InstaITest XC/XD	With InstaITest XC/XD	✓
Download Reports	With InstaITest XC/XD	With InstaITest XC/XD	✓
Electrical Installation Testing	✗	✗	✓
Price ex GST	\$864 ex GST	\$2,872 ex GST	\$3,999 ex GST

SECTION SUMMARY

Electric Vehicle Supply (EVSE) Tester
Electric Vehicle Safety Tester

ELECTRIC VEHICLE SUPPLY (EVSE) TESTERS

A-1532XA

Metrel

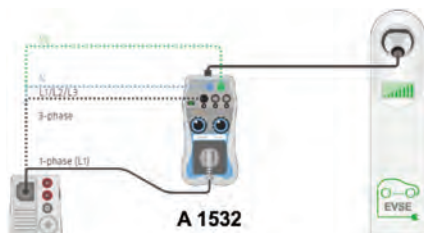
- Verification & Load Testing of Mode 3 Electric Vehicle Charging Stations
- Use with InstalTest Series Testers



The Metrel A-1532XA EVSE (Electric Vehicle Supply Equipment) adapter is a special accessory for the InstalTest series of multifunction testers for use in the verification of electrical safety and functional testing of Mode 3 electric vehicle charging stations with a type 2 connector.

When used with InstalTest XC and XD Installation testers, the complete EVSE charging station can be tested (state-by-state) electrically and functionally with a push of a button and create a professional station-based report with Metrel's MESM software.

Adaptor Connection Diagram



Examples of Error Conditions

- Error condition/plug disconnection
- EVSE does not supply energy
- EV detected, EV not ready to receive energy, EVSE does not supply energy
- EV ready to receive energy, EVSE is supplying energy if no ventilation.
- EV ready to receive energy and requires ventilation, EVSE is supplying energy, ventilation exists.
- EVSE doesn't supply energy

Ordering Code:

A-1532XA \$864 ex GST

A-1632

Metrel

- Verification & Testing of Mode 2 & 3 Electric Vehicle Charging Stations
- Use with InstalTest Series Testers



The Metrel A-1632 EVSE (Electric Vehicle Supply Equipment) adapter is a special accessory for the InstalTest series of multifunction testers for use in the verification of electrical safety and functional testing of Type 1 and/or Type 2 EVSE as well as testing of Mode 2 and Mode 3 electrical vehicle (EV) charging cables and communication monitoring between the charging station and the EV (simulated electric vehicle) during charging.

- Functional testing of EVSE via simulation of electrical vehicle's CP and PP circuits.
- Diagnostic testing of EVSE via simulation of errors on CP circuit.
- Electrical safety testing of EVSE.
- Functional testing of Mode 2 EV cables via simulation of electrical vehicle's CP and PP circuits.
- Diagnostic testing of Mode 2 EV cables via simulation of errors on CP circuit.
- Simulation of faults on mains for verification of Mode 2 EV charging cable safety features.
- Electrical safety testing of Mode 2 and Mode 3 EV cables.
- Accessible inputs/outputs for connection of safety testers.
- 1-phase and 3-phase Mode 2 cable connections.
- Integrated 4400 mAh Li-Ion battery.
- Bluetooth communication with Metrel safety testers.

Ordering Code:

A1632 \$2,872 ex GST

ELECTRIC VEHICLE SAFETY TESTER

MI-3132

Metrel

- Automated Insulation Resistance Measurements to UN ECE R100
- Auto Sequences Include Visual Safety & Functional Inspections



The MI-3132 is designed specifically for testing the electrical safety of electric vehicles.

It provides fully automated insulation measurements (with inbuilt REESS as a DC voltage source) in accordance with UN ECE R100 and ISO 6469-3 standards in a single measuring procedure. Other testers on the market require the user to make several separate measurements to get a single result.

- Test electric vehicle high voltage cables insulation and resistance
- Battery insulation check
- EV chassis and components bonding test
- EV safety tests
- Mode 3 charging cables insulation and resistance test
- Electric vehicle after crash safety check
- Electrical troubleshooting
- Periodic Technical Inspections testing

Technical Specifications

Insulation Resistance 50V to 1500V DC, to UN ECE R100 and ISO 6469-3

DC Voltage Measurement TRMS and frequency

Four Wire Micro Ohm with 2A DC test current

Low Ohm with 7mA and 200mA DC test current

Ordering Code:

MI-3132 \$3,999 ex GST

5 Multimeters

SECTION INDEX

Multimeters
Wattmeter

TRMS INSULATION/ CONTINUITY MULTIMETER

MD-9070

Metrel

- Insulation/Continuity Multimeter
- CAT IV 600V Overvoltage Protection



The MD-9070 is a high accuracy insulation and continuity multimeter. It features a dual display, accurate TRMS reading on sinusoidal and non-sinusoidal signals, and in-built VFD for measuring the true RMS values in accordance with frequency.

•MD-9070•

TRMS AC VOLTAGE

Range 6.000 V to 1000.0 V

Accuracy

from $\pm(1.0\%$ of reading + 3 dig)

VFD AC VOLTAGE

Range 600.0 V

Accuracy $\pm(0.4\%$ of reading + 5 dig)

DC VOLTAGE

Range 6.000 V to 1000.0 V

Accuracy

from $\pm(0.2\%$ of reading + 3 digits)

OHMS

Range 600.0 Ω to 60.00 M Ω

Accuracy

from $\pm(0.9\%$ of reading + 2 digits)

Audible Continuity 20 Ω to 200 Ω

Diode Test 2.000 V

Earth Continuity Test

0.015 Ω to 21.99 Ω

Hz Line Level Frequency

10 Hz to 440 Hz

Insulation Resistance 50 V to 1000 V

Sensing AC, True RMS

MAX/MIN/Peak Hold

Overvoltage Cat CAT IV / 600 V

Ordering Code:

MD-9070

\$659 ex GST

4 DIGIT HEAVY DUTY TRMS INDUSTRIAL METER

MD-9060

Metrel

- CAT IV 1000V Overvoltage Protection
- Highest Accuracy Handheld DMM



The MD-9060 ranks among the most accurate multimeters with a large bandwidth and very high resolution. The VFD feature makes the instrument capable of measuring true values in accordance with frequency,

•MD-9060•

TRMS AC & AC+DC VOLTAGE

Range 500.00 mV to 1000.0 V

Accuracy

from $\pm(0.45\%$ of reading + 40 dig)

AC VOLTAGE

Range 500.00 mV to 1000.0 V

Accuracy $\pm(0.3\%$ of reading + 20 dig)

DC VOLTAGE

Range 500.00 mV to 1000.0 V

Accuracy

from $\pm(0.02\%$ of reading + 2 digits)

DC CURRENT

Range 500.0 μ A to 10.00 A

Accuracy $\pm(0.15\%$ of reading + 20 dig)

TRMS AC & AC+DC CURRENT

Range 600.0 μ A to 10.00 A

Accuracy

from $\pm(0.5\%$ of reading + 50 digits)

Diode Test 2.000 V

Resistance 500.0 Ω to 50.00 M Ω

Conductance 99.99 nS

Mains Freq 10 Hz to 200 kHz

Digital Freq 5.000 Hz to 1.0000 MHz

Capacitance 50.00 nF to 25.00 mF

Temperature -50 $^{\circ}$ C to +1000 $^{\circ}$ C

MAX/MIN/AVG, Data/Peak Hold

Overvoltage Cat CAT IV / 1000 V

Ordering Code:

MD-9060

\$575 ex GST

4 DIGIT HEAVY DUTY TRMS INDUSTRIAL METER

MD-9050

Metrel

- CAT IV 1000V Overvoltage Protection
- With Non-Contact Voltage Detection



The MD-9050 is a top-of-the line industrial multimeter. High resolution and accuracy, fast data acquisition, CAT IV 1000V, TRMS current and voltage and non-contact voltage detection.

•MD-9050•

TRMS AC & AC+DC VOLTAGE

Range 60.00 mV to 999.9 V

Accuracy

from $\pm(0.5\%$ of reading + 3 digits)

AC VOLTAGE

Range 9.999 V to 999.9 V

Accuracy $\pm(1.0\%$ of reading + 4 dig)

DC VOLTAGE

Range 60.00 mV to 999.9 V

Accuracy

from $\pm(0.06\%$ of reading + 2 digits)

DC CURRENT

Range 600.0 μ A to 10.00 A

Accuracy $\pm(0.2\%$ of reading + 4 dig)

TRMS AC & AC+DC CURRENT

Range 600.0 μ A to 10.00 A

Accuracy

from $\pm(0.6\%$ of reading + 3 digits)

Diode Test 2.000 V

Resistance 600.0 Ω to 60.00 M Ω

Conductance 99.99 nS

Mains Freq 15.00 Hz to 50.00 kHz

Digital Freq 5.00 Hz to 1.000 MHz

Capacitance 60.00 nF to 25.00 mF

Temperature -50 $^{\circ}$ C to +1000 $^{\circ}$ C

MAX/MIN/AVG, Data Hold, Peak

Hold

Overvoltage Cat CAT IV / 1000 V

Ordering Code:

MD-9050

\$381 ex GST

4 DIGIT TRMS INDUSTRIAL METER

MD-9040

Metrel

- CAT IV 1000V Overvoltage Protection
- Large 2-Line LCD Display



Metrel's MD-9040 is the all round meter for industrial applications covering high level industrial testing, electronic faultfinding, field servicing and heavy duty electrical testing.

•MD-9040•

TRMS AC VOLTAGE

Range 60.00 mV to 999.9 V

Accuracy

from $\pm(0.5\%$ of reading + 3 digits)

DC VOLTAGE

Range 60.00 mV to 999.9 V

Accuracy

from $\pm(0.06\%$ of reading + 2 digits)

DC CURRENT

Range 600.0 μ A to 10.00 A

Accuracy $\pm(0.2\%$ of reading + 4 digits)

TRMS AC CURRENT

Range 600.0 μ A to 10.00 A

Accuracy

from $\pm(0.6\%$ of reading + 3 digits)

Diode Test 2.000 V

Resistance 600.0 Ω to 60.00 M Ω

Conductance 99.99 nS

Mains Freq 15.00 Hz to 50.00 kHz

Digital Freq 5.00 Hz to 1.000 MHz

Capacitance 60.00 nF to 25.00 mF

MAX/MIN/AVG, Data Hold, Peak Hold

PC Link via optical interface

Power Supply 9 V battery

Overvoltage Cat CAT IV / 1000 V

Ordering Code:

MD-9040

\$288 ex GST

ELECTRICAL FIELD SERVICE METER

MD-9016

Metrel

- Auto & Manual Ranging
- With Electric Field Detection



Metrel's MD-9016 is a perfect combination of size and innovative functions. It is capable of detecting and diagnosing most electrical and electro technical problems. Display with large easy-to-read figures and one-handed operation make MD 9016 an extremely easy-to-use.

•MD-9016•

AC VOLTAGE

Range 60.00 mV to 1000 V

Accuracy

from $\pm(1.0\%$ of reading + 5 digits)

DC VOLTAGE

Range 60.00 mV to 1000 V

Accuracy

from $\pm(0.4\%$ of reading + 5 digits)

DC CURRENT

Range 600.0 μ A to 10.00 A

Accuracy $\pm(0.5\%$ of reading + 5 digits)

AC CURRENT

Range 600.0 μ A to 10.00 A

Accuracy

from $\pm(1.0\%$ of reading + 3 digits)

Diode Test 1.000 V

Resistance 600.0 Ω to 60.00 M Ω

Capacitance 60.00 nF to 3000 μ F

Mains Freq 15.00 Hz to 50.00 kHz

Digital Freq 5.00 Hz to 1.000 MHz

Data Hold

Power Supply 2 x 1.5V, AAA batteries

Overvoltage Cat CAT IV / 300 V

Ordering Code:

MD-9016

\$199 ex GST

VOLTAGE & CONTINUITY TESTER

MD-1160

Metrel

- CAT IV 600V Overload Protection



MD-1160 Highlights

- Voltage Testing up to 690V
- Automatic AC/DC Recognition
- Continuity buzzer and led to indicate resistances below 500 k Ω
- Phase & Rotating Field Test
- Overvoltage Cat CAT IV 600V

Ordering Code:

MD-1160

\$110 ex GST

HANDHELD WATT METER

DW-6163

Emtek

- Watt True Power & Power Factor



•DW-6163•

True Power Measurement

TRMS AC V 0 - 600V AC

TRMS AC A 0 - 10A AC

WATT 0 to 6000W, 1W Resolution

Power Factor 0.01 to 1.00

Frequency Response 40 to 400Hz

Display Large LCD, Dual Display

Max. Indication 9999

Over Input Indication

Zero Automatic Adjustment

Data Hold/Max/Min Value

Ordering Code:

DW-6163

\$286 ex GST

6 Clamp Meters

SECTION INDEX

Current Clamp Meters
Power Clamp Meter
Leakage Clamps

CAT III 1500V DC PHOTOVOLTAIC CLAMP

MD-9260

Metrel

- CAT III 1500V DC Rating



The MD 9260 is the first Metrel instrument to support measurements up to 1500 V with CAT III safety. It has 2000 A AC/DC current range and can additionally measure resistance, capacitance, frequency and temperature, an ideal tool for power applications.

•MD-9260•

DC Volt 1500V

AC Volt 1000V

AC Current 2000.0A to 2000A

TRMS AC/DC V & A

Temperature -50 °C to +1000 °C

Frequency 10Hz to 1999Hz

Resistance 600.0Ω to 40.00MΩ

Capacitance 60.0nF to 2000 μF

Diode Test 1.000V

Special Features AutoCheck™ V&Ω; VFD-V & VFD-Hz; Backlighted LCD; 5 ms CREST-MAX Capture mode (Peak Hold); Auto-ranging Relative-Zero mode; Display Hold; EF-Detection (NCV); Optional Interface capabilities with PC computers

Jaw Size 55mm

Overvoltage Cat CAT III 1500V DC

Ordering Code:

MD-9260

\$599 ex GST

TRMS AC/DC CURRENT CLAMP METER

MD-9231

Metrel

- TRMS Up to 1000A AC



The MD-9231 is an industrial TRMS AC and DC current clamp with a wide jaw opening and is capable of measuring currents up to 1000A.

•MD-9231•

DC Volt 600.0V to 1000.0V

AC Volt 600.0V to 1000.0V

DC Current 60.00A to 1000A

AC Current 60.00A to 1000A

Ohms 600.0Ω to 60.00kΩ

Audible Continuity Tester

Diode Test 2.000V

Capacitance 200.0nF to 2500 μF

Jaw Size 51mm

Autorangeing user can switch between auto and manual ranging

Relative Zero Mode

Data Hold

Flashlight

Non-contact detection of electromagnetic fields

Power 2 x 1.5V battery

Overvoltage Cat CAT IV 600V, CAT III 1000V

Ordering Code:

MD-9231

\$329 ex GST

TRMS AC CURRENT CLAMP METER

MD-9226

Metrel

- AC & DC TRMS Voltage to 600V



The MD 9226 is a professional DC and TRMS AC current clamp meter capable of measuring capacitance and frequency. It is equipped with a built-in VFD feature that makes the instrument capable of measuring the true values in accordance with frequency.

•MD-9226•

DC Volt 600.0V

AC Volt 600.0V

Ohms 600.0Ω to 60.00kΩ

Diode Test 2.000V

Hz Line Level Frequency 5Hz to 999.9Hz

Capacitance 200.0μF to 2500 μF

Jaw Size 35mm

Auto-ranging

LCD Display with backlight, 3-5/6 digit, 6000 count.

Automatic, non-contact detection of electromagnetic fields to locate and trace live conductors

Data hold function

MIN/MAX/AVG function

Peak value

Relative zero

Overvoltage Cat CAT IV 300V, CAT III 600V

Ordering Code:

MD-9226

\$270 ex GST

MINI CLAMP METER

MD-9210

Metrel

- Great Value for Money



•MD-9210•

DC Volt 400.0mV to 600V

AC Volt 4.000V to 600V

AC Current 40.00A, to 600A

Ohms 400.0Ω to 40.00MΩ

Diode Test Open-circuit voltage <1.6V

Frequency 10Hz to 100kHz

Capacitance 500.0nF to 3000 μF

Jaw Size 26mm

Autoranging & Relative Zero Mode

Overvoltage Cat CAT IV 300V

Ordering Code:

MD-9210

\$160 ex GST

LEAKAGE CLAMP - AC A

200mA AC

Emtek

- 0.1mA Resolution



•DL-6054•

AC Current 200mA, 20A & 200A
±2% typical

Max Resolution 0.1mA

Data Hold for displayed values

Incl. carry case and test leads

Conductor Size 19mm

Ordering Code:

DL-6054

\$349 ex GST

LEAKAGE CLAMP TRMS WITH POWER FUNCTIONS

MD-9273

Metrel

- Bluetooth Enabled for IT-XC/XD



The MD 9273 is the new Bluetooth-enabled expansion to the Metrel multifunctional InstalTest XC/XD testers. When used together, they form a team for measuring data from a safe distance. On the other hand, it is an independent instrument with improved accuracy, construction, and new functions like VFD filter. It can accurately read the TRMS AC leakage current of a system, detect losses in the system, suggest possible reasons for the loss, sense the harmonics in the signal, and perform basic power quality tests.

•MD-9273•

AC Current 40mA to 100A

AC/DC Voltage 40.0V to 600.0V

THD 0 to 999%

Frequency 10 to 100Hz

Current Harmonics

0 to 100% Irange

Voltage Harmonics

0 to 100% Urange

Crest Factor 1.00 to 9.99

Peak Value V 40V to 600V

Peak Value A 40mA to 100A

VFD 40V to 600V

Power 0.000W to 60kW

Power Factor 0.00 to 1.00

Phase -180.0 to 180.0

128Hz Notch Filter for cable tracing

Bluetooth Connection to ITXC/XD for in-rush current recording

Jaw Size 28mm

Overvoltage Cat CAT IV 300V,
CAT III 600V

Ordering Code:

MD-9273

\$582 ex GST

7 High Voltage Testing

SECTION INDEX

High Voltage Insulation Testers
Loop Impedance Adaptor
Continuity Testers

HIGH VOLTAGE INSULATION TESTERS

MI-3210

Metrel

- Test Voltages Up To 10kV, 20 T Ω



MI-3210 Key Features

- Insulation resistance up to 20 T Ω .
- Adjustable test voltage (50 V...10 kV) 50 V and 100 V step.
- Programmable timer.
- Capacitance measurement.
- Charging rate for capacitive load < 3 s / μ F at 10 kV.
- Automatic discharge of test object after completion of measurement.
- Guard terminal.
- High voltage breakdown detection.
- Custom defined tests.
- Auto adjustment function.
- Measurement results in numerical and graphical form.
- PC software HVLink PRO for downloading and analysing of the test results and test report printing.
- Isolated RS232 and USB communication ports, BT interface.
- High quality accessories including shielded test leads in standard set.
- High EM interferences protection: Input AC current noise rejection (1 mA ∞ 600 V) and additional averaging of the result (5, 10, 30, 60).
- CAT IV / 600 V.

Ordering Code:

MI-3210

\$6,078 ex GST

MI-3205

Metrel

- Test Voltages Up To 5kV, 15 T Ω



MI-3205 Key Features

- Insulation resistance up to 15 T Ω .
- Adjustable test voltage (50 V...5 kV) 50 V and 100 V step.
- Programmable timer.
- Capacitance measurement.
- Charging rate for capacitive load < 1.5 s / μ F at 5 kV.
- Automatic discharge of test object after completion of measurement.
- High voltage breakdown detection.
- Custom defined tests.
- Auto adjustment function.
- Measurement results in numerical and graphical form.
- PC software HVLink PRO for downloading and reporting.

Ordering Code:

MI-3205

\$4,355 ex GST

LOOP IMPEDANCE ADAPTOR

MI-3143

Metrel

- For Use with InstalTest XC/XD



The MI 3143 440 V measures the effectiveness of automatic trip out protection in case of faults in transformers and HV equipment. It offers high precision line and loop impedance measurements on AC circuits, high current dR 300A loop and line measurements for testing partial voltage drops and contact voltage measurement.

Ordering Code:

MI-3143

\$2,942 ex GST

CONTINUITY TESTERS

MI-3250 10A

Metrel

- High Accuracy & Resolution



The MI 3250 MicroOhm 10 A is a portable low resistance ohmmeter for measuring low resistances of breakers and switches, busbars, cable joints, small to medium sized transformer and motor windings for industrial application, etc., with test current up to 10 A. The used 4-lead Kelvin testing method together with automatic bidirectional procedure ensure very high accuracy of test results (0,25%). The instrument can be powered by mains or internal rechargeable batteries. Test results can be stored on the instrument and with PC software HVLink PRO that is supplied as a part of standard set enables transfer of measured results to PC where they can be analysed or printed.

MI-3250 Key Features

- Accurate: 0.1 n Ω best resolution with 0.25% accuracy.
- Bar graph: on screen resistance bar graph.
- Battery powered: more than 1000 measurements with 10 A test current can be performed when powered by internal battery only.
- Safe: High overvoltage category CAT IV / 300 V.
- Four measuring modes: Automatic, single, continuous and inductive.
- Automatic thermal EMF elimination: with automatic bidirectional measurement.
- Temperature compensation: measured resistance can be adjusted according to ambient temperature, which can be entered manually or external probe.

Ordering Code:

MI-3250

\$4,246 ex GST

8 Calibration Services

SECTION INDEX

Instrument Calibration
Appliance Tester Calibration
Service & Calibration Booking Form

INSTRUMENT CALIBRATION

Electrical Instruments

Emona

- Cost effective, traceable calibration solution



In many service and maintenance environments, test equipment used for making measurements must be checked periodically to ensure the reliability of readings.

Emona's primary calibration equipment includes a Time Electronics AC/DC calibrator with 15ppm basic accuracy, and Prema 8.5 digit DMM with 0.5ppm stability.

DMM calibration AC V, DC V, AC A, DC A and Ohms range pricing:

DMM Type	Price*each
<i>*Incl GST and subject to change without notification</i>	
3.5/3.75/4.5 digit	\$150
5.5 digit	\$150

Insulation tester calibration pricing:

Insulation Tester	Price*each
<i>*Incl GST and subject to change without notification</i>	
Up to 1kV	\$150

RCD tester calibration pricing:

RCD Tester	Price*each
<i>*Incl GST and subject to change without notification</i>	
Basic & Logging Type	\$150

Multi-function installation tester pricing:

Installation Testers	Price*each
<i>*Incl GST and subject to change without notification</i>	
Basic & Logging Type	\$231

A full report of test detailing applied values and reading taken is available, if required for \$89.

APPLIANCE TESTER CALIBRATION

PAT Tester Calibration

Emona

- Covers All Seaward Testers
- Regular Calibration of Testers is Required under AS/NZS3760



Regular calibration of your portable appliance tester is a requirement of AS/NZS3760. Verification of your instrument's measurements ensures that users can confidently Pass or Fail electrical equipment used at a place of work.

Emona's calibration service is professional and cost effective. All equipment used has been tested by a NATA recognised laboratory. Calibrated PAT testers are supplied with a Statement of Compliance.

PAT tester calibration on Earth Bond, Insulation Resistance, Class I Leakage, Class II Leakage, Sub-Leakage, Load, Polarity is priced as follows:

PAT Model	Price*each
<i>*Incl GST and subject to change without notification</i>	
PT125 EL	\$165
PAC500	\$121
PAC3760	\$121
PAC3760 Plus/Plus II/DL	\$198
PrimeTest 200	\$231
PrimeTest Elite	\$297
PrimeTest 300	\$297
PAT1000S	\$165
Europa	\$297
Europa-XE	\$275
Europa-Plus	\$297
Maestro	\$297
Supemova	\$297
Supemova-XE	\$275
Supemova-Plus	\$297

Full report of test detailing applied values and readings taken is available, if required, at \$89 inc GST.

SERVICE & CALIBRATION BOOKING FORM

Terms & Conditions

Emona

- Download from www.emona.com.au
- Include with All Submitted Jobs

All Returns to be Accompanied by an Emona Service Order Form

Please include an Emona Service Order Form with all service and calibration requests, including those accompanied by an official Purchase Order.

Account Customers All account customers, such as government departments, hospitals, educational institutions etc, must include an official Purchase Order with the Service Order Form. Service and calibration jobs cannot be completed without an official Purchase Order.

Pre-Paid or Non-Account

Customers Customers without account terms, i.e. "Pre-Paid" customers, should provide credit card details on the Service Order Form to guarantee faster job processing turnaround times. Credit card payments are preferable to EFT as EFT payments require next day confirmation.

Minimum Charge A minimum charge of \$99 ex GST applies for all repairs or for any maintenance required such printer re-programming, logo installation etc.

Turnaround Times A typical turnaround time of 7 working days applies for calibrations and repairs. Repair turnaround times can be affected by parts availability.

Booking of Priority Jobs Priority repair and calibration jobs must be pre-booked in advance.

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Moorooka QLD 4105

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Fax: 07 3848 9046

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4/199 Balcatta Rd
Balcatta WA 6021

Tel: 08 9361 4200

Fax: 08 9361 4300

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3/26 The Parade West
Kent Town SA 5067

Tel: 08 8363 5733

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GROUP WEBSITES

Test & Measurement: www.emona.com.au

Testing & Tagging: www.protag.com.au

Installation Testing: www.instaltest.com.au

TIMS Telecoms Trainer: www.tims.com.au