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SEAWARD GROUP
Seaward, Clare, Rigel Medical,
Cropico, Seaward Group USA
are all part of the Seaward Group

- **Portable Appliance Testing Solutions**
- **Installation Testing Solutions**
- **High Voltage Testing Solutions**

SEAWARD

Tried. Tested. Trusted.

Four great brands.
One great reputation.

The Seaward Group is made up of four individual brands specializing in different aspects of electrical safety testing. Each is passionately dedicated to providing technologically advanced solutions to the highest possible standards within highly specific markets.

A Total Solutions way of thinking

Each brand focuses on the total package that will make the testing or measurement process quicker and easier for customers. It's not just about the products we sell, but the service as a whole. We think integration, after sales care, calibration and training courses are just as important as the testers themselves.

SEAWARD

Portable Electrical Safety Instruments

Providing testers, software and services for appliance testing, fixed installation testing and high voltage testing.

CLARE

Industrial Safety Instruments

Clare is the market leader in the design and manufacture of test equipment for in-line production and manufacturing conformance.

CROPICO

Precision Instruments

Cropico, the newest addition to the Seaward Group, has over 50 years experience in the development of precision measurement solutions, specializing in advanced resistance measurement instruments.

RIGEL

Biomedical Safety Testing

Rigel Medical is at the forefront of electronic biomedical test and measurement equipment, software and accessories.

A world leading group of companies

At the Seward Group we believe our reputation for product innovation and technical expertise is second to none and reflects our in-depth knowledge and understanding of all the markets in which we operate.



In safety testing, the bottom line
is human life. So it's our business
to know your work inside out.
As part of your team, with the
best technology.
Welcome to Total Test Solutions.

SEAWARD
Tried. Tested. Trusted.



PAT

Total Test Solutions.

SEAWARD
Tried. Tested. Trusted.

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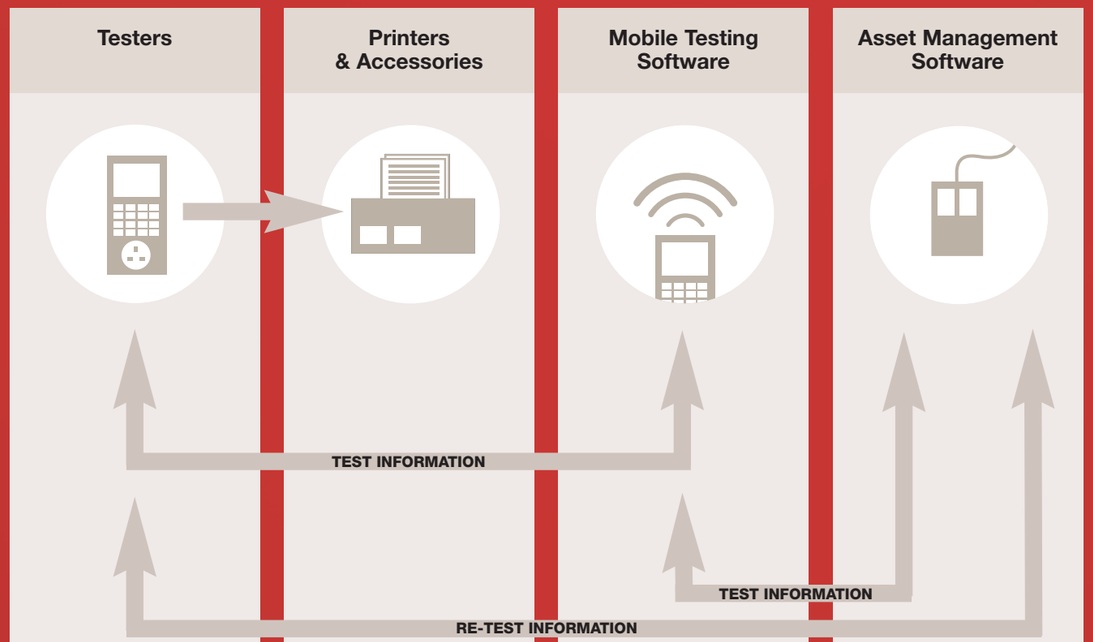
PAT SYSTEM

Smart technology and an intimate knowledge of the job result in Testers designed for easier work and better profits.

SEAWARD
Tried. Tested. Trusted.

Today's world moves at an unprecedented pace: things change every day. Everything's smarter, smaller and faster. This is good news for us, and for you. It means we're developing and manufacturing better equipment and can incorporate technologies like Bluetooth data transfer and PDA test management databases. And we're not confined to supplying test equipment. We can now help your business or institution become more efficient and effective. We call it PATSolutions. This groundbreaking process involves everything from choosing your PAT Tester to following up with calibration services and training courses. It streamlines your processes, reduces costs, increases productivity and improves profits.





Seaward offers everything from Bluetooth technology to a basic PASS/FAIL tester. Our revolutionary PAT Tester range includes hand-held formats capable of carrying out a variety of full and comprehensive tests.

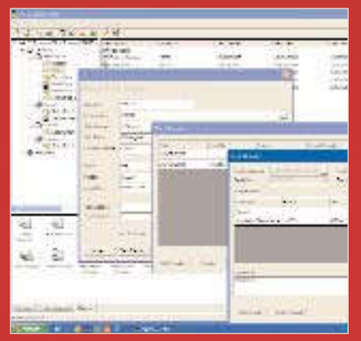
Because of our experience in the field, we've been able to develop a range of PAT Tester accessories which helps you save time and reduces the need for repetition. Now, for example, you can print labels directly from the tester, label the appliance, scan, store and retrieve information. And that's just a small sample of what you can do.

Use mobile technology for remote working. Transferring records to the PDA for re-test and results back to PATGuard databases to create up-to-date records.

Our PATGuard software range is highly functional, easy to use and helpful; superbly user-friendly in fact. It's available in different versions depending on what you need. Our software packages utilise full test records, scheduling and pre-emptive automated notification. All features, we hardly need add, which add value to your business.

PAT SOFTWARE

PATGuard. New generation software that takes the stress out of the Testing process.





SEAWARD
Tried. Tested. Trusted.

▲ *Provides clear information on test user activity*

▲ *Bluetooth technology for wireless data transfer*

At Seaward, we focus on more than tester improvement.

We offer a total solution, which makes PAT Testing a lot quicker and easier. From test and measurement equipment, right through to software and accessories. Our PATGuard software is functional, easy to use and helpful. It comes in three versions, each providing an optimum solution to a particular requirement. PATGuard and our Work About software bring added value to your customer offer.

Proactive and user friendly, it presents you with a totally connected system which lets its various parts 'talk to each other'. It can email you to warn you when it's time to re-test, for instance. Features like this cut admin time and let you get on with what you're good at.

TEST N TAG SYSTEM

Fast, automatic printing of appliance test labels direct from the test instrument.

Work is hard enough without the complications of using inferior products. Which is why at Seaward everything we do is designed to make your work easier and more efficient. Our new generation Test n Tag printers are perfectly equipped to help. Up to the minute Bluetooth technology means information can be transferred immediately from your tester. Moments later, a tamper and waterproof label can be printed, with or without your logo. Of course we ensure your new printer is tough enough to last a very long time and clever enough to manage its own power usage. Printers like these will not only shorten the time you spend at each test site, they will make the process of test n tagging much easier.

1



On completion of the test routine, choose the type of label you would like. It is then printed automatically from the tester.

2



Use the peelstick, if needed, to help remove the backing from the panel.

3



Attach panel label to side of tested appliance.

4



Or attach a cable wrap label.



PROFESSIONAL ADVICE

Our customers review our three most advanced PAT Testers.



"In the high pressure world of services maintenance, the right tools are essential. Romec think the Supernova out performs everything in its class."

Romec technicians major in test and inspection services. We maintain essentials for blue chip clients like Royal Mail, Standard Life and Thomas Cook. There's no margin for error.

Seaward's Supernova Plus is the most comprehensive, useful tester on the market. It's a sophisticated piece of kit and it deals with any test exceedingly well!

Best of all, we don't have to wait for information to download: it also takes care of all connections (printer, PC, Modem, everything). And the walk- through instructions for each test on the big LCD make getting up and running so easy.



"The PrimeTest 200 is a remarkable tester. It has made our daily work easier and our business more profitable. We love it."

Market leaders and innovators can't work with anyone who gives less than the best. That's why Dyson uses The PrimeTest range.

The small, hand-held PrimeTest 200 is three testers in one. It enables you to PAT Test, perform installation checks, make digital multimeter readings and take temperature measurements. The 200 incorporates all electrical safety tests for Class I and II equipment, and digital multimeter test functions. So it confirms a domestic appliance's safety and checks the condition of the circuit it's attached to.

Because it multi-tasks, it means you don't have to carry a ton of equipment around with you.



"The PrimeTest 300 has revolutionised the way we go about the job of electrical safety testing. It's accurate, tough, easy to use and outright brilliant."

Britain suffers an average of 1000 electrical accidents annually. Roughly thirty of those kill people. Consider these facts alongside statutory health and safety responsibilities, a growing blame culture and the increasing vigilance of commercial insurance companies and punitive corporate manslaughter penalties and you'll understand why maintaining electrical safety is a priority for all of Kitchener 2000's employees. We carry out around 700,000 electrical tests for 500 customers a year. And we can't afford to use anything but the best testing equipment. This is why we choose Seaward. We have just started to use the Bluetooth enabled PrimeTest 300.

PAT GUIDE

A handy reference for your perfect PAT Testing solution.

SEAWARD
Tried. Tested. Trusted.

Testers & Functions

Functions ▼ / Testers ▶	PT300	PT350	Supernova Plus	Europa Plus	Europa PAC Plus	PT200	PT210	PT 220	PT100	PT50
Mains Supply Check	■	■	■	■	■	■	■	■	■	■
PASS/FAIL Indicators	■	■	■	■	■	■	■	■	■	■
Earth Test Lead Null	■	■	4-Wire	4-Wire	4-Wire	■	■	■		
Earth Continuity (100mA)			■	■						
Earth Continuity (200mA)	■	■		■	■	■	■	■	■	■
Earth Continuity (4A)			■	■						
Earth Continuity (10A)			■	■	■					
Earth Continuity (25A)			■	■						
Insulation Resistance (250V)		■	■	■	■					
Insulation Resistance (500V)	■	■	■	■	■	■	■	■	■	■
PE conductor current (Earth leakage)	■	■	■	■	■	■	■	■		
Touch Current	■	■	■	■	■	■	■	■		
Alternative Substitute Leakage		■	■	■	■				■	
Flash Test			■							
230V/110V INPUT/OUTPUT			■							
IEC Lead Test	■	■	■	■	■	■	■	■	■	■
Earth Loop Test (range Indicator)						■				
Earth Loop Test (digital reading)	■	■					■	■		
RCD Test	■	■				■	■	■		
Resistance Measurement						■	■			
Voltage Measurement						■	■			
Temperature Measurement						■				
Custom LCD					■	■	■	■	■	■
Graphical LCD	■	■	■	■		■	■			
Back Light	■		■	■		■	■	■		
Keyboard	■	■	■	■						
Barcode Scanner Input	■	■	■	■						
Test 'n' Tag	■	■	■	■						
Bluetooth (Wireless)	■	■								
Hand-Held	■	■				■	■	■	■	■
Battery Powered	■	■				■	■	■	■	■
Rechargeable Batteries	■	■				Optional		■	Optional	Optional
Weight	1.0kg	1.0kg	9.5kg	3.5kg	3.5kg	1.0kg	1.0kg	1.0kg	1.0kg	1.0kg
Auto Testing	■	■	■	■					■	■
User Tests for non electrical assets	■	■								
Pass/Fail program indicators	■	■	■	■						
PE Resistance Limit Calculator	■	■	■	■						
Memory Size	8000 records	8000 records	5000 records	5000 records	100 records					
PC Download	■	■	■	■	■					
PC Upload	■	■	■	■						
Graphical On Line Help	■	■	■	■						
Real Time Clock	■	■	■	■						

Accessories

Accessories ▼ / Testers ▶	Part Number	PT300	PT350	Supernova Plus	Europa Plus	Europa PAC Plus	PT 200	PT 210	PT220	PT100	PT50
230/110V adaptor	270A076	■	■	■	■	■	■	■	■	■	■
110/230V adaptor	281A075	■		■		■	■	■	■	■	■
Appliance Number Labels	194A307	■	■	■	■	■	■	■	■	■	■
Test Code Labels	194A308	■	■	■	■	■	■		■	■	■
Custom Appliance Number Labels	194A323	■	■	■	■	■					
CCD Scanner	194A922	■	■	■	■						
3 Phase Adaptors	209A910	■	■	■	■	■	■	■	■	■	■
3 Phase Adaptors	209A911	■	■	■	■	■	■	■	■	■	■
3 Phase Adaptors	209A912	■	■	■	■	■	■	■	■	■	■
3 Phase Adaptors	209A913	■	■	■	■	■	■	■	■	■	■
PAT Checkbox	227A910	■	■	■	■	■	■	■	■	■	■
Europa Series Carry Case	270A951				■	■					
Thermal Label Printer	283A954			■	■	■					
Modem Kit	283A969			■	■						
Supernova Plus Carry Case	298A950			■							
PrimeTest 200 Temperature Module	304A952						■				
Test n Tag Printer	308A910	■	■	■	■						
Test n Tag Elite	308A915	■	■								
Test n Tag Kit	333A970	■	■	■	■						
Bluetooth Thermal Printer	339A930	■	■								
NIMH Batteries & Battery Charger	339A950	■	■				■	■	■	■	■
Bluetooth/RS232 Adaptor	339A960	■	■								
Bluetooth/ Test 'n' Tag Printer Adaptor	342A910	■	■								
Log Cards	91B037	■	■	■	■	■	■	■	■	■	■
Pass Labels	91B038	■	■	■	■	■	■	■	■	■	■
Braincells Read/Write Reader	288A910			■	■						
Braincells Self Adhesive Tag (50)	288A953			■	■						
Braincells Cable-Tie Tag (50)	288A954			■	■						
Bluetooth Scanner	339A923	■	■								

Software

Software ▼ / Tester ▶	PT300	PT350	Supernova Plus	Europa Plus	Europa PAC Plus	PT200*	PT 210*	PT220*	PT100*	PT50*
PATGuard Pro 2	■	■	■	■	■	■	■	■	■	■
PATGuard Lite 2	■	■	■	■	■	■	■	■	■	■
PATGuard Elite 2	■	■	■	■	■	■	■	■	■	■
PATGuard Time Manager 2	■	■	■	■						
PATGuard Work About 2	■	■	■	■	■	■	■	■	■	■
PATGuard SQL 2	■	■	■	■	■	■	■	■	■	■

* Manual input only as tester does not have memory

PRIMETEST 300

The smallest, fastest and smartest Tester. The ultimate professional choice.

SEAWARD
Tried. Tested. Trusted.

Handheld	Lightweight
Battery powered	User definable tests
Bluetooth technology	Data storage

Ideal users:
- PAT Testers
- Electrical Contractors
- Facilities Managers
- Manufacturers



The PrimeTest 300 is truly revolutionary. Loaded with the latest technology, it makes testing faster and more efficient and will shorten your working hours. With its Bluetooth technology, it can communicate with all your accessory equipment without having to use wires. And because it runs on high-powered, rechargeable batteries, you're free to move from test to test, unplugged. The PrimeTest 300 carries out every test you need. It measures just 26x10cm and weighs under 1kg. It's a 'facilities management tool' because it logs, captures and records the location of the assets. With user definable tests you can select the right test for you. In short, it's the world's most advanced tester.

Advanced PATSolutions Package:

PATSolutions is a way of approaching all aspects of electrical testing. From testers themselves to information management software, through to label printers and more.

You can buy each tester and its accessories separately or as an optional PATSolutions package which includes everything you need to run an efficient, effective PAT Testing business.

- PrimeTest 300 Tester
- Carrying Case
- PATGuard Elite 2 Software
- Bluetooth laser scanner
- Calibration certificate
- Test leads and adaptors
- Battery Charger
- Test n Tag Elite Printer
- PATGuard Support Contract
- PAT Testing Guide

PAT TESTS

Earth Continuity

Test Current	+/- 200mA DC
Display Range	0.00ohm - 19.99ohm
Pass Value	User Defined

Insulation Resistance

Test Voltage	500V DC @ 1mA nominal
Display Range	0.01Mohm - 199Mohm
Pass Value	User Defined

IEC Lead Test

Tests Performed	Earth Continuity Insulation Resistance Live, Neutral Continuity and Polarity

Protective Conductor Current

Test Voltage	230V
Display Range	0.0mA - 19.99mA
Pass Value	User Defined

Touch Current

Test Voltage	230V
Display Range	0.0mA - 3.5mA
Pass Value	User Defined

CIRCUIT TESTS

RCD Trip Time

Test Current	30mA rms
Test Current Phase	0º/180º auto switched
Display Range	0ms - 200ms

Earth Loop Resistance

Test Current	Non-tripping for >30mA RCD
Display Range	0.0ohm - 199ohm

Power Socket Test

Input Voltage Range	230V + 10%, -15% AC
Indicators	Phase to Earth Voltage Phase to Neutral Voltage Neutral to Earth

ADDITIONAL INFORMATION

Weight & Dimensions	950g/26cm (l) x 10cm (w) x 5.5cm (d)
Power Source	6 x AA NIMH rechargeable batteries

ACCESSORIES

Hardware

Test n Tag Printer (308A910)
Test n Tag Elite printer (339A970)
Bluetooth laser scanner (339A923)
PAT Checkbox (227A910)
Bluetooth Thermal Printer (339A930)

Software

PATGuard Elite 2 (352A910)
PATGuard Pro 2 (325A920)
PATGuard Lite 2 (325A930)
PATGuard Time Manager 2 (334A910)
PATGuard Work About 2 (336A910)

Training

PrimeTest 300 Training Course
PATGuard 2 Software Training Course

Services

Service & Calibration
JumpStart

PrimeTest 300 part no: 305A910
PrimeTest 300 Advanced PATSolutions part no: 345A914

NEW

PRIMETEST 350

The most advanced Tester in the world, with additional features!

SEAWARD
Tried. Tested. Trusted.

Handheld	Load test
Battery powered	Definable tests
USB & Bluetooth download	In situ rechargeable batteries

Ideal users:
- PAT Testers
- Electrical Contractors
- Facilities Managers
- Manufacturers



The PrimeTest 350 is derived from the PrimeTest 300 but has the following extra features:

- The batteries are charged while they're still in the unit, via a charging port. Charging time is four hours.
- USB download for transferring data to a PC.
- Alternative leakage test, as described in the IET Code of Practice.
- 250V Insulation Test. For use when suppressors or other components prevent a 500V insulation test.
- Load Measurement. During the protective conductor and touch current tests, the load is measured and displayed as both a power and current measurement.

Advanced PATSolutions Package:

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You can buy each tester and its accessories separately or as an optional PATSolutions package which includes everything you need to run an efficient, effective PAT Testing business.

- PrimeTest 350 Tester
- Carrying Case
- PATGuard Elite 2 Software
- Calibration certificate
- Battery Charger
- Connectors
- Test n Tag Elite printer
- Bluetooth laser scanner
- PATGuard Support Contract
- PAT Testing Guide

PAT TESTS

Earth Continuity

Test Current	+/- 200mA
Display Range	0.00ohm - 19.99ohm
Pass Value	User Defined

Insulation Resistance

Test Voltage	500V / 250V DC @ 1mA nominal
Display Range	0.01Mohm - 199Mohm
Pass Value	User Defined

IEC Lead Test

Tests Performed	Earth, Insulation Resistance, Live & Neutral Continuity

Protective Conductor Current/Load

Test Voltage	195V - 230V, 45Hz-60Hz
Display Ranges	0.15mA - 19.99mA 0.00kVA – 4.00kVA 0.00A – 16.00A
Pass Value	User Defined

Touch Current/Load

Test Voltage	195V - 230V, 45Hz-60Hz
Display Ranges	0.07mA - 3.5mA 0.00kVA – 4.00kVA 0.00A – 16.00A
Pass Value	User Defined

Alternative Leakage Current

Test Voltage	40V, 50Hz
Display Range	0.10mA - 19.99mA
Pass Value	User Defined

RCD Trip Time

Test Current	30mA rms, 0°/180° auto switched
Display Range	0ms - 200ms

Loop Impedance

Test Current	Non-tripping for >30mA RCD
Display Range	0.0ohm - 199ohm

Power Socket Test

Voltage Range	195V – 253V
Voltage Indicators	phase–Earth & phase–neutral

General

Memory size	8000 records
Weight	0.9kg
Dimensions	260mm x 100mm x 55mm
Power Source	6 x AA Batteries

ACCESSORIES

Hardware

Test n Tag printer (308A910)
Test n Tag Elite printer (339A970)
Bluetooth laser scanner (339A923)
PAT Checkbox (227A910)

Software

PATGuard Elite 2 (352A910)
PATGuard Pro 2 (325A920)
PATGuard Lite 2 (325A930)
PATGuard Time Manager 2 (334A910)
PATGuard Work About 2 (336A910)

Training

PrimeTest 350 Training Course
PATGuard 2 Software Training Course

Services

Service & Calibration
JumpStart

PrimeTest 350 part no: 356A910
PrimeTest 350 Solutions Package part no: 345A913

SUPERNOVA PLUS

A comprehensive, dual voltage PAT with flash test.

SEAWARD
Tried. Tested. Trusted.

Any Test, Any Appliance	Walk through instructions
Bluetooth	Comprehensive connectivity
Fast downloads	Remote download

Ideal users:
- Construction Industry
- Hire Companies
- Manufacturers
- Facilities Managers



The Supernova Plus is a ruggedly put together, comprehensive tester that you'll find indispensable. It will carry out any test you require, including flash testing and dual voltage capability. It's packed with incredibly useful features, like a 5000 test record memory, storing locations, user, test status and date. It links to a PC and has a Modem for remote transfer of information. It has connections for a barcode reader (generating barcodes via a thermal printer), a brain cell scanner, a printer and a parallel printer port. It has a large LCD display for easy use, legible walk-through instructions for each test and it downloads fast. Asset management is supported by three software options.

Advanced PATSolutions Package:

PATSolutions is a way of approaching all aspects of electrical testing. From testers themselves to information management software, through to label printers and more.

You can buy each tester and its accessories separately or as an optional PATSolutions package which includes everything you need to run an efficient, effective PAT Testing business.

- Supernova Plus Tester
- PATGuard Elite 2 Software
- Connectors
- Test n Tag printer
- Calibration Certificate
- PATGuard Support Contract
- PAT Testing Guide
- Bluetooth laser scanner

PAT TESTS

Earth Continuity

Test Currents	25A, 10A, 4A, AC
Display Range	0.00ohm - 19.99ohm
Pass Value	User Defined
Measurement Technique	4 Wire Measurement, Floating Earth

Earth Screen Continuity

Test Current	100mA
Display Range	0.00ohm - 19.99ohm
Pass Value	User Defined
Measurement Technique	4 Wire Measurement, Floating Earth

Insulation Resistance

Test Voltage	250V, 500V DC
Display Range	0.1Mohm - 100Mohm
Pass Value	User Defined

Flash

Test Voltage Class I	1500V mns
Test Voltage Class II	3000V rms
Display Range	0.05mA- 2.5mA
Pass Value	User Defined

Protective Conductor Current

Test Voltage	230V/110V
Display Range	0.1mA - 10mA
Pass Value	User Defined

Touch Current

Test Voltage	230V/110V User Selectable
Display Range	0.1mA - 2.0mA
Pass Value	User Defined

Alternative / Substitute Leakage

Test Voltage	40V AC Nominal
Display Range	0.1mA - 2.0mA
Pass Value	User Defined

Load Test

Display Range	0kVA - 4.2kVA

IEC Lead Polarity

Tests Performed	Live/Neutral Continuity and Polarity

ADDITIONAL INFORMATION

Voltage Range	103V - 126V, 207V - 253V, 45Hz - 65Hz
Weight & Dimensions	9.5Kg/400cm (l) x 32cm (w) x 16cm (d)
Keyboard	QWERTY
Display graphic	LCD - 1/4 VGA (320x240 pixels)
Connectivity	RS232 Port Connection Parallel Port Connection

ACCESSORIES

Hardware

Test n Tag printer (308A910)
Test n Tag Elite printer (339A970)
Bluetooth laser scanner (339A923)
Modem kit (283A969)
Braincell Wand (288A910)
Braincells (288A953)
PAT Checkbox (227A910)

Software

PATGuard Elite 2 (352A910)
PATGuard Pro 2 (325A920)
PATGuard Lite 2 (325A930)
PATGuard Time Manager 2 (334A910)
PATGuard Work About 2 (336A910)

Training

Supernova Plus Training Course
PATGuard Software Training Course

Services

Service & Calibration
JumpStart

Supernova Plus part no: 283A910
Supernova Plus Advanced PATSolutions part no: 323A910

EUROPA PLUS

An Impressive Tester.

SEAWARD
Tried. Tested. Trusted.

Shorter test times	Record asset details
In situ Earth bond & Touch current tests	Comprehensive testing
Easy to use	Remote modem download

Ideal users:
- PAT Testers
- Electrical Contractors
- Facilities Managers
- Manufacturers



The Europa Plus is a portable, high volume tester that's impressed everyone who's worked with it. It has a full compliment of tests and dual voltage abilities. You can test any appliance with it. It does in-situ Earth Bond and Touch Current Tests while the equipment being tested stays powered up, perfect when the equipment can't be powered down e.g. servers. It can also record asset details for maintenance, which allows you to print labels and download the results into a software management system. With in-situ testing, there's less time involved in disconnecting the appliance from accessories and powering down critical equipment. All of which makes your working day a lot shorter. Believe us, it's fast.

Advanced PATSolutions Package:

PATSolutions is a way of approaching all aspects of electrical testing. From testers themselves to information management software, through to label printers and more.

You can buy each tester and its accessories separately or as an optional PATSolutions package which includes everything you need to run an efficient, effective PAT Testing business.

- Europa Plus Tester
- PATGuard 2 Software
- Test n Tag printer
- Connectors
- Bluetooth laser scanner
- Tester Case
- Calibration Certificate
- PATGuard Support Contract
- PAT Testing Guide

PAT TESTS

Earth Continuity

Test Currents	25A AC, 10A AC, 4A AC±200mA DC
Display Range	0.00ohm - 19.99ohm
Pass Value	User Defined
Measurement Technique	4 Wire Measurement, Floating Earth

Earth Screen Continuity

Test Current	100mA
Display Range	0.00ohm - 19.99ohm
Pass Value	User Defined
Measurement Technique	4 Wire Measurement, Floating Earth

Insulation Resistance

Test Voltage	250V, 500V DC
Display Range	0.1Mohm - 100Mohm
Pass Value	User Defined

Protective Conductor Current

Test Voltage	230V
Display Range	0.1mA - 10mA
Pass Value	User Defined

Touch Current

Test Voltage	230V
Display Range	0.1mA - 2.0mA
Pass Value	User Defined

Substitute Leakage

Test Voltage	40V AC Nominal
Display Range	1.00mA - 19.99mA
Pass Value	User Defined

Load Test

Display Range	0kVA - 4.2kVA

IEC Lead Polarity

Tests Performed	Live/Neutral Continuity and Polarity

ADDITIONAL INFORMATION

Voltage Range	207V - 253V, 45Hz - 65Hz
Weight & Dimensions	3.5Kg/31cm (l) x 21cm (w) x 8cm (d)
Display Graphic	LCD - 1/4 VGA (320x240pixels)
Connectivity	2 Serial Port Connections

ACCESSORIES

Hardware

Test n Tag printer (308A910)
Test n Tag Elite printer (339A970)
Bluetooth laser scanner (339A923)
Modem kit (283A969)
Braincell Wand (288A910)
Braincells (288A953)
PAT Checkbox (227A910)

Software

PATGuard Elite 2 (352A910)
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PATGuard Lite 2 (325A930)
PATGuard Time Manager 2 (334A910)
PATGuard Work About 2 (336A910)

Training

Europa Plus Training Course
PATGuard 2 Software Training Course

Services

Service & Calibration
JumpStart

Europa Plus part no: 302A910
Europa Plus Advanced PATSolutions part no: 324A910

EUROPA PAC PLUS

Safety Testing at its simplest.

SEAWARD
Tried. Tested. Trusted.

Quick setup	Easy test selection
Easy to use	Printer port
Bluetooth	Full range of tests

Ideal users: ■ PAT Testers ■ Service Companies



The success of the Europa PAC Plus is down to its incredible simplicity. It uses a large rotary switch to select the right test and gives clear indications as to how you start testing. Its large, clear digital display makes test results easy to read and there's a built-in print facility.

The Europa PAC Plus is a PAT Tester which is simple for anyone with basic training to operate. It's portable, there's no complicated menu to set up or navigate. You can test all equipment on the same day and you can also do tests to ensure that the appliance is safe after servicing. A highly efficient tester.

Professional PATSolutions Package:

PATSolutions is a way of approaching all aspects of electrical testing. From testers themselves to information management software, through to label printers and more.

You can buy each tester and its accessories separately or as an optional PATSolutions package which includes everything you need to run an efficient, effective PAT Testing business.

- Europa PAC Plus Tester
- Connectors
- Carry Case
- PATGuard 2 Software
- Calibration Certificate
- PATGuard Support Contract
- PAT Testing Guide

PAT TESTS

Earth Continuity

Test Currents	200mA DC, 10A AC
Display Range	0.01ohm - 19.99ohm
Pass Value	User Defined
Measurement Technique	4 Wire Measurement, Floating Earth

Earth Screen Continuity

Test Currents	200mA DC, 10A AC
Display Range	0.01ohm - 19.99ohm
Pass Value	User Defined
Measurement Technique	4 Wire Measurement, Floating Earth

Insulation Resistance

Test Voltage	250V, 500V DC
Display Range	0.1Mohm - 100Mohm
Pass Value	User Defined

Protective Conductor Current

Test Voltage	230V
Display Range	0.1mA - 09.99mA
Pass Value	User Defined

Touch Current

Test Voltage	230V
Display Range	0.01mA - 3.50mA
Pass Value	User Defined

Substitute Leakage

Test Voltage	40V AC Nominal
Display Range	0.20mA - 19.99mA
Pass Value	User Defined

Load Test

Display Range	0kVA - 4.2kVA

IEC Lead Polarity

Tests Performed	Live/Neutral Continuity and Polarity

ADDITIONAL INFORMATION

Voltage Range	207V - 253V, 45Hz - 65Hz
Weight & Dimensions	3.5kg / 31cm (l) x 21cm (w) x 8cm (d)
Keyboard	QWERTY
Display Graphic	Large Format Custom LCD

ACCESSORIES

Hardware

PATCheckbox (227A910)

Software

PATGuard Pro 2 (352A920)
PATGuard Work About 2 (336A910)

Training

Europa PAC Plus Training Course
PATGuard Software Training Course

Services

Service & Calibration
JumpStart

Europa PAC Plus part no: 293A910

PRIMETEST 200 SERIES

A fast, efficient and convenient on-site tester.

SEAWARD
Tried. Tested. Trusted.

Three testers in one	Complete safety testing
Hand held	Battery powered
10 measurement function	East to use

Ideal users: ■ Maintenance Staff ■ Service Companies ■ PAT Testers



The PrimeTest 200 series products are the answer to having to carry a ton of equipment around to do just a few simple tests. Class I, Class II and IT equipment tests are simple to carry out and so are installation tests or DMM readings. With their ten measurement functions, the 200 series are as versatile as the contents of any tester's toolbox. Easy to use and totally effective, these are hand-held testers that are battery powered. So no cables to slow you down. You'll whiz through the day's schedule with these testers. The heavy duty casing means your PrimeTest 200 or 210 will last for a very long time. For those who need specific loop readings choose the 210, with a range from 0.01ohm – 199ohm. For range identifying figures only choose the 200.

Professional PATSolutions Package:

PATSolutions is a way of approaching all aspects of electrical testing. From testers themselves to information management software, through to label printers and more.

You can buy each tester and its accessories separately or as an optional PATSolutions package which includes everything you need to run an efficient, effective PAT Testing business.

- PrimeTest 200/210 Tester
- Connectors
- Carry Case
- PATGuard 2 Software
- Calibration Certificate
- PATGuard Support Contract
- PAT Testing Guide

PAT TESTS

Earth Continuity

Test Current	+/- 200mA DC
Display Range	0.00ohm - 19.99ohm
Pass Value (Class I test)	0.20ohm

Insulation Resistance

Test Voltage	500V DC
Display Range	0.01Mohm - 199Mohm
Pass Value	1Mohm Class I, 2Mohm Class II

Protective Conductor Current

Test Voltage	230V
Display Range	0.00mA - 19.99mA
Pass Value	0.75mA

Touch Current

Test Voltage	230V
Display Range	0.01mA - 3.50mA
Pass Value	0.25mA

IEC Lead Test

Tests Performed	Earth Continuity Insulation Resistance Live, Neutral Continuity and Polarity

CIRCUIT TESTS

RCD Trip Time

Test Current	30mA
Test Current Phase	0º/180º Auto Switched
Display Range	0ms - 500m

Earth Loop Resistance

Test Current	Non-tripping for >30mA RCD
Display Ranges:	
Primetest 200	≤2, ≤10, ≤20, ≤50, ≤100, >100
PrimeTest 210	0.0ohm - 199ohm

Power Socket Test

Input Voltage Range	230V +10%, -15% AC
Indicators	Phase to Earth Voltage Phase to Neutral Voltage Neutral to Earth

DMM MEASUREMENTS

Voltage Measurement

Display Range	250V AC/DC to 400Hz

Temperature Measurement

Display Range	-50ºC to 400ºC

Resistance

Display Range	0.01ohm - 20kohm

ADDITIONAL INFORMATION

Weight & Dimensions	800g/ 26cm (l) x 10cm (w) x 5.5cm (d)
Power Source	6 x AA Batteries

ACCESSORIES

Hardware

Battery Charger + Rechargeble Batteries (339A900)
PATCheckbox (227A910)
Temperature Module (304A952)

Software

PATGuard Pro 2 (352A920)
PATGuard Work About 2 (336A910)

Training

Primetest 200/210 Training Course
PATGuard Software Training Course

Services

Service & Calibration
JumpStart

PrimeTest 200/210 part no: 304A910/304A910

PRIMETEST 220

A portable installation and PAT Tester that's best in its class.

SEAWARD
Tried. Tested. Trusted.

Large LCD display	Comprehensive testing
Hand held	Battery powered
Easy to use	Large LCD display

Ideal users: ■ PAT Testers ■ Service Companies



The PrimeTest 220, like its stablemate the 200 Series, performs amazingly and is increasingly becoming the tester that other professionals try to beat. The fact is, it can outgun every other tester in its class. Using Seaward's hugely successful hand-held format, it's compact and full of really great features. Battery powered, it gives you the freedom to move swiftly, minus all those cables and plugs. It has a large LCD system which is easy to read with its simple, informative layout. And, it has a comprehensive test list which features Class I and Class II testing, IT equipment testing and circuit testing. A fabulous machine, even if we say so ourselves.

Professional PATSolutions Package:

PATSolutions is a way of approaching all aspects of electrical testing. From testers themselves to information management software, through to label printers and more.

You can buy each tester and its accessories separately or as an optional PATSolutions package which includes everything you need to run an efficient, effective PAT Testing business.

- PrimeTest 220 Tester
- Connectors
- Carry Case
- PATGuard 2 Software
- Calibration Certificate
- PATGuard Support Contract
- PAT Testing Guide
- Battery Charger and Batteries

PAT TESTS

Earth Continuity

Test Current	+/- 200mA DC
Display Range	0.00ohm - 19.99ohm
Pass Value	0.2ohm

Insulation Resistance

Test Voltage	500V DC
Display Range	0.01Mohm - 199Mohm
Pass Value	2Mohm

Protective Conductor Current

Test Voltage	230V
Display Range	0.00mA - 19.99mA
Pass Value	0.75mA

Touch Current

Test Voltage	230V
Display Range	0.00mA - 3.50mA
Pass Value	0.25mA

IEC Lead Test

Tests Performed	Earth Continuity Insulation Resistance Live, Neutral Continuity and Polarity

CIRCUIT TESTS

RCD Trip Time

Test Current	30mA
Test Current Phase	0º/180º auto switched
Display Range	0ms - 500ms

Earth Loop Resistance

Test Current	Non-tripping for > 30mA RCD
Display Range	0.00ohm - 199ohm

Power Socket Test

Input Voltage Range	230V + 10%, -15% AC
Indicators	Phase to Earth Voltage Phase to Neutral Voltage Neutral to Earth

ADDITIONAL INFORMATION

Weight & Dimensions	800g/ 26cm (l) x 10cm (w) x 5.5cm (d)
Power Source	6 x AA type NIMH Rechargeable Batteries

ACCESSORIES

Hardware

PATCheckbox (227A910)

Software

PATGuard Pro 2 (352A920)
PATGuard Work About 2 (336A910)

Training

PATGuard Software Training Course

Services

Service & Callibration
JumpStart

PrimeTest 220 part no: 349A910

PRIMETEST 100

A powerful, push-button appliance and socket Tester.

SEAWARD
Tried. Tested. Trusted.

Versatile tester	Easy to use
Hand held	Battery powered
Clear display	PASS/FAIL indication

Ideal users: ■ Maintenance Staff ■ Schools & Colleges ■ Care Homes ■ Leisure Industry



Backlit for illustration purposes

The PrimeTest 100 is top of its class, no ifs, no buts. A highly useful, functional and diverse tool, the 100 has three operational modes and is an easy to use, comprehensive unit. Push a button and you get the option of either, Class I PAT test, Class II PAT test or IEC Lead Test. Connect the 100 to a power outlet and it will automactically check the socket wiring and mains voltage. Its bright display shows test result values as well as a PASS or FAIL indication. Battery powered like all PrimeTests, it'll help you work quicker and more efficiently. PATGuard 2 Work About software enables you to record information on site for storage in a PAT test record database. A really versatile tester: ask anyone who uses it.

Basic PATSolutions Package:

PATSolutions is a way of approaching all aspects of electrical testing. From testers themselves to information management software, through to label printers and more.

You can buy each tester and its accessories separately or as an optional PATSolutions package which includes everything you need to run an efficient, effective PAT Testing business.

- Primetest 100 Tester
- Connectors
- Carry Case
- PATGuard 2 Software
- Calibration Certificate
- PATGuard 2 Support Contract
- PAT Testing Guide

PAT TESTS

Earth Continuity

Test Current	+/- 200mA DC
Display Range	0.00ohm - 19.99ohm
Pass Value	0.2ohm

Insulation Resistance

Test Voltages	500V DC
Display Range	0.20Mohm - 19.99Mohm
Pass Value	2Mohm

IEC Lead Test

Tests Performed	Earth Continuity Insulation Resistance Live, Neutral Continuity and Polarity

Equivalent Leakage Class I

Test Voltage	40V AC Nominal
Display Range	0.10mA - 19.99mA
Pass Value	0.75mA

Equivalent Leakage Class II

Test Voltage	40V AC Nominal
Display Range	0.10mA - 19.99mA
Pass Value	0.25mA

CIRCUIT TESTS

Power Socket Test

Input Voltage Range	230V +10%, - 15% AC
Indicators	Phase to Earth Voltage Phase to Neutral Voltage Neutral to Earth

ADDITIONAL INFORMATION

Weight & Dimensions	800g/ 26cm (l) x 10cm (w) x 5.5cm (d)
Power Source	6 x AA Batteries

ACCESSORIES

Hardware

Battery Charger (339A950)
PATCheckbox (227A910)

Software

PATGuard Lite 2 (325A930)
PATGuard Work About 2 (336A910)

Training

PATGuard 2 Software Training Course

Services

Service & Calibration
JumpStart

PrimeTest 100 part no: 344A910

PRIMETEST 50

A basic, hand-held safety checker that's easy to use.

SEAWARD
Tried. Tested. Trusted.

Cord test	Easy to use
Hand held	Battery powered
Tests Class I & Class II	LCD display

Ideal users:
- Maintenance Staff
- Care Homes
- Schools & Colleges
- Leisure Industry



Backlit for illustration purposes

Like all its fellow PrimeTests, the 50 is light and portable but has a greatly simplified range of tests. All you need to do is choose the test you need, either Earthed appliance, double insulated appliance or mains cord testing. Its easy to read display is simple and registers PASS or FAIL. It doesn't get much simpler. PATGuard 2 Work About software is optional if you need to record the latest test result information, so it's easy to manage test information too. The 50 is rugged and easily able to withstand anything the working day brings with it. An obvious choice if you're looking for a reliable, portable safety tester that's easy to use.

Basic PATSolutions Package:

PATSolutions is a way of approaching all aspects of electrical testing. From testers themselves to information management software, through to label printers and more.

You can buy each tester and its accessories separately or as an optional PATSolutions package which includes everything you need to run an efficient, effective PAT Testing business.

- PrimeTest 50 Tester
- Connectors
- Carry Case
- PATGuard 2 Software
- Calibration Certificate
- PATGuard 2 Support Contract
- PAT Testing Guide

PAT TESTS

Earth Continuity

Test Current	+/- 200mA DC
PASS/FAIL Threshold	0.2ohm

Insulation Resistance

Test Voltages	500V DC
PASS/FAIL Threshold	2Mohm

IEC Lead Test

Tests Performed	Earth Continuity Insulation Resistance Live, Neutral Continuity and Polarity

CIRCUIT TESTS

Power Socket Test

Input Voltage range	230V +10%, -15% AC
Indicators	Phase to Earth Voltage Phase to Neutral Voltage Neutral to Earth

ADDITIONAL INFORMATION

Weight & Dimensions	800g/ 26cm (l) x 10cm (w) x 5.5cm (d)
Power Source	6 x AA Batteries

ACCESSORIES

Hardware

Battery Charger (339A950)
PATCheckbox (227A910)

Software

PATGuard Lite 2 (325A930)
PATGuard Work About 2 (336A910)

Training

PATGuard 2 Software Training Course

Services

Service & Calibration
JumpStart

PrimeTest 50 part no: 347A910

PATGUARD 2 SOFTWARE

World-leading software that makes life easier

SEAWARD
Tried. Tested. Trusted.

Auto re-test schedules	Email safety alerts
Easy to use graphic display	Total record management
Generates pdf files	Compatible with leading PAT testers

Ideal users: ■ Health & Safety managers ■ PAT Service providers ■ Maintenance managers ■ Facility managers



TRY BEFORE YOU BUY
Download trial version at www.seaward.co.uk

PATGuard Elite 2.

World-leading PAT software that makes life easier.

If you PAT Test on a regular basis this is an ideal bit of software. It gives you complete quick and easy management of the PAT Testing process. One program supplies the total solution. From the first test, to downloading results, certificates, planning re-tests and uploading. Its extensive features are simple to use and include clear re-test identification, optional email alerts for re-testing and a huge range of reports to help you increase the speed of your business. The PATGuard Elite 2 connects direct to your tester and uploads and downloads fast. How easy is it to learn? PATGuard Elite 2 uses Windows-based information management, so it's pretty simple.

Part no: 352A910

PATGuard Elite SQL.

SQL database, multi-user version of PATGuard Elite.

This version of PATGuard Elite is designed to give multi-users simultaneous access to SQL databases. Supplied with Microsoft SQL Server Express 2005. It's compatible with all Microsoft SQL Server programs and Oracle 10g, including Preview, to correct download data prior to processing, and includes Safety First Express import.

Part no: 325A918

PATGuard Pro 2.

Your powerful, user-friendly, comprehensive program.

If you require asset management information, this is the comprehensive software package for you. It enables you to capture a lot more information from the PAT Tester and it stores more information on the appliance's history. PATGuard Pro 2 gives you access to a vast range of reports, as well as more information on your test record and clear identification of items which need to be re-tested. And it gives you it fast, very fast indeed. PATGuard Pro 2 uses Windows based information management so it's really easy to learn how to use.

Part no: 325A920

PATGuard Lite 2.

Entry level software that helps businesses succeed.

PATGuard Lite 2 is an excellent entry level software package which facilitates fast, effective downloading of test information and certificate printing. If you need software to help you with quick, basic testing, PATGuard Lite 2 is the perfect solution for your business or personal use. PATGuard Lite 2 is a low cost piece of software which produces records and certificate documentation to support PAT Testing and allows you to download test results in a swift, effective fashion. It's extremely easy to use, even if you've only received the most basic training. And it's easy to learn because it uses Windows-based information management.

Part no: 325A930

PATGUARD 2 SOFTWARE

World-leading software that makes life easier

SEAWARD
Tried. Tested. Trusted.

Easy to use	Record all tests
Remote download/upload	Remote data transfer
Manage test usage	Wireless

Ideal users: ■ PAT Testers ■ Facilities Managers ■ Electrical Contractors ■ Manufacturers



TRY BEFORE YOU BUY
Download trial version at www.seaward.co.uk

PATGuard Work About 2.

Improve your data management with your own Personal Digital Assistant.

This specially designed software package lets you record results quickly and easily. Using a PDA lets you test simply and easily from any tester (it doesn't have to be a Seaward). All you have to do is put the information into the PDA and store it for later use. During the actual testing, the remote off-site working gives you the freedom and flexibility to work in a much smarter way. PATGuard Work About 2's easy to learn, because it uses familiar Pocket PC interfaces combined with PATGuard's Windows-based test record management. PDA and mobile technology mean that you can email pre-test PAT Test records and results when used with PATGuard databases. **Part no:** 336A910

PATGuard Time Manager 2.

Essential kit for test time management.

Ideal for companies which manage off-site or remote testing staff, because it provides clear time management facilities. It gives you total confidentiality because it runs independently of PATGuard data management software. Its simple-to-read graphical data display provides you with clear information on users' activity, in other words, the number of tests taken and the time of those tests. So it helps you understand how the testers are used, meaning that you can identify where improvements can be made to training. Time Manager is a great way to help achieve faster, more efficient testing. **Part no:** 334A910

SPECIFICATION	PATGUARD 2 SOFTWARE			
Functions	**Elite SQL**	**Elite**	**Pro**	**Lite**
Microsoft SQL 2005 Server compatible	■			
Oracle 10 g Compatible	■			
Multi-user simultaneous access to database	■			
Safety First Express Import	■	■	■	
Preview & Correct Download before processing	■	■	■	
Automatic email safety alerts	■	■		
Automatic re-test scheduling	■	■		
Generator for Customised CD Viewer	■	■		
Upload sites, locations, assets and test sequences	■	■	■	
Download compatible with large range of testers	■	■	■	■
Repair logging	■	■	■	
Range of Comprehensive Test Reports	■	■		
Range of Test Reports			■	
Full test history per asset record	■	■	■	
Clear re-test identification	■	■	■	
Tester update program	■	■	■	■
Test n Tag logo transfer	■	■	■	■
Windows based test record database	■	■	■	■
Test certificate report	■	■	■	■
Set-up Wizard – guides you through using the program	■	■	■	■
Create Test Programs for different test situations	■	■		
Fully compatible with PATGuard Work About	■	■	■	■
Safety First Express import	■	■	■	

ACCESSORIES

Working ‘in the field’ with clients gives us valuable insights into what they need. Which means great testers. And great accessories.



Test n Tag Kit

This has got the lot: label printer, tough laminate labels, CCD barcode, scanner and carry case. The printer lets you print on the spot direct from your tester. Add the barcode and you get asset identification, fast.
Part no: 308A915



Temperature Module

Plug this directly into the Prime-Test 200 and you’ll be able to measure temperature in a range of 50°C to 400°C in both Fahrenheit and Centigrade.
Part no: 304A952



Test n Tag Printer Adaptor

Developed to allow the TnT kit to work with the Primetest 300. Easy to connect. Just plug the adaptor into the printer and the printer’s power supply means the printer is Bluetooth ready.
Part no: 342A910



CCD Scanner

This lets you input and access asset information quickly. This ultra reliable scanner connects direct with the tester and is very handy when the tester’s uploaded with asset details prior to testing.
Part no: 194A922



Bluetooth Scanner

A portable ID laser scanner with bluetooth interface. Extremely compact and lightweight, making it ideal for mobile applications. Powered by standard LR-3 (AAA) batteries.
Part no: 339A923



Braincells and Wand

Braincells use RFID technology and are the new way to store product info. Use the wand to read Braincell fast and efficiently.
Braincell Part no: 288A953
Wand Part no: 288A910



CCD Scanner Adaptor

Plug this nifty unit into the end of your scanner and you’re Bluetooth ready, instantly. It lets your CCD Scanner connect wirelessly with the Primetest 300. Rechargeable batteries.
Part no: 339A960



PAT Checkbox

Designed to provide a safe, simple and quick way to check a PAT Tester’s calibration. Checkbox can even check Portable Appliance Testers outside the Seaward range.
Part no: 277A910

TEST N TAG PRINTERS

Professional solutions for instant printing of test labels

SEAWARD
Tried. Tested. Trusted.

Clear label print	Portable or benchtop
Fast labelling	Direct results download
Easy asset ID	The professionals choice

Ideal users: ■ Health & Safety managers ■ PAT Service providers ■ Maintenance managers ■ Facility managers

Test 'n' Tag gives PAT testing personnel a professional test labelling system for immediate attachment to the equipment or its cable at the touch of a button, automating the process and speeding test times. The labels contain all key labelling information as recommended by the IET.

Direct printing of safety testing results and other key details ensures complete accuracy and security of information and eliminates the need for larger hand written or pre-printed labels. Labels also have the facility to incorporate a barcode for appliance identification and future testing, which can be read by a barcode reader.





Test n Tag Elite

A handy, hard-wearing printer, with Impact-modified polycarbonate with fused oil-and-abrasion-resistant rubber overmould (six-foot drop protection). Featuring smart battery management to monitor the battery for longer life and performance. Labels are tamperproof, waterproof and professionally printed with your logo and barcode and less than 3p a label! Compatible with PrimeTest 350 and PrimeTest300.
Part No: 333A970



Test n Tag Printer

Ideal multi purpose label printer. Labels are tamperproof – ensuring the security and accuracy of your test. Promote your company by inserting the company logo, name and contact details. Label includes barcode, asset number, test date, next test date, user name and test status. There's even a choice of panel label or cable wrap label. Immediate printing with easy to install ink cartridge. Compatible with Supernova Plus, Europa Plus and (with Bluetooth adaptor) the PrimeTest 300 and 350.
Part No: 308A910



Desk Test n Tag Printer

No more tearing, fading or tampering with tags! The Desk Test n Tag produces professional tags 100mm x 50mm. The Desk Test n Tag is even supplied with a roll of tags (approx. 2000 labels per roll), printer ribbon and PC software disk. Use the printer with the Supernova Plus and Europa Plus.
Part No: 312A912



Bluetooth Thermal Printer

Suitable for use with the PrimeTest 300 and PrimeTest 350 . Print on the spot with Bluetooth technology, transferring test results direct from tester to printer. With no wires and fast, clear printing this is ideal for any test situation.
Part No: 339A930

TEST N TAG LABEL CARTRIDGES	Part number	No: Per Pack	Minimum Order
Black on White	342A912	100 aprox	
Black on Yellow	308A914	100 aprox	
TEST N TAG LABELS	**Part number**	**No: Per Pack**	**Minimum Order**
Orange	312A912	1000	
White	312A951	1000	
Yellow	312A956	1000	
Green	312A962	1000	
Red	312A961	1000	
Blue	312A957	1000	
Custom appliance number (where you require the numbers to be specific range)	194A323	250	
Appliance number (barcode labels come in any range)	194A307	250	2000
Pass labels	91B038	500	
Test code labels	194A308	240	
Bluetooth Thermal labels	283A304	250	

INSTALLATION

Total Test Solutions.

SEAWARD
Tried. Tested. Trusted.

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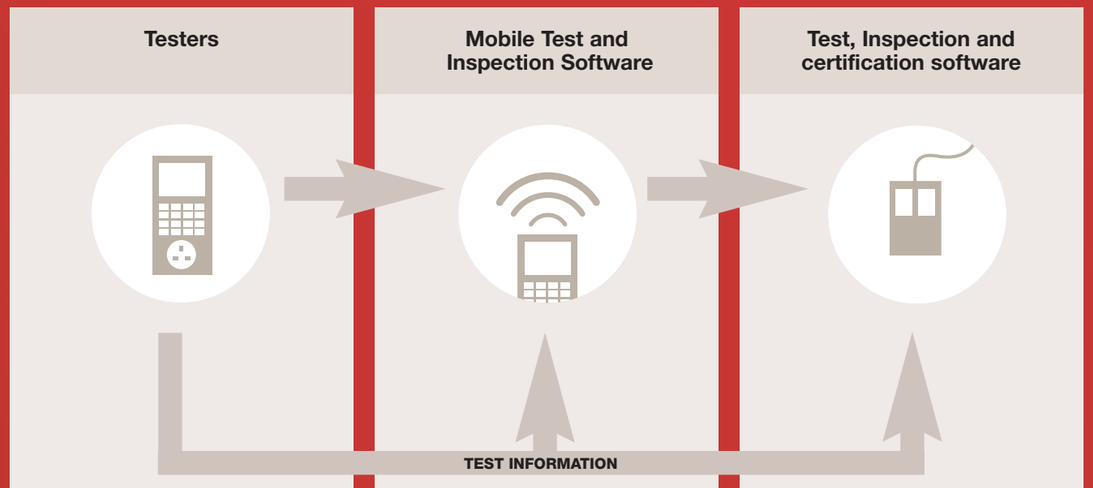
INSTALLATION SYSTEM

Technological advances are tranforming the installation testing industry. Our testers are at the forefront.

Today's world moves at an unprecedented pace: things change every day. Everything's smarter, smaller and faster. This is good news for us, and for you. It means we're developing and manufacturing better equipment and can incorporate technologies like PDA test management. And we're not confined to supplying test equipment. We can now help your business or institution become more efficient and effective. We call it PowerSolutions. This groundbreaking process involves everything from choosing your installation Tester to following up with calibration services and software. It streamlines your processes, reduces costs, increases productivity and improves profits.





Seaward offers everything from Bluetooth technology to a basic PASS/FAIL tester. Our revolutionary installation Tester range includes hand-held formats capable of carrying out a variety of full and comprehensive tests.

Use mobile technology for remote working. Transferring certificates to the PDA for completion in the field and back to the desktop program for storage and printing.

Our PowerGuard software range is highly functional, easy to use and helpful; superbly user-friendly in fact. It's available in different versions depending on what you need. Our software packages utilise full test records. All features which add value to your business.

PROBING QUESTIONS

The most sensible, technologically advanced installation tester. Ever.



Thanks to a cordless probe and some great design thinking, you can hold and read the PowerTest 1557 at the same time. No other installation tester lets you do this. This development comes from our guys being in the field, testing installations with our clients. The 1557 weighs a paltry 900 grammes, fits into the palm of your hand and carries out the following tests with a simple turn of the knob.

- Earth Continuity
- Non Trip Loop Impedence
- Line Impedence PSC, PFB
- RCD Trip Time
- RCD Trip Current
- Auto RCD sequence
- Voltage/Frequency
- Comprehensive Testing Features:

Comprehensive 16th and 17th edition and Part-P Testing features allow for a great number of tests, which include: Earth Continuity, Insulation (100v, 250v, 500v), Non Trip Loop Impedence, Line Impedence, PSC, PFC, RCD Trip Current, RCD trip time and Voltage/Frequency measurement.



INSTALLATION GUIDE

How to find the right solution for your installation test requirements.

SEAWARD
Tried. Tested. Trusted.

Testers & Functions

Functions ▼ Tester ▶	PowerTest 1557	IRT 1557	ERT 1557	DM800	DM800R	CM800	CM800R	ET800	VT800	VT800D
Voltage	■	■		■	■	■	■	■	■	■
Frequency	■			■	■			■		
Current				■	■	■	■	■		
Resistance	■	■		■	■	■	■			■
Wiring polarity	■									
Insulation 100V	■									
Insulation 250V	■	■								
Insulation 500V	■	■								
Insulation 1000V		■								
Continuity (200mA)	■	■						■		
Continuity Buzzer	■	■		■	■	■	■		■	■
Loop/Line Resistance	■									
PFC/PSC	■									
RCD Trip time	■									
RCD Trip current	■									
Auto RCD seq	■									
Earth Resistance			■							
Phase Rotation									■	■
Backlight		■								
True RMS					■		■			
Digital Readout	■	■	■	■	■	■	■			■
Integrated probe	■	■						■	■	■
Data hold				■	■	■	■			
Max/min				■	■	■	■			
Dimensions (mm)										
Weight										

Accessories

Accessories ▼ Tester ▶	PowerTest 1557	IRT 1557	ERT 1557	DM800	DM800R	CM800	CM800R	ET800	VT800	VT800D
Checkbox 16 plus	■	■								
Proving units PPX, PP1, PP2				■	■	■	■	■	■	■
Fused Test leads	■	■		■	■	■	■	■		
ERT current clamp			■							

Software

Functions ▼ Software ▶	PowerGuard Pro 2	PowerGuard Pro Mobile 2
Desktop	■	■
Easy Setup Wizard	■	■
Add own Company Details & Logo	■	■
Optional Username & Password	■	■
Part P Desktop Certificates	■	■
BS7671 Desktop Certificates	■	■
NAPIT Desktop Certificates	■	■
NICEIC Desktop Certificates	■	■
BS5839 Desktop Certificates	■	■
Auto Validation of Certificate Content	■	■
Check-in Check-Out Desktop Certificates	■	■
Add Signatures	■	■
Print Preview	■	■
Print Site Surveys	■	■
Email PDF Certificates	■	■
Easy Mobile Setup Wizard		■
Synchronise Information (PDA/Desktop)		■
BS7671 PDA Certificates		■
NAPIT PDA Certificates		■
NICEIC PDA Certificates (excludes Fire)		■
Edit Company Details at PDA		■
Edit Test Instruments at PDA		■

POWERTEST 1557

The only Installation Tester to feature an integral probe. The professional's choice.

SEAWARD
Tried. Tested. Trusted.

Regulation compliant	Integral probe
Loop impedance	Phase to phase testing
Auto RCD test	Long battery life

Ideal users: ■ Electrical Contractors ■ Training Institutions ■ Electrical Engineers ■ Power system Engineers



Thanks to a cordless probe and some great design thinking, you can hold and read the PowerTest 1557 at the same time. No other installation tester lets you do this. The 1557 weighs 900 grammes, fits into the palm of your hand and carries out the following tests with a simple turn of the knob. Earth Continuity, Insulation(100v, 250v, 500v), Non Trip Loop Impedence, Line Impedence, PSC, PFC, RCD Trip line, RCD Trip current and voltage/frequency measurement. Supplied with 2 year warranty, 6x1.5 v cells LR6 Type AA alkaline batteries, test lead set 1.5M red, black, green 4mm shrouded safety plugs to red, black, green shrouded safety test probes, red, black, green 4mm standard safety plugs to UK mains plug. Red, cordless shrouded safety test probe.

Professional PowerSolutions Package:

PowerSolutions is a way of approaching all aspects of electrical testing. From testers themselves to information management software, through to label printers and more. You can buy each tester and its accessories separately or as an optional PowerSolutions package which includes everything you need to run an efficient installation testing business. Package includes:

- PowerTest 1557
- PowerGuard Pro 2 software option
- PowerGuard Pro 2 Mobile software option

TESTS

Earth Continuity

Test Current	>200mA
Display Range	0.00ohm - 199ohm
Resolution	0.01ohm maximum
Test Lead Compensation	Null lead resistance 0.00ohm - 10.00ohm
Live Circuit Detection	Test inhibit if >30V detected

Insulation Resistance

Test Voltage	100V, 250V, 500V
Display Range	0.05Mohm – 199Mohm
Resolution	0.01Mohm maximum
Live Circuit Detection	Test inhibit if >30V detected

Loop/Line Impedance

Supply Voltage	195 - 253V/340-440V,45Hz-65Hz
Test Current	15mA (non tripping for RCD protected circuits)
Display Range	0.01ohm - 2000ohm
Resolution	0.01ohm maximum
Loop Impedance	Phase to Earth
Line Impedance	Phase to Neutral/Phase to Phase
PFC/PSC Range	0 – 26kA

RCD Trip Time

Supply Voltage	195 – 253V, 45 – 65Hz
Test Currents	10, 30, 100, 300, 500mA
Trip Time Ranges	0ms – 2000ms at 1/2 Irn 0ms – 300ms at I△n general 0ms – 500ms at I△n selective 0ms – 40ms at 5x I△n
Auto Test	Auto sequence for 1/2 I△n, I△n and 5x I△n at 0° and 180°
RCD Type	General (G), Selective (S), Pulsed (A), AC (AC)

RCD Trip Current (Ramp Test)

Supply Voltage	195 – 253V, 45 – 65Hz
Test Currents	10, 30, 100, 300, 500mA
Ramp Current Range	1/2 Irn to 1.1 Irn

Voltage/Frequency Measurement

Display Range	0 – 440V
Resolution	1V
Frequency Measuring Range	45 – 65Hz

ADDITIONAL INFORMATION

Compliance	IEC 61010-1 300V CAT III, EN 61557
Dimensions	260 x 100 x 55
Weight	950g
Power Supply	6 x AA Alkaline (supplied), 6 xx AA NiMH . Rechargeable (Optional)

ACCESSORIES

PowerCheck 1557 (349A910)
PowerGuard Pro (355A910)
PowerGuard Pro Mobile (355A910)

PowerTest 1557 part no: 328A910

NEW

IRT 1557

Insulation, Resistance and Continuity tester. The Engineer's ideal companion.

SEAWARD
Tried. Tested. Trusted.

Handheld	Lightweight
Long battery life	Large backlit LCD
16th/17th Edition compliant	Continuous test mode

Ideal users: ■ Electricians ■ Telecomms engineers ■ Power system engineers ■ Electrical contractors



The IRT 1557 is a small, lightweight insulation resistance and continuity tester. Hand-held, it's a superb addition to any test engineer's toolkit. It performs measurements according to BS 7671 16th/17th Edition Wiring Regulations and Part P. Seaward's unique integrated safety probe puts the LCD and test probe in the user's line of sight whilst making measurements, no other tester does this. IRT 1557 is fully compliant with EN61557-4 and IEC61010-1 600v CAT III. Automatic discharge of capactive circuits, it gives you automatic warning of the presence of hazardous voltages and double fuse protection. It comes with an easy to use rotary setting switch. The IRT 1557 offers a number of unique features, including voltage measurements up to 1000AC or DC and a dual safety rating. With incredible robustness the IRT 1557 provides all the tests you need with a safe feel.

TESTS

Insulation Resistance

Display Range	0.001ohm - 1999ohm
Analogue Bar Graph	0ohm - infinity
Test Voltage	250v; 500v; 1000v
Nominal Current	1mA minimum per EN 61557
Audible/Visible Warning	30 V AC or DC at inputs

Continuity

Display Range	0.00ohm - 19.99ohm
Open Circuit Test Voltage	4V DC nominal
Test Current	200mA,
Audible and Visible warning	Inhibited if 30 AC or DC inputs

Resistance

Measuring Range	0ohm - 2000ohm
Test Current	25uA nominal
Audible and Visible warning	Inhibited if 30 AC or DC inputs

Voltage

Measuring Range	0V - 1000V DC/AC to 400Hz
Analog Bar Graph	0 - 1000V
Audible/Visible Warning	30V AC or DC inputs

ADDITIONAL INFORMATION

Safety rating	IEC 61010-1, 600V CAT III / 1000V CAT II
Dimension	260mm x 100mm x 55mm
Weight	0.8kg
Standards	EN 61557-4
Compliance	ENG1557-1-4-10

ACCESORIES

PowerCheck 1557 (369A910)

IRT 1557 part no: 365A910

NEW

ERT 1557

A new high specification Earth Resistance Tester.

SEAWARD
Tried. Tested. Trusted.

Handheld	Earth measurement
Battery powered	Download to PC or printer
Store up to 500 records	2, 3, or 4 wire measurement

Ideal users: ■ Telecomms engineers ■ Power systems engineers ■ Electricians ■ Electrical contractors



Suitable for use on 110 v, 230 v and three phase electrical systems, this special lightweight unit provides accurate Earth electrode resistance measurement without disconnecting the electrode. It can also be used to measure soil resistivity. Earth resistance measurement is carried out using 2,3 and 4-wire method. The ERT has an internal memory for 500 test results which you can download to your conventional PC. Its user-friendly features include a large rotary dial for test selection, large LCD and simple push button test activation. The unit is supplied with four Earth spikes and full test lead set. The ERT is one of the most competitive Earth resistance testers on the market.

TESTS

Earth Resistance 2, 3 and 4 wire method

Display Range	0.00ohm - 50.0kohm
Measuring Frequency	125 Hz +/- 1 Hz
Measuring Current	<20mA effective
Measuring Voltage	<50V effective sine wave

Earth Resistance using current clamp

Display Range	0.0ohm - 2.00kohm
Measuring Frequency	125 Hz +/- 1 Hz
Measuring Current	<20mA effective
Measuring Voltage	<50V effective sine wave

Specific Earth resistance (p)

Display Range	0.00ohm – 1999kohm
Measuring Frequency	125 Hz +/- 1 Hz
Measuring Current	<20mA effective
Measuring Voltage	<50V effective sine wave

ADDITIONAL INFORMATION

Dimensions	260mm x 100mm x 55mm
Weight	0.8kg
Memory	500 memory locations
Communication	USB
Compliance	BN61557-5, IEC61010-1, 300V CAT II

ERT 1557 part no: 362A910

VT800/VT800D

A Voltage Tester that sets a new industry standard.

Fully Automatic	Integrated LED display
Durable and drop proof	Phase rotation indication
Integrated torch	Visual & audible indication

Ideal users: ■ Electricians



Electrical Installers and Testers all over the world all acknowledge the important role filled by Voltage Testers. In developing the VT800 and 800D, we talked to hundreds of professionals on shop floors around the globe and found out what they wanted from the next generation of Voltage Testers. We think that these two models reflect your concerns and ideas on how this vital tool of the trade should perform. Designed with this research in mind and fitted with multiple functions, these Testers are as truly versatile as they are compact and robust. They'll suit every electrician, installer or industrial end user perfectly.

SPECIFICATIONS

Voltage range	6V to 690V AC/DC
LED resolution	6, 12, 24, 36, 50, 120, 240, 400 690V (VT800)
LED range	10V - 690V AC/DC (VT800D)
LCD resolution	1V (VT800D)
Resistance	0 - 2Kohm (VT800D)
Response time	<0.1 s LED
Single Pole Phase Test	100V to 690VAC
Phase rotation	2 pole
Continuity	< 200kohm
Frequency range	45Hz to 65 Hz
Power supply	2x 1,5V LR03 battery
IP-Protection	IP 64
Over voltage category	CATIII 1000V / CATIV 600V
Standard	IEC 61010-1, IEC 61010-031, IEC 61243-3, EN 61557-7, HSE GS38
Probe Tips	2 mm. & 4 mm.
Drop proof	1 metre
Test leads	1.2 metre

ADDITIONAL INFORMATION

Dimensions	240 x 56 x 24 mm.
Weight	230 gram (incl. batteries)

VT800 part no: 332A910
VT800D part no: 333A910

DM800/DM800R

Compact Multimeters.

SEAWARD
Tried. Tested. Trusted.

Backlit display	6000 count display
AC up to 750V	DC up to 1000V
Diode check	Auto power off

Ideal users: ■ Electrical contractors ■ Service engineers ■ Electricians

This series of Multimeters is designed with practicality and ease of function in mind. Slim shaped with a hand operated rotary switch, the DMs give a 6000 count back-lit digital display. They can be carried in a protective holster (supplied) which includes a built-in tilt stand, a hook hole and some convenient test lead storage. A true RMS reading is given on the DM800R. Both are rugged with long battery life, these products have everything you need.



SPECIFICATIONS

AC Voltage

Range	0V-750V
Max Resolution	0.1mV
Accuracy	+/-(0.9%+5d)
Overload Protection	750V rms

DC Voltage

Range	0V-1000V
Max Resolution	0.1mV
Accuracy	+/-(0.5%+2d)
Overload Protection	1000V rms

AC Current

Range	0A-10A
Max Resolution	1mA
Accuracy	+/-(1.5%+5d) 50Hz – 500HZ
Overload Protection	mA input 600V rms for (DM800R)

DC Current

Range	0A-10A
Max Resolution	0.1 uA
Accuracy	+/-(1.0%+2d)
Overload Protection	mA input 600V rms A input (500V) Fast blow fuse

Resistance

Range	0ohm - 60Mohm
Max Resolution	0.1 ohm
Accuracy	+/-(0.7%+2d) 600.0 - 600.0K +/-(1.0%+2d) 6.000M +/-(1.5%+2d) 60.00M
Overload Protection	600Vrms

Frequency

Range	0Hz-60MHz
Max Resolution	1Hz
Accuracy	+/-(0.01%+1d)
Overload Protection	600Vrms

Capacitance

Range	0Hz-6000 uF
Max Resolution	1pF
Accuracy	+/-(1.9%+8d)
Overload Protection	600Vrm

ADDITIONAL INFORMATION

Diode Test	Open Circuit Voltage: 3V
Input Protection	600V rms
Display	6000 count
Overload Indication	“OL” or “-OL”
Auto Power Off	Approx 10 minutes
Safety Standard	meets IEC61010-1/UL 31111 Specification
Battery Life	Alkaline 300 Hours
Power Requirement	IEC LR03 AM4 or AAA size 1.5 V x2
Size (WxLxH)	82mm x 164mm x 44mm
Power Requirement	NEDA 1604, IEL6F22, JIS006P 9V battery
Weight	400g

ACCESSORIES

Proving units
Fused leads

DM800 part no: 317A910
DM800R part no: 318A910

CM800/CM800R

State of the art clamp multimeters

4000 count display	Backlit display
AC up to 600V	DC up to 600V
Display hold	Continuity beeper

Ideal users: ■ Electrical contractors ■ Electricians ■ Service engineers

Slim shaped in design, the CM series come with hand operated rotary switches and easy to replace batteries. Both models are fitted with LED back-lit displays which turn ON or OFF at the touch of a button. The units have autopower off default when they're not in use. Both come supplied with carry cases. The two units are rugged and hardwearing, with real hold and max/min function. CM800R has true RMS reading.



SPECIFICATIONS

AC Voltage

Range	- 0V – 600V
Max Resolution	- 100mV
Accuracy	- ±(1.0% + 5d) 50Hz~500Hz
Overload Protection	- 600V rms

DC Voltage

Range	- 0V – 600V
Max Resolution	- 100mV
Accuracy	- ±(0.7% + 2d)
Overload Protection	- 600V

AC Current

Range	- 0v – 60.0A, 60.1A – 400A, 401A – 600A
Max Resolution	- 0.1A
Accuracy	- ±(1.9% + 7d) 50Hz – 60Hz, ±(2.5 + 7d) 61Hz~ 400Hz
Overload Protection	- 600A rm

Resistance

Range	- 0ohm – 400.0 ohm
Resolution	- 0.1 ohm
Accuracy	- ±(1.0 % + 3d)
Overload Protection	- 600V rms

Frequency

Range	- 20Hz – 400Hz
Resolution	- 1Hz
Accuracy	- ±(0.1% +2d)
Overload Protection	- 600A rms

ADDITIONAL INFORMATION

Diode Test	Open Circuit Voltage: 3V
Input Protection	600V rms
Display	6000 count
Overload Indication	"OL" or "-OL"
Auto Power Off	Approx 10 minutes
Safety Standard	IEC61010-1/UL 31111 Specification
Battery Life	Alkaline 300 Hours
Power Requirement	IEC LR03 AM4 or AAA size 1.5 V x2
Size (WxLxH)	82mm x 164mm x 44mm
Power Requirement	NEDA 1604, IEL6F22, JIS006P 9V battery
Weight	400g

ACCESSORIES

Proving units
Fused test leads

CM800 part no: 319A910
CM800R part no: 320A910

POWERCHECK 1557

A complete instrument verification system.

Rugged and robust	Tests to BS7671
Confirm performance	IET recommended
RCD test	Insulation resistance test

Ideal users: ■ Electricians ■ Service engineers ■ Electrical contractors



The PowerCheck 1557 is a full instrument verification system in one rugged, drop-proof enclosure. It tests to BS 76771, BS EN 61557 and IEE On-site Guide. It has full instrument verification against all relevant standards and confirms performance between verifications (this is information required by NICEIC, ELECSA, Corgi and others).

PowerCheck tests for Full Earth Continuity, Insulation Resistance, RCD Trip Time, RCD Trip Current and Loop Verification.

SPECIFICATIONS

Earth Continuity Verification

Test current	In >200mA indication
Test voltage	4V < Un > 24V indication
Test resistances	0.5ohm and 2ohm

Insulation Resistance Verification

Open circuit test voltage:	250V < Un < 313V indication 500V < Un < 625V indication 1000V < Un < 1250 indication
Test current	In >1mA into 1000?/V
Max test current	Ik <2mA
Test resistances	0.25Mohm, 0.5Mohm, 1.0Mohm

Earth Loop Verification

Test values	Loop, Loop+1ohm, Loop+180ohm

RCD Verification

Trip current	10mA, 30mA, 100mA
Trip Times	20ms, 40ms, 500ms
Test current multiplier	Dn, IDn and 5 IDn verification

Voltage Verification

Test Voltage	240V AC rms test output

ADDITIONAL INFORMATION

Power supply	230V AC ±10%
Weight	1kg
Dimensions	210mm x 145mm x 85mm
Power Source	6 x AA Batteries

PowerCheck 1557 part no: 369A910

POWERGUARD 2 SOFTWARE

Comprehensive certificate software.

SEAWARD
Tried. Tested. Trusted.

Easy set-up wizard	Auto validation
Print preview	Email PDF certificates
Create certificate templates	Certificates check in/out

Ideal users: ■ Electrical installers ■ Electrical contractors ■ Fire safety inspectors



PowerGuard Pro 2.

Comprehensive Certificate software.

PowerGuard Pro 2 is ideal for creating test and inspection certificates. You can capture and store test information and go on to produce professional certificates which comply with Part-P and 16th/17th Edition Regulations. PowerGuard Pro 2 lets you print BS7671, BS5839, BS5266, NCIEC and NAPIT certificates and reports onto plain or certificate paper. You can even add scanned signatures if you choose. It's a great little program that's fantastically simple to use.

PowerGuard Pro Mobile 2.

Record test results on the move.

PowerGuard Pro Mobile 2 is ideal for on site testing, allowing you to enter tests and inspections into certificates too. You can enter test inspections and indeed all your certificate information details direct onto your PDA. Then you can synchronise with your desktop computer in the office and print them out. You can print all BS7671, BS5839, NCIEC and NAPIT certificates and reports onto plain or certificate paper. You can even add scanned signatures if the occasion demands. The program also allows you to take partly completed certificates on-site to complete test and inspection. Remote offsite working gives you the freedom and flexibility to work in a smarter way when you're testing.

SPECIFICATION	POWERGUARD 2 SOFTWARE	
Functions	**PowerGuard Pro 2**	**PowerGuard Pro Mobile 2**
Easy Setup Wizard	■	■
Add own Company Details & Logo	■	■
Optional Username & Password	■	■
Part P Desktop Certificates	■	■
BS7671 Desktop Certificates	■	■
NAPIT Desktop Certificates	■	■
NICEIC Desktop Certificates	■	■
BS5839 Desktop Certificates	■	■
Auto Validation of Certificate Content	■	■
Check-in Check-Out Desktop Certificates	■	■
Add Signatures	■	■
Print Preview	■	■
Print Site Surveys	■	■
Email PDF Certificates	■	■
Easy Mobile Setup Wizard		■
Synchronise Information (PDA/Desktop)		■
BS7671 PDA Certificates		■
NAPIT PDA Certificates		■
NICEIC PDA Certificates (excludes Fire)		■
Edit Company Details at PDA		■
Edit Test Instruments at PDA		■

ADDITIONAL INFORMATION	PowerGuard Pro 2	PowerGuard Pro Mobile 2
Supported Equipment		PDA
System Requirements	■ IBM compatible PC ■ Pentium 3 or higher ■ 256 MB RAM minimum ■ 25 MB hard disk space available ■ Microsoft Windows 2000 Professional, XP Professional, XP Home Edition ■ Microsoft Vista ■ CD ROM drive	■ IBM compatible PC ■ Pentium 3 or higher ■ 256 MB RAM minimum ■ 25 MB hard disk space available ■ Microsoft Windows 2000 Professional, XP Professional, XP Home Edition ■ Microsoft Vista ■ CD ROM drive
PDA Requirements		■ Microsoft Pocket PC ■ Microsoft Pocket PC 2002 ■ Microsoft Windows Mobile 2003 ■ Microsoft Windows Mobile 2003 Second Edition ■ Microsoft Windows 5.0
Part no:	355A910	355A910

HIGH VOLTAGE

Total Test Solutions.

SEAWARD
Tried. Tested. Trusted.

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HIGH VOLTAGE SAFETY

Twenty five years of the safest, most reliable high voltage equipment in the World

Seaward's experience in designing and manufacturing high voltage test equipment is second to none, and is recognised as such around the World. But that's not all. We're also acknowledged as a company which understands how its customer companies work on the shop floor: Ideally, our staff like to know as much about the job in hand as the client. When the bottom line in safety is human life, there is simply no room for error.

Seaward products are used globally and renowned for their reliability, accuracy, and robust construction. Seaward's expertise, after sales service and calibration facilities are similarly highly prized worldwide.

Our High Voltage Test and Measurement range gives our customers a comprehensive choice for power distributors, the industries which support them, rail networks and the petrochemical industry.

Seaward's range is fully compliant with international safety standards. All our instruments are designed and manufactured in accordance with the requirements of IEC 61243.

We manufacture ergonomically designed portable potential indicators, capacitive voltage indicators, neon and digital phasing units, insulator leakage detectors, current clamps, discharge units and earthing and shorting equipment. Our products are available for systems voltages up to 33kv.

Put simply, Seaward is the solution to your high voltage requirements.



HV INDICATORS

Portable, neon and digital potential indicators for confirming voltage on earthed neutral systems.

Neon Indication



Digital Readout

These instruments let you confirm the presence of voltage on earthed neutral electrical systems. They conform in design lengths to the recommended creepage and safety standards. Each model features high grade PVC tubing and incorporates encapsulated resistor chains, There's a PH3 proving unit for additional safety and should be used before and after the voltage indicator's used.

The digital reading instruments provide voltage measurements and are supplied with detachable earth lead, battery charger and PH3 proving unit.

Digital Readout Accessories

Unit	Features	Part No.
PH3	■ Proving unit for proof testing high voltage indicators ■ High voltage output 1200V -1500DC ■ Self test facility ■ Avoids use of known supply points or bulky test equipment	112A913
Bent End	■ 90* standard, 120* on request	141A900
Adaptors	■ Suitable for use on vertical type switchgear	(specify degree)
Extension Rod	■ 1.5m extension rod for use on overhead lines ■ Suitable for use with KDIE/15D, KDIE/33D, PR15D and PR33D	141A901

Digital Readout Specifications

Features

- Use as a potential indicator to determine presence of voltage or as a voltmeter
- Robust display housing
- No switches
- Provides direct reading of voltage measurements
- Low battery indicator
- Supplied with battery charger
- Specifically designed carrying case for unit and accessories

Unit	System Voltage*	Features	Part No.
KDIE/15D	15KV max	Resolution-10V	109A910
KDIE/33D	33KV max	Resolution-100V	109A911

*Earthed neutral system

Neon Indication Specifications

Features

- Duplicate neon indicators within shock resistant sleeves
- Permanently connected earth cable
- Hand guards on all elements
- Direct access to vertical or horizontal metal clad switch gear
- UK Electricity Council Approval list G9

Unit	System Voltage*	Features	Part No.
KDIE	IKV-11.5KV		113A916
KDIE/KAD	IKV-11.5KV		113A915
KDIE/19	1.5KV-19KV	KAD Audio Alarm	113A914
KDIE/19S	1.5KV-19KV		113A913
KDIE/22	3KV-22KV	AC Voltage	113A912
KDIE/33	3KV-33KV		113A911

Indicator Type ▶	Neon Indication					Digital Reading	
Indicator Type ▶	KD1E	KD1E/19	KD1E/19S	KDE1/22	KDE1/33	KD1E/15D	KD1E/33D
Maximum System voltage	11kV	19kV	19kV	22kV	33kV	15kV	33kV
Maximum Voltage to earth	6.6kV	11kV	11kV	12.5kV	19kV	8.6kV	19kV
Threshold voltage	300V	300V	300V	300V	300V		
Measuring Range						0.00kV-8.6kV	0.00kV-19.0kV
Resolution						10V	100V
Sensitivity	AC/DC	AC/DC	AC Only	AC/DC	AC/DC	AC/DC	AC/DC
Circuit current (IEC 61234-2)	2.3mA nominal @11.5kV	0.7mA nominal @19kV	0.9mA nominal @19kV	3.5mA nominal @22kV	1.1mA nominal @33kV	0.5mA nominal @15kV	1.1mA nominal @33kV
Dielectric leakage current (IEC 61234-2)	7uA nominal @13.8kV	11uA nominal @ 22.8kV	12uA nominal @ 22.8kV	12uA nominal @ 26.4kV	17uA nominal @ 40kV	9uA nominal @ 18V	17uA nominal @ 140kV
Length (mm)	330	330	330	665	670	600	600
Diameter (mm)	25	25	25	25	25	25	25
Handle length (mm)	105	105	105	90	250	235	235
Hand guard height (mm)	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Contact Electrode Type	Domed	Flat	Flat	Domed	Domed	Domed	Domed

Extension Rods ▶	1.5m Straight	90°	120°
Maximum System voltage	33kV	15kV	33kV
Dielectric leakage current	140uA nominal @ 40kV	50uA nominal @ 18kV	130uA nominal @ 40kV
Length (mm)	1.5m	780	780
Diameter (mm)	25	25	25
Contact Electrode Type	"V" form	Domed	Domed

HV PHASING UNITS

Phase comparison equipment.

PR11



The PR11 provides a means of phase comparison at the point of paralleling two circuits, without the interposition of voltage transformers or secondary wiring earthed neutral systems. A neon type instrument, it is designed for use on earthed neutral systems up to 11KV. The PR15D / PR33D units enable phase angle comparison on earthed neutral systems up to 15KV and 33KV respectively.

The digital reading instruments provide voltage measurements and are supplied with detatchable earth lead, allowing the digital leg to be used as a voltage indicator, independently from the phasing leg.

PR15D/PR33D



PR15D / PR33D Accessories (included)

- 1 x Proving Unit
- 1 x Battery Charger
- 2 x Overhead Line Extensions (1.5m)
- All leads and instructions
- Supplied with carrying case
- Bent adaptors available for use with switch gear

PR15D / PR33D Specifications

Features

- Provides a means of phase angle comparison and indication of phase angle voltage at the point of intended paralleling of two circuits on neutral earthed systems. Both units are digital instruments
- Chart provides a means of checking phase angle difference of circuits paralleled
- Kit comprises two elements with resistor chains, one with digital indicator and the second a phasing rod

Unit	Voltage*	Features	Part No.
PR/15D	1-15KV	Resolution-10V	109A912
PR/33D	3-33KV	Resolution-100V	109A913

*Earthed neutral system

PR11 Specifications

Features

- For use on 1kV to 11.5kV systems
- PVC hand guards on handles of elements
- Neon indicator enclosed in shock resistant sleeve
- Direct areas possible to all types of switch gear
- Complies with UK Electricity Council Engineering recommendation G9

Part No: 113A910

Indicator Type ▶	Neon Indication	Digital Reading			
Indicator Type ▶	PR11	PR15/D Digital Leg	PR15/D Phasing Leg	PR33D Digital Leg	PR33D Phasing Leg
Maximum System voltage	11kV	15kV	15kV	33kV	33kV
Maximum Voltage to earth	6.6kV	8.6kV	8.6kV	19kV	19kV
Threshold voltage	300V				
Measuring Range		0.00kV - 8.6kV		0.00kV - 19.0kV	
Resolution		10V		100V	
Sensitivity	AC/DC	AC/DC		AC/DC	
Circuit current (IEC 61234-2)	0.9mA nominal @11.5kV	0.5mA nominal @15kV	0.5mA nominal @15kV	0.9mA nominal @33kV	0.9mA nominal @33kV
Dielectric leakage current (IEC 61234-2)	25uA nominal @13.58kV	7uA nominal @ 18kV	7uA nominal @ 18kV	23uA nominal @ 40kV	17uA nominal @ 40kV
Length (mm)	330	600	670	600	670
Diameter (mm)	25	25	25	25	25
Handle length (mm)	105	235	240	235	240
Hand guard height (mm)	23.5	23.5	23.5	23.5	23.5
Contact Electrode Type	Domed	Domed	Domed	Domed	Domed

* See page 67 for extension rod specifications

HALO HOOK

Ammeter for overhead powerlines.



A portable open core current transformer for accurately measuring high voltage conductor current flow in a range of 0 to 2000 amps and is suitable for use on system voltages of up to 36kV. The instrument is applied using appropriate insulated operating poles, which quickly and simply affix to the base of the instrument with a ‘universal spline’ attachment. Hooking the Halo around the conductor, the peak reading of the rms current can be stored on a large clear LCD display and retained until reset. Typical applications include spot load surveys, phase balancing on primary and secondary circuits and monitoring of current flow through high voltage fuses to establish their integrity. The rugged design makes this instrument ideal for field use and is used by power utilities throughout the world. Padded carrying case and full instructions included.

Specifications

Features

- Lightweight 1,28 kg
- Take spots checks quickly and easily
- Moulded plastic head for conductors up to 5.8cm in diameter
- For use on overhead or underground applications
- Peak hold and track modes
- Auto-ranging LCD display
- True RMS reading
- Display 3.5 digit LCD
- Max. Amperes: 1999 Min. Amperes: 0.1
- Display response time: 3 seconds to full scale
- 3% off reading ± 1 digit accuracy:
- Temperature Range: 0°F – 122°F (-18°C - 50°C)
- Auto shut off
- Operating humidity range: 80% RH at 120°F
- Maximum voltage: 36kV AC (phase to phase)
- Replaceable 9V alkaline battery- 40+ hours continuous operation
- Membrane type, tactile response control panel
- Dimensions core opening: 58mm x 94mm

Part No: 205A910

TYPE L PLUS

Large jaw clamp meter.

SEAWARD
Tried. Tested. Trusted.

Specially designed for applications involving the measurement of current flow through large conductors. With a Jaw size of 100mm diameter the type L is ideal for measuring current flow through porcelain fuse carriers in feeder pillars, large diameter conductors and a variety of other applications. The instrument measures current using precision Air Core current sensor technology and has been designed to minimise the use of metallic components aiding safe working practises. Measuring current up to 2000 amps, with both a Tracking and a Store mode for operating to either monitor current on a continually varying basis, or store the maximum reading when operating in confined conditions. Used worldwide by power authorities for aiding productive and safe working. Package includes meter, carrying case, operating instructions.



Specifications

Features

- 3.5” digit LCD display with12.0mm high characters
- 0 – 2000 amps measurement Range
- 50 – 600 volts AC 50 HZ voltage range
- 100mm x 140mm internal Jaw dimensions
- 0°C - +40°C operating temperature range
- - 20°C - +°C storage range
- 9 volt PP3 IEC umber 6LF22 battery
- 3% accuracy of full scale on all ranges for a conductor positioned at the centre of the jaws

Part No: 275A910

SD 300

Safe discharge of stored electrical energy.





There is nothing quite like the SD 300 available in the current market. Specifically designed to enable you to discharge stored energy safely from large capacitors. These capacitors store potentially lethal amounts of energy and must be safely discharged before service or maintenance is carried out. The common, unauthorised practice is to discharge this energy with screwdrivers or wires prior to maintenance, test or repair work. This can cause uncontrolled sparking and is extremely dangerous. It can also damage capacitors. The SD300 has a unique failsafe two handed push-button operation which initiates and maintains the discharge. It ensures that the operator never comes into contact with the live circuit. It's a safety must.

Specifications

Features

- Unique failsafe design
- Electrical Isolation between probes
- Two handed operation
- Self test facility
- Rugged drop proof enclosure
- 1000V maximum discharge voltage
- 1200uF maximum discharge capacitance
- 30s nominal @1000V/1200uF discharge time
- Safety Interlock discharge inhibited if >30V AC between test probes
- Centre-zero panel meters and LED indicators
- 339(w) x 295 (d) x152 (h)
- Only 4kg
- IP66 IP rating
- UL listed

Part No: 205A910



PROFESSIONAL ADVICE

Service which keeps you ahead of the competition.

Testers, Accessories and Software are only part of our safety testing business. We're here to help you as partners. As some of you appreciate, we spend a huge amount of time on your shop floors and working environments.



JumpStart

Sometimes it's important to get a bit of guidance when you're setting up a piece of Seaward equipment. Jump Start's a new, one-on-one service that's designed to get the max from your PAT Testing equipment. A dedicated, experienced professional will visit your site, discuss what you need with you and then set up and configure the instruments, software and establish what training's needed. You'll know everything about the kit by the time we leave.

For full details regarding JumpStart, contact sales@seward.co.uk or telephone +44 (0) 191 586 3511



Calibration

As you know, without calibration, instruments can't perform the tasks they're supposed to do. We supply a quick calibration service at our Head Office so you can get this sorted out properly. This service is available for Multimeters, Clampmeters, PATs, 16th Edition Testers, EMC and High Voltage Testers, regardless of who manufactured it. All calibration is carried out to the highest standards and is guaranteed for accuracy as we are UKAS accreditted



Service

Seaward Service Department supports the standard 12 month product warranty which is offered across our product range. In addition to both in and out of warranty repair, service and calibration of the full range of Seaward Group test equipment we can also accommodate the repair and service of other brands of test equipment. Extended product warranties are available, and service requirements can be booked online at www.seaward.co.uk, email service@seaward.co.uk, telephone +44 (0) 191 587 8737 or fax +44 (0) 191 5184666.



Training

If you're serious about Safety Testing, you should seriously consider our Total Solutions package. In a nutshell, this means we don't just make the best equipment, we also supply certified training courses for those who use our products. All our courses are designed to provide faster Testing techniques, best practice and the effective use of ancillary equipment. When you've completed our courses, you'll be accredited by Seaward. We also hold courses on our prestigious software packages which help you fully master Test Record Management.