

Apollo 600 PAT Tester

Case Studies



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Top Marks for PAT Tester at Famous Oxford College

An integrated electrical testing package from Seaward is helping an historic Oxford college ensure the safety of all on-site electrical appliances used by students and visitors.

As part of a preventative maintenance programme, Pembroke College is meeting its health and safety obligations by using advanced test technology in the shape of the Seaward Apollo 600 supported by specialist PATGuard 3 test management software.

The college has around 600 students and also hosts regular conferences and special events in its prestigious buildings.

The inspection and maintenance of electrical equipment is therefore an ongoing and almost continuous process including the full range of IT, office, audio visual and kitchen appliances, as well as light industrial equipment and power tools used in the college's workshops.



Around 3,000 appliances are tested each year, with the work being carried out by the college's in-house maintenance and facilities team.

The focal point of the portable appliance testing programme is the Seaward Apollo 600 tester. The battery powered and lightweight tester includes all of the electrical safety tests required by the IET Code of Practice.

In addition, the tester includes an onboard digital camera, to help those involved in maintaining safety demonstrate compliance with all the latest guidance on electrical inspection and testing.

As part of the full PAT support package provided by Seaward, specialist product training and familiarisation was provided to ensure that the tester was used to its full capability and also allows non-electrical maintenance team members to carry out testing.

As testing is carried out, results and equipment information is stored in the large internal memory in the Apollo 600 and transferred to the PATGuard 3 results management software to enable formal records, test certificates and reports to be maintained.

This integrated PAT system not only means that an equipment register with test records can be created and updated automatically, but that all work can be planned and co-ordinated effectively, enabling appliance testing to be carried out as part of a methodical and ongoing maintenance programme.

Tim Walker, maintenance supervisor at Pembroke College, said: "Maintaining a safe environment for students, staff and visitors is essential and portable appliance testing is an important part of our overall health and safety policies.

"The college accommodation and meeting facilities are in use almost all-year round and gaining access to some rooms can be difficult. There is also a wide variety of appliances and electrical equipment in use

and items can be moved around, so it is essential to be able track and identify equipment to ensure that everything is regularly tested.

“The combination of lightweight and battery powered testing, alongside the test and tag printer, gives us the maximum portability, speed and versatility we need to achieve this.

“Simple push button testing and easy, intuitive operation of the software provides an integrated system that is helping us to take a more organised approach to safety testing and ensure an electrically safe working environment for all our college users.”

The Apollo 600 tester and PATGuard3 programme forms part of Seaward’s comprehensive range of portable appliance test instrumentation, software, accessories and training packages.

To find out more about the Apollo 600 please visit <http://www.seaward.co.uk/Apollo600>

Apollo Helps Intersafe Grow Its PAT Business

Investment in the latest PAT technology has enabled a leading electrical safety testing company to build long lasting relationships with key customers and respond to their changing workplace safety needs.

The Hampshire-based Intersafe provides essential portable appliance and periodic electrical testing services, as well as thermal imaging, for clients involved in a wide range of business activities.

As part of a commitment to working with the latest technology available, Intersafe recently invested in new Apollo 600 testers for use among its 50 strong team of appliance test engineers.

The lightweight Apollo 600 includes all of the electrical safety tests required by the IET Code of Practice including, earth continuity, insulation resistance at 250V or 500V, protective conductor current, touch current, IEC lead polarity and RCD trip time.



An important factor in the company's choice of the new tester is the inclusion of an integrated digital camera for the visual inspection of appliances and an expanded internal memory that means all test results can be recorded automatically for downloading to results databases.

A feature of the success and growth of the Intersafe business has been its ability to build longstanding relationships with clients large and small and to develop bespoke testing schedules that accurately meet their needs.

Adrian Pendle, Director of Intersafe, explained: "Portable appliance testing is an increasingly important part of our electrical testing business and we believe we've succeeded because of the attention to detail we bring to all jobs.

"Our test engineers are all fully qualified and we work closely with clients to agree risk assessments and the inspection and testing required before carrying out any work.

"Using the most up to date PAT technology available is central to this approach and ensures that the work is done efficiently and thoroughly, with the minimum of disruption to a client's workplace.

"It also means that we can supply all the necessary reports and test certificates at the touch of a button as part of a fully integrated and streamlined testing service."

Intersafe's team of test engineers carry out portable appliance testing for a range of clients including educational establishments, supermarkets, FM companies, hotels, industrial sites and other workplaces.

The field service team carries out electrical inspection and testing at client premises, downloading test results from the tester for transmission to head office where all results are retained in PATGuard software-enabled records.

This enables the company to manage test record databases for clients, providing PDF test reports as part of an asset management approach used in the tracking of electrical items and the scheduling of future test programmes.

Intersafe engineers also use the onboard camera in the Apollo 600 to record test failures and this allows the company to create an audit trail for potentially dangerous items that are removed from service.

In addition, to maximise the capabilities of the Apollo 600 on client premises, the company is also trialling the use of the tester to inspect and record the condition of other workplace safety features, including emergency lighting systems.

The Apollo 600 forms part of a comprehensive range of portable appliance test instrumentation, software and accessories developed by Seaward to ensure the safety of electrical equipment used in the workplace.

To find out more about the Apollo 600 please visit <http://www.seaward.co.uk/Apollo600>

Integrated Test Solution Brings PAT Business Benefits

The integration of automatic electrical test routines with powerful results management software is enabling a small portable appliance testing business to implement the highest standards of customer service more normally associated with larger companies.

The Leicester-based Smart PAT Testing is living up to its name by utilising a Seaward Apollo 600 PAT tester to complete increasing numbers of appliance safety tests for a wide and expanding range of customers including musicians, events venues, retailers, property companies and private rental landlords.

In all cases, self-employed business owner Steve Hollins uses the Apollo 600 to carry out all of the electrical safety tests required by the IET Code of Practice, with instrument automatically sequencing through earth continuity, insulation resistance at 250V or 500V, protective conductor current, touch current, IEC lead polarity and RCD trip time.

The results of testing are recorded in the instrument's internal memory and downloaded to the PATGuard 3 PC software program. In addition, images of visual inspections taken by the Apollo 600's onboard camera can also be transferred to the test records program.

In this way, once downloaded to PATGuard 3, all test information can easily be managed and organised to provide a totally traceable record keeping and documentation system.

In addition, as well as a history of the test carried out, the downloaded data can be used to produce test and inspection reports, provide test certificates and produce client invoices.

Forward looking inspection and test schedules can also be produced for clients alongside asset registers – allowing the straightforward management and administration of all client documentation.

Smart PAT also provides a repairs service for any damaged cables and plugs that are identified during the inspection and testing process, with the automatic paper trail detailing why equipment may have failed.

Steve Hollins, said: "As a relatively small PAT operator, the ability to streamline testing, record all results and produce all the necessary documentation as part of an integrated system has considerable benefits.

"I can access test histories and records at the touch of a button, produce professional test certificates and reports and generally provide customers with the sort of support and aftercare more usually associated with bigger operators.

"As a business owner, this has made things much easier, with reduced paperwork and admin work leading to more effective use of my time, which in turn has helped me to gradually take on more customers."



The Apollo 600 tester and PATGuard 3 test results management software forms part of a comprehensive range of Seaward PAT instruments, accessories and software that have been specifically designed to meet the needs of electrical safety dutyholders in all workplaces.

To find out more about the Apollo 600 please visit <http://www.seaward.co.uk/Apollo600>

Apollo Technology Extends Range of Safety Services from Technical Testing Company

Investment in the latest test technology is helping a leading electrical maintenance company to boost its services for customers by improving the working efficiencies of its nationwide team of PAT engineers.

The Essex-based Project Solver Ltd., a specialist safety testing and compliance company, has recently equipped its portable appliance testing (PAT) team with the latest Seaward Apollo 600 electrical safety testers as part of company moves to utilise the latest technology available.

The new Apollo 600 tester incorporates all of the electrical tests recommended by the IET Code of Practice for the in service inspection and testing of electrical equipment, and also includes an integral digital camera so that visual images of appliances can be saved against test results for fully traceable records.



Established by a management team with a combined experience of over 150 years in the building services industry, Project Solver is NICEIC registered and provides a range of technical FM services to ensure that customers remain compliant with workplace safety regulations and standards.

Included alongside electrical installation inspections, thermal imaging checks, UPS maintenance and other assurance work is a portable appliance testing service that is designed to ensure that all electrical equipment on a client's premises remains completely safe for staff and building users.

Project Solver test engineers carry out around 1 million portable appliance tests each year for clients in a range of sectors including healthcare, financial services, education, public buildings, government offices, distribution centres and commercial outlets.

In addition to PAT work, Project Solver engineers also use the versatility of the Apollo 600 to check and record details of other workplace safety inspections, including the condition of emergency lighting and fixed appliances.

Seaward's PATGuard 3 software enables the test results of individual electrical items to be automatically logged against ID numbers and photos for comprehensive and fully traceable records and safety audits.

The Project Solver regional PAT teams carry out risk assessments and electrical testing at client premises before sending the test results electronically to head office for compilation into full test reports.

The reports and test certificates are held in a secure web-based client portal, allowing remote access for downloading and outputting purposes by client contract managers often responsible for the safety of a number of different sites.

As a result of adopting a fully integrated inspection, testing and results recording process, the company claims that test times have been reduced and test processes streamlined so that the overall value of their service to customers has been considerably improved.

Stephen Laccohee, compliance health and safety manager at Project Solver Ltd., said: “Our whole service focus is built around the needs of our customers.

“Electrical safety testing is our core service, but the versatility of the Apollo 600 means we have been able to extend the range of safety work we undertake for clients and maintain a central record keeping database for different types of equipment and checks.

“Working smarter with the new Apollo test technology has significantly enhanced our productivity and means we can provide an all in one solution for many different workplace health, safety and building maintenance tasks.

“As a result we enjoy very high customer retention rates which in turn has provided the platform for consistent business growth.”

To find out more about the Apollo 600 please visit <http://www.seaward.co.uk/Apollo600>

Testing in a winter wonderland

Advanced portable appliance testing technology is helping the world leaders in artificial snow and winter effects ensure that its equipment is maintained to the highest safety standards.

For over 30 years the Gloucestershire-based Snow Business has supplied specialist artificial snow making equipment that has transformed film sets, advertising locations and other special events into amazing winter wonderland scenery.

To make sure that the specialist electrical equipment used to create the spectacular visual backdrops remains safe to operate, the company has turned to the advanced Seaward Apollo 600 portable appliance tester.

The company's in house engineering team uses the advanced tester to carry out regular testing of all of its electrical equipment to ensure that the highest standards of safety and reliability are maintained.



Among the wide range of equipment tested are special falling snow machines, snow 'blower' generators and agitators, high pressure pumps and associated extension cables, RCDs and electrical accessories.

As well as providing technicians with artificial snow-making equipment on film sets and locations, Snow Business also makes equipment available on direct hire for special private and corporate events.

All equipment is therefore tested thoroughly before it is issued in line with standard best practice and hire industry guidelines.

The lightweight Apollo 600 includes all of the electrical safety tests required by the IET Code of Practice including, earth continuity, insulation resistance at 250V or 500V, protective conductor current, touch current, IEC lead polarity and RCD trip time.

The engineering team at Snow Business carry out regular testing of around 500 individual items of equipment each year – and use the expanded internal memory of the tester to store and retrieve test records.

Full use is also made of the accompanying Bluetooth printer that has been set up to produce special test labels with the Snow Business logo.

In addition, the automatic inclusion of appliance bar codes on the labels enables the easy identification of appliances and re-test sequences, speeding up the testing process – an important factor in tracking and managing the movement of large numbers of equipment through the company's busy engineering workshops.

Snow Business is an important supplier to the major TV and film production companies and has been involved in many blockbuster productions.

As such, the company's commitment to effective electrical safety testing plays an important part in maintaining its corporate reputation, image and credibility within the industry.

Andy Wilson, head of engineering at Snow Business, explains: "We're known as the world leaders in artificial snow and winter effects and ensuring the safe and reliable operation of our equipment is of critical importance to our professional standing in the industry.

"Whether we are supplying machines for a Hollywood film set or a children's birthday party, every item of snow making equipment that leaves our workshops needs to be tested to verify its safe operation.

"The Apollo 600 enables us to perform this vital task quickly and efficiently. In particular, with responsibility for such a wide range of equipment, the tester and its accessories streamline the complete identification, testing and labelling process, giving everyone the safety reassurance that they require."

To find out more about the Apollo 600 please visit <http://www.seaward.co.uk/Apollo600>

Busy Hospitals Put Electrical Safety to The Test

Versatile electrical appliance testing technology is helping one of the largest hospital trusts in the country to maintain the highest standards of safety.

The Gloucestershire Hospitals NHS Trust runs both Cheltenham General and Gloucestershire Royal Hospitals, providing high quality acute elective and specialist care for a population of more than 600,000 people.

Dedicated portable appliance test engineers based at both hospitals as part of the trust's medical engineering department are using the latest Seaward test equipment to ensure that electrical equipment and appliances do not pose a danger to users.

The in-house PAT engineers, both qualified electricians, are responsible for testing all types of electrical appliances used in the wards, theatres, offices, kitchens and laboratory areas with the exception of specialist patient-connected medical equipment.



Newly purchased equipment and electrical items brought into the hospitals by patients, such as TVs and laptops are also tested before they can be used.

Given the different environments and activities on the hospital sites, there is an extremely wide variety of electrical equipment in use. In total some 15,000 appliances are tested each year in Cheltenham General Hospital and 18,000 items in the larger Gloucester Royal Hospital.

With responsibility for such a large number of appliances, to manage workloads effectively and ensure proper procedures are maintained, the in-house test team operates an integrated PAT programme that links equipment testing to comprehensive test records and a central asset management database for each hospital site.

At the centre of the hospitals' preventative maintenance approach is the Seaward Apollo 600 tester, supported by the specialist PATGuard 3 results management software.

This multi-purpose PAT tester combines electrical inspection and testing with sophisticated safety data collection features. The battery powered and lightweight tester includes all of the electrical safety tests required by the IET Code of Practice to enable duty holders to meet their electrical safety responsibilities in a safe, simple and effective manner.

At Gloucester Royal and Cheltenham General hospitals, the visual inspection of all plugs, leads and appliances is followed by formal electrical testing.

Any visual defects such as cable or plug damage are recorded with the instrument's onboard digital camera and the images tagged alongside the test results before being stored in the PATGuard 3 program.

As well as recording asset details and test results in the tester's internal memory, data produced by the electrical safety testing procedures is downloaded into a central PATGuard software management system, enabling full safety records to be maintained and advance tests to be scheduled.

Clive Winter, portable appliance tester for Cheltenham General Hospital, said: "In a hospital environment, the rigorous inspection and testing of all on-site electrical equipment is an essential and ongoing safety requirement.

"With such a large number and wide variety of appliances in use across both hospitals, the ability to link comprehensive inspection and testing with traceable results and a central asset register has been vital in enabling us to manage our workloads efficiently."

To find out more about the Apollo 600 please visit <http://www.seaward.co.uk/Apollo600>

PAT Productivity Increased With New Test Technology

A specialist electrical services company has increased its productivity with the latest portable appliance test technology from Seaward.

The Leeds-based S Barker Electrical Ltd. is using a new Apollo 600 tester to complete thousands of appliance safety tests for a wide and expanding range of customers throughout West Yorkshire and beyond.

In doing so the company claims that test times have been significantly reduced, creating a near doubling in productivity without compromising the integrity of the testing undertaken.

The lightweight Apollo 600 includes all of the electrical safety tests required by the IET Code of Practice including, earth continuity, insulation resistance at 250V or 500V, protective conductor current, touch current, IEC lead polarity and RCD trip time.



An important factor in the company's choice of the new tester is the fast test time and extended long life battery power of the unit which reduces the reliance on mains supply and substantially cuts the downtime between tests.

Business owner and fully qualified electrician, Simon Barker explains: "With some of our larger customers requiring the testing of thousands of electrical items across a single site, the ability to complete testing without constantly plugging-in and re-booting the instrument from one appliance to the next provides a substantial time saving.

"This practical benefit of mains-free testing has had a significant impact on our day to day activities where testing can be undertaken with the freedom and flexibility to move around large industrial and office premises without constantly waiting for the instrument to power-up.

"Battery power means we can access tight spaces under desks or other awkward locations much more easily. This, together with the all round test capabilities of the unit and an uncomplicated user platform, is helping us to provide a very competitive test service.

"This means that contracts can be serviced with maximum efficiency – which benefits both the customer and my business."

S Barker Electrical provides the full range of electrical wiring installation and inspection services, alongside alarms and CCTV installations. Portable appliance testing was an additional service to be introduced by the company and the improved productivity has enabled it to increase its customer base to include property landlords and musicians alongside universities, industrial sites and large commercial operations.

In meeting the test and inspection needs of a wide variety of appliances and equipment, another benefit associated with the Apollo 600 is the ability to use the unit's integral camera to automatically attach photographic images of failed visual inspections in all test records.

This enables dutyholders to be provided with comprehensive test reports and ensures full understanding of any reported appliance failures.

Simon Barker says: "We strive constantly to improve the way electrical services are delivered and focus on genuinely assisting individuals and businesses to stay safe, secure and satisfied for life.

"Investment in the latest test technology is one of the ways in which we do this and ensures that we continue to provide a high quality and professional electrical service to customers."

To find out more about the Apollo 600 please visit <http://www.seaward.co.uk/Apollo600>

Latest PAT Technology Helps To Maintain Safety Standards At Leading School

The latest portable appliance testing technology is helping a forward thinking school ensure that the highest safety standards are maintained for pupils and staff at all times.

The Thomas Hardy School in Dorchester, Dorset prides itself on its educational reputation and the provision of high calibre learning facilities for 2,300 pupils.

Designated as a Science College, and with 300 staff, the school estimates that it has over 5,000 appliances and items of electrical equipment in use every day in its various classrooms, IT suites, technology laboratories and administration areas.

A dedicated health and safety officer has responsibility for electrical safety throughout all school buildings and has established rigorous inspection and testing procedures to ensure that all equipment remains safe for use.



The focal point of the school's portable appliance testing policy is a Seaward Apollo 600 tester. This multi-purpose PAT tester combines electrical testing with sophisticated safety data collection features, including an onboard digital camera, to help those involved in maintaining safety in the workplace to demonstrate compliance with all the latest guidance on inspection and testing programmes.

At the Thomas Hardy School, formal PAT testing on most equipment is undertaken on a two year cycle, with those electrical items subject to more demanding and heavier use, such as some science and technology apparatus, being tested annually.

The work is undertaken by the health and safety officer himself – usually during the school's half term holidays – and all test results are retained in a PC-based record keeping system used as a management tool for planning the school's inspection and testing programme in advance.

Importantly, the school also uses special features of the Apollo 600 and its complementary PATGuard 3 software program, to monitor other health and safety conditions across its premises.

For example, the instrument's integral digital camera is used take high quality images of equipment at the same time as user checks or inspections are carried out to demonstrate the evidence and reasoning behind health and safety judgements taken at a particular time.

Similarly, the emergency lighting and fire alarm system checks and assessments included in the PATGuard 3 software enable the school to log inspections and any issues arising that can be flagged up in reports to staff and heads of departments.

Kieran Williams, health and safety officer at the Thomas Hardy School said: “In a school with so much electrical equipment, the ability to carry out inspection and testing in an effective and efficient manner is crucial and can make such a difference to our workload.

“We follow all the HSE and IET advice on portable appliance testing and the capabilities of the Apollo 600 help us to meet our obligations to providing a safe environment for pupils and staff, not only for electrical testing, but for other important health and safety issues where the risk assessment approach is proving particularly useful.”

To find out more about the Apollo 600 please visit <http://www.seaward.co.uk/Apollo600>