



PTSG Electrical Services Ltd

PTSG Electrical Services is a leading supplier of PAT Testing, Fixed Wire Testing and Lightning and Surge Protection services across the UK.

Our work saves time, money and most importantly, lives. It really is as simple as that.

Whether it is the testing of a portable appliance or the design and installation of a complete building lightning and surge protection system, PTSG Electrical Services delivers an unsurpassed level of expertise and experience, leaving you confident that your staff, buildings and customers are safe.



Defending buildings across the UK

Lightning Protection

There are hundreds of thousands of lightning storms every year across the UK. Most lightning discharges harmlessly in the atmosphere but it does strike the earth quite regularly.

Considering it travels at over 140,000mph, is hotter than the sun and can be upwards of one billion volts, if lightning strikes a building it can cause considerable damage and sometimes result in fatalities.

Building lightning protection is an absolute must and with PTSG Electrical Services' national coverage there isn't a better service supplier.

With more than two decades of experience in the design, installation and testing of lightning protection and earthing systems, PTSG Electrical Services is a UK market leader.

The company has not just been working in the UK but has expanded into international markets, completing work in Scandinavia and the Middle East.

Depending on your needs, our expert design team can provide either a standard or bespoke solution. We can also offer layout drawings to meet architect, consultant and contract engineer specifications.

All new installations, remedial work, testing and inspections are undertaken by our experienced and thoroughly trained engineers based across the UK.

We also provide additional services when rope access equipment is required.

With more than two centuries of collective experience in designing, supplying and installing lightning protection and earthing systems, we have a tremendous amount of knowledge and expertise we are able to share.

As the UK's leading provider of lightning protection and earthing systems, we offer a wide range of services including:

- Design and installation of lightning protection and earthing systems
- Annual inspection and testing
- Remedial repairs – including Early Streamer Emission System (ESE)
- Retrofit upgrades to existing businesses
- Leading consultancy
- Surge protection
- Rope access
- Supply of technical drawings
- Risk assessments

Protection solutions

Design and Installation Services

Working to BSEN 62305 (2008), PTSG Electrical Services' design skills can form part of a turnkey package or be provided as a stand-alone service.

Our engineers listen closely and understand our clients' requirements and respond quickly, effectively and competitively to their needs. The end result will be a functional design package that meets the performance specifications and complies with current standards and codes of practice.

PTSG Electrical Services' engineers offer clients a range of services including reviews of existing designs, writing of new specifications and drafting of CAD drawings showing layouts and details.

Whether you are looking at a standard product or a bespoke solution, our team of experienced designers can advise you on the most effective and efficient design to protect your building from ground strikes and power surges.

We can undertake this design service for both new builds, with the best advice and designs available if engaged at an early stage in the design process, and retro-fit installations.





Continuous support

Annual Inspection and Testing

Our team of expert engineers undertake detailed testing and inspection of completed installations.

This includes verifying the installation is in accordance with the correct specification and compliant with all current legislation.

The Electricity at Work Regulations 1989 require that lightning protection systems are tested regularly in accordance with BS6651 or BS EN 62305, whichever is applicable to your system.

This standard states systems should be tested at maximum intervals of 12 months.

We recommend your system is tested at intervals of 11 inspection and testing months, meaning across a 12-year period your system will have been tested throughout every season of the year.

Applying this tried and tested method will allow for the effect of seasonal variations in resistance or other characteristics of the system to be taken into account.

Your system will last for many years if properly installed and maintained, maximising the return on your investment.

It will ensure that when your system is called upon to protect your people and other assets, it will be able to do so.

Bringing your facilities into line

Remedial Repairs Including Early Streamer Emission System (ESE)

Periodic maintenance inspection of any type of equipment is a good idea. In the case of a lightning protection system it is absolutely essential.

PTSG Electrical Services' engineers carry out annual inspections ensuring your lightning protection system is performing safely and efficiently.

During the inspection the mechanical condition of all conductors, bonds, joints and earth electrodes should be checked and the observations noted.

The periodic inspections and tests will indicate what maintenance, if any, is needed. We also test and maintain Early Streamer Emission and Pulsar systems.

Current maintenance contracts include:

- Staffordshire County Council
- Stoke on Trent City Council
- Birmingham City Council
- Sefton Borough Council
- Oxfordshire NHS
- Walsall Borough Council
- Emcor
- Nationwide Maintenance
- Kier Sheffield Schools

Many people find working at heights a problem but not our engineers.

As part of PTSG, our employees are fully trained in working at height and comply with all of the latest safety legislation.

As well as installing lightning protection systems on top of some of the country's highest buildings, they have been specially trained to undertake virtually any type of work at height.

PTSG Electrical Services' engineers are trained in the safe and efficient use of the following apparatus:

- Fixed or mobile scaffolding
- MEWPs
- Cradles and ropes
- Ladders and ladder extensions

They are also expert climbers of permanent structures if this skill is required. They will undertake most remedial and maintenance work at virtually any height.



Retrofit upgrades to existing businesses

PTSG Electrical Services is highly experienced when it comes to working on older equipment or equipment installed by other suppliers.

If you would like to look at the possibility of extending the lifespan of your existing equipment, whether PTSG installed it or not, or if you are thinking about changing supplier, then why not get in touch?

PTSG Electrical Services' team is regularly called upon to install, fit, or adapt systems installed by others and always improves what is already in place in a cost effective way.

Leading consultancy

Our experienced engineers and technicians provide a complete consultancy service to architects, builders, building managers, contractors, facility and IT managers, network controllers, project managers and system administrators.

PTSG Electrical Services is dedicated to providing integrated lightning prevention, lightning protection products and earthing solutions and services.

Our engagement at an early stage in the design process ensures you will receive the most effective advice although we do provide retrofitting to installations.

Our team of experienced consultants can survey your building and produce a report advising on the most effective and efficient means of protecting it from ground strikes and power surges.

Rope Access

Rope access is a simple, safe, cost effective and efficient way of gaining access to a variety of buildings.

Industrial rope access techniques have been around for years and have become a major success.

This method is extremely safe, cost effective and efficient compared with traditional access methods such as scaffolding.

It's a quick way of gaining access and the equipment is lightweight and portable which makes it easier to reach awkward places.

Quite simply, rope access is simple, secure and versatile and can save you time and money.

Our IRATA trained engineers can provide a variety of services other than lightning protection which include:

- Visual inspections
- Bird pest control
- Painting
- Cleaning and dusting
- General maintenance
- Signage
- Weather proofing
- Other height duties

Surge Protection

Power surges or transient overvoltages can be caused in two ways: either as the secondary effect of lightning strikes up to a kilometre away, or by the electrical switching of large inductive loads, such as motors and transformers.

They may last less than a millionth of a second but they are powerful and potentially highly destructive.

They can:

- Disrupt system operations
- Degrade equipment components
- Destroy components, circuit boards and surge protection
- Cause costly and unnecessary downtime

PTSG Electrical Services can supply and install effective protection from surges with the Furse ESP maintenance-free range of voltage protectors. Ideal for use with:

- Mains power supplies
- Data and telecoms equipment
- Computer networks
- RF, CCTV, rail and CATV systems

The devil is in the detail

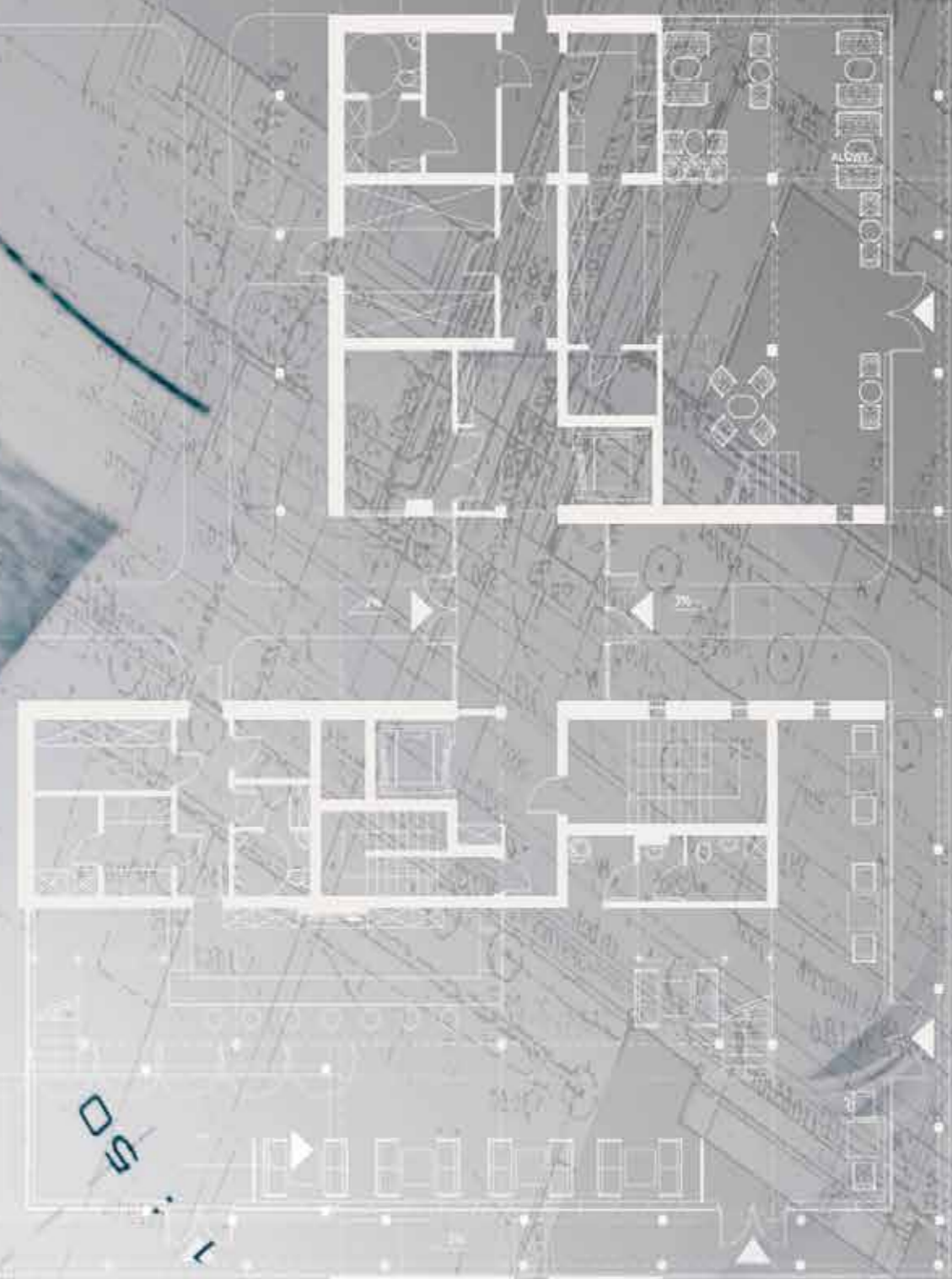
Supply of technical drawings

As part of the design process, our experienced lightning protection engineers are able to provide layout drawings and plans produced to meet architect, consultant and contract engineer specifications.

PTSG Electrical Services has a team of qualified and experienced engineers able to provide cost effective designs for all facets of a direct-strike lightning protection system.

Our service extends to earthing, static and technical earthing systems, surge protection systems and electrical distribution systems.

PTSG Electrical Services' engineers offer our clients a range of services including reviews of existing designs, writing of new specifications and drafting of CAD drawings showing layouts and details.





Safe every time

Risk assessments

A risk assessment is an important step in protecting your workers, your business and your customers, as well as complying with the law.

Our lightning protection and earthing risk assessments help everyone to focus on the risks that could adversely affect your workplace, the ones with the potential to cause real harm.

We have adopted the Health and Safety Executive's five steps to risk assessment and we have incorporated them into our own, unique methodology.

The process is:

- Identify all risks and hazards
- Decide who might be harmed and how
- Evaluate the risks and decide on precautions
- Record any findings and implement them
- Review the assessment and update regularly

PTSG Electrical Services takes safety and wellbeing so seriously that each individual company employs a full-time health and safety manager.

This person monitors every activity and works tirelessly to manage out any risk across PTSG PLC, supporting staff in the same way they do our customers.

Customers can be reassured by our policies and procedures which are underpinned by our health and safety motto; 'If we can't do it safely, we don't do it'.

Practice makes perfect

Our training

After many years training our own people how to operate, often in very demanding conditions at great heights, we have decided to share our industrial knowledge and skills with other organisations.

All courses are designed with safety and efficiency in mind. They are delivered by experienced and qualified instructors, either at our training centre in Newcastle-Under-Lyme or at your own premises.

We currently provide external training courses in the following subjects:

Manual handling

An important course for anyone involved in manually moving, handling and lifting. Designed to minimise risk and improve safety in the workplace.

Safe use of abrasive wheels

An essential course for those using abrasive wheels. Designed to minimise risk and improve safety.

Cable avoidance location

This course is useful for anyone experienced or inexperienced who may be required to cut or drill into surfaces which may contain hidden and buried cables. It stresses the health and safety needs for using the right equipment.

The safe use of harnesses and lanyards

This is a vitally important course for all individuals who are ever likely to work at heights or on rooftops. Suitable for those new to working at height and also as a refresher course for more experienced operatives.



Ensuring appliances are safe for use

PAT Testing

The Health & Safety at Work Act 1974, the Management of Health and Safety at Work Regulations 1999, the Electricity at Work Regulations 1989, the Workplace (Health, Safety and Welfare) Regulations 1992 and the Provision and Use of Work Equipment Regulations 1998 require all electrical equipment used in, or associated with, places of work to be assessed on a regular basis by a competent person.

PTSG Electrical Services is a leading expert in risk assessment and Portable Appliance Testing (PAT). These specialised processes ensure that electrical appliances comply fully with UK legislation and where necessary, are tested and certified.

Through our fast, efficient and cost-effective risk assessment and PAT testing, PTSG Electrical Services gives businesses total peace of mind, knowing they have taken the right steps to ensure equipment is safe for use, both on and off site.

The process is recognised by the insurance industry and without up-to-date risk assessments or test certificates, your insurance could be invalidated.

Protecting your buildings and employees


Fixed Wire Testing

Fixed wire testing, also known as periodic testing, protects buildings and employees from the two main electrical risks, fire and electrical shock.

Over a period of time these risks increase as installations deteriorate and it is in the best interests of not only you and your employees but also your insurance company, that you have an installation that is not only electrically sound but also free from the risk of fire.

PTSG Electrical Services will test electrical services and systems that conduct electricity around a building. We cover all hard wiring in a building including air conditioning, distribution boards, lighting, mains panels, socket outlets and other fixed plant.





Olympics
push PTSG
engineers to
the limit

Going
for gold

The London 2012 Olympic Games was the event of the year in 2012.

With Usain Bolt taking a double gold in the 100m and 200m, he seemed to put to rest the age old saying that lightning doesn't strike twice.

Thankfully, for many other spectators, they had nothing to fear after lightning protection specialist PTSG was drafted in by LOCOG to protect the grandstands and major events.

We were tasked with providing lightning protection at some of what were to become the most successful Olympic sites for British athletes.

Engineers from PTSG protected the 30,000-seater grandstands at Eton Dorney, where the rowing took place, the 12,000-seater grandstand at the Lee Valley White Water Centre and the grandstands which were at Hampton Court Palace for the Road Cycling Time Trial.

A former royal residence based on the banks of the River Thames in south-west London, Hampton Court Palace provided a spectacular setting for the Road Cycling Time Trial.

The Lee Valley White Water Centre is located 30 kilometres north of the Olympic Park, on the edge of the 1,000-acre River Lee Country Park, part of the Lee Valley Regional Park.

Set in a 400-acre park within a nature conservation area, Eton Dorney Rowing Centre at Dorney Lake is acclaimed as one of the finest rowing venues in the world.



Working across the globe

Qatari VIP jets in PTSG

Doha International Airport is one of the fastest expanding passenger terminals in the world, however, it was the development of a VIP terminal for the country's ruler which led to PTSG becoming involved.

Qatar Airways, owned by the Qatari Royal Family, is based in Doha. When there was a requirement to install lightning protection in the VIP terminal, PTSG delivered on time and in budget.

Featuring 60 check-in gates, 42 aircraft bays and eight baggage claim belts it currently has capacity for 12 million passengers per year, although this is set to increase to 50 million by 2020 following the opening of the new airport in late 2013. It also boasts one of the longest runways at any civil airport in the world.



USAF's first line of defence

When the US Air Force needed someone to come in and protect its vitally important air bases from the threat of lightning, it was PTSG that got the go ahead.

We won the £500,000 contract for the barracks, hangers and mess halls at several USAF bases across Norfolk and Suffolk.

We were tasked with providing the systems to protect these strategic assets from the risk of lightning.



Tramlink Nottingham: Connecting people safely

Nottingham City Council chose the Tramlink Nottingham consortium as the preferred bidder for the NET Phase Two project of the Tramline in the city.

The work will see two new lines created and the existing network expanded by 17.5 km.

Construction of the new lines and passenger services across the whole network is to be fully operational by the end of 2014.

PTSG was awarded the contract to create the lightning protection systems for the extension to the network.

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GROUP OF COMPANIES

