

Lightning Protection

From an initial survey through to ongoing testing and maintenance services, elecheck[^] can ensure that you are provided with a service that protects your site from lightning strikes, dangerous voltages and electrical surges.

Lightning is a large electrical spark caused by electrons moving from one place to another. Electrons can not be seen but when lightning flashes they are moving so fast that the air around them glows. The actual streak of lightning is the path the electrons follow when they move. Full lightning protection systems are installed to divert these high levels of electrical current from lightning strikes safely to the ground. Their purpose is to take the current to earth and ensure the continued functioning of equipment, the protection of the structure and the safety of people on site.

According to the National Meteorological Library the Empire State Building in New York has been struck by lightning as much as 48 times in one day! According to the British Standards the possibility of a lightning strike to a structure of a building, such as a small church, is around 1:500 per year in the UK.

When lightning strikes a building, it does not just cause damage to the actual structure, it can also damage the electrical equipment inside, with potentially dire consequences. All main power lines entering or leaving the building are prime routes for lightning and induced surges and over voltages to enter the electrical and electronic systems. The main and most cost effective measure for protection of structures against physical damage is considered to be the lightning protection system.

WHY DO YOU NEED LIGHTNING PROTECTION?

In accordance with BS6651:1999 'Protection of Structures Against Lightning', protection is required:-

- Where large numbers of people congregate
- Where essential public services are concerned
- Where the area is one in which lightning is prevalent
- Where there are very tall or isolated structures
- Where there are structures of historic or cultural importance and/or
- Where there are structures with explosive or flammable contents

A new British Standard has recently been introduced, BS EN 62305:2006, which is intended to run in parallel with BS6651:1999 until August 2008. A key difference is that the new standard calls for a risk assessment calculation to be carried out which will determine if surge protection is necessary, and what class/type of surge protection device is to be installed. British Standard BS EN 62305:2006 also contains procedures for calculating the risk of lightning striking a building and advises that if the risk factor exceeds one in 100,000, protection is required.

The Electricity at Work Regulations 1989 require that lightning protection systems are tested in accordance with BS EN 62305 and should be tested at maximum intervals of 12 months.

BENEFITS OF THE SERVICE

elecheck[^] operates a national 'rolling' program of annual lightning protection tests and inspections. Full reports are subsequently issued with, where appropriate, fully costed repair and/or upgrade recommendations. Our engineers are able to ensure the continued, effective protection of any installed system by regular, usually annual, maintenance tests and inspections. The results of all maintenance visits are fully documented.

Your system will last for many years if properly installed and maintained, maximising the return on your investment. Regular maintenance will ensure that when your system is called upon to protect your people and other assets, it is in a condition of doing so.

WHY USE ELECHECK?

- ✓ A 'one stop shop' for all your compliance requirements
- ✓ A nationwide company with punctual, polite and efficient 'local' engineers
- ✓ Happy to work outside of 'normal' hours to ensure minimum disruption to business
- ✓ 99% of our clients would recommend us to others*
- ✓ We give advice in straightforward everyday language – without all the jargon
- ✓ Registered, approved and backed by leading industry bodies

* Customer satisfaction survey 2007

FOR FURTHER INFORMATION PLEASE VISIT OUR WEBSITE

www.elecheck.co.uk

These notes have been produced as guidance only. Please refer to the following for more information.

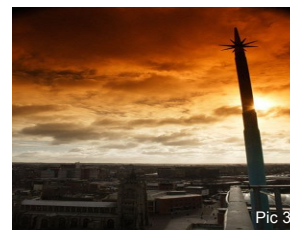
British Standard BS EN 62305:2006 and British Standard BS EN 6651:1999



Pic 1



Pic 2



Pic 3



Pic 4



Pic 5