

## Lightning Protection Institute

Established in 1955, the Lightning Protection Institute (LPI) is a national not-for-profit organization comprised of manufacturers, contractors, and designers including architects and engineers. LPI provides national certification of lightning protection system installations, as well as certification of professional members who qualify in terms of experience and knowledge. The certification of a lightning protection system's design and installation is paramount to maintaining quality control and upholding industry standards.

Certification assures national safety standards for installation are met, as set forth by the National Fire Protection Association (NFPA 780) and Underwriters Laboratories (UL96A). Certification places requirements on design, materials, workmanship and inspection based on the LPI-175 Standard of Practice.

For additional information about lightning protection, visit the LPI website at:

[www.lightning.org](http://www.lightning.org).



### Lightning Protection Institute

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## Services of LPI

### Testing & Certification

Mandatory testing is required of members to certify competence in lightning protection system design, installation and inspection.

### Technical Education

The LPI conducts periodic lightning protection technology seminars, workshops and other programs for those interested in lightning protection and LPI programs.

### Public Safety

In an effort to increase awareness about the dangers of lightning, the LPI maintains a comprehensive public education program and offers a variety of literature on safety issues.

Call on the experts...  
Certified by LPI

*This brochure is presented by the Lightning Protection Institute and this member firm:*



# How To Protect Your Commercial Property From Lightning Damage



## When Lightning Strikes

Packing up to 100 million volts of electricity, a bolt of lightning has the power to rip through roofs, explode walls of brick and concrete and ignite deadly fires. Most tragically, lightning kills.

The cost of lightning strikes to businesses is staggering. Millions of dollars are spent by corporations every year as a result of lightning damage to commercial properties. Insurance claims, destruction of equipment, fire damage, production and inventory loss can all result from a single lightning strike.

Most buildings, particularly those of contemporary design, are vulnerable to lightning damage due to multiple service entrances, the use of isolated metal building components and the costly hi-tech equipment housed within. In addition to actual property loss, lightning damage to robotics, communication lines and computer equipment can result in extended downtime for your corporation. Protecting people and property is what lightning protection systems are all about.

Because every building's architecture is unique, a custom-designed lightning protection system will meet a structure's specific needs. Commonly specified during the construction phase of a building, a lightning protection system can be easily installed on an existing building as well.

## Who Needs Protection?

Thunderstorms occur virtually everywhere and that puts any building at risk. State-of-the-art certified lightning protection systems are a part of the structural design of thousands of commercial and public facilities worldwide and are

**Industrial parks, manufacturing plants, churches, schools, banking centers, hospitals, military installations, historical landmarks, emergency centers, 911 facilities, sporting complexes, corporate centers, chemical plants, oil refineries, nuclear plants, etc... All benefit from certified lightning protection systems.**

## Enlightening Statistics

- Lightning is the most dangerous and frequently-encountered weather hazard that most people experience each year. – **National Severe Storm Laboratory**
- Lightning accounts for more than one billion dollars annually in structural damage to buildings in the U.S. – **Underwriters Laboratories Inc.**
- Between three and five percent of all commercial insurance claims are lightning related. – **Factory Mutual Insurance Co.**
- Over 40 million lightning strikes occur each year. – **The National Weather Service**
- Lightning is the leading cause of church fires (30.2%) in the U.S. – **Insurance Information Institute**
- Studies confirm that conventional lightning protection systems are highly effective in reducing lightning-caused fires and damage to buildings and structures – **American Geophysical Union**

designed to maximize protection of life and property. Risk factors including your location, frequency of thunderstorms, soil composition and building occupancy determine the need for a lightning protection system.

## How the System Works

Lightning protection systems are designed to protect a structure and provide a specified path to harness and safely ground the super-charged current of the lightning bolt. The system neither attracts nor repels a strike, but receives the stroke and routes it harmlessly into the earth, thus discharging the dangerous electrical event.

Investment in a lightning protection system will protect your organization's investment in its property and equipment. In addition to structural protection, surge arresters and suppressors are devices designed to protect a building's electronics and software systems from harmful lightning surges.

A direct hit to a building, a nearby strike to a power line, or even a voltage surge originating from your utility company can cause a fire in the electrical service panel boxes or seriously damage equipment by frying insulation and sensitive microprocessor components. The combined technology of structural protection (lightning rods) and surge protection minimize damage, while providing the highest level of protection for properties.

When it comes to the incredible power of lightning, the bottom line is: Certified lightning protection systems save lives and money!