

Lighting Rods

A lightning strike to an unprotected building can be catastrophic. Packing up to 100 million volts of electricity and a force comparable to that of a small nuclear reactor, lightning has the power to rip through roofs, explode walls of brick and concrete and ignite deadly fires. In addition to structural damage, lightning surges throughout power lines causing wire damage and destruction of valuable electronic equipment including computers, televisions, stereos, security systems, etc.

A lightning protection system performs a simple task. It provides a specified path on which lightning can travel. When a building is equipped with a lightning protection system the destructive power of the lightning strike is carried safely into the ground, leaving the structure, its contents and its occupants unharmed. The system neither attracts nor repels a lightning strike, but simply intercepts and guides the current harmlessly to ground. A lightning protection system is made up of several components:

Air Terminals: (a.k.a. lightning rods): Inconspicuous slender rods installed on the roof at regular intervals as defined by industry standards.

Conductors: Aluminum or copper cables that interconnect the air terminals and the other system components.

Ground Terminations: Metal rods driven into the earth to guide the lightning current harmlessly to ground.

Surge Arrestors and Suppressors: Devices that are installed in conjunction with a lightning protection system to protect electrical wiring and electronic systems and equipment.

All materials and designs for installation of lightning rods should comply with the Lighting Protection Code of the National Fire Protection Association and the Installation Requirements of Underwriters Laboratories. Under no condition should alternative materials or systems be installed that do not comply with these and other U.S. Safety Standards.

WHEN LIGHTNING STRIKES

Seek a safe shelter immediately! If you're unable to find shelter in a building or residence that is equipped with a lightning protection system, LPI suggests the following safety guidelines:

Indoors

- Stand clear from windows, doors and electrical appliances.
- Unplug appliances well before a storm nears - never during.
- Avoid contact with piping including sinks, baths and faucets.
- Do not use the telephone except for emergencies.

Outdoors

Look for a shelter equipped with a lightning protection system like those found at golf courses, public parks and pools.

If you're caught outside and unprotected:

- Get in a hard topped car.
- Never use a tree as a shelter.
- Avoid areas that are higher than the surrounding landscape.
- Keep away from metal objects including bikes, golf carts, fencing, machinery, etc.
- Avoid standing near tall objects.
- Immediately get out and away from pools, lakes, and other bodies of water.
- Spread out - don't stand in a crowd of people.
- If you feel a tingling sensation or your hair stands on end, lightning may be about to strike! Immediately crouch down and cover your ears. Do not lie down or place your hands on the ground.

Victims of lightning shock should be administered CPR if necessary, and seek medical attention immediately