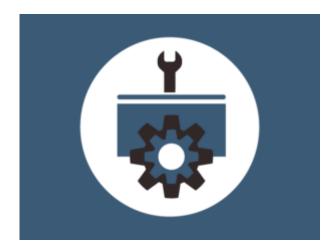
LPI Lightning Protections



An easy to understand handout on the effects of lightning on a home.

The Nuts & Bolts of Lightning Protection



Elements Of The System

1 air terminals (lightning rods) spaced according to safety standards



2 down conductors

cables connecting the terminals to grounds



3 bonding

joining metallic bodies and roof components to ensure conductivity



4 grounds minimum of two ground rods at least 10

feet deep into the earth



the dangerous electrical discharge to eliminate the chance of fire or explosion

A lightning protection system provides a

specified path on which lightning can travel. The destructive power of the

lightning strike is directed safely into

the ground, leaving the home and occu-

pants unharmed. A properly installed

lightning protection system dissipates

of nonconductive materials (wood,

brick, mortar, tile, etc.).

How the System Works:

Who Can Install: Lightning protection is not a do-it-yourself project. Only experienced and reputable UL-listed and LPI certified lightning protection contractors should install lightning protection systems. Qualified specialists use UL-listed materials and ensure that methods of installation comply with nationally recognized safety

standards of LPI, NFPA and UL.

5 surge arresters

installed at electrical panels and surge suppressors provided for in-house electronics



How Lightning Enters

A single bolt of lightning can carry over 30 million volts of electricity.

A direct strike to a structure can rip

through roofs and chimneys, explode brick and concrete and ignite fires.

strike to a nearby tree or power line can induce unwanted surges into a home.

An indirect or secondary lightning

Lightning can also enter through

phone, cable lines and computer

satellite dishes.

modems, as well as roof projections

Home extras like irrigation systems, invisible fences and electric gates can

provide a low-resistance pathway for

lightning's destructive energy.

uch as weathervanes, antennas and

The Lightning Protection Institute . Saving Lives & Protecting Property Since 1955 . www.lightning.org