## Protect irreplaceable trees from lightning destruction

A blinding flash. An ear-piercing crack. Suddenly, one of your most valuable trees is destroyed by lightning — one of the most destructive forces of nature. In its 70-year history, The Davey Tree Expert Company, Kent, Ohio, has seen the results of countless lightning strikes. And, again this year summer electrical storms have taken their toll of hundreds of trees throughout the country.

According to John W. Joy, Davey vice president, "Tree owners can protect their valued trees by turning them into giant lightning rods." The cost of installing lightning protection is only a fraction of what a fine tree may be worth in terms of actual dollars. Remember, a house can be replaced in every detail, but the grand old trees around it ... never.

Although it is not possible to prevent a tree from being struck by lightning, it is possible to equip a tree so that lightning will be conducted harmlessly into the soil.

Here is how professionals install a lightning protection system: A copper cable is attached from the highest parts of the tree to the ground, running down the trunk in as nearly a straight line as possible. Branch conductors also are run from the main limbs in the upper part of the tree and attached to the main truck connector. (See illustrations.)

Ground cables, buried in narrow trenches, are attached to the main conductor and extend from the base of the tree like the spokes of a wheel. A copper rod, attached to the ground cable, is driven into the ground at the end of each trench. The purpose of the spoke-like ground connection is to pick up or distribute the current beyond and below the roots which are as sensitive to injury as the top of the tree.

Within a clump of trees, terminals should be attached to one or more of the tallest trees in the group. Also, if a tree is close to and taller than your home, permitting the lightning to follow the treegrounded route might avoid a strike on the house.

Joy pointed out that trees are constantly growing upward and outward each year and changes occur in their structure, character and physical being. Therefore, lightning protection installations should be checked every four or five years.





For lightning protection a special conductor cable is attached to the highest parts of the tree (left) and runs along major branches down the tree trunk. The ground system (right) consists of an extension of the main trunk cable to a point beyond the main root system and is attached to a rod driven to the required depth.

