Television Antenna Needs Lightning Protection

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CLAMP TO ANTENNA BRACKET

#6 COPPER WIRE OR LIGHTNING CABLE

LEAD-IN WIRE

ARRESTER

#6 COPPER WIRE CONNECTING GROUNDS

GROUND TO WATER PIPE

GROUND CONNECTIONS MAY BE MADE TO ANY EXISTING ELECTRICAL OR LIGHTNING ROD GROUNDS.

5/8" ROD 8' LONG DRIVEN IN GROUND
A television antenna is a perfect target for lightning, and yet few installations are properly grounded. Failure to protect the antenna from lightning can cause your TV set to burn out or a fire to start that may destroy your home.

Grounding your TV antenna to protect it from lightning is simple. It consists of grounding the mast or supporting structure and putting a lightning arrester on the lead-in where it enters the house. For best results, follow these instructions.

1. Ground the mast to “permanent moisture” (an 8-foot rod ½ inch in diameter, driven into the ground is excellent) by clamping No. 6 copper wire or lightning cable to both the mast and the ground rod. If the ground rod is less than 6 feet from your electrical system ground rod, connect the two, using No. 6 wire and clamps.

2. Install a lightning arrester on the lead-in where it enters the house, grounding it to the underground water piping system or to a driven ground rod. Again, use No. 6 copper wire or lightning cable, clamping it securely at both ends.

3. If your house is already protected by lightning rods, connect the antenna’s mast and the lightning-rod system. This gives you double protection in case the grounding system should fail or a lightning bolt should score a direct hit on your home.

Connecting the antenna to the sewer vent pipe on the roof does not provide a positive ground and may carry a lightning charge inside your house.

Adapted from: Rural Electrification Leaflet Number 2, Department of Agricultural Engineering, University of Illinois College of Agriculture, Urbana, Illinois.