

BURIED PLANT

PROTECTION OF BURIED SERVICE WIRE FROM GROUND LEVEL TO PROTECTOR

CONTENTS	PARAGRAPH
GENERAL	1
TOOLS AND MATERIALS	2
PROCEDURES	3

1. GENERAL

1.01 This practice provides procedures for protecting aluminum shielded buried service wire on buildings before it enters the protector or building. See Figure 1.

1.02 This practice is being reissued to clarify the application and the type of materials required. All copies of CTSP 490-500-436, Issue 1, 1972, should be removed from the file and destroyed.

1.03 Service wire protection can be used in conjunction with a fuseless or fused protector or where no protector is required.

2. TOOLS AND MATERIALS

2.01 All or part of the following tools and materials will be required:

a. Tools:

- (1) Masonry drill or push drill.
- (2) Screwdriver.
- (3) Hacksaw.

b. Materials:

- (1) Five foot plastic house and building riser with offset, CTS #20-79-002-3, see Figure 2.
- (2) Screws or toggle bolts.
- (3) Fuseless or fused protector.

3. PROCEDURES

3.01 When a protector is used on the exterior of the building, proceed as follows:

a. Install the protector.

b. Determine the length of the plastic riser required. The length should be the distance between the protector and the ground level plus 7 inches.

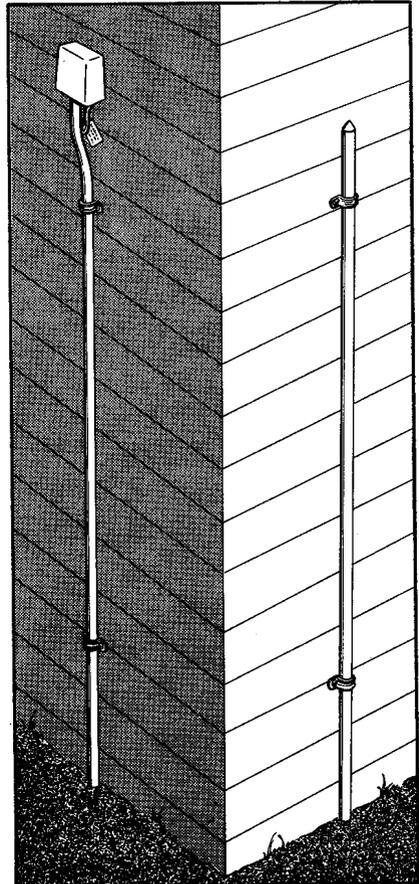


FIGURE 1. House and Building Riser Typical Installations

- c. Cut off the straight end of the plastic riser with a hacksaw if necessary.
- d. Dig down 7 inches into the ground where the wire emerges.
- e. Drill holes where the clamps are to be installed, approximately one foot below the protector and one foot above ground level. Both clamps should be used.
- f. Slip the plastic riser over the service wire and other wires if any. The offset must be on top.
- g. Squeeze the top end of the riser and slip it along with the wires into the protector bottom after removing and discarding the rubber grommet if any. See Figure 3. On some protectors that have a soft rubber base, it might be necessary to enlarge the opening sufficiently to allow the end of the riser to slip into the protector. Approximately 3/4 of one inch of the riser should protrude into the protector.
- h. Secure the riser to the building with the plastic clamps. Backfill hole.
- i. Terminate the wires, then pass any wire that must leave the protector and the riser through the slotted opening at the top of the riser. Provide a drip loop before entering the building. Attach a ground wire warning tag to the ground wire at this location. See Figure 4.

3.02 When more than one protector is served from buried service wires, all the wires can be brought up inside one riser then exit out the slot in the top of the riser to the other protectors. A maximum of 3 wires, any combination, are to be placed in a riser.

3.03 When a protector is not required or it is to be installed indoors proceed as follows:

- a. Determine the length of the plastic riser required. The length should be the distance between the protector and the ground level plus 6 inches.
- b. Cut off the offset end of the plastic riser with a hacksaw if necessary.
- c. Dig down 7 inches into the ground where the wire emerges.
- d. Drill holes where clamps are to be installed, approximately one foot below the protector and one foot above ground level. Both clamps should be used.
- e. Slip the plastic riser over the service wire and other wires if any. The straight end must be on top.

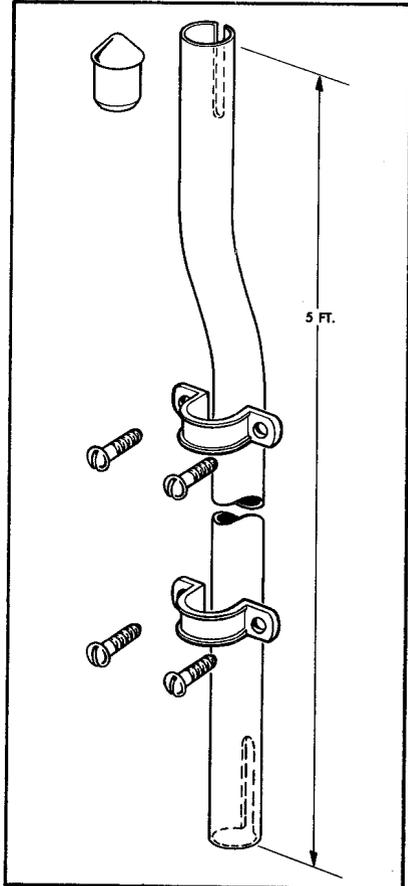
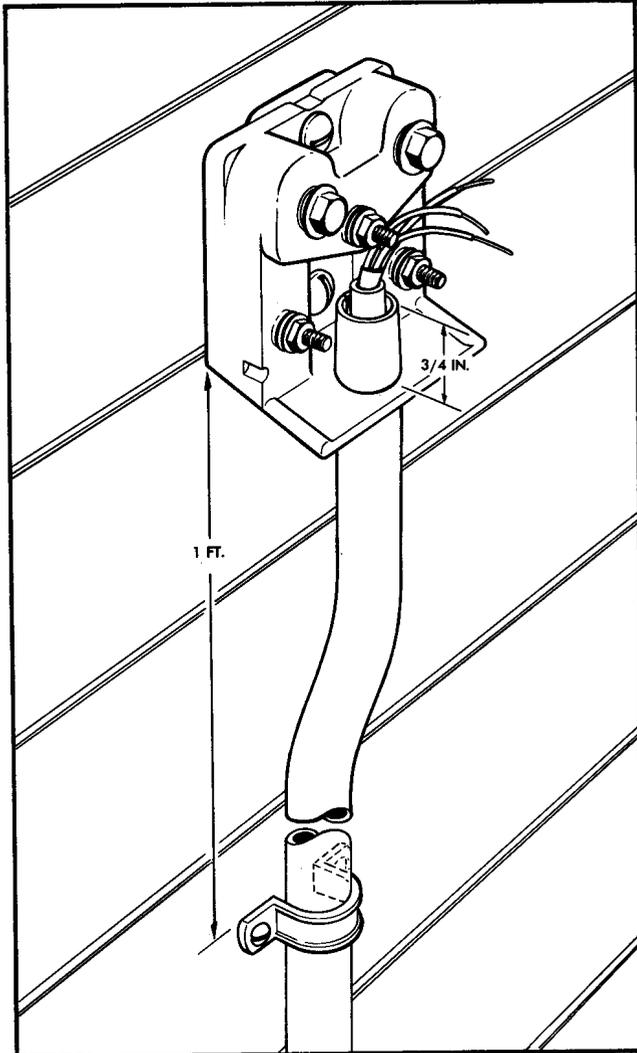


FIGURE 2. Plastic House and Building Riser with Clamps and Plug

- f. Pass wires out of slot in the top of the riser, tape and pass directly into the building. Be sure entrance hole is drilled sloping in an upward direction going into building.
- g. Insert plug into top of riser and secure riser to the building with clamps. Backfill hole. See Figure 5.



**FIGURE 3. Plastic Riser Entering into Protector
(Drawing 1 of 2)**

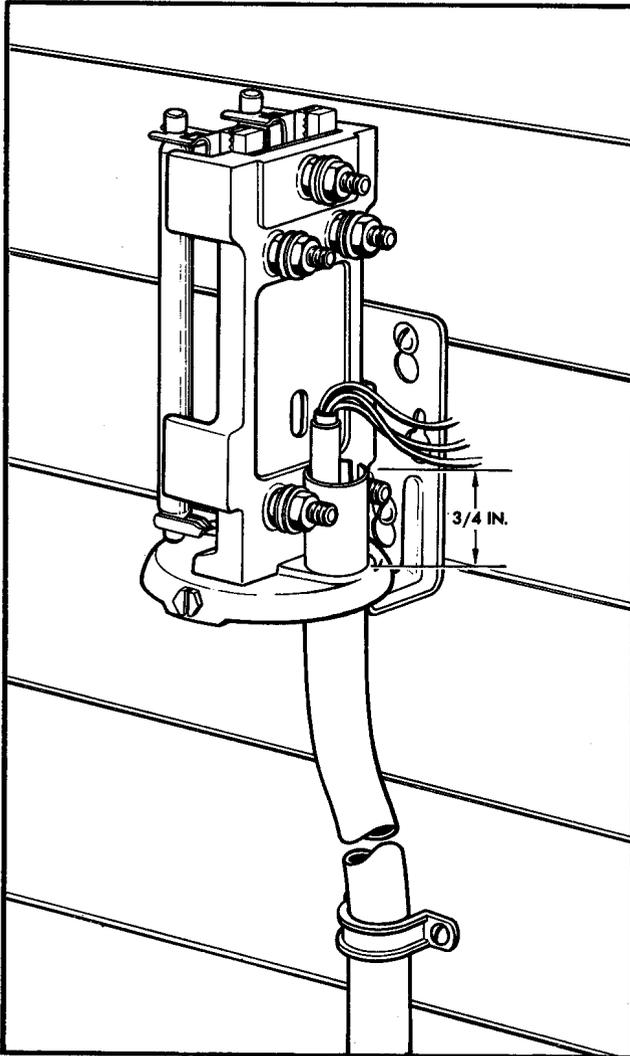


FIGURE 3. Plastic Riser Entering into Protector
(Drawing 2 of 2)

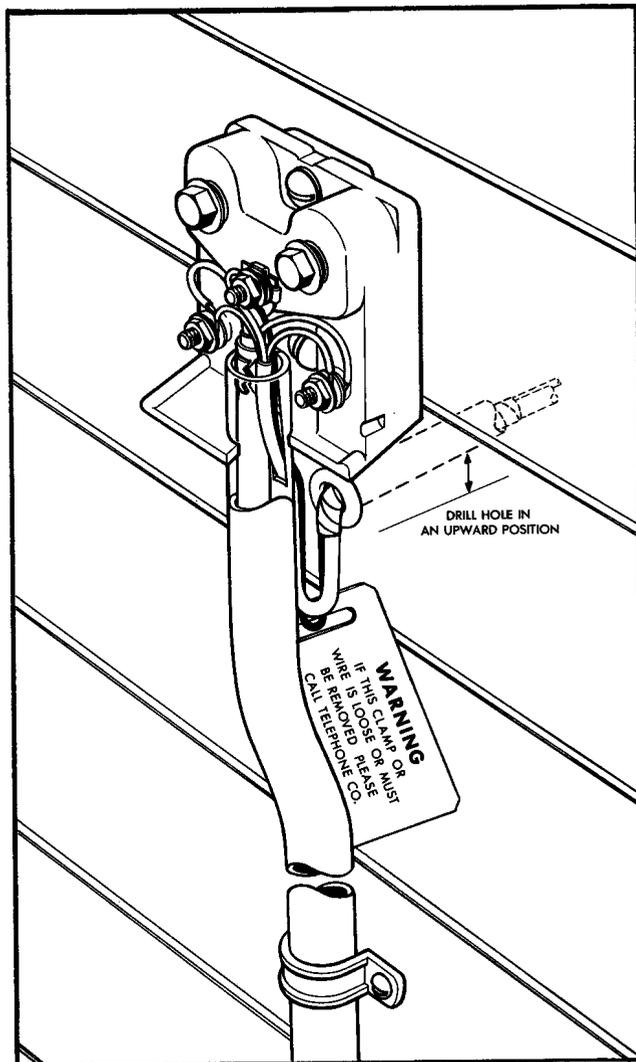


FIGURE 4. Protector and Riser with Terminated Wires
(Drawing 1 of 2)

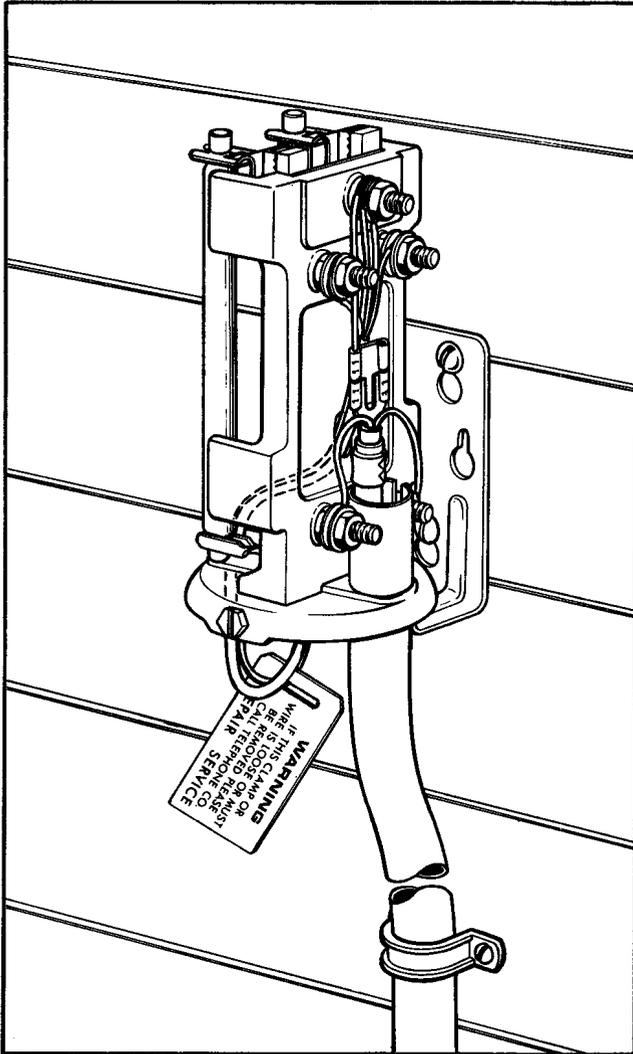


FIGURE 4. Protector and Riser with Terminated Wires
(Drawing 2 of 2)

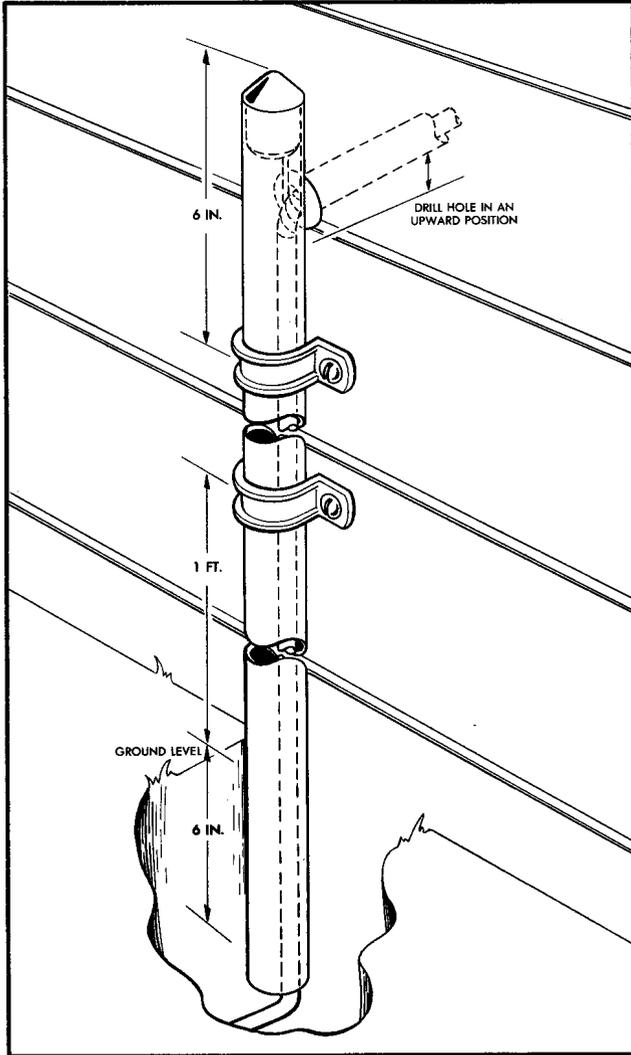


FIGURE 5. House and Building Riser
No Exterior Protector