

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

SECTION G38.110.2
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AT&T Co Standard

83A PROTECTOR MOUNTING

PLACING

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1. GENERAL

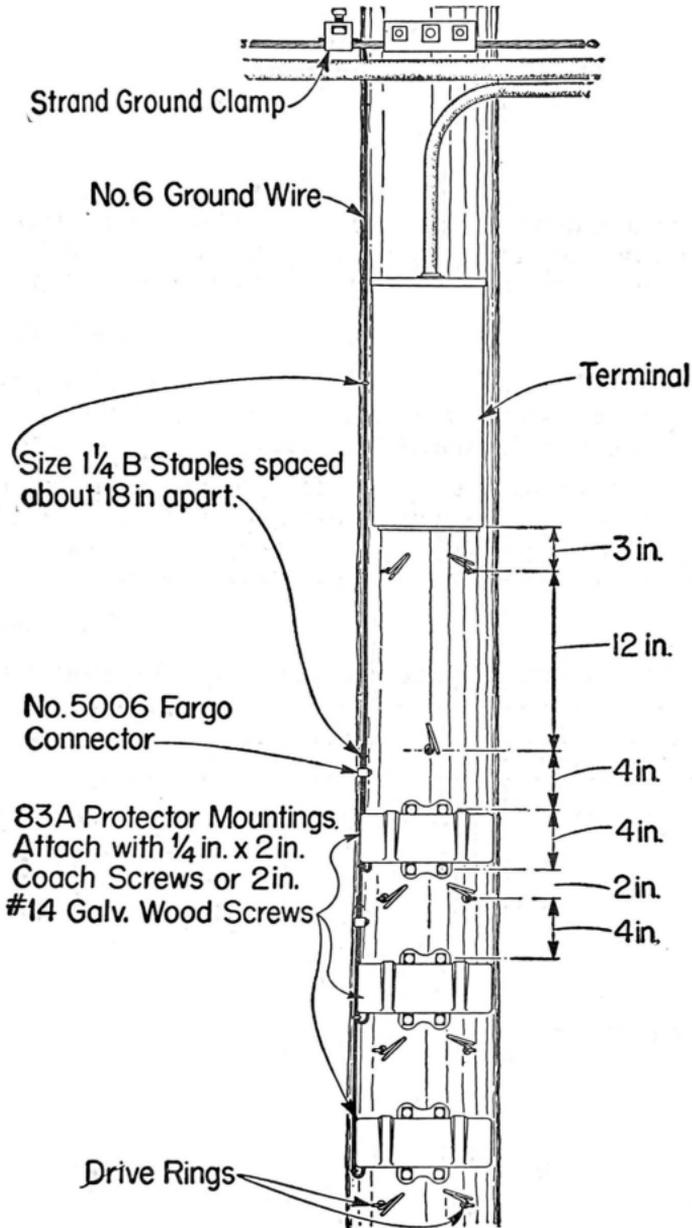
1.01 This section provides information on placing 83A Protector Mountings. This information was formerly covered in Section G31.140, Addendum G31.140, Section G32.130 and Addendum G32.130. These sections have been canceled.

1.02 Protector mountings shall generally be placed near the terminal instead of under the crossarms as has been done in the past.

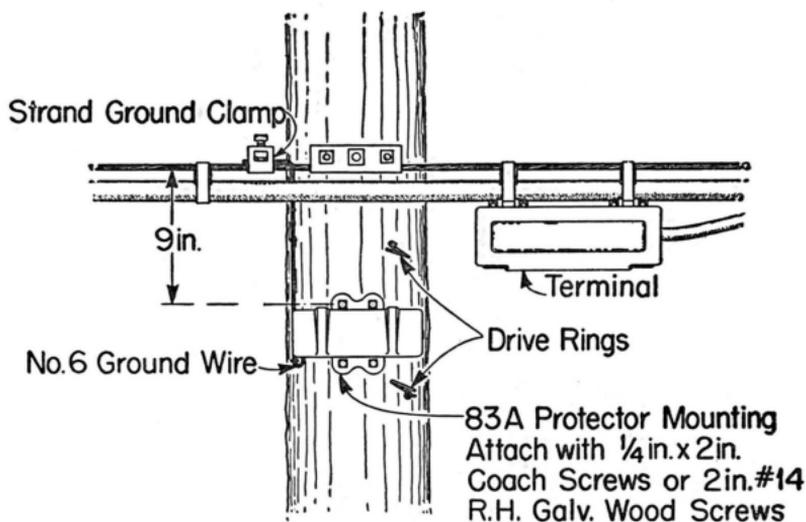
2. LOCATING

2.01 When pole mounted terminals of the non-protected type are used and protector mountings are required, the protector mountings shall be located as shown in the follow-

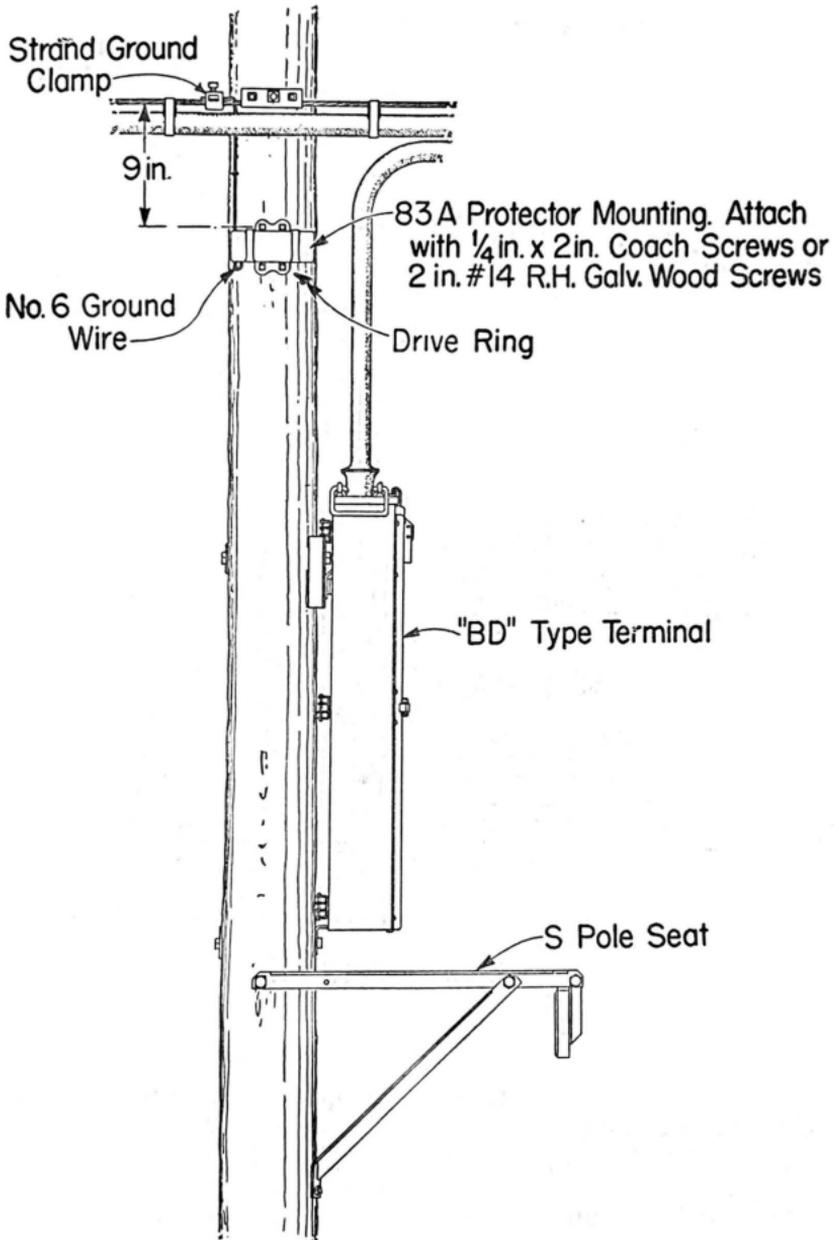
ing figures. Additional protectors, as needed, shall be mounted 6 inches below existing one. The top protector shall be bridled to the top crossarm.



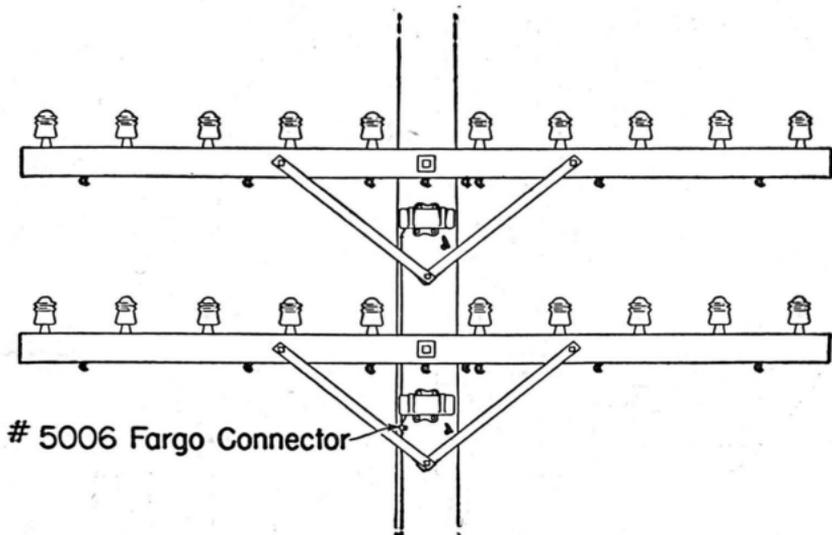
2.02 When sheath mounted terminals of the non-protected type are used and protector mountings are required, the protector mounting shall be located directly below the strand, so that the distance from the strand to the top mounting screw is 9 inches. See the following illustration.



2.03 If a protector mounting is required at a location where a cross-connecting box exists, the protector mounting shall be located above the terminal box at the most convenient point. See the following illustration for a suggested location:



2.04 If protector mountings are specified along the open wire route for additional lightning protection, locate the protector mounting for each crossarm immediately below the crossarm. See the following illustration:



3. INSTALLING

3.01 83A Protector Mountings are mounted on the pole by using four 1-1/4-inch x 2-inch coach screws, or two 2-inch No. 14 R.H. Galvanized Wood Screws.

3.02 84A Protector Mountings are secured in the 83A Protector Mounting with two No. 8-32 Round Head Galvanized Steel Machine Screws 5/16 inch long.

4. GROUNDING

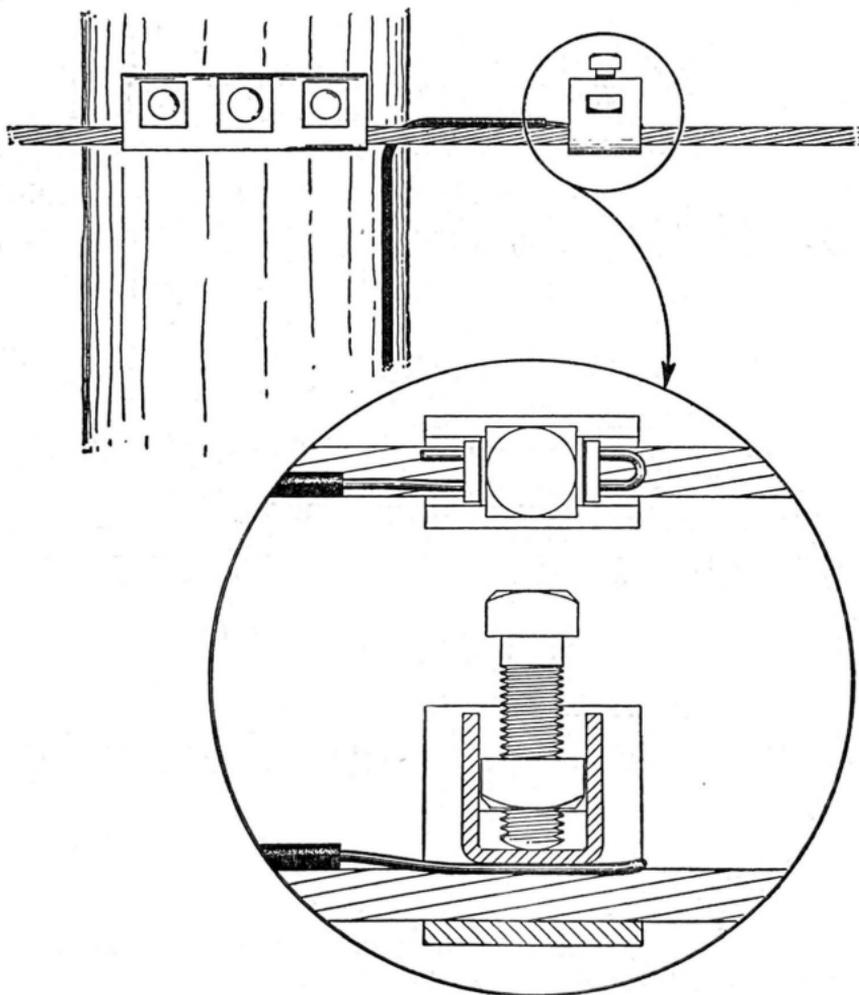
4.01 Connect the ground post of an 84A Protector Mounting to the cable suspension strand by No. 6 Ground Wire.

4.02 Place the ground wire in accordance with the following:

- (a) Use one piece of wire without joints. Clean ends of wire, removing all traces of dirt, grease or other foreign matter.
- (b) Run as directly as practicable from the protector mounting to the suspension strand.
- (c) Secure the ground wire to the pole with 1-1/4 B staples spaced 18 inches apart.

(d) Where an additional 83A Protector Mounting is to be installed, bridge to the ground wire extending from the first protector mounting by means of a piece of No. 6 Ground Wire and a No. 5006 Fargo Connector.

(e) Attach ground wire to the suspension strand by means of a strand ground clamp. Remove the insulation from the wire for a length of about 5 inches. Bend the wire back on itself for a length of about 2 inches, insert the loop of wire between the strand and bolt and tighten the bolt.



4.03 Where the strand is dead-ended in an eye bolt, place the strand ground clamp on the neck of the suspension strand dead end if there is sufficient space at that point. If sufficient space is not available at that point, place it on the strand at opposite end of the Three Bolt Guy Clamp which secures the dead end.

4.04 Where the strand is dead-ended by other means, place the strand ground clamp on the strand as close to the pole as practicable.

4.05 At intermediate points, place the strand ground clamp between the cable suspension clamp and the adjacent cable support in a position such that it will not interfere with drop wire runs.

4.06 When 83A Protector Mountings are specified on work plans to be placed along the open wire route for additional lightning protection, the mountings should be grounded as follows:

(a) Run No. 6 Ground Wire from the ground post of the 83A Protector Mounting down the pole to a system of ground rods. Secure the ground wire to the pole with 1-1/4 B staples spaced 18 inches apart.

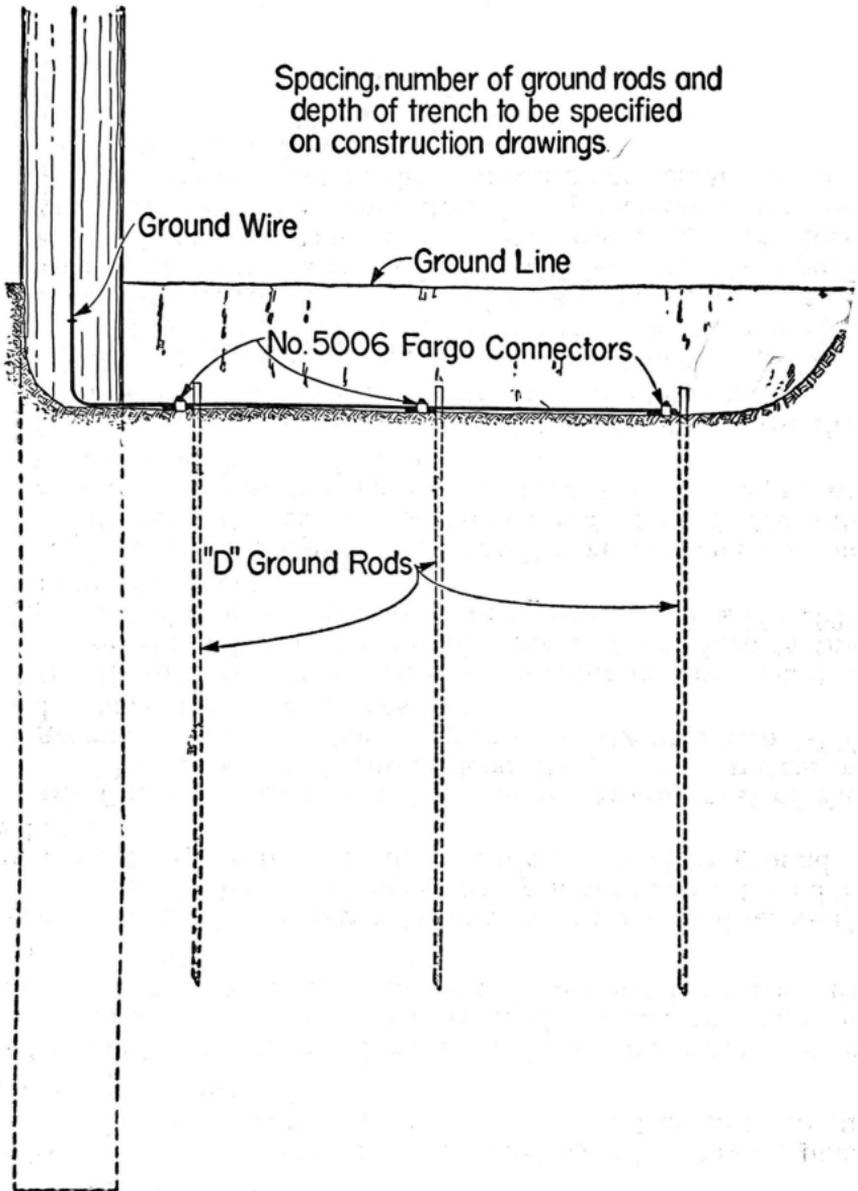
(b) If additional 83A Protector Mountings are mounted on the pole, the ground wire should be bridged to the ground wire of the first protector mounting with a No. 5006 Fargo Connector.

(c) The Plant Engineer will specify on the construction drawing the number of ground rods desired. He will also specify the spacing of the rods and the depth of trench. Use Type "D" Ground Rods.

(d) Locate the rods in the line of the pole lead with the first rod about two feet from the base of the pole.

(e) Extend the No. 6 Ground Wire down the pole and out to the first ground rod. Beyond the first ground rod, either No. 6 Ground Wire or 165 bare copper wire may be used to connect the ground rods. Connect the 104 copper wire tails of the ground rods to the grounding conductors with No. 5006 Fargo Connectors. The grounding conductor should be cleaned before the connections are made. See the following illustration.

Spacing, number of ground rods and depth of trench to be specified on construction drawings.



5. TERMINATING WIRES AT PROTECTOR MOUNTINGS

5.01 Terminate bridling at pole mounted protector mountings as given in the following:

- (a) The position of the bridling in the protector mounting corresponds to the pin position on the crossarm. The protector mounting counts 1 to 10 from left to right.
- (b) The bridling from the open wire will go through the left-hand entrance hole and the bridling from the cable terminal will go through the right-hand entrance hole.
- (c) Cut the wire to the proper length for terminating. Skin and clean the ends of the conductors. Place the tracer conductor on the right-hand binding post and the plain conductor on the left-hand binding post. Place the conductor from the open wire under the lower washer. Place the conductor from the cable terminal between the two washers. Turn down nut to obtain firm contact.

