

DROP WIRING

PLACING DROP WIRE POLE-TO-POLE AND POLE-TO-BUILDING SPANS

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| DROP WIRE RUNS ALONG THE LEAD | 3 | 1.07 Drop wire should not exceed 500 feet in total length from terminal to protector. |
| DROP WIRE RUNS ALONG LEAD CARRYING CABLE | 4 | 2. RUNS FROM TERMINAL POLES NOT REQUIRING GUARD ARMS |
| DROP WIRE RUNS ALONG LEAD NOT CARRYING CABLE | 5 | 2.01 On terminals which do not require guard arms, distribute drop wires from hooks placed on the pole. On pole-to-building spans, use drive hooks located above the suspension strand. On spans from pole-to-pole and from pole-to-span clamps, use the drive hook located below the cable. Pass the drop wire through the drive hook only where sharp bends will not occur in the wire. |
| PARTY LINE TAP ALONG THE LEAD | 6 | 2.02 The wiring arrangements for strand mounted and pole mounted terminals are shown in Figures 1, 2, and 3. |
| DRIVE HOOKS | 7 | 2.03 Wiring on the pole shall be run with enough slack to prevent sharp bends at fixtures. Where drop wire passes through a drive hook, provide slack in the form of a smooth curve. For terminals requiring guard arms, refer to CTSP 475-300-406. |
| RUNNING PAST TERMINALS | 8 | 2.04 Attach the drop wire clamp to the drive hook by passing the bail of the clamp over the hook. The clamp shall pull against the shank of the drive hook where the direction of the drop wire span is such that the clamp will not pull around the end of the hook. Otherwise, place the clamp to pull against the hook end. |
| POLE-TO-BUILDING SPANS | 9 | 2.05 Where careful inspection determines that existing brackets and knobs are serviceable, drop wire may be distributed from vacant grooves, not exceeding the normal limit for which the knob was designed. |
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1. GENERAL

1.01 This practice provides the methods for making pole-to-pole and pole-to-building runs of drop wire. Information on the placement of drive hooks and pole attachments is also provided.

1.02 This practice replaces in its entirety CTSP 475-300-409, all copies of which should be removed from the file and destroyed.

1.03 If brackets and knobs have been previously installed and are only partly filled, distribute from the vacant grooves of the knobs if the existing installation does not present a hazard or potential impairment to service.

1.04 In running drop wires, requirements must be observed which apply to clearance between telephone wires and foreign wires, foreign equipment, vertical clearances, quantity of distribution attachments, and climbing space on jointly used poles.

1.05 Drop wire should be twisted one complete turn for each ten feet of span length at the time of installation to reduce vibration and dancing.

3. DROP WIRE RUNS ALONG THE LEAD

3.01 Use drive hooks to attach the drop wire runs to poles along the lead. Existing pole brackets may be used if they are serviceable and located as specified for drive hooks.

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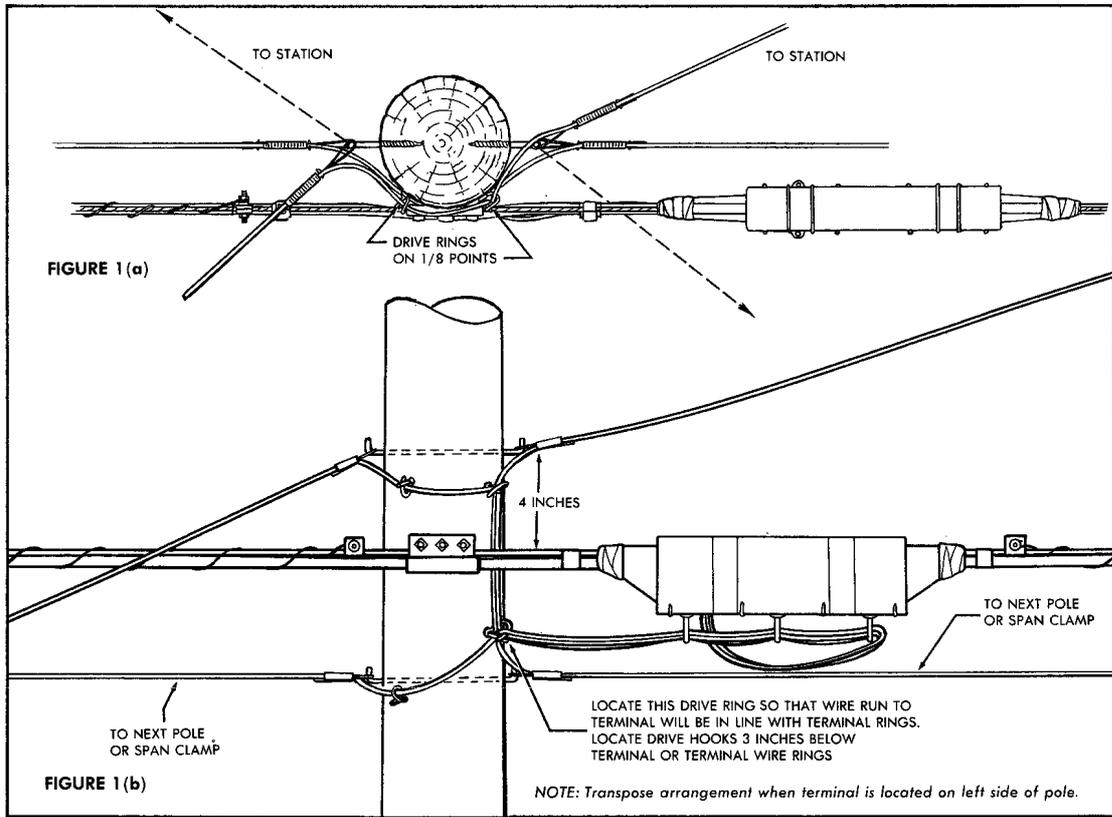


FIGURE 1. Strand Mounted Terminal

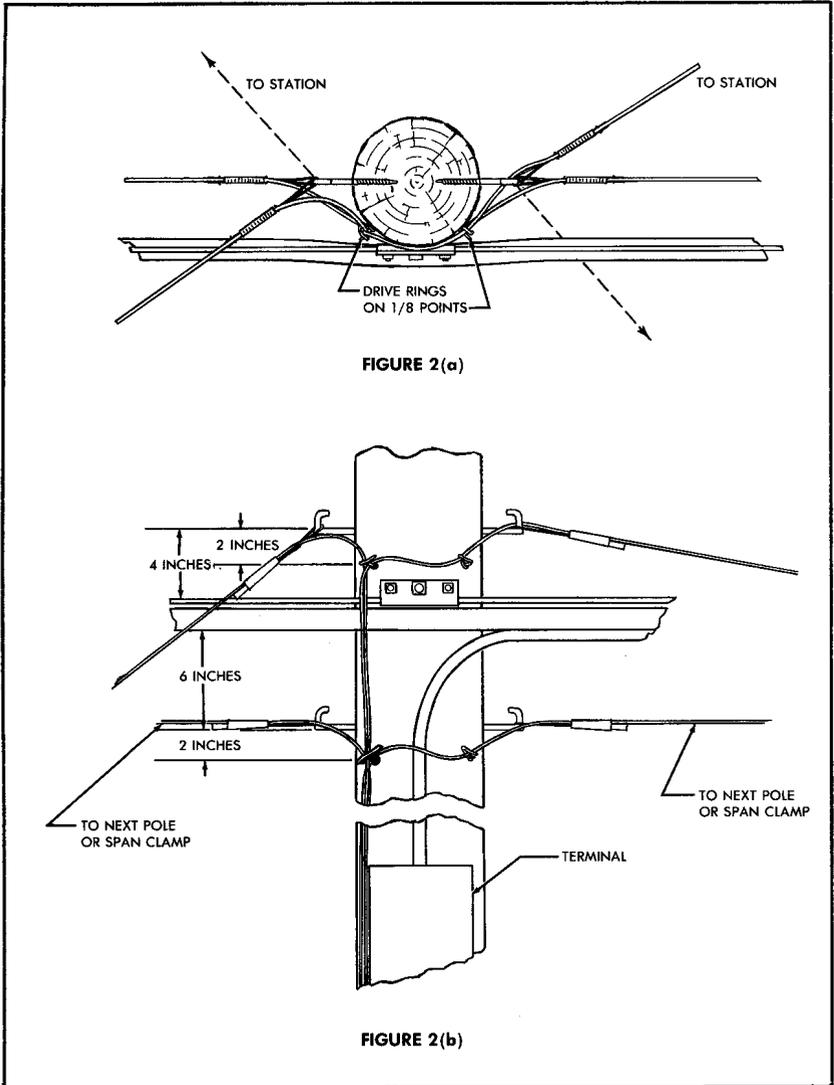


FIGURE 2. Terminal Mounted on Cable Side of Pole

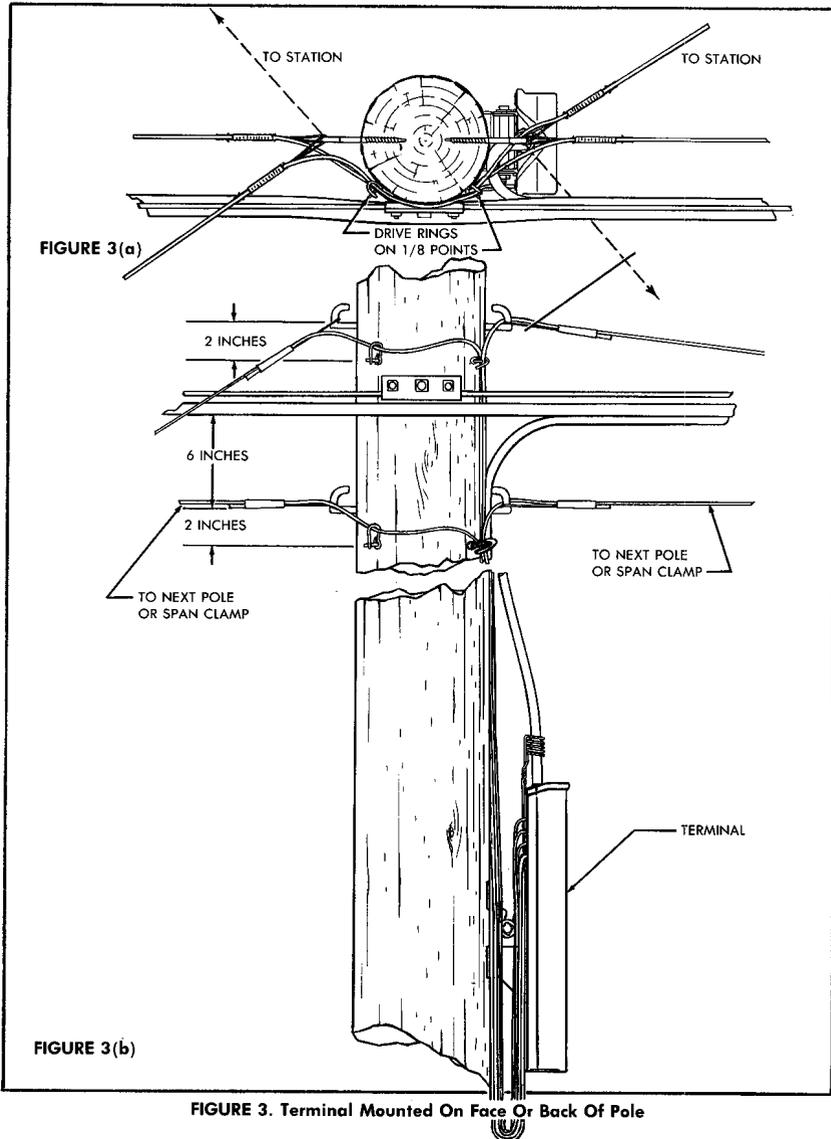


FIGURE 3. Terminal Mounted On Face Or Back Of Pole

3.02 Notify your supervisor before adding the drop wire run:

- a. If an unusual amount of trouble has developed in a group of drop wires in the same run.
- b. If an excess of five drops has been placed along a lead not carrying cable.
- c. If when placing the first or any additional drop wire along the lead, it appears that more drops will be needed in the near future.
- d. Where it is necessary to parallel cable with a total of four or more drop wire sections. (The total may consist of four or more drop wires in one pole-to-pole section, one drop wire run for four or more pole-to-pole sections, etc.)

3.03 Do not run drop wires along the lead on poles of an established open wire line run on crossarms without authorization of your supervisor.

4. DROP WIRE RUNS ALONG LEAD CARRYING CABLE

4.01 Run aerial cable drop wire below the cable as shown in Figure 4. To serve a station from wire that is strung along a lead, make a vertical run to a drive hook that is placed above the strand on the serving pole with proper clearance from power.

4.02 One or more intermediate strand pickups shall be used where required ground clearance in the span cannot be obtained with wire strung at minimum sag. See CTSP 475-300-403.

4.03 Where intermediate strand pickup fails to provide the required ground clearance, the drop wire may be placed above the suspension strand. Drive hooks are to be placed at such a height that the drop wire does not whip against the cable or strand, and that the appropriate joint use clearances are obtained.

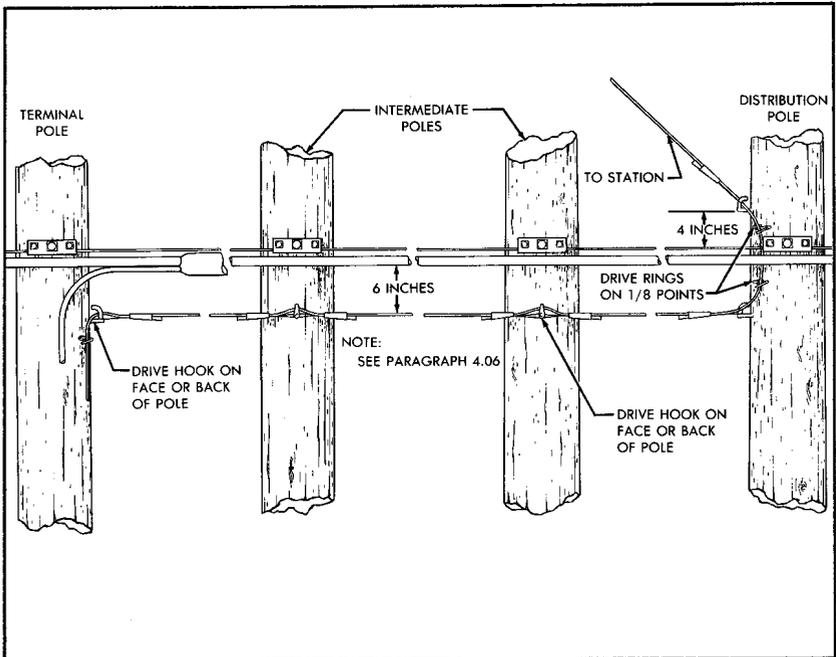


FIGURE 4. Drop Wire Run Along Lead Carrying Cable

4.04 On straight line poles or inside corner poles where the pull of the wire is away from the pole, use a single drive hook to support the drop wire. On outside corner poles where the angle will cause the drop wire to rub against the pole, use two drive hooks to support the wire.

4.05 Distribute drop wires from drive hooks at poles other than terminal poles, as shown in Figures 4 and 5.

4.06 Aerial drop wire must be 6 inches below cable or terminal. If the size of the terminal interferes, the wire shall be 3 inches below the terminal or terminal rings.

5. DROP WIRE RUNS ALONG LEAD NOT CARRYING CABLE

5.01 The procedures for placing drop wire along a lead not carrying cable and on one carrying cable are basically the same. If clearances permit, drop wire shall be placed at a height where it will not interfere with future placing of cable.

6. PARTY LINE TAP ALONG THE LEAD

6.01 A party line tap along a pole-to-pole drop wire run is to be made where several spans of drop wire would otherwise be used. Make the party line taps as illustrated in Figure 7.

7. DRIVE HOOKS

7.01 Place drive hooks on the face or back of poles, above or below the cable; maintain required clearances from the ground, foreign wires and trees. On intermediate poles, drive hooks may be placed in the sides of the poles. See Figures 4 and 6. Drive hooks shall occupy a pole area not more than 8 inches in vertical extent, nor more than 1 inch in width. No more than four hooks are to be placed in each of these areas. Refer to paragraphs 4.01 to 4.06 for the placing of initial drive hooks.

7.02 When placing more than one drive hook on the same side of the pole, stagger the hooks as shown in Figure 8: Where possible, obtain greater than the minimum vertical separation between hooks.

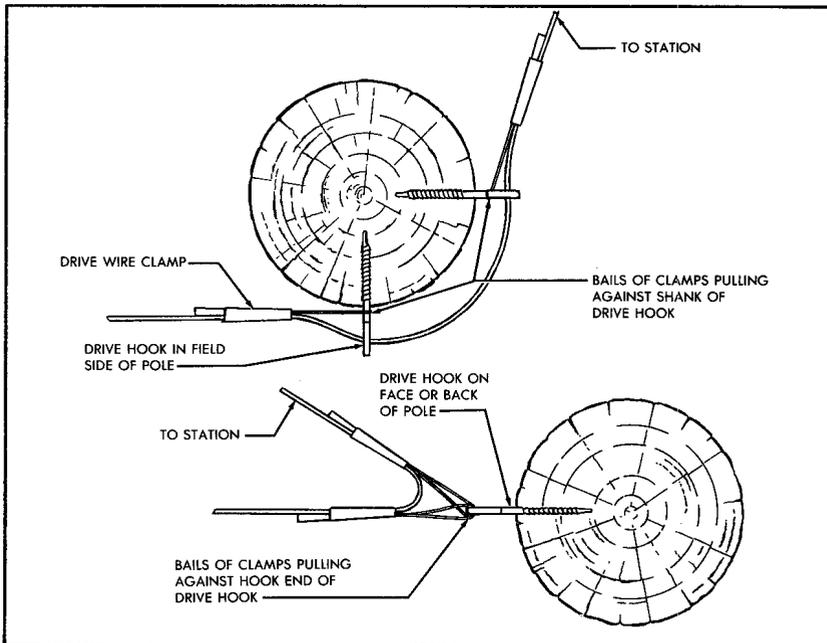


FIGURE 5. Drive Hook Distribution From Poles Without Cables

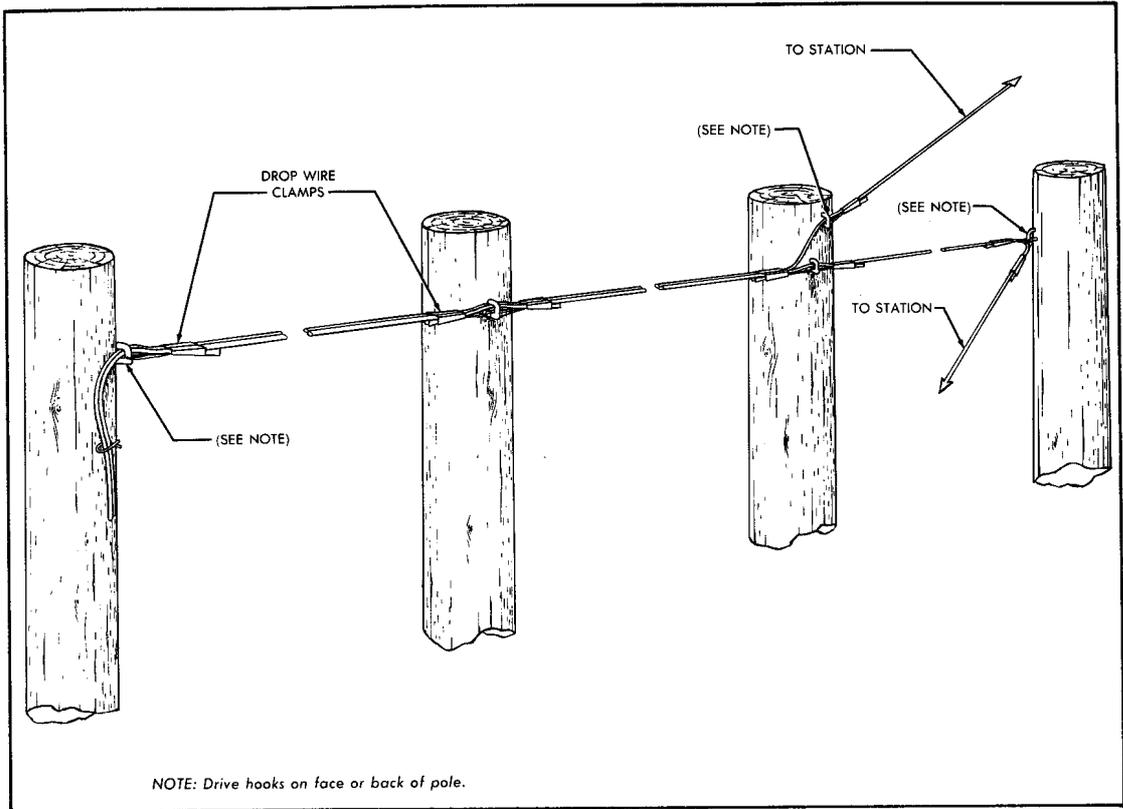


FIGURE 6. Drop Wire Run Along Lead Without Cable

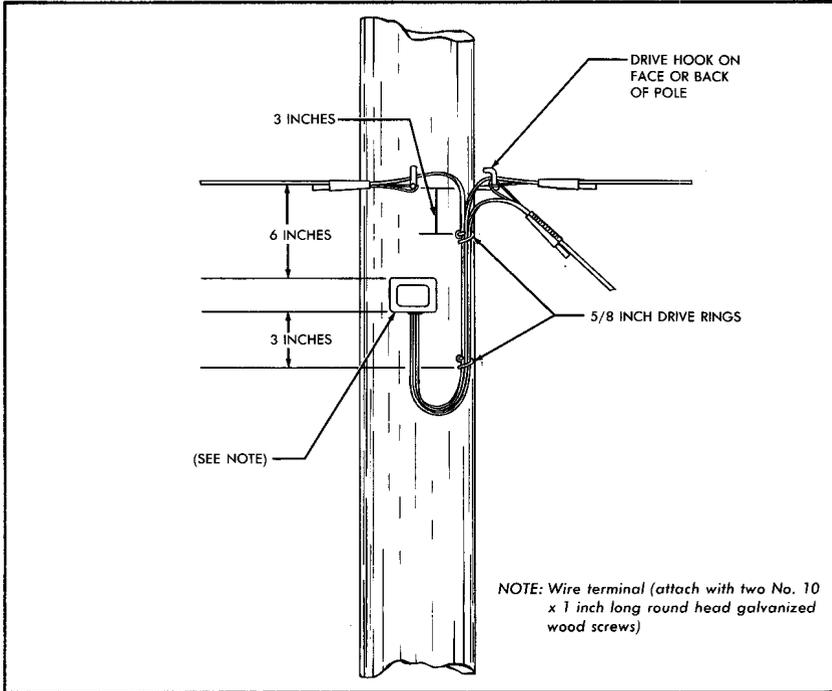


FIGURE 7. Party Line Tap Along The Lead

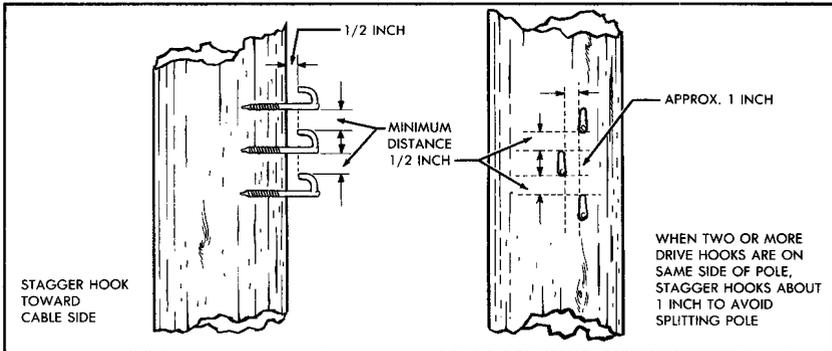


FIGURE 8. Positioning Several Drive Hooks On Same Side Of Pole

7.03 If the diameter of the pole is 5 inches or less, drill a 5/16-inch lead hole for the drive hook, about 3 inches deep. This is to protect the pole from splitting. If drive hooks are placed near the top of a pole and on both sides, a vertical separation of approximately 3 inches should be provided between drive hooks.

7.04 Table A shows the maximum number of drop wires which may be attached to one drive hook where the drop wire is dead-ended at both ends of the span.

8. RUNNING PAST TERMINALS

8.01 When a terminal assignment requires running past a cable terminal, try to obtain a reassignment to the proper terminal. Before placing more than a total of 2 spans of drop wire along a lead carrying cable, check with your supervisor.

8.02 Where a disconnected drop wire which has

been run past a cable terminal is to be reconnected, obtain an assignment to the proper terminal.

9. POLE-TO-BUILDING SPANS

9.01 It is desirable to run drop wires under obstructions, such as trees or foreign wires, provided the required clearance can be obtained. Avoid running drop wire over obstructions where contact may result due to the stretching of the drop wire.

10. ATTACHING DROP WIRES TO METAL POLES

10.01 Avoid attachment to metal poles whenever possible. When it is necessary to attach to metal poles, approval shall be obtained from the supervisor. Use a sign bracket, depending on the size of the pole, and attach as shown in Figure 9. For the bracket sizes and ordering information, refer to the Continental Telephone System General Supplies Catalog under "BRACKETS, SIGNS".

TABLE A. Number of Drop Wires to be Attached to One Drive Hook

| | If Number of Drop Wires Attached Pole-To-Pole or From Span Clamp is: | | | |
|--|--|---|---|---|
| | 0 | 1 | 2 | 3 |
| Maximum Drop Wires Crossing Street | 3 | 2 | 1 | 0 |
| Maximum Drop Wires Not Crossing Street | 4 | 3 | 2 | 0 |
| Maximum Total Drop Wires | 7 | 6 | 5 | 3 |

NOTE: Combinations of drop wires crossing and not crossing street must pull as near as possible to 180 degrees to equalize the strain on the drive hook. Use separate drive hooks when strain of combinations of drop wire span tends to be in one direction.

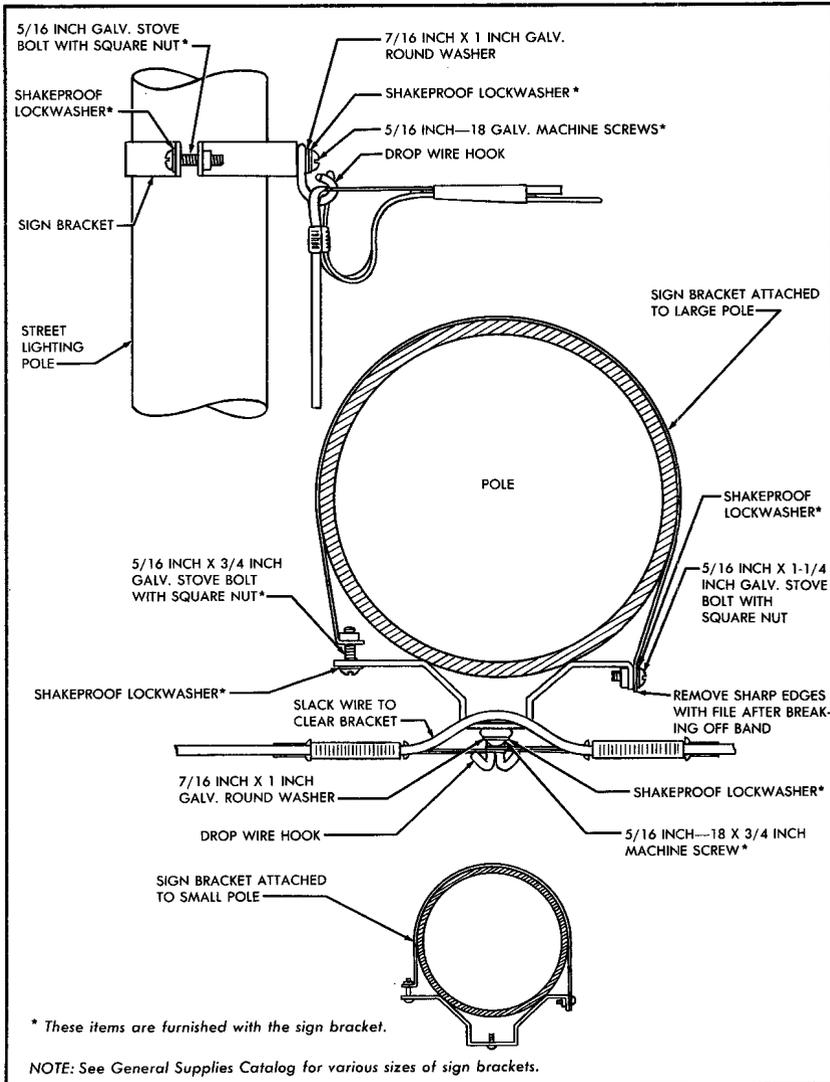


FIGURE 9. Metal Pole Attachment