

DROP AND BLOCK WIRING  
POLE-TO-BUILDING AND  
POLE-TO-POLE RUNS

CONTENTS	PAGE
1 - GENERAL.....	1
2 - DISTRIBUTING DROPS FROM TERMINAL POLES.....	2
3 - DROP WIRE RUNS ALONG THE LEAD.....	3
4 - PARTY LINE TAPS ON DROP WIRE RUNS ALONG THE LEAD.....	6
5 - RUNNING DROP WIRE PAST CABLE TERMINALS.....	8
6 - ATTACHING DROP WIRE TO METAL TROLLEY OR STREET LIGHTING POLES.....	8

1. GENERAL

- 1.01 This section covers the methods of making pole-to-building and pole-to-pole runs of drop wire. Drops from open wire lines are covered in the 462-240 layer.
- 1.02 This section is reissued to include information on the use of drive hooks below the strand for drop runs to buildings.
- 1.03 The requirements applying to clearances between telephone wires and foreign wires and equipment, clearances above ground, and climbing space on jointly used poles shall be observed in running drop wires.
- 1.04 Stringing operations related to the procedures described herein are covered in other layers of this division 462.
- 1.05 Drop wire should be strung to normal stringing sags unless ground clearances make it necessary to use the minimum stringing sags as outlined in Section 462-400-200.

NOTICE  
Not for use or disclosure outside  
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except under written agreement.

2. DISTRIBUTING DROPS FROM TERMINAL POLES

- 2.01 At Terminal Poles Not Requiring Guard Arms: Distribute drop wires from drive hooks placed on the face or back of poles. On pole-to-building spans, generally, use drive hooks located above the suspension strand. On spans from pole-to-pole and from pole-to-span clamp, use the drive hook located below the cable. Existing drive hooks below the strand may also be used for drop runs to buildings if proper clearances can be obtained. Pass the drop wire through the drive hook only in case no sharp bends will be placed in the wire.
- 2.02 The wiring arrangements for strand mounted and pole mounted terminals are indicated in Fig. 1, 2, and 3.

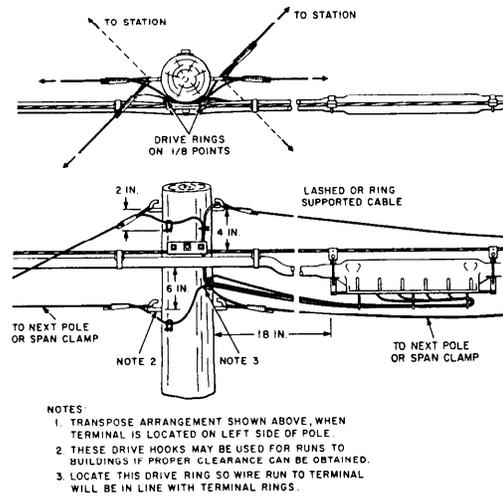


Fig. 1 - Strand Mounted Terminal

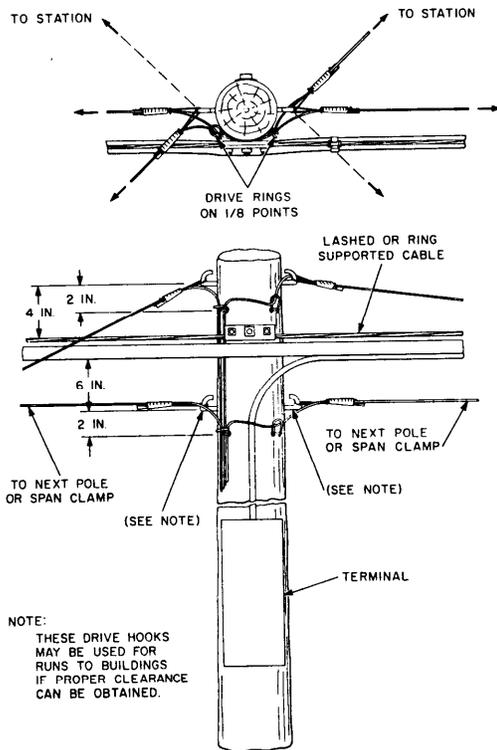


Fig. 2 - TERMINAL MOUNTED ON  
CABLE SIDE OF POLE

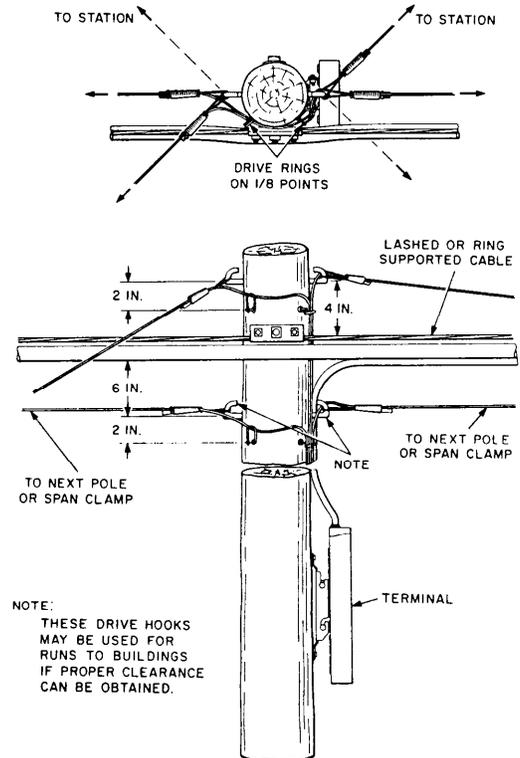


Fig. 3 - TERMINAL MOUNTED ON  
FACE OR BACK OF POLE

2.03 Run wiring on pole in a neat manner and with enough slack to avoid sharp bends at fixtures. Where drop wire passes through a drive hook, provide slack in the form of a smooth curve.

2.04 At Terminal Poles Requiring Guard Arms: Follow the procedures covered in 462-300-200.

### 3. DROP WIRE RUNS ALONG THE LEAD

#### General

3.01 For transmission and maintenance reasons, observe local instructions as to the maximum number of drops permissible and limit the length of a drop wire run to 500 feet.

3.02 Attach drop wire runs to poles along the lead by means of drive hooks. However, existing pole brackets may be used if they are located as specified for drive hooks.

## Lead Carrying Aerial Cable

3.03 Run drop wire below the cable as shown in Fig. 4.

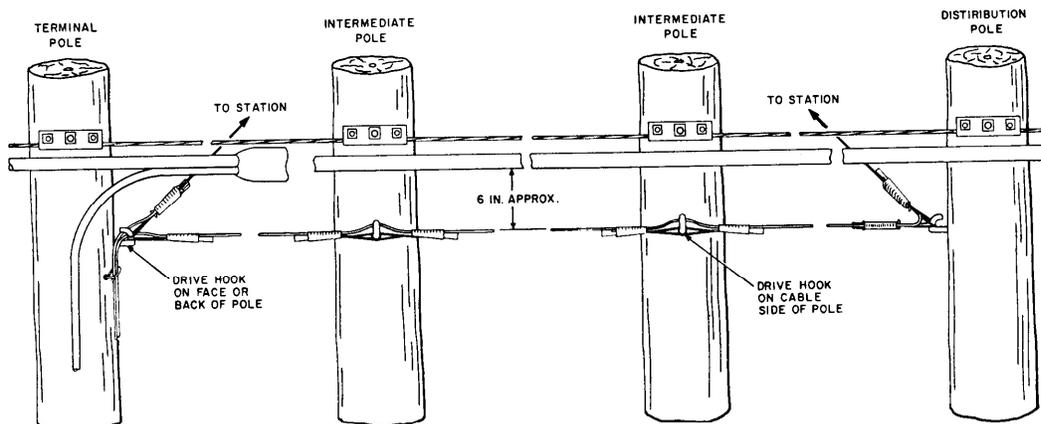


Fig. 4 - Drop Wire Run Along Lead Carrying Cable

- 3.04 Where stringing the wire with minimum sag would fail to provide the required ground clearance, then the drop wire may be placed above the suspension strand. Locate drive hooks at such height that the drop wire does not whip against the strand or cable and proper joint use clearances are obtained.
- 3.05 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.
- 3.06 On outside corner poles where the angle would cause the drop wire to rub against the pole, use two drive hooks to support the wire as shown in Fig. 5.

NOTE: In all cases the method used to support the wire on jointly used poles should leave clear climbing space as outlined in 620-216-014.

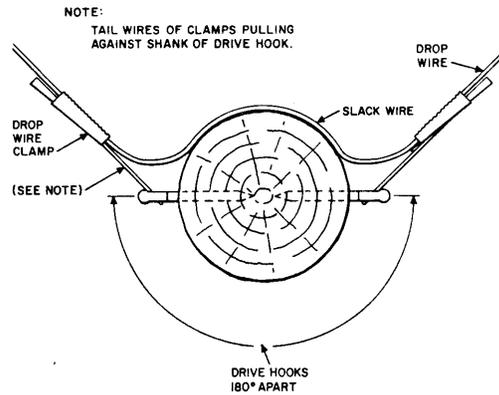


Fig. 5 - Turning Outside Corner

## Lead Not Carrying Aerial Cable

3.07 Run drop wires as illustrated in Fig. 6.

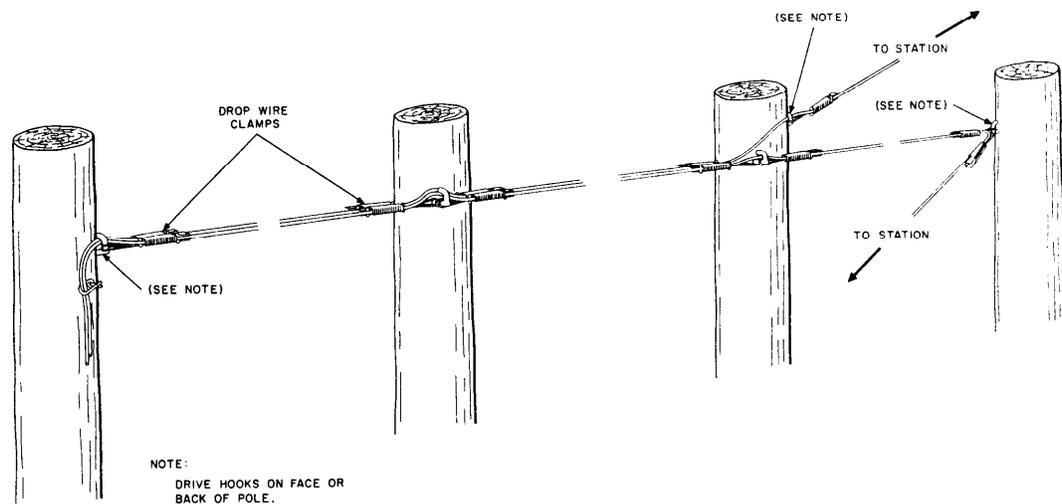


Fig. 6 - Drop Wire Run Along Lead Without Cable

## Distributing Wires From Pole Other Than Terminal Pole

3.08 Distribute drop wires as illustrated in Fig. 7.

3.09 On jointly used poles or poles which are likely to become jointly used, drop wires may be distributed from guard arm hooks where a guard arm is required to provide proper climbing space.

## 4. PARTY-LINE TAPS ON DROP WIRE RUNS ALONG THE LEAD

## Tap at Intermediate Points

4.01 To make an intermediate party tap along the lead, proceed as follows:

- (1) Install a 101B wire terminal on the pole directly below the drive hook.
- (2) Place a second drive hook on the face or back of the pole at the same level as the existing hook supporting the through drop wire.

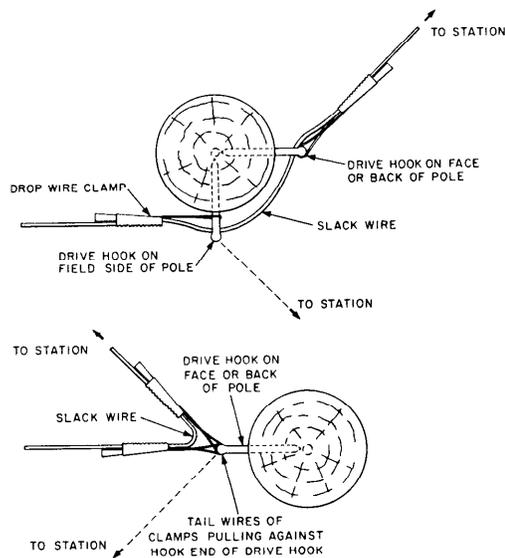


Fig. 7 - Distributing Wires From Pole Without Terminal

- (3) After testing to make sure the line is not in use, cut the through drop wire about 2 feet from the first drive hook. The drop wire puller can be used to hold the wire before the cut is made.
- (4) Splice a piece of drop wire to the short end of the through drop wire supported by the drop wire puller. Install a drop wire clamp on the spliced wire and place it on the new drive hook on the face or back of the pole.
- (5) Place drive rings on pole and run the wire through them and terminate the two ends of the through drop wire on the binding posts of the wire terminal. Terminate the bridging drop wire in the wire terminal on top of the through wire connections. The complete party line tap is illustrated in Fig. 8.

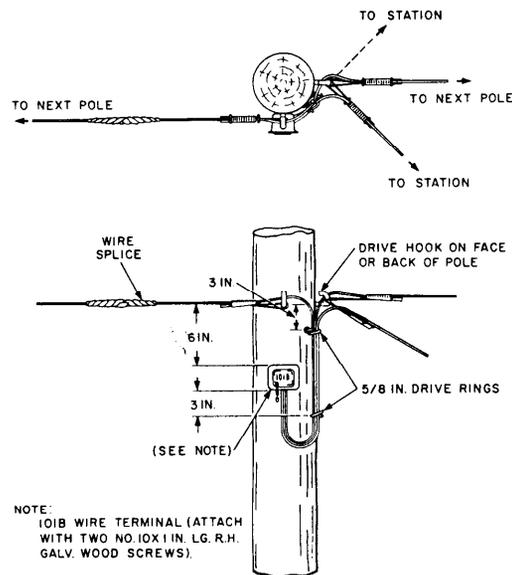


Fig. 8 - Completed Party Line Tap

#### Tap at End of Run

- 4.02 If the drop wire run along the lead is to be extended to an additional station, proceed as follows:
- (1) Place a 101B wire terminal on the pole and cut the existing subscriber circuit into it.
  - (2) Terminate the drop wire extension in the 101B wire terminal to make the bridging connection.
  - (3) Splice out the existing drop loop and terminate it in the wire terminal. The complete arrangements are similar to those shown in Fig. 8.
- 4.03 In disconnecting a party line tap, lift its termination in the 101B wire terminal. Tag and cap the free end of the wire and bend it back upon itself about the lower ring and tape securely to the supporting wire.

5. RUNNING DROP WIRE PAST CABLE TERMINALS

- 5.01 Avoid drop wire runs past a cable terminal by endeavoring to obtain a reassignment to a nearer terminal.
- 5.02 Where a disconnected drop wire passing a terminal is to be reused, obtain an assignment to the nearer terminal if practicable.

6. ATTACHING DROP WIRE TO METAL TROLLEY OR STREET LIGHTING POLES

- 6.01 Drop wire attachments to metal trolley, traffic signaling, or street lighting poles should be avoided. However, if it is unavoidable, refer the case to your supervisor for specific approval before attachments are made.

Installation

- 6.02 Attach drop wire to metal street lighting, traffic signaling, or trolley pole by means of a drop wire hook fastened to a type 170 or 188 sign bracket as illustrated in Fig. 9 and 10. The diameter of the pole determines the type of sign bracket to be used, as follows:

Type of Sign Bracket	Diameter of Pole
2-170	1-7/8 to 3 inches
3-170	3 to 4 inches
4-170	4 to 5 inches
6-188	5 to 8 inches
10-188	8 to 12 inches

- 6.03 The principal points to be observed in installing the type 188 sign bracket are as follows:

- (1) Attach the perforated band to the straight end of the bracket leaving the nut at the end of the 1-1/4 inch stove bolt.
- (2) Place the bracket against the pole, wrap the band snugly around the pole, and attach the free end of the bracket, inserting the 3/4-inch stove bolt in the nearest hole.
- (3) Tighten the 3/4-inch bolt securely and then tighten the 1-1/4 inch bolt as much as possible without stripping the threads or bending the bracket excessively. If the bracket is not secure after the 1-1/4 inch bolt has been tightened, back off the nut to the end of the bolt, relocate the 3/4-inch bolt to the next hole to take up the slack in the band and then retighten the 1-1/4 inch bolt.

- (4) Remove the excess length of the band by bending it back and forth until it breaks at the bracket. Remove sharp edges at break with a file.

6.04 Only one drop wire shall be attached to a sign bracket.

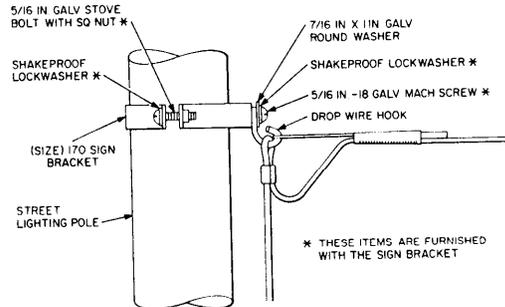


Fig. 9 - Attachment to Type 170 Sign Bracket

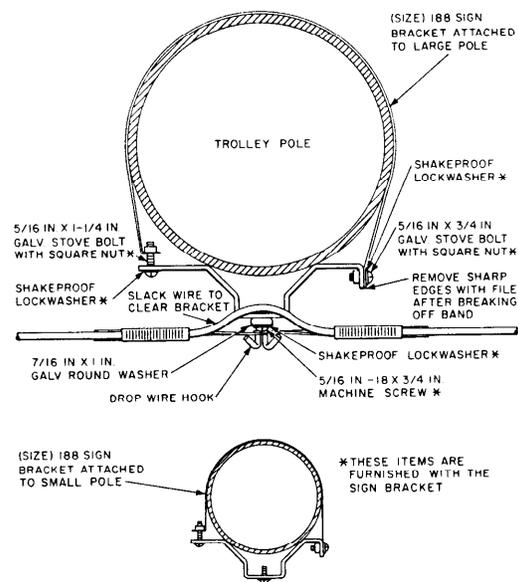


Fig. 10 - Attachment to Type 188 Sign Bracket