

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

SECTION G33.120.1
Issue 1, August, 1955
AT&T Co Standard

O CARRIER TELEPHONE SYSTEMS

POLE MOUNTED EQUIPMENT CABINETS

INSTALLATION

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1. GENERAL

1.01 This section describes methods of supporting single or multiple installations of the KS-14296 cabinet which is designed to provide outdoor housing for Type O carrier repeaters and associated apparatus or for auxiliary power equipment.

1.02 When possible these cabinets should be mounted at a minimum height above ground to permit the workman to stand on the ground while installing or maintaining the apparatus housed in the cabinet. However, at locations where there is a possibility of exposure to flood waters, deep snow, fire hazards, damage by livestock, etc., it may be necessary to mount the cabinets several feet above the ground. At such installations a platform may be constructed to provide workmen with easy access to the equipment in the cabinet.

1.03 Detail plans or other instructions should specify the number and type of cabinets to be placed, the structural arrangement to be used and the class of pole or poles required to support the installation.

2. PRECAUTIONS

2.01 The growth of brush and grass or the accumulation of rubbish around the base of pole mounted cabinet installations should be controlled to prevent possible damage by fire. Such growth or rubbish accumulation around the base of the cabinet may also interfere with proper cabinet ventilation and result in overheating of the equipment.

3. DESCRIPTION OF CABINET

3.01 The KS-14296 cabinet is made of sheet steel attached to an angle iron framework which is designed to accommodate different types of carrier repeater or auxiliary power apparatus. The exterior surface of the cabinet is protected by a white enamel coating.

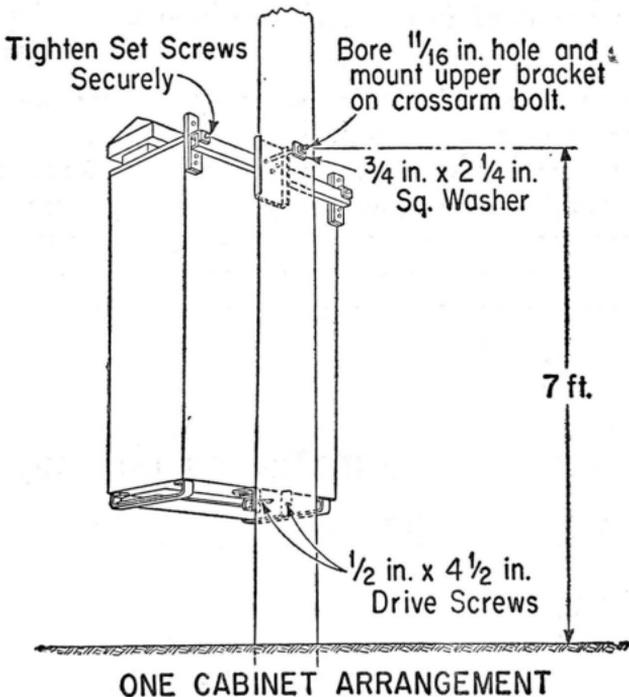
3.02 The approximate dimensions of the cabinet, including the hooded vent on top, are 24 inches wide, 72 inches high, and 15 inches deep. All cabinets have lifting lugs located on the upper rear corners which should be used when raising the cabinet into position on the supporting structure.

3.03 Upper and lower mounting brackets are furnished with the cabinet. All other items used in constructing the supporting structures and mounting the cabinets (bolts, metal pole gains, crossarms, braces, etc.) must be ordered separately.

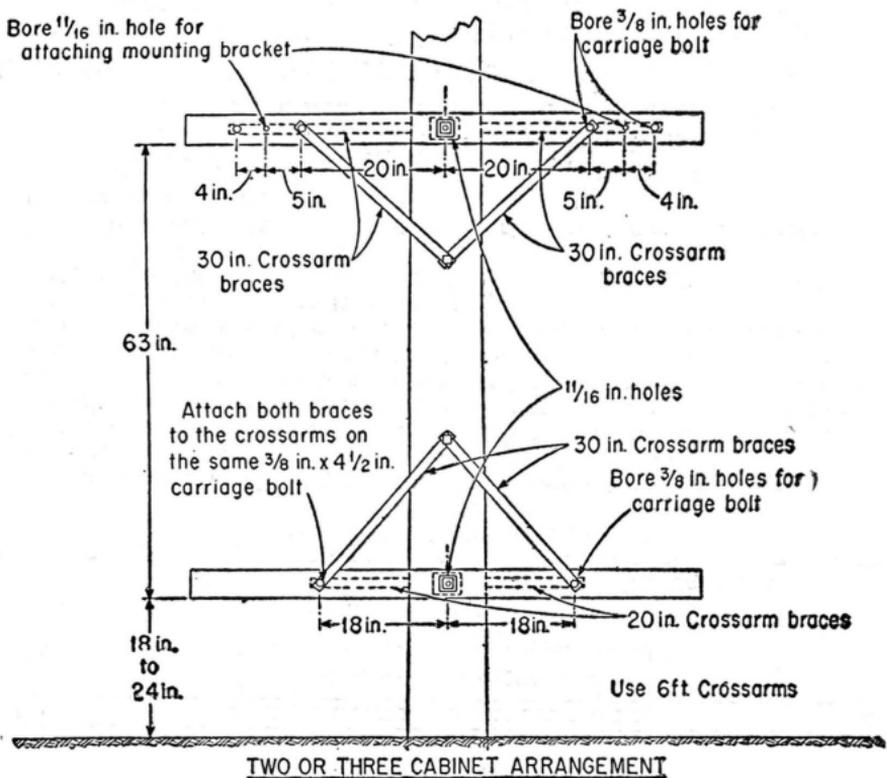
4. SUPPORTING STRUCTURES FOR CABINET INSTALLATIONS

4.01 The following illustrations show recommended structures for supporting single or multiple installations of cabinets at a height where workmen can install and maintain apparatus from the ground.

(a) Single Cabinet Installations

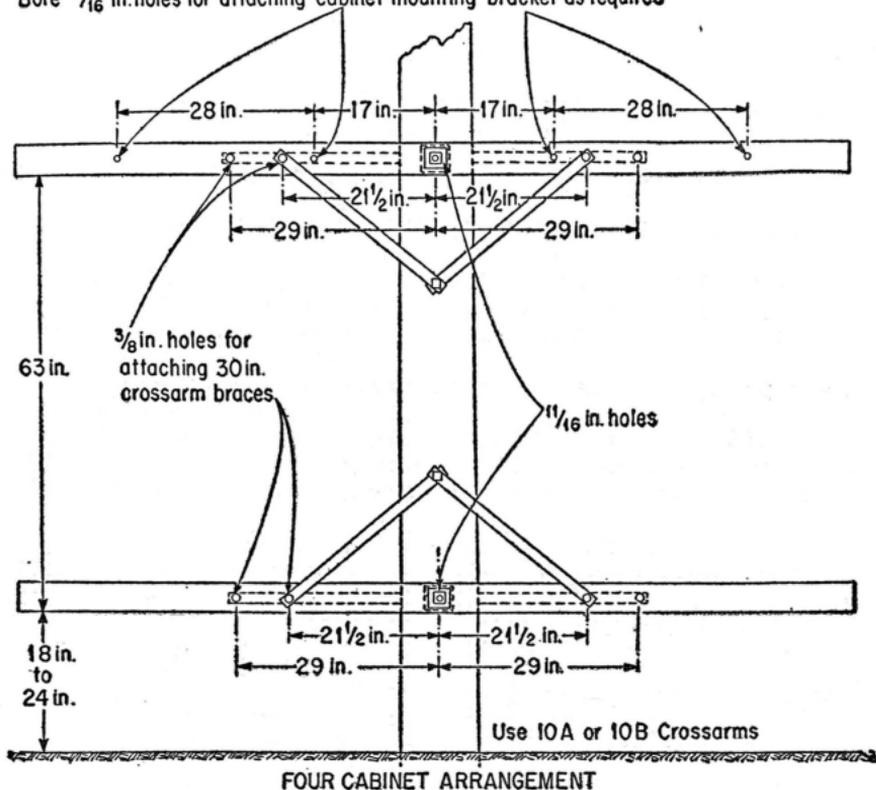


(b) Two or Three Cabinet Installations



1. Drill holes in pole for attaching crossarms. Attach metal pole gains and place crossarms on crossarm bolts with $\frac{3}{4}$ in. x $2\frac{1}{4}$ in. sq. washers under bolt head and nut. Use a crossarm bolt for attaching the upper arm that is of sufficient length to permit mounting the upper bracket for cabinet installation.
2. Attach crossarm braces to the upper crossarm with $\frac{3}{8}$ in. x 4 in. carriage bolt and to the pole with $\frac{1}{2}$ in. x 4 in. drive screws.
3. Attach crossarm braces which serve as back braces in the following manner: Attach braces to crossarm with carriage bolt and tighten nut until flush with end of bolt. Attach braces to pole with drive screws while pulling brace away from crossarm. Tighten nut on carriage bolt thereby applying tension to the braces.
4. CROSSARMS SHOULD BE IN HORIZONTAL AND VERTICAL ALIGNMENT WHEN VIEWED FROM FRONT OR SIDE.
5. $\frac{1}{16}$ in. and $\frac{3}{8}$ in. holes in crossarms as shown above may be bored before mounting crossarms.

(c) Four Cabinet Installations

Bore $\frac{1}{16}$ in. holes for attaching cabinet mounting bracket as required

1. Drill holes in pole for attaching crossarms. Attach metal pole gains and place crossarms on crossarm bolts with $\frac{3}{4}$ in. x $2\frac{1}{4}$ in. sq. washers under bolt head and nut.
2. Attach 30 in. crossarm braces to crossarms with $\frac{3}{8}$ in. x 4 in. carriage bolts, and to the pole with $\frac{1}{2}$ in. x $4\frac{1}{2}$ in. drive screws. When attaching crossarm braces that serve as back braces proceed as follows: Attach crossarm braces to crossarm with $\frac{3}{8}$ in. x 4 in. carriage bolt and tighten nut until flush with end of bolt. Attach braces to pole with drive screws while pulling brace away from crossarm. Tighten nut on carriage bolt thereby applying tension to the braces.
3. CROSSARMS SHOULD BE IN HORIZONTAL AND VERTICAL ALIGNMENT WHEN VIEWED FROM FRONT OR SIDE.
4. $\frac{1}{16}$ in., $\frac{9}{16}$ in. and $\frac{3}{8}$ in. holes in crossarm as shown above may be bored before mounting the crossarms.

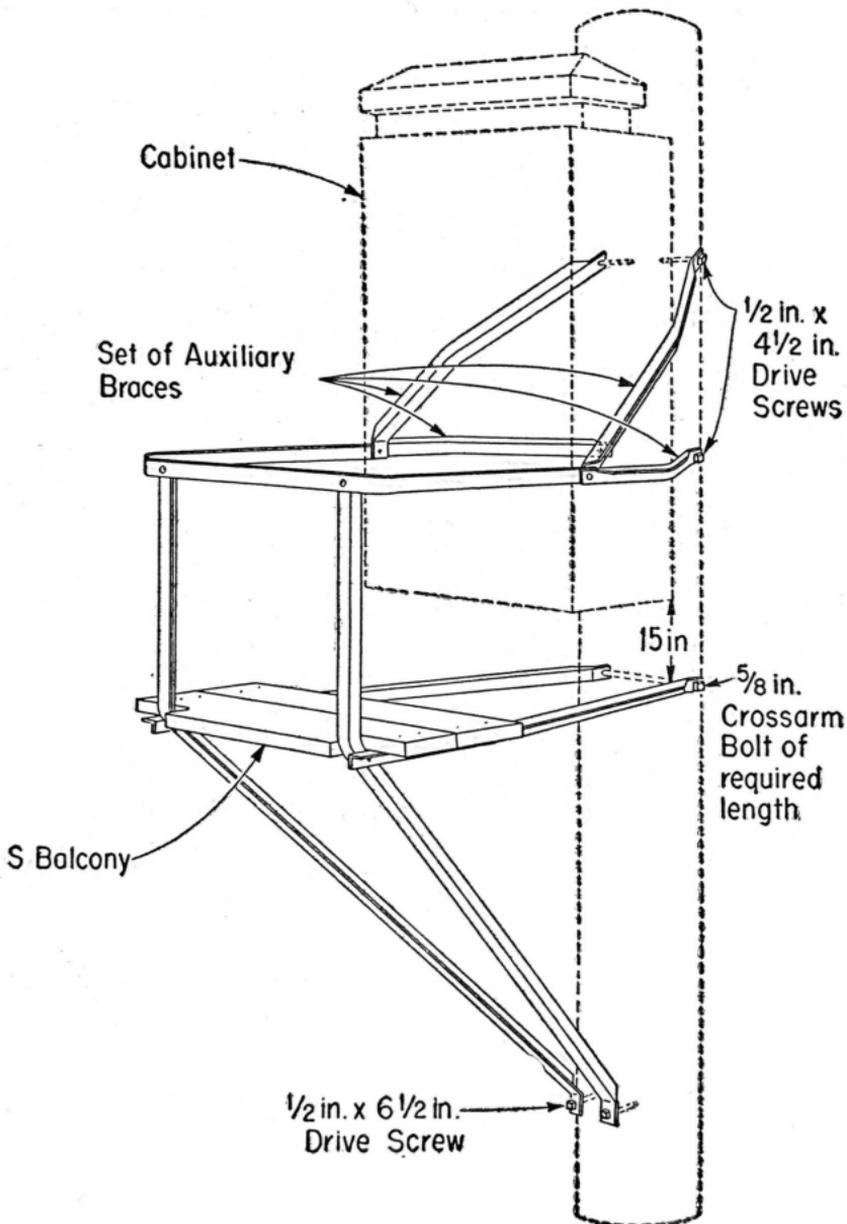
Note: In areas subject to unusually high winds, it may be advisable to add a stub pole and mount the cabinets between poles in the manner indicated in 5.02 (b).

5. SUPPORTING STRUCTURES WITH PLATFORMS

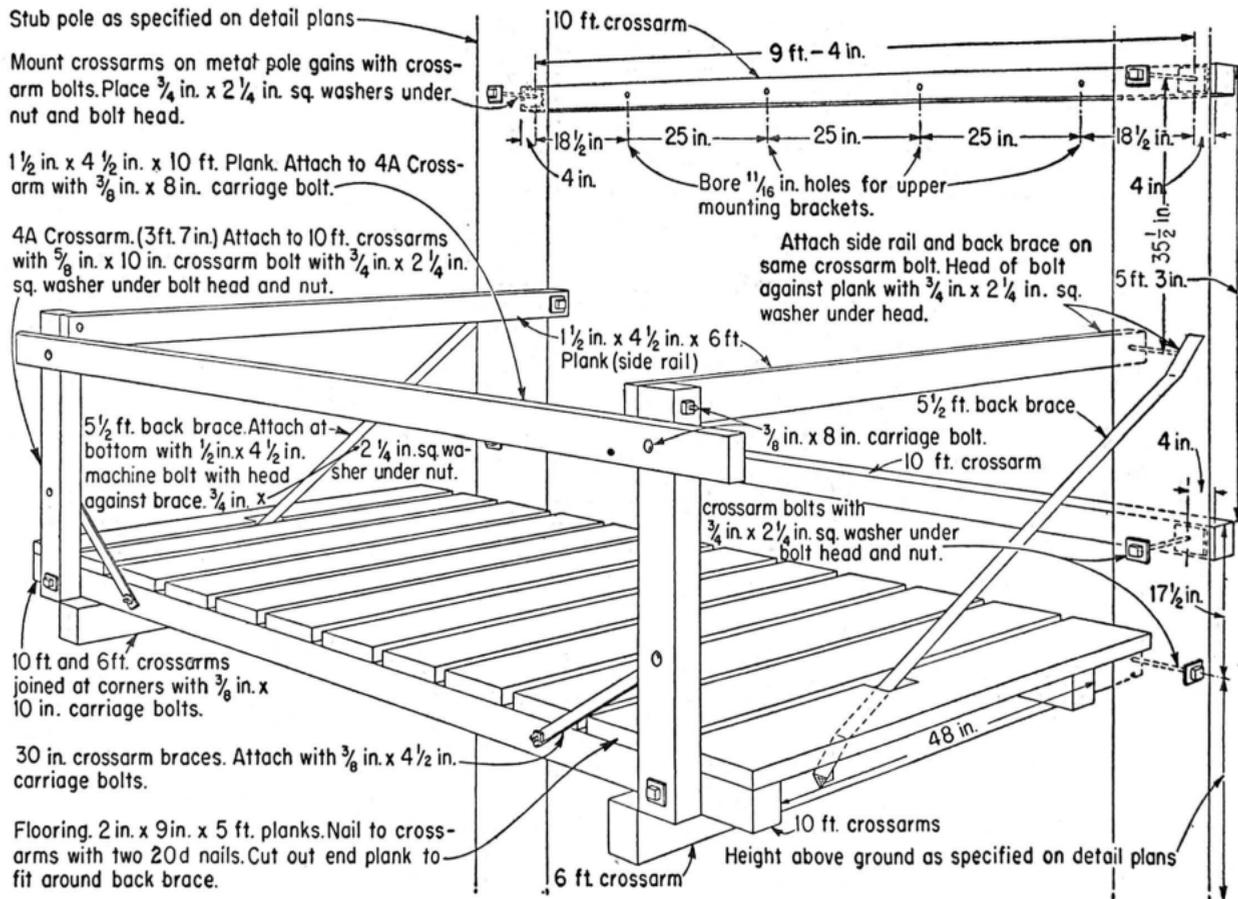
5.01 Under certain conditions platforms will be required to provide workmen with easy access into the cabinet. However, platforms should be placed only when necessary and as specified on the detail plans.

5.02 The following illustrations cover typical platform structures which may be used at single and multiple cabinet installations.

(a) Single Cabinet Installations



(b) Two, Three or Four Cabinet Installations



Note: Planks shown are standard B Cover Planks. If these are not available, 2" dimension lumber of suitable width may be used. If untreated, this lumber should be brush treated with B Wood Preservative.

6. PLACING CABINETS ON SUPPORTING STRUCTURES

6.01 When placing a single cabinet, attach the upper bracket to the pole as shown in illustration under Paragraph 4.01 (a) and proceed as follows. Using the lifting lugs at the upper rear corners raise the cabinet into place and engage the two hooks over the channel iron crosspiece. Secure the cabinet in place by tightening the setscrews. Align the cabinet so that it hangs in a vertical position as nearly as possible when viewed from the front or side. Place a wedge between the pole and the back of the cabinet to hold the cabinet in alignment until the lower brackets have been placed and attached to the pole. Remove wedge after installation is completed.

6.02 Attach the lower mounting brackets to the underside of the cabinet using the slotted holes in the brackets. Position both brackets so that the back surface rests firmly against the pole and tighten the nut securely on each bracket bolt. Fasten brackets to the pole with 1/2-inch by 4-1/2-inch drive screws.

6.03 When mounting two or more cabinets on crossarms the following procedure should be followed:

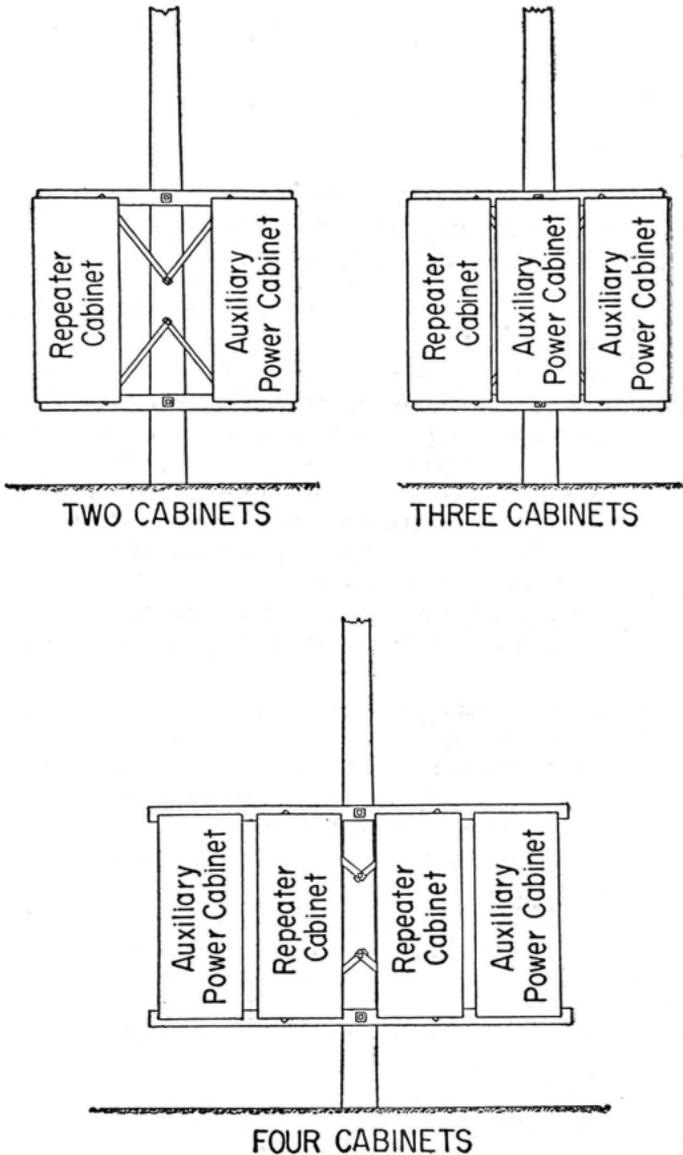
(a) Install upper brackets on crossarms with a 5/8-inch by 6-inch machine bolt with 3/4-inch by 2-1/4-inch square washer between nut and crossarm.

(b) Raise the cabinets into place and engage the two hooks over the channel iron crosspiece on the bracket. Secure cabinets in place by tightening the setscrews.

(c) Arrange the cabinets in vertical alignment as nearly as possible when viewed from the front and side. Attach the lower mounting brackets to the underside of the cabinets using the slotted hole. Drill 9/16-inch holes in the lower crossarm at the proper locations and attach the lower mounting brackets with 1/2-inch by 4-1/2-inch machine bolts with a 9/16-inch round washer under the nut.

7. ARRANGEMENT OF CABINETS

7.01 At multiple cabinet installations at ground level the cabinets should be arranged as shown in the following illustration.



7.02 At multiple cabinet installations with platform the cabinets should be arranged as shown in the following illustration.

