Installation Engineering Handbook 30
Western Electric Company, Incorporated
Kearny Works

Section 11C
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AUXILIARY FRAMING - LOW TYPE FASTENING POWER EQUIPMENT

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1. GENERAL

1.1 Scope

1.11 This section covers typical conditions encountered where auxiliary framing details are used for the support of power equipment and have not been covered in Sections 11A and 11B. Reference should be made to Sections 11A and 11B for installing information which applies to switching systems as well as power. The requirements for switching systems auxiliary framing arrangements which agree with those used for power apply to this section, e.g.,-splicing, junctioning, closing ends, supporting and bracing requirements.

1.2 Associated Information

1.21 Sections 11A & 11B covering Low Type Auxiliary Framing.

1.22 Section Covering "Supports for Cabling and Wiring" in Handbook 18.

1.23 Machine and Battery Room Bus Bar Plan Drawings furnished the job.

1.3 Verification

1.31 Items for the verification of the equipment installed by the operations covered in this section are listed in Paragraph 4, this section.

1.32 The items in Paragraph 4 also may be used as a self-check guide when performing operations covered by this section.

1.4 Installing Equipment

1.41 In addition to the tools supplied in the general kits, the tools and materials listed below may be required for the operations covered by this section.

1.42 Tools

R-2557	Saw, Hack, Power, Portable
R-3030	Saw, Hack, Power, Portable
R-3031	Saw, Hack, Power, Portable
R-3103	Shear, Hydraulic, Portable

NOTE: The size of the job will determine which of the above tools will be used for cutting auxiliary framing.

1.43 Materials

P-421291 - Framing Bars
P-453281 - Framing Channels

NOTE: Extra framing bars, threaded rods, etc., which are required for the installer's convenience only in connection with installing operation, such as the temporary support of the regular auxiliary framing and cable racks, and which will not become a part of the telephone plant, shall be requisitioned as "Supplies" from the Service Center. It is recommended that this material be transferred from job to job within an Area, where possible, instead of returning it.

2. ARRANGEMENTS OVER POWER EQUIPMENT

2.1 Over Power Boards

2.11 Auxiliary framing over power boards shall be installed only where required for the support of bus bars or cable rack above the power board. The auxiliary framing shall be fastened to supports attached to the power boards as shown in Figure 18.

2.2 Over Generator Control Panels

2.21 Auxiliary framing over generator control panels shall be installed, as shown in Figure 19. Parts of longitudinal framing bars or channels are fastened approximately 1" above the top angles of a line-up of control panels and at right angles to the panels with 5/8" Sq. H.M. bolts, clips, and washers. Short transverse pairs of bars or channels for the support of bus bar insulators, cable rack and bus duct should be provided over each generator bay. Intermediate supports should be provided between bays so that support spacing is not over 6'-0" on centers. These intermediate supports should be suspended from the ceiling or high-level framing with 5/8" threaded rods.

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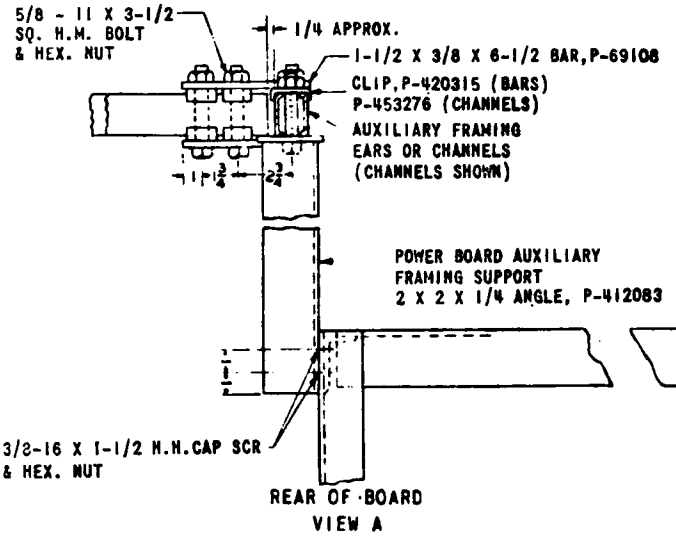

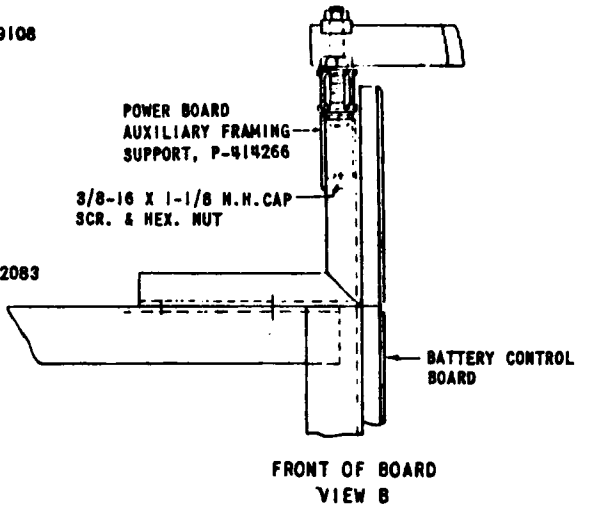

2.3 Over Battery Distribution Fuse Boards

2.31 Auxiliary framing over battery distribution fuse boards shall be attached to the top angles of the fuse boards as shown in Fig. 18A, 18B, and 18C for 11-ft. 6-in., 11-ft. 8-in., and 11-ft. 9-1/2 in. auxiliary framing heights, respectively.

3. BATTERY STANDS

3.1 The use of auxiliary framing at battery stands shall be limited to the support of the bus bars or cable rack, the battery stand being self-supporting. Figure 20 covers typical constructions. The requirements covering unsupported spans of auxiliary framing in Paragraph 2.2 apply. Bracing is required for framing bar supported, individual or widely spaced bus bars.

4. VERIFICATION ITEMS

4.1 General

4.11 The following contains the verification items for the equipment installed by operations covered in this section.

4.12 Where practicable, the essentials of the requirement are included in the verification item. Where this is not practicable, a brief statement of the requirement appears as one or more subparagraphs of the verification item. In each case, reference is made to each requirement.

4.13 Verification items which are followed by the symbol (D) may be checked on the "Cabling, Cable Pack and Auxiliary Framing Plan" drawing furnished for the job.

4.14 Verification items marked (P) are so designated to denote that the equipment should be verified before a portion of the work becomes disernable due to additional installation operations. If this does not apply, verify in the regular manner.

4.2 Verification Items - Auxiliary Framing

Verification Items and Brief Statement of Requirements	Reference Par. No.	Reference Fig. No.
4.21 General Procedures		
4.211 Framing used over power boards only for the support of bus bars or cable racks.	2.1	
4.212 Framing over generator control panels installed as shown in Fig. 19.	2.2	19
4.213 Framing over Battery Distribution Fuseboards.	2.3	18A,B,C
4.214 Framing used for the support of bus bars and cable racks at battery stands.	3.1	
4.22 Braces		
4.221 Braces provided in power and battery rooms only where framing supports individual or widely spaced bus bars.	3.1	

→ Arrowed lines indicate new or changed information.

[Vertical lines at sides of paragraphs indicate requirements.

ATTACHMENT:
Figures 18A, B, C, 19 and 20 on pgs. 3 & 4.

Manager, Product Engineering

Reason for Reissue:
(1) To include verification items in section.

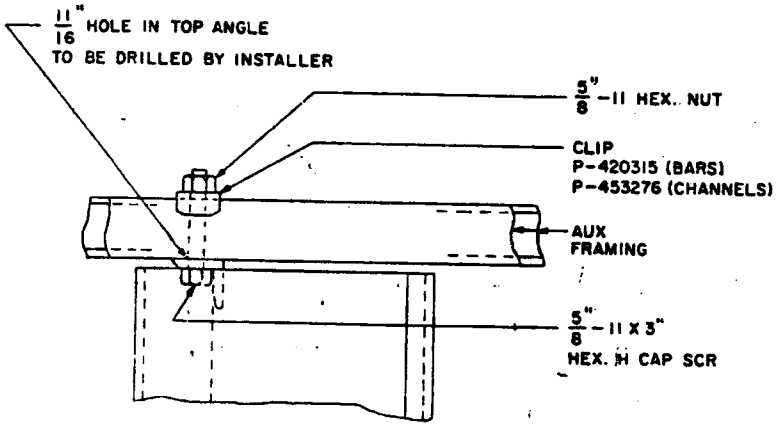

FIG. 18A AUXILIARY FRAMING ATTACHED DIRECTLY TO TOP ANGLES OF BDFB - 11'-6" FRAMING (PAR. 2.3)
(Agrees with Figure 18A of BSP 800-614-155)

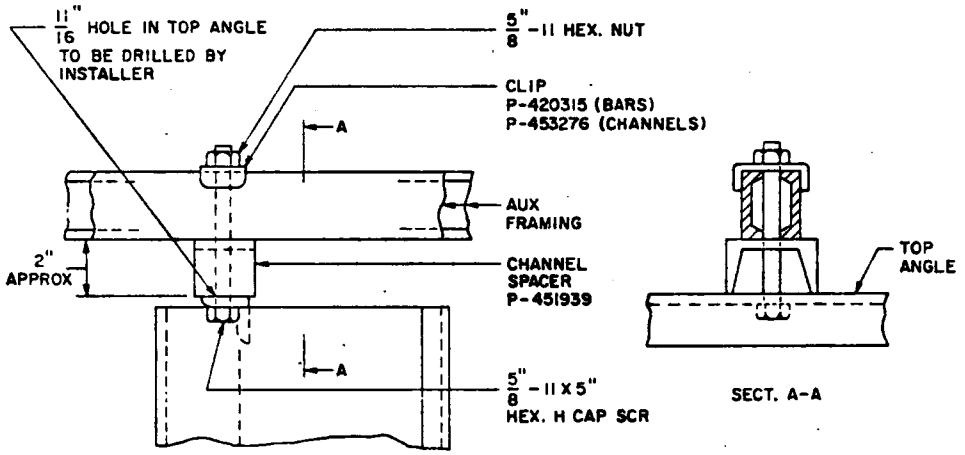

FIG. 18B AUXILIARY FRAMING ATTACHED TO TOP ANGLES OF BDFB - 11'-8" FRAMING (PAR. 2.3)
(Agrees with Figure 18B of BSP 800-614-155)

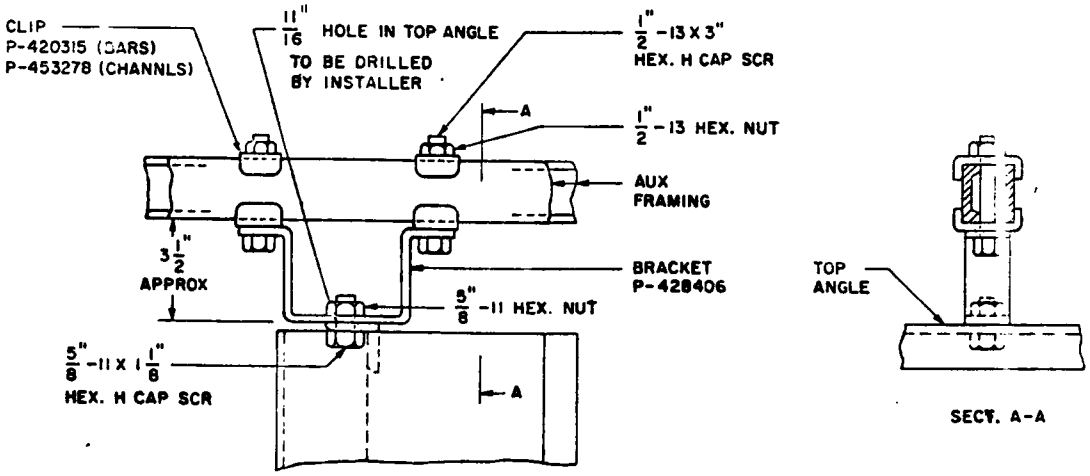

FIG. 18C AUXILIARY FRAMING ATTACHED TO TOP ANGLES OF BDFB - 11'-9 1/2" FRAMING (PAR. 2.3)
(Agrees with Figure 18C of BSP 800-614-155)

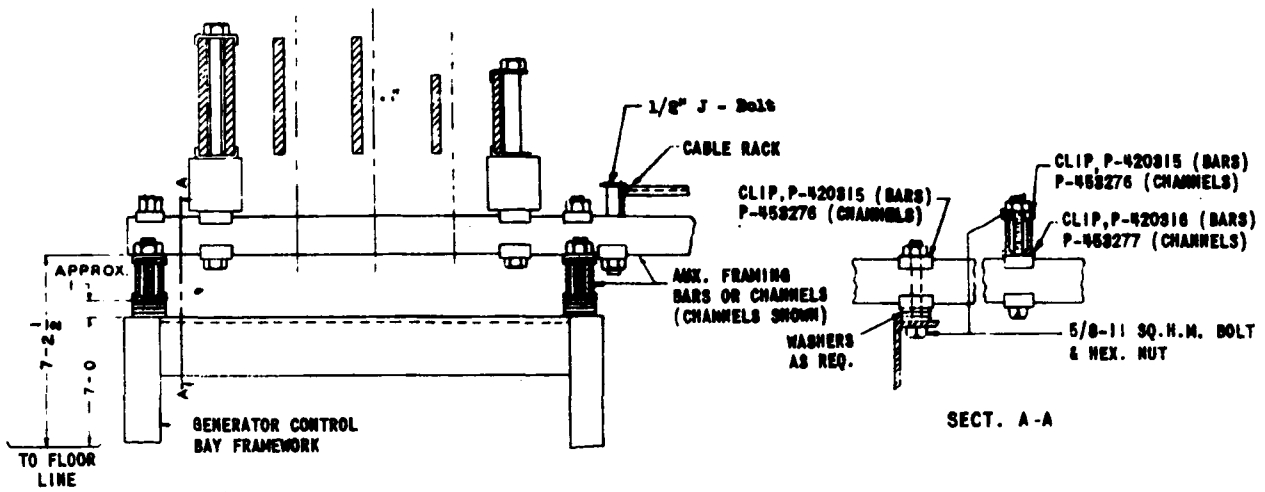

FIG. 19 AUXILIARY FRAMING OVER GENERATOR CONTROL PANELS (PAR. 2.2)
(Agrees with Figure 19 of BSP 800-614-155)

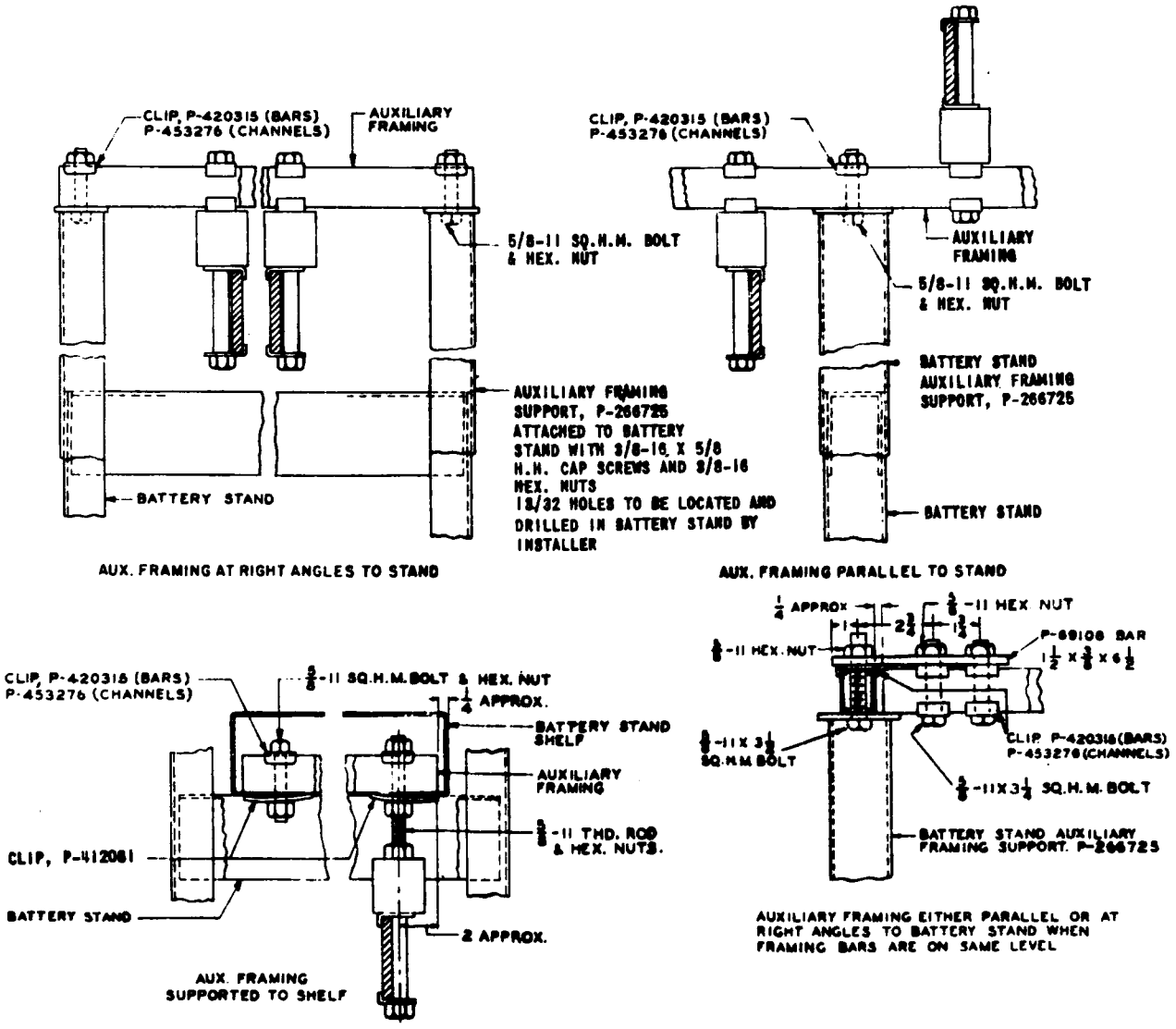

FIG. 20 AUXILIARY FRAMING SUPPORT OF BUS BARS AT BATTERY STANDS (PAR. 3.1)
(Agrees with Figure 20 of BSP 800-614-155)