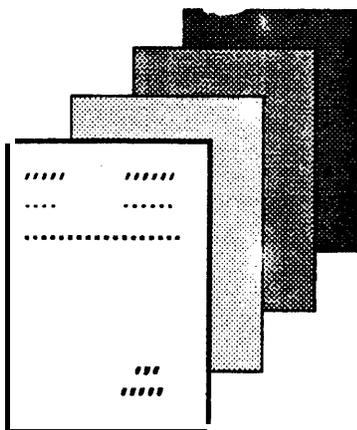


GTE PRACTICES
ENGINEERING-PLANT SERIES
GTE COMMUNICATION SYSTEMS
CORPORATION

SECTION 237-050-207
ISSUE 3, NOVEMBER 1988

Erection Methods
Central Office
Cable Grid



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1. GENERAL

1.01 This section describes installation procedures for assembling cable grid systems in nonelectronic and electronic/digital exchanges.

1.02 This section is reissued to provide new information. Change indicators are omitted. Remove the previous issue of this section from the binder or microfiche file and replace it with this issue.

1.03 The cable grid system facilitates direct, point-to-point routing cables, while allowing the separation of power, signal, and supervisory leads via a dedicated B deck cable runway and power and signal assemblies. The cable grid system also simplifies cable installation by reducing cable lengths and eliminating the need for lacing and bending with the exception of brea koffs.

1.04 Cable grids are available in the following dimensions:

- (a) 3 feet 11-7/8 inches by 4 feet 11-7/8 inches(H-889733-1).
- (b) 3 feet 11-7/8 inches by 3 feet 6 inches(H-889733-2).
- (c) 3 feet 11-7/8 inches by 2 feet 6 inches(H-889733-3).
- (d) 3 feet 11-7/8 inches by 1 foot 6 inches (H-889733-4).

1.05 These dimensions plus the tolerance space between the grid sections result in grid sections measuring 4 feet by 5 feet, 4 feet by 3-1/2 feet, 4 feet by 2-1/2 feet, and 4 feet by 1-1/2 feet.

1.06 Refer to GTE Practices Section 237-050-206,Central Office Cable Running and Theory, for additional runway information.

2. INSTALLATION PROCEDURES

Typical Notes for Cable Runway Grid System Assembly Drawings

2.01 Cable grids shall be located as shown on the cable runway site specific job drawing as furnished by the Engineering Department. To enable the installer to be aware of cable grids and the method necessary for proper installation, notes are provided with the cable grid assembly drawing. For complete information, refer to assembly drawings H-440000.

Cable Grid Installation

2.02 install the cable runway grid system in the approved manner using the illustrations in assembly drawings H-440000 as a guide for the existing situation. Refer to Figures 1 through 5 in this section. Do not mix or substitute different size hardware.

2.03 Use four J bolts to clamp the channel brace to the top of each electronic module or frame. Previous to this new standard, the requirement was to use two J bolts per frame except at end of a channel where four J bolts were required.

2.04 For peculiar situations, it may be necessary to cut grid sections to form around columns and/or other obstructions, but these situations will be held to a minimum. Grid tubes are to be cut flush with stringer. The inner part of the hole will be framed to prevent any sharp edges and to provide added strength to the surrounding area. Use D-78430-A corner clamp with grid stinger material or equivalent (Figure 3). Also, the Engineer should order appropriate quantities of protective rectangular and round caps listed in Figure 3. If grid and associated hardware configurations are changed in any manner, return marked job drawings to the Engineering Department.

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2.05 The dedicated B deck cable runway shall be run 12 inches above the grid network and located as shown on the site specific job drawing. For the proper method of supporting the 'B deck cable runway and for the proper methods of assembling cable runway, refer to assembly drawing H-440000-H Figure 507 and Section 237-050-206.

2.06 For the running of bay power feeder cables and signal and supervisory leads to individual equipment frames, power arm and signal ring assemblies or goal posts shall be provided. Power arm and signal ring assemblies shall be located below the grid on both sides of the rear aisle, running parallel with the equipment lineups at 18-inch intervals. Goal posts shall be located above the grid directly above the equipment line-up. Refer to assembly drawing H-440000-H Figure 505 or 514 and Section 256-050-206 Figures 11 through 13.

2.07 For signal and supervisory lead distribution along the main cross-aisle, signal wire brackets shall be provided. Signal wire brackets shall be located along

the center cross-aisle, at approximately 24-inch intervals. Refer to assembly drawing H-440000-H, Figure 506.

2.08 it is recommended that one or more grid sections, depending upon the size of the office, be kept free of cables to access the area above the grid network for the purpose of running initial as well as future cables. The most appropriate location for removable (access) grid sections would be adjacent to columns and/or other areas where cable concentration is at a minimum. For recommended removable (access) grid sections, refer to the site specific job drawing.

CAUTION

EXTREME CAUTION SHOULD BE EXERCISED TO AVOID STEPPING ON ANY CABLE ON GRID SECTIONS BECAUSE DAMAGE TO CABLE MAY OCCUR.

2.09 Refer to Section 256-224-216 for running, securing, and terminating GTD-5 EAX cables on grid.

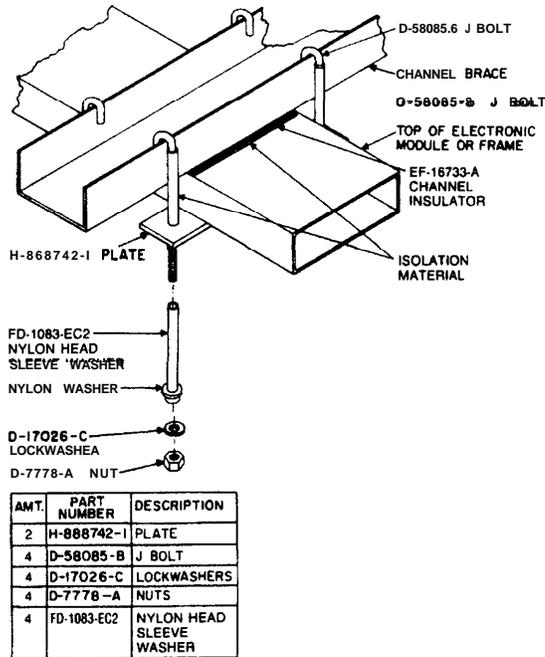
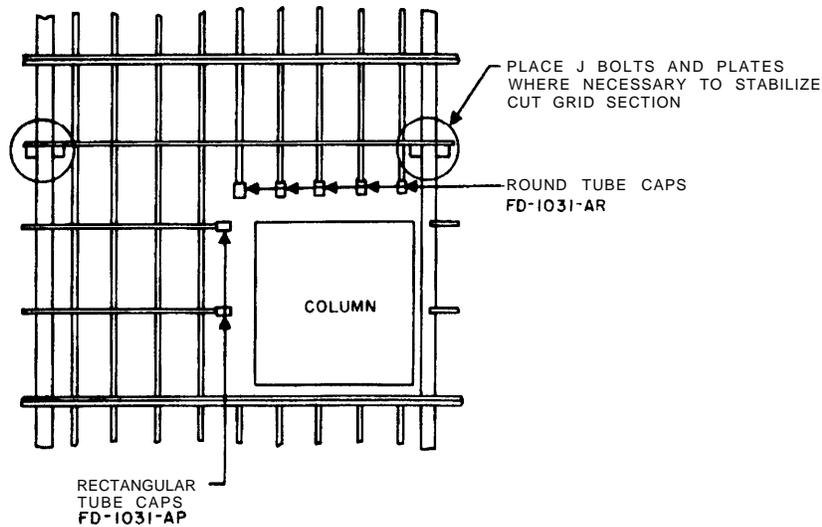


Figure 2. Method of Clamping Channel to Top of Electronic Module or Frame.



AMT	PART NUMBER	DESCRIPTION
*	FD-1031-AP	RECTANGULAR CAP
*	FD-1031-AR	ROUND CAP
4	H-46300-22	J BOLTS
4	D-7778-A	NUTS
4	D-17026-C	LOCKWASHERS
2	H-74143-12	PLATES

NOTE:
* DENOTES QUANTITY AS REQUIRED

Figure 3. Typical Method of Capping and Stabilizing Grid Around Column.

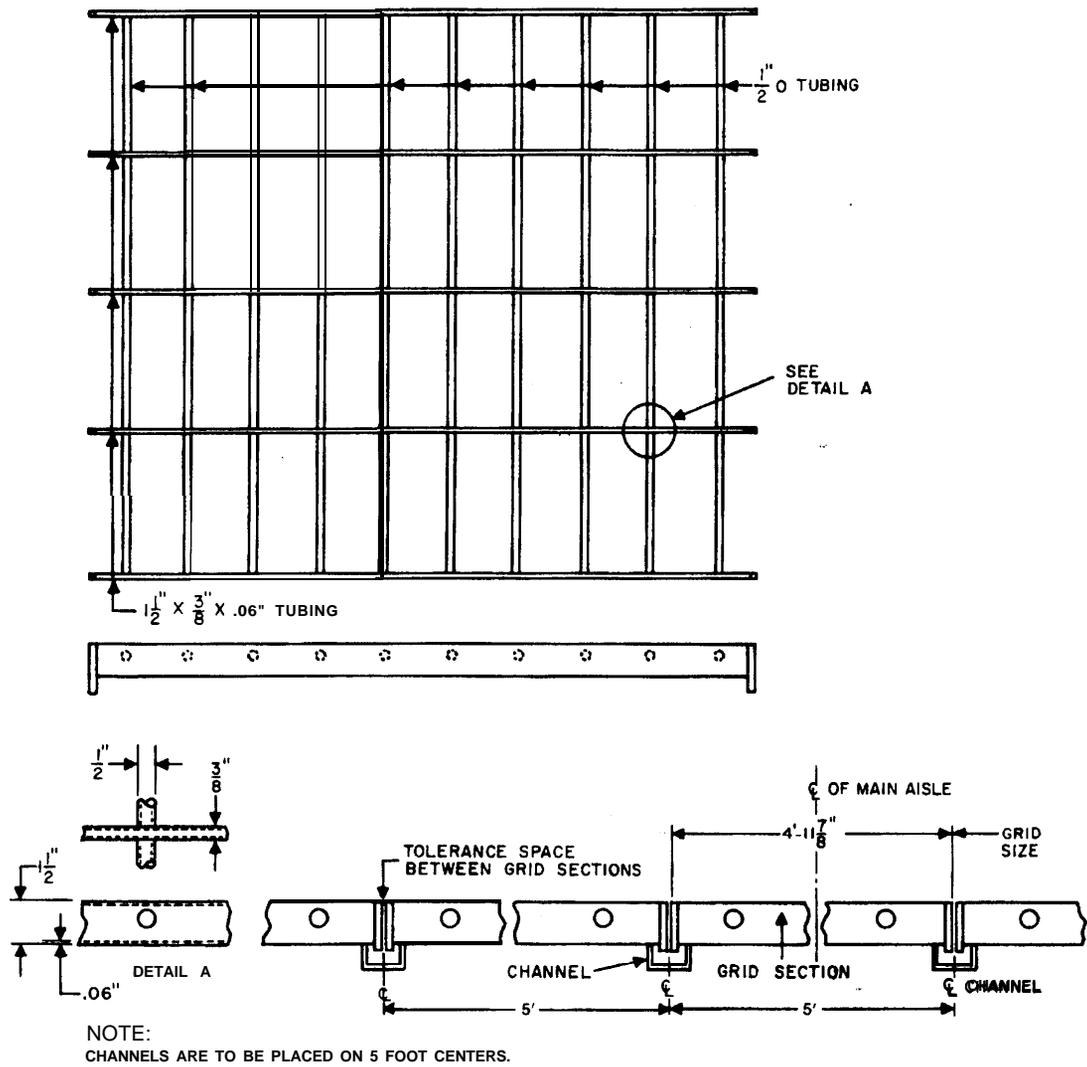


figure 1. Typical Grid Section.

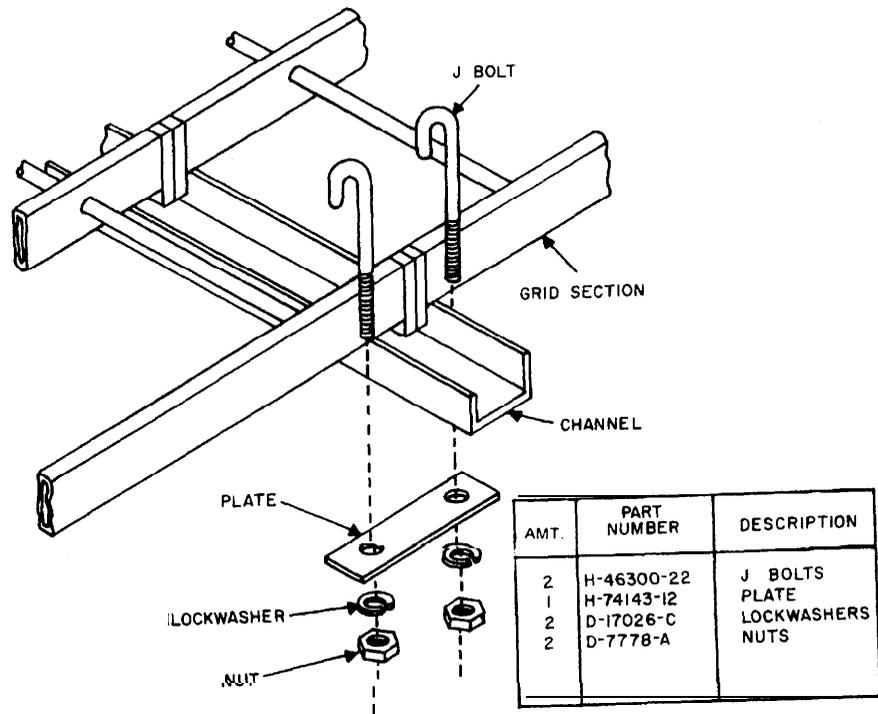


Figure 4. Typical Method of Fastening End of Grid Sections to Channel.

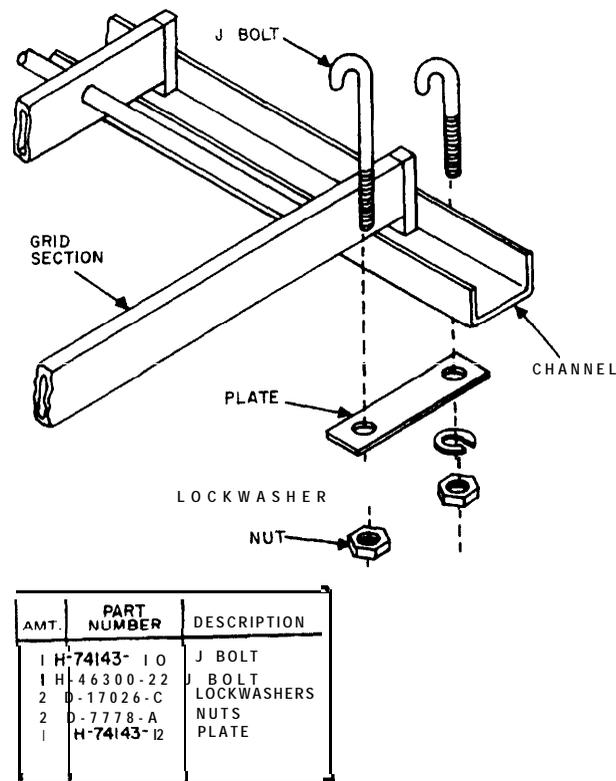


Figure 5. Typical Method of Fastening Corner Grid Sections to Channel.

