

BUILDING TERMINALS RISER AND DISTRIBUTION USING 88-TYPE QUICK-CONNECT HARDWARE

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5. EQUIPPING DISTRIBUTION TERMINAL CLOSET	8	1.03 <i>These terminals have both outside plant and station terminations, therefore they are referred to as "interface" terminals. The design of these terminals should be a coordinated effort of both the outside plant and station groups. The number of 88-type wiring blocks required at each terminal is determined by the floor area to be served.</i>
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1. GENERAL		1.04 The objectives of the construction methods outlined in this section are as follows:
1.01 This section covers the description and installation of 88-type hardware for terminating cables at riser and distribution terminals in commercial buildings. Additional information on description and use of 88-type hardware is contained in Section 631-050-120.		(a) To provide a standard method for construction of terminals
1.02 Riser and distribution terminals are defined as follows:		(b) To permanently tie down all pairs entering and leaving all terminals
(a) <i>Riser Terminal (Apparatus Closet):</i> provides a location on each floor where riser cables		(c) To promote good housekeeping which will:
		(1) Facilitate work at the terminal
		(2) Reduce maintenance expense.

2. EQUIPMENT

2.01 The following equipment is used for terminating outside plant cables in riser and distribution terminals located in a closet or in a customer furnished flush-mounted cabinet or a cabinet provided by the operating company.

(a) *The 88-type wiring block* (Fig. 1) is a fire retardant molded plastic block. These blocks

when used in riser and distribution terminals are available in green, blue, red, purple, and yellow colors and in 25-, 75-, 100-, and 300-pair sizes (Table A). The *green* wiring blocks are used to terminate outside plant cable or riser cable. The *blue* wiring blocks are used in riser terminals for terminating station cables and building tie cables from the riser terminal to the red wiring blocks in the distribution terminal. Blue wiring blocks are also used to terminate building tie cables between riser terminals and to terminate

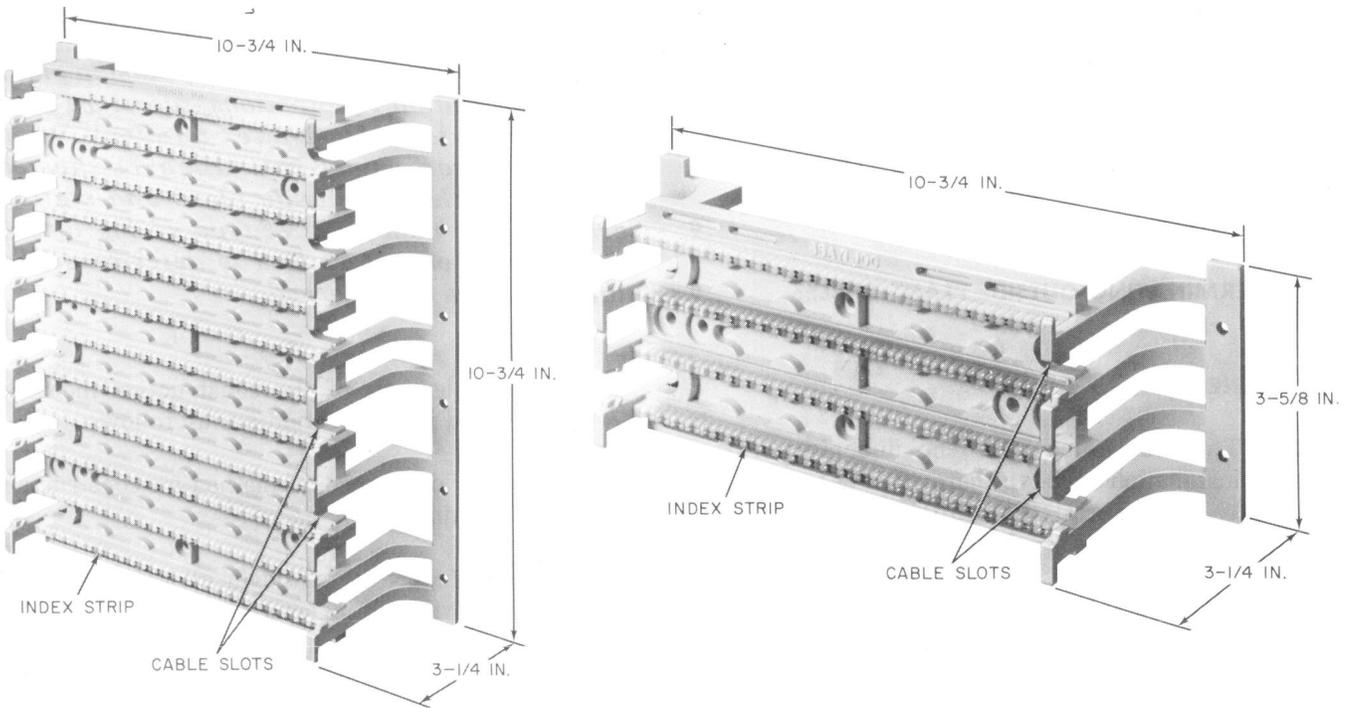


Fig. 1—88-Type Wiring Block

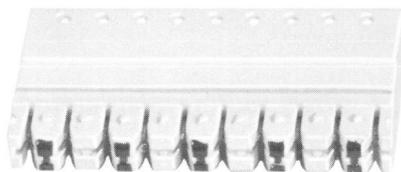
TABLE A
88-TYPE WIRING BLOCK FOR RISER
AND DISTRIBUTION TERMINALS

CODE NO.	COLOR	NO. OF PAIRS	USE
88AG1-100	Green	100	Outside Plant Cable
88AG1-300	Green	300	
88AB1-100	Blue	100	Station Cables
88AB1-300	Blue	300	
88BR1-25	Red	25	Key Telephone Equipment
88BR1-25C*	Red	25	
88BR1-75	Red	75	
88BR1-75C*	Red	75	
88AY1-100	Yellow	100	Auxiliary Equipment
88AP1-100	Purple	100	PBX

*Wiring block equipped with 25-pair stub cable.

station cables in distribution terminals. The **red** wiring blocks are used in riser terminals for terminating key telephone equipment and in distribution terminals for terminating building tie cables from the riser terminal. The **yellow** wiring blocks are used in riser terminals to terminate auxiliary service and dial intercommunication lines. The **purple** wiring blocks are used in apparatus closets to terminate PBX equipment. Each 300-pair wiring block consists of 12 horizontal color coded index strips. Each index strip will terminate 25 pairs and each is marked with the five tip colors to establish pair location.

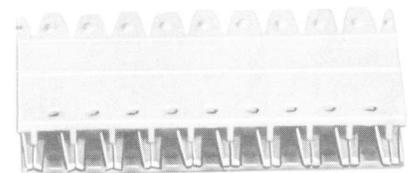
(b) **The 88-type connecting block** (Fig. 2) consists of a flame retardant molded plastic housing containing quick-connect clips with insulation slicing features. These clips are double ended, one end to accept the cross-connecting wire and the other end to terminate the cable pair. The connecting blocks are white on one side and blue on the other. They are installed with alternate colors facing up to aid in pair identification when installed on the wiring blocks. For riser and distribution terminal application, the connecting blocks are available in a 5-pair and 3-pair configuration. The 3-pair connecting block is used in both apparatus and satellite closets to terminate key telephone equipment.



SIDE FOR
CROSS—CONNECTING WIRE



MINATURE
CLIP



MINATURE CLIPS MOLDED
IN PLASTIC—SIDE FOR
TERMINATING CABLE PAIR

Fig. 2—88-Type Connecting Block

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(c) **Designation strip** (Fig. 3) is "snapped in" on alternate rows to identify cable count or line designation and to conceal the cable conductors. Appropriate designation can be applied to these strips using most marking devices.

(d) **188A1 backboard** (Fig. 4) is constructed of a metal-panel and four plastic distributing rings. The backboard is used to provide a horizontal channel for the F cross connect wire. The backboard **must** be butted between the wiring blocks.

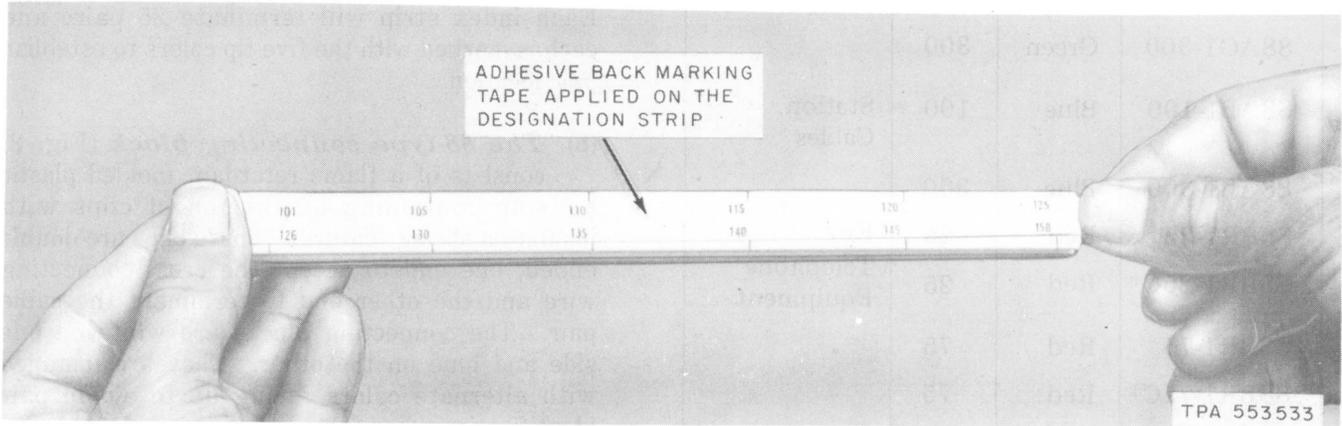
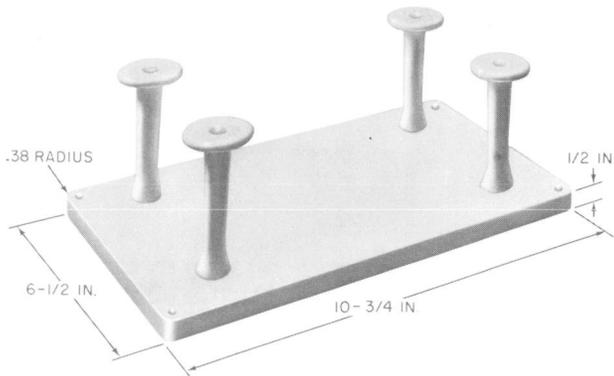


Fig. 3—Designation Strip



- WHITE STAMPED METAL PANEL WITH FOUR P-43X237 DISTRIBUTING RINGS
- USED WITH 88-TYPE MODULAR CONNECTING BLOCKS TO RETAIN CROSS-CONNECT WIRES
- REFER TO SECTION 518-010-101

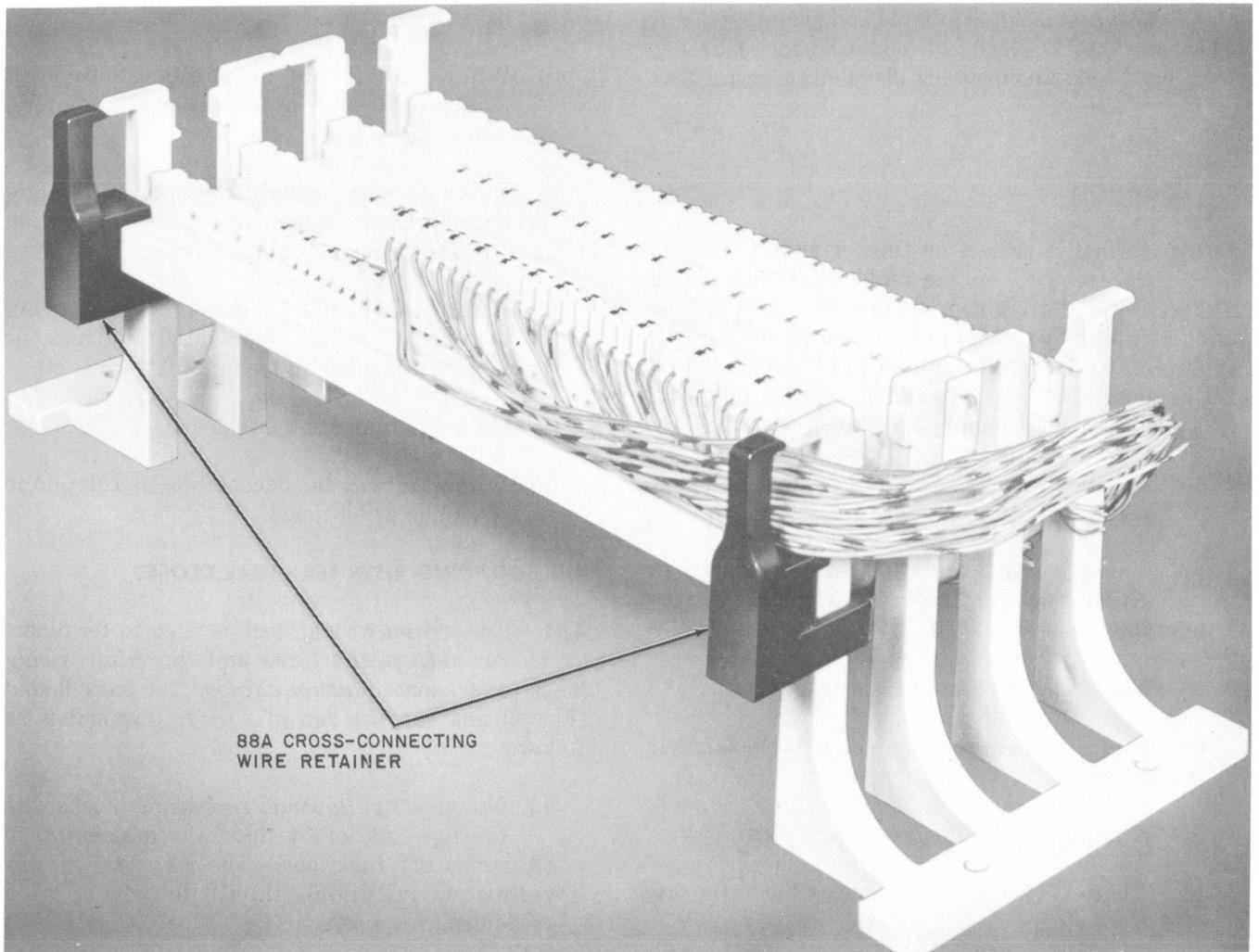
Fig. 4—188A1 Backboard

(e) **88A retainer** (Fig. 5) is a small molded plastic part that attaches to the leg of the 88-type wiring block to complete its fanning strip. It is used to retain the cross connect wires at the top or bottom of a column of the 88-type wiring blocks.

(f) **288A1-25 waterproofing adapter and 88A1-5 waterproofing cap** are used where corrosive protection is desired. Details on these items are contained in Section 631-050-120.

2.02 The following equipment is required for constructing riser and distribution terminals at locations where closets or flush-mounted wall cabinets are not available.

(a) **H-type cable terminal section** is a sheet metal housing consisting of a lift-out type door. The top and bottom assemblies contain



88A CROSS-CONNECTING
WIRE RETAINER

Fig. 5—88A1 Retainer

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an identical arrangement of knockouts for the entering cable. These cable terminal sections are described in Section 631-400-101.

(b) **82-type backboard** is a wood mounting board made of 3/4-inch plywood used for mounting wiring blocks to construct distribution terminals.

3. LOCATION

3.01 Normally, closets or flush-mounted cabinets are provided by the builder for installation of riser and distribution terminals at locations agreed upon by telephone company personnel, architect, and builder, however, if no closet or flush-mounted cabinet is available, use the following as a guide for determining a suitable location.

- (a) As near as practical to the cable entrance to the floor
- (b) Where it will avoid flammable material or where it will not be in the vicinity of easily ignitable gases and dust
- (c) Where it will be least conspicuous
- (d) Where it will not project in a hazardous manner
- (e) Where good lighting conditions exist
- (f) Where it will be accessible without the use of a ladder

- (g) Where it will be possible to work in the terminal without blocking a passageway
- (h) Where it will not be subjected to severe moisture under normal conditions
- (i) Where it will not be subjected to high temperature such as occurs near radiators, uncovered steam pipes, etc
- (j) To avoid electric light and power circuits and electrical equipment. Refer to Section 627-610-205 for minimum clearances.
- (k) Where it will not be damaged by moving machinery, hoists, doors, and shutters, or by materials handled on loading platforms, etc
 - (i) On a firm mounting surface
- (m) Where it will be accessible to telephone workmen at all times.

4. EQUIPPING RISER TERMINAL CLOSET

4.01 The **green** wiring block is used to terminate **outside plant lines** and the **blue** wiring block to terminate **station cables**. The basic layout (Fig. 6) and construction of a riser terminal is as follows:

- (a) Mount the **yellow** and **red** wiring blocks with the top edge of the blocks a **maximum** of 83 inches off the floor. The left edge of the yellow wiring block should be placed at a predetermined mark.

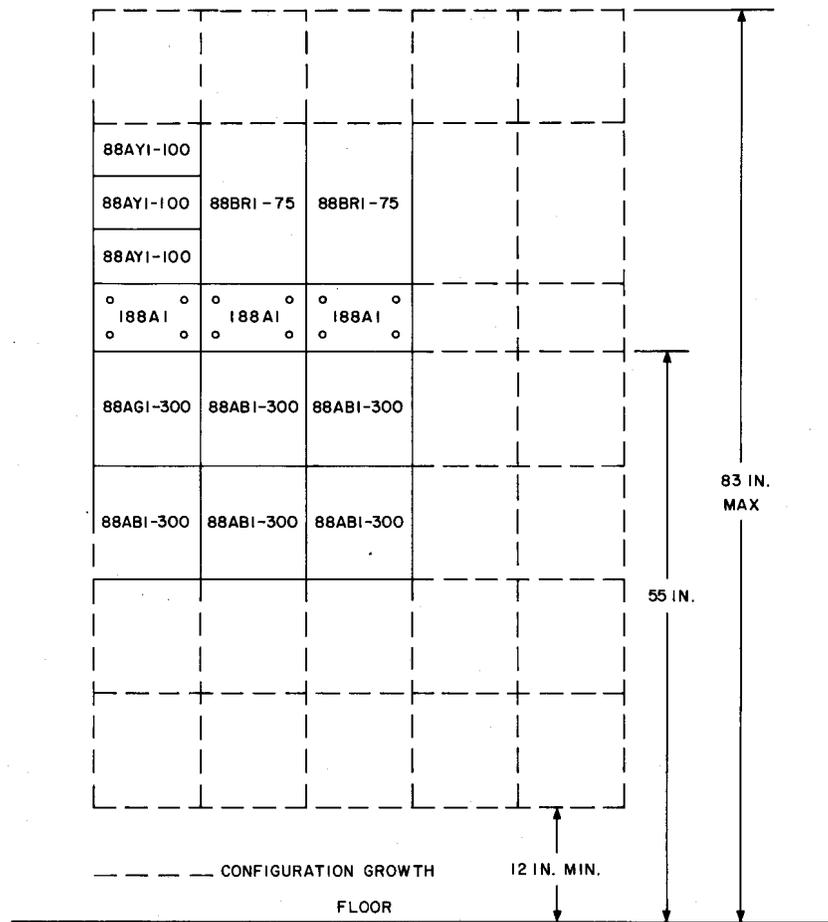


Fig. 6—Basic Layout of Wiring Blocks in Riser Terminal

- (b) The *green* wiring block should be mounted directly below the 188A1 backboard.
- (c) The 188A1 backboards should be mounted directly below the yellow and red wiring blocks and butted against each other. The bottom edge of the blue wiring blocks should be placed a *minimum* of 12 inches off the floor.

Note: 188A1 backboards must be used when more than two columns of wiring blocks are required.

4.02 When corrosive protection is desired the 25-pair waterproofing adapter is used to protect the cable side of the connector and the 5-pair waterproofing cap is used to protect the

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cross-connect side of the connector. Installation of these items is covered in Section 631-050-120.

4.03 The number of blue wiring blocks required in a riser terminal is determined by the floor area served.

4.04 Basic line service from a riser terminal to a distribution terminal requires a building tie cable between the two terminals (Fig. 7). This cable will terminate on the blue wiring blocks in the riser terminal and on the red wiring blocks in the distribution terminal.

4.05 Key telephone equipment features from one riser terminal to a second riser terminal requires a building tie cable between the two terminals. This cable will terminate on the *blue* wiring blocks in both riser terminals.

4.06 Auxiliary service and dial intercommunication lines are terminated on a *yellow* wiring block mounted directly above the green wiring blocks on the left-hand side of the terminal.

4.07 Key telephone equipment cables terminate on the *red* wiring blocks mounted generally above the blue wiring blocks.

5. EQUIPPING DISTRIBUTION TERMINAL CLOSET

5.01 Building tie cables from riser terminals which carry basic line service to distribution terminals *shall* be terminated on the *red* wiring blocks which are installed in the *distribution terminal* as shown in Fig. 7.

5.02 The blue wiring blocks in the distribution terminal are for terminating the station cables.

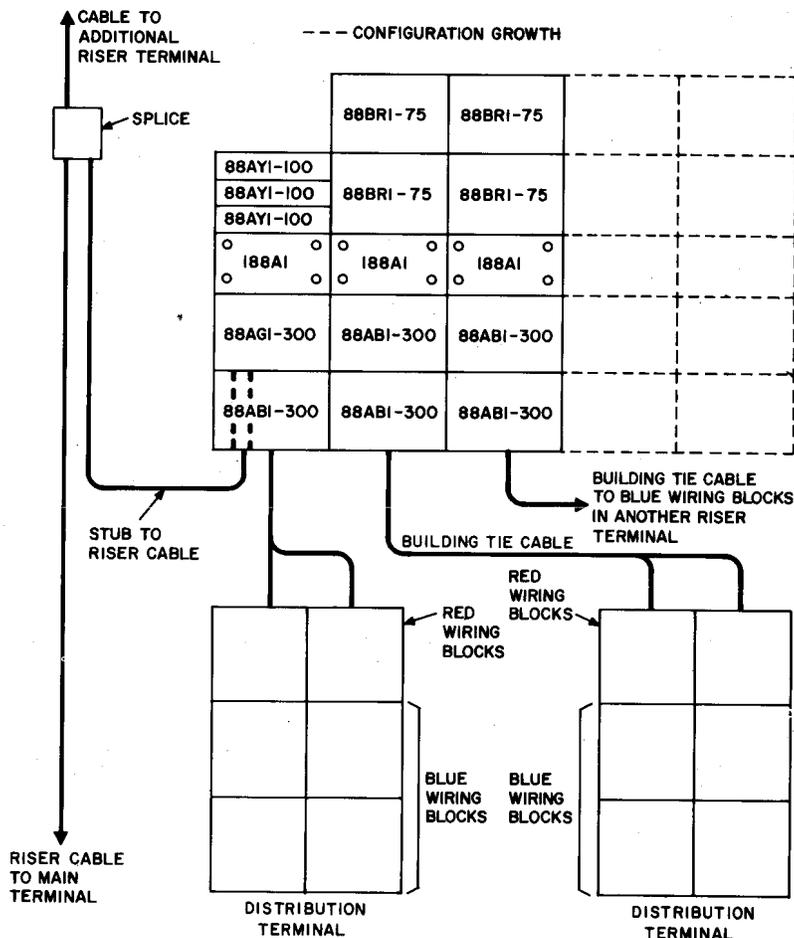


Fig. 7—Block Diagram Showing Riser Terminal Serving Two Distribution Terminals

6. CONSTRUCTING DISTRIBUTION TERMINAL AT LOCATIONS WHERE MECHANICAL PROTECTION IS REQUIRED

6.01 Mount H202 cable terminal section on the wall as outlined in Section 631-400-101. The inside wiring rings will have to be removed from the top and bottom of the cable terminal section to facilitate installation of backboard.

6.02 Install 82-type backboard in the cable terminal section.

6.03 Mount red wiring block in the *upper* part of the cable terminal section and blue wiring blocks in the *lower* part of the cabinet as shown in Fig. 8.

7. TERMINATING OUTSIDE PLANT CABLES

7.01 When the building cable is a through cable, a 24-gauge PIC stub shall be run from the through cable to the 88-type wiring blocks.

7.02 Splice the PIC cable to the through cable and enclose the splice with a K and B closure as outlined in Section 633-560-101.

7.03 Remove the required sheath from the stub cable and route the binder groups in color code sequence through the cable slots on each side of the *green* wiring blocks.

7.04 Install the 88-type connecting blocks as outlined in Section 631-460-202.

7.05 When it is necessary to run a building tie cable from the riser terminal to a distribution terminal, the building tie cable *shall* be terminated on the blue wiring block in the riser terminal as outlined in 7.03 and 7.04.

7.06 The other end of the building tie cable *shall* be terminated on the *red* wiring block in the distribution terminal.

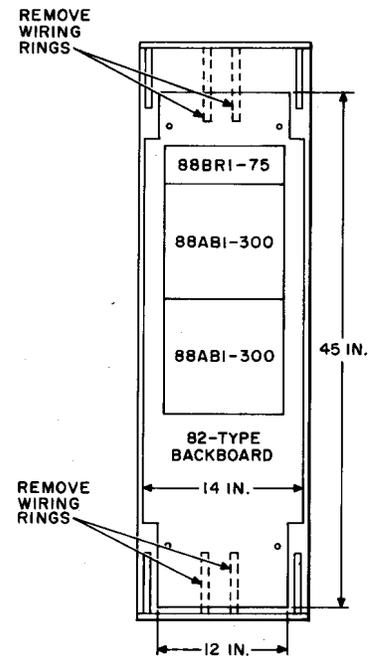


Fig. 8—Distribution Terminal Mounted in H-type Cable Terminal Section