# 86A, 96A, 102A, 103A, 104A, 105AF, AND 106AFD CONNECTING BLOCKS IDENTIFICATION AND ORDERING

## 1. GENERAL

**1.01** This practice provides information on the 86A, 96A, 102A, 103A, 104A, ▶105AF, and 106AFD◀ connecting blocks. These connecting blocks are used for the installation of telephone sets having modular mounting cords with up to eight conductors, for DIMENSION® PBX Electronic Customer Telephone Service, HORIZON® Communication System, ▶DIMENSION System 85, and MERLIN* Communications System.◀

**1.02** The reasons for reissuing this practice are listed below. Revision arrows are used to emphasize the more significant changes.

- Add the 105AF and 106AFD connecting blocks
- Add the DIMENSION System 85 and the MERLIN Communications System
- Add 400A-54 faceplate
- Add ordering information
- Remove lead designations on schematics.

**1.03** The 102A, 103A, 104A, ▶105AF, and 106AFD◀ connecting blocks incorporate 110-type quick-connect insulation displacement connecting blocks for termination of station wire. The plastic caps provided are used to insert four station wires at a time into the 110-type connecting blocks by pressing them into place, using only finger pressure. Therefore, no special terminating tools are required, although the 788B1, 788C1, or 797A tools may be used. The caps are left in position on the 110-type connecting blocks to provide additional strain relief.

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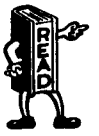


***Since each connector is limited to the insertion of a single wire, bridging between connectors must be accomplished with a continuous length of inside wire.***

## 2. IDENTIFICATION

### ▶ORDERING GUIDE

- Block, Connecting, 86A-49 (102628575)
- Block, Connecting, 96A-50 (102655982)
- Block, Connecting, 102A-50 (103083200)
- Block, Connecting, 102A-54 (103327714)
- Block, Connecting, 103A-50 (103104220)
- Block, Connecting, 104A-50 (103116943)
- Block, Connecting, 105AF-50 (103762423)
- Block, Connecting, 106AFD-50 (103762431)
- Plate, Face, 400A-50 (103111209)
- Plate, Face, 400A-54 (103167789)
- Adapter, 275A (102808516).◀

### 86A CONNECTING BLOCK

**2.01** The 86A connecting block is used to connect a single modular telephone set with a D4-, D6-, or D8-type plug-ended mounting cord. This connecting block consists of an 85A connecting block, with an added plug latching key, within a one-piece plastic housing having a snap-lock hinged cover (Fig. 1). The housing provides a high degree of environmental protection from foreign matter and liquids. The 85A connecting block consists of an 8-contact modular jack integral with a terminal block having eight screw

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terminals. The jack accepts the mounting cord and the screw terminals serve the inside wire. A snap-on protective cover is also provided for the screw terminal field. Wiring of the 85A connecting block is shown in Fig. 2.

**2.02** The 86A connecting block is to be mounted several inches from the floor (with the hinge at the top for maximum environmental protection) to permit access to the bottom of the housing to release the hinged cover. If the connecting block must be mounted close to the floor, and maximum protection is not essential, the hinge should be positioned to the left or right side.

**2.03** The 275A adapter (Fig. 3) is used for mounting the 86A connecting block to a standard wall outlet box.

### 96A CONNECTING BLOCK

**2.04** The 96A connecting block (Fig. 4) is similar to a 66E3-25 connecting block except the KS-type connector has been replaced by three 8-contact modular jacks. The modular jacks are wired to the clip terminals so that up to three modular telephone sets with D4-, D6-, or D8-type plug-ended mounting cords can be terminated. Wiring of the 96A connecting block is shown in Fig. 5.

### 102A CONNECTING BLOCK

**2.05** The 102A connecting block (Fig. 6 and 7) is used to connect one modular telephone set to the line. It is available in ivory only and consists of a plastic jack frame incorporating an 8-contact spring block assembly and an 8-position quick-connect field. Two plastic wire-terminating caps are also provided (see paragraph 1.03).

**2.06** The 102A connecting block is intended to be flush-mounted into the wall surface using a 63B bracket or a KS-20502, L2 bracket with an 818839002 (P-88C900) faceplate, or using a 65A faceplate (see Section 461-630-100). For a double mounting arrangement, two 102A connecting blocks may be mounted on a 400A faceplate (paragraph 2.13). All mounting apparatus is ordered separately. Wiring of the 102A connecting block is shown in Fig. 2. Preferred mounting orientation of this connecting block is with the latch portion of the jack downward, as shown in Fig. 6.

### 103A CONNECTING BLOCK

**2.07** The 103A connecting block (Fig. 8) is used to connect one modular telephone set to the line. It is available in ivory only and consists of a plastic base containing an 8-contact jack, an 8-position quick-connect field, two plastic wire terminating caps (paragraph 1.03), and a screw-attached cover.

**2.08** The 103A connecting block is intended to be surface-mounted on a wall, baseboard, or other flat surface, using No. 6 screws, adhesive strips (D-181126 Kit of Parts, ordered separately), or magnets (D-180880 Kit of Parts, ordered separately). It will accommodate surface-dressed or inside wall wiring and is wired as shown in Fig. 2. This connecting block should be mounted with the jack opening facing downward for maximum resistance to entry of contaminants. If it must be mounted close to the floor, the jack opening should face either left or right.

### 104A CONNECTING BLOCK

**2.09** The 104A connecting block (Fig. 9) is used to connect two telephone sets or terminals to the line, either independently or in parallel. It is available in ivory only and consists of a plastic base containing two 8-contact jacks and two 8-position quick-connect fields, four plastic wire-terminating caps (see paragraph 1.03), and a screw-attached cover.

**2.10** The 104A connecting block is intended to be surface-mounted on a wall, baseboard, or other flat surface, using No. 6 screws, adhesive strips (D-181126 Kit of Parts, ordered separately), or magnets (D-180880 Kit of Parts, ordered separately). It will accommodate surface-dressed or inside wall wiring and is wired as shown in Fig. 10 for two separate telephone sets. Interconnection of connectors between the two quick-connect fields (Fig. 11) is provided by allowing sufficient extra continuous inside wire length (approximately 2 inches) for bridging. The jack positions are numbered 1 and 2 on the connecting block cover, and a writing surface is provided inside the cover so that specific wiring can be recorded for future reference. Mounting orientation is as described for the 103A (paragraph 2.08).

### ♦105AF CONNECTING BLOCK

**2.11** The 105AF connecting block (Fig. 12) has a single 8-contact jack and an 8-position quick-connect field with two plastic terminating caps

(paragraph 1.03). It is designed to be mounted in a standard electrical outlet box or floor mounted monument and used with standard electrical single outlet faceplates. Wiring of the 105AF is shown in Fig. 2.

### ◆106AFD CONNECTING BLOCK

**2.12** The 106AFD connecting block (Fig. 13) has two 8-contact modular jacks with two 8-position quick-connect fields and four plastic terminating caps, the same as the 104A connecting block. The 106AFD connecting block is designed to be mounted in a standard electrical outlet box or floor mounted monument and used with standard electrical duplex outlet faceplates. Wiring for the 106AFD is shown in Fig. 10 and bridging in Fig. 11.◆

### 400A FACEPLATE

**2.13** The 400A faceplate (Fig. 14 and 15) is used to mount two 102A connecting blocks in a standard electrical wall outlet box. It is a decorative faceplate that comes in ivory and brown and is provided with brackets and screws for mounting. The two 102A connecting blocks are placed against the faceplate, under the brackets, and secured with the screws provided (Fig. 15). Interconnection is as described for the 104A connecting block.

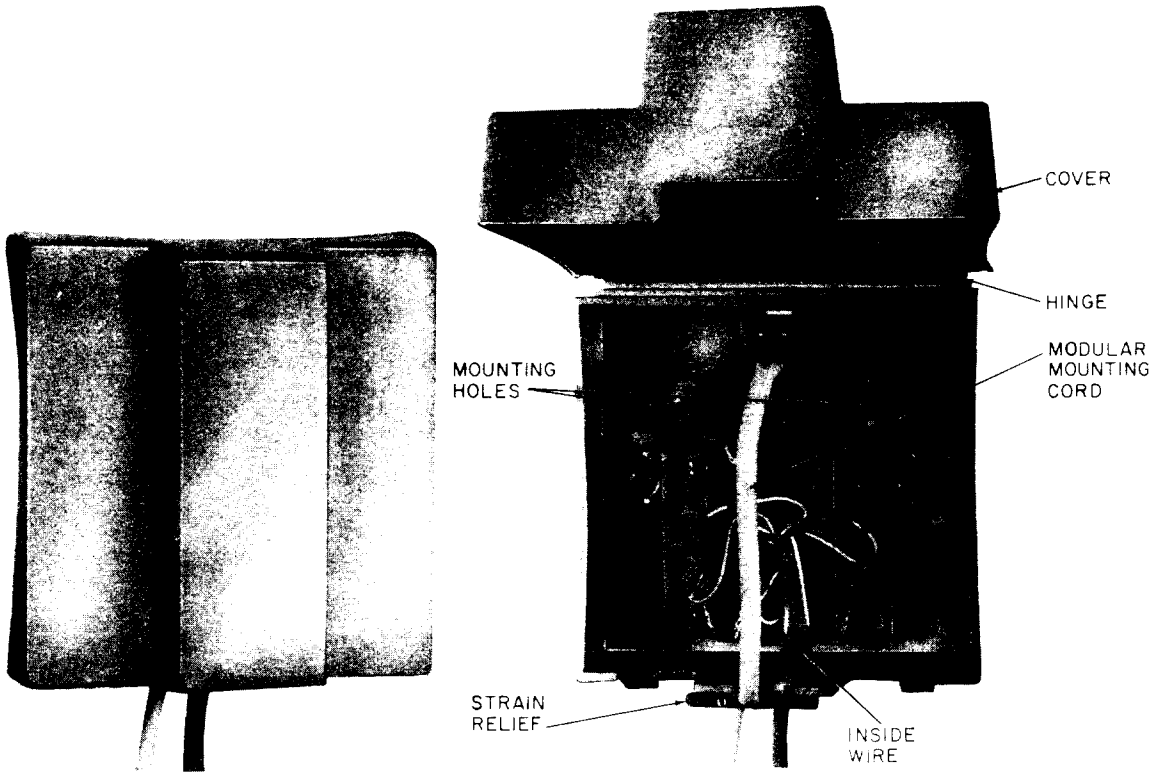



**Fig. 1—86A Connecting Block**

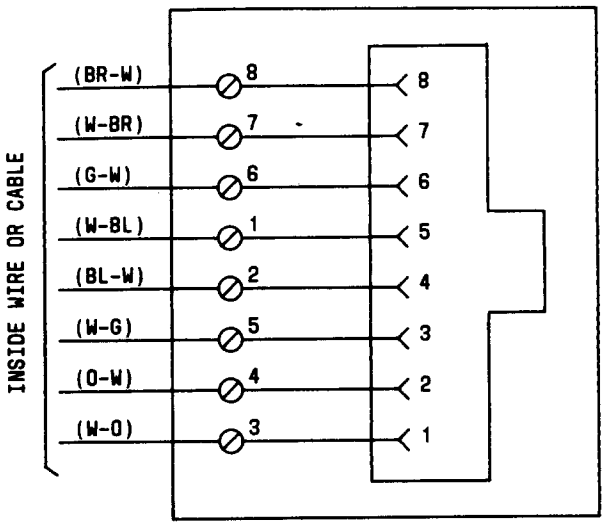



Fig. 2—85A, 86A, 102A, 103A, and 105AF Connecting Blocks, Schematic

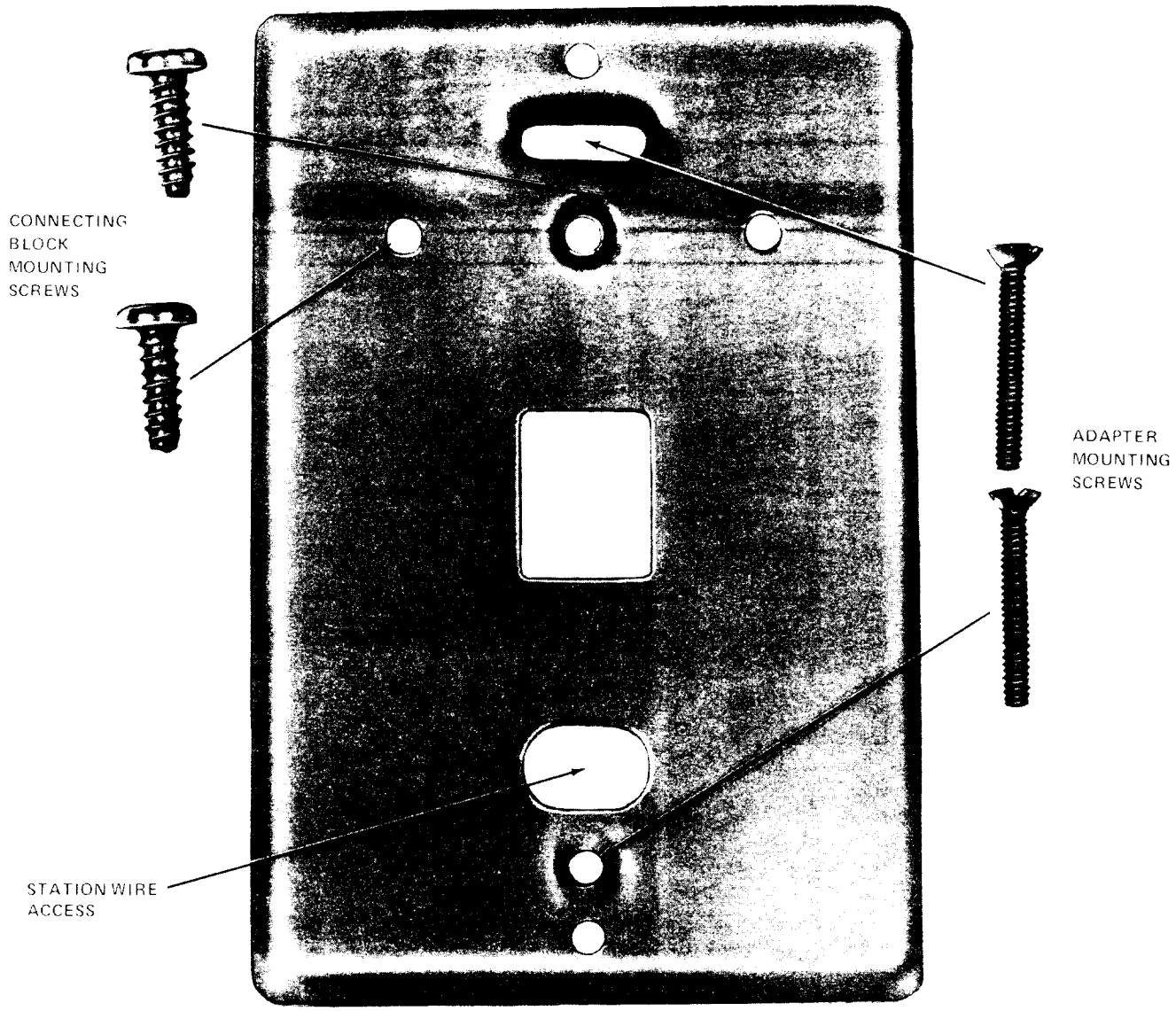



**Fig. 3—275A Adapter**

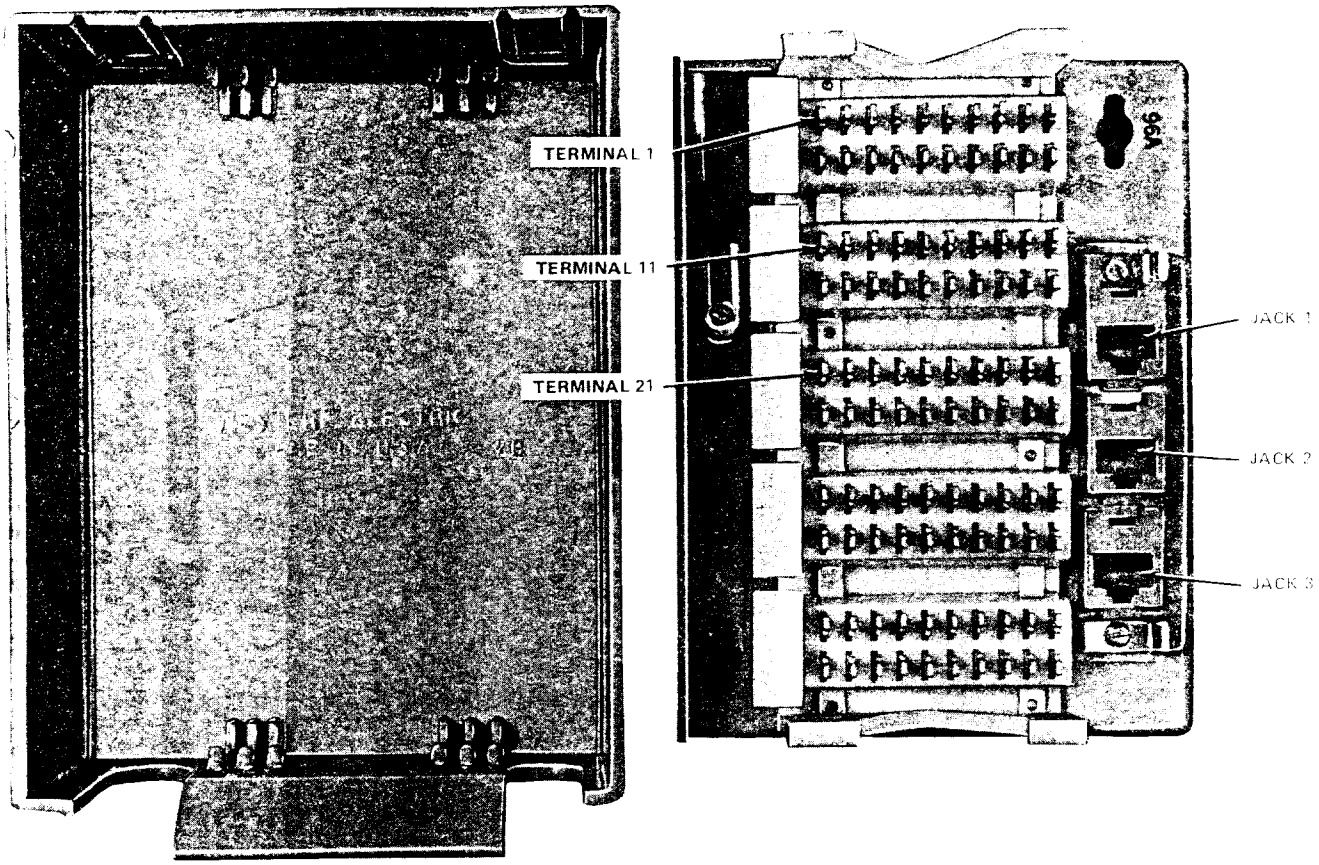



Fig. 4—96A Connecting Block

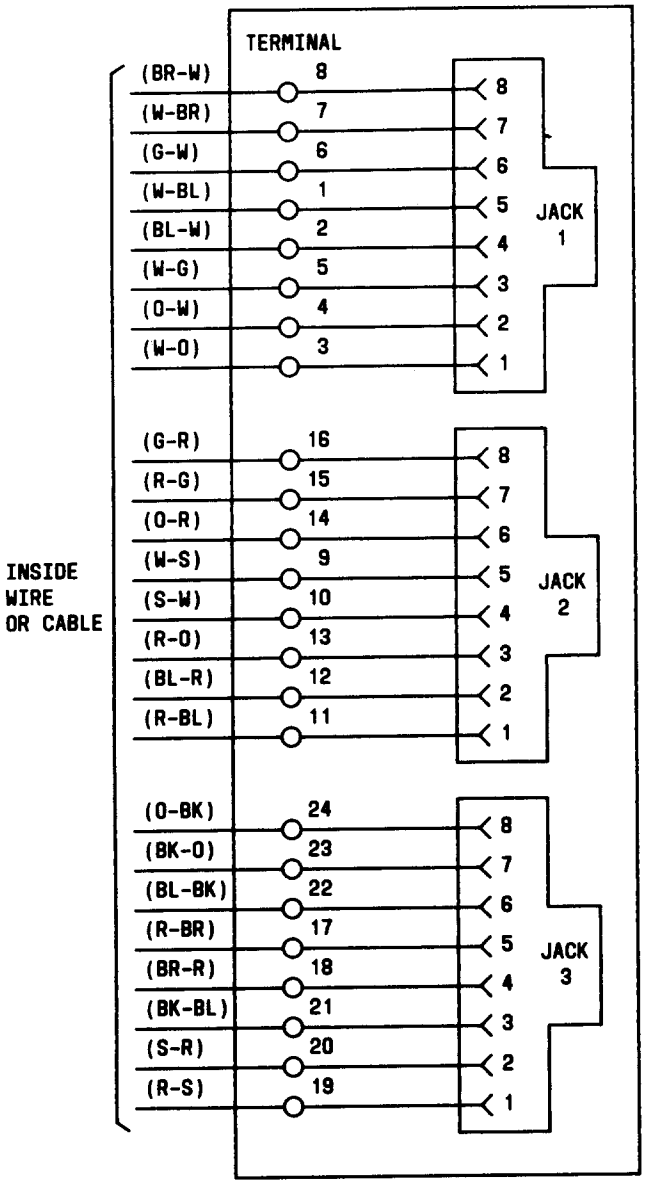



Fig. 5—96A Connecting Block, Schematic

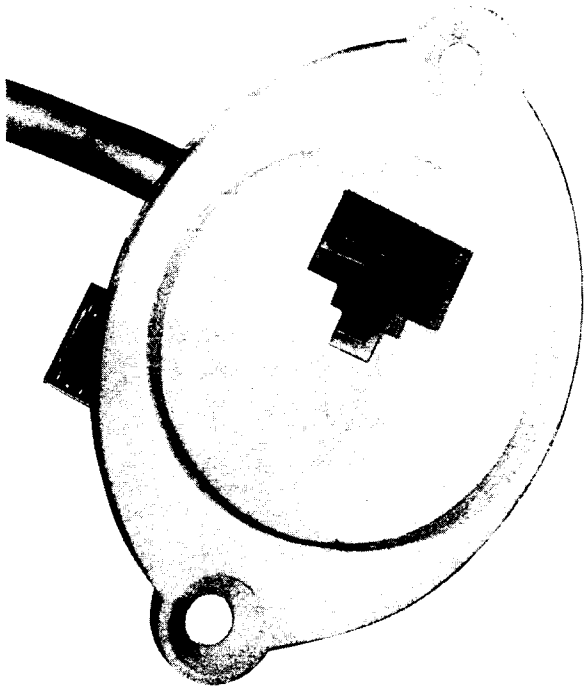


Fig. 6—102A Connecting Block

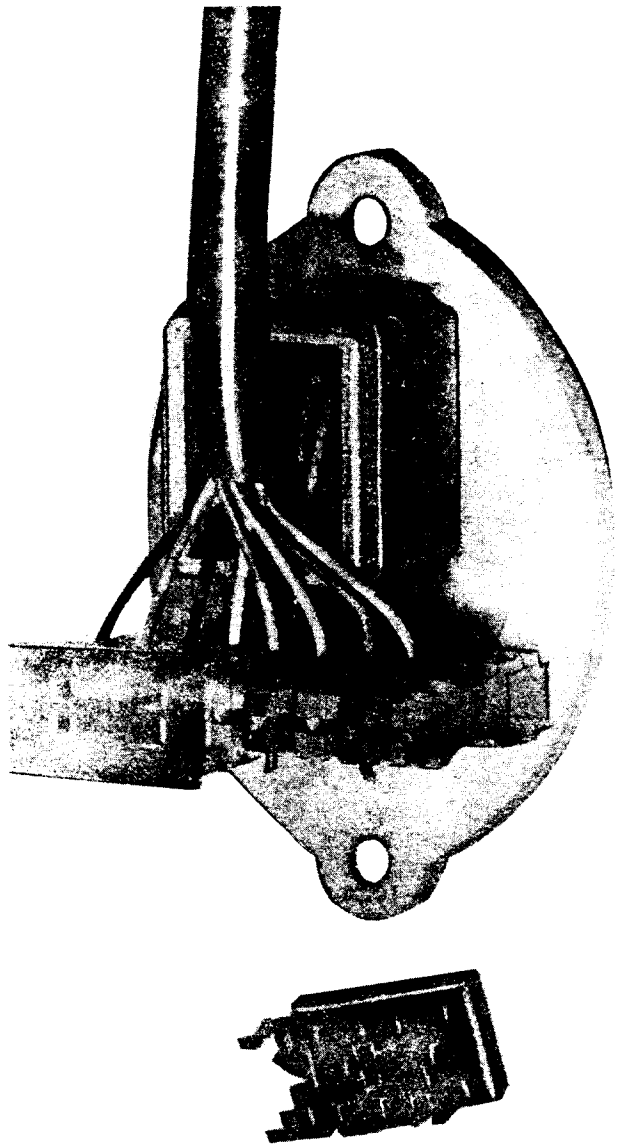


Fig. 7—102A Connecting Block, Rear View

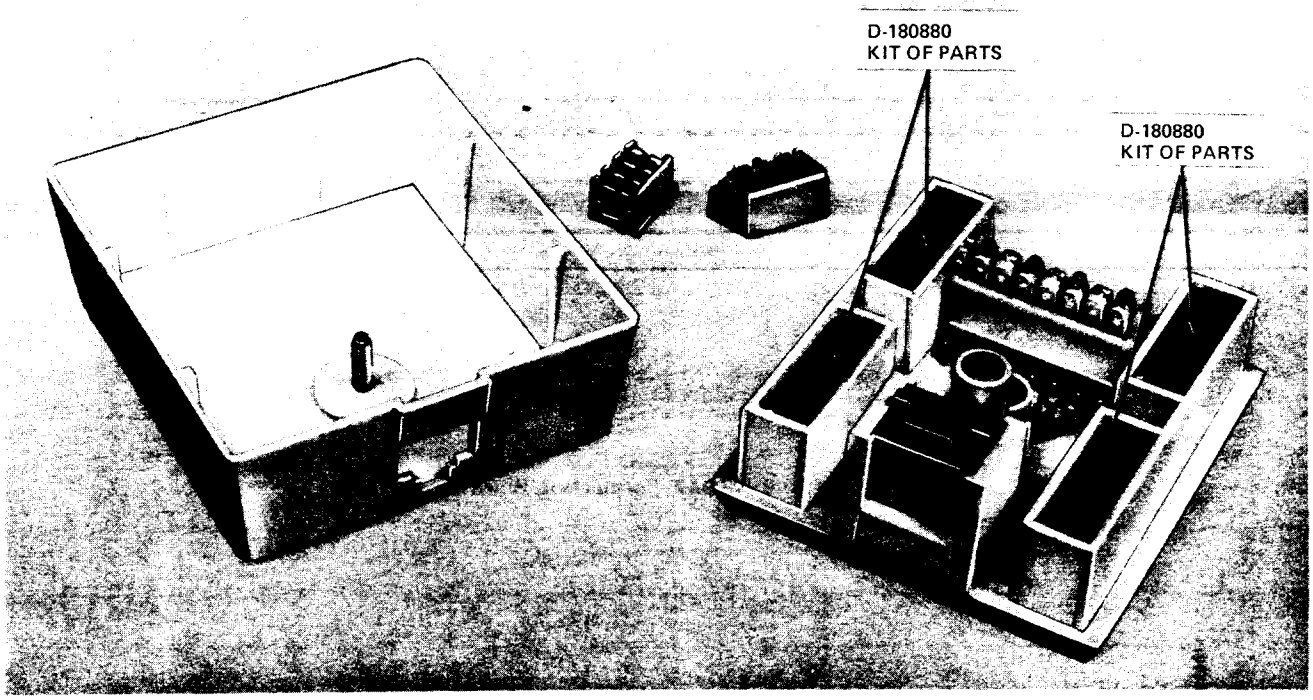



**Fig. 8—103A Connecting Block**

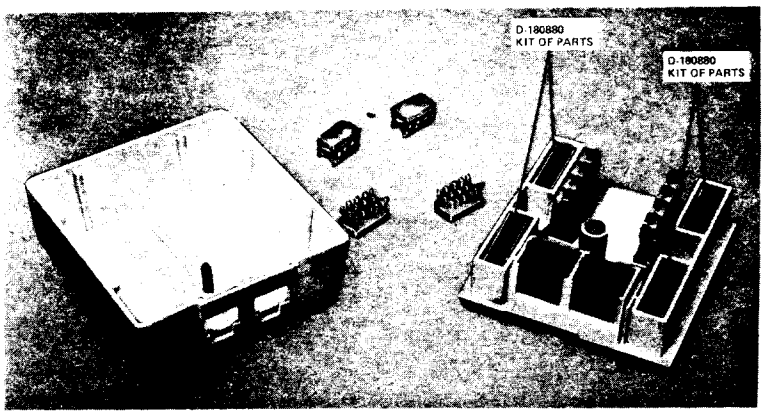



Fig. 9—104A Connecting Block

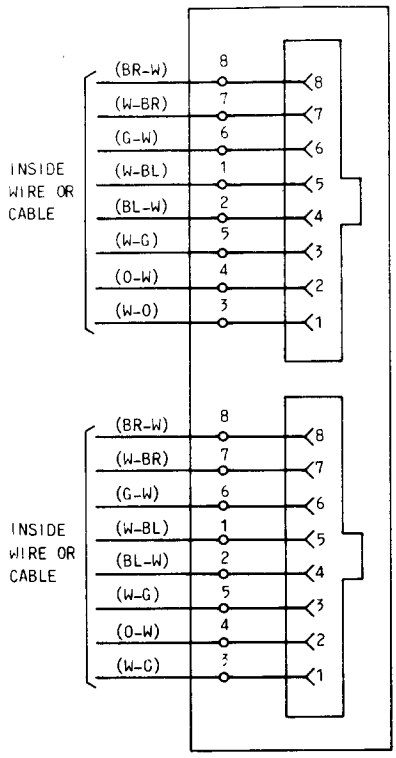



**Fig. 10—104A and 106AFD Connecting Block, Schematic**

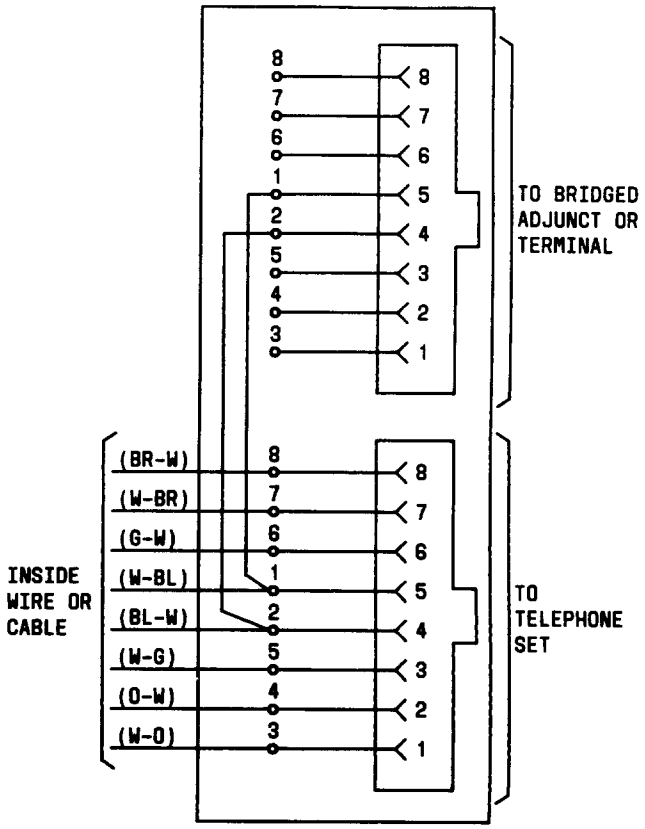
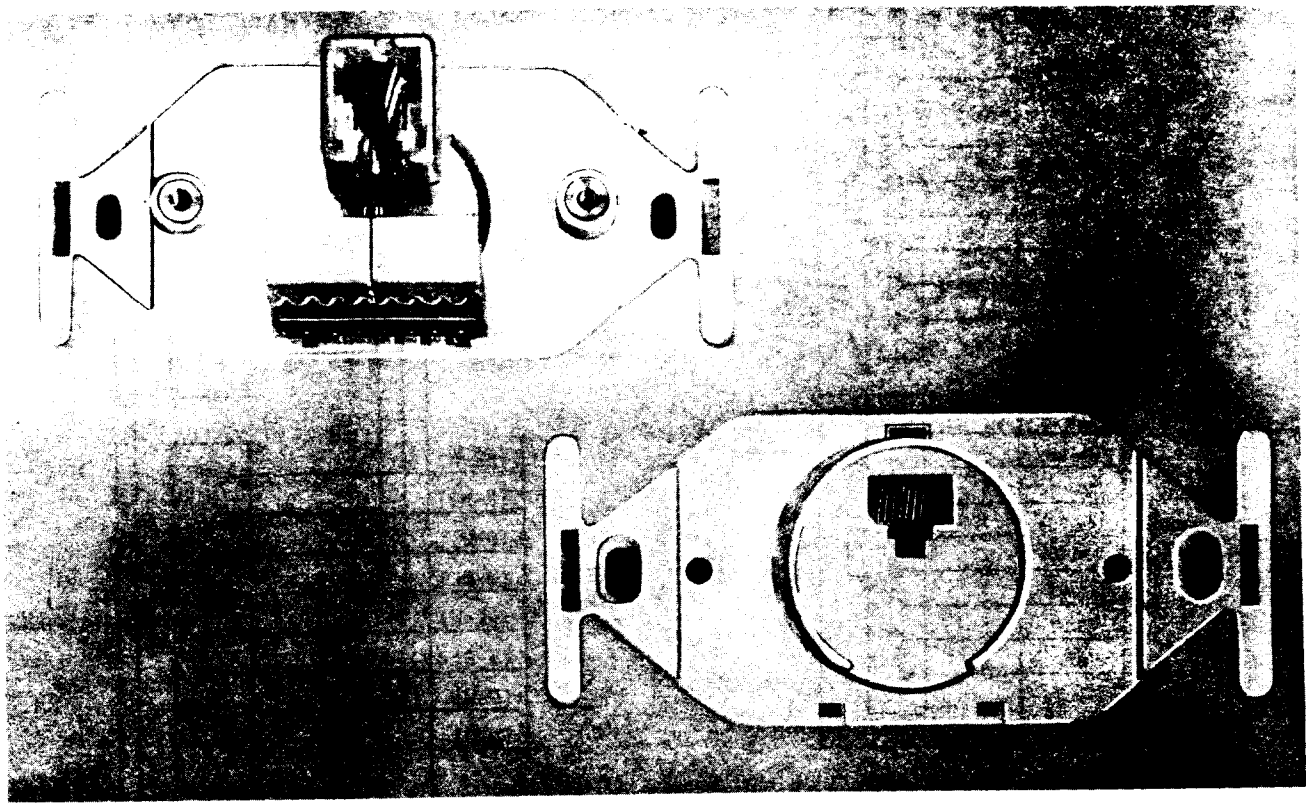



**Fig. 11—Bridged Connectors in 104A and 106AFD Connecting Block**



♦Fig. 12—105AF Connecting Block♦

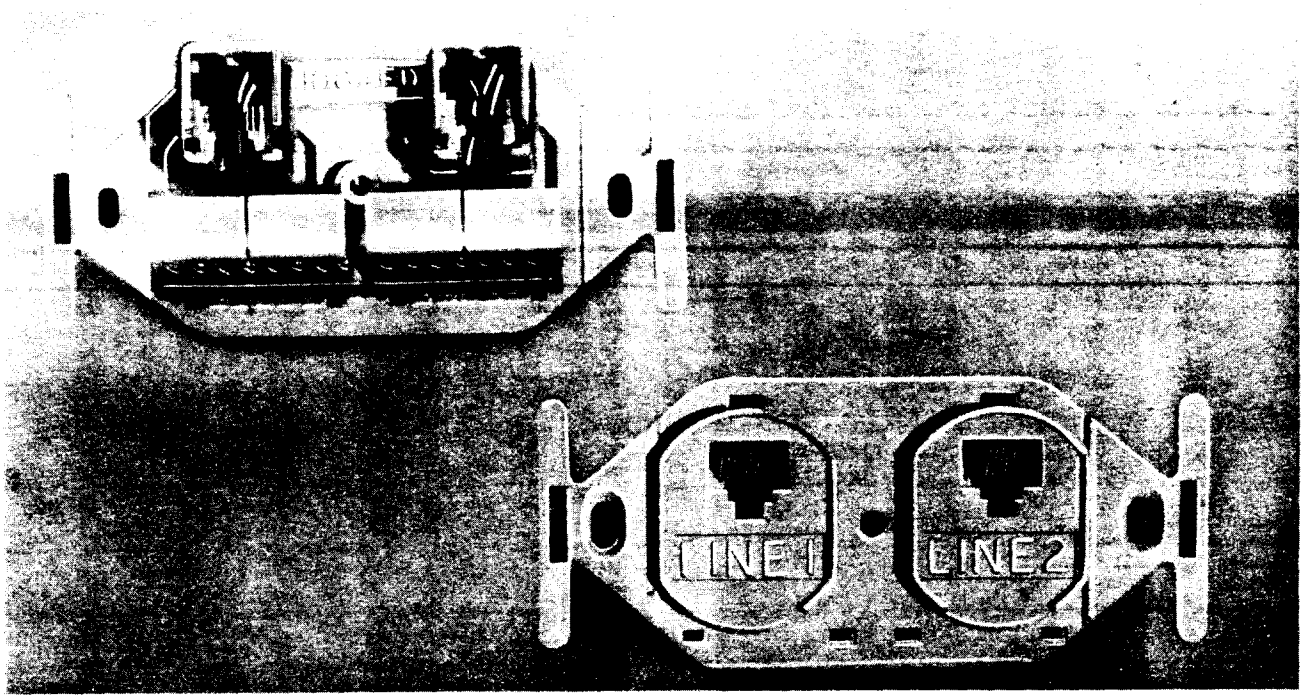



Fig. 13—106AFD Connecting Block

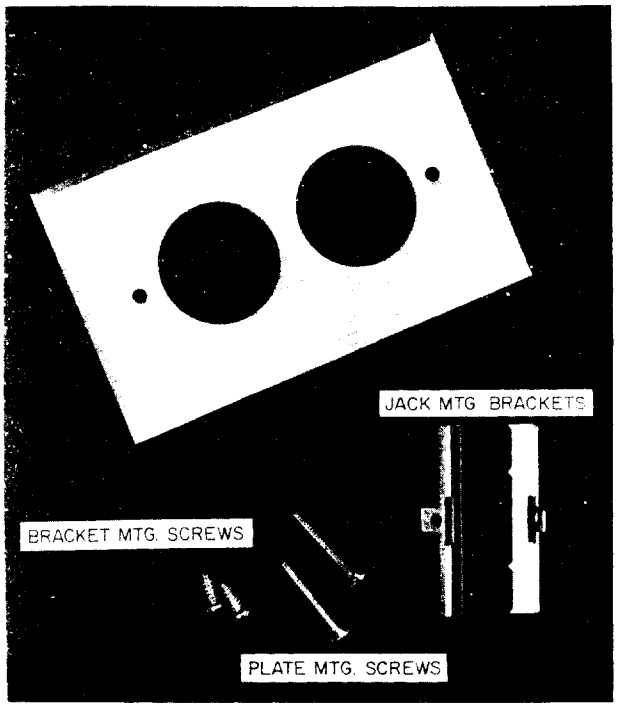



Fig. 14—400A Faceplate

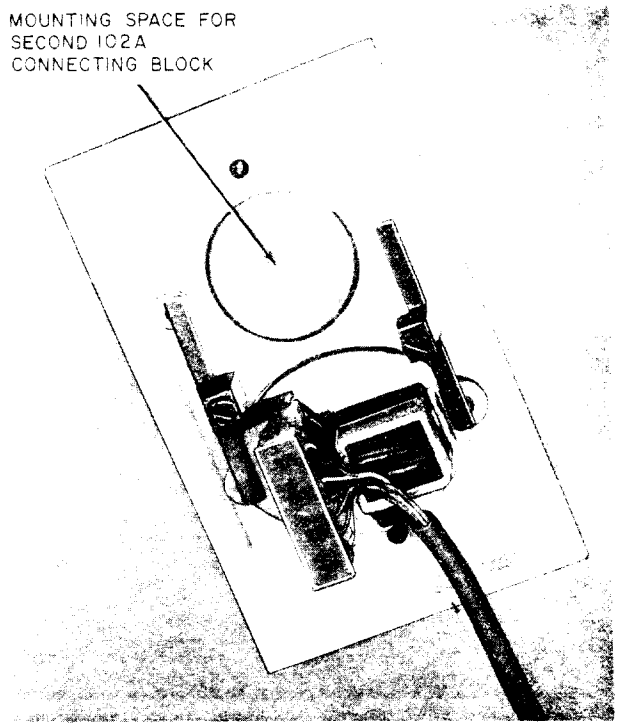



Fig. 15—102A Connecting Block Mounted on 400A Faceplate