

CONNECTING BLOCKS

625-, 630-, AND 635-TYPE

IDENTIFICATION, INSTALLATION, AND CONNECTIONS

1. GENERAL

1.01 The 625-, 630-, and 635-type connecting blocks are wall-mounted connectors that provide a plug-in type termination for modular type telephone sets and ancillary devices equipped with a miniplug-ended mounting cord. The 630-type connecting block also provides for installation of a plug-equipped modular wall telephone set. This allows the customer to move the modular-portable telephone set to any location equipped with this type connecting block. The 635-type connecting block is designed to place equipment such as exclusion sets, alarm dialers, and automatic dialers in series with the telephone line and the station set when an 8-position modular plug on the series device is inserted. The 635A connecting block must be used only with an 8-position plug—inserting 4- or 6-position plug will distort the contacts. However, the 635B connecting block may also be used with the 4- and 6-position plugs to provide subsequent service. This permits initial series service to be converted to bridged service without requiring change out of the block. The 74D connecting block (Section 461-606-100) is also available for telephone sets requiring 6-conductor mounting cords.

1.02 This section is reissued to:

- Add information on the 625D6 connecting block
- Delete information on the 934A tool which has not been manufactured.

1.03 Use of the 625-, 630-, and 635-type connecting blocks as registration interface devices, as provided for under the Federal Communications

Commission (FCC) Registration Program, is covered in:

- Section 463-400-120: Registration Interface RJ11C, RJ11W, RJ12C, RJ12W, RJ13C, RJ13W, RJ17C, RJ18C, and RJ19C—Bridged Single Line—Tip and Ring Arrangements
- Section 463-400-130: Registration Interface RJ16X, RJ31X, RJ32X, RJ33X, RJ34X, RJ35X, RJ36X, and RJ38X—Series Single Line—Tip and Ring Arrangements
- Section 463-400-140: Registration Interface RJ14C and RJ14W—Bridged Two Line—Tip and Ring Arrangements.

♦Table C lists the type connecting block used with a particular USOC.♦

2. IDENTIFICATION

ORDERING GUIDE

- Backboard, 191C (for use with 630A4, if required)
- Backboard, 168D (for surface-mounted blocks on masonry walls)
- Block, Connecting, 625A (Fig. 1)
- Block, Connecting, 625B (Fig. 2)
- Block, Connecting, 625C (Fig. 1)
- ♦Block, Connecting, 625D6 (Fig. 3)♦
- Block, Connecting, 625F (Fig. 4)
- Block, Connecting, 625FS (Fig. 5)

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

- Block, Connecting, 625H (Fig. 5)
- Block, Connecting, 625S (Fig. 6)
- Block, Connecting, 625T (Fig. 6)
- Block, Connecting, 625WP (Fig. 7)
- Block, Connecting, 630A4 (Fig. 8, 9, and 10)
- Block, Connecting, 635A (MD) (Fig. 11)
- Block, Connecting, 635B (Fig. 12)
- Assembly, Faceplate, 65A (Fig. 13)
- Blade, 8762D-630 (metal lead insertion tool for 630A4)
- Tool, Impact D, AT-8762 (for holding blade, 8762D-630)
- Tool, Handle, 788A1 (also for holding blade, 8762D-630, or 797A tool)
- Tool, 797A (plastic lead insertion tool for 630A4).

CONNECTING BLOCKS

2.01 The **625-type** connecting blocks provide a termination for the D4BU miniplug-ended mounting cord used with the modular telephone sets.

2.02 The **625A** connecting block (Fig. 1) is intended for new installations and is surface mounted. It contains a 42A connecting block base assembly which is used to terminate inside wire and spade-tipped leads from the jack in the cover. This connecting block replaces the 42A connecting block and the 549A jack. When mounting the 42A connecting block, leave at least 1/16-inch clearance between the bottom of the cover and the molding, carpet, or floor.

Note: It is recommended that in areas experiencing corrosion due to high humidity or rapid temperature changes, or locations subject to dust, chemical sprays, insects, etc, connecting blocks be mounted 12 inches or more above the floor where possible. In areas of high corrosion, it is also recommended the 625S connecting block be used. The increased

height also makes for easier customer plug orientation.♦

2.03 The **625B** connecting block (Fig. 2) includes the 625F connecting block, 65A faceplate package, and two mounting screws. It is intended for new installations or modular replacement of 548A jacks or 47F connecting blocks.

2.04 The **625C** connecting block (Fig. 1) is the same as the 625A connecting block except the 625C does not include the 42A connecting block. The 625C connecting block may be used to convert the 42A connecting block in existing installations to modular installation.

2.05 ♦The **625D6** connecting block (Fig. 3) consists of two 645A6E jacks molded into a plastic faceplate. Twelve screw terminals are provided on the rear of the block for connections. A bracket and all necessary screws for flush mounting are also provided. The 625D6 connecting block is intended for use in nursing homes and hospital patient rooms where two lines enter through a single outlet and terminate in separate jacks. The 625D6 can also be used in single-line service to provide for connection of a telephone set and adjunct at the same service outlet—available in ivory (-50) and brown (-54).♦

2.06 The **625F** connecting block (Fig. 4) is intended for use in new installations requiring a flush-type connecting block or for modular replacement of 548A jacks or 47F connecting blocks. It does not include faceplate or mounting bracket.

2.07 The **625FS** connecting block (Fig. 5) is similar to the 625F except it has a molded faceplate and a customer-operable spring-loaded cover which protects the interior telephone line contact springs from contamination. It is intended for use in areas subject to high humidity and condensation or locations exposed to spray painting, washing, or foreign matter.

2.08 The **625H** connecting block (Fig. 5) is constructed the same as the 625FS except for the modular jack which is a 645H2 jack. The tip and ring are provided on contacts 1 and 6 and will be designated GN and R. The 625H is intended for use in hospital critical care areas to provide connection by specially wired instruments to transmit electrocardiogram (EKG) signals or voice signals (using a TRIMLINE® telephone set with AD3H or

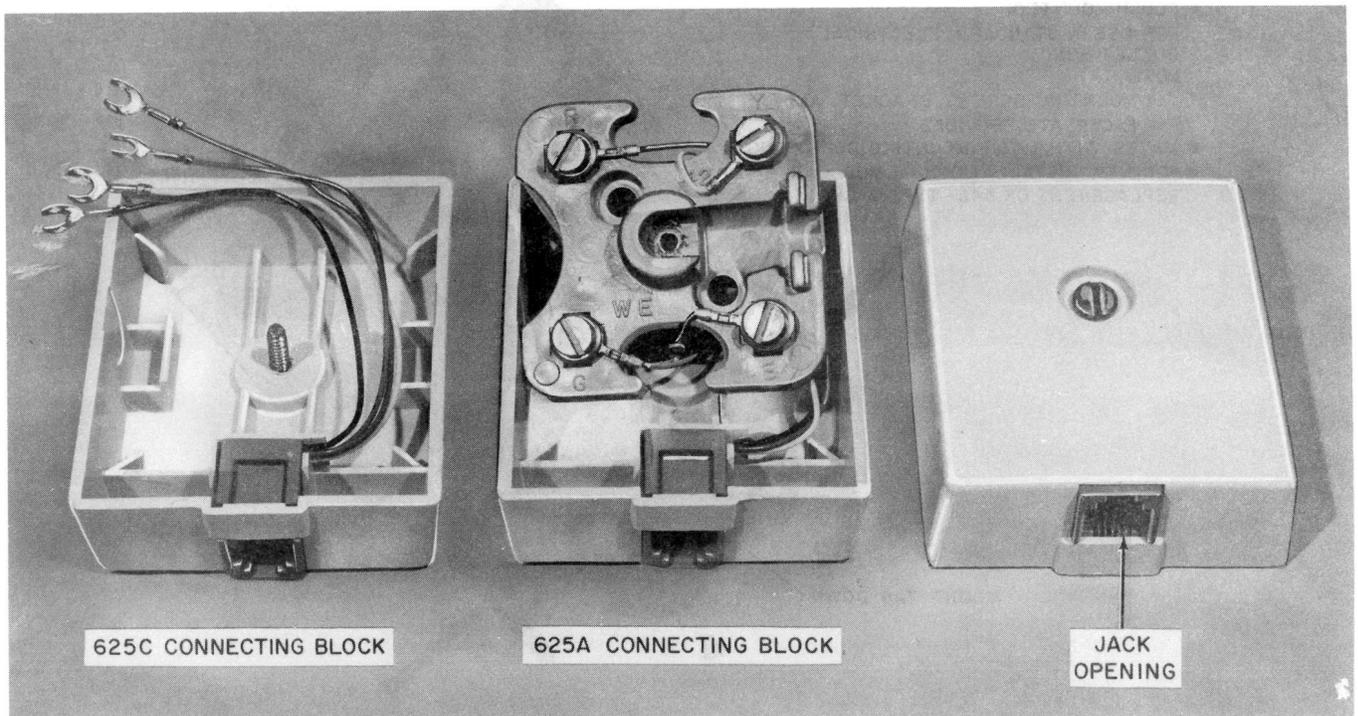


Fig. 1—625A- and 625C-Type Connecting Blocks

AC2PH telephone set base) on the telephone network.

Note: The 625H connecting block is not applicable to wall-mounted TRIMLINE telephone sets.

2.09 The **625S** connecting block (Fig. 6) is similar to the 625A except it has a customer-operable spring-loaded cover which protects the interior telephone line contact springs from contamination. It is intended for use in areas subject to high humidity and condensation or locations exposed to dripping, washing, or foreign matter.

2.10 The **625T** connecting block (Fig. 6) is the same as the 625S except it does not contain a 42-type connecting block. It is used to convert existing 42A or 625-type connecting blocks where extra protection is needed.

2.11 The **625WP** connecting block (Fig. 7) is for use in outdoor locations and where severe environmental conditions exist. It is intended to mount on a B outlet box AT-8732. A gasket is

provided to seal the faceplate assembly and box. A plastic screw-on cap, plastic washer, and split rubber grommet is provided to seal the connection between the telephone mounting cord and jack.

2.12 The **630A4** connecting block (Fig. 8) is a plug-in wall set mounting and will also accept a modular-type mounting cord. It consists of a connecting block (Fig. 10) and 1034A mounting plate. Two 3/16-inch 800413577 (P-41357) cover mounting screws, two 5/16-inch 840705008, and two 1-1/8 inch 841065529 flathead machine screws are included in a fastener package. The 630A4 connecting block is now available as a replacement for the 630A6 and should be ordered accordingly.

2.13 The 797A or 8762D-630 insertion tool head is used for terminating conductors on the 630A4 connecting block. The 8762D insertion tool is adaptable to either the 714B tool handle or the AT-8762 D impact tool; the 797A tool is used with the 714B tool handle **only**. The construction of the blade tips is the same except the 8762D-630 is made of steel instead of plastic. Termination will be the same as shown in Fig. 10.

- 4 CONTACTS
- FLUSH MOUNTED:
FOR USE IN STANDARD ELECTRICAL
OUTLET BOX
- NOTE:
MOUNTING SCREWS, BRACKET, AND
FACEPLATE PROVIDED
- MATES WITH D4BU MOUNTING CORD PLUG
- FOR NEW INSTALLATIONS OR MODULAR
REPLACEMENT OF 548-TYPE JACKS

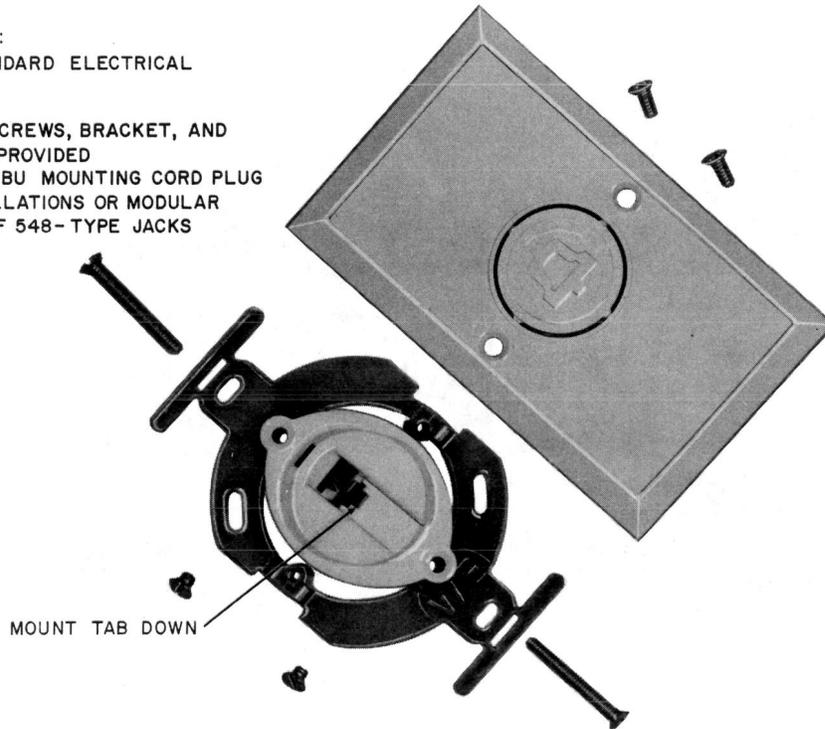


Fig. 2—625B Connecting Block (With Mounting Hardware)

2.14 The **635A (MD)** connecting block contains a 650-type, 8-contact modular jack which is wired to eight screw terminals (Fig. 11). The 8-position plug on the series equipment is plugged into the modular jack, and the line and controlled station connections are made at the screw terminals. When a plug is not inserted, lead 1 is shorted to lead 4, and lead 5 to lead 8. Insertion of the 8-position plug removes the shorts and puts leads 1 and 4 and 5 and 8 in series with the series or exclusion equipment (Fig. 15). In this mode, continuity to the downstream equipment must be maintained through the series or exclusion equipment. ♦Do not use this connecting block with a 6-position plug—doing so will distort the jack contacts.♦

2.15 The **635B** connecting block (Fig. 12) which replaces the 635A connecting block is used to permit company-owned and customer-provided equipment using the D8AA mounting cord to be placed in series with telephone company equipment. This connecting block is equipped with a 651A

series-bridged jack and a 10-position terminal board (Fig. 16 and 17).

2.16 The **635B** connecting block has an optional feature which provides the field installation of a 652A jack. ♦This arrangement is used where the controlled device and the series device are both at the same location. The 652A jack is intended to be used with the series device (Fig. 16 and 17).♦

2.17 When a plug is not inserted in the 651A jack, lead 1 is shorted to lead 4, and lead 5 to 8. Insertion of an 8-position plug removes the shorts and puts leads 1 and 4 and 5 and 8 in series with the series or exclusion equipment (Fig. 17). In this mode, continuity to the downstream equipment must be maintained through the series or exclusion equipment. If a 4- or 6-position plug is inserted, the short is not removed and the cord picks up tip and ring on a bridged basis.

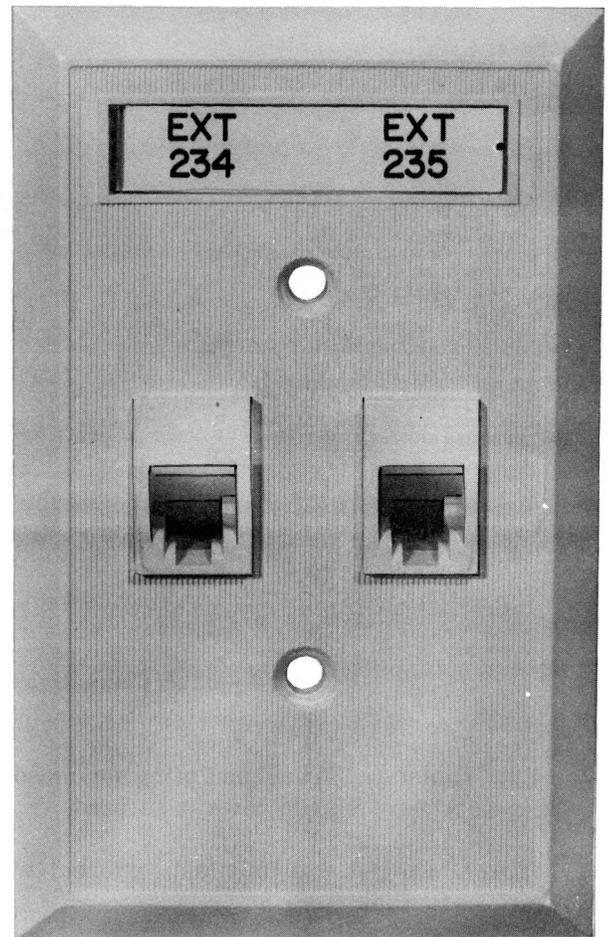
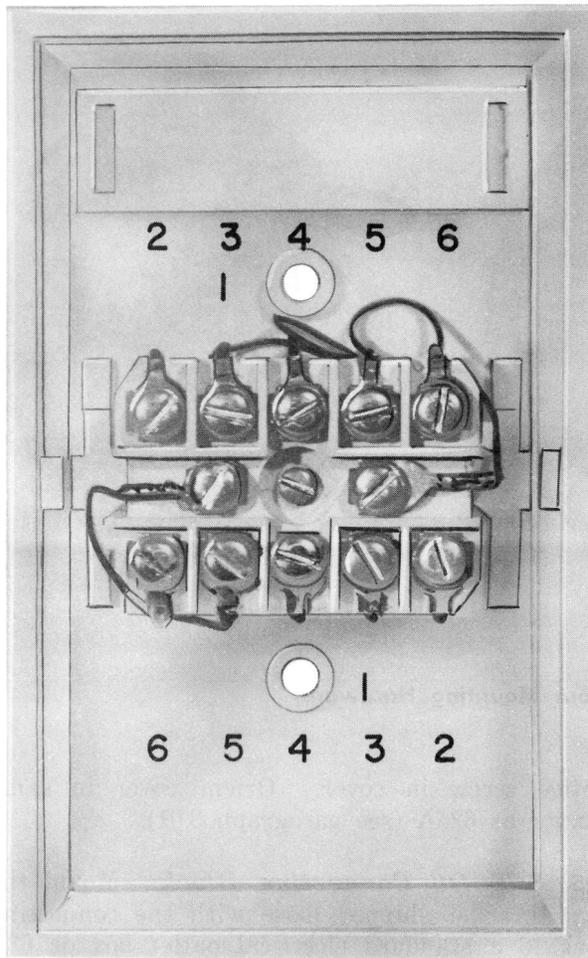


Fig. 3—625D6 Connecting Block

3. INSTALLATION

3.01 To protect against contamination, 625- and 630-type connecting blocks are to be installed as follows:

(a) **Surface-type:** Jack-opening to bottom (Fig. 1). Narrow baseboards will require mounting connecting block opening to left or right side and should be avoided whenever possible. Where permissible, mount the connecting block higher, affording easier jack-plug orientation and less troubles reducing exposure to corrosion due to humidity, dust, chemicals etc. Mount block 12 inches or higher above floor (about electrical outlet height). Blocks mounted higher can substantially reduce troubles.

(b) **Flush-type:** Jack-opening oriented with spring contacts at the top and tab down (Fig. 2, 3, and 8).

Warning: Never mount with jack-opening up (surface-type) or spring-contacts at the bottom (flush-type).

(c) **Spring cover-type:** With pivot point of spring-loaded cover up (Fig. 5 and 6).

3.02 **625A Connecting Block:** Mount the terminal block on a wall (preferred) or baseboard. Terminate the station wire and dress leads as shown in Fig. 1. Terminals on the connecting block are lettered R, G, Y, and B as

- 4 CONTACTS
- FLUSH MOUNTED:
USING 63-TYPE OR KS-20502, L2 BRACKET
OR IN STANDARD ELECTRICAL OUTLET
BOX USING 43B (MD) BRACKET OR
65A FACEPLATE
- MATES WITH D4BU MOUNTING CORD PLUG
- MOUNTING SCREWS SUPPLIED
- FOR NEW INSTALLATIONS OR MODULAR
REPLACEMENT OF 548-TYPE JACKS

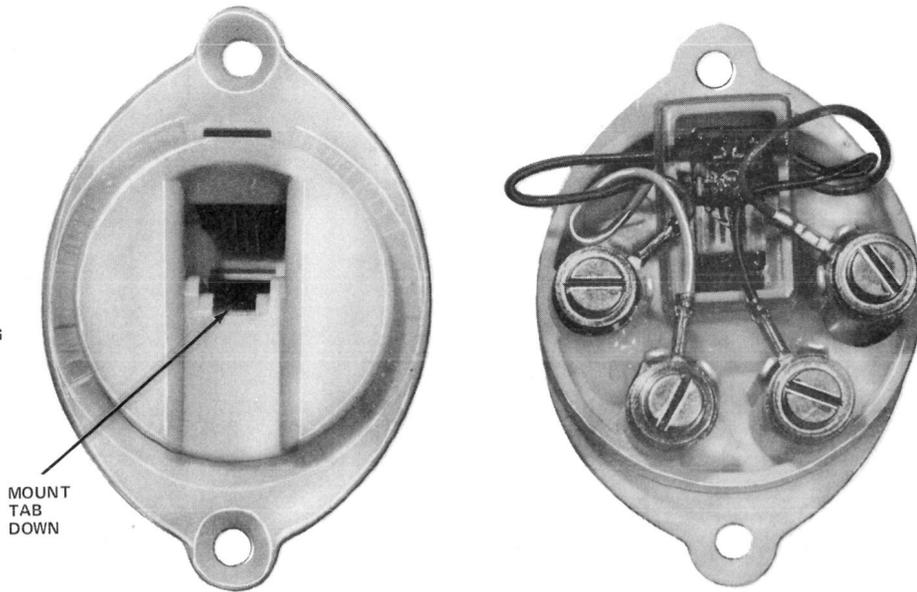


Fig. 4—625F Connecting Block (Without Mounting Hardware)

shown in Table A. When mounting on masonry walls, a backboard should always be used.

Note: Do not use on damp external walls (see paragraph 3.08).

3.03 625B Connecting Block: Mount the bracket on a standard electrical outlet box, 63B bracket, or directly to the wall (must have recessed area) using the mounting screws supplied (Fig. 2). Feed the station wire through the center mounting hole of the bracket and terminate the leads on the connecting block as shown in Table A. Mount the connecting block on bracket and fasten with the two screws supplied. Attach faceplate with the two screws supplied. ♦Where a KS-20502, L2 bracket is used, the 625F connecting block and rectangular faceplate mount directly on the KS-20502, L2 bracket. The bracket supplied with the connecting block is not used.♦

3.04 625C Connecting Block: Remove cover from existing 42A connecting block. Connect leads from miniplug connector in 625C connecting block to terminals on 42A connecting block. Dress leads as shown in Fig. 1; terminate leads of connecting block as shown in Table A. Attach the connecting block cover to the block using center

captive screw in cover. Orient cover in same manner as 625A (see paragraph 3.01).

3.05 ♦625D6 Connecting Block: Mount the bracket shipped loose with the connecting block to a standard electrical outlet box or 63B bracket with two flat-head machine screws supplied. Bracket can also be mounted directly on wall if recessed. Feed station wires through bracket and terminate on screw terminals per Fig. 14. A 625D6 connecting block can be mounted directly on a KS-20502, L2 bracket without using the shipped loose bracket. The terminal strip is wired so the top row of terminals is associated with the right-hand jack and the bottom row with the left-hand jack when the connecting block is viewed from the front with the designation card up. Mount the faceplate to the bracket using oval-head machine screws. Properly identify stations on card and install with card retainer.♦

3.06 625F Connecting Block: Connect station wire to terminals on rear of 625F connecting block as shown in Table A. Mount 625F connecting block on bracket and attach faceplate.

Note: The 625A, B, C, and F connecting blocks are provided with a protective gummed

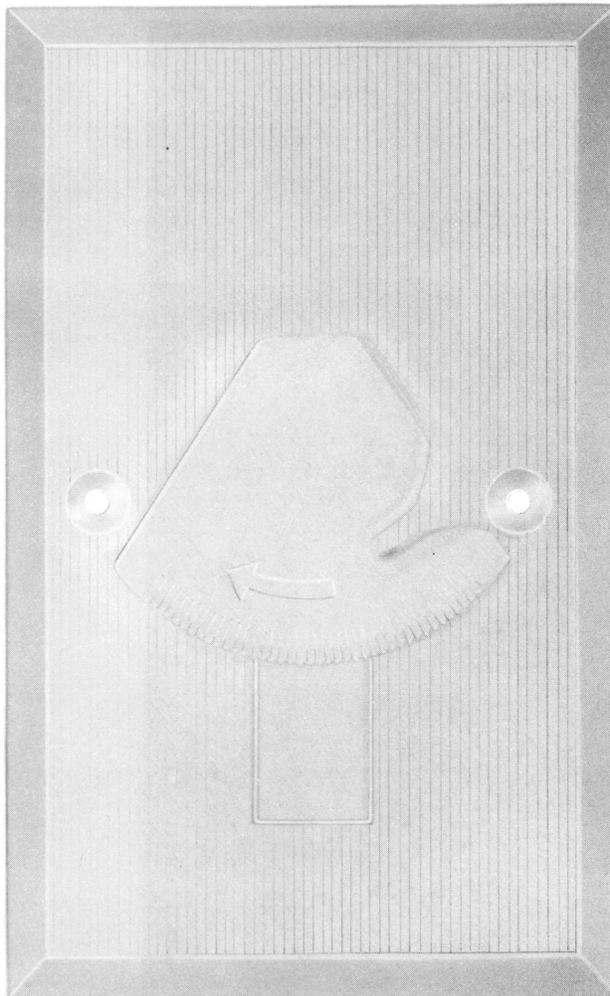


Fig. 5—625FS or 625H Connecting Block

label which is to be attached over the jack entrance if the connecting block is not in use.

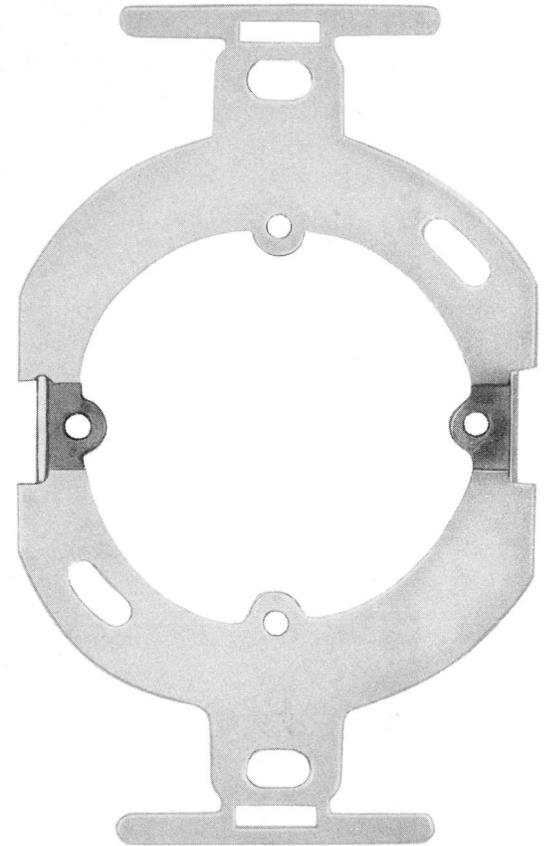
3.07 625FS or 625H Connecting Block:

Connect station wire to terminals on rear of connecting block as shown in Table A. Mount the block as shown in Fig. 5.

3.08 On damp external walls, the 625FS connecting block should be wall mounted at the same height as electrical outlets. Where practical, the 625FS should be used for this application mounted on either the KS-20502, L2 bracket or the bracket provided.

3.09 625S Connecting Block: Mount the 42A connecting block on the wall (preferred)

BRACKET
(PROVIDED WITH CONNECTING BLOCKS)



NOTE:
BRACKET IS USED TO MOUNT 625FS OR 625H TO GEM BOX, 63A, OR 63B MOUNTING BRACKET.

or baseboard so the 625S connecting block cover is positioned as shown in Fig. 6. When mounting on masonry walls, a backboard should always be used.

3.10 625T Connecting Block: This connecting block is the same as the 625S except it does not contain a 42-type connecting block. This connecting block is to be positioned over existing 42-type connecting blocks.

3.11 625WP Connecting Block: This block (Fig. 7) should be mounted on a B outlet box. A parts package is provided with the 625WP connecting block consisting of a rubber gasket and four mounting screws to seal the mounting block to the outlet box. Also provided is a plastic

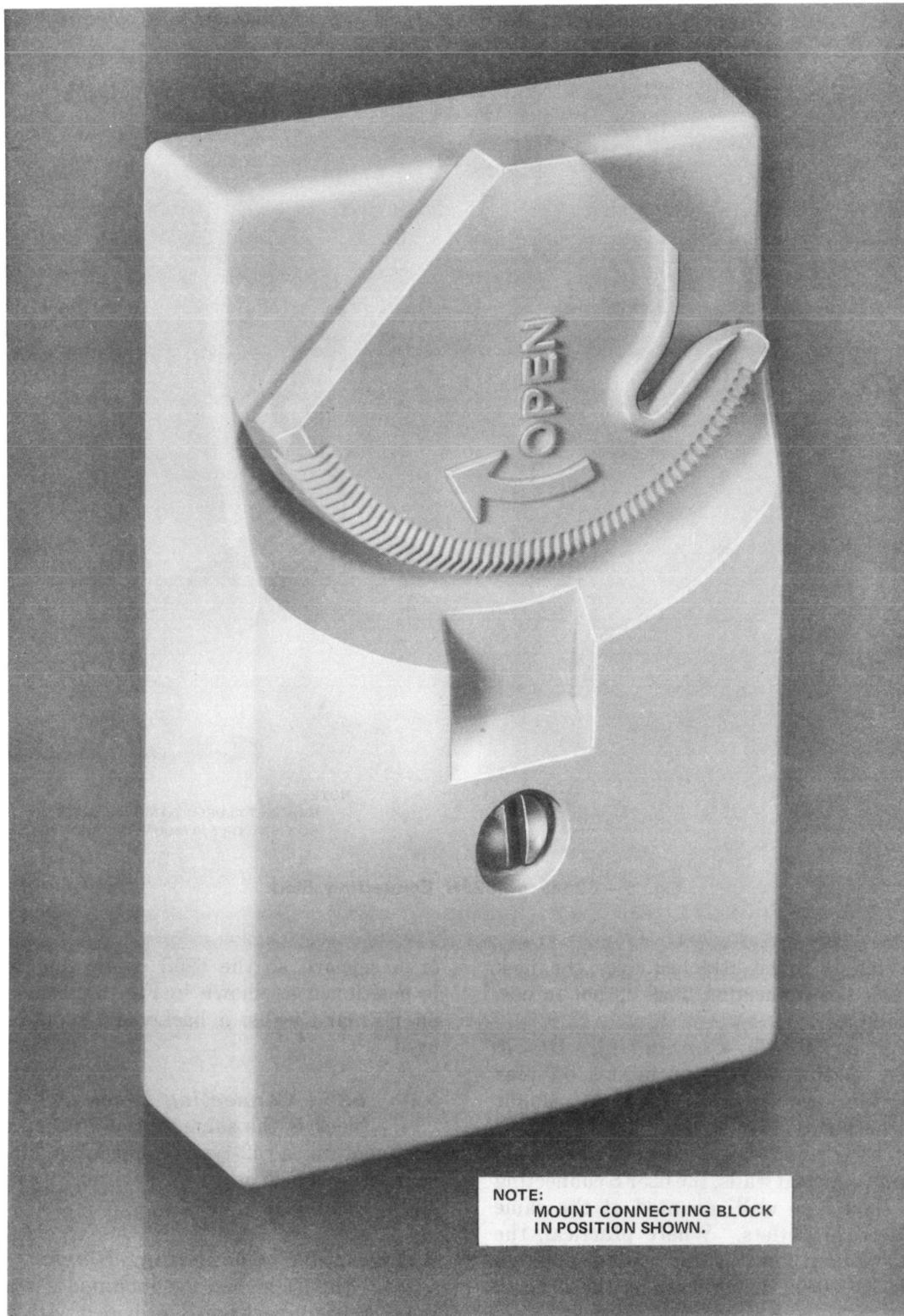


Fig. 6—625S or 625T Connecting Block



Fig. 7—625WP Connecting Block

screw-on cap, a plastic washer, and a split rubber grommet. The cap, washer, and grommet are installed on the mounting cord of the telephone to be used with the jack to seal out moisture. See Table B for appropriate fastener.

3.12 630A4 Connecting Block: This block may be flush mounted on a 63-type bracket or electrical type outlet box or surface mounted on a wall. In all cases, the block should lie flat against the wall with connector springs oriented to the top and tab to the bottom (Fig. 8).

- (a) A fastener package is provided with the 630A4 connecting block consisting of two 3/16-inch 800413577 (P-41357) cover mounting screws, two 5/16-inch 840705008, and two 1-1/8 inch 841065529 flathead machine screws. Depending on mounting arrangement, select proper fasteners from Table B and mount connecting block using holes designated in Fig. 9. The connecting block should be straight before tightening screws.

Caution: When installing on an underflush outlet box or plaster ring,

the connecting block bracket should be tightened just enough so the assembly is tight on the wall once mounting plate is attached and tightened down. Further tightening will distort the bracket excessively.

- (b) The 191B or 191C backboard snaps over the 630A4 to cover wall imperfections when necessary.
- (c) The 630A4 connecting block with the old and new bracket now contains an item called the spring block assembly 840696678 (not shown). This spring block assembly is inserted into the jack and is connected to the station wire by the quick-connect field. The four wires of the assembly have been placed in small slots (combs) to prevent shorting.

3.13 635A (MD) Connecting Block: Remove the cover from the block by loosening the screw in the center. Mount the block on a suitable vertical surface. Connect the line and control station leads (Fig. 15) to the screw terminals.

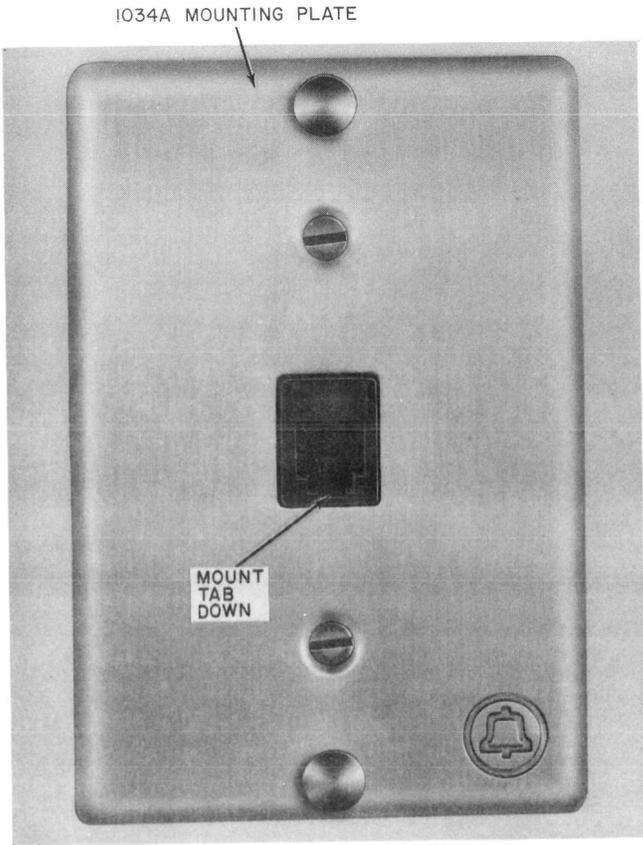


Fig. 8—630A4 Connecting Block (With Mounting Plate)

Replace the cover. Connection of the series or excluded equipment is to be made by inserting the plug into the series jack.

3.14 635B Connecting Block: Remove the cover from the block by loosening the screw in the center. Mount the block on a suitable vertical surface. Connect the line and control station leads to the screw terminals (Fig. 16). If the optional 652A jack is to be installed, connect as shown in Fig. 16 or 17.

4. CONNECTIONS

630A4 Connecting Block

4.01 The 630A4 may be used with exposed or concealed station wire. Each quick-connect terminal (total of four) provides three station wire terminations per lead. One termination is required

- (1) 63-TYPE BRACKET
- (2) GEM BOX AND NORMAL WALL SURFACE
- (3) OR (4) WEAK WALLS, OVERSIZE WIRING HOLE, LOCAL DAMAGE, ETC.
- (5) 1034A MOUNTING PLATE

NOTE:

IF MORE THAN 2 FASTENERS ARE NECESSARY, USE ADDITIONAL MOUNTING HOLES AS REQUIRED

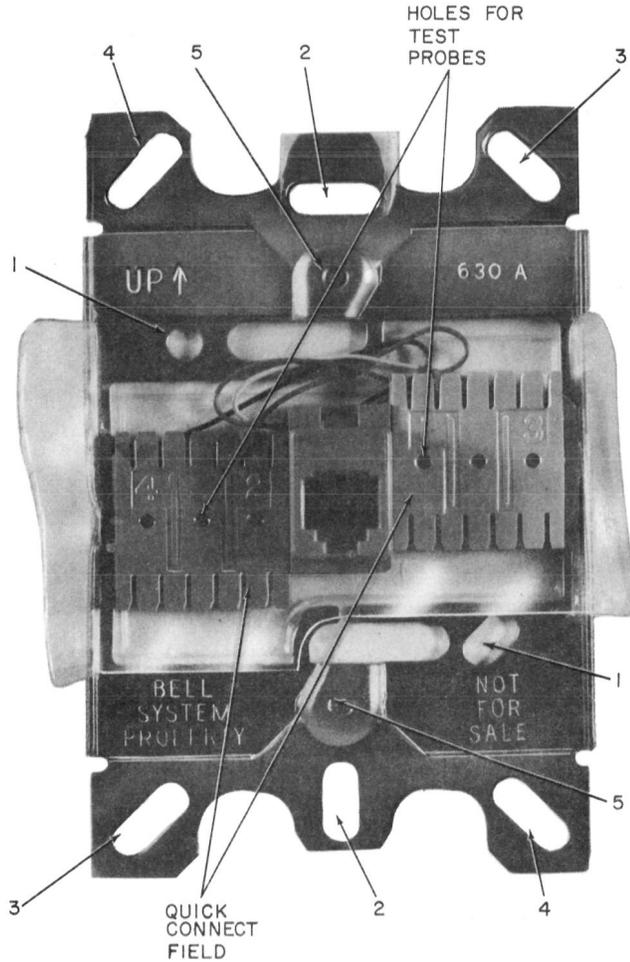


Fig. 9—630A4 Connecting Block (Current Model Without Mounting Plate)

for the jack conductor. An access for a test point is also provided (Fig. 9).

Note: The 630A4 connecting blocks manufactured after March 1977 are received from the factory with a plastic protective wrapper folded around the quick-connect terminals. To connect station wire, fold out the front and side flaps, make connections and dress leads (Fig. 10), then refold wrapper

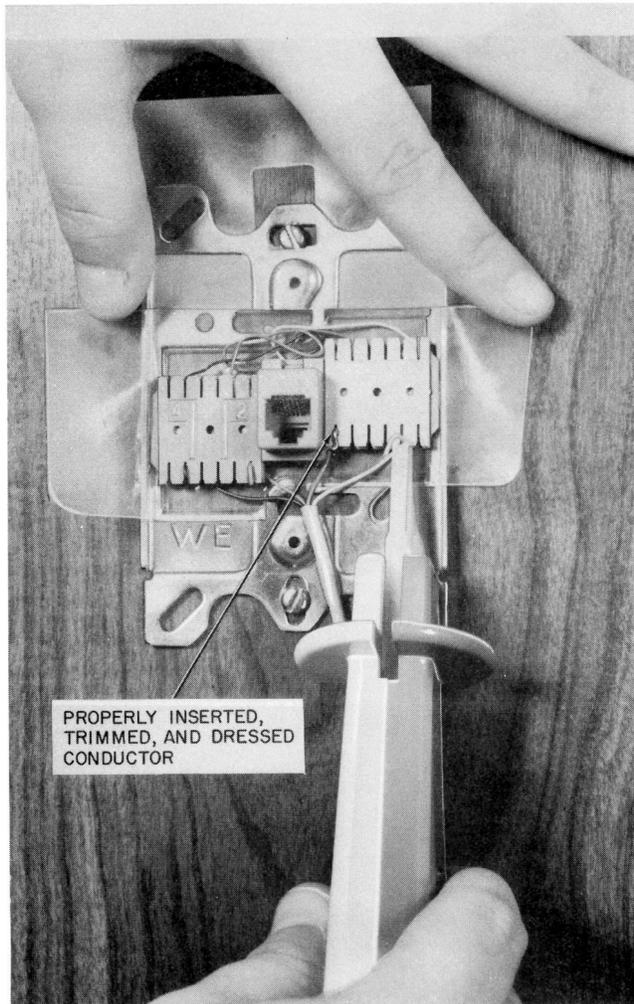


Fig. 10—Terminating Wire With Lead Insertion Tool in 630A4 Connecting Block

across terminals. This wrapper protects the terminals from foreign matter and also prevents wire ends from making contact with 1034A mounting plate. If a 630A4 connecting block without this protective wrapper is used, insulating tape should be applied to the inside surface of the 1034A mounting plate to prevent any wire ends from making contact with the plate.

4.02 Make connections as shown in Table A as follows:

- (1) Leave station wire conductors unstripped.
- (2) Dress the conductors so they will not be pinched or cross over each other.
- (3) Use the lead insertion tool to seat conductors in bottom of slots (Fig. 10). Do not twist or rock insertion tool and allow sufficient slack. Do not insert more than one conductor in each slot. Trim the terminated leads approximately 1/4 of an inch from the connecting surface and bend downward in such a manner that the conductor tips do not make contact with the mounting plate.

Caution: Use no other tool (eg, a screwdriver) than approved insertion tool to insert leads lest connectors be damaged, resulting in noisy connections.

- (4) Attach mounting plate (Fig. 8) using the two 3/16-inch 800413577 (P-41357) cover mounting screws or two 5/16-inch 840705008 flathead machine screws from the fastener package.
- (5) Remove the protective mylar cover from the stainless steel plate.
- (6) Check for continuity on each lead by inserting 934A tool or 523A4 plug and connecting test set.

Note: Use of heavy gauge (greater than No. 22 AWG), such as JKT station wire or heavily insulated GS-type station (MD) wire, may cause difficulty in installation and/or damage to the connecting block. Such wire should be used only where it is impossible to provide appropriate types (D, G, or H station wire or E inside wire). Do not strip insulation from conductors.

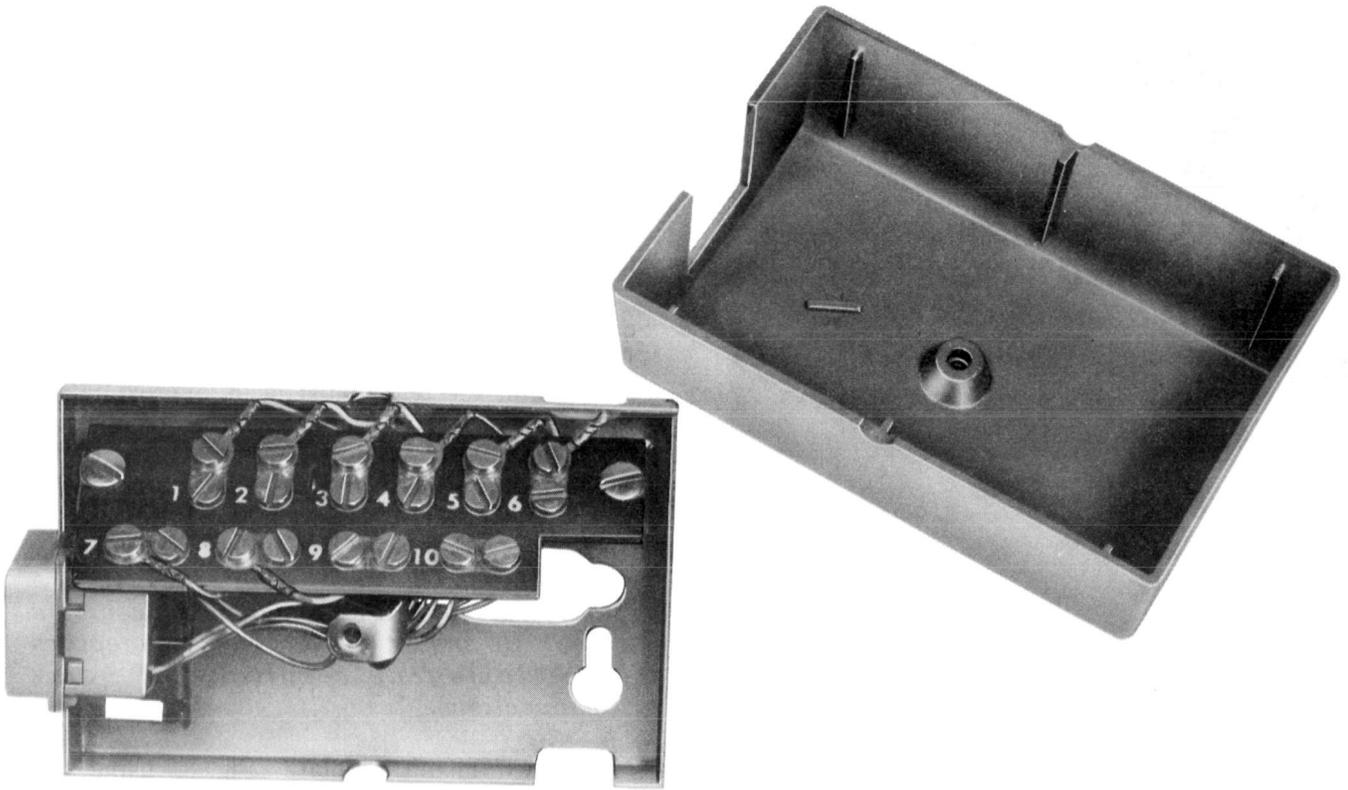


Fig. 11—635A (MD) Connecting Block

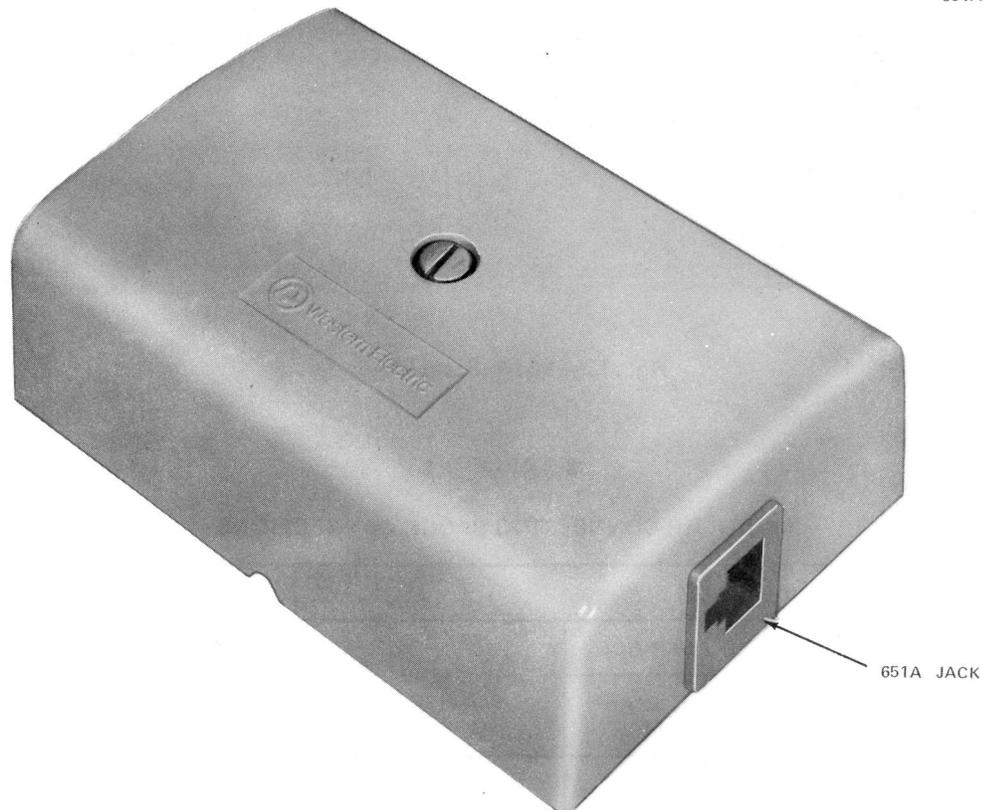
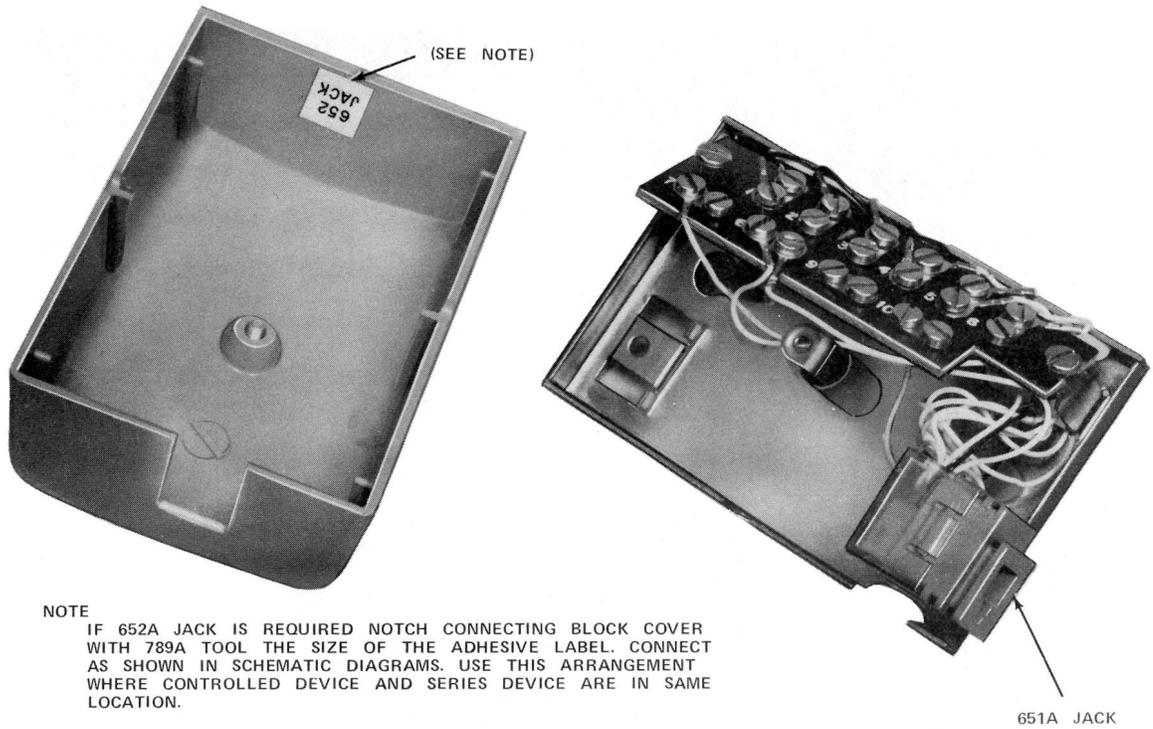


Fig. 12—635B Connecting Block

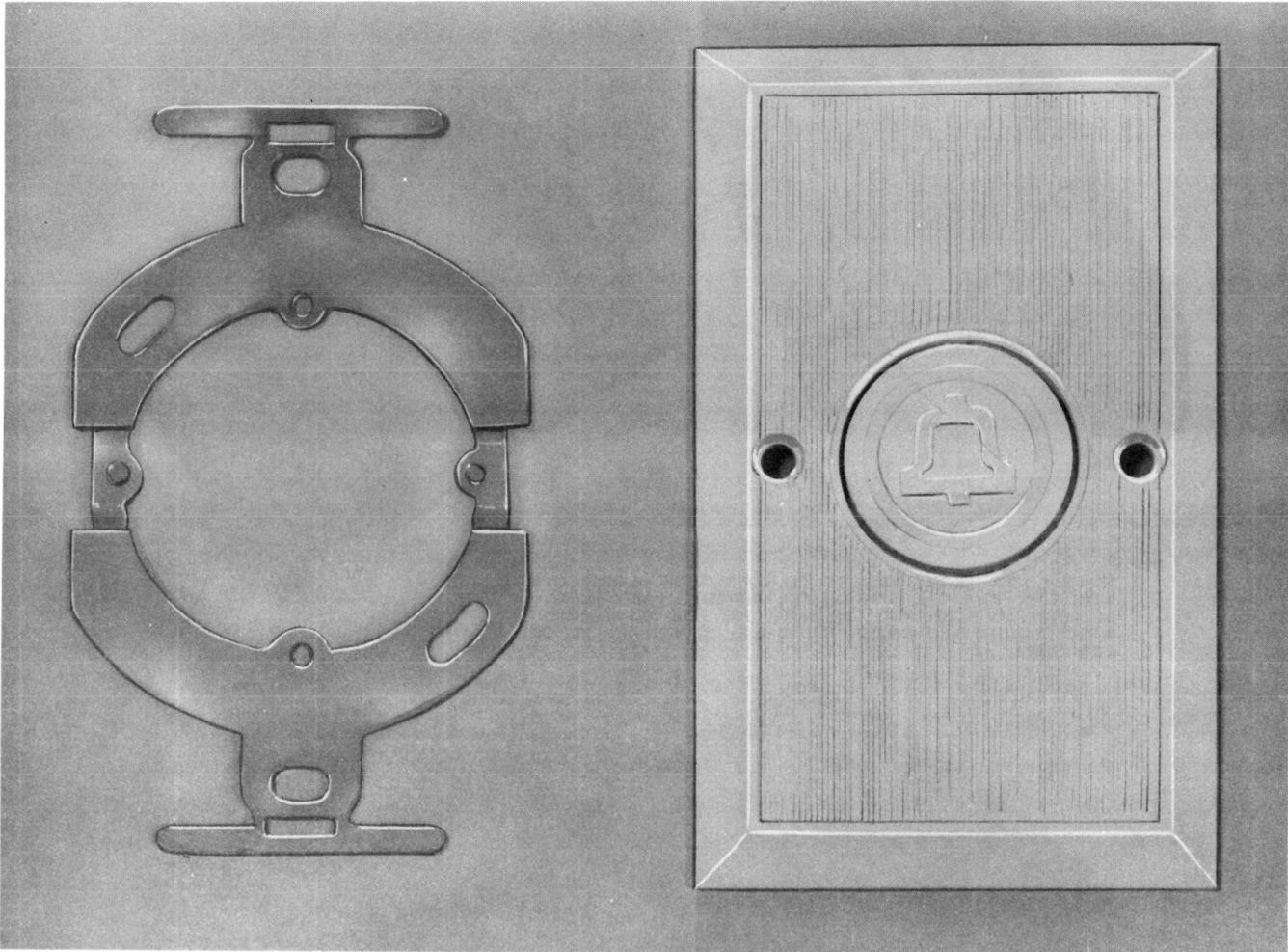
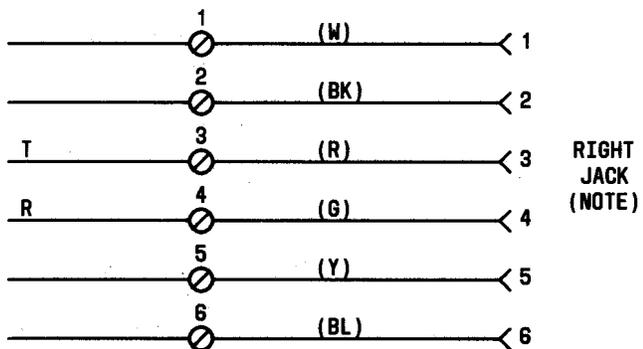
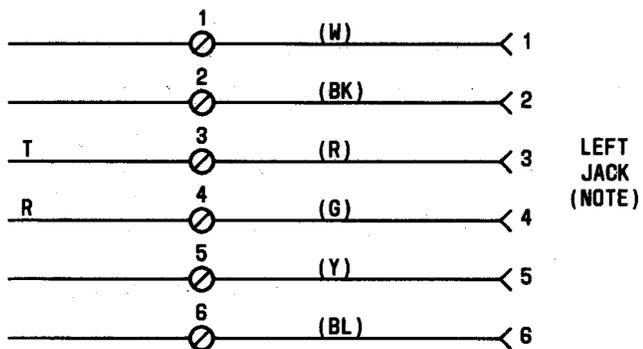


Fig. 13—65A Faceplate

TABLE A

MODULAR CONNECTING BLOCK CONNECTIONS

INSIDE WIRE				CONNECTING BLOCK			
HOSPITAL EKG LINE	1A1 OR 1A2 KTS	ONE-LINE SERVICE		TWO-LINE SERVICE	TERMINAL		LEAD COLOR
		NO DIAL LIGHT	DIAL LIGHT		625-TYPE	630A4	
Tip	Tip	Tip	Tip	Line 1 Tip	G	1	Green
Ring	Ring	Ring	Ring	Line 1 Ring	R	2	Red
	A		TRNSF	Line 2 Tip	B	4	Black
	A1		TRNSF	Line 2 Ring	Y	3	Yellow



NOTE: TOP ROW OF TERMINALS IS ASSOCIATED WITH LEFT HAND JACK AND BOTTOM WITH RIGHT HAND WHEN VIEWED FROM FRONT OF CONNECTING BLOCK WITH DESIGNATION CARD UP.

Fig. 14—Schematic Diagram, 625D6 Connecting Block

◆ TABLE B ◆

FASTENERS FOR MOUNTING 630A4 CONNECTING BLOCK

TO FASTEN CONN BLK TO	QUANTITY*	TYPE OF FASTENERS
1034A Mounting Plate	2	3/16-Inch 800413577 (P-41357) Flathead (#6-32) Machine Screw or 5/16-Inch 840705008
63-Type Bracket or Gem Box	2	1-1/8 Inch 841065529 Flathead (#6-32) Machine Screw
Stucco	2	No. 8-15 by 1-Inch Tapping Screw (840502744), Type AB‡
Plaster on Wood Lath	2	B Wall Screw Anchor, Size 4 or 6†
Plaster on Metal Lath	2	Molly Screw
Paneling on Furring Strips	2	No. 6 by 1-Inch Wood Screw (Note)
Plaster Board on Studs	2	Screw Anchor, Size 4 or 6†
Hollow Masonry	2	B Wall Screw Anchor, Size 4 or 6†
Solid Masonry	2	Size 10 D Plastic Anchor with No. 8-15 by 1-Inch Tapping Screw, Type B or AB‡ steel anchors

Note: Wood screws into stud or furring strip is required method.

* If connecting block is not securely fastened, additional fasteners should be used.

† Use size 4 anchors for walls up to 5/8-inch thick and use size 6 anchors for walls from 5/8-inch to 1-1/4 inch thick.

‡ Equivalent size and thread engagement or greater. Tapping screws must always be sunk into lath, furring strips, or studs.

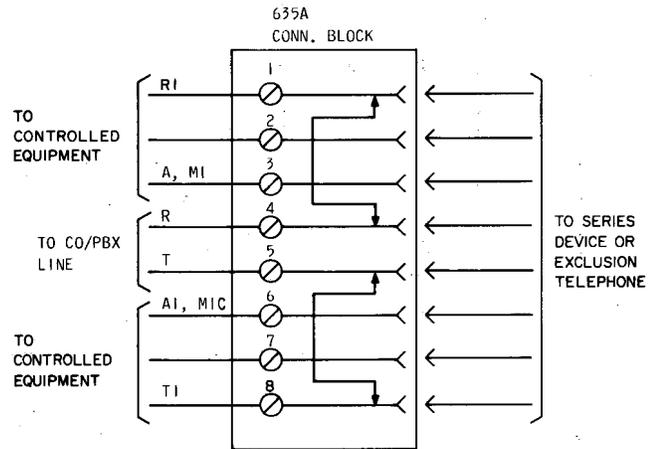


Fig. 15—Schematic Diagram, 635A (MD) Connecting Block

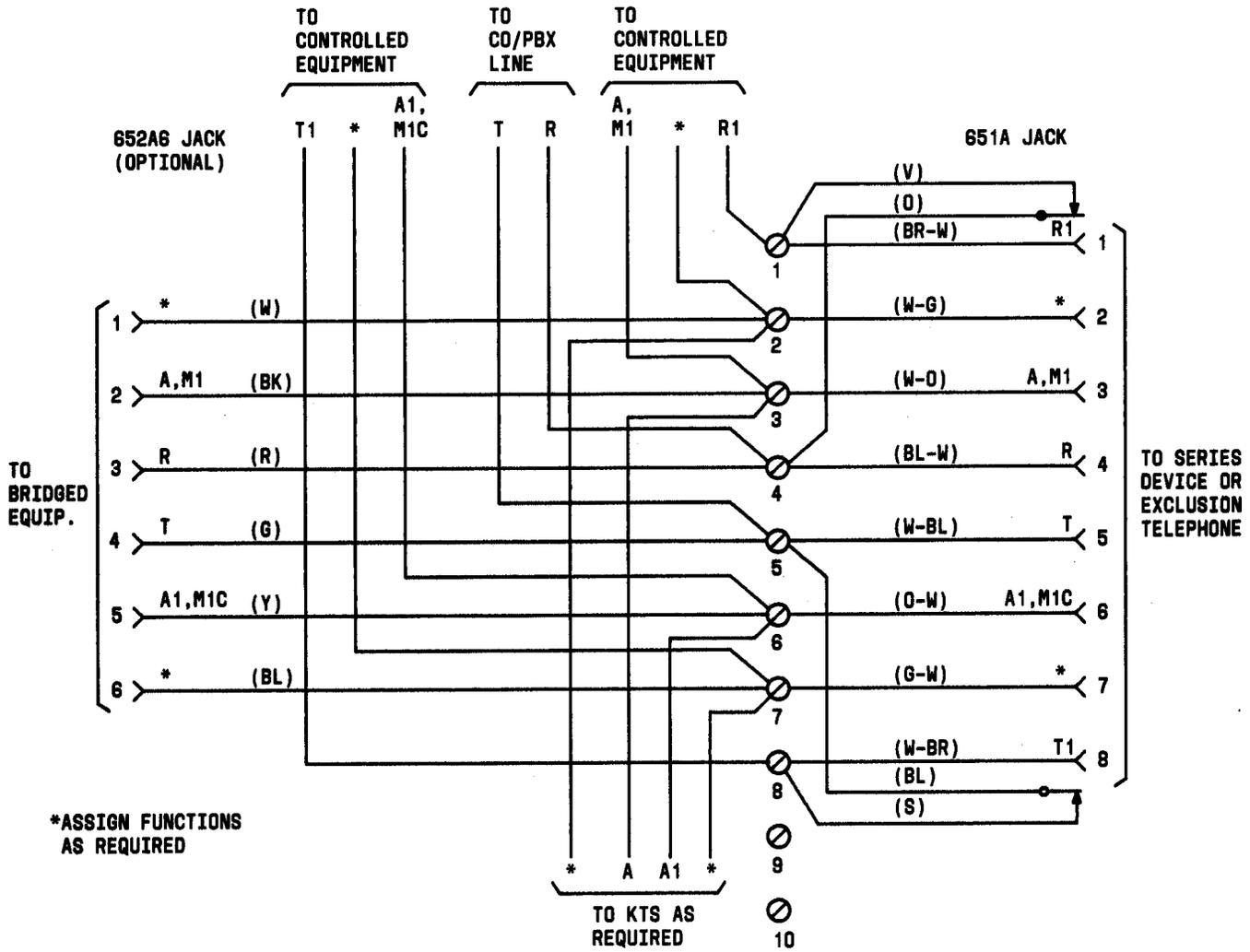


Fig. 16—Schematic Diagram, 635B Connecting Block (Series and/or Bridged Service)

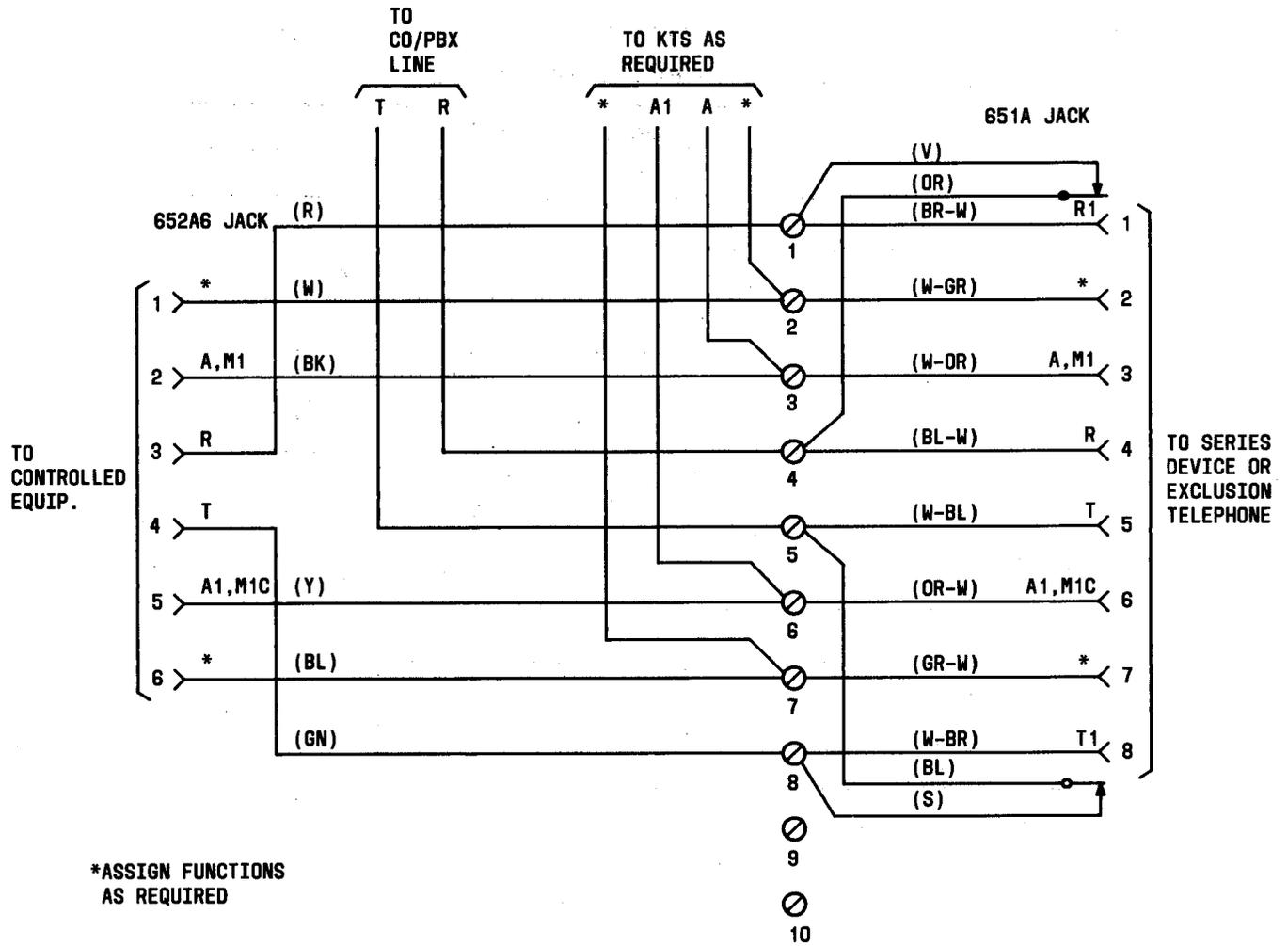


Fig. 17—Schematic Diagram, 635B Connecting Block (Series Service Same Location)

TABLE C

EQUIPMENT REQUIRED—BY USOC CODE

USOC CODE	625A, 625C, 625S, 625T (NOTE 1)	625B, 625F, 625FS, 625D, 625WP (NOTES 2 AND 3)	625H	630A	635-TYPE
RJ11C	•	•			
RJ11W				•	
RJ12C	•	•			
RJ12W				•	
RJ13C	•	•			
RJ13W				•	
RJ14C	•	•			
RJ14W				•	
RJ17C			•		
RJ31X, RJ32X, RJ33X, RJ34X, RJ35X, RJ36X, RJ37X, RJ38X					•

Note 1: For surface-mounted installations.

Note 2: For flush-mounted installations.

Note 3: The 625WP is mounted in a B outlet box which can be either surface- or flush-mounted.