

66-TYPE CONNECTING BLOCK

DESCRIPTION AND USE

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1.	GENERAL	

1.01 This section covers the description and use of the 66-type connecting block used for making multiple connections in station installations.

1.02 This section is reissued to add reference to the D impact tool (AT-8762) and delete reference to the B impact tool. The 714B tool is changed in Fig. 8, 13, 14, 15, and 16. Revision arrows are used to emphasize the more significant changes.



Do not use 66-type connecting block in an outside environment.

1.03 Refer to other sections in the 631 Division of the Bell System Practices for the use of these connecting blocks in building terminals and other applications.

2. DESCRIPTION

2.01 The 50-pair 66B3-50 connecting block (Fig. 1) consists of 50 horizontal rows of quick-connect

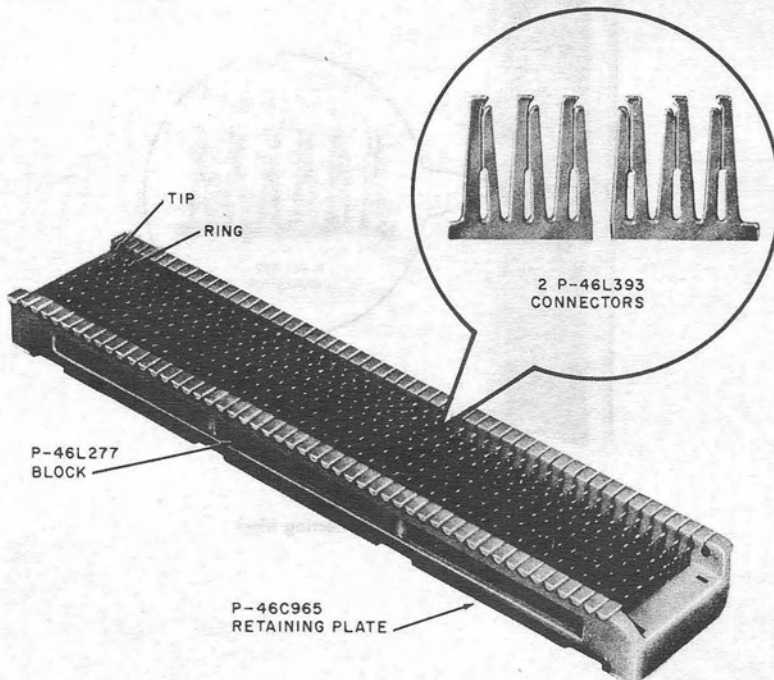


Fig. 1 — 66B3-50 Connecting Block

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connectors inserted in a fire-retardant molded plastic block and held in place by a plastic retaining plate. Each row contains two P-46L393 connectors with three interconnected terminals on each connector.

2.02 The 25-pair 66B4-25 connecting block (Fig. 2) is identical in construction to the 66B3-50 connecting block except that each row of terminals consists of one P-46L882 connector with six interconnected terminals. This block is molded from gray fire-retardant plastic and can be easily distinguished from the white 66B3-50 connecting block.

2.03 The 66M1-50 connecting block (Fig. 3) consists of 50 horizontal rows of quick-clip connectors inserted in a fire-retardant molded plastic block and held in place by a plastic retaining plate. Each horizontal row contains two double quick-clip connectors. The 89B bracket (Fig. 4) is used for mounting the connecting block as shown in Fig. 5. The mounting position and numbering procedure is shown in Fig. 6. The vertical slot of the connecting block must always be located at the lower right corner to prevent backplate from releasing during the terminating (punch down) operation.

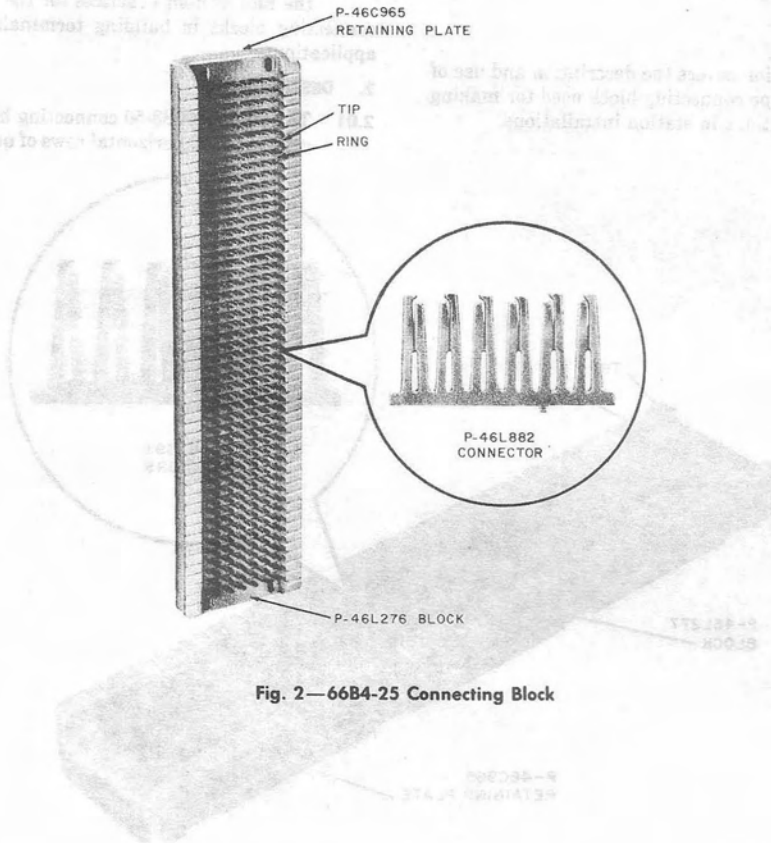


Fig. 2—66B4-25 Connecting Block

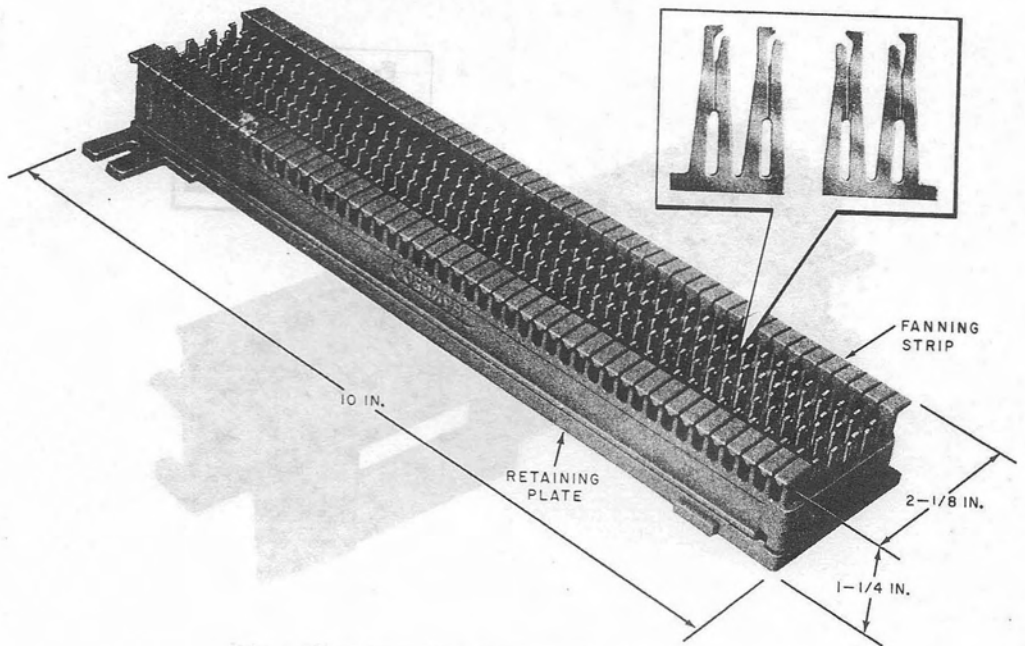


Fig. 3—66M1-50 Connecting Block

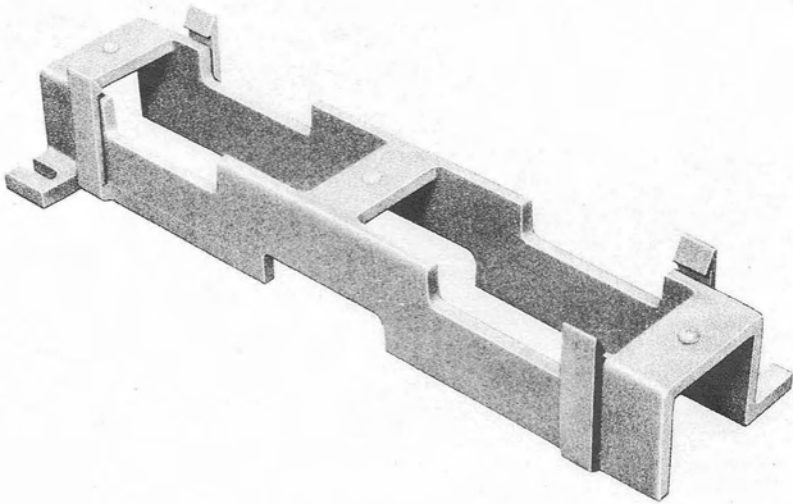


Fig. 4—89B Bracket

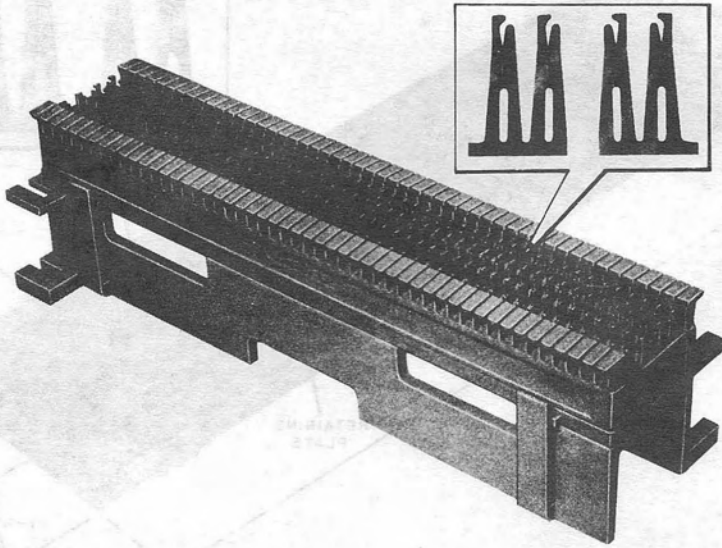


Fig. 5—66M1-50 Connecting Block Mounted on 89B Bracket

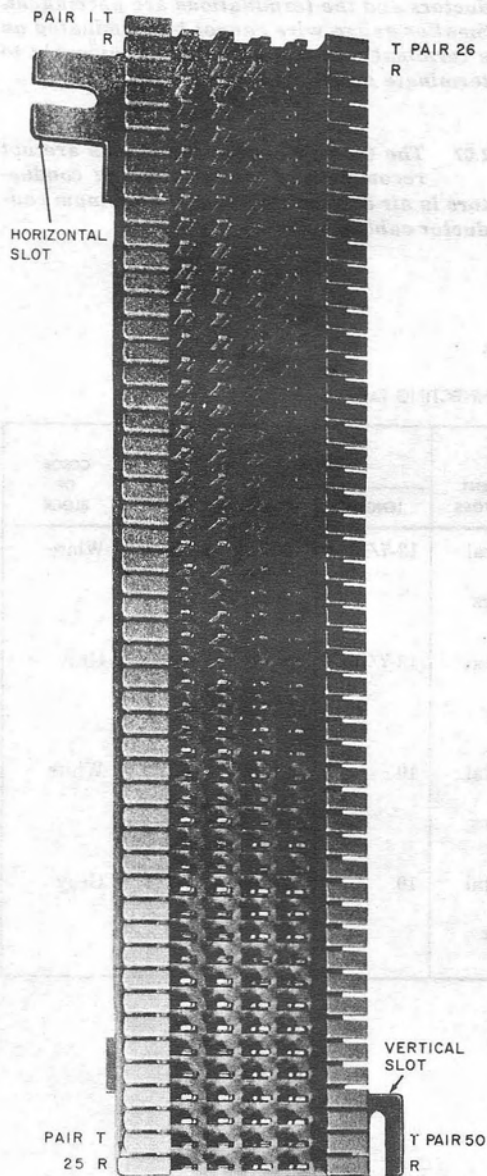


Fig. 6—66M1-50 Connecting Block—Numbering Procedure

2.04 The 66M1-25 connecting block (Fig. 7) is identical in construction to the 66M1-50 connecting block except that each row of terminals consists of one P-46L569 connector with four interconnected terminals. This block is molded from a gray fire-retardant plastic and can be easily distinguished from the white 66M1-50 connecting block.

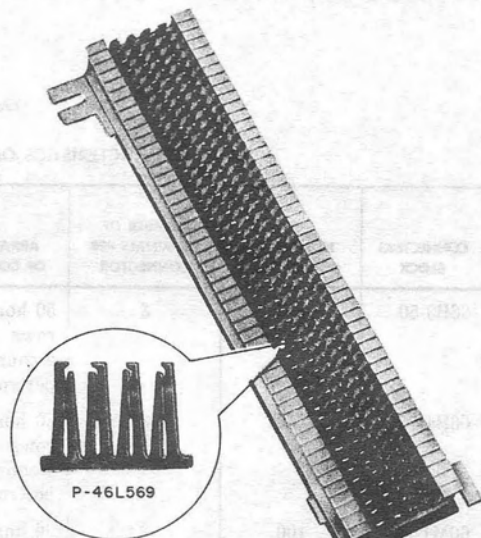


Fig. 7—66M1-25 Connecting Block

2.05 Characteristics of the connecting blocks are listed in Table A.

2.06 The 66-type connecting blocks are used for terminating 20-, 22-, and 24-gauge plastic insulated conductors (PIC) without removing the insulation; **26-gauge conductors may be terminated on the 66M1-50 connecting block when used in conjunction with the 89B bracket to provide mechanical protection to cable con-**

ductors and the terminations are permanent. Smaller gauge wire cannot be terminated on a terminal that has been used previously to terminate an 18- or 19-gauge conductor.

2.07 **The 66-type connecting blocks are not recommended for terminating conductors in air core or waterproof aluminum conductor cables.**

TABLE A
CHARACTERISTICS OF CONNECTING BLOCKS

CONNECTING BLOCK	NUMBER OF CONNECTORS	NUMBER OF TERMINALS PER CONNECTOR	ARRANGEMENT OF CONNECTORS	DIMENSIONS (APPROX INCHES)			COLOR OF BLOCK
				LENGTH	WIDTH	DEPTH	
66B3-50	100	3	50 horizontal rows 2 connectors per row	13-7/16	2-5/8	1-3/16	White
66B4-25	50	6	50 horizontal rows 1 connector per row	13-7/16	2-5/8	1-3/16	Gray
66M1-50	100	2	50 horizontal rows 2 connectors per row	10	2-1/8	1-1/4	White
66M1-25	50	4	50 horizontal rows 1 connector per row	10	2-1/8	1-1/4	Gray

3. TERMINATING

3.01 All terminations on the 66-type connecting blocks described in Part 2 should be made with the 714B tool (Fig. 8) or Φ D impact tool AT-8762.

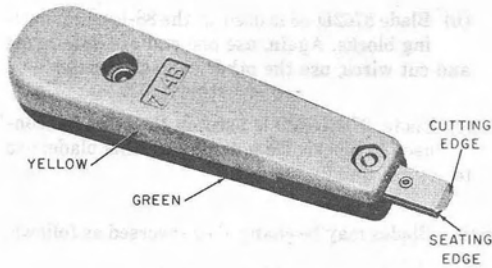


Fig. 8— Φ 714B Tool

3.02 The 714B tool consists of a reversible steel blade attached by a screw to a plastic handle. One end of the blade is used for seating and cutting conductors while the other end is used for seating the conductors only.

3.03 The plastic handle is yellow and green. The yellow identifies the cutting edge of the blade.

3.04 To reverse the blade of the 714B tool, proceed as follows:

Warning: Always carry the 714B tool with the cutting edge protected or turned into handle.

- (1) Loosen the screw, then pull the blade out.
- (2) Rotate the blade 180 degrees, push the blade back into the handle, and tighten the screw.

3.05 The Φ D impact tool AT-8762 (Fig. 9), which can be used interchangeably with the present 714B tool, employs a spring impact mechanism in the handle to activate the blade.

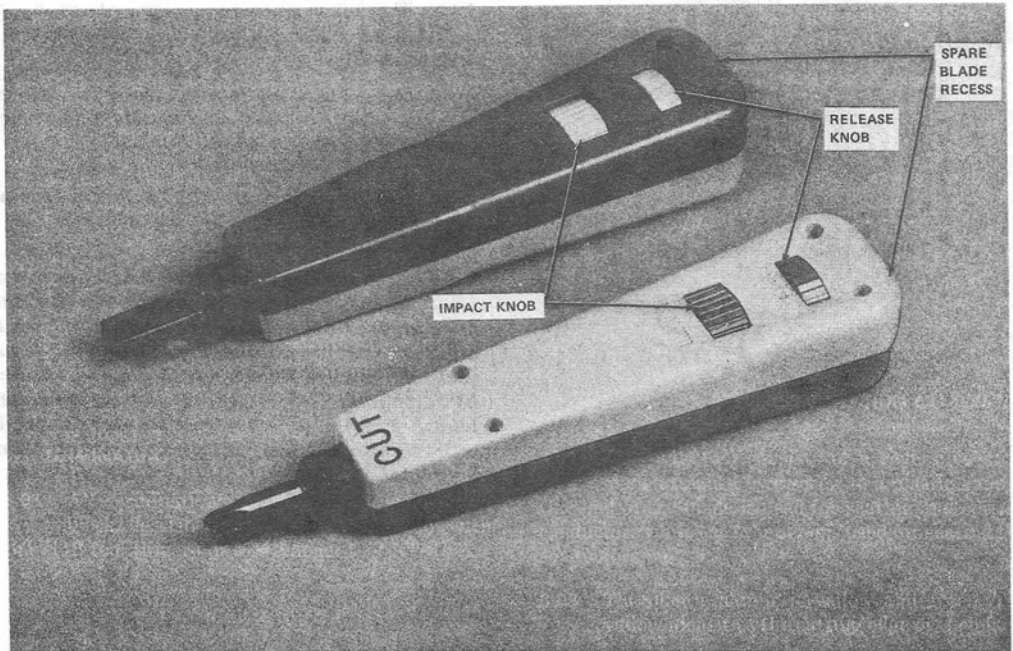


Fig. 9— Φ D Impact Tool

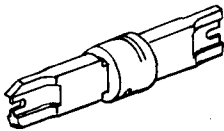
3.06 ♦The knob labeled **RELEASE** controls the release of a spare blade from the storage compartment in the handle.

3.07 The knob labeled **IMPACT** provides the ability to adjust for HI or LO impact when terminating wires as follows:

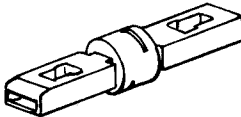
- (a) LO for use on 88-type connectors and with 24- and 26-gauge conductors on 66-type connectors.
- (b) HI for use on 66-type connectors using 22-gauge or larger conductors.
- (c) The impact feature should not be used on the 630-type connectors due to the design of the blade.

3.08 Three blades are currently being introduced with the D impact tool (Fig. 10). Each blade has a solid barrel located in the midportion of the blade. The barrel is grooved to fit the spring pin lock of the handle.

BLADE 8762-88



BLADE 8762-66



BLADE 8762-630

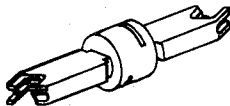


Fig. 10—♦Blades for Use With D Impact Tool♦

3.09 The blades are used as follows:

- (a) Blade 8762-66 is used to make connections on the 66-type connecting blocks. Use one end of blade to set and cut wires; use the other end to set only.
- (b) Blade 8762D-88 is used on the 88-type connecting blocks. Again, use one end of blade to set and cut wires; use the other end to set only.
- (c) Blade, 8762D-630 is used on the 630-type connecting blocks. Do not cut with this blade; use to set wires only.

3.10 Blades may be changed or reversed as follows:

- (1) Align groove in blade barrel with spring pin in handle.
- (2) Insert fully and turn clockwise 1/4 turn.
- (3) To remove blade, reverse above procedure.♦

3.11 The following types of terminations can be made on the 66-type connecting block:

- (a) **Loop-Through Termination:** The conductors loop through the terminal to another terminal or connecting block.
- (b) **End Termination:** The conductor ends at this location.

3.12 When working on in-service connecting blocks having special circuits, **make sure that the special circuit terminals are protected with B clip terminal insulators (Fig. 11 and 12). Protect any special circuit not having insulators by cutting B clip terminal insulators to proper length and placing over special circuit terminals. Obtain authorization before working on a special circuit.**



Fig. 11—B Clip Terminal Insulator

B CLIP TERMINAL
INSULATOR



Fig. 12—B Clip Terminal Insulator Installed on Connecting Block

Note: Procedure for making terminations and removing wire from terminal are illustrated using 66M1-50 connecting block; however, the procedures are identical for all 66-type connecting blocks listed in Table A.

3.13 To make a loop-through termination on the connecting block, proceed as follows (Fig. 13 and 14):

- (1) Select the wire to be looped and feed through the fanning slot adjacent to connector.
- (2) Loop the wire and place in hook of terminal.
- (3) Place the *seating end* of the 714B tool over the terminal and press the tool toward the block until the wire is fully seated. **Avoid tilting or twisting the 714B tool when seating the wire.**

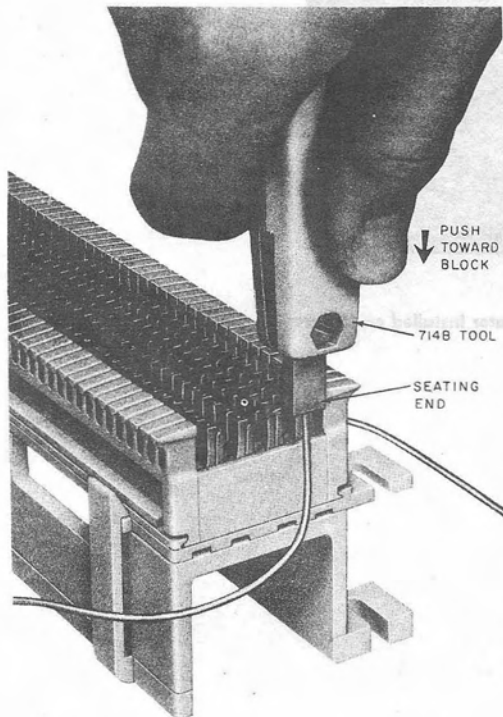


Fig. 13—▶Making Loop-Through Termination◀

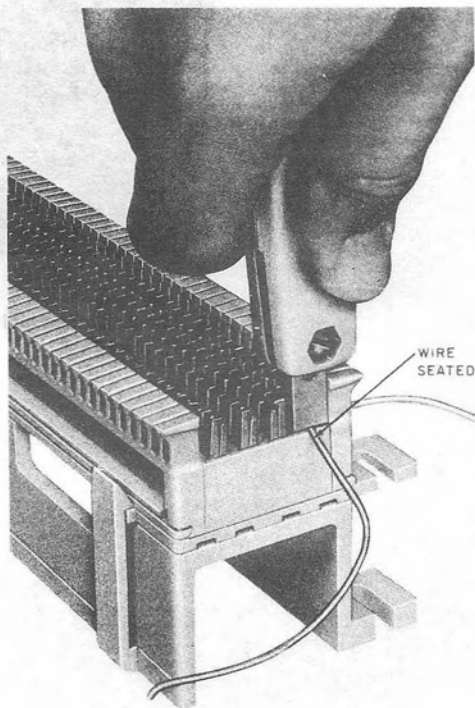


Fig. 14—▶Loop-Through Termination Complete◀

3.14 To make an end termination on the 66-type connecting block, proceed as follows (Fig. 15 and 16):

- (1) Select the wire to be terminated and feed through the fanning slot adjacent to connector.
- (2) Place the wire in hook of terminal.

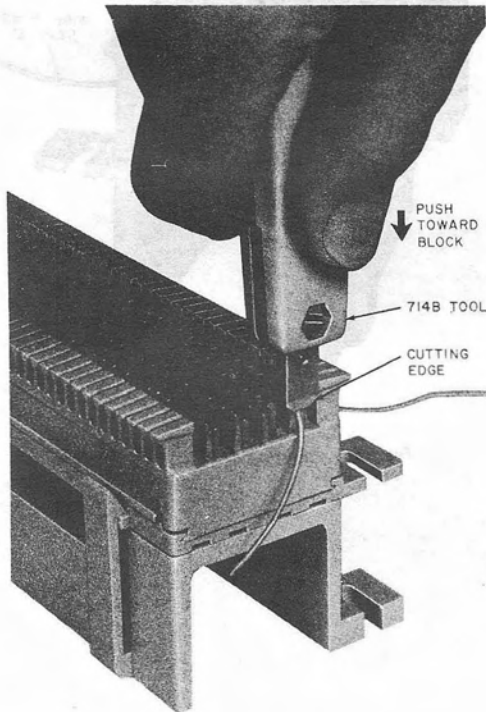


Fig. 15—Making End Termination

(3) Position the *cutting end* of the 714B tool over the terminal. *Ensure that the cutting edge of the blade is positioned over the scrap end of the wire.* Push the 714B tool toward the block until the wire has been severed against the face of the block.

3.15 Refer to Section 631-470-201 for multiple wire terminations on each terminal connector by the use of 183A2 adapter.

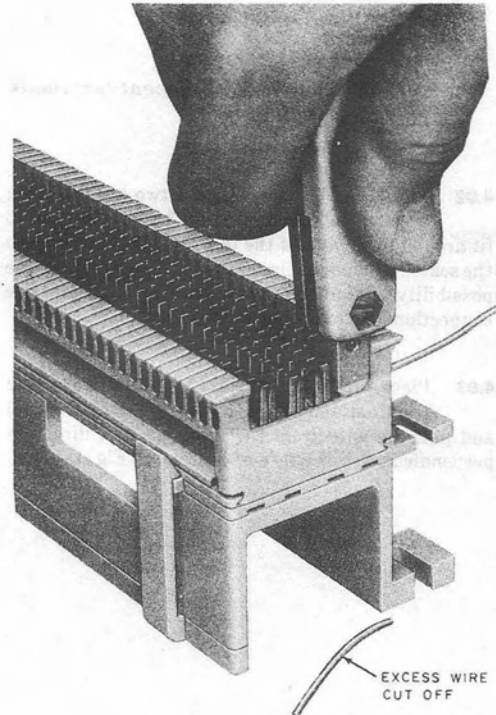


Fig. 16—End Termination Complete

4. REMOVING WIRE FROM TERMINAL

4.01 The 724A tool (Fig. 17) is used to remove wires from the terminals of the 66-type connecting block.

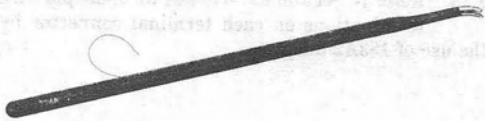


Fig. 17—724A Tool

Caution: Do not use adjacent terminals as leverage points.

4.02 The 724A tool consists of a two-pronged fork with an insulated handle. The fork is sized to fit around the beams of the terminal and underneath the seated conductor. Use of the 724A tool reduces the possibility of disturbing or degrading adjacent wire connections during removal of wire.

4.03 Place the fork of the 724A tool astraddle the terminal and under the wire. Grasp the tool and pull the wire from the terminal in a direction perpendicular to the face of the block (Fig. 18).

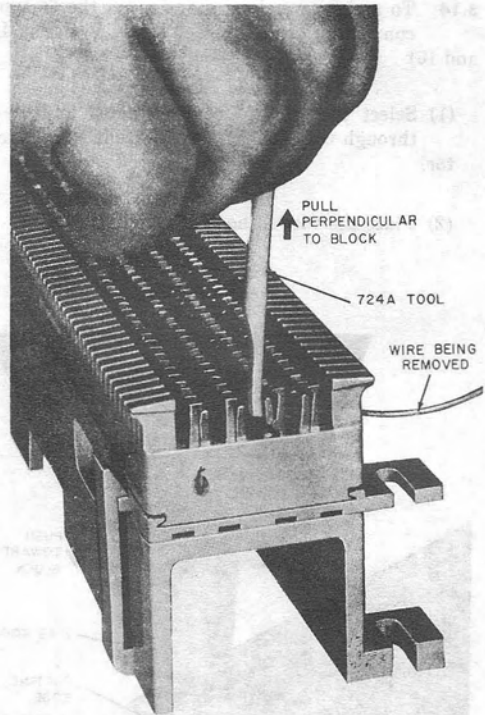


Fig. 18—Removing Wire With 724A Tool

- 4.04 Remove any small pieces of insulation remaining around the terminals with an insulated tool.
- 4.05 To reterminate a wire which has been removed for testing or rearrangement (end termination only), cut off the old contact portion and terminate as outlined in paragraph 3.14.
- 4.06 To reterminate a loop-through wire which has been removed, tape the wire where contact

was previously made and terminate as outlined in paragraph 3.13.

5. MAINTENANCE

- 5.01 Terminals which have been bent or misaligned (Fig. 19) may be corrected by using long-nose pliers (Fig. 20). Bend the terminal until it is aligned with its mate or other terminals of the same row. **Take care not to move terminals in a direction which would spring or open the contact surfaces between the two halves.**

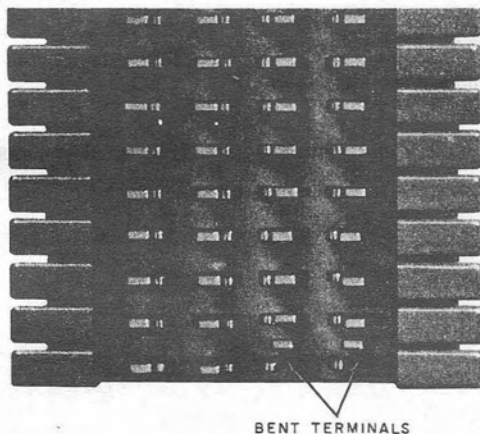


Fig. 19—Bent Terminals

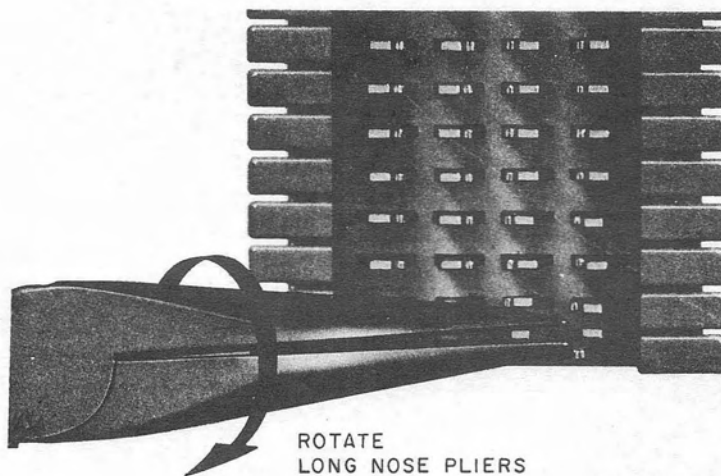


Fig. 20—Straightening Bent Terminals

5.02 Terminals which have been damaged or sprung, resulting in an obvious gap between the two contact surfaces, *should not* be used. There is no prescribed method for correcting a damaged connector; the connector must be replaced.

5.03 To replace a connector on a block not in use, remove the retaining plate and then remove and replace the damaged connector. ***Be careful not to turn the connector block terminals up so that they will fall out, while the retaining plate is off.*** Replace the retaining plate.

5.04 Procedures for replacing connectors on an in-service connecting block are as follows:

- (1) Using a 724A tool, disconnect the wires from the connector to be replaced.
- (2) Remove the connecting block from its mounting location.

(3) Move the connecting block to a position to provide access to its back. ***Take care to prevent disruption of service on in-service terminals.***

(4) Remove the retaining plate, then remove and replace the damaged connector. ***Be careful not to turn the connector block terminals up so that they will fall out, while the retaining plate is off.*** Replace the retaining plate.

(5) Secure the connecting block in its original position.

(6) Rereminate the conductor on the new terminal.

(7) Check the connecting block for broken or damaged conductors.