DRESSING OF SKINNERS
WIRING AND CABLING
GENERAL EQUIPMENT REQUIREMENTS

CONTENTS

CHECK LIST OF FIGURES

Printed in U.S.A.

GENERAL

Scope

1.01 This section covers the general equipment practices for the dressing of skinners to apparatus. For running of surface wiring and loose wiring, refer to Section 800-612-153. For dressing of skinners to apparatus which is exclusively used in crossbar-type equipment, refer to Section 800-612-163. For dressing of skinners to power plant apparatus, refer to Section 800-612-165. For dressing of skinners to electronic-type equipment, refer to Section 800-612-150.

1.02 This section is reissued to bring the information it contains into agreement with the latest practices. Since this reissue covers a general revision, the arrows ordinarily used to indicate changes have been omitted.

1.03 The requirements in this section shall be followed except as modified by applicable specifications and drawings.

2. REQUIREMENTS FOR DRESSING OF SKINNERS

2.01 Dress skinners to various kinds of apparatus as shown herein. The dress to any particular piece of apparatus, not illustrated, should agree as nearly as possible with the dress shown in the illustrations of apparatus it most closely resembles.

2.02 Dress all skinners to present a neat appearance and, as far as possible, to permit access to all connections. In the case of solderless wrapped connections, special care should be taken to dress the skinners to permit future access for the wrapping tool.

2.03 All wires shall be dressed away from vitreous-enamel-type resistors, potentiometers (rheostats), and other heat-producing components to reduce a possible fire hazard.

2.04 After being dressed, except where the type of insulation permits (such as type BG, DM, BW, or DP wire), skinners such as those of type BU or BY wire should not rest against any metal work other than the apparatus terminal to which they are connected. In cases where skinners are dressed between rows of terminals on relatively close spacing, as usually encountered at wire-spring relays and terminal strips, the skinners may touch other terminals. In no case, however, should they be dressed across the edges of other terminals so tightly as to result in pressure between the wires and terminals which might cause insulation breakdown.

(a) Plastic-insulated wire without textile covering that has not been irradiated should not be allowed to come in contact with another terminal which is being soldered. Type BF wire connected to terminal strips that are not arranged for solderless wrapping should be connected in accordance with Fig 80.

2.05 On modifications, unless otherwise specified, the dress of new wiring at any particular piece of apparatus should conform to the existing wiring of the apparatus. Where the change involves all of the old wiring at a particular piece of apparatus, the new wiring should conform with the lates dressing requirements for the apparatus, wherever practicable.

2.06 At terminal strips without fanning strips, such as 181B and similar types, there should be visible clearance between wires and the back edges of rear terminals. Approximately 1/8 inch is desirable to minimize the risk contact in case of movement of the forms.

2.07 At 65B- and 182C-type terminal strips, dress all wires away from adjacent terminals.

2.08 A number of figures (such as Fig 48) show the leads dressed to the lower terminals in the same manner as the dress to the upper terminals. This dress has been used to prevent reverse bends (see Fig 1) in the leads when gun-wrapped connections are made. However, the leads to the lower terminals may be dressed, as shown in Fig 2, provided the connection is made in a manner that does not result in a reverse bend in the dressing operation.

Relay Rack Ground Leads

2.09 Leads between the No 6 bay ground lead and the terminal to which the leads connect should be run in a direct manner without any particular dress and with just sufficient slack to avoid tautness or strain on the leads.

(a) Where the unit is surface or similarly wired and the point of connection is not adjacent to the No.6 ground lead, the leads shall be run as surface wiring to the end apparatus position. From this point they shall be run in a direct manner without any particular dress.

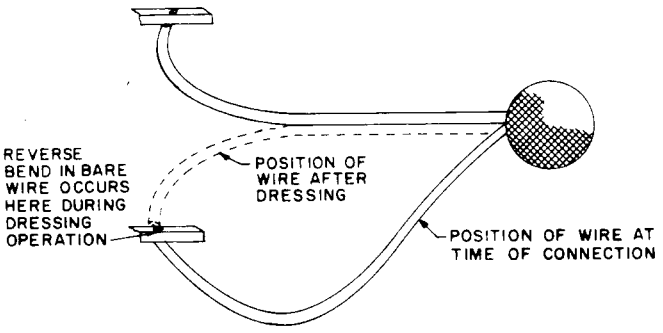
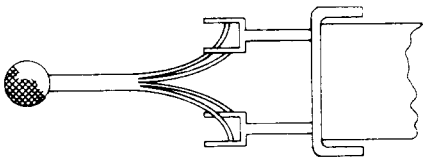


ILLUSTRATION OF A REVERSE BEND

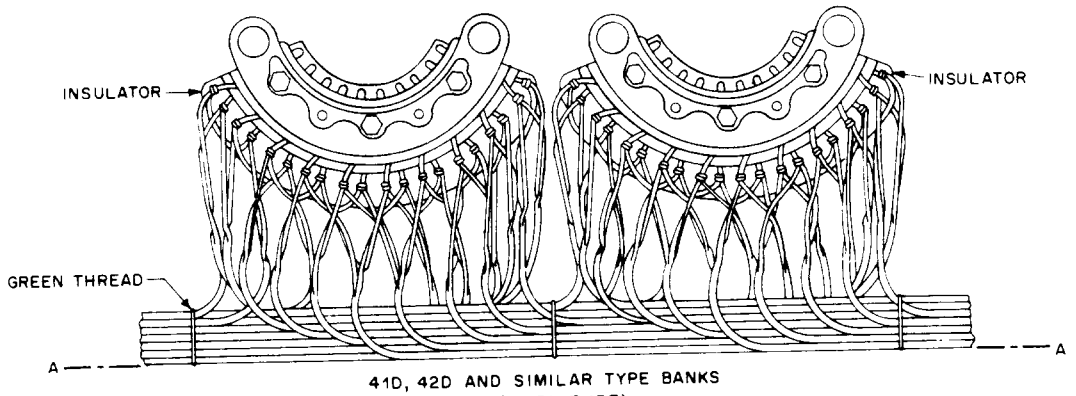
Fig 1—Illustration of a Reverse Band



ALTERNATE METHOD OF DRESS

Fig 2—Alternate Method of Dress

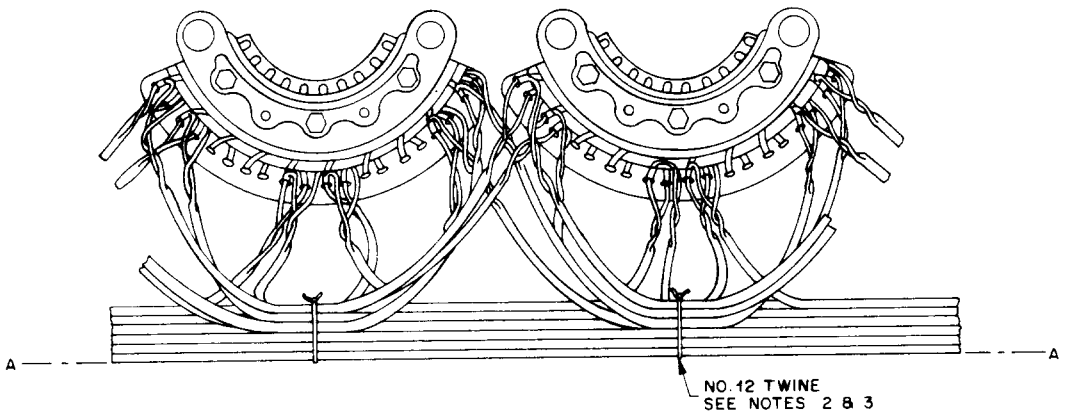
(b) Where the unit is served by a sewed form, the leads from the terminal strip to the No. 6 ground lead should be sewed into the form or superimposed thereon, whichever is more practicable, from the points where the leads break out of the form at the terminal strips to the end of the form. From the end of the form they shall be run to the No. 6 ground lead in a direct manner without any particular dress.



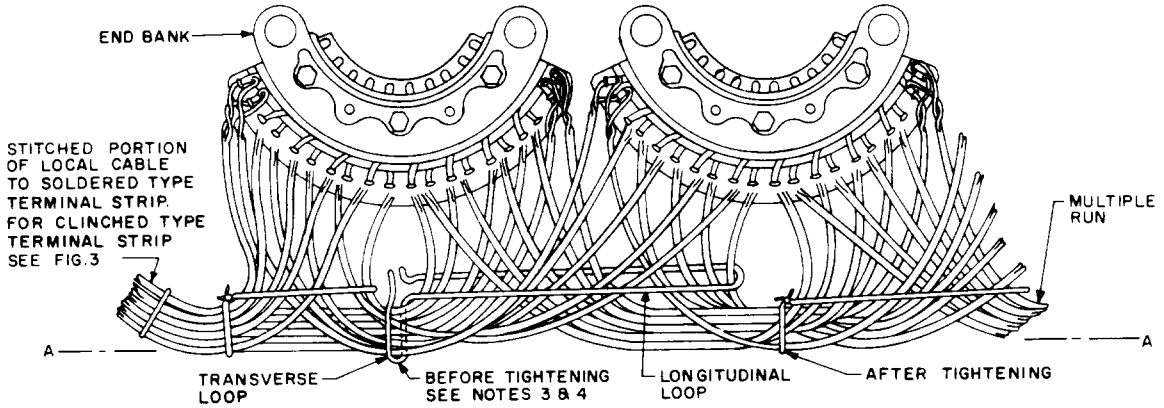
41D, 42D AND SIMILAR TYPE BANKS
(SOLDER TYPE)

NOTES.
1. THE FACE OF THE BANK WIRING AS REPRESENTED BY A-A SHOULD BE DRESSED TO PRESENT A NEAT APPEARANCE AS FAR AS PRACTICABLE, THE SKINNERS SHOULD BE DRESSED AWAY FROM THE TERMINALS AS SHOWN TO PREVENT ANY OF THE WIRES FROM COMING IN CONTACT WITH ADJACENT TERMINALS. NO FURTHER DRESS WILL BE NECESSARY BETWEEN THE FACE OF THE WIRING AT A-A AND THE POINTS WHERE THE SKINNERS LEAVE THE BANK TERMINALS.
2. IN THE CASE OF 41D, 42D, ETC. (SOLDER TYPE) BANKS, THE WIRING BETWEEN THE STITCHED PORTION OF THE INCOMING LOCAL CABLE FORM AND THE END BANK AND BETWEEN BANKS SHOULD BE HELD IN PLACE WITH A SINGLE LOOP OF THREE PLY GREEN THREAD TIED UNDER THE MULTIPLE RUN WITH 1-1/2 SQUARE KNOTS OR EQUIV.
3. THE TIES SHOULD BE OF UNIFORM TIGHTNESS SUFFICIENT TO MAINTAIN THE WIRES WITHIN THE VERTICAL SPACE AVAILABLE AND HELD IN A MANNER TO AVOID PROJECTION BELOW THE ENDS OF THE ASSOCIATED BANK RODS AND TO MAINTAIN A NEAT APPEARANCE WITHOUT INJURING THE WIRES.

Fig 3—Banks—41, 42, and Similar Types (Solder Type)—Multiple Wiring



41E, 42E AND SIMILAR TYPE BANKS
(SOLDERLESS TYPE)
300 WIRE BANKS ONLY
PARTIAL WIRING SHOWN



42E, 42EA AND SIMILAR TYPE BANKS
(SOLDERLESS TYPE)
400,600 AND 800 WIRE BANKS ONLY
PARTIAL WIRING SHOWN

NOTES:

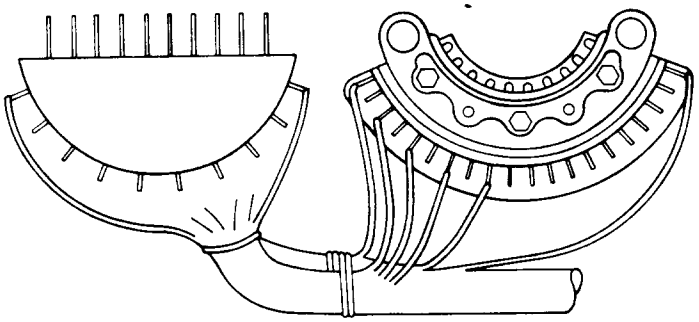
1. THE FACE OF THE BANK WIRING AS REPRESENTED BY A-A SHOULD BE DRESSED TO PRESENT A NEAT APPEARANCE. AS FAR AS PRACTICABLE, THE SKINNERS SHOULD BE DRESSED AWAY FROM THE TERMINALS AS SHOWN TO PREVENT ANY OF THE WIRES FROM COMING IN CONTACT WITH ADJACENT TERMINALS. NO FURTHER DRESS WILL BE NECESSARY BETWEEN THE FACE OF THE WIRING AT A-A AND THE POINTS WHERE THE SKINNERS LEAVE THE BANK TERMINALS.

2. IN THE CASE OF 41E, 42E, ETC. (SOLDERLESS TYPE) BANKS, THE WIRING SHALL BE TIED BETWEEN THE STITCHED PORTION OF THE INCOMING CABLE FORM AND THE END BANK AND BEHIND THE CENTER OF EACH BANK EXCEPT THE WIRING BEHIND THE END BANK TO WHICH THE LOCAL CABLE DOES NOT CONNECT, WHICH SHALL NOT BE TIED. THE TIES SHALL BE MADE WITH A SINGLE LOOP OF NO.12 TWINE, TIED ON THE INNER SURFACE OF THE MULTIPLE RUN WITH 1-1/2 SQUARE KNOTS OR EQUIV. AFTER TYING THE TIES SHALL BE ROTATED SO THAT THE KNOTS AND THE SEVERED TWINE ENDS ARE BELOW THE TOP SURFACE OF THE MULTIPLE RUN TO THE EXTENT THAT THEY WILL NOT BE VISIBLE WHEN THE MULTIPLE IS VIEWED DIRECTLY FROM THE REAR.

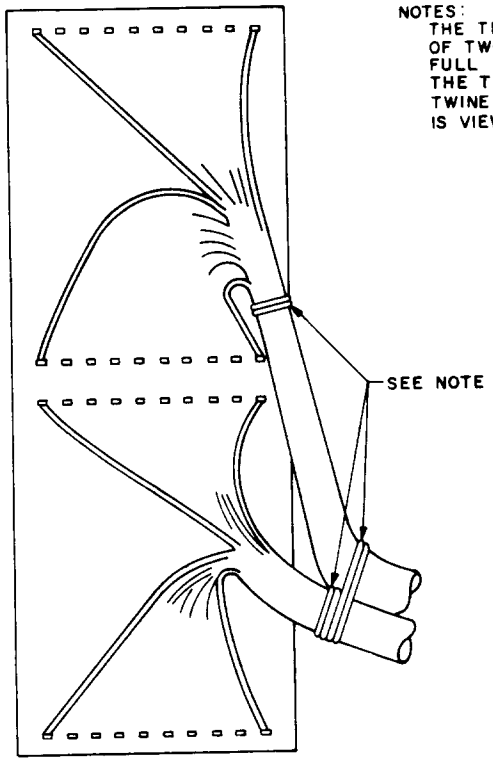
3. THE TIES SHOULD BE OF UNIFORM TIGHTNESS SUFFICIENT TO MAINTAIN THE WIRES WITHININ THE VERTICAL SPACE AVAILABLE AND HELD IN A MANNER TO AVOID PROJECTION BELOW THE ENDS OF THE ASSOCIATED BANK RODS AND TO MAINTAIN A NEAT APPEARANCE WITHOUT INJURING THE WIRES.

4 IN THE CASE OF 42E, 42EA, ETC. (SOLDERLESS) TYPE BANKS WHERE THE MULTIPLE CONSISTS OF 400,600, OR 800 WIRES, THE WIRING SHALL BE TIED WITH A COMBINATION TRANSVERSE AND LONGITUDINAL TIE USING SINGLE NO.12 TWINE STARTING AT THE LOCAL CABLE FORM NEXT TO THE END BANK WITH WHAT WOULD CORRESPOND WITH THE TRANSVERSE PORTION OF THE COMBINATION TIE, AND CONTINUE TO THE CENTER OF THE FIRST BANK WITH WHAT WOULD CORRESPOND WITH THE LONGITUDINAL PORTION OF THE TIE. CONTINUE THE COMBINATION TIES THROUGH THE BANKS EXCEPT OMIT THE TRANSVERSE TIE AT AN END BANK NOT CONNECTED TO A LOCAL CABLE OR CABLE EXTENSION. MAKE TIES AT THE TRANSVERSE PORTION OF THE TIE ON THE UPPER SURFACE OF THE MULTIPLE USING 1-1/2 SQUARE KNOTS OR EQUIVALENT AND ROTATE SO THAT THE KNOTS AND SEVERED TWINE ENDS ARE BELOW THE TOP SURFACE OF THE MULTIPLE AND NOT VISIBLE WHEN THE MULTIPLE IS VIEWED FROM THE REAR.

Fig 4—Banks—41, 42, and Similar Types (Solderless Type)—Multiple Wiring



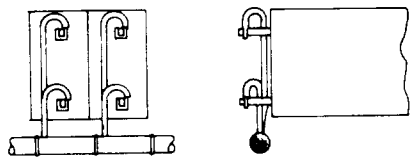
TOP VIEW



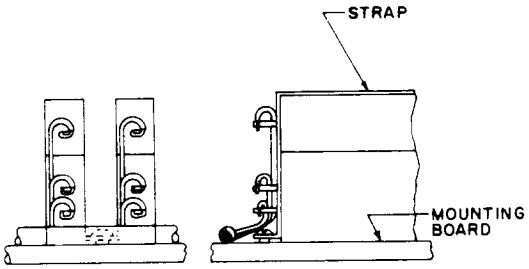
REAR VIEW

NOTES:
THE TIES SHALL BE MADE WITH A STARTING STITCH OF TWO STRANDS OF NO. 12 TWINE ENDING WITH A FULL SQUARE KNOT OR EQUIVALENT. AFTER TYING, THE TIES SHALL BE ROTATED SO THAT THE SEVERED TWINE ENDS ARE NOT VISIBLE WHEN THE MULTIPLE IS VIEWED FROM THE REAR.

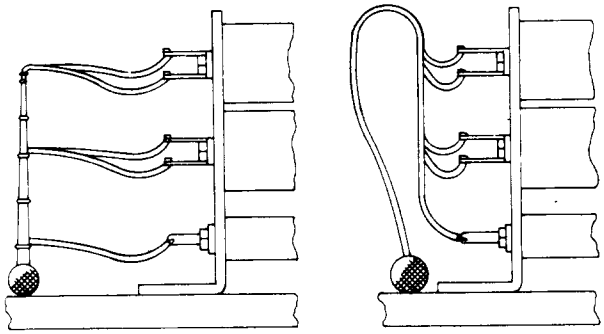
Fig 5—Bank Multiple Wiring to 264-Type Terminal Strips



447, 449 AND SIMILAR TYPE
CAPACITORS PLACED ON END.



447, 449 AND SIMILAR TYPE
CAPACITORS IN FLAT PILE UP

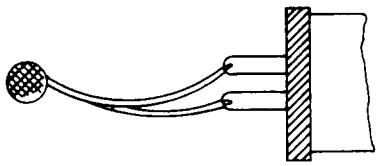


WHERE SEPARATE CABLE ARMS CAN BE LOCATED OPPOSITE EACH BRACKET

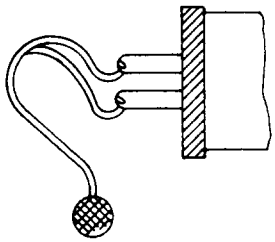
WHERE CABLE ARM MUST BE PLACED CLOSE TO BRACKET

153, 437, 439-442, 475 AND SIMILAR TYPE
CAPACITORS MOUNTED ON 27 TYPE BRACKETS

Fig 6—Capacitors—153, 437, 439 to 442, 447, 449, 475, and Similar Types

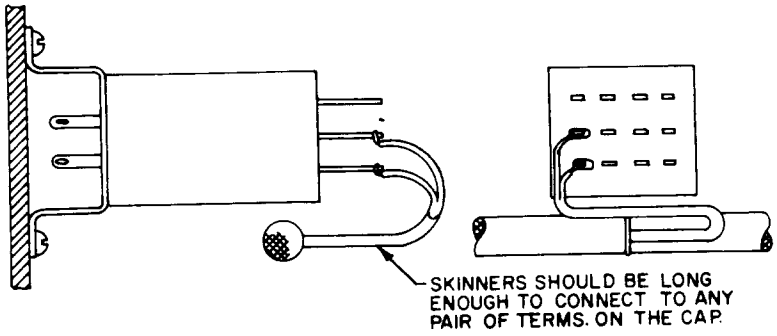


STRAIGHT DRESS
EQUAL SKINNERS



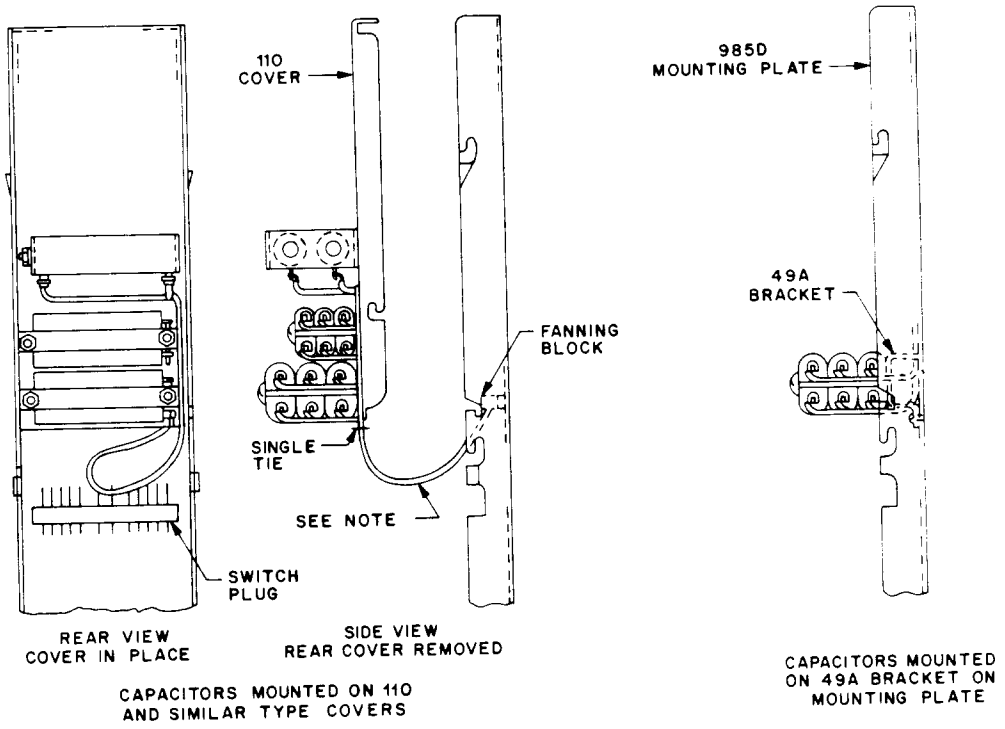
LOOPED DRESS
EQUAL SKINNERS

Fig 7—Capacitors—187, 437, 439 to 442, 447, 449, and Similar Types
Inductors—82, 182, 274, 307, and Similar Types
Loading Coils—621 and Similar Types in 141A- and Similar-Type Loading Coil Cases
Varistors—33 and Similar Types



187 CAPACITOR ON 25B BRACKET
(COVER OMITTED)

Fig 8—Capacitors—187 and Similar Types on 25B-Type Brackets on Rear of Mounting Plates



NOTE:
PROVIDE SLACK TO ALLOW FOR REMOVAL OF THE REAR COVER FOR MAINTENANCE. THE LENGTH OF THE LEADS SHOULD BE APPROXIMATELY 6" FROM THE LOWER EDGE OF THE REAR COVER TO THE LOWER EDGE OF THE FANNING BLOCK. WHEN THE COVER IS IN PLACE THE SLACK WILL BE DRESSED BACK AGAINST THE MOUNTING PLATE IN THE SPACE BETWEEN THE FANNING BLOCK AND SWITCH PLUG. EXCEPT FOR A SINGLE TIE LOCATED AS SHOWN, NO OTHER SEWING IS REQUIRED.

Fig 9—Capacitors—447, 449, and Similar Types, or Similar Apparatus Mounted on Rear Covers or on 49A-Type Brackets on 985- and Similar-Type Switch Mounting Plates

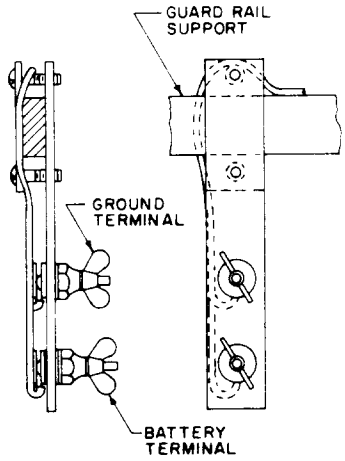
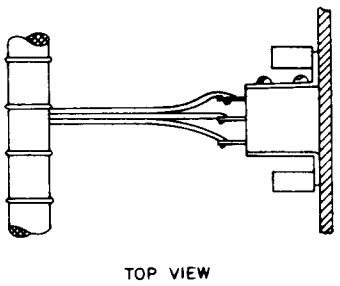
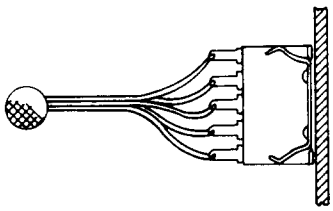
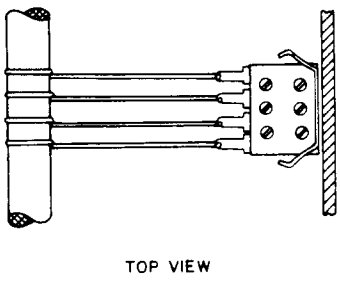


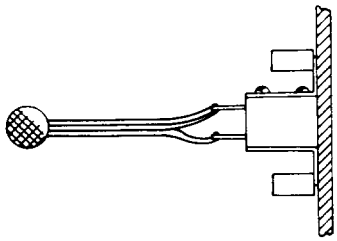
Fig 10—Connecting Blocks—17B and Similar Types Mounted on Vertical Side of MDF





18 A CONNECTING BLOCK





18 B CONNECTING BLOCK

NOTE:
HORIZONTAL CABLE FORMS ARE SHOWN, WITH VERTICAL CABLE FORMS, SKINNERS TO THE 18A CONNECTING BLOCK SHOULD BE TAKEN OUT AT SEPARATE STITCHES FOR EACH SET OF THREE TERMINALS. WITH VERTICAL CABLE FORMS, SKINNERS TO THE 18B CONNECTING BLOCK SHOULD ALL BE TAKEN OUT AT THE SAME STITCH.

Fig 11—Connecting Blocks—18 and Similar Types on Mounting Plates

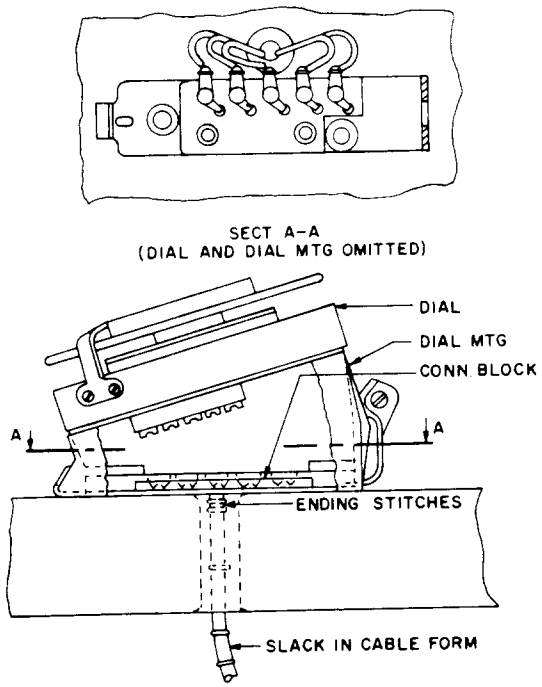


Fig 12—Connecting Blocks—25 and Similar Types

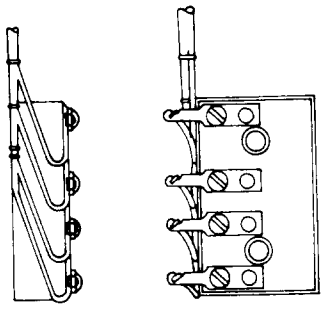


Fig 13—Connecting Blocks—27 and Similar Types

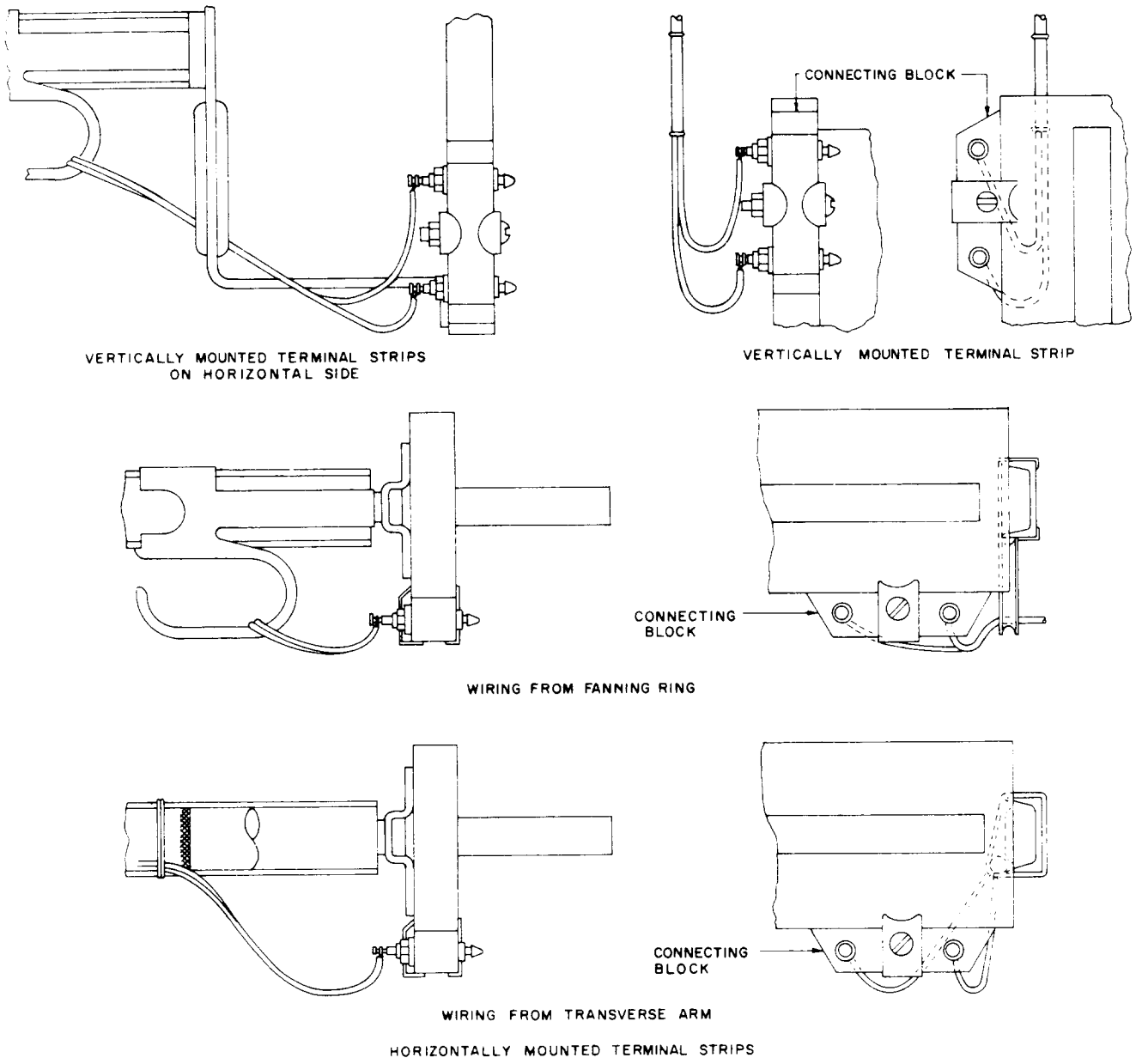
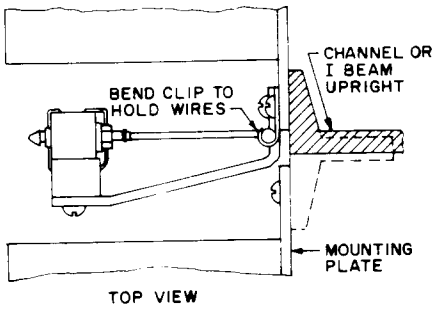


Fig 14—Connecting Blocks—33 and Similar Types on Terminal Strips



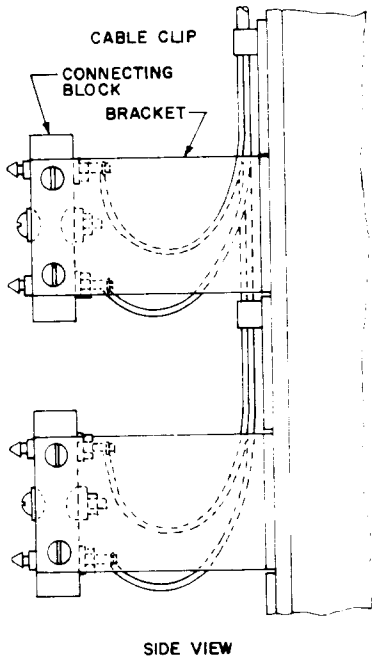


Fig 15—Connecting Blocks—33 and Similar Types on Relay Racks

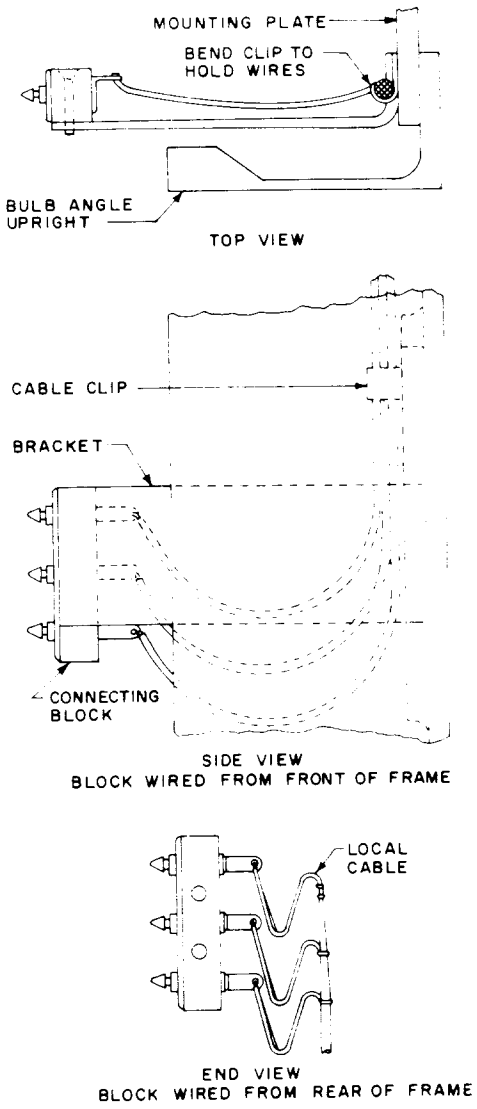
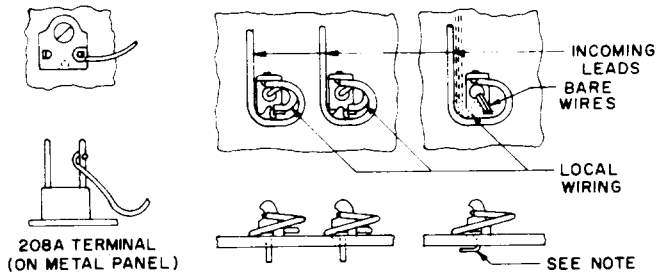
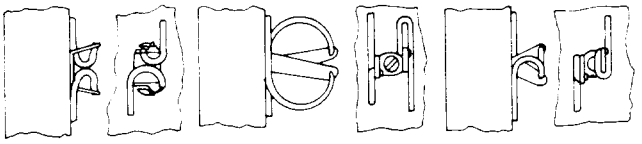


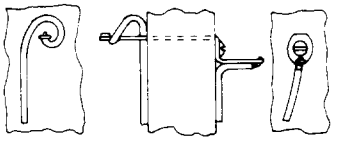
Fig 16—Connecting Blocks—55 and Similar Types



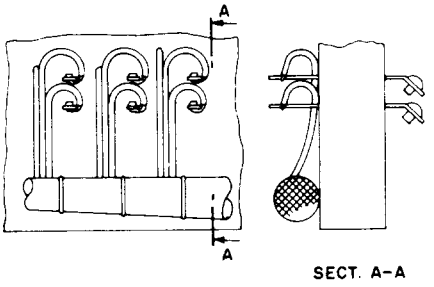


VARIOUS TYPES OF TERMINAL PUNCHINGS ON WOOD AND FIBRE PANELS AND TERMINALS ON METAL PANELS

CONNECTING RACK EQUIPPED WITH P-9181 AND SIMILAR TYPE TERMINAL PUNCHINGS



CONNECTING RACK EQUIPPED WITH 13B AND SIMILAR TYPE TERMINAL PUNCHINGS



CONNECTING RACKS EQUIPPED WITH 14 AND SIMILAR TYPE TERMINAL PUNCHINGS

NOTES:
WHERE TWO WIRES ARE CONNECTED TO ONE PUNCHING THE INSULATION IS TERMINATED AT THE REAR OF THE EYELET AND THE BARE WIRES BROUGHT THROUGH THE EYELET. THE SLACK AT THIS AND ALL SIMILAR PUNCHINGS ON THE SAME TERMINAL PLATE SHOULD BE PROVIDED AT THE REAR OF THE PLATE WHEN BOTH SINGLE AND DOUBLE LEADS ARE CONNECTED TO PUNCHINGS ON THE PLATE.

Fig 17—Connecting Racks, Terminals, and Terminal Punchings

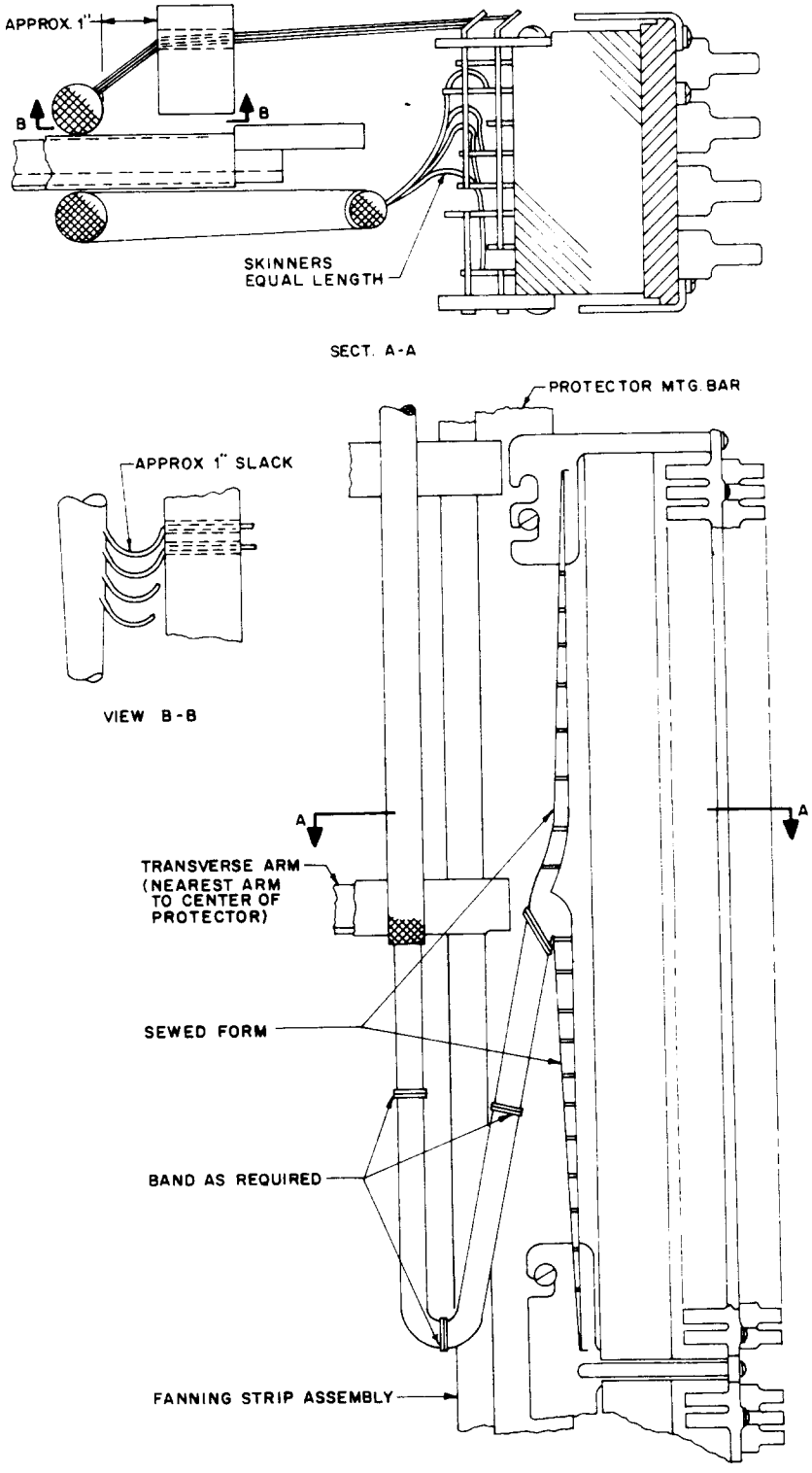


Fig 18—Connectors—300 Type, Protectors—121 Type

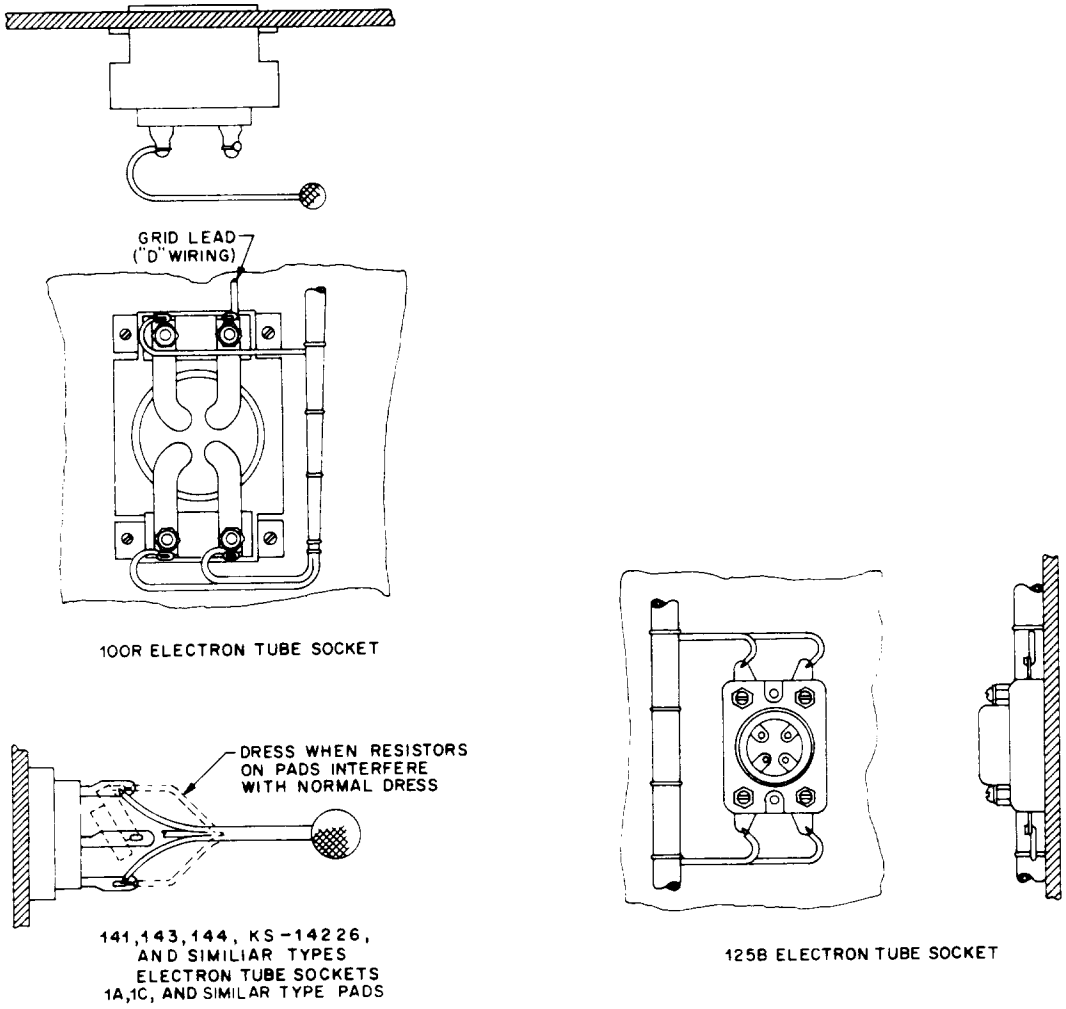
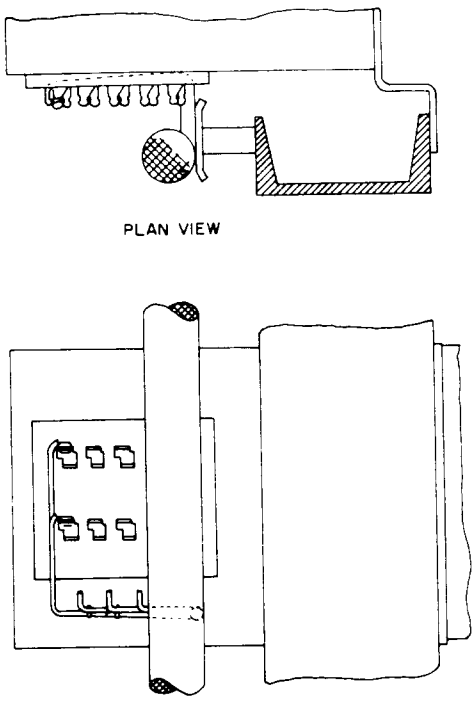


Fig 19—Electron Tube Sockets—100, 125, 141, 143, 144, KS-14226, and Similar Types Pads—1A, 1C, and Similar Types



NOTE:
IN C&H TYPE CARRIER EQUIPMENT THE OUTER RUBBER COVERING OF 720 TYPE CABLE SHOULD BE TERMINATED AT THE VERTICAL FORM AND THE SKINNERS DRESSED IN THE NORMAL MANNER.

Fig 20—Filters—121A and Similar Types

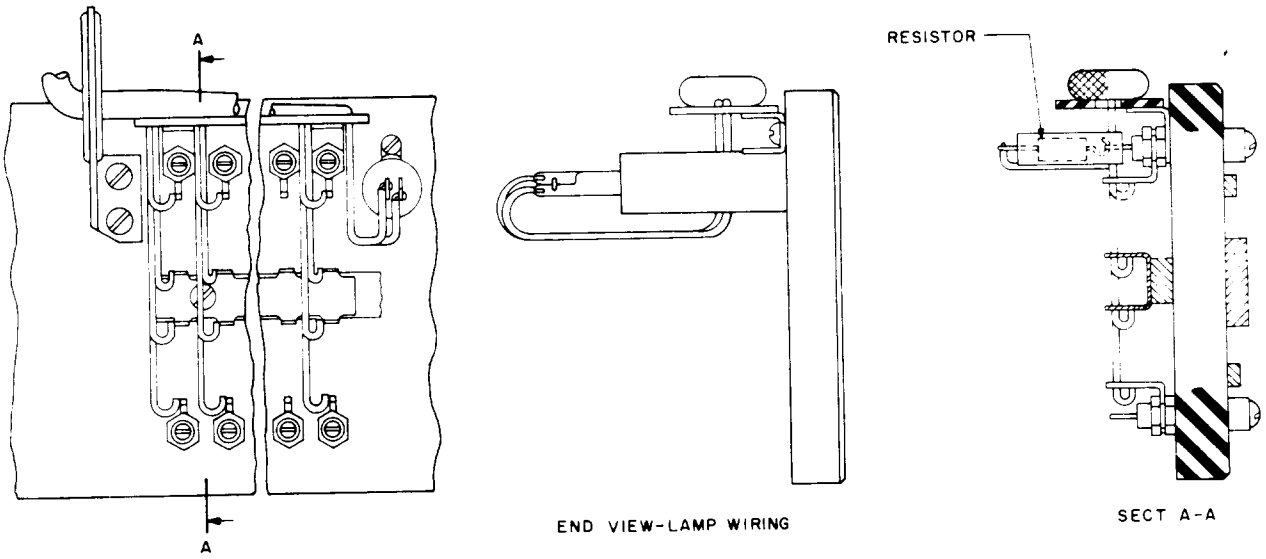


Fig 21—Fuse Panels (With Fanning Strip)—60 - Capacity Double Row

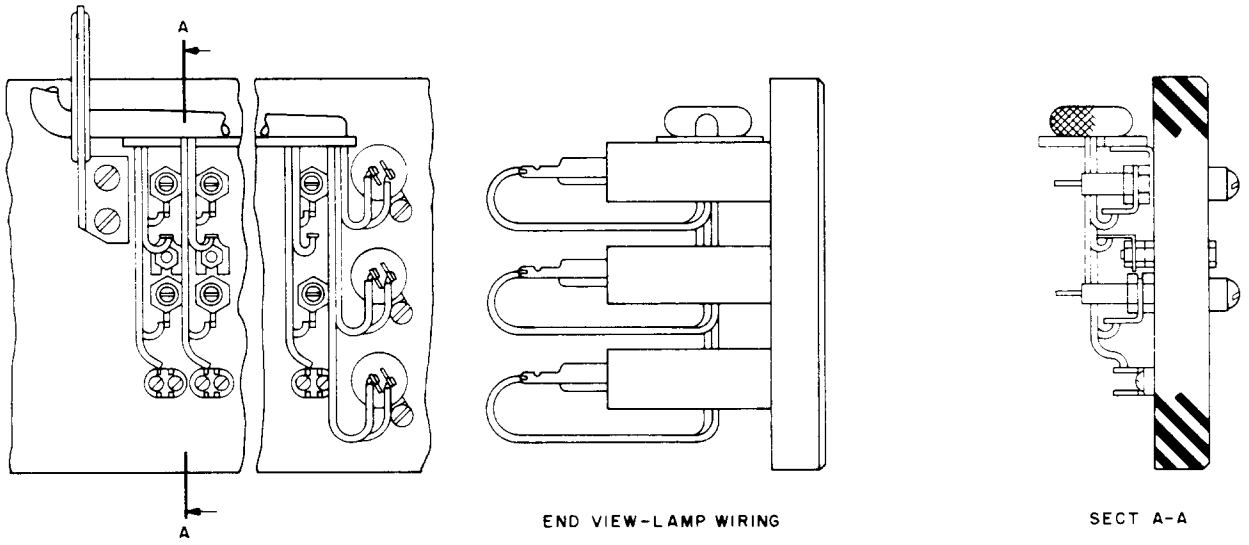


Fig 22—Fuse Panels (With Fanning Strip)—30 - Capacity Individually Mounted

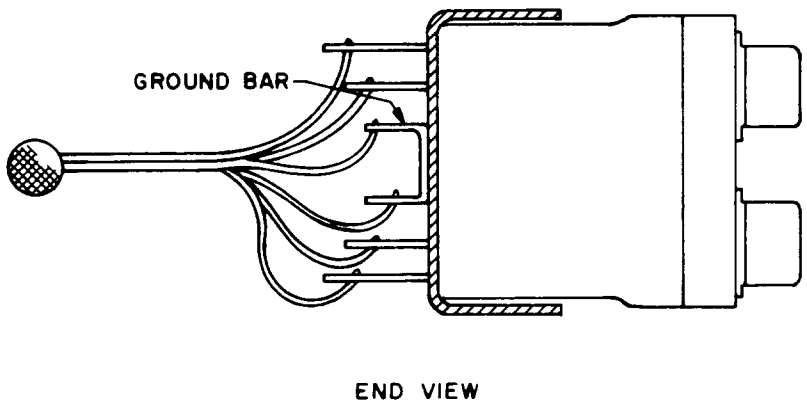


Fig 23—Fuse Panels - Modular Type

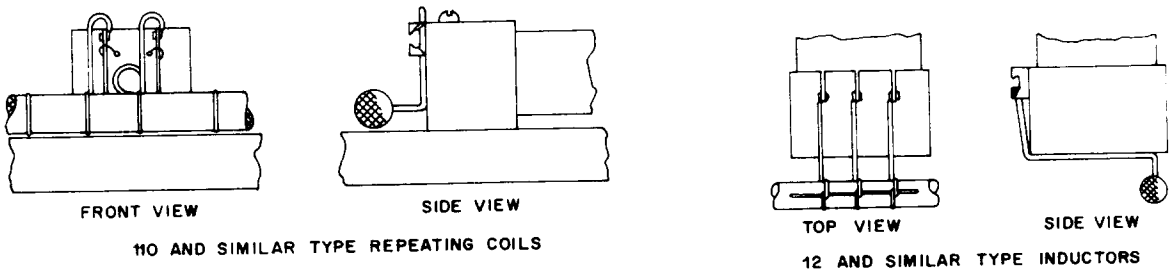


Fig 24—Inductors—12 and Similar Types
(For 82, 182, 274, and 307 Types, see Fig 7)
(For 71 and 91 Types, see Fig 50)
(For 47 and 85 Types, see Fig 43)
Repeating Coils—110 and Similar Types

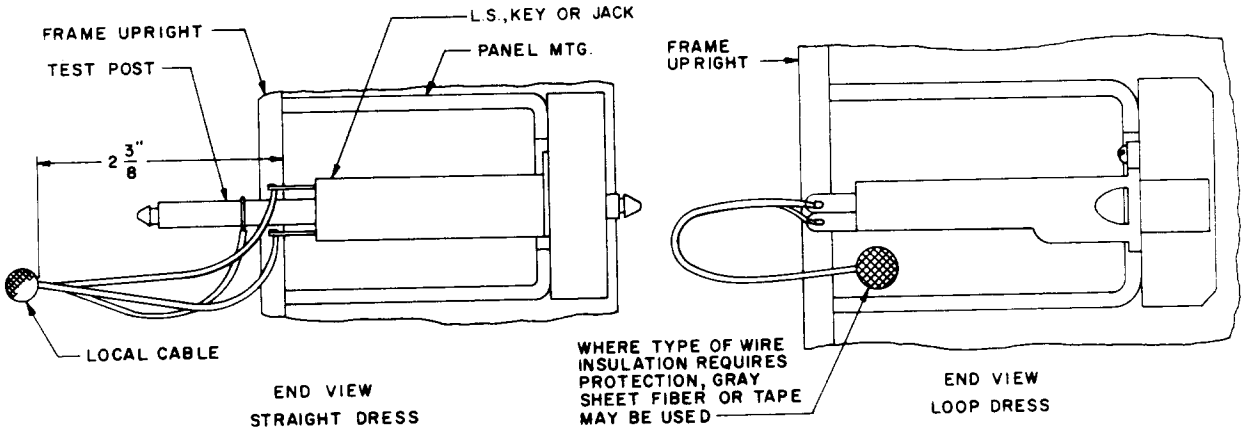


Fig 25—Jacks, Test Posts, and Associated Equipment—Panel Mounted

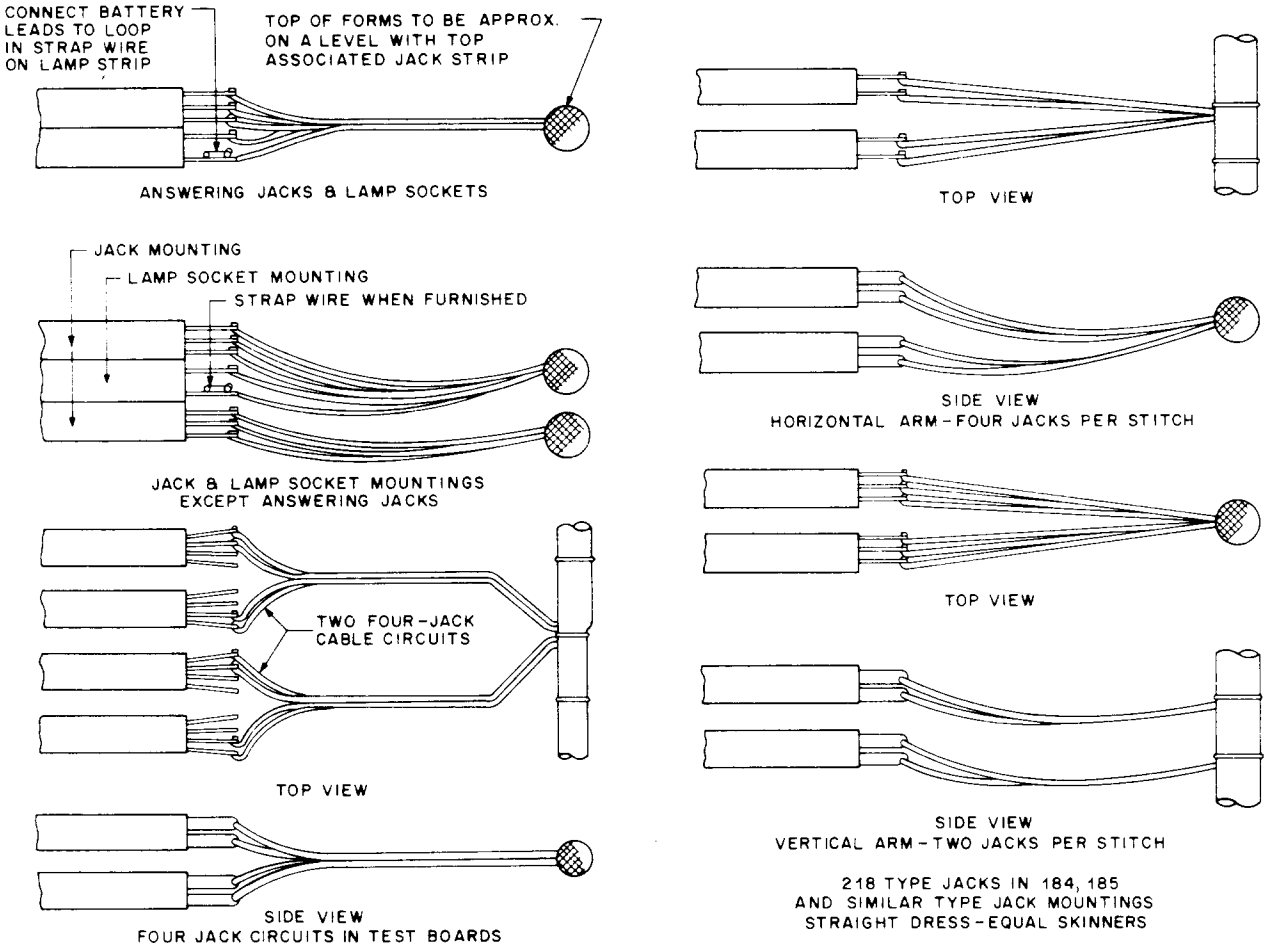


Fig 26—Jacks, Keys, and Lamp Socket Mountings—Strip Mounted

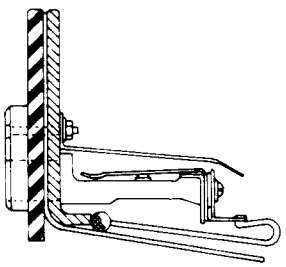


Fig 27—Operator Telephone Jacks

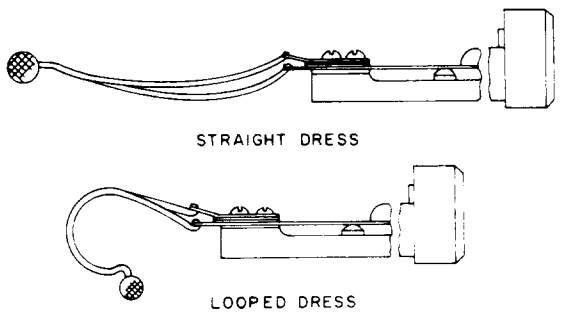


Fig 28—Jacks in 80- and Similar-Type Jack Mountings

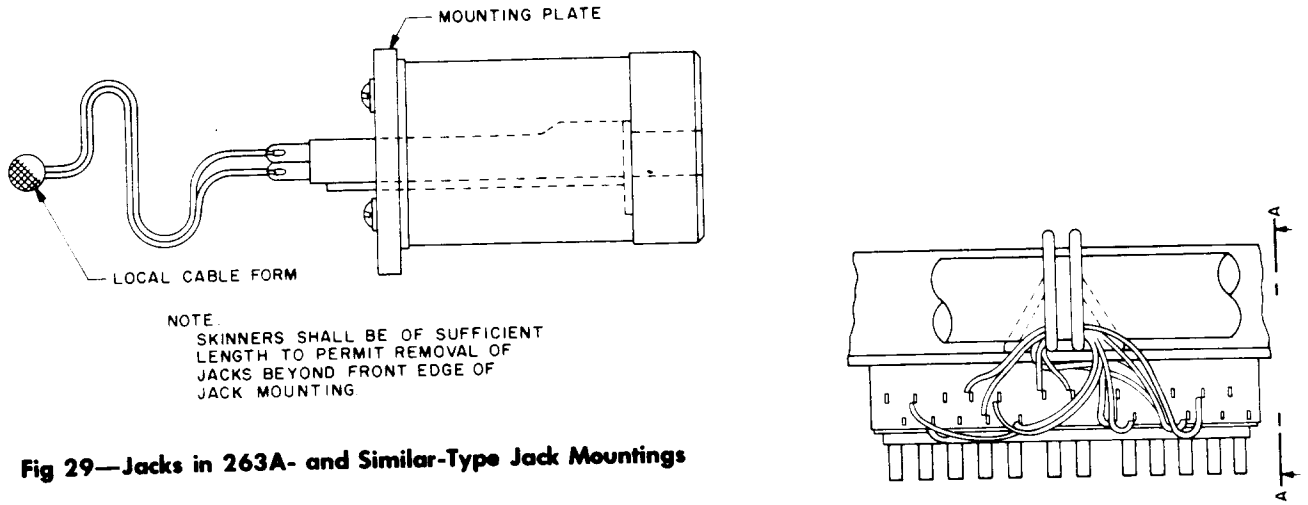


Fig 29—Jacks in 263A- and Similar-Type Jack Mountings

Fig 30—Jacks—344, 345, 346, and Similar Types

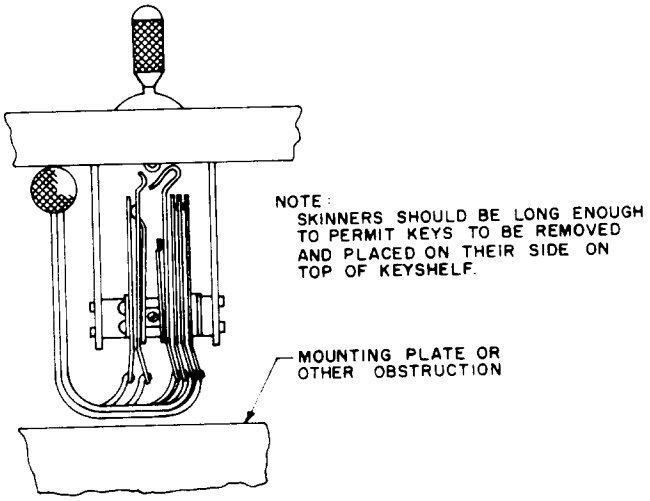
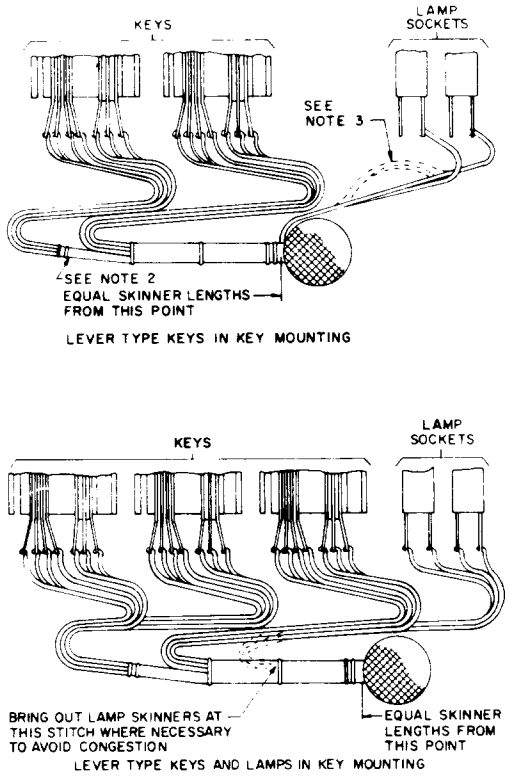
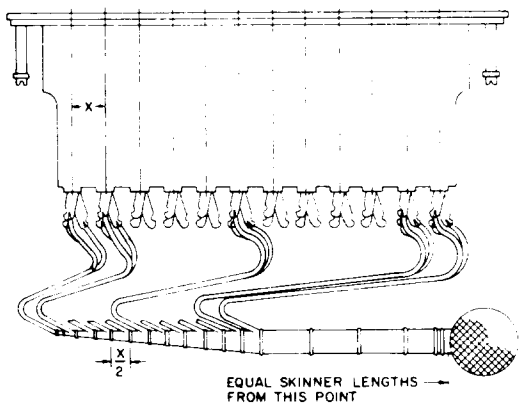


Fig 31—Keys—Individually Mounted in Test Cabinets, Turrets, Test Wagons, and Keyshelves With Shallow Key Pans





NOTES:
1. SKINNERS SHOULD BE OF SUCH LENGTH AS TO PERMIT KEYS TO BE REMOVED AND PLACED ON THEIR SIDES ON TOP OF THE KEYSHELF.
2. IN KEYSHELVES WHERE INTERFERENCE IS ENCOUNTERED BETWEEN THIS CABLE FORM AND PNEUMATIC TUBES, THE FORM SHOULD BE SHORTENED SUFFICIENTLY TO CLEAR THE TUBES, AND THE SKINNERS DRESSED BACK FURTHER TOWARD THE LAMP SOCKETS. THE GENERAL FORM OF DRESS SHOULD BE MAINTAINED.
3. IN KEYSHELVES WHEN INTERFERENCE IS ENCOUNTERED BETWEEN THE SKINNER LENGTH (RUNNING TO THE LAMP SOCKETS) AND THE CABLE ARM, THE SKINNERS MAY IF NECESSARY, BE DRESSED BACK TOWARD THE LAMP SOCKETS. THE GENERAL FORM OF DRESS SHOULD BE MAINTAINED.

Fig 32— Keys in Keyshelves

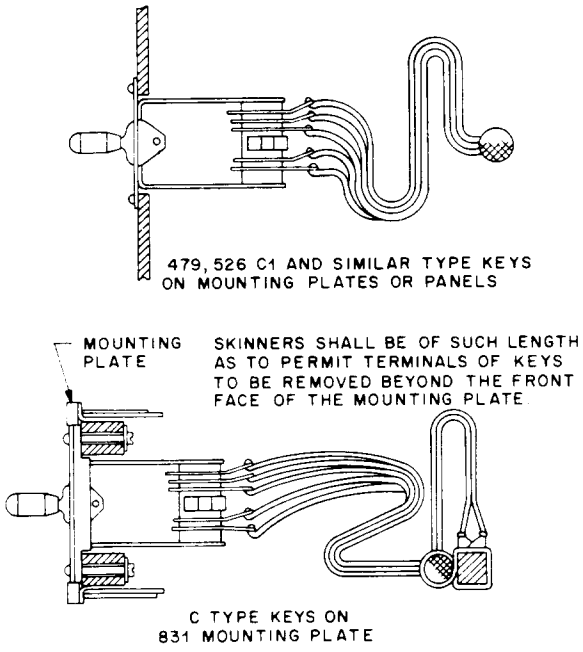


Fig 33—Keys—479, 526, C1, and Similar Types Mounted on 831C- and Similar-Type Mounting Plates or Panels

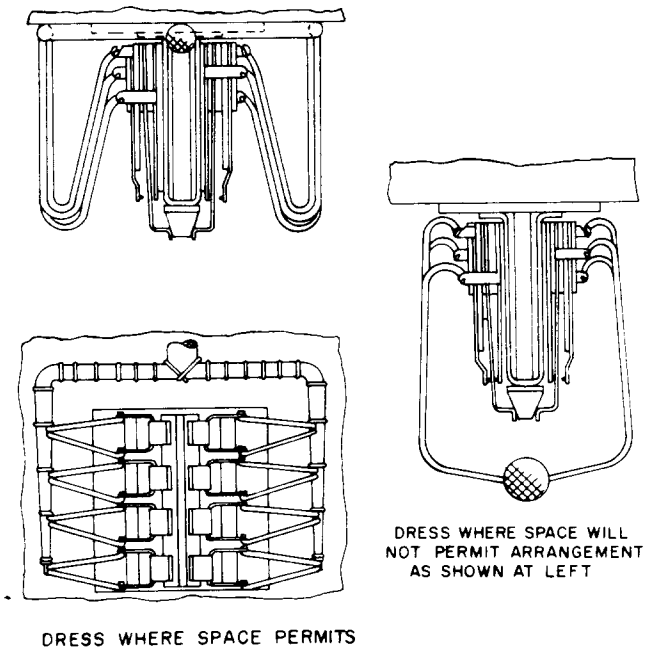


Fig 34—Keys—378 and Similar Types in Mouldings

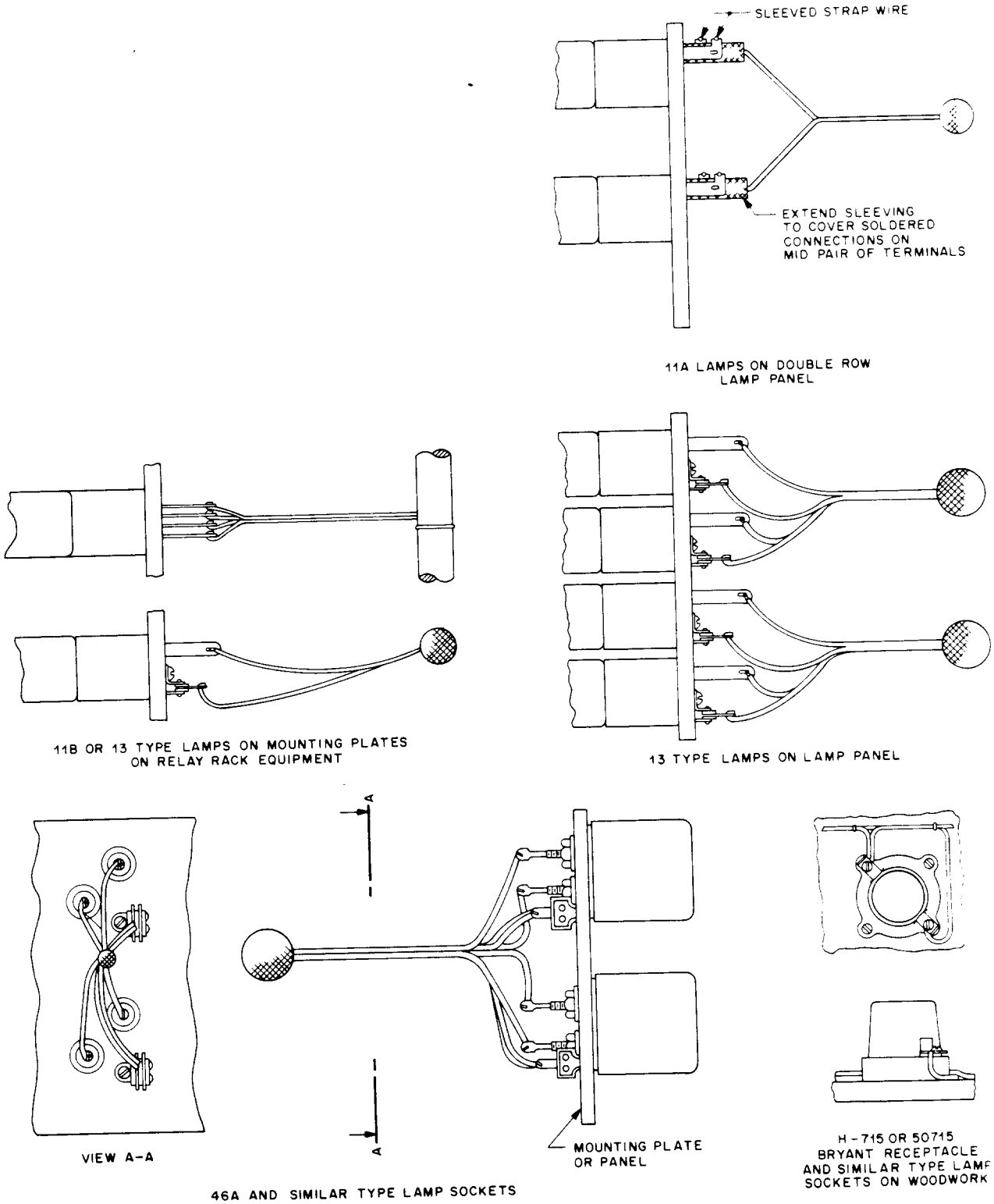


Fig 35—Lamps—On Panels, Mounting Plates, and Woodwork

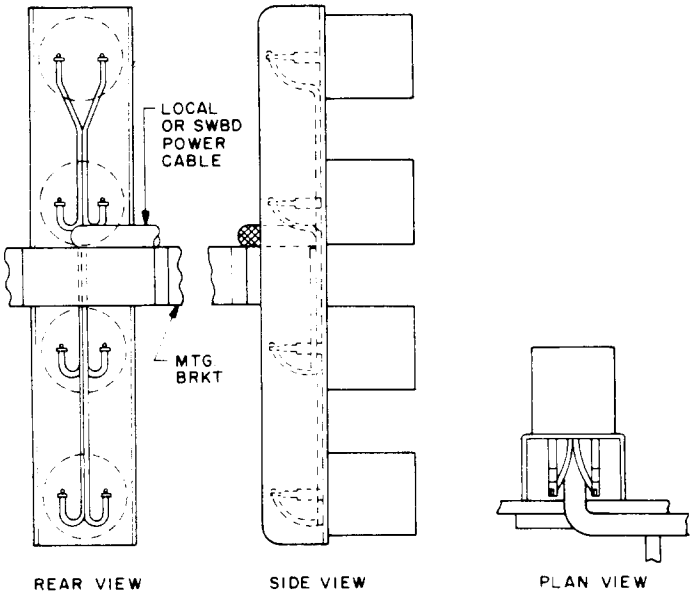


Fig 36—Lamp Sockets—Aisle Pilot

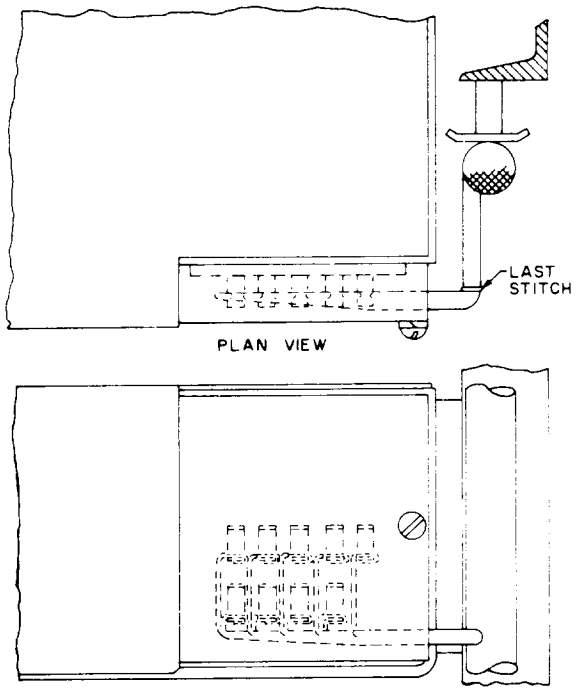


Fig 37—Loading Coils — 711 and Similar Types — Loading Coil Cases—83 and Similar Types (See Fig 7 for 621- and Similar-Type Loading Coils in 141A- and Similar-Type Loading Coil Cases)

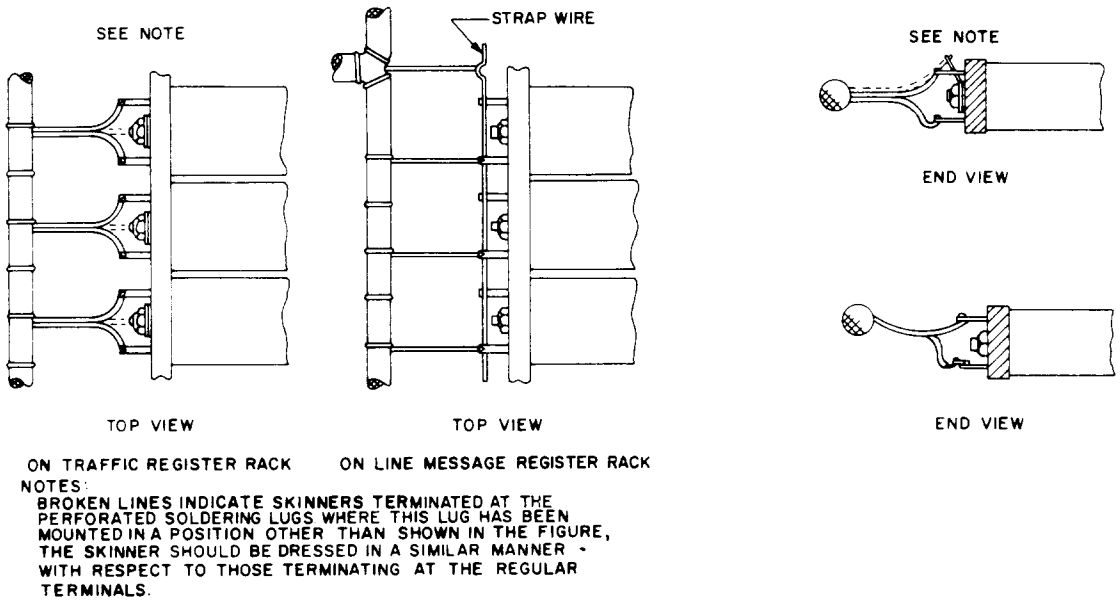
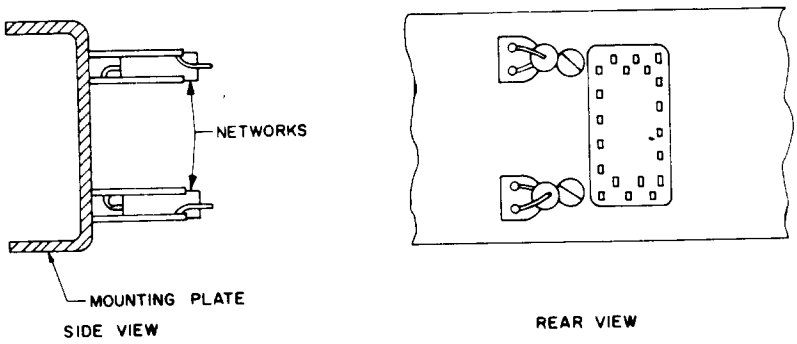
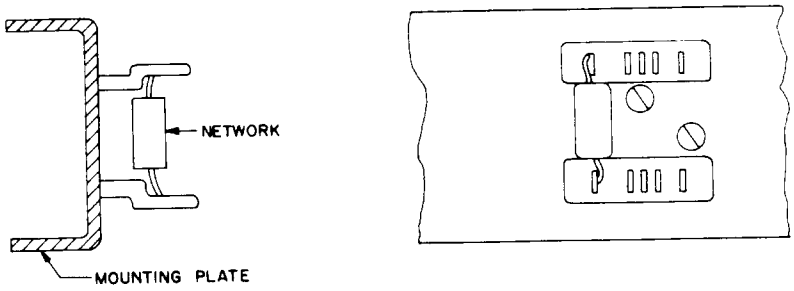


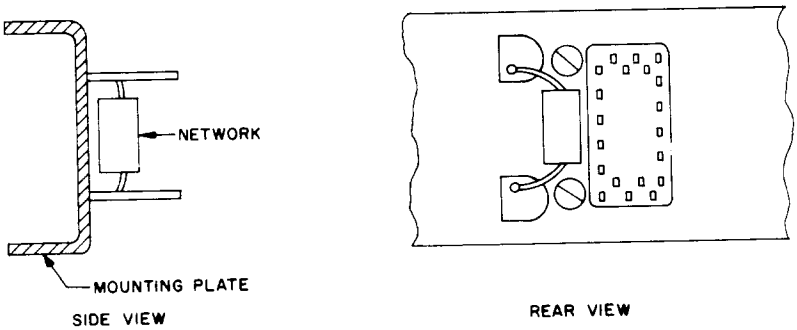
Fig 38—Message and Traffic Registers—14 and Similar Types



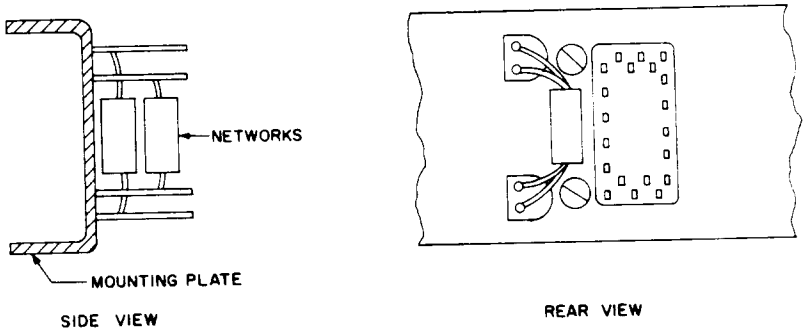
NETWORKS MOUNTED ON AK TYPE RELAYS (NON-COMMON BATTERY OR GROUND)



NETWORK MOUNTED ON U & Y TYPE RELAYS



NETWORK MOUNTED ON AF, AG & AJ TYPE RELAYS



NETWORKS MOUNTED ON AK TYPE RELAYS (COMMON BATTERY OR GROUND)

Fig 39—Networks—185, 186, and Similar Types

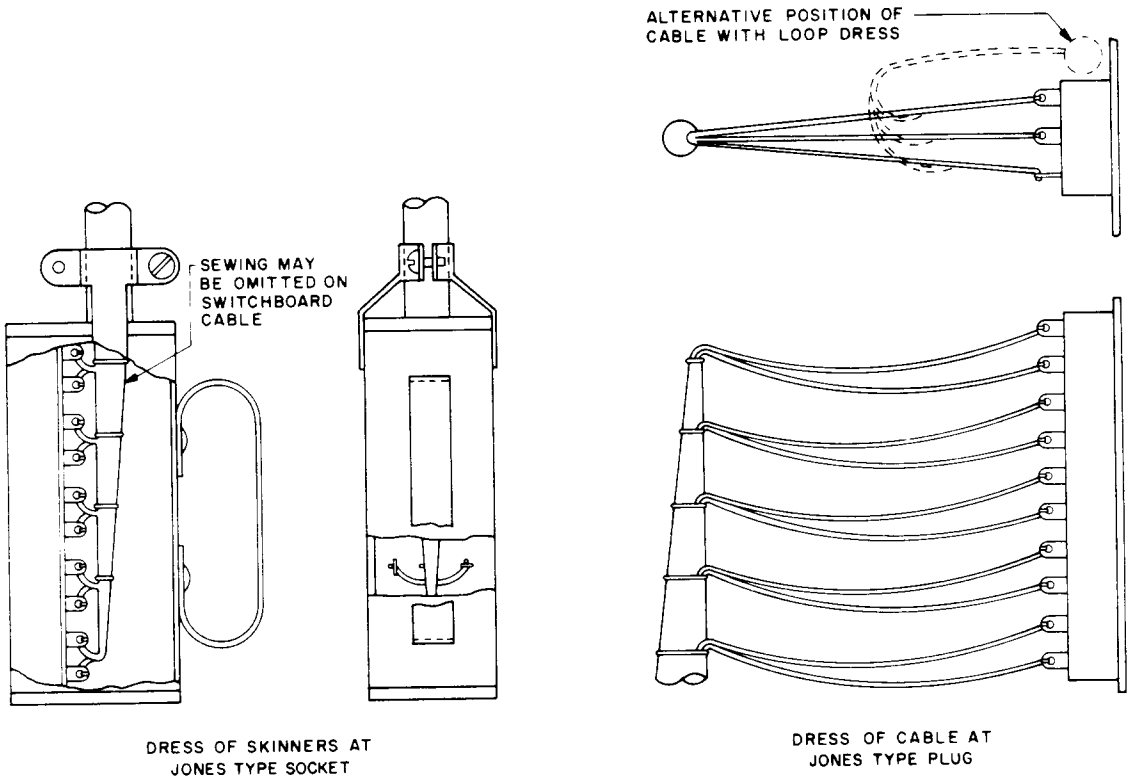


Fig 40—Plugs and Sockets—Cinch (Jones Type)

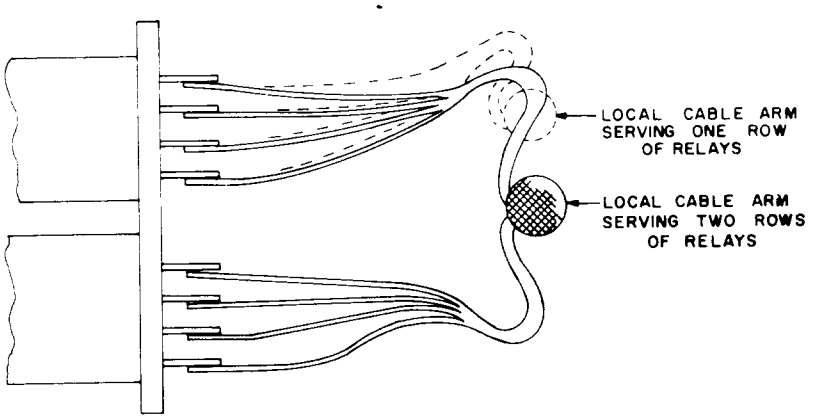


Fig 41—Relays—221, 223, 224, 225, and Similar Types

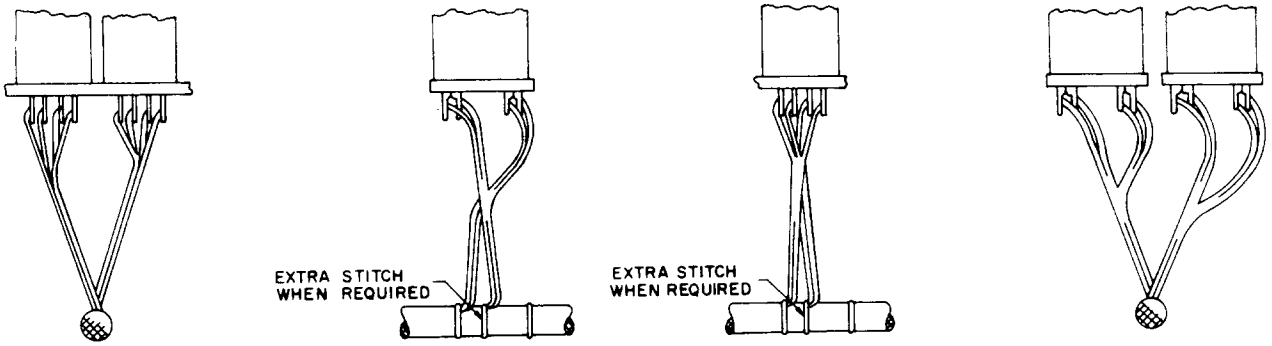
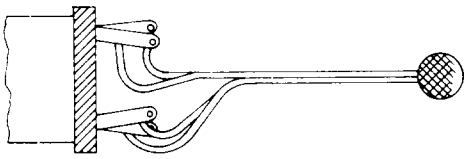
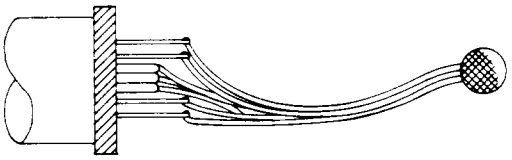


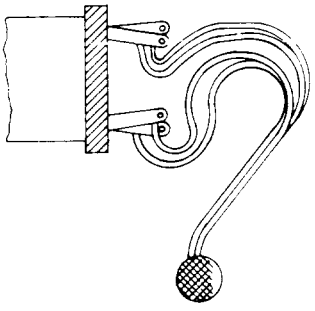
Fig 42—Relays (Not Including Wire-Spring Types—See Fig 49), Inductors, Capacitors, and Similar Apparatus (U-, UA-, and Y-Type Relays Shown) Skinners to Two Pieces of Apparatus Brought Out at Same Point



RECTANGULAR TYPE RELAYS AND COILS
STRAIGHT DRESS-EQUAL SKINNERS



ROUND TYPE RELAYS AND COILS
STRAIGHT DRESS-UNEQUAL SKINNERS



LOOPED DRESS-EQUAL SKINNERS

NOTE
DRESS OF SKINNERS TO 209, 215 AND SIMILAR TYPE RELAYS MOUNTED IN CONNECTING BLOCKS IS COVERED IN THE FIGURE SHOWING DRESS OF SKINNERS TO 18 AND SIMILAR TYPE CONNECTING BLOCK.

Fig 43—Relays—Strip Mounted (Not Including Wire-Spring Types—See Fig 49)
Induction Coils—181 and Similar Types
Inductors—47, 85, and Similar Types
Repeating Coils—189 and Similar Types
Resistors—44, 59, and Similar Types
Skinners to Each Piece of Apparatus Brought Out at a Different Point

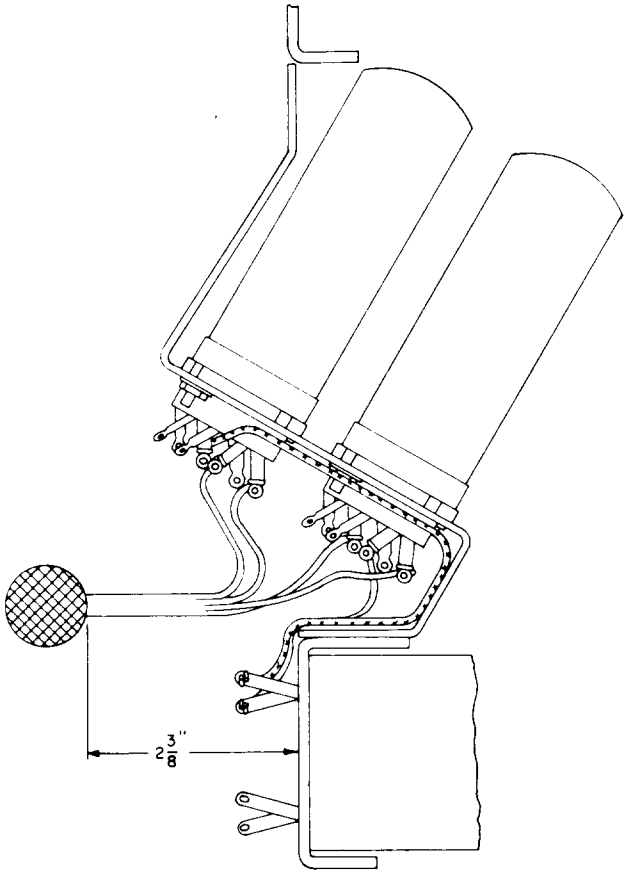
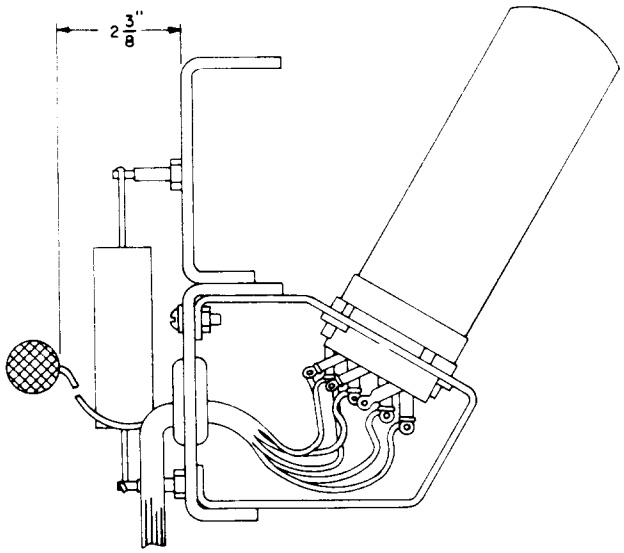
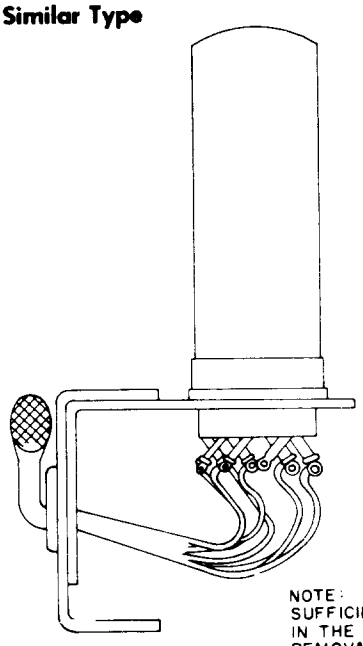


Fig 44—Relays—276 and Similar Type
Strip Mounted



NOTE:
IT WILL BE NECESSARY TO REMOVE ELECTRON TUBE SOCKET FOR ATTACHING WIRES TO TERMINALS AND SLACK IS PROVIDED IN SURFACE WIRING LEADS FOR THIS PURPOSE. SKINNERS FROM CABLE FORMS ARE SHOWN AS BEING WIRED FROM TIP OF FORM, IN WHICH CASE THE FORM CAN BE PULLED FORWARD TO PERMIT REMOVAL OF ELECTRON TUBE SOCKET. WHEN SKINNERS TO ELECTRON TUBE SOCKET ARE FROM BUTT OF FORM AND THE FORM IS SO RIGID THAT IT CAN NOT BE PULLED FORWARD IT WILL BE NECESSARY TO TERMINATE SKINNER AT SUPPLEMENTARY TERMINALS AT THE REAR OF THE MOUNTING PLATE; THESE SUPPLEMENTARY TERMINALS BEING WIRED TO ELECTRON TUBE SOCKET TERMINALS BY MEANS OF SURFACE WIRING. SUPPLEMENTARY TERMINALS SHOULD ALSO BE PROVIDED IN CASE OF SURFACE WIRING RUN BETWEEN ELECTRON TUBE SOCKETS

Fig 45—Relays—276 and Similar Type
Individually Mounted



NOTE:
SUFFICIENT SLACK SHALL BE PROVIDED IN THE SURFACE WIRE LEADS TO PERMIT REMOVAL OF THE ELECTRON TUBE SOCKET.

Fig 46—Relays—292 and Similar Types
Individually Mounted

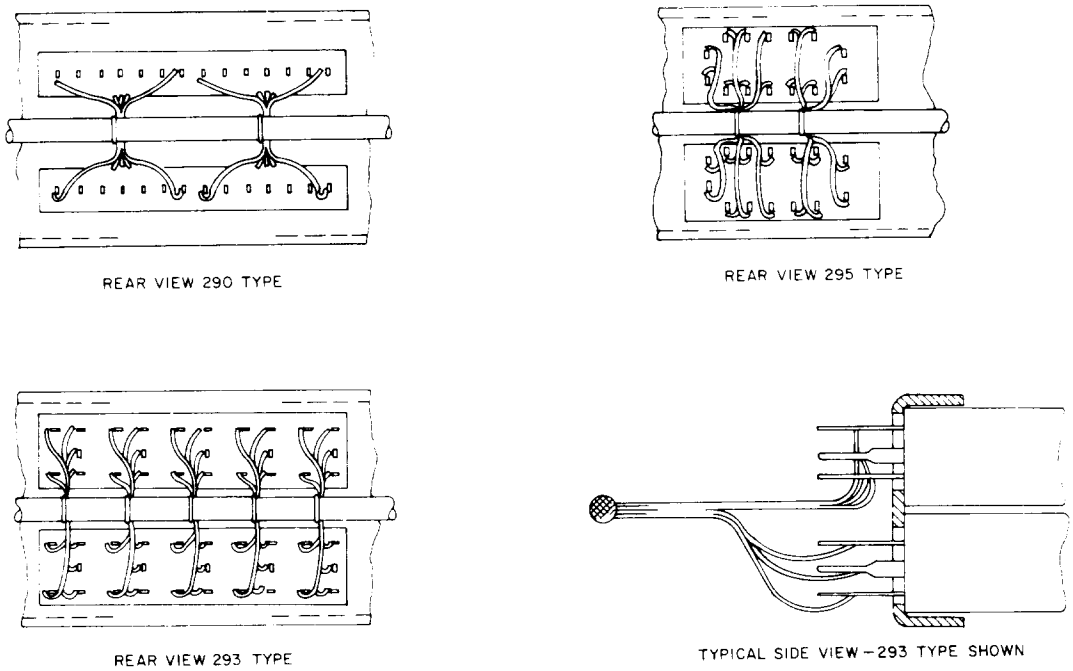


Fig 47—Relays—Dry Reed—290, 293, 295, and Similar Types

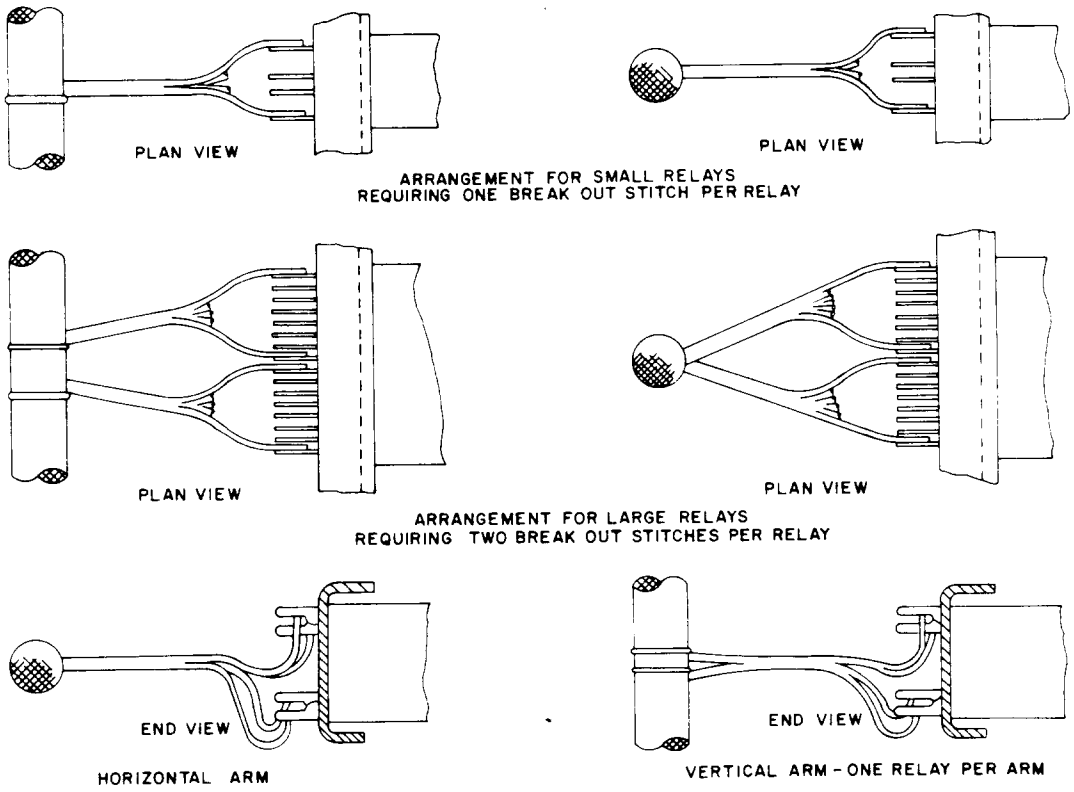


Fig 48—Relays—Strip Mounted—U, UA, Y, and Similar Types

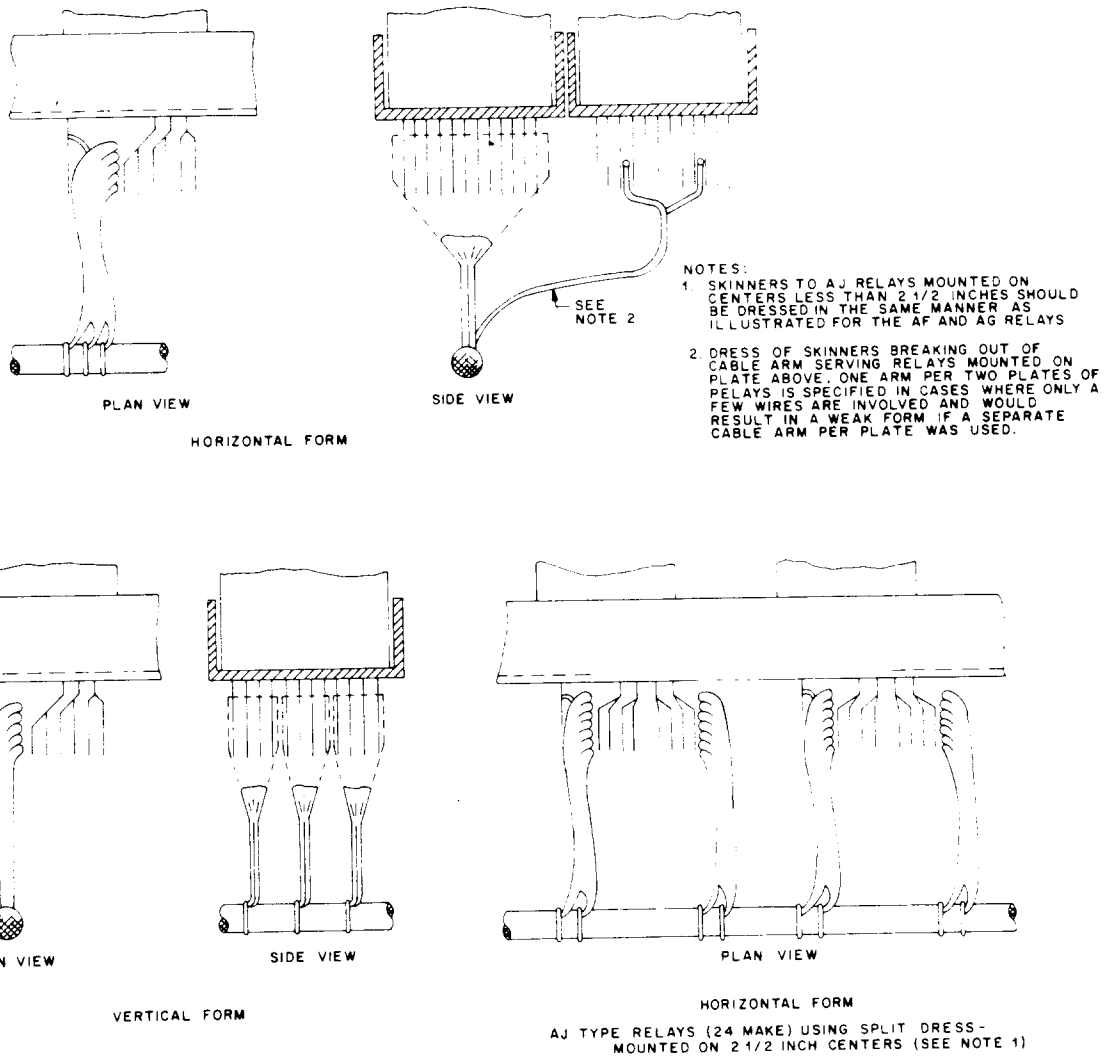


Fig 49—Relays—Wire Spring—AF, AG, AJ, and Similar Types

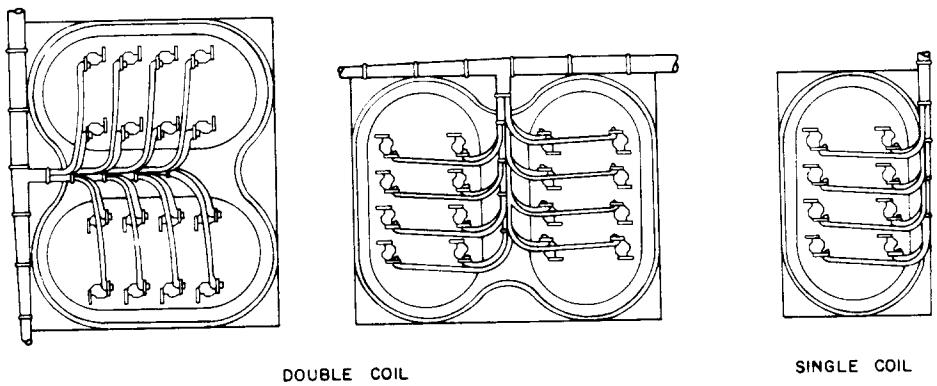
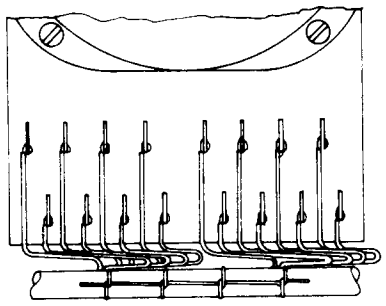
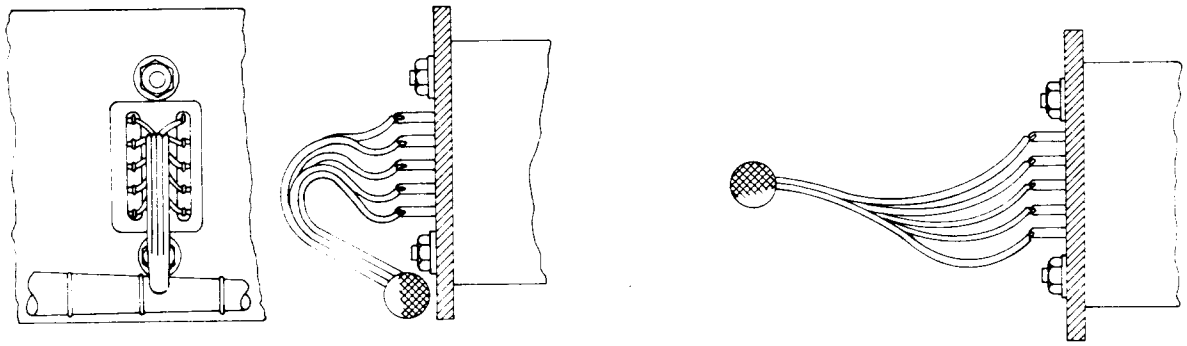


Fig 50—Repeating Coils—74, 91, and Similar Types
Inductors—71, 91, and Similar Types



76,77 AND SIMILAR TYPE REPEATING COILS
(NOT MOUNTED ON COIL RACKS)

Fig 51—Repeating Coils—76, 77, and Similar Types



LOOPED DRESS - EQUAL SKINNERS

STRAIGHT DRESS - EQUAL SKINNERS

Fig 52—Repeating Coils—94 and Similar Types

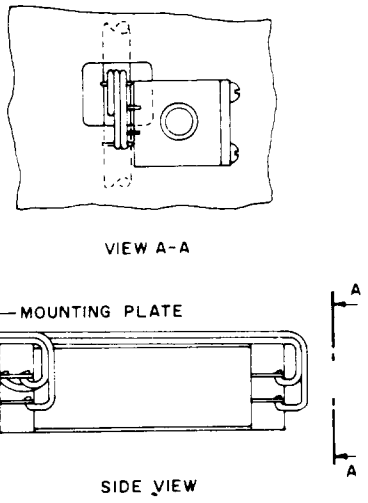
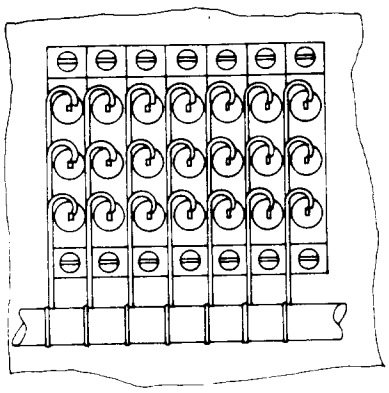
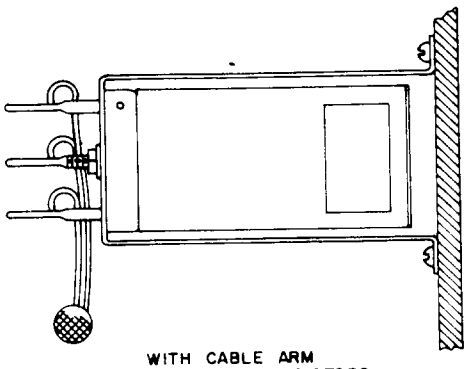


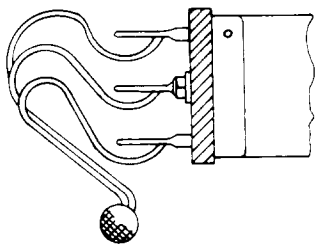
Fig 53—Repeating Coils—98 and Similar Types
(For 189 Type, see Fig 43)
(For 110 Type, see Fig 24)



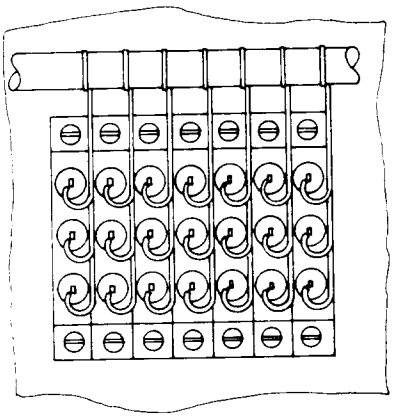
18 AND SIMILAR TYPE RESISTORS (19 TYPE SHOWN)
IN 3 AND SIMILAR TYPE RESISTOR MOUNTINGS

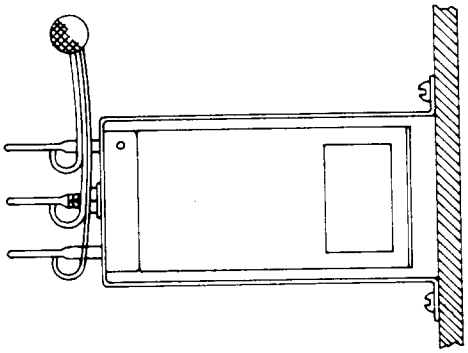


WITH CABLE ARM
LOCATED BELOW RESISTORS

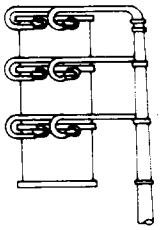


LOOPED DRESS-EQUAL SKINNERS
18,19,40,60 AND SIMILAR TYPE
RESISTORS (19 TYPE SHOWN)



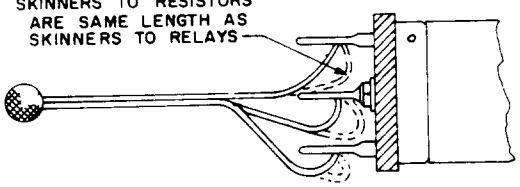


WITH CABLE ARM
LOCATED ABOVE RESISTORS



63 AND SIMILAR TYPE
RESISTORS

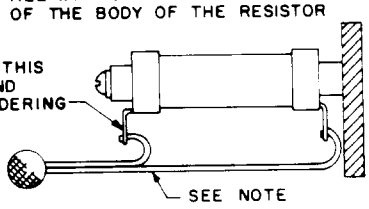
ALTERNATIVE DRESS WHERE
SKINNERS TO RESISTORS
ARE SAME LENGTH AS
SKINNERS TO RELAYS



STRAIGHT DRESS EQUAL SKINNERS
18, 19, 40, 60 AND SIMILAR TYPE
RESISTORS (19 TYPE SHOWN)

NOTE:
ALL WIRING SHALL BE KEPT CLEAR
OF THE BODY OF THE RESISTOR

BEND TERMINAL IN THIS
POSITION, CLEAN AND
RE-TIN BEFORE SOLDERING



38, KS 8512 AND SIMILAR
VITREOUS ENAMEL TYPE RESISTORS

Fig 54—Resistors—18, 19, 38, 40, 60, 63, KS-8512, and Similar Types
(For 44, 59, and Similar Types, see Fig 43)
Resistor Mountings—3 and Similar Types

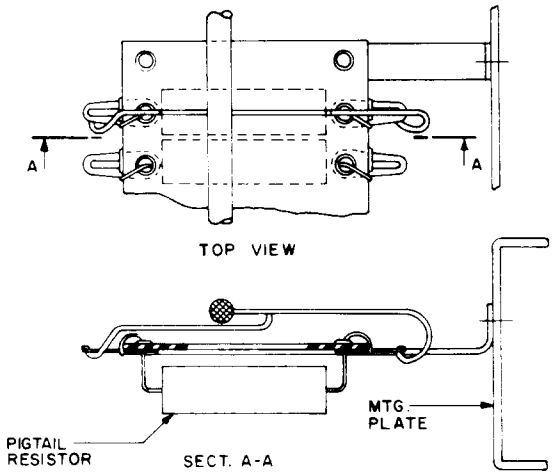


Fig 55—Resistors—Card-Mounted on Mounting Plates

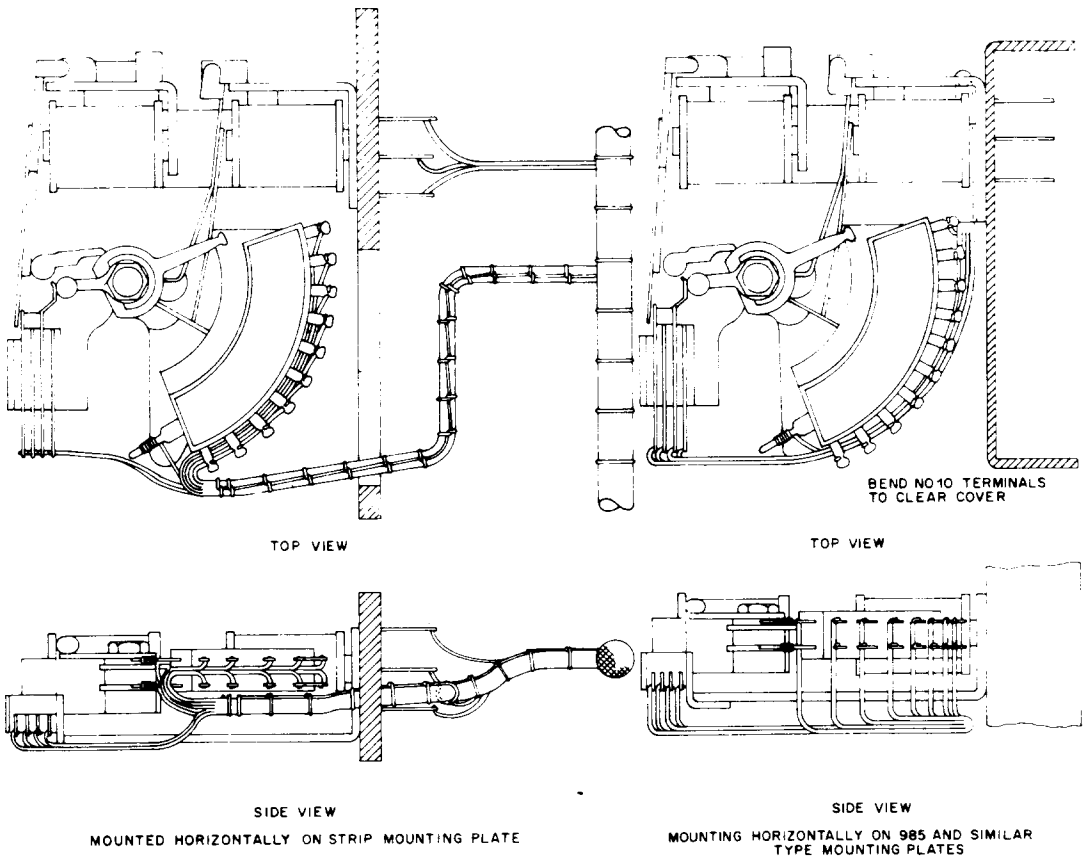


Fig 56—Selectors—204 and Similar Types Mounted Horizontally

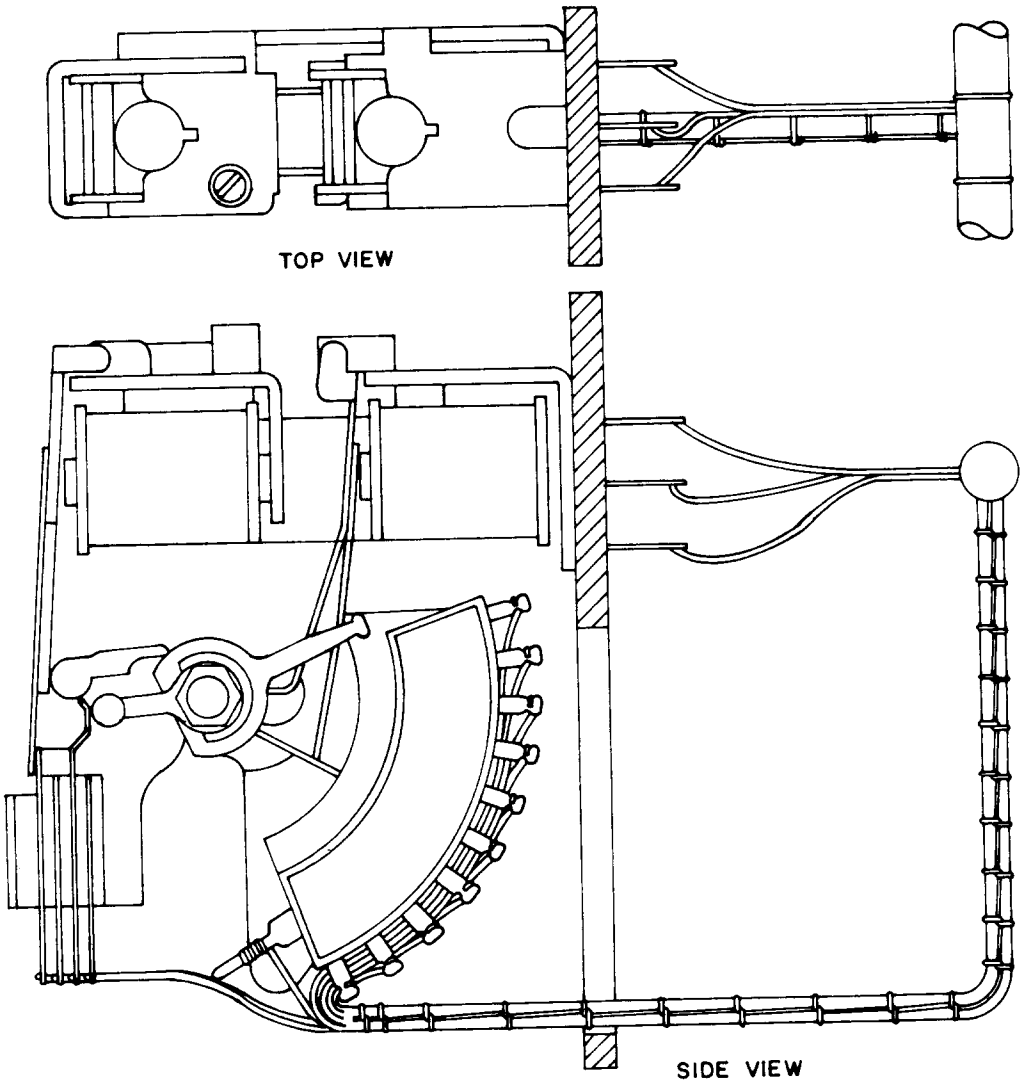
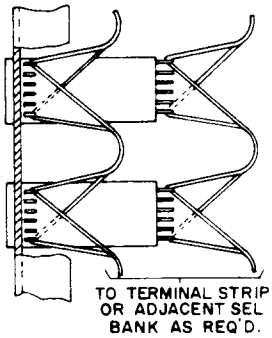
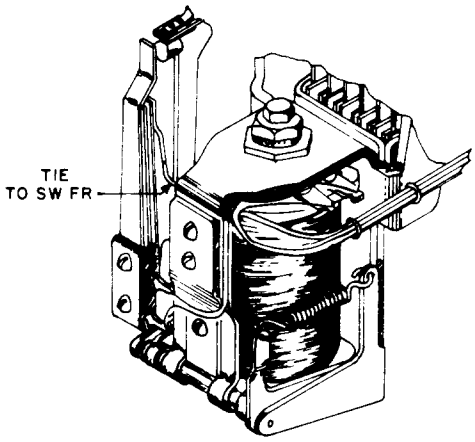
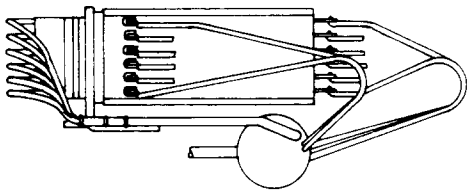


Fig 57—Selectors—204 and Similar Types Mounted Vertically

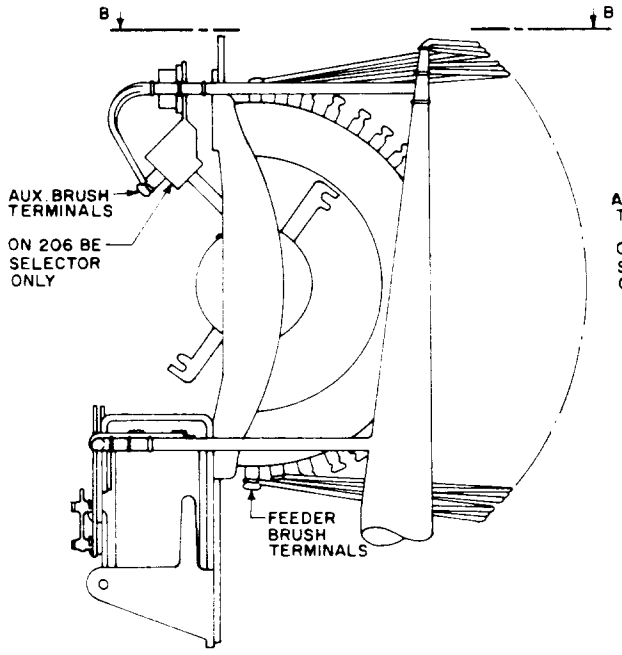




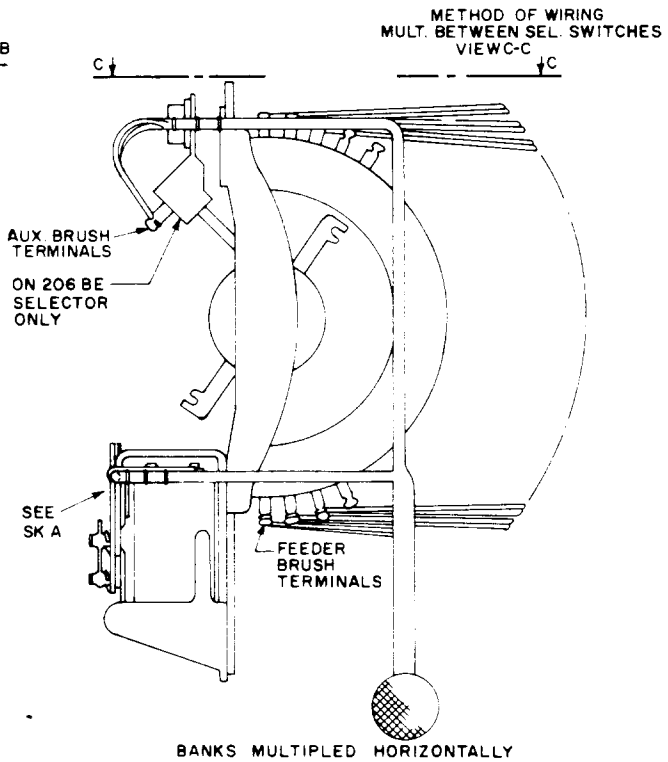
SK A



VIEW B-B



VERTICAL WIRING TO BANKS



BANKS MULTIPLED HORIZONTALLY

Fig 58—Selectors—206 and Similar Types

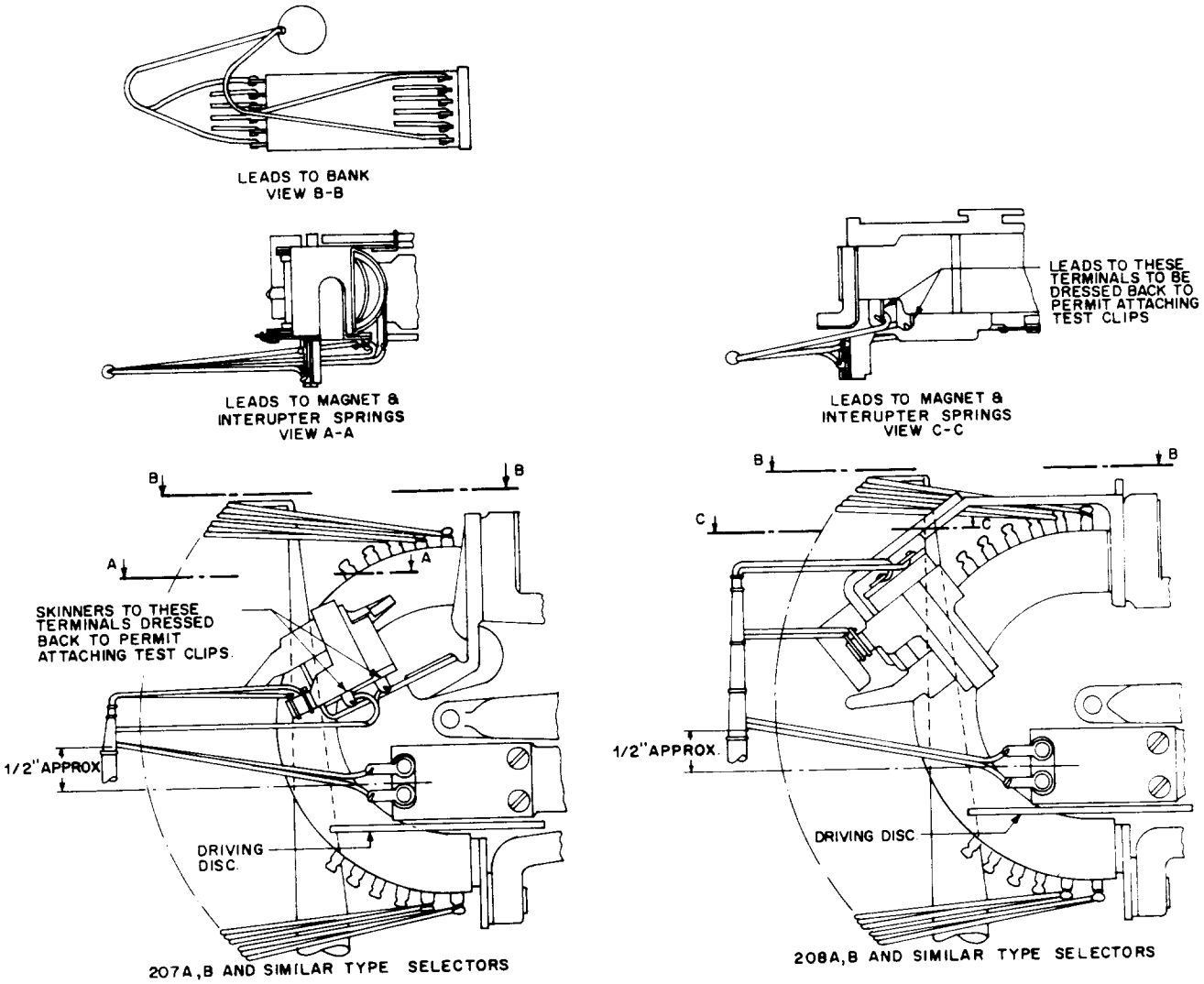
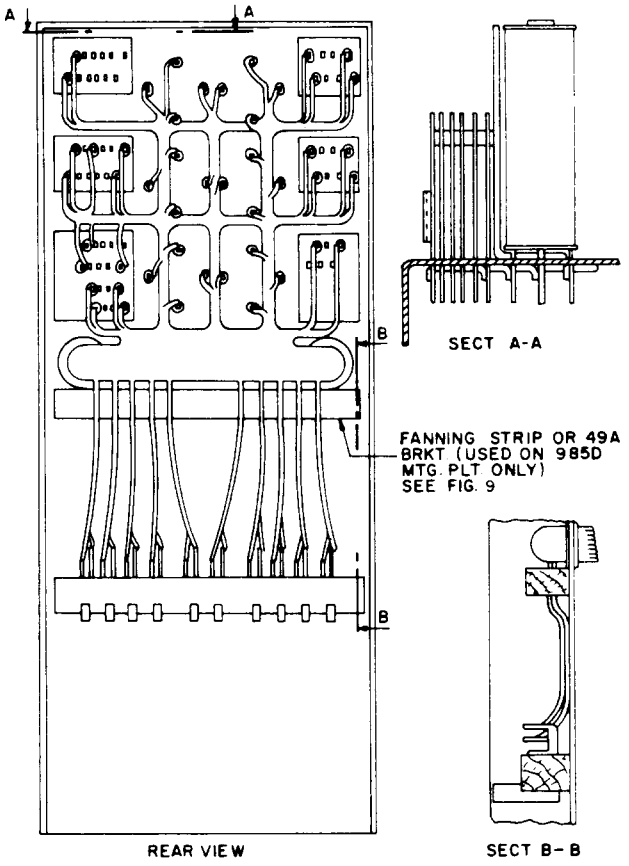


Fig 59—Selectors—207A, 207B, 207C, 208A, 208B, and Similar Types



NOTE:
THE SW1 WIRING IS SHOWN TYPICAL TO SERVE ONLY AS A GUIDE IN UNIFORMLY DISTRIBUTING THE LEADS THROUGHOUT THE PATHS INDICATED. FOR WIRING TO APPARATUS ON REAR OF SWITCH COVERS OR ON 49A BRACKET. SEE FIG. 9

Fig 60—Switch Mounting Plates

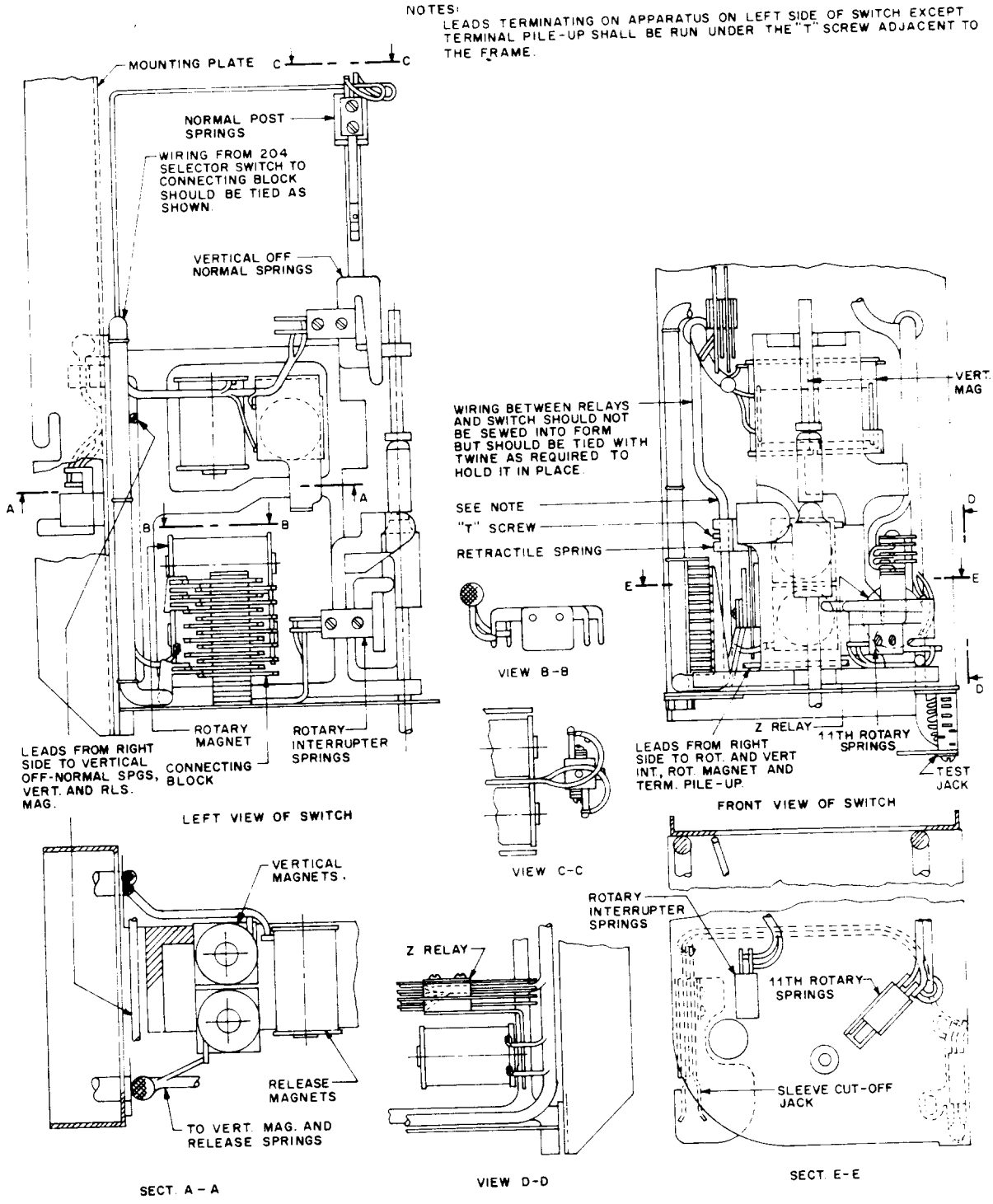
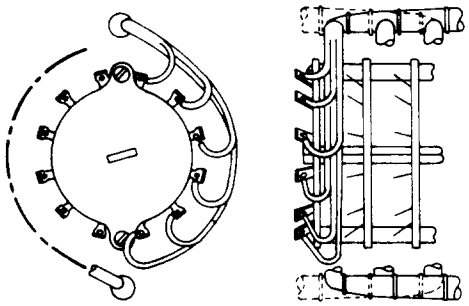


Fig 61—Switches—197 and Similar Types



YAXLEY AND SIMILAR SWITCHES
TWO SKINNER GROUPS PER SWITCH PLATE
YAXLEY SWITCH SHOWN

Fig 62—Switches—Yaxley and Similar Types

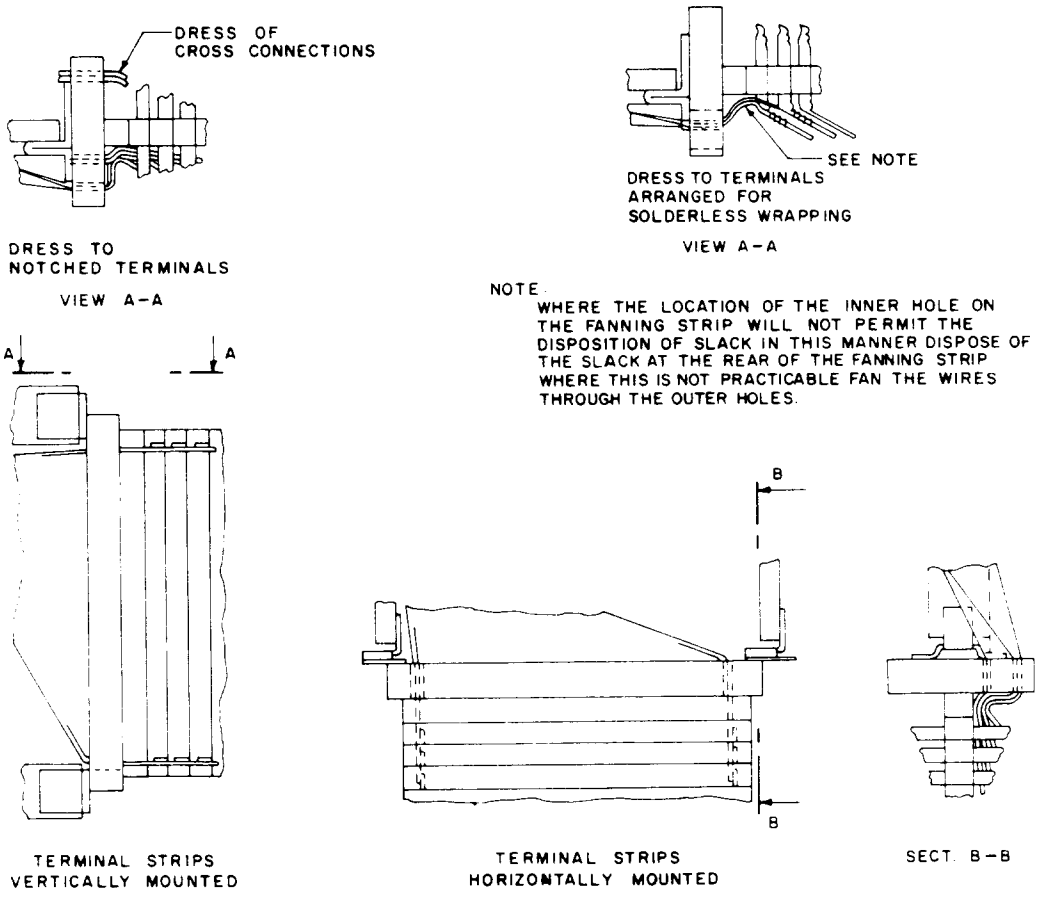


Fig 63—Terminal Strips—P, M, 150, 178, 183, 198, and Similar Types

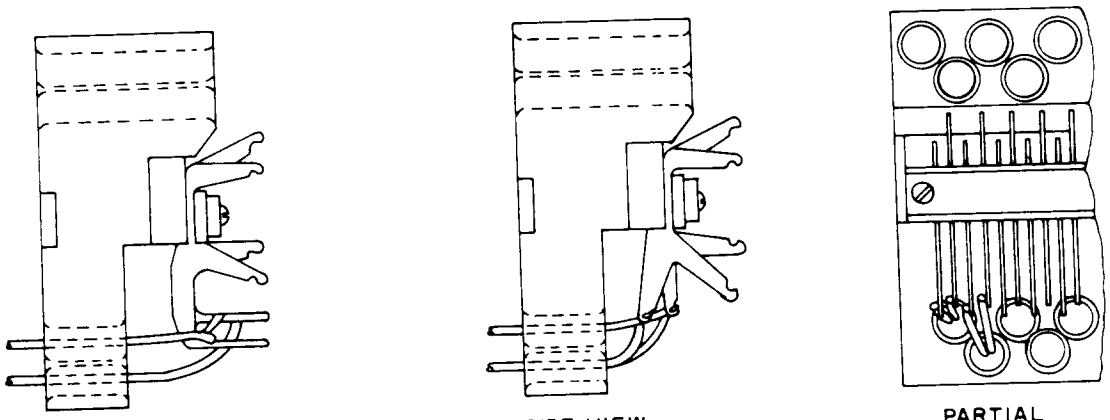
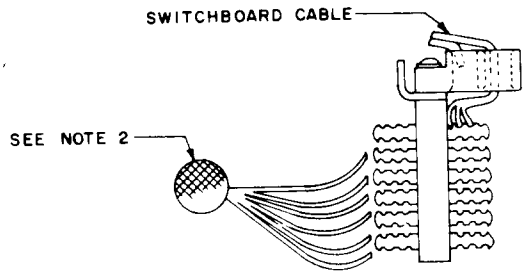
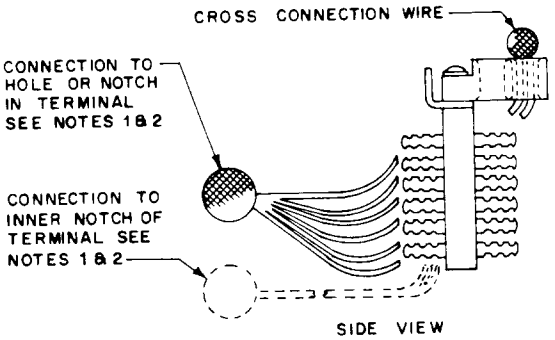


Fig 64—Terminal Strips—65, 182, and Similar Types



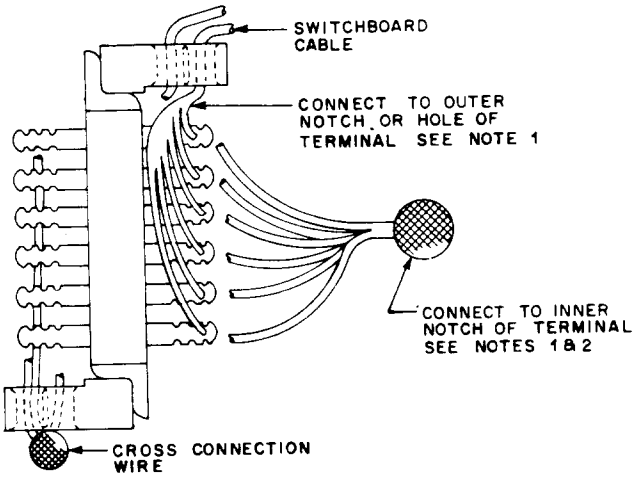
SIDE VIEW

LOCAL AND SWITCHBOARD CABLE
ON OPPOSITE SIDE



SIDE VIEW

LOCAL AND SWITCHBOARD CABLE
RUN DIRECTLY TO TERMINALS



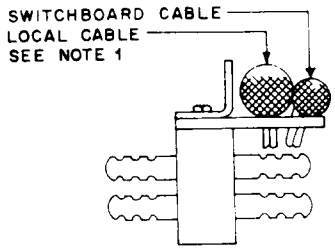
SIDE VIEW

SWITCHBOARD CABLE RUN THROUGH
FANNING STRIP AND LOCAL CABLE
CONNECTED DIRECTLY TO TERMINALS

NOTES:

1. WHEN BOTH THE SWITCHBOARD CABLE AND LOCAL CABLE ARE CONNECTED TO THE SAME SIDE OF THE TERMINAL STRIP CONNECT THE SWITCHBOARD CABLE TO THE OUTER NOTCH OR HOLE IN THE TERMINAL AND THE LOCAL CABLE TO THE INNER NOTCH IN THE TERMINAL.

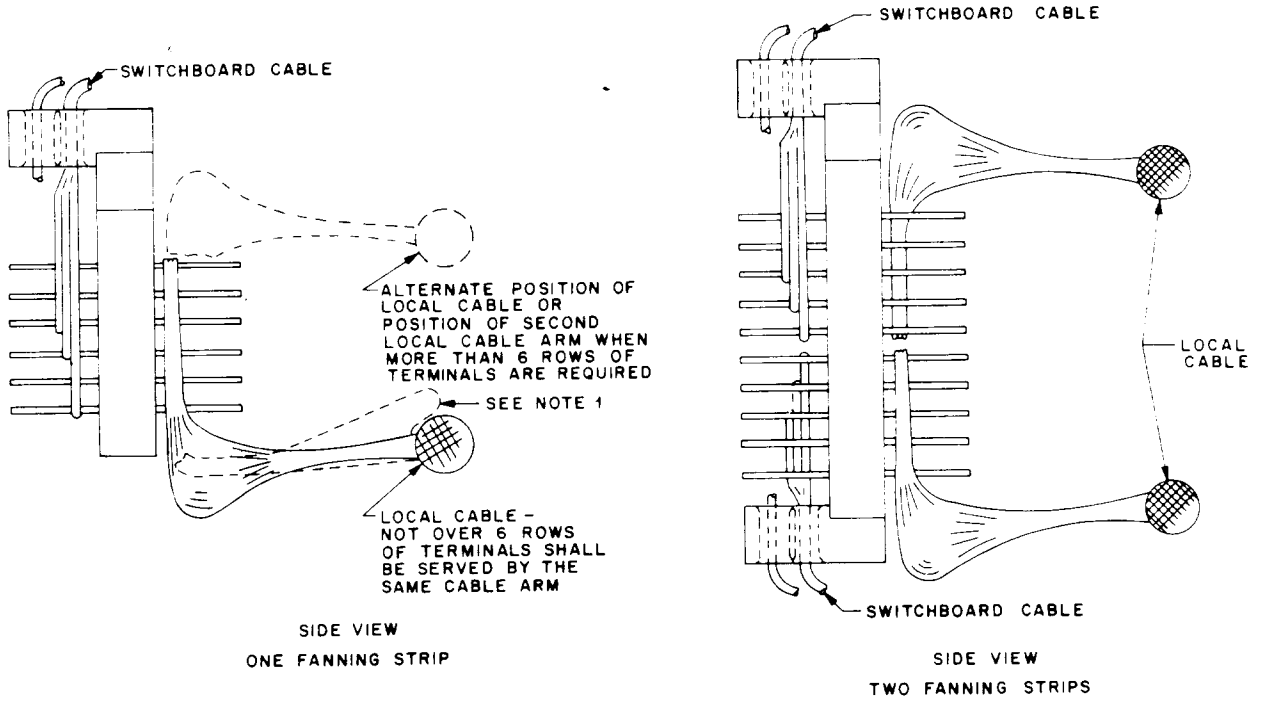
2. NOT OVER 6 ROWS OF TERMINALS SHALL BE SERVED BY THE SAME CABLE ARM.

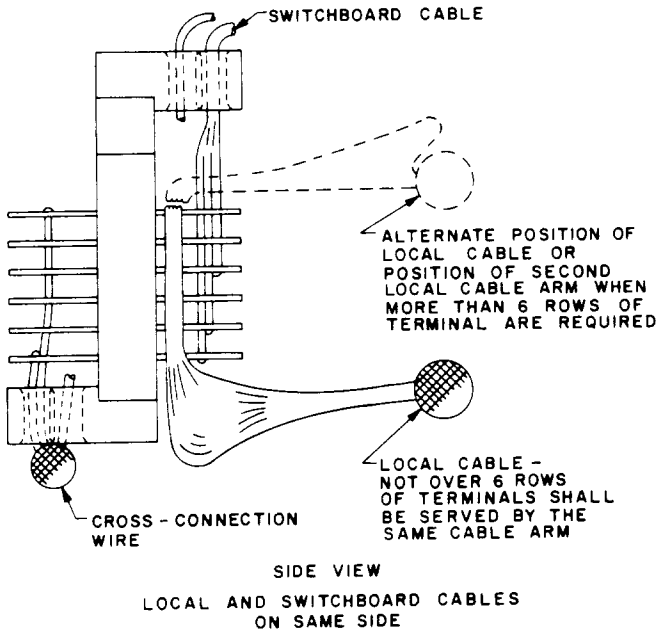


SIDE VIEW

LOCAL CABLE AND SWITCHBOARD CABLE
RUN THROUGH FANNING STRIP

Fig 65—Terminal Strips—Switchboard and Local Cable Connected to Notched Terminals





NOTES:
1 ALTERNATE DRESS WHEN SKINNERS INTERFERE WITH EQUIPMENT MOUNTED BELOW THE TERMINAL STRIP.
2 WHEN LOCAL CABLE LEADS ARE RUN THROUGH FANNING STRIPS, IT SHOULD BE DONE IN THE SAME MANNER AS FOR SWITCHBOARD CABLE.

Fig 66—Terminal Strips—Switchboard and Local Cable Connected to Terminals Arranged for Solderless Wrapping

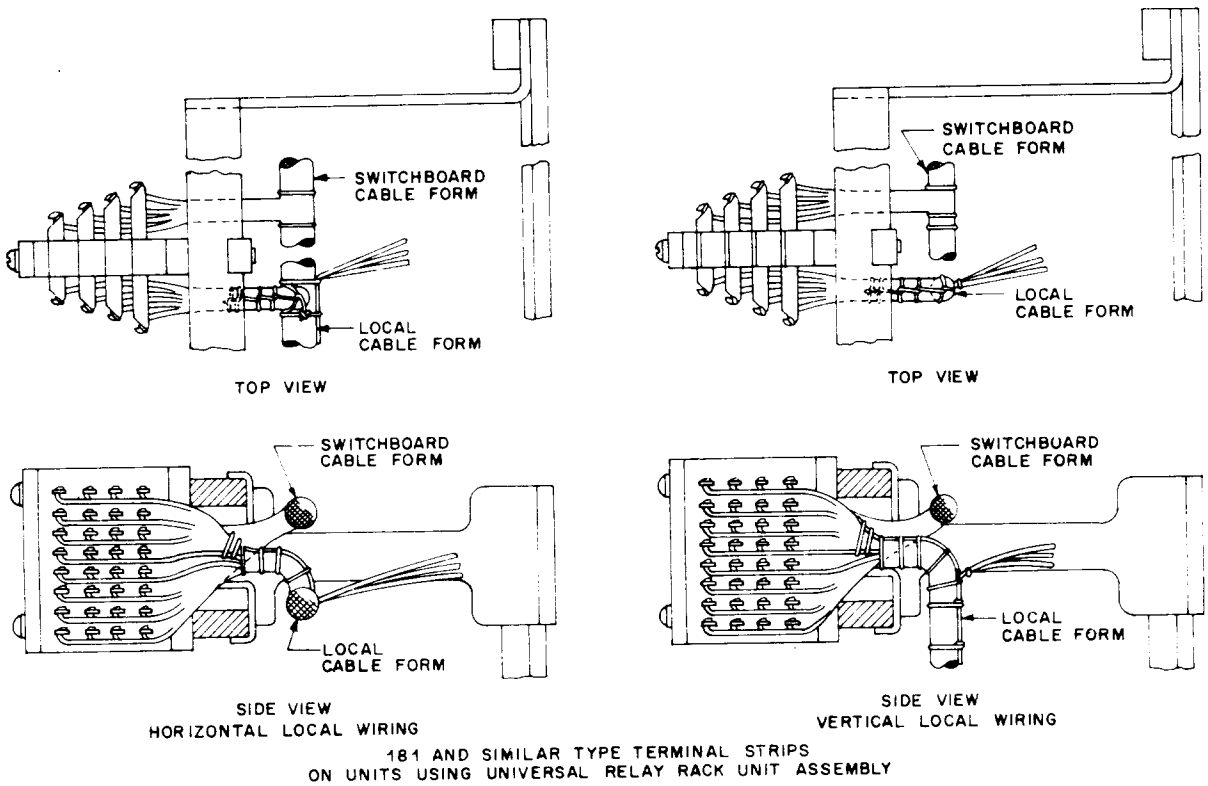


Fig 67—Terminal Strips—181 and Similar Types

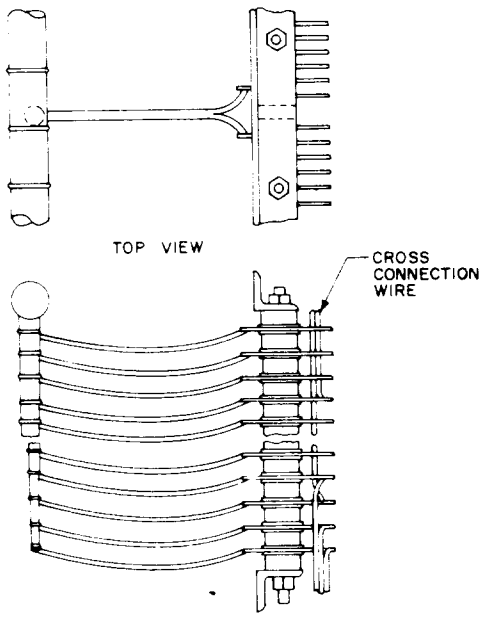
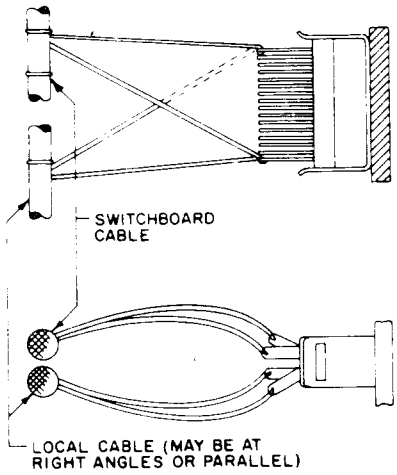
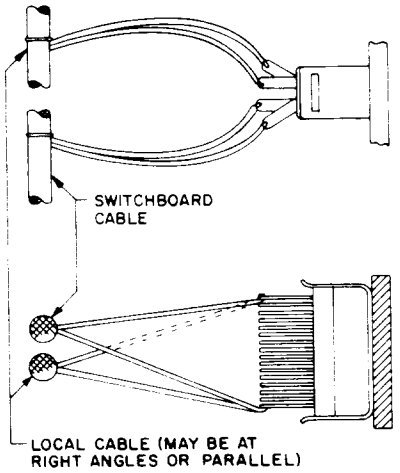


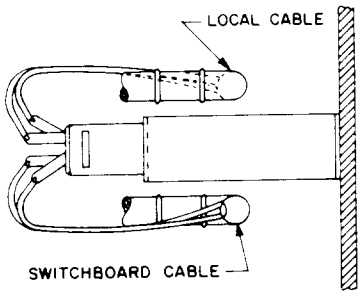
Fig 68—Terminal Strips—190 and Similar Types



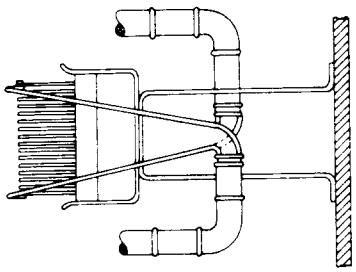
SWITCHBOARD CABLE FORM PARALLEL TO TERMINAL STRIP
(TERMINAL STRIP SHOWN MOUNTED HORIZONTALLY)



SWITCHBOARD CABLE FORM AT RIGHT ANGLES TO TERMINAL STRIP
(TERMINAL STRIP SHOWN MOUNTED VERTICALLY)

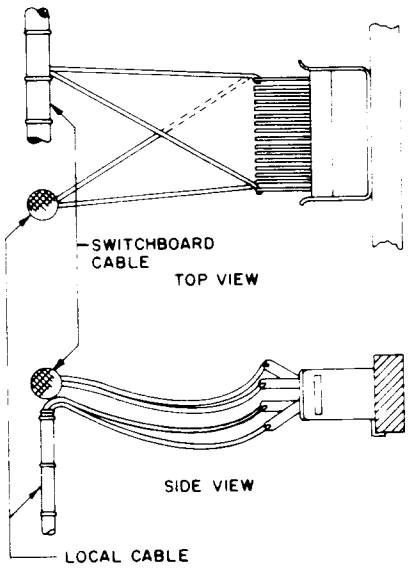


TOP VIEW



SIDE VIEW

MOUNTED ON 28B BRACKET AND MOUNTING DETAIL P-411766 FOR PANELS

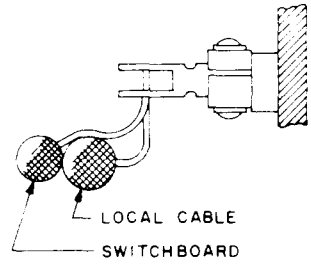


TOP VIEW

SIDE VIEW

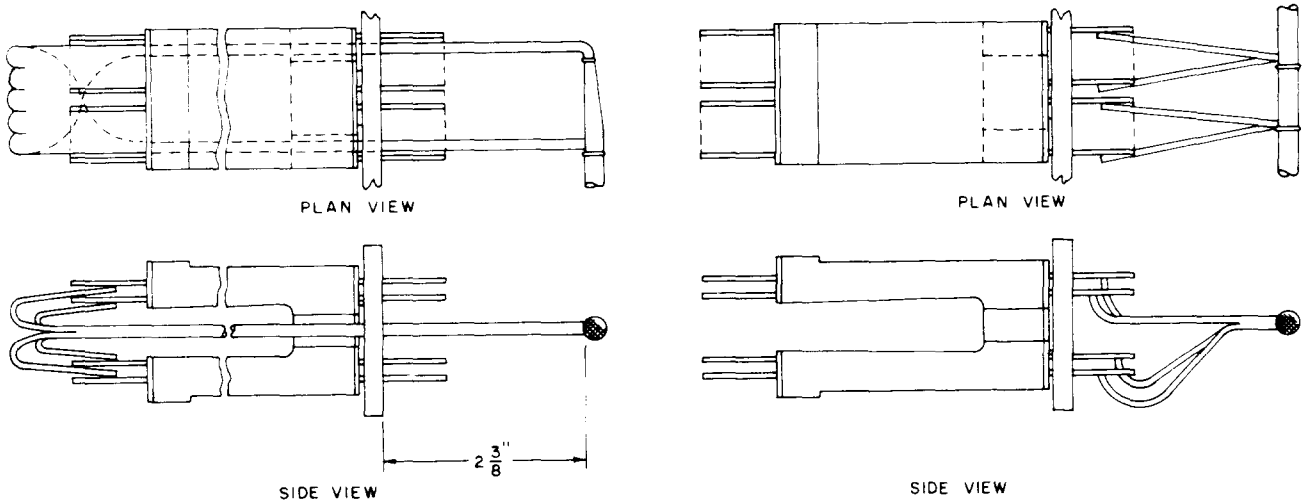
MOUNTED HORIZONTALLY ON 28A BRACKET SECURED TO REPEATING COIL SUPPORTING BAR

Fig 69—Terminal Strips—203A and Similar Types on 28- and Similar-Type Brackets



TERMINALS ARRANGED
FOR SOLDERLESS
WRAP CONNECTION

Fig 70—Terminal Strips—216 Type

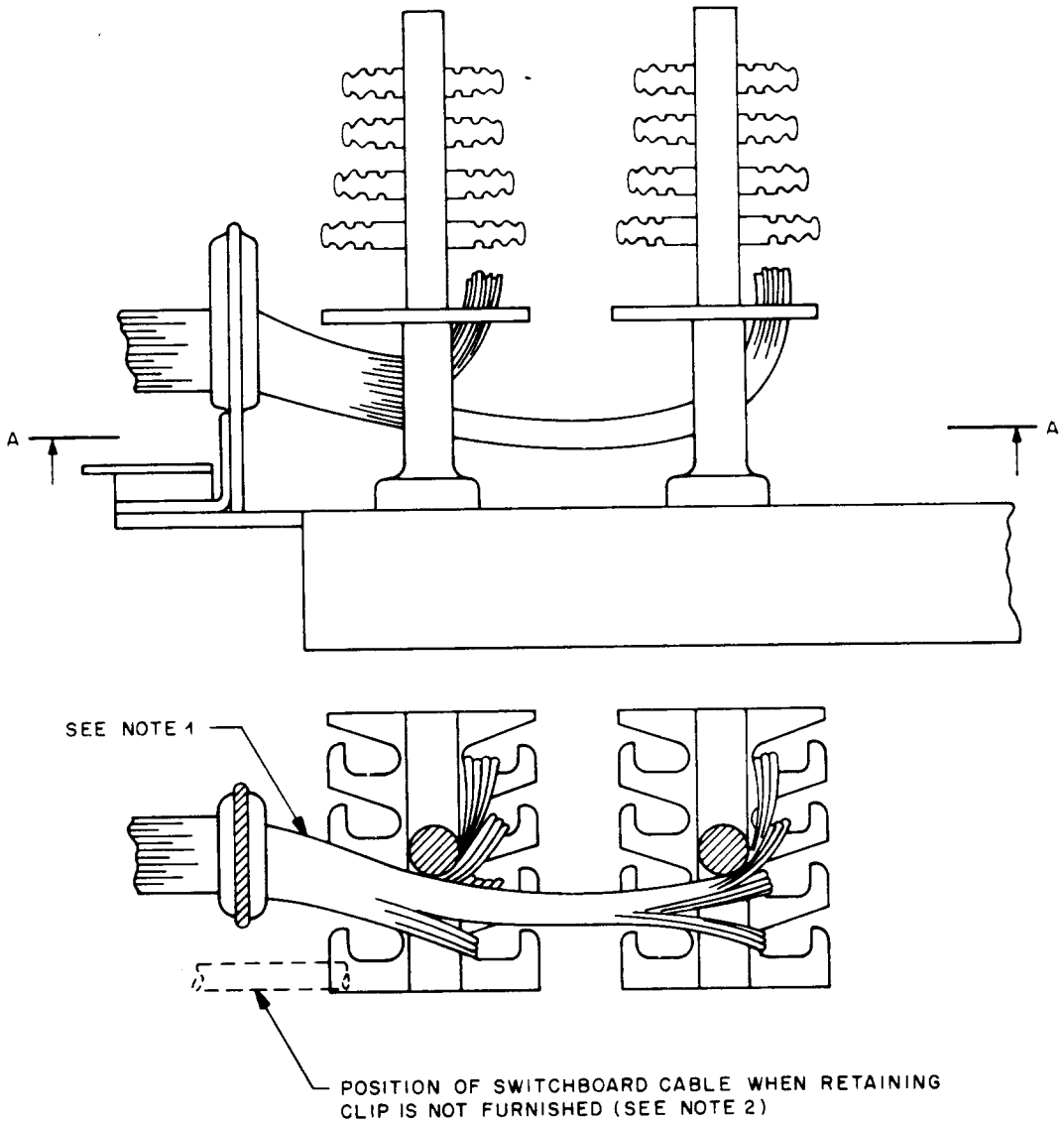


224 TERMINAL STRIP (SOLDERLESS TYPE TERMINAL)

NOTES

1. WHERE LOCAL CABLE FORMS ARE TERMINATED ON THE FRONT (APPARATUS SIDE) OF THE TERMINAL STRIP, AND TWO CABLE HOLES ARE PROVIDED FOR EACH TERMINAL STRIP, THE LEADS TO THE LEFT HALF OF THE TERMINAL STRIP, TOP AND BOTTOM TERMINALS, SHALL BE RUN THROUGH THE LEFT HOLE AND THE LEADS TO THE RIGHT HALF OF THE TERMINAL STRIP, TOP AND BOTTOM TERMINALS, SHALL BE RUN THROUGH THE RIGHT HOLE, AS VIEWED FROM THE REAR OF THE BAY.
2. WHERE SWITCHBOARD CABLE LEADS ARE TERMINATED ON THE FRONT (APPARATUS SIDE) OF THE TERMINAL STRIP AND TWO CABLE HOLES ARE PROVIDED FOR EACH TERMINAL STRIP, THE LEADS TO THE TOP ROW OF TERMINALS SHALL BE RUN THROUGH THE LEFT HOLE AND THE LEADS TO THE BOTTOM ROW OF TERMINALS SHALL BE RUN THROUGH THE RIGHT HOLE, AS VIEWED FROM THE REAR OF THE BAY. WHEN LOCAL CABLE LEADS HAVE BEEN TERMINATED ON THE APPARATUS SIDE OF TERMINAL STRIP BY THE SHOP, THE SWITCHBOARD CABLE LEADS SHOULD BE DIVIDED BETWEEN THE TWO HOLES IN THE SAME MANNER AS USED BY THE SHOP.

Fig 71—Terminal Strips—224 (Cable-Well) Type

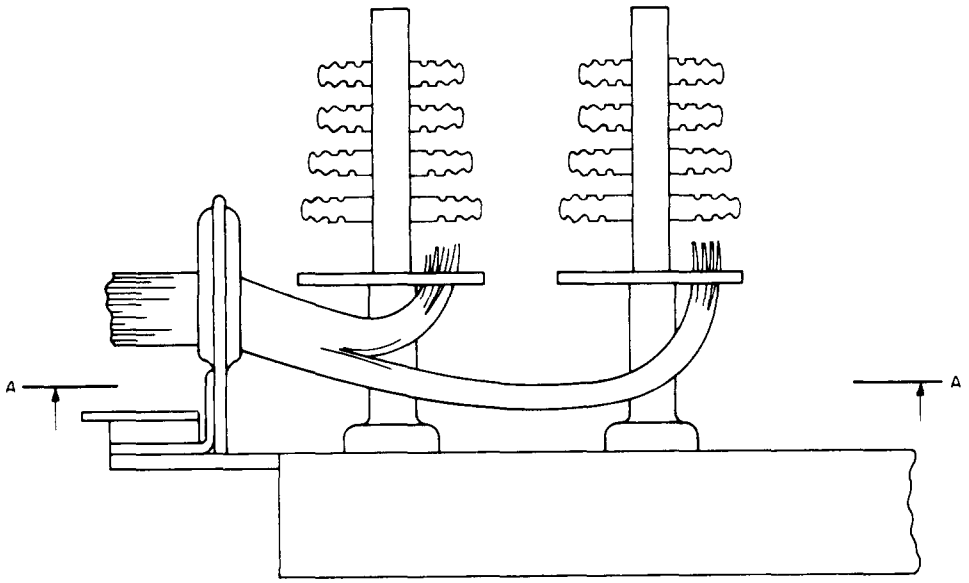


SECT. A-A

NOTES:

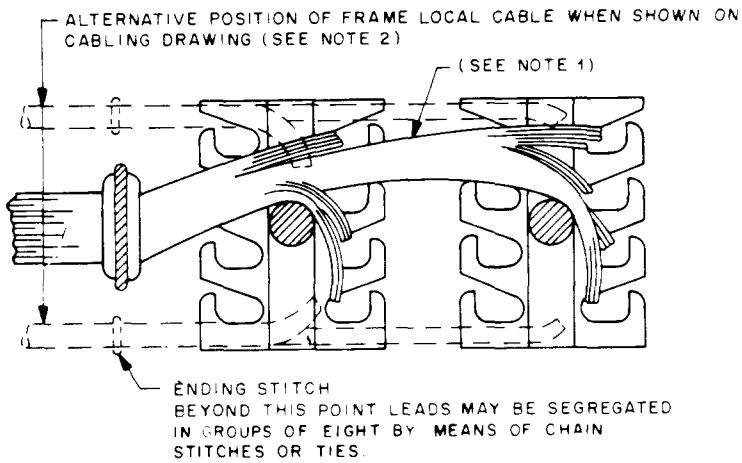
1. WHERE NECESSARY TO AVOID EXCESSIVE PILEUP OF WIRES, SWITCHBOARD CABLE LEADS CONNECTED TO THE TOP HALF OF THE TERMINAL STRIP MAY BE RUN OVER THE TERMINAL STRIP SUPPORT.
2. WHEN A HORIZONTAL SEWED FORM IS USED, THE ARM SHALL BE RUN ABOUT 1/2" IN BACK OF THE FANNING STRIP, EITHER ABOVE OR BELOW THE TERMINAL STRIP SUPPORT, DEPENDING ON LOCAL WIRING CONDITIONS. THE SKINNERS SHOULD BE RUN DIRECTLY FROM THE HORIZONTAL ARM TO THE TERMINAL STRIPS WITHOUT SEWING.

Fig 72—Terminal Strips—227 and Similar Types—Switchboard Cable



NOTES:

1. WHERE NECESSARY TO AVOID EXCESSIVE PILEUPS OF WIRES, LEADS CONNECTED TO LOWER HALF OF TERMINAL STRIP MAY BE RUN UNDER THE TERMINAL STRIP SUPPORT.
2. WHEN A HORIZONTAL SEWED FORM IS USED, THE ARM SHALL BE RUN ABOUT 1/2" IN BACK OF THE FANNING STRIP, EITHER ABOVE OR BELOW THE TERMINAL STRIP SUPPORT, DEPENDING ON LOCAL WIRING CONDITIONS, THE SKINNERS SHOULD BE RUN DIRECTLY FROM THE HORIZONTAL ARM TO THE TERMINAL STRIP WITHOUT SEWING.



SECT A-A

Fig 73—Terminal Strips—227 and Similar Types—Intraframe Loose Wiring or Frame Local Cable

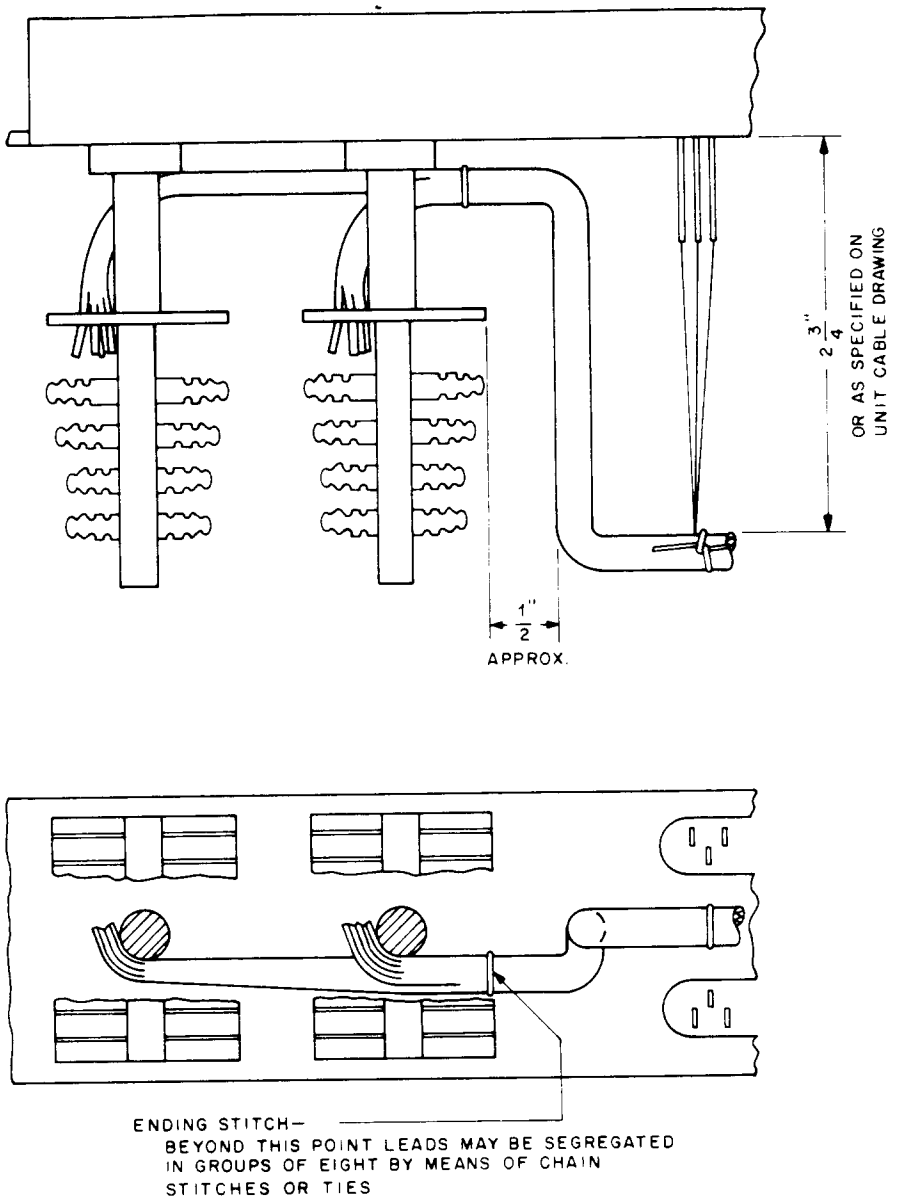
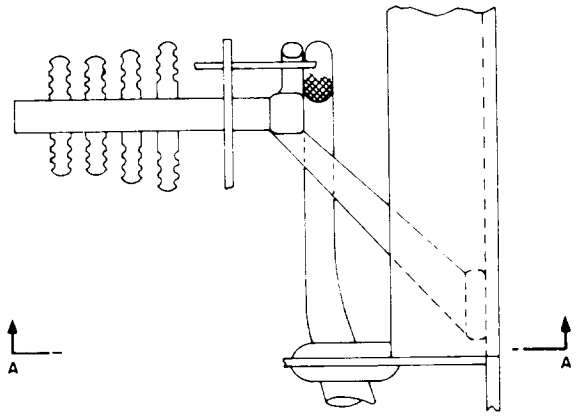
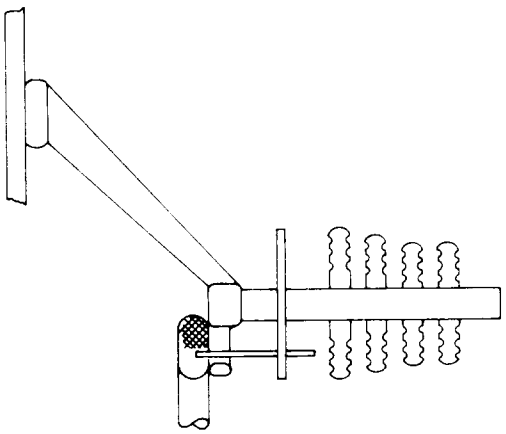


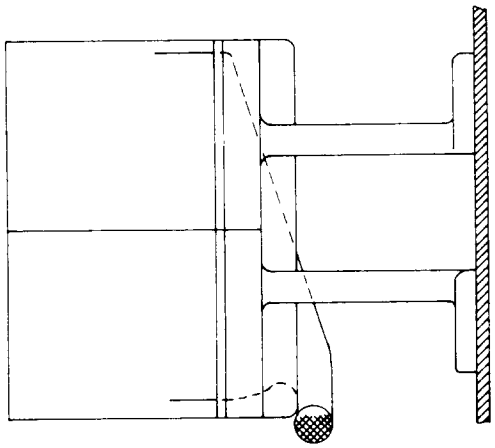
Fig 74—Terminal Strips—227 and Similar Types—Local Cable Form on Equipment Unit



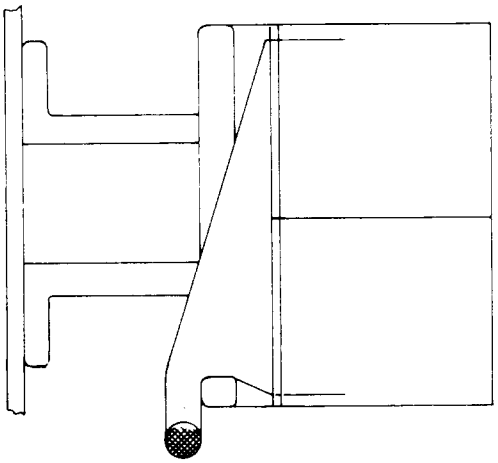
PLAN VIEW



PLAN VIEW



SECT. A-A
BULB OR CHANNEL TYPE BAYS



END VIEW
DUCT TYPE BAYS

Fig 75—Terminal Strips—C4A Single or Double Mounted (Double Mounted Shown)—Dress of Switchboard Cable Leads

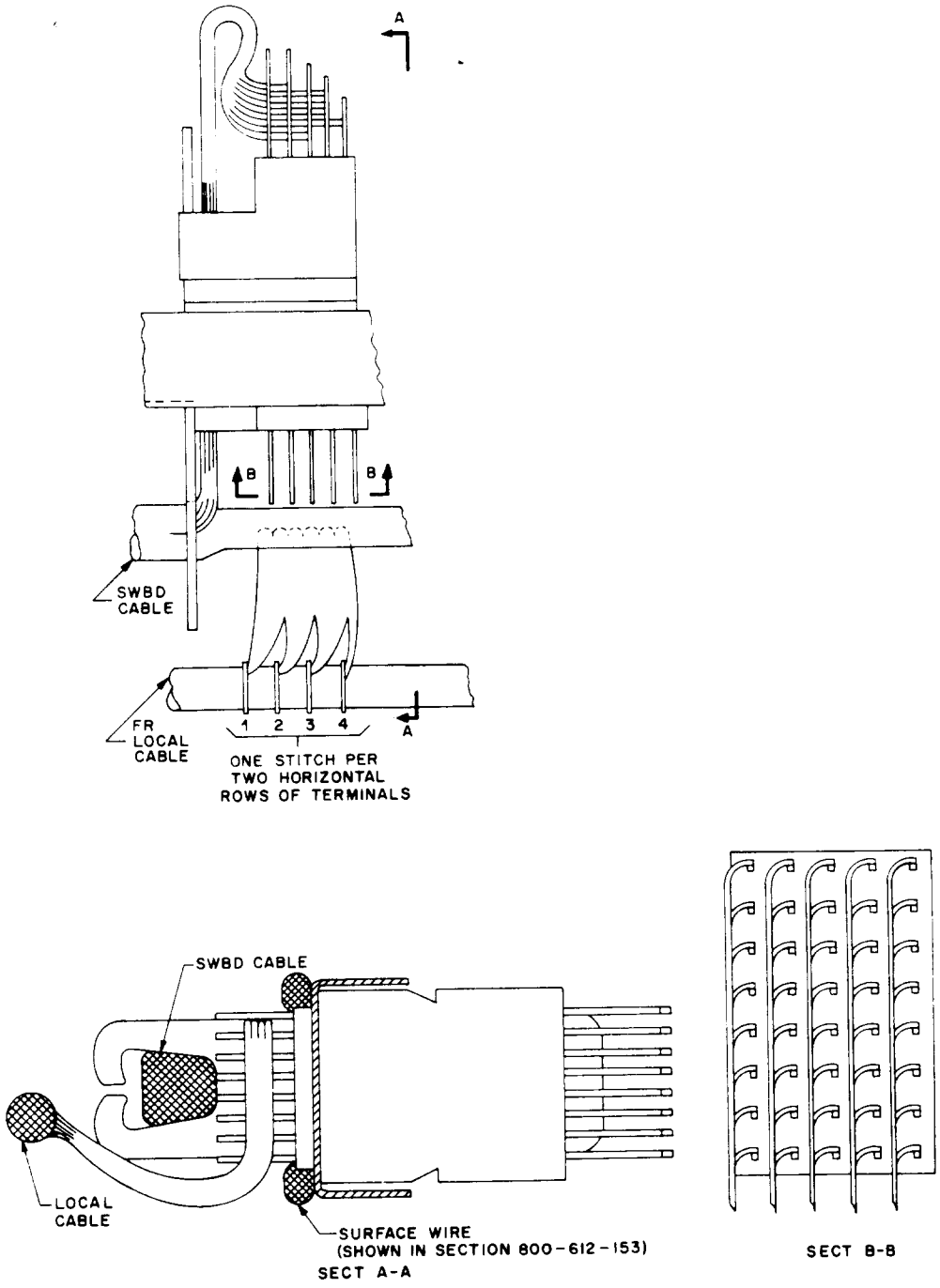


Fig 76—D-Type Terminal Strip With Local Cable

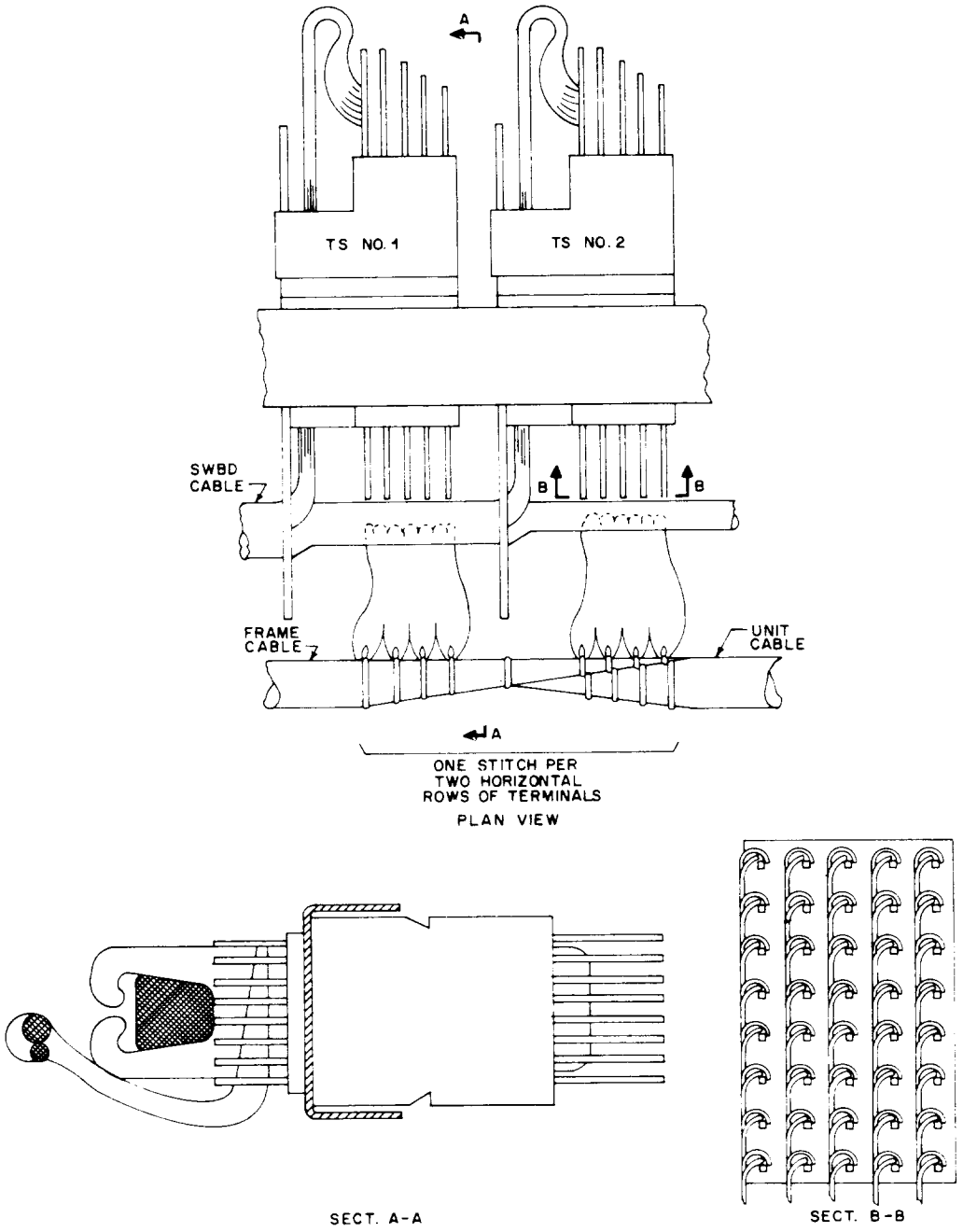


Fig 77—Two Adjacent D-Type Terminal Strips With Frame and Unit Local Cables

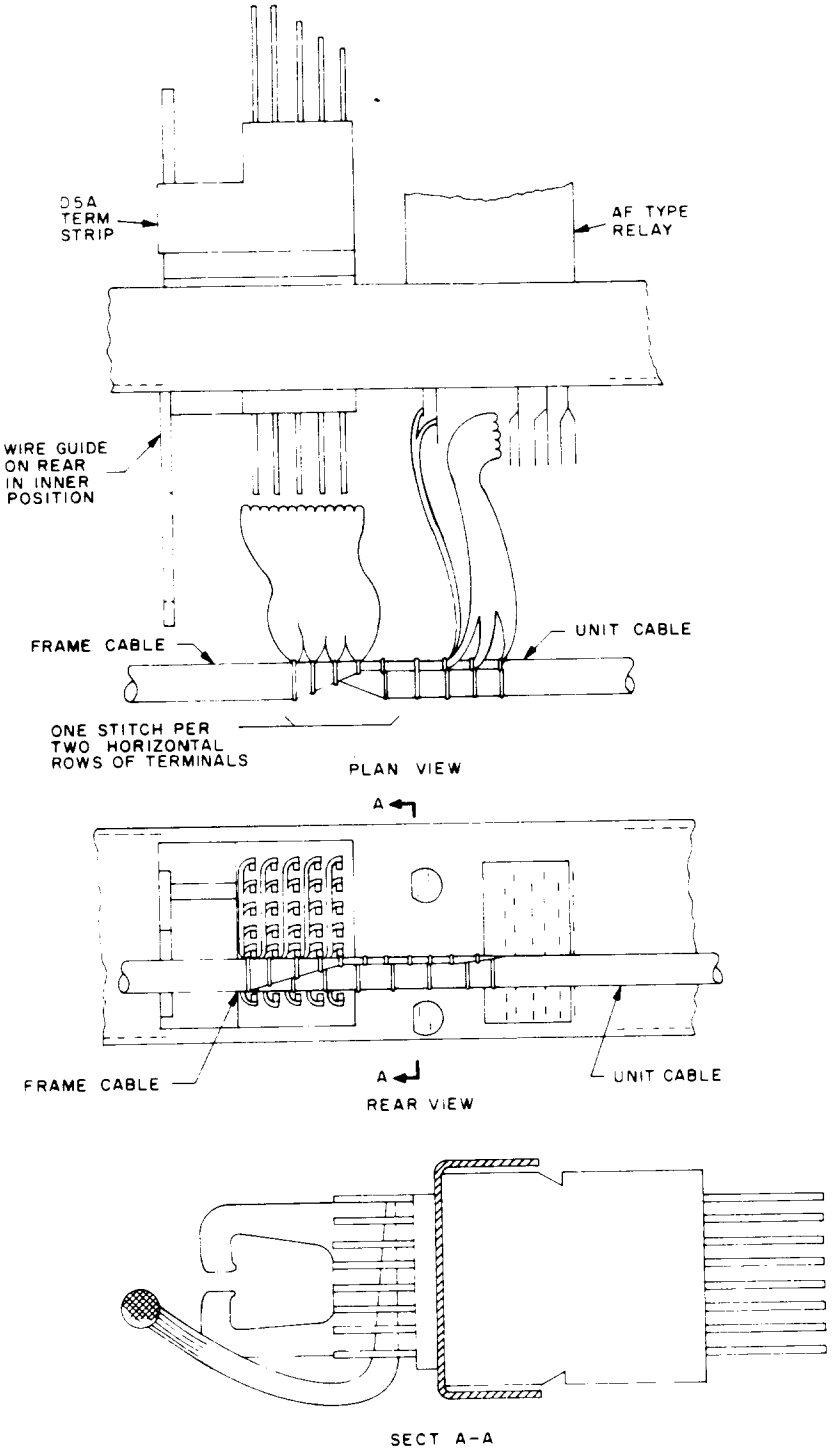


Fig 78—D-Type Terminal Strip With Frame and Unit Local Cables, Adjacent to Wire-Spring Relay

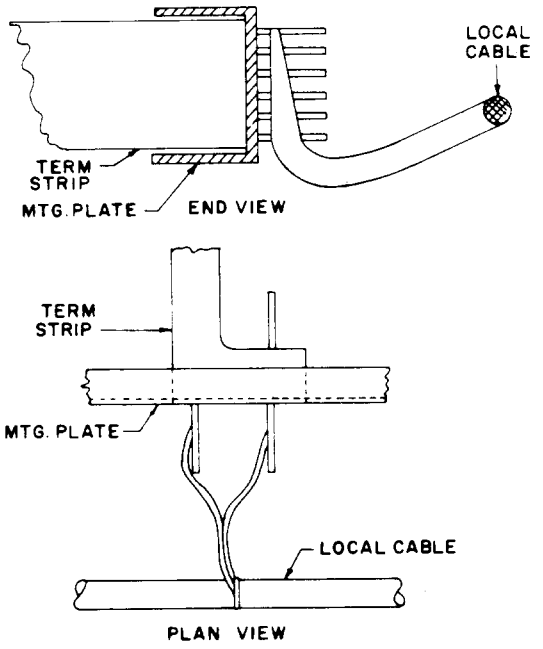


Fig 79—278- and Similar-Type Terminal Strips

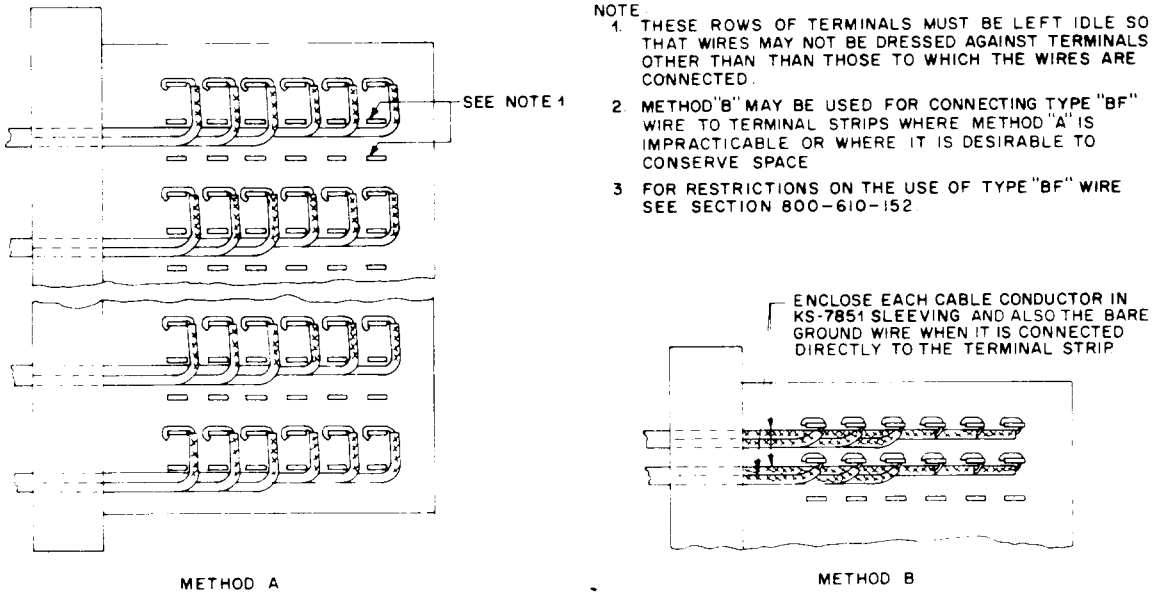


Fig 80—Method of Connecting BF-Type Wire to Terminal Strips

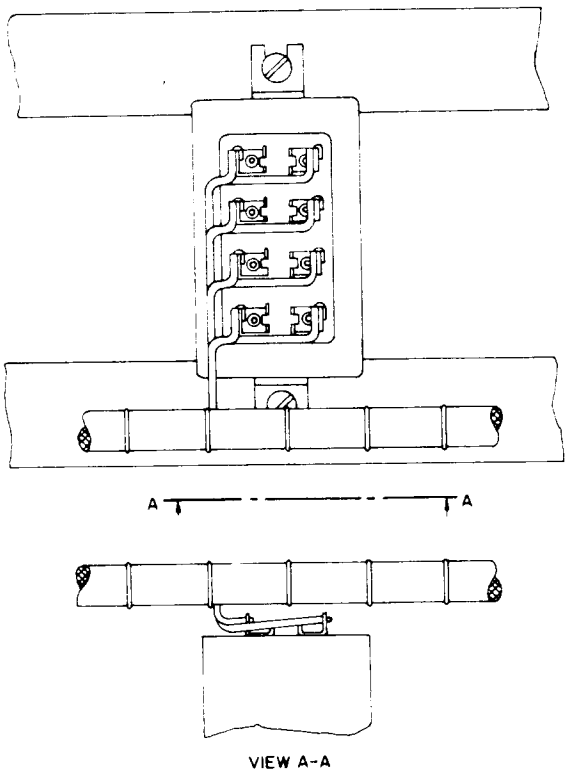


Fig 81—Transformers—Input 213, 214, and Similar Types—Output 116A and Similar Types

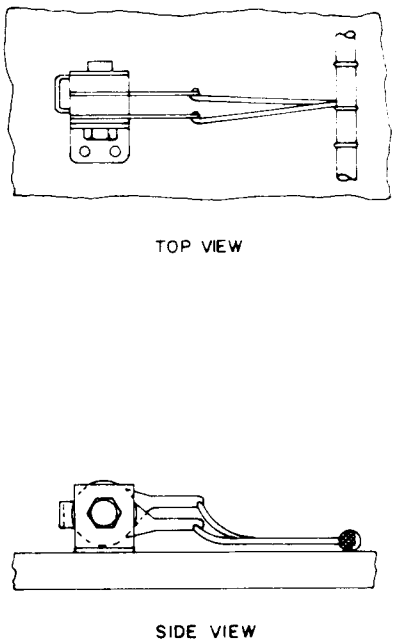
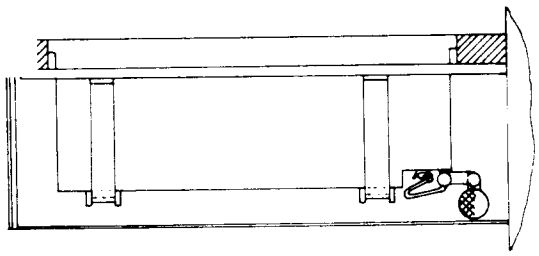


Fig 82—Varistors—3B and Similar Types (For 33 and Similar Types, see Fig 7)



NOTE:
LEAVE SUFFICIENT SLACK IN LOCAL CABLE ARM TO PERMIT REMOVAL OF WHEATSTONE BRIDGE FROM THE MOUNTING SHELF WITHOUT DISCONNECTING LEADS.

Fig 83—Wheatstone Bridge