

PLUGS

FOR PORTABLE TELEPHONE SETS

IDENTIFICATION AND CONNECTIONS

1. GENERAL

1.01 This section is reissued to:

- Show 283B(MD) plug.
- Revise Table A.
- Add Table B.
- Add connection information on the current model 505A plug.
- Add connection information on the current model D3BU and D4BP Cords.

Since this reissue covers a general revision, arrows ordinarily used to indicate changes have been omitted.

1.02 Some areas require at least one telephone set ringer or separate ringer permanently

connected to the line. Check local instructions governing line ringers.

1.03 Portable telephone sets should be kept indoors when not in use. Impress upon the customer the importance of protecting telephone sets from inclement weather in order to maintain good telephone service.

1.04 For associated jacks see Section 461-630-100.

2. IDENTIFICATION

2.01 Table A lists plugs used with portable telephone sets; Table B lists the available colors.

504A PLUG

2.02 The 504A is a 12-terminal plug (Fig. 1) consisting of a molded plastic block, cord tip guide, and cap assembly held together by one

TABLE A
PLUGS

TYPE	NO. OF CONTACTS	FIG. NO.	ASSOCIATED JACKS
KS-8419	3	7	KS-8420 KS-8421
505A	4	3,4	404B (MD) 493A (MD), 548A, 497A (MD), 549A, 550A, KS-16151, L1 (MD)
283B (MD)		8	
423A		6	P-44E055 mounting block and screw assembly
274A	8	5	391A, 392A
504A	12	1,2	541A, 547A (MD), 551A, 547B

TABLE B
COLOR ORDERING GUIDE

COLOR		TYPE PLUG					
		504A	505A	274A	423A*	KS-8419	283B(MD)
BLACK	— 3	•	•				•
LT. OLIVE GRAY	—49			•			
IVORY	—50	•	•	•			
GREEN	—51	•	•				•
RED	—53	•	•				
BROWN	—54			•			
YELLOW	—56	•	•				•
WHITE	—58	•	•				•
ROSE PINK	—59	•	•				•
LT. BEIGE	—60	•	•				•
LT. GRAY	—61	•	•				•
AQUA BLUE	—62	•	•				•
TURQUOISE	—64	•	•				•
BRASS						•	

*This plug is inside the 750 telephone set and may be any color as it is made from scrap plastic.

screw. Each terminal is equipped with a socket-type connector to receive the cord tip. A cord tip guide (Fig. 2) covers the terminals. The terminals are numbered 1 through 12 and match numbering on the 541A jack. The plug can be inserted into the jack in only one position.

2.03 Included with the plug is a metal cord stay designed for use with cords equipped with a wire S hook. The S hook is removed and discarded. The cord stay, inserted into the vacated band hole, serves as a wing band. Slots are provided on the plug block and shell (Fig. 2) to hold a wing band or the cord stay. The wing band or cord stay seated in the slot prevents the mounting cord from slipping out of the plug.

505A PLUG

2.04 The 505A plug (Fig. 3) is a 4-contact plug similar to the 504A plug; in addition, however, it has a cord fastener (Fig. 4) which holds the cord in place while spade tips are being connected. The cord fastener also anchors the mounting cord in the assembled plug.

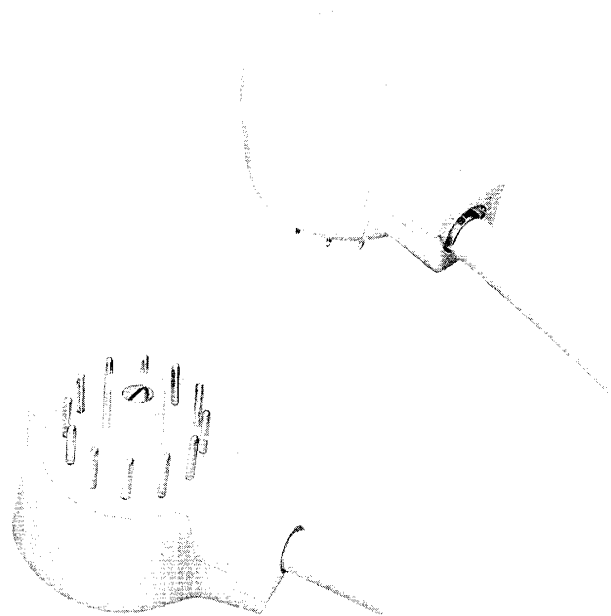


Fig. 1—504A Plug

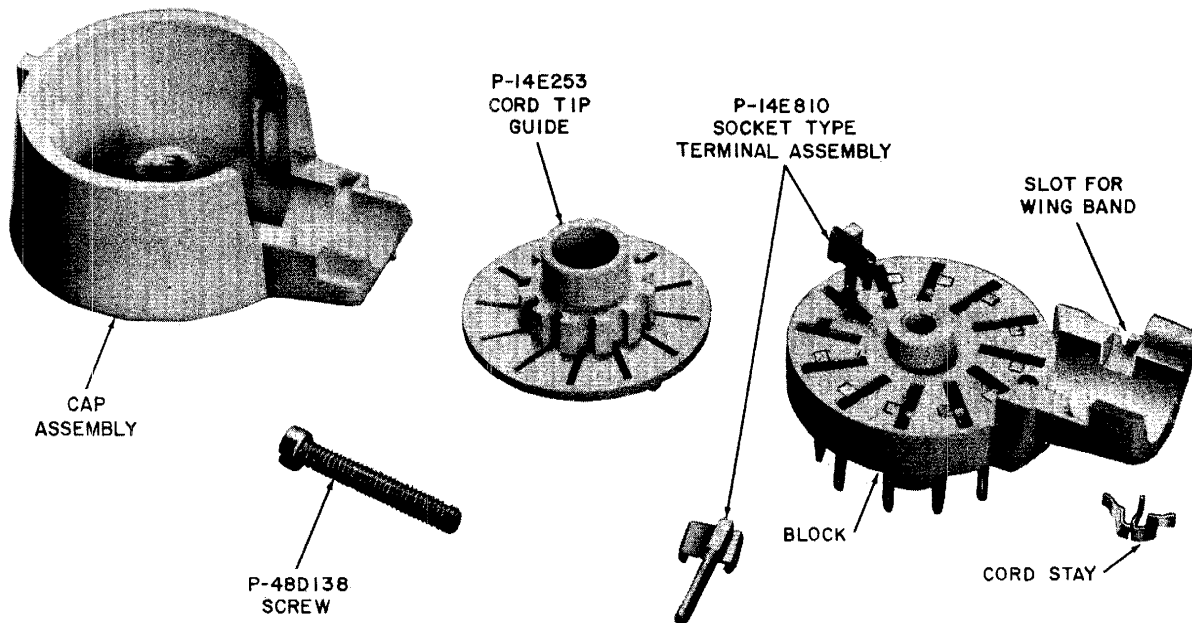


Fig. 2—504A Plug Disassembled

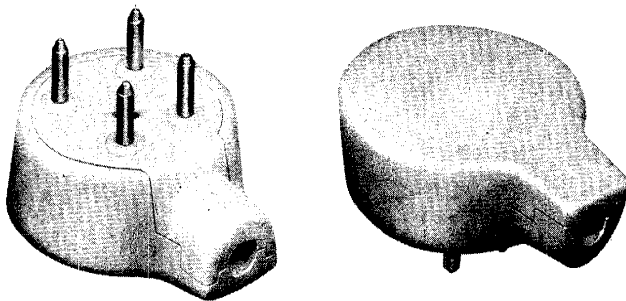


Fig. 3—505A Plug

2.05 The current model cord tips guide is shown in Fig. 4. It provides a cutout to permit the use of a cord equipped with a flat eyelet stay band.

274A PLUG

2.06 The 274A plug (Fig. 5) is a 2-piece, 8-contact plug of molded plastic. It is intended for use with braided fabric covered mounting cords and is equipped with two eyes to which the braid is secured. It is available in color as shown in Table B.

423A PLUG

2.07 The 423A plug (Fig. 6) is a 2-piece, 4-contact molded plastic plug for use with the 750-type panel telephone set. U-shaped projections are molded in the base for securing the mounting cord.

KS-8419 PLUG

2.08 The KS-8419 plug (Fig. 7) is a 3-contact, brass plug intended for connecting telephone sets installed on boats, trains, or auto trailers to outdoor jacks of PBX or CO lines. This plug is intended for use with KS-8420 or KS-8421 jacks.

283B(MD) PLUG

2.09 The 283B(MD) plug (Fig. 8) is a 2-piece, 4-contact plug of molded plastic in colors to match telephone set colors as shown in Table B. The mounting cord is secured by either a wing band inserted into a slot in the cover or an S hook or flat eyelet stay band secured with a self-tapping screw packed with the plug.

3. CONNECTIONS

3.01 Wiring variations (eg. class-of-service, etc, normally made in the connecting block)

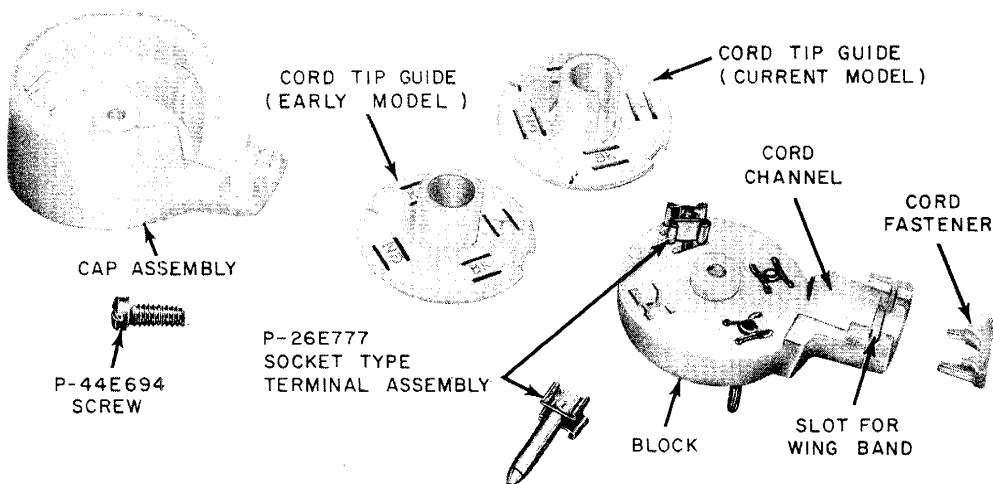


Fig. 4—505A Plug Disassembled

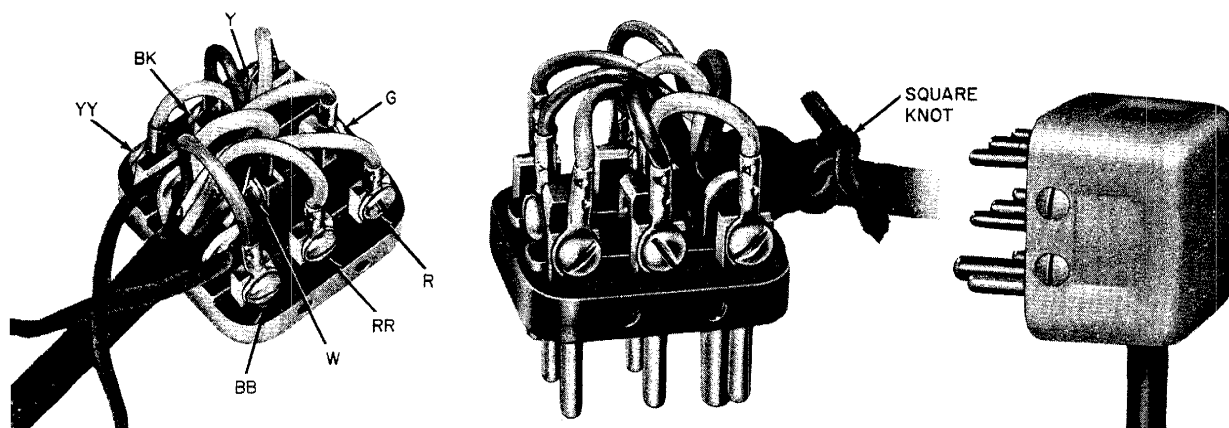


Fig. 5—274A Plug

should be made in the plugs. Do not make wiring variations in the station jacks. When required, two spade tips may be placed under one screw head. In some plugs, eg, 505A, there are two socket-type connectors on each terminal pin. These extra terminal connectors may be used to bridge spade tip conductors. If the extra connectors are used to store unused cord conductors, the unused conductors must be insulated at the telephone set end.

504A PLUG

3.02 Connections for the 504A plug (Fig. 1) are as follows:

- (1) Place cord tip guide on block (Fig. 2).
- (2) Insert mounting cord tips into socket-type terminals of plug.

Note: For mounting cord conductor connections, refer to connection section for the telephone set.

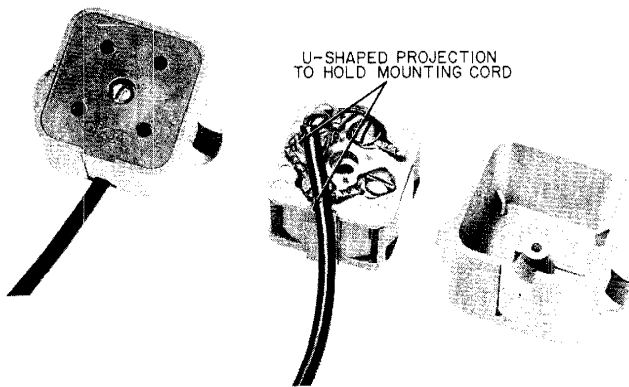


Fig. 6—423A Plug, Front View and Rear View Cover Removed

- (3) Dress conductors so they will lie within the cap of plug.
- (4) Place wing band or cord stay of mounting cord in its proper slot.
- (5) Place cap on plug so cord and wing band or cord stay will seat properly. Be sure no leads are pinched.
- (6) Snap two sections of neck together.
- (7) Insert screw and tighten.

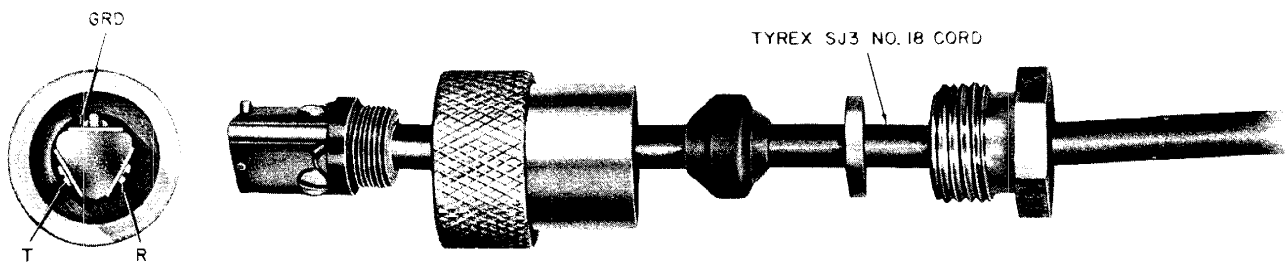


Fig. 7—KS-8419 Plug

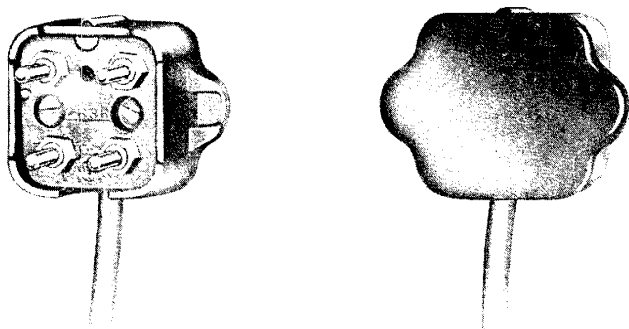


Fig. 8—283B (MD) Plug

505A PLUG

3.04 *Connecting Current Model D3BU or D4BP Mounting Cord to a Current Model 505A Plug:*

- (1) Position flat eyelet stay band in the cord channel so that the screw hole is over the screw hole in the center of the cord tip guide (see Fig. 9).
- (2) Fit cord fastener into groove in the cord channel and press until it snaps into position.
- (3) Connect the mounting cord spade tips in the socket-type terminals.

- (4) Insert screw through hole in block and stay band.
- (5) Dress conductors so they will not obstruct the center of the cord tip guide.
- (6) Position cap assembly on cord tip guide and block; check that no cord leads are pinched and tighten screw.

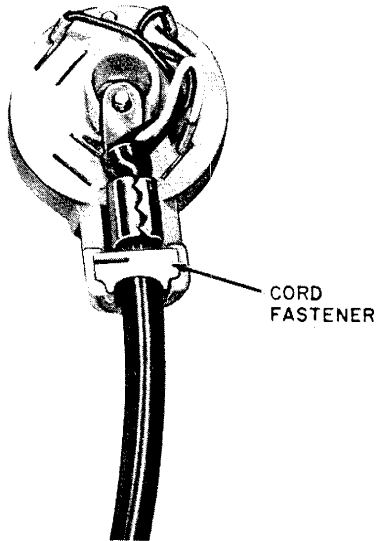


Fig. 9—Current Model D3BU Cord Connected to Current Model 505A Plug

3.05 Connecting Current Model D3BU or D4BP Mounting Cord to an Early Model 505A Plug:

- (1) Cut flat eyelet stay band approximately 1/8 inch from end of cord jacket using 8-inch sidecutters, or equivalent (Fig. 10).

Caution: When cutting the stay band, take precautions to prevent the severed end from striking personnel or apparatus.

- (2) Make a right angle bend in the remaining length of stay band in the direction away from the cord conductors.
- (3) Position the mounting cord into the cord channel of the block, as shown in Fig. 10.

- (4) Fit the cord fastener into the groove in the cord channel and press until it snaps into position.
- (5) Connect the mounting cord spade tips in the socket-type terminals.
- (6) Dress the conductors so they will not obstruct the center of the cord tip guide.
- (7) Position the cap assembly on the block so that the right angle bend of the stay band is supported by the inner surface of the cap assembly; check that no cord leads are pinched.
- (8) Insert cover screw and tighten.

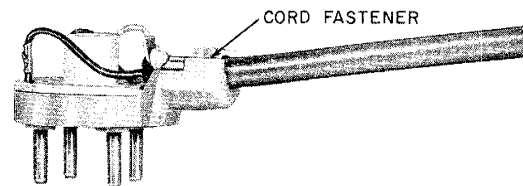
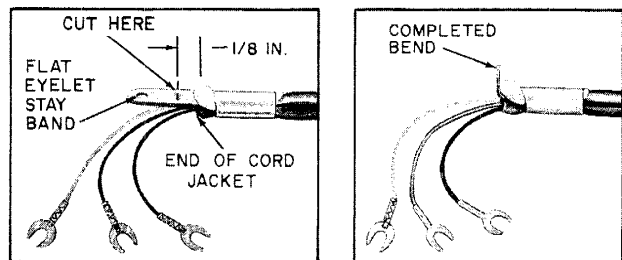


Fig. 10—Connecting Current Model D3BU or D4BP Cord to Early Model 505A Plug

3.06 Connecting Early Model D3BU or D4BP Mounting Cord to Current or Early Model 505A Plug:

- (1) Remove P-18E457 adapter [3.11(b)(1)] and S hook from the cord.
- (2) Make a right angle bend in the S hook support of the stay band in the direction away from the cord conductors (Fig. 11).
- (3) Position the mounting cord in the cord channel so the S hook support is seated in the slot adjacent to the cord tip guide (Fig. 11).

- (4) Fit the cord fastener into the groove in the cord channel and press until it snaps into position.
- (5) Connect the mounting cord spade tips in the socket-type terminals.
- (6) Dress cord conductors so they will not obstruct the center of the cord tip guide.
- (7) Position cap assembly on cord tip guide and block; check that no cord leads are pinched.
- (8) Insert cover screw and tighten.

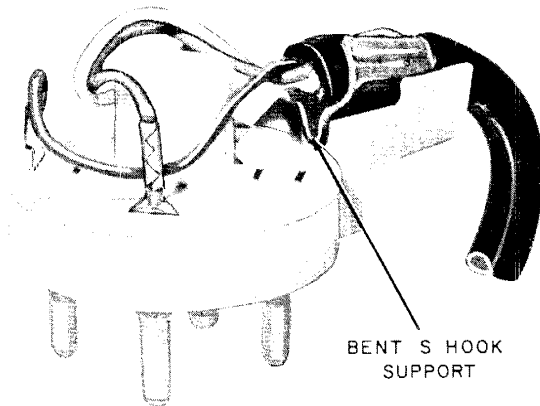


Fig. 11—Early Model D3BU Cord Connected to 505A Plug

3.07 Connecting 505A Plug to a Cord Equipped With a Wing Band:

- (1) Fit the cord tip guide into place on the top of the block.
- (2) Position the mounting cord into the cord channel of the block so that the cord wing band fits into the wing band slot (Fig. 4). One ear of the wing band will extend into the wing band slot of the cord fastener.
- (3) Fit the cord fastener into the groove in the cord channel and press until it snaps into position.
- (4) Arrange the mounting cord spade tips in the socket-type terminals.

- (5) Adjust the conductors so that they will not obstruct the center of the cord tip guide.

274A PLUG

3.08 Connections for 274A plug are as follows:

- (1) Make connections as indicated by color designations stamped adjacent to terminals.
- (2) Connect cord spade tips as shown in Fig. 5.
- (3) Tie mounting cord securely.
- (4) Place shell on base and tighten screws.

423A PLUG

3.09 Connections for the 423A plug (Fig. 3) are as follows:

- (1) Make connections as indicated by color designations stamped adjacent to terminals.
- (2) Connect cord tips as shown in Fig. 6.
- (3) Lay jacketed portion of cord in the two molded U-shaped projections.
- (4) Place cover on base and tighten screw.

KS-8419 PLUG

3.10 Connections for the KS-8419 plug are as follows:

- (1) Plug components are assembled to TYREX SJ3 No. 18 cord or equivalent (Fig. 7).
- (2) In TYREX SJ3 No. 18 cord or equivalent, the black conductor should be used for the ring (negative) side of the line. The white conductor should be used for tip (positive) side of the line. The green conductor is the ground conductor.
- (3) One terminal of the KS-8419 plug has a small lug protruding from the contact. This lug and the notched terminal on KS-8420 and KS-8421 jacks are provided to ensure that the plug is inserted in one position only.

- (4) When ground is necessary for service, the green conductor should be terminated on the notched terminal.

283B(MD) PLUG

3.11 Connections for 283B(MD) plugs are as follows:

(a) *Using Current Model D3BU or D4BP Cord:*

- (1) Make a slight bend in the flat eyelet stay band in the direction away from the cord conductors.
- (2) With cord conductors up, insert RM-658901 self-tapping screw with P-284139 flat washer (shipped with 283B(MD) plug) through hole in stay band. Using farthest hole opposite cord entrance, anchor cord securely (Fig. 12).
- (3) Make connections as indicated by color designations stamped adjacent to terminals.
- (4) Seat base of plug in its cover; check that no cord leads are pinched. Tighten cover screws.

(b) *Using Early Model D3BU or D4BP Cord:*

- (1) Remove P-18E457 adapter from cord (Fig. 13).
- (2) Using long-nose pliers and 8-inch sidecutters or equivalent (Fig. 14), turn large eye of S hook clockwise until positioned 90 degrees away from small eye of S hook.
- (3) With small eye of S hook up, insert RM-658901 self-tapping screw with P-284139 flat washer through large eye of S hook. Using farthest hole opposite cord entrance (Fig. 15 and 16), anchor cord securely.

Note: An RM-658901 self-tapping screw and a P-284139 flat washer will be shipped with each 283B(MD) plug (Fig. 16).

- (4) Lay the cord conductors out straight from the cord (Fig. 15). Pass the green conductor clockwise under the cord stay and terminate it on the GN punching. Pass the red conductor counterclockwise under the cord stay and terminate it on the R punching. Pass the yellow conductor clockwise under and then

over the top of the cord stay; terminate on the Y punching. If the black conductor is used, pass it counterclockwise, under, and then over the cord stay; terminate it on the BK punching.

- (5) Bend cord spade tips and dress red and green conductors so they lie outside of the mounting screw hole guides (Fig. 16).

- (6) Seat base of plug in cover before tightening screws to prevent pinching of conductors.

(c) *Using Cord Equipped With Wing Band:*

- (1) Make connections as indicated by color designations stamped adjacent to terminals (Fig. 12).
- (2) Bend cord spade tips up as shown in Fig. 12.
- (3) Place one edge of wing band in the larger (shallow drilled) of the two holes in the base.
- (4) Place cover so cord and wing band will seat properly in their slots.
- (5) Seat base of plug in its cover before tightening screws to prevent pinching of cord conductors.

(d) *Using Cord Equipped With Stay Hook:*

- (1) Insert RM-658901 self-tapping screw through P-284139 flat washer. Using farthest hole opposite cord entrance, start screw into hole.
- (2) With cord conductors up, slide cutout in stay hook under flat washer and tighten screw.
- (3) Make connections as indicated by color designations stamped adjacent to terminals (Fig. 12).
- (4) Bend cord spade tips up as shown in Fig. 12.
- (5) Seat base of plug in its cover; check that no leads are pinched. Tighten cover screws.

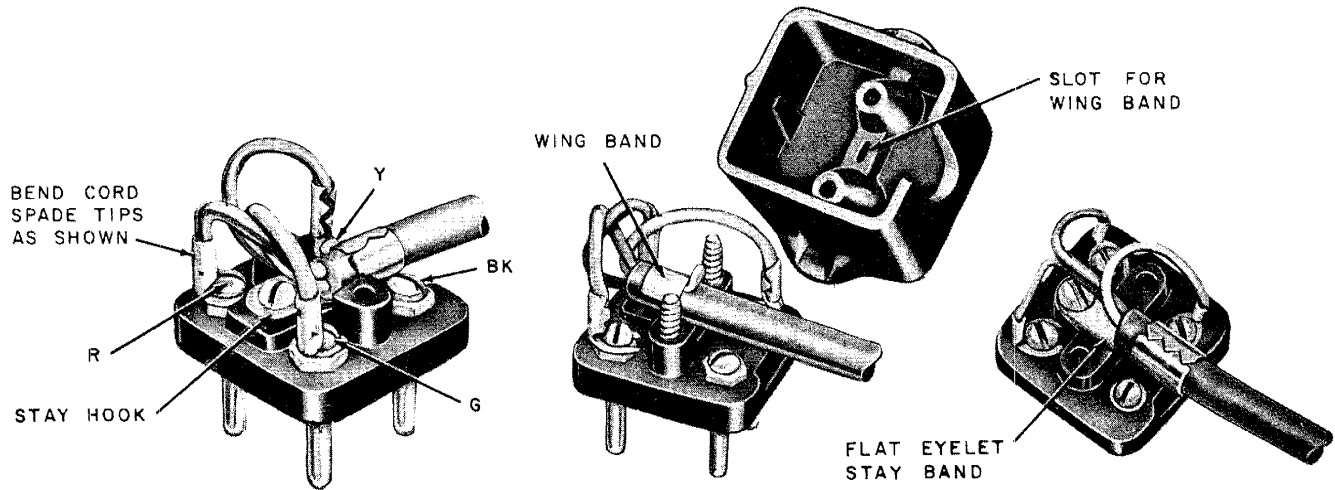


Fig. 12—Terminating Cords Equipped With a Stay Hook, Wing Band or Flat Eyelet Stay Band on a 283B(MD) Plug

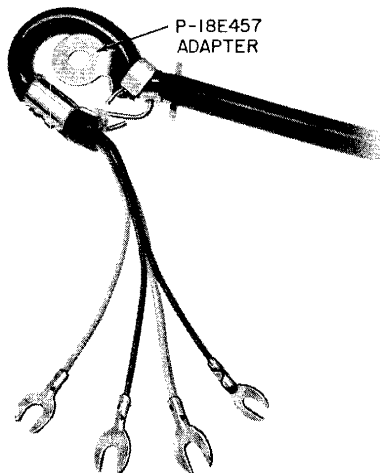


Fig. 13—Early Model D4BP Cord and Adapter

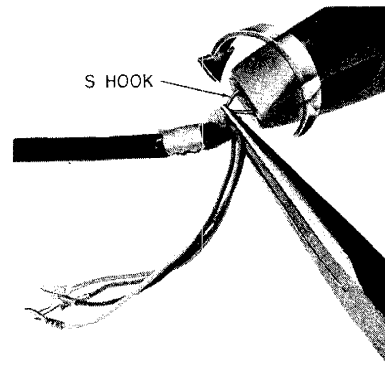


Fig. 14—Bending S Hook

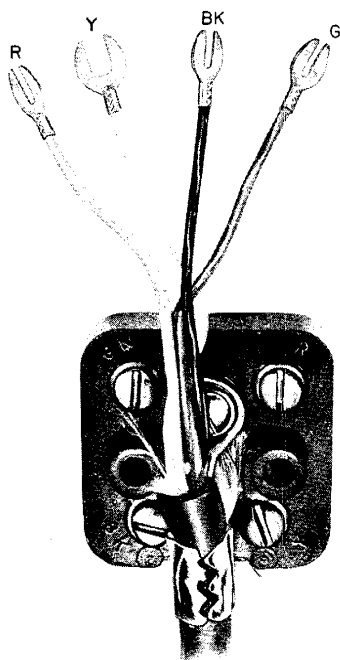


Fig. 15—Early Model D4BP Cord Ready to Terminate

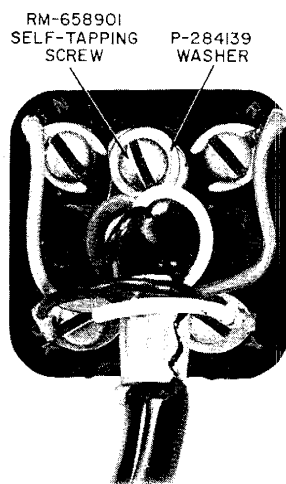


Fig. 16—Early Model D4BP Cord Terminated on 283(MD) Plug