

HEAD TELEPHONE SETS

KS-19796

PIECE-PART DATA AND REPLACEMENT PROCEDURES

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1. GENERAL

1.01 This section covers information necessary for the maintenance of KS-19796 head telephone sets. These headsets are intended for use by PBX attendants, PBX supervisors, FAA personnel in 4-wire circuits, and FAA personnel in 6-wire circuits. They may also be used with jack equipped telephone sets, CALL DIRECTOR® telephones, and consoles.

1.02 This section is reissued to:

- Include the KS-19796 L52 Acoustic Coupler as an optional piece-part.
- Reduce from 60 inches to 36 inches the length of the capsule cord used on the L4 through L15 head telephone sets.
- Make changes in Fig. 2, 3, 4, and 8.
- Make changes in Table A.
- Designate the L53 amplifier for use with the L3 head telephone set.
- Include the new earpiece assembly kit which has an interchangeable adaptor.

1.03 The acoustic coupler (Fig. 1) is a small spoon-shaped rubber device which interposes in the transmission path a small piece of polyurethane foam and two sintered-metal acoustic resistance discs. This device, fitted on the speaking end of

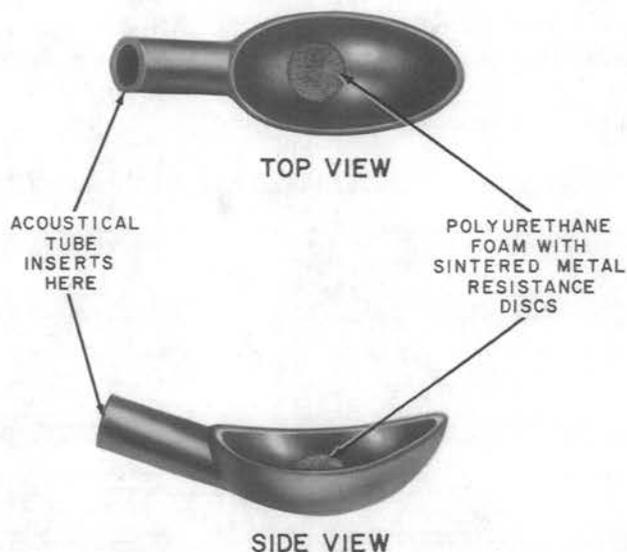


Fig. 1—Acoustic Coupler, KS-19796 L52 (PAC1)

the acoustical tube, places the resistance discs into the transmission path improving the transmission in the presence of noise, provided the headset is properly worn.¶

1.04 Part 2 of this section covers the piece-part numbers and the corresponding names of the parts which it is practical to replace in the maintenance of KS-19796 head telephone sets. No attempt should be made to replace parts not designated. This part also contains explanatory figures illustrating the different parts.

1.05 Part 3 of this section covers the approved replacement procedures for those parts covered in Part 2.

2. PIECE-PART DATA

2.01 Fig. 2 and 3 show the relationship of the various parts of the head telephone sets.

SECTION 028-350-801

The piece-part numbers of these parts are given together with the names as listed by the Western Electric Company Merchandise Department.

2.02 When ordering replacement parts, give both the piece-part number and the name, for example: Tube, Acoustical Assembly, KS-19796 L36. Do not refer to the BSP number.

2.03 Table A lists the principal uses, cords, and associated parts for the KS-19796 head telephone sets. In addition to those items listed in Table A, the following replaceable parts may also be ordered by list numbers:

- KS-19796 L25, Pouch (for L3 through L15 head telephone sets)
- KS-19796 L26, Clip, Capsule

- KS-19796 L28, Pouch (for L1 and L2 head telephone sets)
- KS-19796 L29, Clip, Belt
- KS-19796 L30, Pad
- KS-19796 L35, Ear Piece Assembly Kit
- KS-19796 L36, Tube, Acoustical Assembly
- ◆KS-19796 L52 (PAC1), Coupler, Acoustic ◆

2.04 Fig. 2 illustrates a KS-19796 L2 head telephone set.

2.05 Fig. 3 illustrates a KS-19796 L13 head telephone set.

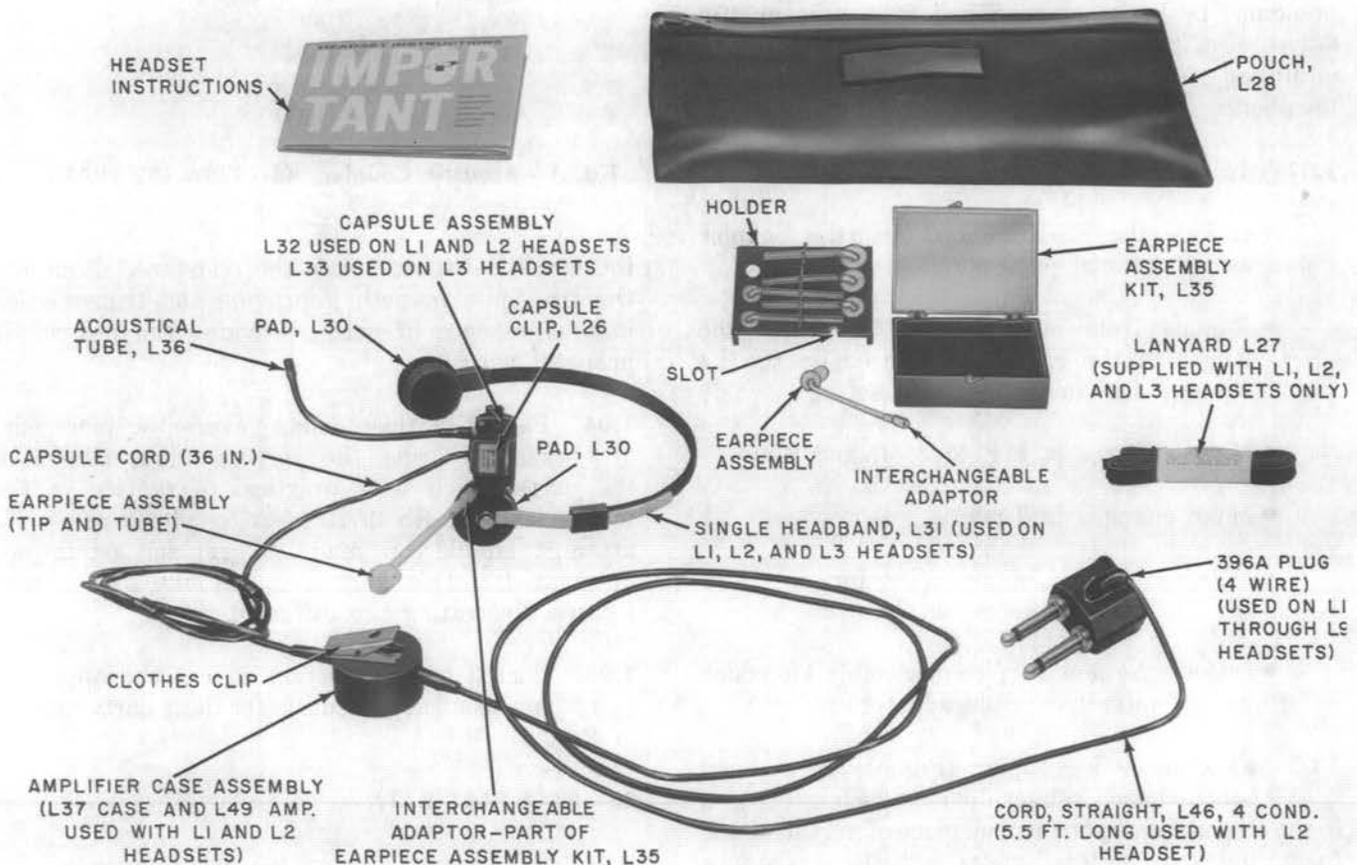


Fig. 2—KS-19796 L2 Head Telephone Set

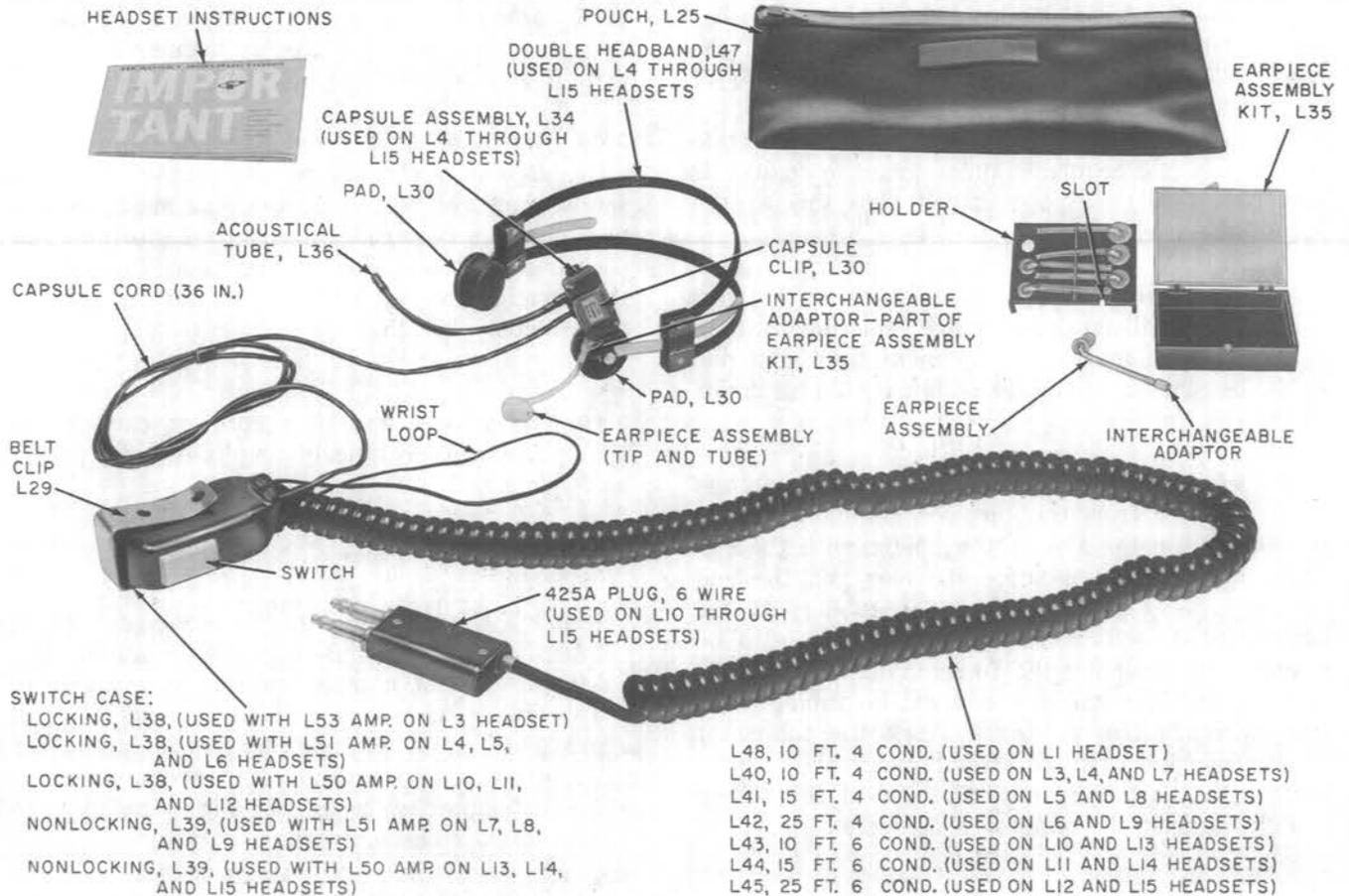


Fig. 3—KS-19796 L13 Head Telephone Set

3. REPLACEMENT PROCEDURES

3.01 List of Tools

CODE OR SPEC NO.	DESCRIPTION
KS-6854	3-1/2 inch Screwdriver
---	3/16-inch wrench
---	3-inch B Screwdriver
---	3-inch C Screwdriver
---	P Long-Nose Pliers

3.02 No attempt shall be made to repair either the capsule, headbands, amplifier, acoustical tube, or the acoustic coupler. These items shall be returned in accordance with local instructions

to the Western Electric Company for exchange or repair by the manufacturer.

3.03 After making replacement of parts which affect transmission, check the headset to see that it meets the tests specified in Section 028-350-501.

3.04 **Acoustical Tube:** To remove the acoustical tube for replacement, grasp the tube at the end nearest the capsule with the thumb and forefinger and turn in a counterclockwise direction until the tube is removed. Reverse this procedure for installing the new tube and finger tighten.

Caution: Do not bend the acoustical tube since it has been shaped by the manufacturer for best results.

3.05 **Acoustic Coupler:** To remove the acoustic coupler, grasp the acoustical tube adjacent

to the coupler with one hand and with the other hand carefully slip the coupler off the end of the tube. To install a new coupler, slip the end of the acoustical tube into the end of the coupler until the end of the tube is against the inside shoulder of the coupler. Make sure the coupler is mounted with the spoon-shaped side toward the lips of the user.♦

3.06 Headband Pads: When either or both of the headband pads require replacement, both pads should be replaced at the same time. The pad should be cemented to headband, ♦using 3M Insulation Adhesive, No. 5.♦

3.07 ♦Interchangeable Adaptor: To remove adaptor from the earpiece assembly, wedge the adaptor in the slot of the holder with the slot edges between the adaptor shoulder and the end of the tube (Fig. 4). Work the tubing off the adaptor shaft with the fingers. It may also be removed by inserting the finger nails between the adaptor shoulder and the end of the tubing. **Do not elongate the tubing.** Work the tubing of the replacement earpiece assembly onto the adaptor shaft with the fingers until the end of the tubing is tight against the adaptor shoulder.♦

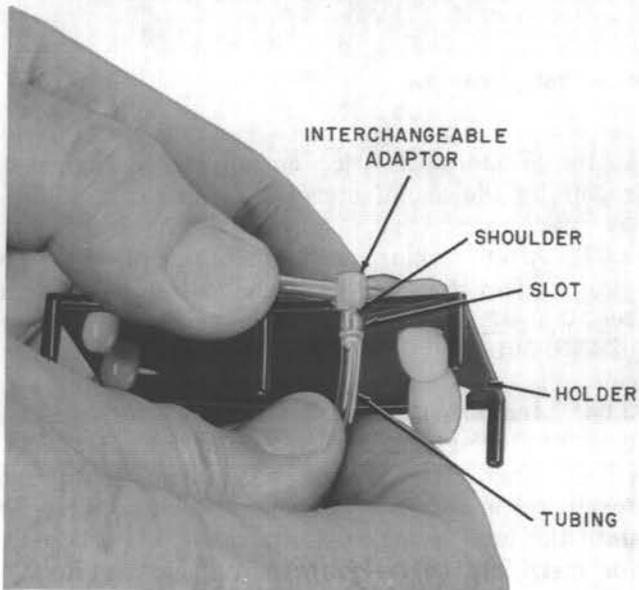


Fig. 4—Adaptor in Holder Slot for Removal of Earpiece Assembly

3.08 ♦Earpiece Assembly: Earpiece assembly is removed and replaced in manner as covered in 3.07.♦

3.09 396A or 425A Plug: Remove the plug shell assembly screws, remove the cord terminal screws, and remove cord from plug shell. Replace new parts as required. Insert cord into plug shell securing the cord tips to the plug fingers with the terminal screws and tighten screws securely. Reassemble plug shell.

3.10 To remove the plug cord or capsule cord from either type of amplifier case, proceed as follows:

L37 Assembly Case

Remove the single screw in the center of the top of the case (side away from clothing clip). Lift off top of case to expose wire terminals. To remove wire terminals from terminal posts, grasp terminal with P long-nose pliers and withdraw straight up and out. Reverse procedure for installing new cord. See Fig. 5 for exploded view of L37 assembly case.

L38 and L39 Switch Cases

Remove the two Phillips head screws (bright screws) which hold the belt clip to the switch case. Slide the belt clip away and lift off the top of the case. This will expose the cord ends. To remove the wire terminals from the terminal posts, grasp the wire terminal with P long-nose pliers and withdraw straight up and out. Reverse procedure for installing new cord. See Fig. 6 for exploded view of L38 and L39 switch cases.

3.11 To replace the amplifier assembly in the L37 Assembly Case, proceed as in 3.10. After all the wires have been disconnected, lift the amplifier assembly out with the fingers. Install new assembly, replace wires on terminals paying attention to color coding, and replace cover. See Fig. 7 for wiring diagram.

3.12 To replace the amplifier assembly in the L38 and L39 switch cases, proceed as in 3.10. After all the wires have been disconnected, remove

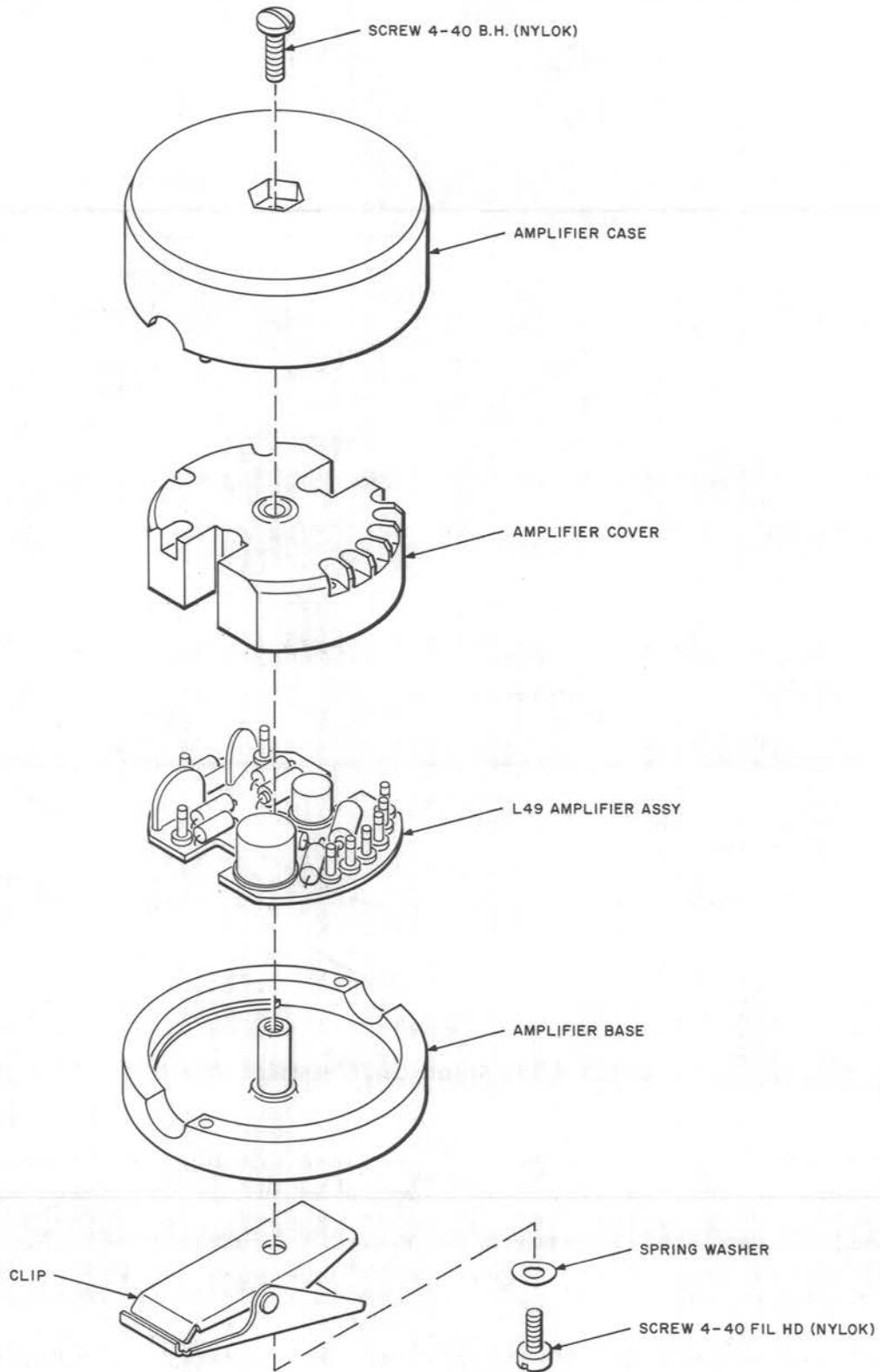
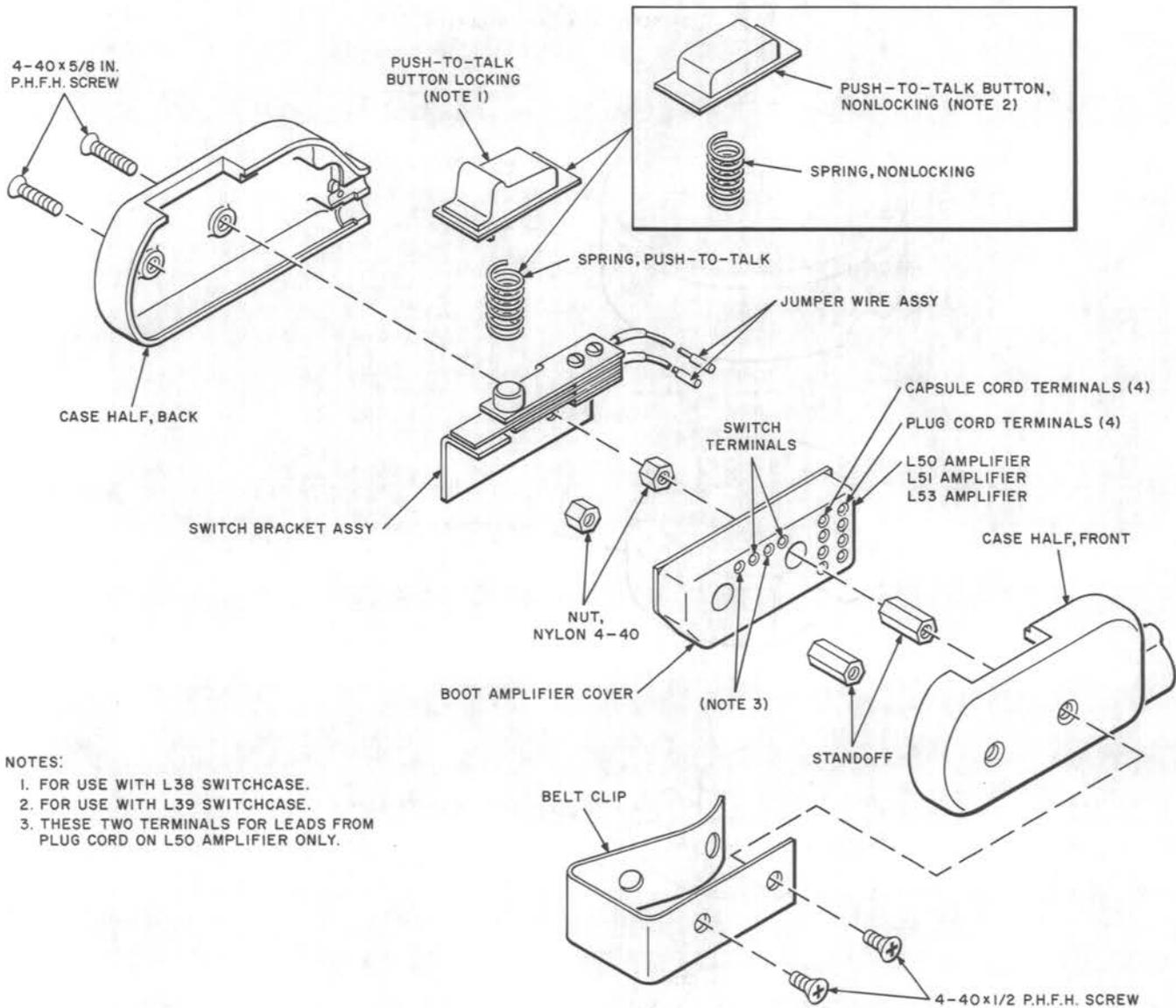


Fig. 5—L37 Assembly Case, Exploded View



NOTES:

1. FOR USE WITH L38 SWITCHCASE.
2. FOR USE WITH L39 SWITCHCASE.
3. THESE TWO TERMINALS FOR LEADS FROM PLUG CORD ON L50 AMPLIFIER ONLY.

Fig. 6—L38 & L39 Switch Cases, Exploded View

the two hexagon stand-offs which secure the assembly to the case, and lift the assembly out with the fingers. Install new assembly, replace the stand-offs and tighten firmly. Replace wires, paying attention to color coding, and replace cover and belt clip. See Fig. 8 for wiring diagram.

3.13 To change a pushbutton in the L38 and L39 switch case, remove the belt clip and one-half of the case as outlined in 3.10. Remove the stand-off nuts which secure the amplifier assembly and with the fingers carefully lift the assembly from case. *Avoid the use of any tool as the*

amplifier assembly can be easily damaged. Loosen the two nylon hex nuts, which were under the amplifier, about three turns. Pull the pushbutton upwards and rock until it slips free. To insert a new button, center the spring on the spring hold projection and then reverse the foregoing procedure.

3.14 To change the bottom half of an L38 or L39 switch case, remove belt clip, upper half of case and amplifier assembly. Remove the two nylon hex nuts and lift out switch bracket assembly. Using new half of switch case, assemble in reverse of foregoing procedure.

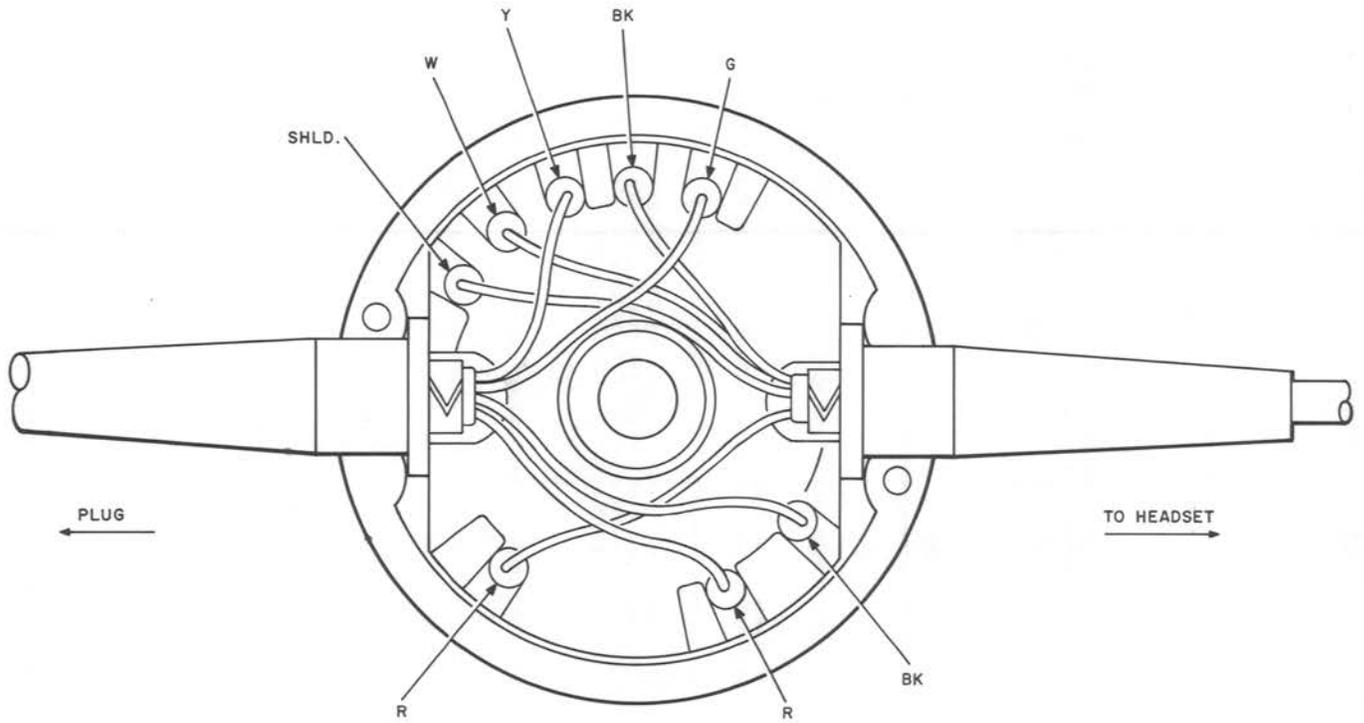
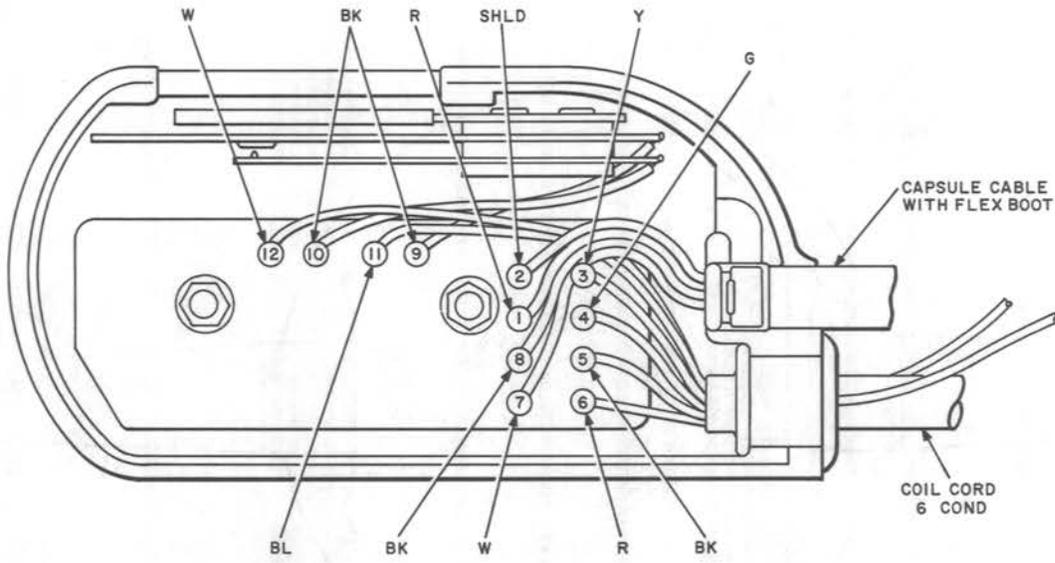
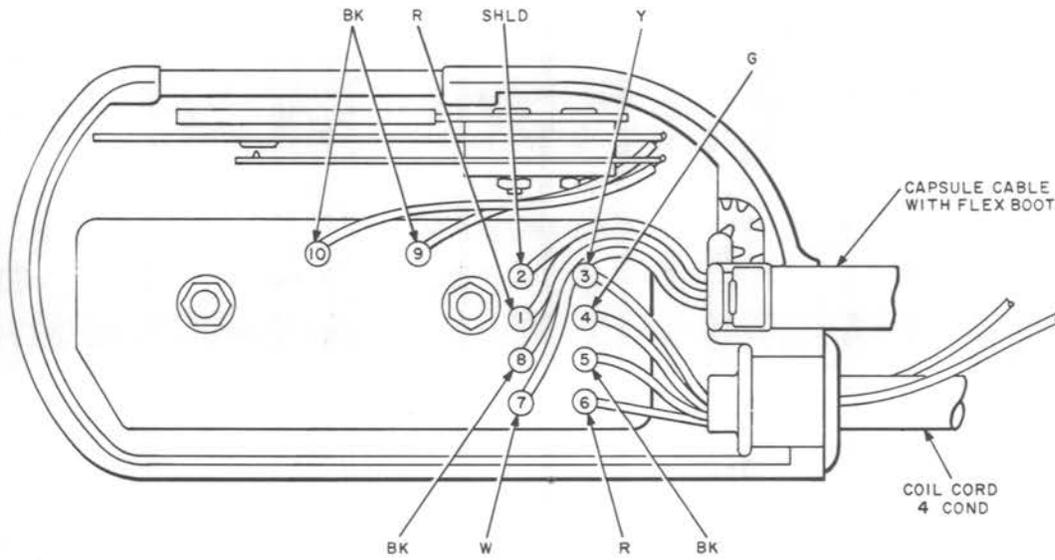


Fig. 7—Wiring Diagram for L49 Amplifier



L50



L51 AND L53

Fig. 8—Wiring Diagram for L50, L51, and L53 Amplifiers

TABLE A — PRINCIPAL USES, CORDS, AND ASSOCIATED PARTS FOR KS-19796 HEAD TELEPHONE SETS

HEAD TELEPHONE SET	FOR USE BY	CORD		PLUG	HEAD-BAND	LAN-YARD	CAPSULE ASSEMBLY		CASE ASSEMBLY		AMPLIFIER ASSEMBLY		
		TYPE	LENGTH (FEET)				RCVR (OHMS)	CORD (IN.)	AMP.	CASE	AMP.	NON-LOCK SWITCH CASE	LOCKING SWITCH CASE
L1	PBX Attendant	L48 Spring, 4 Cond.	10	396A	L31 Single	L27	L32 300	36	L49	L37			
L2	PBX Attendant	L46 Non-Spring 4 Cond.	5.5	396A	L31 Single	L27	L32 300	36	L49	L37			
L3	PBX Supervisor	L40 Spring, 4 Cond.	10	396A	L31 Single	L27	L33 300	36			L53		L38
L4	FAA Personnel 4-Wire Ckt.	L40 Spring, 4 Cond.	10	396A	L47 Double		L34 600	36			L51		L38
L5	FAA Personnel 4-Wire Ckt.	L41 Spring, 4 Cond.	15	396A	L47 Double		L34 600	36			L51		L38
L6	FAA Personnel 4-Wire Ckt.	L42 Spring, 4 Cond.	25	396A	L47 Double		L34 600	36			L51		L38
L7	FAA Personnel 4-Wire Ckt.	L40 Spring, 4 Cond.	10	396A	L47 Double		L34 600	36			L51	L39	
L8	FAA Personnel 4-Wire Ckt.	L41 Spring, 4 Cond.	15	396A	L47 Double		L34 600	36			L51	L39	
L9	FAA Personnel 4-Wire Ckt.	L42 Spring, 4 Cond.	25	396A	L47 Double		L34 600	36			L51	L39	
L10	FAA Personnel 6-Wire Ckt.	L43 Spring, 6 Cond.	10	425A	L47 Double		L34 600	36			L50		L38
L11	FAA Personnel 6-Wire Ckt.	L44 Spring, 6 Cond.	15	425A	L47 Double		L34 600	36			L50		L38
L12	FAA Personnel 6-Wire Ckt.	L45 Spring, 6 Cond.	25	425A	L47 Double		L34 600	36			L50		L38
L13	FAA Personnel 6-Wire Ckt.	L43 Spring, 6 Cond.	10	425A	L47 Double		L34 600	36			L50	L39	
L14	FAA Personnel 6-Wire Ckt.	L44 Spring, 6 Cond.	15	425A	L47 Double		L34 600	36			L50	L39	
L15	FAA Personnel 6-Wire Ckt.	L45 Spring, 6 Cond.	25	425A	L47 Double		L34 600	36			L50	L39	

Note: All list numbers are prefixed by KS-19796.