

## 61-TYPE HEAD TELEPHONE SETS

### PIECE-PART DATA AND REPLACEMENT PROCEDURES

#### 1. GENERAL

**1.01** This section covers information necessary for ordering parts to be used in the repair of 61-type head telephone sets. It also covers approved procedures for repairing and cleaning these sets.

**1.02** This section is reissued to add the D-180466 kit of parts in 3.02.

**1.03** These headsets can be used in any application approved for the 52-type headset.

**1.04** Part 2 of this section covers part numbers and the corresponding names of the parts which it is practicable to replace in the field in the maintenance of these sets. No attempt should be made to replace parts not designated. Part 2 also contains explanatory figures showing the different parts.

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

#### 2. PIECE-PART DATA

**2.01** Fig. 1 through 6 show the relationship of the various parts of the head telephone sets. 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: P-23F210 Screw. Do not refer to the BSP number.

**2.03** Information enclosed by parentheses ( ) is not ordering information. This information may be references to notes, parts referred to in other portions of the section and not considered replaceable, or part names in general use in the field if these names differ from those assigned by the manufacturer.

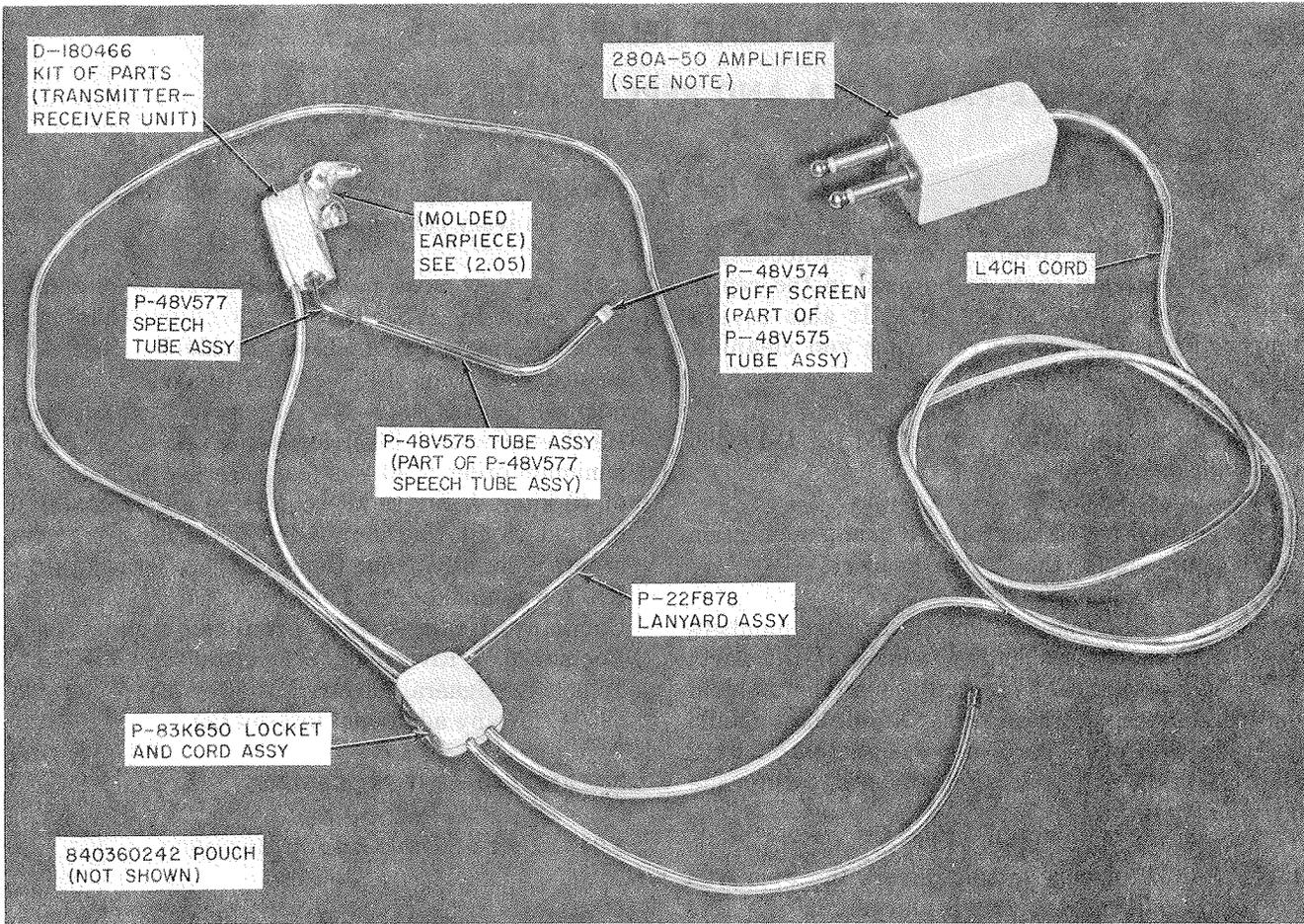
**2.04** The 61-type head telephone sets are available in ivory color only.

**2.05** A new type molded earpiece is available and identified as the General Electric "Soundkeeper® Personalized Ear Mold". Kits may be ordered from the Western Electric Company Service Center as: (Qty) Earpiece for 61-Type Headset, General Electric Soundkeeper, Kit. The minimum order is 40 kits (earpieces), with multiples of 40 kits. A fitters kit containing all the material needed to fit the soundkeeper earpiece may be ordered directly from General Electric as "Fitter Kit for Soundkeeper Earpiece", General Electric Company, Health-Safety Products, Building #5, Room 120, 1 Riverroad, Schenectady, N.Y. 12345. Telephone General Electric, 578-374-2211 extension 59531, for any additional information.

#### 3. REPLACEMENT PROCEDURES

##### 3.01 *List of Tools and Materials*

CODE OR SPEC NO.	DESCRIPTION
<b>TOOLS</b>	
KS-2348	Cord Repair Screwdriver (Equipped with P-484700 bit)
KS-6854	3-1/2 Inch Screwdriver
KS-21233 L1	Assembly Fixture (for convenient servicing of 280A amplifier)
KS-21233 L2	Assembly Fixture (for convenient servicing of 281A amplifier)
—	R-8950 Syringe
—	B Long-Nose Pliers
—	3-Inch C Screwdriver
1253	Screw starter (Quick Wedge or equivalent)



NOTE  
THE SUFFIX -50 INDICATES IVORY COLOR.

Fig. 1—61A Head Telephone Set

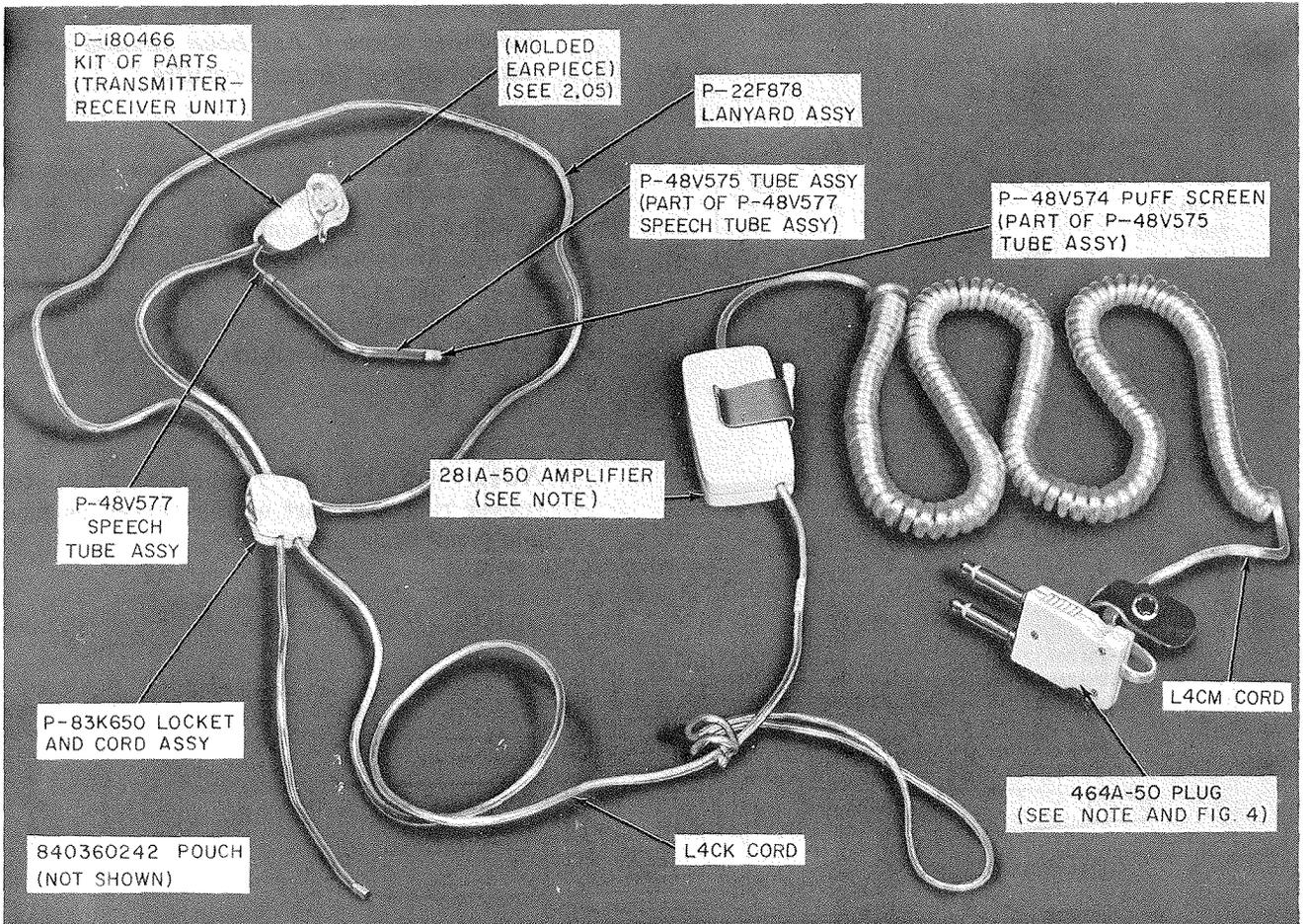
**MATERIALS**

KS-2423 Cloth

**3.02** The receiver and boot assembly, and transmitter and boot assembly cannot be replaced since they are contained in a sealed housing. The complete transmitter-receiver unit (Fig. 3) is replaceable, however, and may be ordered as a D-180466 kit of parts. No attempt shall be made to repair either the printed wiring board or speech tube assembly since these components are replaceable as complete units. These items should be returned in accordance with local instructions to the Western Electric Company.

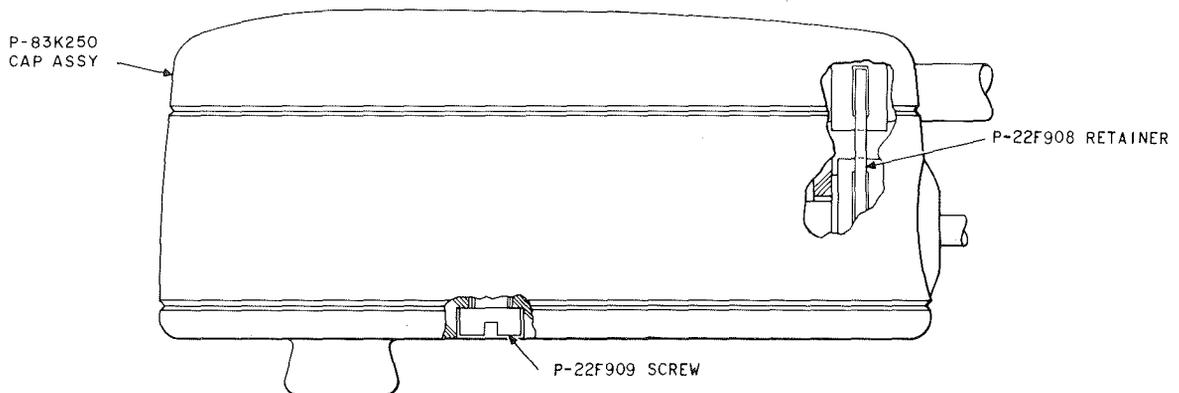
**3.03** After making replacement of parts which affect transmission, check the headset to see that it meets the tests specified in Section 028-363-501.

**3.04 *Speech Tube Assembly:*** Fig. 1 and 2—To replace only the tube part of the assembly, pull the old tube off the ball assembly and substitute the new tube. To replace the ball assembly, remove the screws from the transmitter-receiver housing using the KS-6854 screwdriver and remove the cap assembly. Lift out the cord and remove the retainer and ball assembly. Substitute the new ball assembly and replace the retainer and cord. Replace the cap assembly and housing screws.



NOTE:  
THE SUFFIX -50 INDICATES IVORY COLOR.

**Fig. 2—61B Head Telephone Set**



**Fig. 3—Transmitter-Receiver Unit (180466 Kit of Parts)**

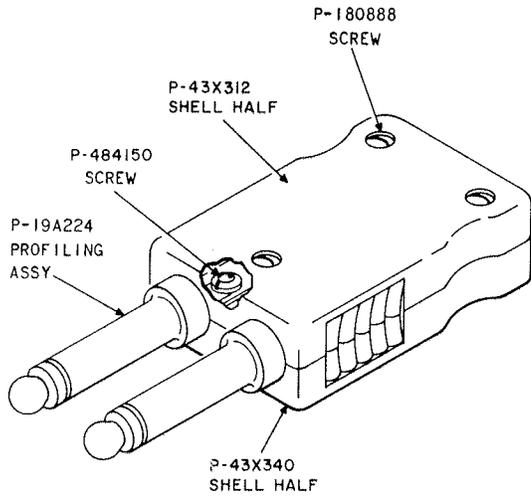


Fig. 4—464A Plug

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

**3.05 O Ring in Hard Plastic Earpiece Assembly:**

Fig. 7—To remove O ring, push a sharp pointed object, such as a common pin, into the wall and lift out. To replace, collapse the ring between the fingers and start it into the groove. Using the 3-inch C screwdriver, work the O ring into the groove, being careful not to damage the earpiece or O ring.

**Note:** On the soft rubber earpiece, the rubber ring is a part of the molded earpiece and is not replaceable.

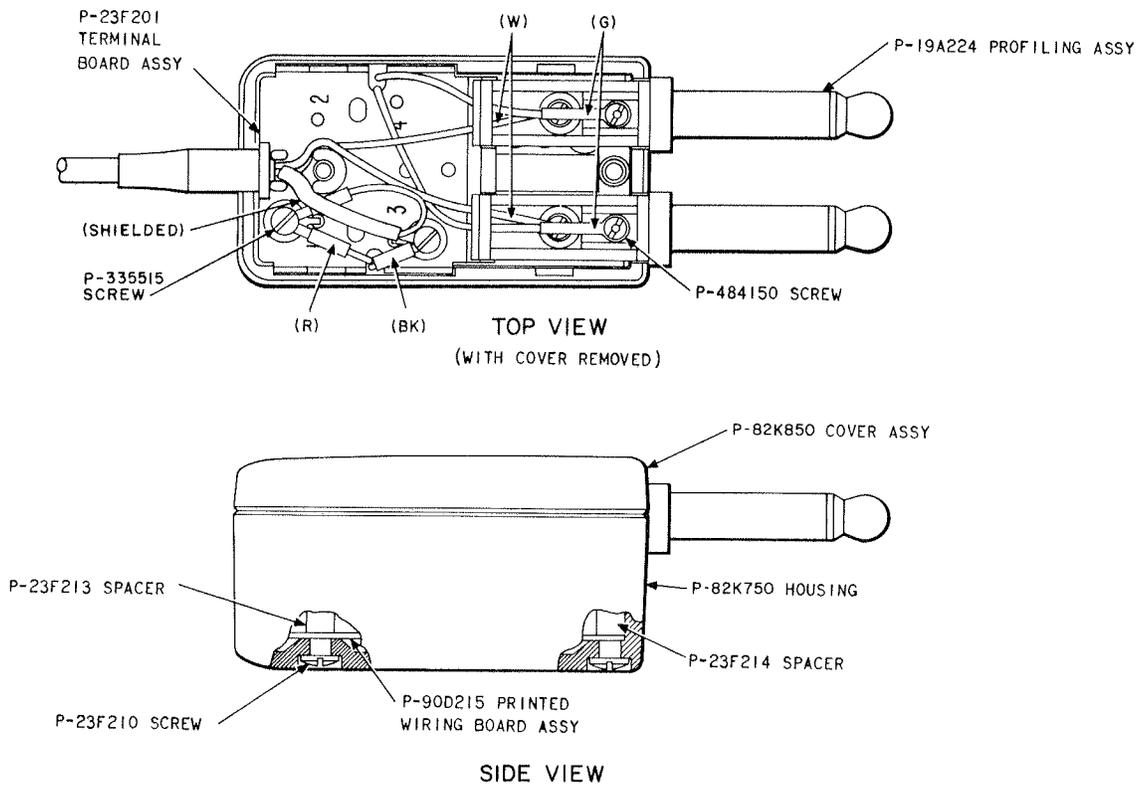
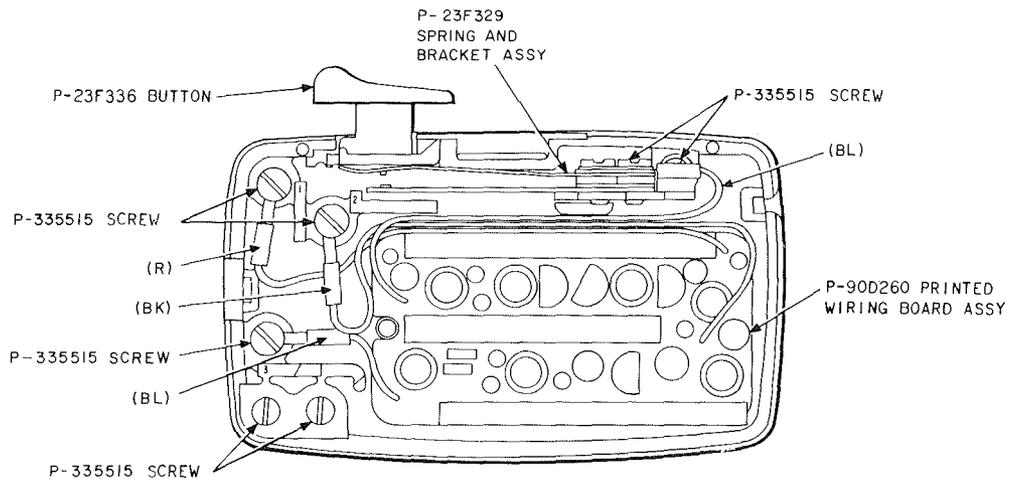
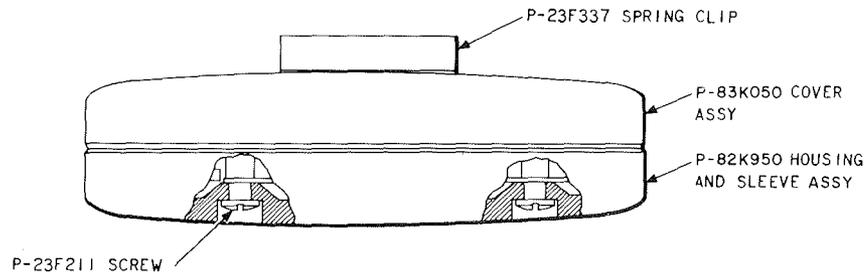


Fig. 5—280A Amplifier

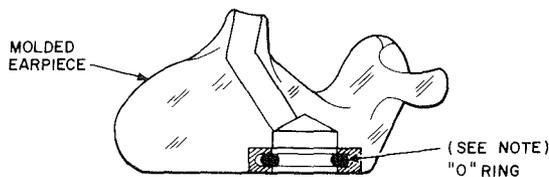


TOP VIEW  
(WITH COVER REMOVED)



SIDE VIEW

Fig. —281A Amplifier



NOTE:  
"O" RING MAY BE OBTAINED FROM PARKER SEAL COMPANY  
17325 EUCLID AVENUE, CLEVELAND OHIO 44112 AS THEIR  
PART NUMBER 2-009-E515-8.

Fig. 7—Molded Earpiece Showing O-Ring

**3.06 464A Plug:** Fig. 4—Remove the plug housing screws with the KS-6854 screwdriver. Note the color of the cord conductor connections to the terminals. Remove the cord terminal screws using

the KS-2348 cord repair tool and remove the cord from the profiling assembly and plug shell. Insert the new cord terminals through the hole in one half of the plug shell and connect to cord terminals as shown in Fig. 8. Place profiling assemblies in shell half and reassemble the parts in the reverse order of removal.

**3.07 280A Amplifier:** To replace the amplifier, remove the housing screws using the 3-inch C screwdriver and remove the cover. Using the KS-2348 and KS-6854 screwdrivers, remove the terminal screws and remove the L4CH cord from the amplifier. Substitute the new amplifier, connect the cord as shown in Fig. 9 and assemble the parts in the reverse order of removal. Dress the leads as originally positioned.

**Note:** Assembly fixture KS-21233 L1 is available to assist in the disassembly and

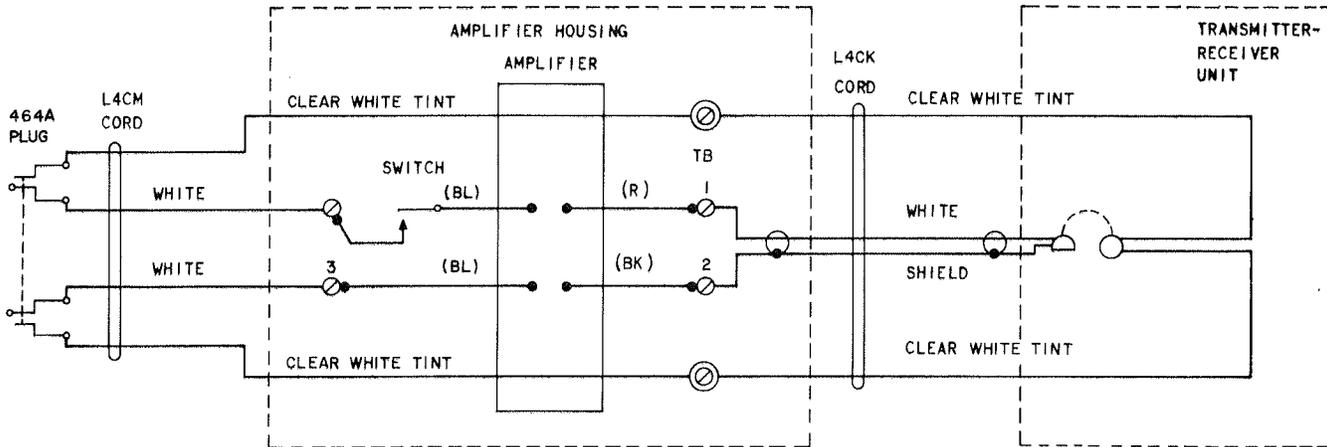


Fig. 8—281A Amplifier Connecting Diagram

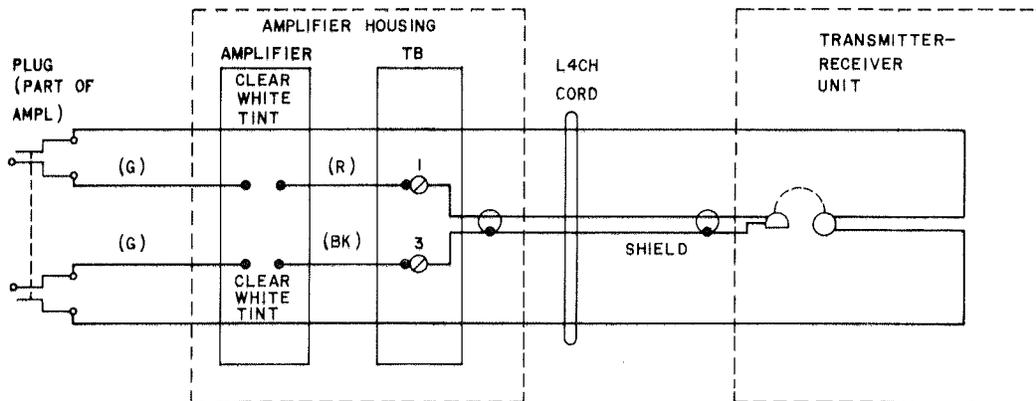


Fig. 9—280A Amplifier Connecting Diagram

assembly of the 280A amplifier. The fixture traps all loose parts. The screw starter is useful for starting terminal board screws.

**3.08 Profiling Assembly Associated with 280A Amplifier:** Remove the housing screws using the 3-inch C screwdriver and remove the cover. Remove the lead and cord terminals connected to the profiling assembly using the KS-2348 screwdriver and remove the profiling assembly. Place the new profiling assembly in the shell half and reassemble the parts in reverse order of removal, connecting the cord terminals as shown in Fig. 9. Dress the leads as originally positioned.

**3.09 Printed Wiring Board Associated with 280A Amplifier:** Remove the housing screws

using the 3-inch C screwdriver and remove the cover. Note the dress of the leads. Using the KS-2348 and the KS-6854 screwdriver remove the screws securing the four printed wiring board leads. Remove the terminal board assembly and the printed wiring board. Substitute the new printed wiring board, connect the leads as shown in Fig. 9 and assemble the parts in the reverse order of removal. Dress the leads as originally positioned.

**3.10 281A Amplifier:** To replace the amplifier, remove the housing screws using the 3-inch C screwdriver. Open the housing and remove the spring clip. Using the KS-6854 screwdriver, remove the terminal screws and remove the L4CM and L4CK cords from the amplifier. Substitute the new amplifier, connect the cords to the switch

as shown in Fig. 8 and assemble the parts in the reverse order of removal. Dress the leads as originally positioned.

**Note:** Assembly fixture KS-21233 L2 is available to assist in the disassembly and assembly of the 281A amplifier. The fixture traps all loose parts. The screw-starter is useful for starting terminal board screws.

### 3.11 *Switch Associated with 281A Amplifier:*

Remove the housing screws using the 3-inch C screwdriver. Open the housing and remove the spring clip. Using the KS-6854 screwdriver remove the terminal screws on the switch. Using the same screwdriver remove the switch mounting screw and lift the switch out. Substitute the new switch and reassemble in reverse order of removal, connecting the leads as shown in Fig. 8. Dress the leads as originally positioned.

### 3.12 *Printed Wiring Board Associated with 281A Amplifier:*

Remove the housing screws using the 3-inch C screwdriver. Open the housing and remove the spring clip. Note the dress of the leads. Using the KS-6854 screwdriver remove the terminal screws holding the printed wiring board terminals and remove the board. Substitute the new board and reassemble in reverse order of removal, connecting the terminal leads as shown in Fig. 8. Dress the leads as originally positioned.

**3.13 *LACM Cord:*** Disconnect the cord at the plug end as covered in 3.06. At the 281A amplifier end, disconnect the cord as covered in 3.10. Substitute the new cord and connect it to the plug and amplifier making sure the conductors are connected to the terminals in the plug and handle as shown in Fig. 8. Reassemble the parts in the reverse order of removal. Dress the leads as originally positioned.

**3.14 *LACK Cord:*** Disconnect the cord at the 281A amplifier and as covered in 3.10. At

the headset end, remove the housing screws using the KS-6854 screwdriver and remove the cap assembly. Remove the old cord and substitute the terminal board end of the new cord in the headset. Connect the new cord to the amplifier as shown in Fig. 8. Reassemble the parts in the reverse order of removal. Dress the leads as originally positioned.

**3.15 *LACH Cord:*** Disconnect the cord at the 280A amplifier as covered in 3.07. At the headset end, remove the housing screws using the KS-6854 screwdriver and remove the cap assembly. Remove the old cord and substitute the terminal board end of the new cord in the headset. Connect the new cord to the amplifier as shown in Fig. 9. Reassemble the parts in the reverse order of removal. Dress the leads as originally positioned.

## 4. CLEANING PROCEDURES

### PLUGS

**4.01** Clean plugs in accordance with Section 069-380-811 or 069-380-812.

### CASES

**4.02** Shake or blow dirt and dust out of the amplifier and transmitter-receiver cases with the R-8950 syringe and wipe the exteriors with a cloth slightly dampened with water.

**Caution:** *Do not use an alcohol base cleaner as this will attack the case and cap material and may render the set flammable.*

### MOLDED EARPIECES

**4.03** The molded earpieces must be kept clean by using a soft cloth and a solution of soap and water. Dislodge accumulations in sound passage with 1/32" soft wire or pipe cleaner.