

AUTOMATIC ELECTRIC COMPANY

CHICAGO, U. S. A.

MONOPHONE INSTALLATION AND MAINTENANCE INSTRUCTIONS

These instructions cover the installation of Monophone sets and the maintenance of the parts of the Monophone which differ from those of the conventional desk and wall telephones. These parts are essentially the plunger-switch mechanism and the hand unit incorporating the transmitter and the receiver.

Connecting Monophone Sets

To each Monophone set is affixed a circuit label which shows the proper connections of the set.

This must be followed in connecting the Monophone hand unit to the Monophone set, and in connecting the Monophone set to the bell box of sets employing a separate bell box. This is essential in order that the most efficient operation of the set be obtained, particularly with respect to transmission.

Connecting Type 15-A Monophone Set to Other Than Standard Bell Boxes

For the induction-coil-receiver Monophone set, Type 15-A, it is particularly important that the lines and the cord from the set be properly connected at the bell box, as shown on the circuit label.

Where existing bell boxes of other types, or of other than Automatic Electric Company manufacture, are to be re-used with the Type 15-A Monophone sets, the bell box should be modified so its circuit will conform with that shown on the circuit label.

For metallic ringing, the "brown" cord of the Monophone set shall be connected to Line-2 and to one terminal of the ringer; the "brown-orange" cord to Line-1 and one terminal of the 1 M.F. condenser; the opposite terminals of the condenser and of the ringer should be connected together and the "brown-red" Monophone set cord connected to this intermediate condenser-ringer tie.

Monophone Installation Instructions

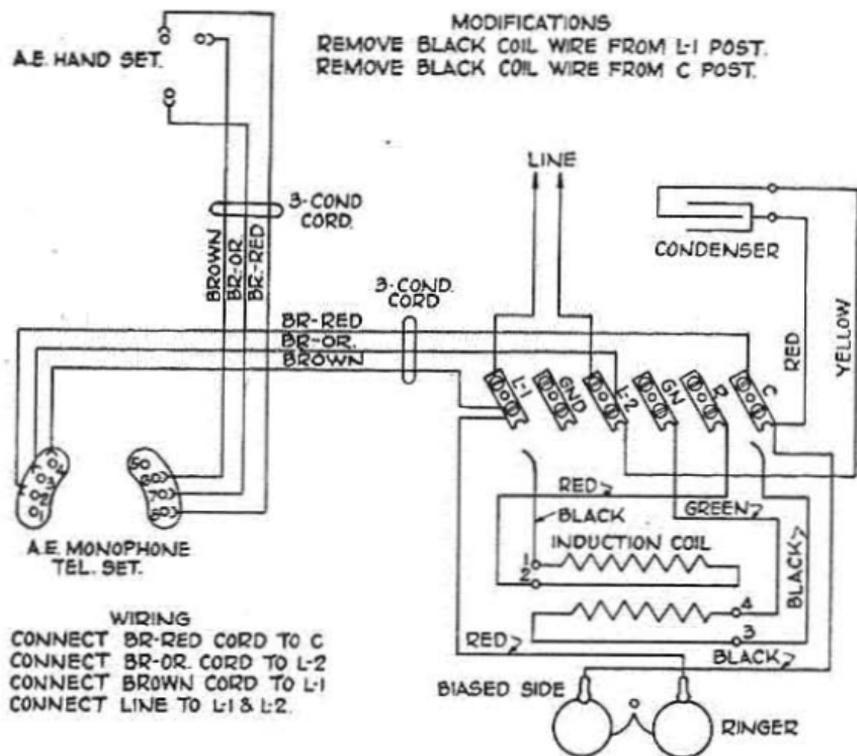


Fig. 1. Typical Modification of Bell-Box for Use with Monophone Set Type 15-A.

For grounded ringing, the bell box must be equipped with two 1 M.F. condensers. In this case, the "brown" Monophone set cord should be connected to Line-2 and one side of the ringer; the "brown-orange" cord to Line-1 and one terminal of the first condenser; and the opposite terminal of this condenser should be connected to the "brown-red" cord. Ground should be connected to one terminal of the second condenser; and the opposite terminal of this condenser connected to the opposite terminal of the ringer. All dead wiring of the modified bell box should be removed or disconnected from the terminals employed for making the connections as described.

Fig. 1 shows a typical modification of a bell box for use with the Type 15-A Monophone set, arranged for metallic ringing.

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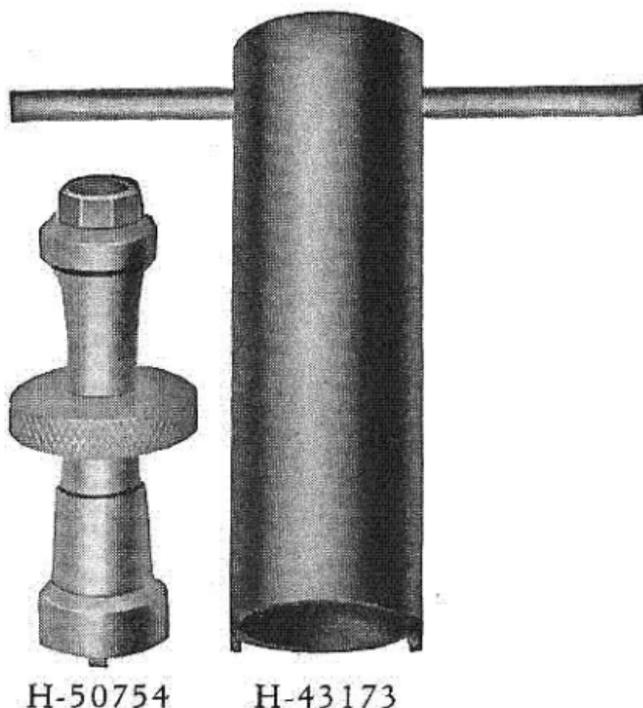


Fig. 2. Special Tools Used for Repairing Monophones

Tools

Combination Wrench

Combination wrench H-50754 is used for the following purposes:

- (a) Removing ear piece.
- (b) Removing name plate.

Spanner Wrench

Spanner wrench H-43173 is used for replacing Monophone bases.

Monophone Hand Unit

Ear Piece

1. To remove the ear piece—
 - (a) Grasp the metal receiver cap in the left hand.
 - (b) Insert the socket end of the combination wrench H-50754 into the octagonal hole of the ear piece bushing and turn wrench in a counter-clockwise direction.

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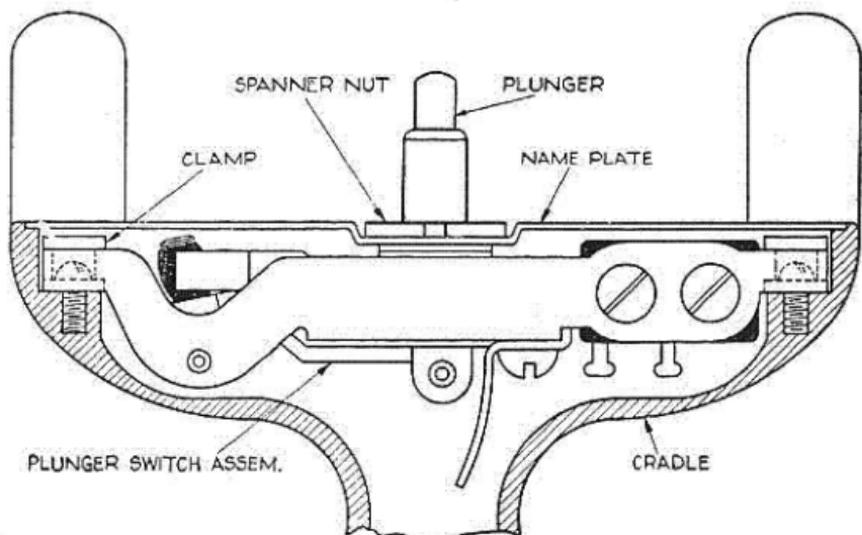


Fig. 3. Cross-Sectional View of Monophone Cradle Showing Plunger Switch Assembly

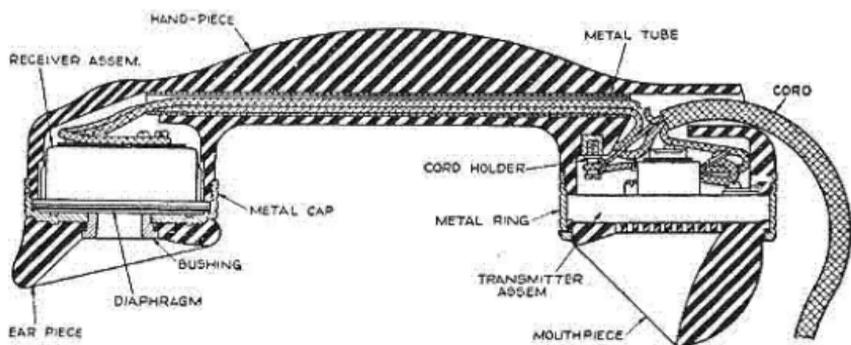


Fig. 4. Cross-Section of Monophone Hand Unit

2. To replace the ear piece—
 - (a) Tighten metal receiver cap.
 - (b) Set the ear piece on the metal receiver cap in such a position that the mark on the periphery of the ear piece will approximately align with the center of the hand-piece. In doing this, the two embossments on the receiver cap must engage two diametrically opposite holes of the series encircling the bottom of the ear piece.

Diaphragm

To remove the diaphragm, unscrew the metal receiver cap by turning it in a counter-clockwise direction. This can be done without removing the ear piece.

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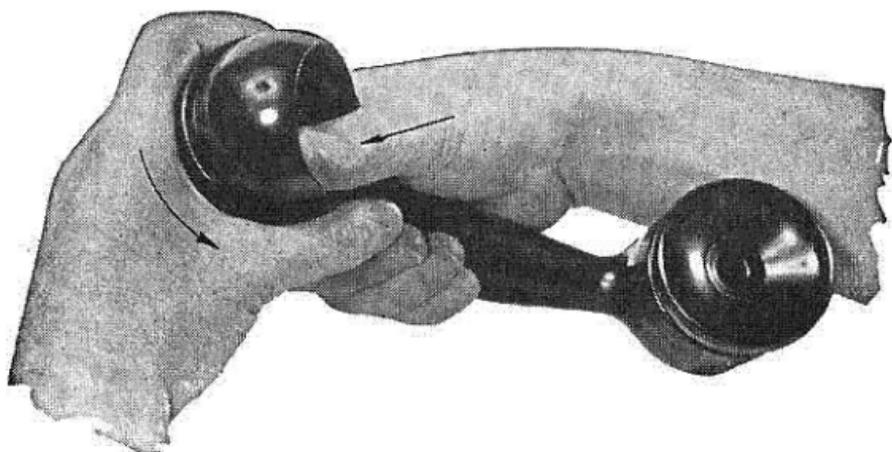


Fig. 5. View Showing Manner of Removing Metal Ring Which Holds Mouthpiece in Position

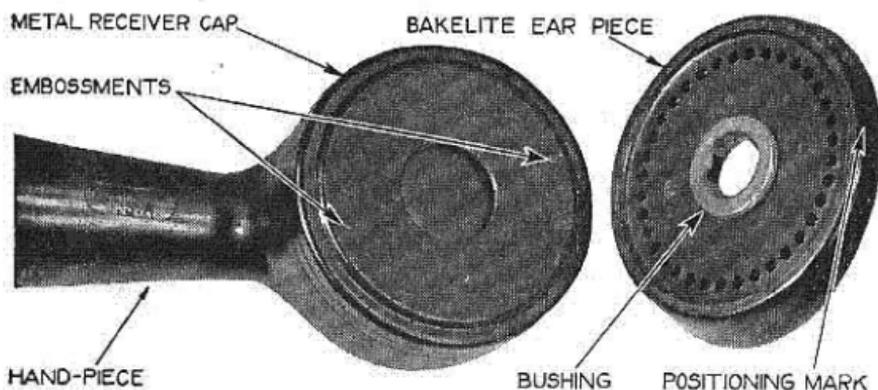


Fig. 6. View Showing Receiver End of Monophone Hand Unit with Ear Piece Removed

Receiver Assembly

To remove the receiver assembly follow the same procedure as outlined for the removal of the diaphragm.

Receiver Repairs

Aside from replacing a receiver diaphragm or an ear piece, no repairs or adjustments should be made to the receiver. In case difficulty is encountered with a receiver assembly, it should be removed, a new receiver assembly inserted in its place, and the defective assembly returned to the manufacturer for repairs.

Mouthpiece

In order to remove the mouthpiece, the metal ring which holds it in place must be removed. This is accomplished in the following manner:

Monophone Installation Instructions

- (a) Grasp the hand unit in the right hand, with the transmitter end up and the right thumb firmly pressed against the left inner side of the mouthpiece. (See figure.)
- (b) Place the thumb and the forefinger of the left hand about the metal ring and turn it in a counter-clockwise direction. If the thumb and forefinger should slip when attempting to unscrew the ring, a large rubber band or a piece of tape wrapped around it will provide the necessary friction.
- (c) When replacing mouthpiece, the opposite procedure should be followed in tightening the metal ring; i.e., the hand piece should be grasped in the left hand with left thumb firmly pressed against the left inner side of the mouthpiece.

Transmitter Assembly

To remove the transmitter assembly follow the same procedure as outlined for the removal of the mouthpiece.

Transmitter Repairs

Should difficulty be experienced with a transmitter, it should be removed, a new transmitter inserted in its place, and the defective transmitter returned to the manufacturer for repairs.

Metal Rings

Whenever the metal ear cap or the transmitter ring is removed, it is desirable to apply three drops of switch lubricant (Spec. 5232) or a light grade of machine oil to the threads of the metal ring before re-assembling.

Name Plate **Monophone Stand**

To remove the name plate, place the spanner end of combination wrench H-50754 over the plunger and unscrew the spanner nut by turning it in a counter-clockwise direction.

Plunger Switch Assembly

1. To remove the plunger switch assembly, first remove the name plate and then the two machine screws which clamp the assembly in place.
2. The contact springs of the plunger switch assembly should be adjusted in accordance with standard adjustment sheet A-892.