



Electro-Voice®
a MARK IV company

Model 625HS Handset Microphone

SPECIFICATIONS

Polar Pattern:

Bi-directional pressure gradient
(differential close-talking)

Output Level:

-48 dB
(0 dB = 1 volt/dyne/cm²) adjustable

Impedance,

Microphone:
150 ohms

Receiver:
150 ohms

Diaphragm:

Electro-Voice Acoustalloy®

Case Material:

High impact cyclac

Finish:

Black

Amplifier Gain:

0-35 dB adjustable

Current Drain:

22 mA at 14 volts

Rated Supply Voltage:

6-20 V d.c.

Dimensions:

211.1 mm (8.31 in.) long
60.3 mm (2.37 in.) wide
66.7 mm (2.62 in.) high

Net Weight:

397 g (14.0 oz)

Cable:

5-conductor coiled cord, 5' extended

Connector:

None supplied

Switch:

Press to talk (non-shorting type)
and relay switch

Temperature Range:

-40° C (-40° F)
to +70° C (+158° F)

FAA Type Certificate:

TSO C-57, C58

DESCRIPTION AND APPLICATION

The Electro-Voice Model 625HS is a noise cancelling handset microphone, designed for high articulation speech transmission under high ambient noise conditions. The model 625HS is the result of continuous study of the needs of the communication industry and it uniquely meets the specialized requirements of airline, two-way radio and industrial applications. This handset employs a transistorized pressure gradient microphone utilizing two sound entrances for reduction of interfering ambient noise. Stated simply, if sound pressure and phase are reasonably identical at both sound entrances, cancellation occurs. If, however, the sound originates in close proximity to one sound entrance (i.e. ¼ or ½ inch) and more distant to the other sound entrance, then a pressure and phase differential will exist and little cancellation will occur. The 625HS is unexcelled at discriminating between near and distant sounds for maximum ambient noise rejection. The compact transistor amplifier is specially stabilized and will operate uniformly from 70°C (+158F) down to -40°C (-40°F). Output of the transistor amplifier is designed to wire directly into inputs designed for carbon microphones. The 625HS provides extremely reliable, crisp, clear speech reproduction with high sensitivity and low distortion.

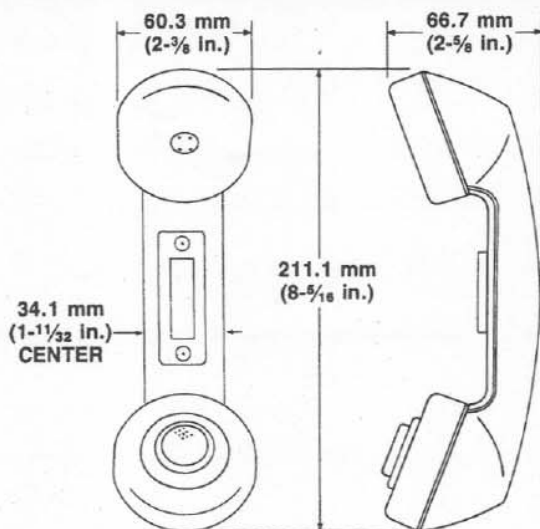


FIGURE 1 — Dimensions

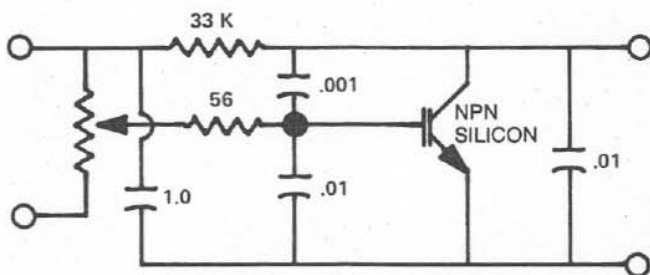


FIGURE 2A — Schematic

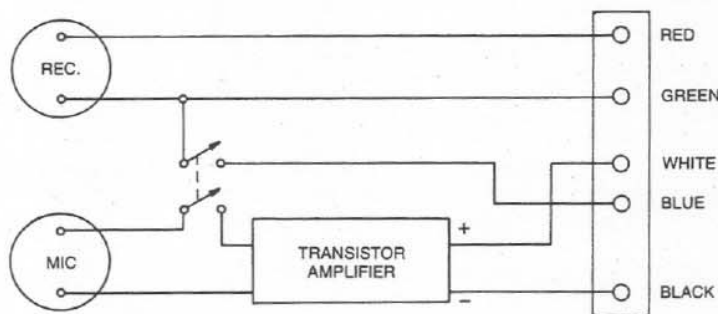


FIGURE 2B — Schematic

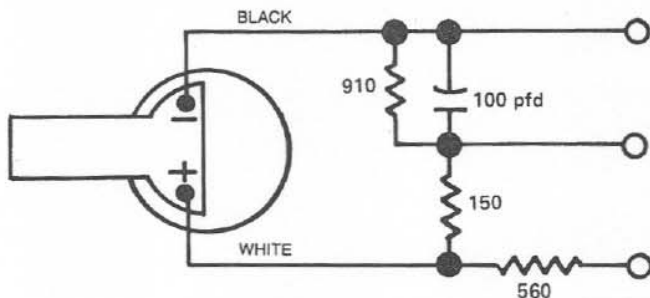


FIGURE 3 — Test Circuit

OVERHAUL INSTRUCTIONS:

1. **Special Tools:** None
2. **Disassembly:** (See Figure 4)
 - a. Remove microphone cap, lift out housing.
 - b. Note lead hookup arrangement on terminal board.
 - c. Remove leads from terminal board only if head needs replacing.
3. **Inspection:**
 - a. Examine unit for damage or dried-out wiring or sleeving. Check all terminal connections for good contacts.
 - b. Check cable for signs of damage such as cuts or cracks.
4. **Repair and Replacement:**
 - a. Replace any part which is damaged.
 - b. Check resistance across the head with an ohmmeter. It should be about 1500 ohms + to - and 150 k ohms - to +. Remove head/amp S/A if improper readings are observed.
5. **Reassembly:**
 - a. Reassembly is the reverse of disassembly.
6. **Test Procedure:** (See Figure 3)
7. **Check of Switch Operation:** Check the operation of the switch as follows:
 - a. With the switch released, check the resistance between the blue and green leads. It should be infinite.
 - b. Check the resistance between the white and black leads. It should be as 4b.
 - c. Depress switch and check resistance between blue and green leads. It should be zero.
 - d. Check resistance between red and green leads. It should read approximately 30 ohms.
 - e. Depress switch and check resistance between white and black leads. It should be approximately 1500 ohms. See Note 4b.
8. **Check of Microphone Output:** The best procedure for testing the microphone is to compare its output with one known to be operating properly, using the test set-up as shown in Figure 3. Check the output voltage as follows:
 - a. Hold the test microphone about 1/4 inch from the mouth and talk at normal speech level with microphone switch depressed. An output of about .030 volt should be obtained across the 150-ohm resistor.
 - b. Adjust gain using adjust if necessary.

ITEM	PART NO.	REQ'D	DESCRIPTION	ITEM	PART NO.	REQ'D	DESCRIPTION
1	79547	1	Cap, receiver	7	56154	1	Switch assembly
2	88274	1	Earphone S/A	8	88267	2	Wire S/A (black)
3	79546	1	Handle	9	88268	1	Wire S/A (white)
4	48486	1	Nameplate	10	88264	1	Head, amplifier
5	27285	1	Terminal	11	78911	1	Cap, transmitter
6	88270	2	Wire S/A (red)	12	88272	1	Cable, S/A

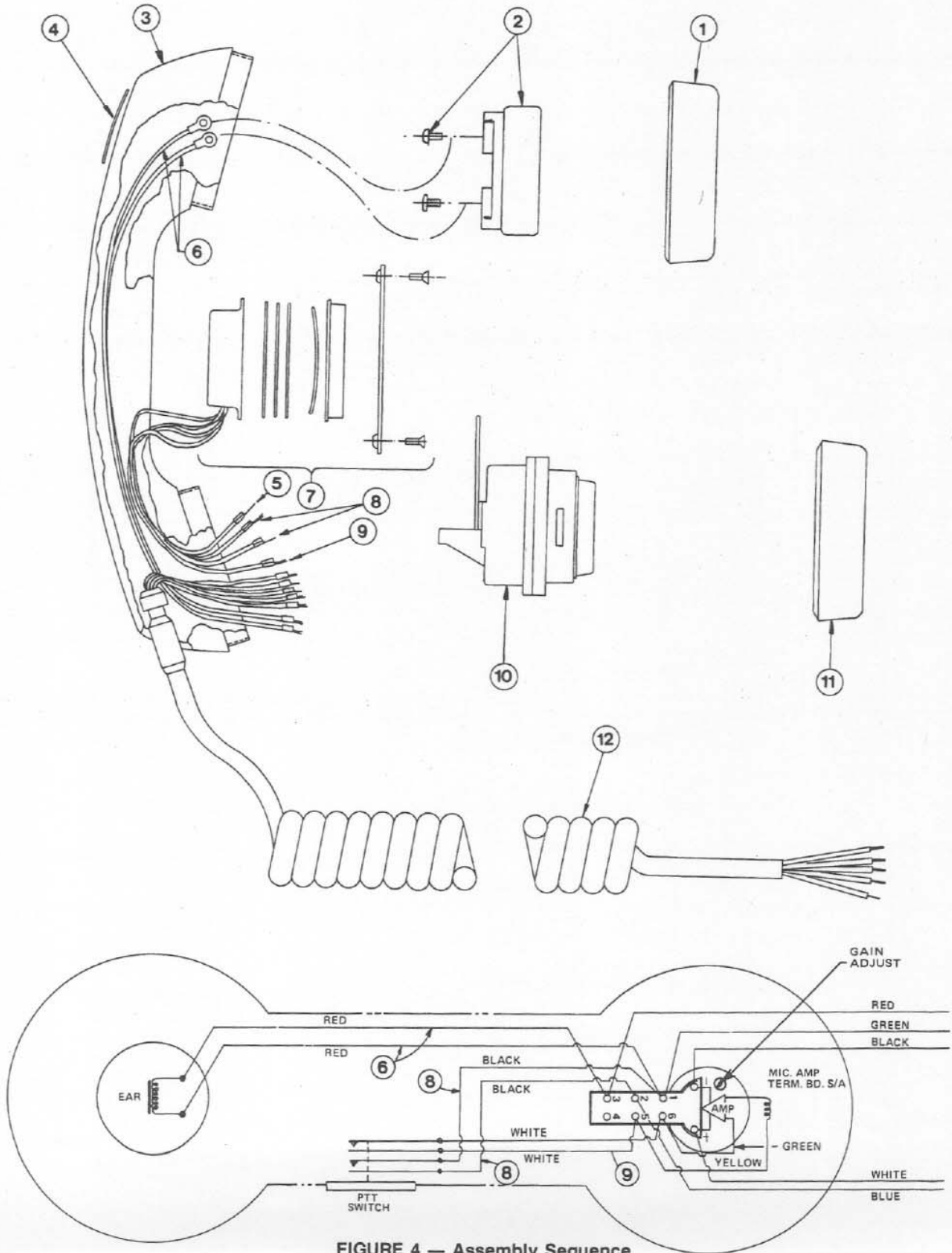


FIGURE 4 — Assembly Sequence

WARRANTY (Limited)

Electro-Voice Aircraft Microphones are guaranteed for a period of eighteen months from date of original purchase against malfunction due to defects in workmanship and materials. If such malfunction occurs, microphone will be repaired or replaced (at our option) without charge for materials or labor if delivered prepaid to the proper Electro-Voice service facility. Unit will be returned prepaid. Warranty does not extend to finish, appearance items, cables, cable connectors, switches or malfunction due to abuse or operation under other than specified conditions, nor does it extend to incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you. Repair by other than Electro-Voice or its authorized service agencies will void this guarantee. A list of authorized service agencies is available from Electro-Voice, Inc., 600 Cecil Street, Buchanan, MI 49107 (AC/616-695-6831); Electro-Voice, Inc., 3810 148th Avenue, N.E., Redmond, WA 98052 (AC/206-881-9555); and/or Electro-Voice West, 8234 Doe Avenue, Visalia, CA 93291 (AC/209-651-7777). This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Service and repair address for this product:
Electro-Voice, Inc., 600 Cecil Street,
Buchanan, Michigan 49107.

Specifications subject to change
without notice.



ELECTRO-VOICE, INC., 600 Cecil Street, Buchanan, Michigan 49107

MANUFACTURING PLANTS AT ■ BUCHANAN, MI ■ NEWPORT, TN ■ SEVIERVILLE, TN ■ REDMOND, WA ■ GANANOQUE, ONT.
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