

Electro-Voice®
a gulton company

Model 667A Broadcast Dynamic Cardioid Microphone

SPECIFICATIONS

Generating Element:

Dynamic

Frequency Response:

Uniform 40 to 10,000 Hz
(See Figure 2)

Polar Pattern:

Cardioid (See Figure 3)

Impedance:

50, 150, 250 ohms, selected at rear
of case by moving one pin.

Connected for 150 ohms when
shipped.

Output Level,

250 ohm tap:

-51 dB

150 ohm tap:

-51 dB

50 ohm tap:

-52 dB

(Ref. 1 mW/10 dynes/cm², with
response selector in A-1 position)

EIA Sensitivity Rating:

250 ohm tap:

-149 dB

150 ohm tap:

-145 dB

50 ohm tap:

-150 dB

(Response selector in A-1 position)

Switching:

Response and impedance selection
accomplished with gold-silver plated
pins

Hum Pickup Level:

-121 dBm, (Ref. 001 gauss field)

Diaphragm:

Electro-Voice Acoustalloy®

Finish:

Non-reflecting gray

Cable:

61 cm (24 inches), 2-conductor
shielded with Switchcraft A3M and
4.6 m (15 ft), 2-conductor shielded,
coil cord plastic jacketed with A3F
connector

Cable Connector:

Switchcraft A3F

Net Weight:

.68 kg (1 lb, 8 oz), less 15-foot cable

DESCRIPTION AND APPLICATIONS

The Electro-Voice Model 667A is a dynamic cardioid microphone designed for boom mounting in broadcasting and recording. Not simply an improvisation on existing equipment, the 667A has been created specifically to overcome the problems encountered in boom applications. A specially designed shock mount provides effective isolation from mechanical noise, and the integral Acoustifoam™ windscreens virtually eliminates noise caused by motion of the microphone through the air. Unusually light in weight, the 667A is easily maneuverable. The shock isolation and windscreens are readily removable for service or replacement: Very low sensitivity to induced hum permits use close to lights, AC lines, etc.

An outstanding feature of the 667A is the self-contained computer-type programming board which permits a

total of six different frequency response curves. The programming panel is part of a versatile passive equalizer which is completely self-contained; no external equipment or special connecting cables are required. The variations from flat response, thus made available, permit the 667A to overcome acoustical problems and background noise, make possible special effects, and enable its use mixed with existing microphones of differing response.

The use of Continuously Variable-D, a highly developed version of the patented Electro-Voice Variable-D® principle, makes possible extremely uniform rejection of unwanted background noise. The rejection pattern is unusually symmetrical in all planes. The CV-D principle, as employed in the 667A, uses a matched pair of slotted tubes coupled to the back of the diaphragm. The acoustic length of the tubes varies inversely with sound frequency, permitting them to phase out unwanted sound from all portions of the audible spectrum for maximum front-to-back ratio. The microphone's single moving element is a diaphragm of Electro-Voice Acoustalloy® which is impervious to effects of temperature, humidity, and shock. CV-D permits optimum diaphragm damping, impossible with less sophisticated designs, for absolute minimum wind and mechanical noise pickup and proximity effect.

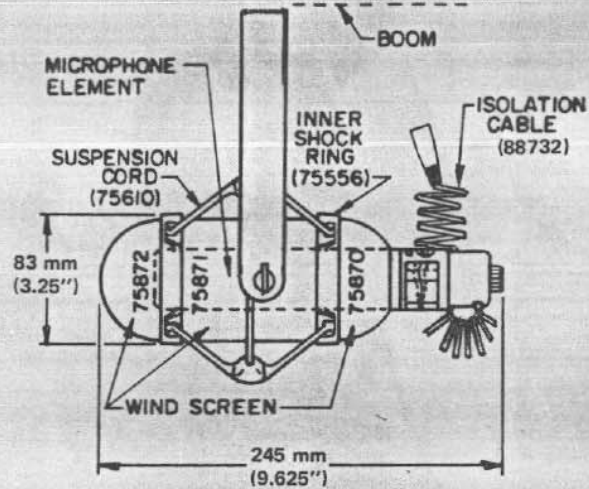
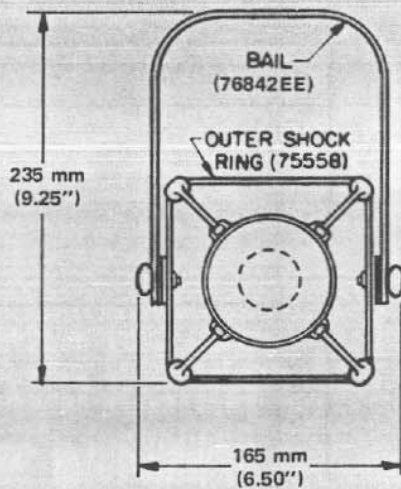


FIGURE 1 - Dimensions

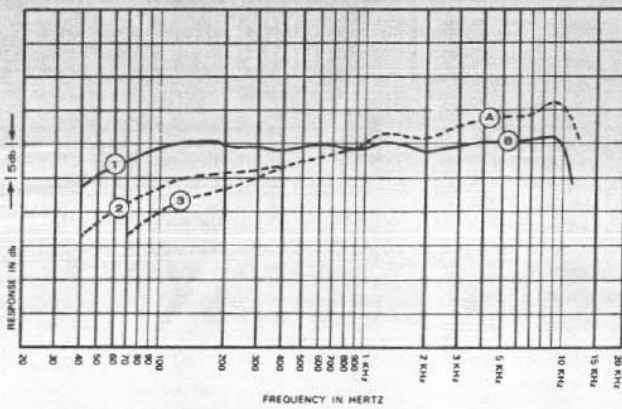


FIGURE 2 - Frequency Response

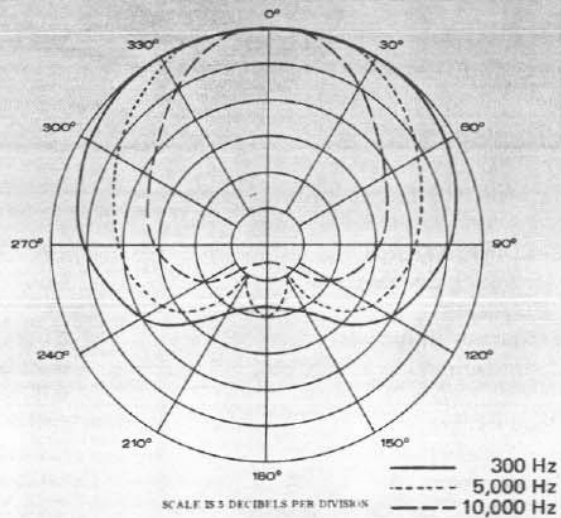
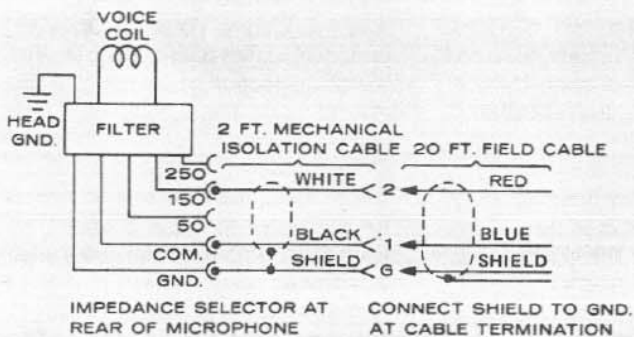


FIGURE 3 - Polar Pattern



POSITIVE PRESSURE ON GENERATING ELEMENT CAUSES POSITIVE VOLTAGE ON RED CABLE LEAD. REF. TO BLUE CABLE LEAD.

FIGURE 4 - Wiring Diagram

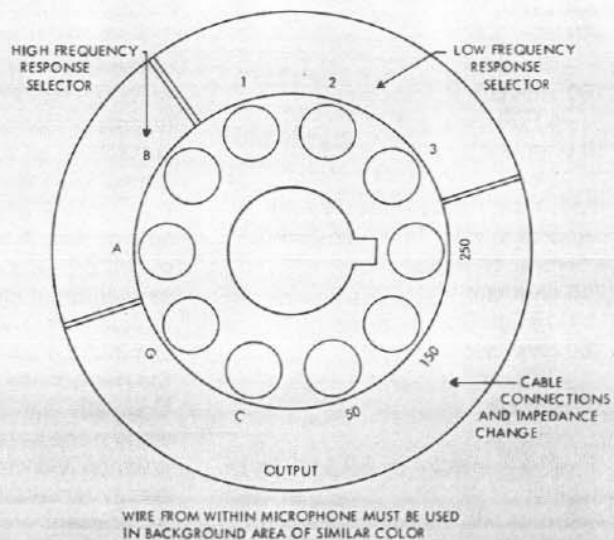


FIGURE 5 - Programming Panel (keyed to Fig. 2)

REPLACEMENT PARTS

DESCRIPTION	PART NO.
1. Windscreen - front section	75872
2. Shock ring - inner	A75556-EE
3. Windscreen - mid section	75871
4. Shock ring - inner (Same as No. 2)	A75556-EE
5. Windscreen - rear	75870
6. Cord - suspension	75610
8. Filter cap subassembly	83471
9. Nameplate	48345
10. Label	531397
11. Cable subassembly	88732
12. Bail	76842-EE
13. Shock ring - outer	75558-EE
14. Bolt, wing 1/4 - 20	20743-EE
15. Washer, friction	38309
16. Screen, grille	72302-EE
17. Screw, Gulmite	62710AD

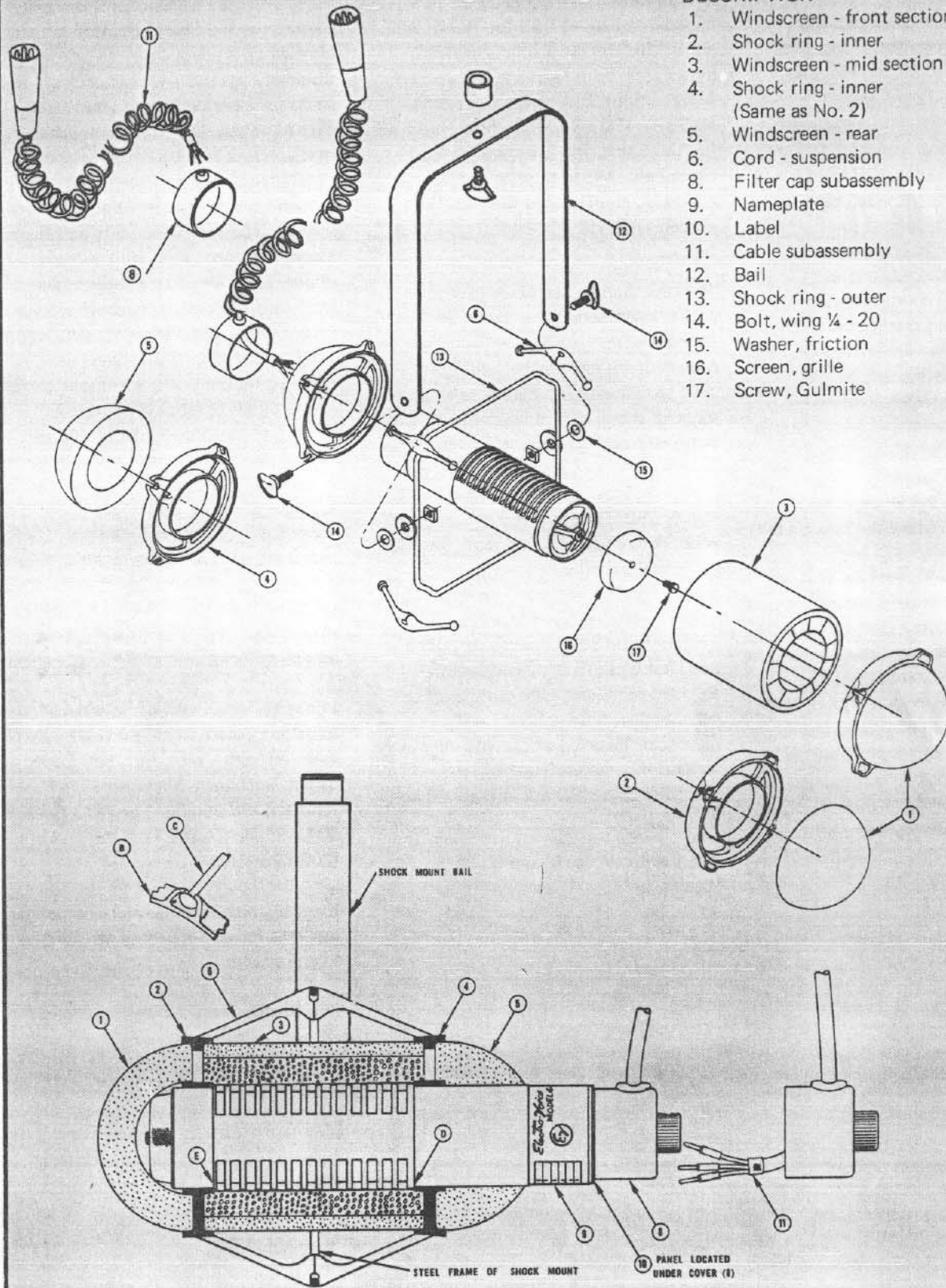


FIGURE 6 - Parts Assembly

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The microphone shall be a cardioid dynamic type with uniform frequency response from 40 to 10,000 Hz. The diaphragm shall be nonmetallic Acoustalloy and shall have a magnetic shield to prevent dust and iron particles from reaching the diaphragm. The microphone shall be provided with two slotted tubes at the back of the diaphragm, the acoustic impedance of which shall cause the tubes to act effectively as point source entrances which vary in distance from the diaphragm inversely with frequency. The resulting phase and amplitude conditions shall provide a smooth unidirectional polar characteristic that is effectively a cardioid of revolution.

An integral passive equalizer network shall be provided by means of which the choice of two variations of high-frequency response (identified as A or B) and a choice of three variations of low-frequency response (identified as 1, 2, or 3) may be selected. Selection of desired high- and low-frequency response variations and 50, 150, or 250 ohm impedance shall be accomplished by means of gold plated pins inserted in the proper positions in a color-coded selector panel provided in the rear of the microphone. Access to the selector panel shall be provided by removal of cap at rear of microphone.

Output level shall be -52 dB when microphone is connected to 50 ohm impedance and -51 dB for 150 or 250 ohms. (Reference: 0 dB = 1 mW/10 dynes/cm², with response selector in A-1 position). EIA sensitivity rating shall be -150 dB for 50 ohms, -145 dB for 150 ohms, and -149 dB for 250 ohms (response selector in A-1 position). Hum pickup level shall not exceed -121 dB (Reference .001 gauss field).

The case shall be machined aluminum with non-reflecting gray finish. A formed Acoustifoam windscreen shall be provided, the end sections of which shall be cemented to members of an external shock mount assembly. Overall dimensions of the complete microphone and shock mount assembly shall not exceed 245 mm (9.625") long by 235 mm (9.250") high by 165 mm (6.500") wide. A two-foot, 2-conductor, shielded cable shall be provided having gold plated pins for insertion in microphone selector panel at one end and a Switchcraft A3M connector at opposite end. A 4.6 m (15 ft), 2-conductor, shielded broadcast type cable shall be furnished with Switchcraft A3F connector installed at one end. Net weight of complete assembly (less 15-foot cable) shall not exceed .68 kg (1 lb, 8 oz).

The Electro-Voice Model 667A is specified.

WARRANTY (Limited) —

Electro-Voice Professional Broadcast, Recording, and Sound Reinforcement Microphones are guaranteed unconditionally against malfunction from any cause for a period of two years from date of original purchase. Also, these microphones are guaranteed without time limit against malfunction in the acoustic system due to defects in workmanship and materials. (Any active electronics incorporated in a microphone is guaranteed for three years from date of original purchase against such malfunction.) 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 cover finish, appearance items, cables, cable connectors, or switches. Defect guarantee does not cover malfunction due to abuse or operation at other than specified conditions. Repair by other than Electro-Voice or its authorized service agencies will void this guarantee.

For repair information and service locations, please write: Service Department, Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107 (Phone 616/695-6831) or 7473 Avenue 304, Visalia, CA 93277 (209/625-1330,-1).

Electro-Voice also maintains complete facilities for non-warranty service of E-V products.

Specifications are subject to change without notice.