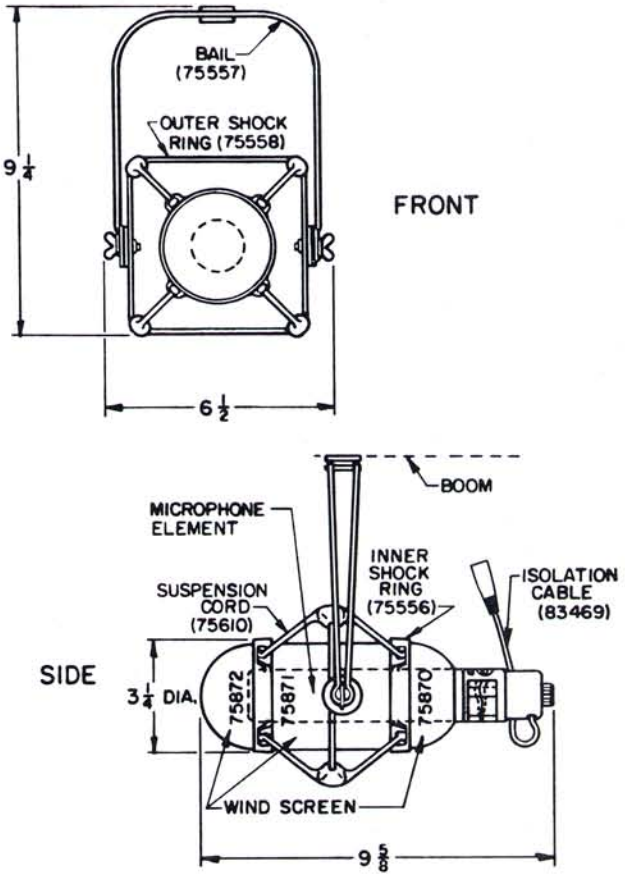


Figure 1 – Dimensions

DESCRIPTION AND APPLICATIONS

The Model 668 is a dynamic cardioid microphone designed for boom mounting in broadcasting and motion picture recording. Not simply an improvisation on existing equipment, the 668 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™ windscreen virtually eliminates noise caused by motion of the microphone through the air. Unusually light in weight, the 668 is easily maneuverable, and thus ideal for "fishpoling." The shock isolation and windscreen systems 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 668 is the self-contained computer-type programming board which permits a total of 36 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 many variations from flat response, thus made available, permit the 668 to overcome acoustical problems and background noise, make possible special effects, and enable its use mixed with existing microphones of differing responses.

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 668, makes use of 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.

SPECIFICATIONS

Generating Element:	Dynamic
Frequency Response:	Uniform 40 to 10,000 Hz (See Figure 2)
Impedance:	50, 150 or 250 ohms, selected at rear of case by moving one pin. Microphone is wired for 150 ohms when shipped.
Output Level:	−51 dB (Ref. 1 mw/10 dynes/cm², selector in A-1 position)
EIA Sensitivity Rating:	−145 dB (Response selector in A-1 position)
Hum Pickup Level:	−121 dBm (Ref. .001 gauss field)
Diaphragm:	Electro-Voice Acoustalloy
Finish:	Nonreflecting gray
Cable:	2-foot, 2-conductor, shielded, mechanical isolation cable and 20', 3-conductor, shielded field cable.
Cable Connector:	Switchcraft A3F
Net Weight:	1 lb., 11 oz, less 20' cable

WARRANTY

Electro-Voice Professional Broadcast and Recording Microphones are guaranteed unconditionally against malfunction for two years from date of purchase. Within this period Electro-Voice will, at its option, repair or replace any E-V professional microphone exhibiting any malfunction regardless of cause, including accidental abuse. This warranty does not cover finish or appearance. Also, every Electro-Voice microphone is guaranteed for the life of the microphone to be free of factory defects in materials and workmanship, and will be repaired or replaced (at our option) at no charge if exhibiting malfunction from this cause. Microphones for warranty repair must be shipped prepaid to Electro-Voice, Inc., or its authorized service agency, and will be returned prepaid.

For correct shipping address and instructions on return of Electro-Voice products for repair and locations of authorized service agencies, please write: Service Department, Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107 (Phone: 616/695-6831).

Electro-Voice also maintains complete facilities for non-warranty service.

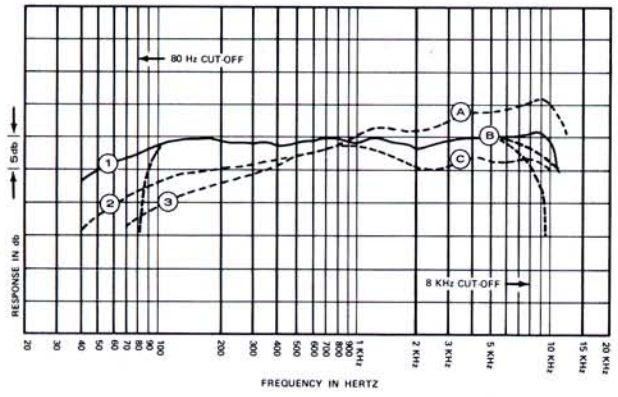


Figure 2 – Frequency Response

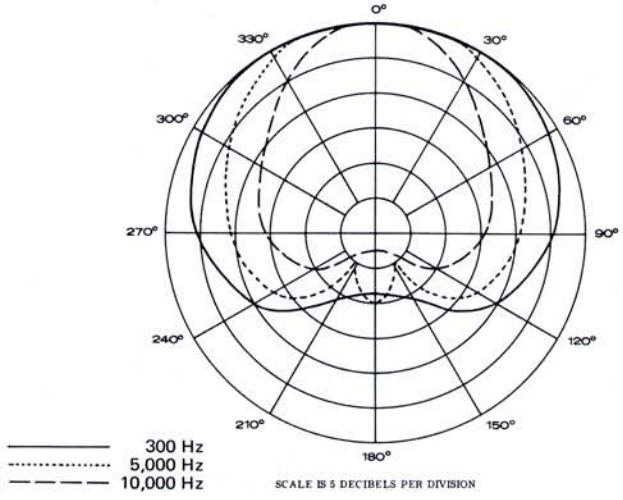


Figure 3 – Polar Pattern

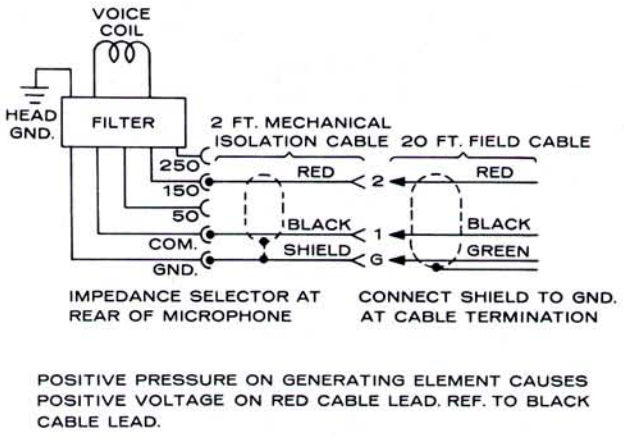


Figure 4 – Wiring Diagram

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 a choice of three variations of high-frequency response (identified as A, B, or C) and a choice of three variations of low-frequency response (identified as 1, 2, or 3) may be selected. Passive filter networks for reduction of response above 8,000 Hz and below 80 Hz (reduction shall be at least 50 dB per octave in each case) shall be provided. Selection of desired high- and low-frequency response variations and 8,000 Hz and 80 Hz filters, and selection of 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.

The output level shall be −51 db, EIA sensitivity rating shall be −145 dB (reference 0 dB = 1 mw/10 dynes/cm^2) when microphone is connected for response variation A-1 and 150 ohm impedance. Hum pickup level shall not exceed −121 dBm (reference .001 gauss field). The case shall be machined aluminum with nonreflecting 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 assembly (including shock mount and windscreen) shall not exceed 9-5/8 inches long, 9¼ inches high and 6½ inches wide. A

two foot, 2-conductor, shielded mechanical isolation cable shall be provided having gold plated pins for insertion in microphone selector panel at one end and a Switchcraft A3M connector at the opposite end. A 20 foot, 3-conductor, shielded, broadcast type cable shall be furnished with Switchcraft A3F connector installed at one end. Net weight of complete microphone assembly, less the 20-foot cable, shall not exceed 1 pound, 11 ounces.

The Electro-Voice Model 668 is specified.

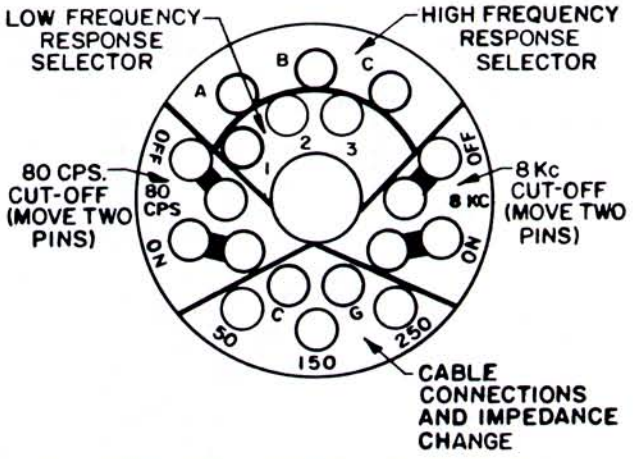
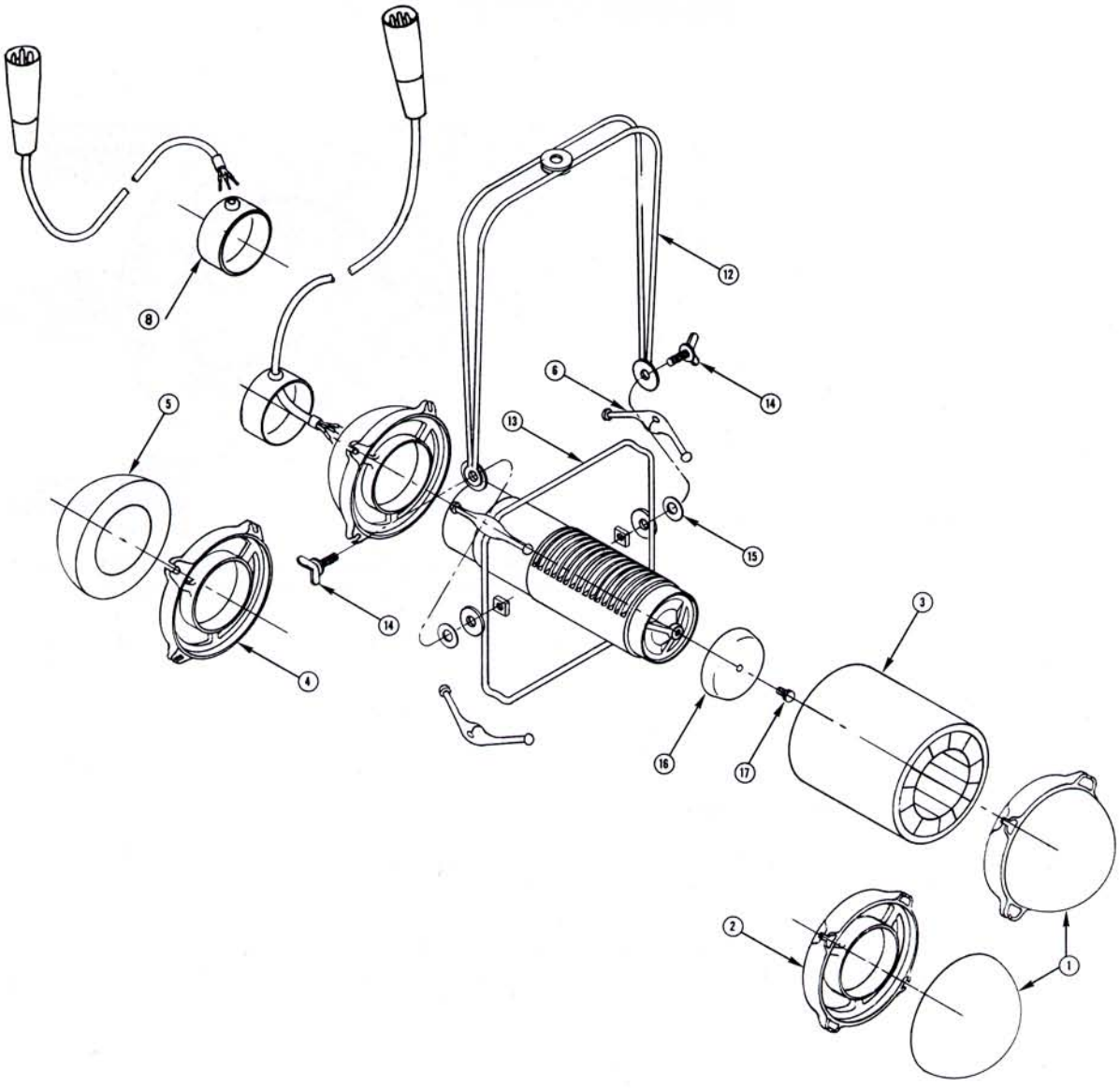


Figure 5 – Programming Panel (keyed to Fig. 2)

REPLACEMENT PARTS

DESCRIPTION	PART NO.
1. Wind Screen - front section	75872
2. Shock Ring - inner	A75556–EE
3. Wind Screen - mid section	75871
4. Shock Ring - inner (Same as No. 2)	A75556–EE
5. Wind Screen - rear	75870
6. Cord - suspension	75610
8. Filter Cap Subassembly	83471
9. Nameplate	48297
10. Label	531156
11. Cable, Subassembly	83469
12. Bail	A75557–EE
13. Shock Ring - outer	75558–EE
14. Bolt, wing ¼ - 20	20050–EE
15. Washer, friction	38249
16. Screen grille	73202–EE
17. Screw, Gulmite	6306–CL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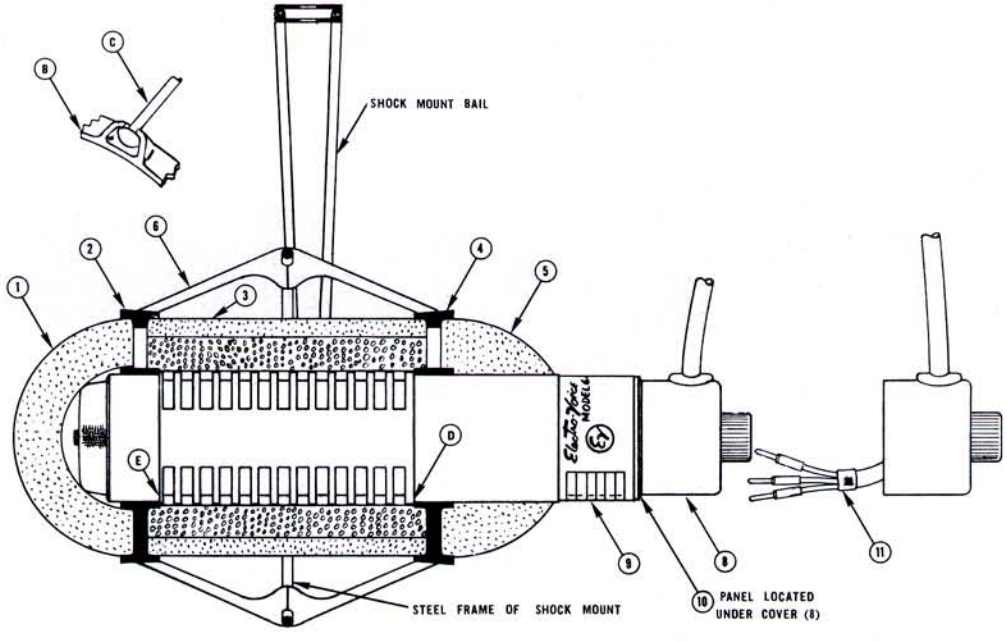
C
B
SHOCK MOUNT BAIL
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2
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D
E
9
8
11
10
PANEL LOCATED
UNDER COVER (8)
STEEL FRAME OF SHOCK MOUNT