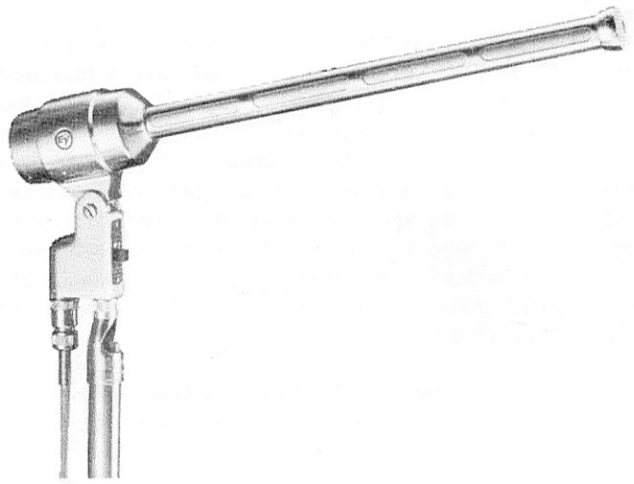
644 SOUND-SPOT® MICROPHONE



DESCRIPTION AND APPLICATIONS

The Model 644 is a highly directional dynamic microphone utilizing a combination of cardioid and distributed front opening designs. This combination gives greatly extended frontal pickup on the microphone axis, extending working distance over 2.5 times compared to present non-directional type microphones. Above 700 cps cancellation of sound at the rear and sides exceeds 20 db providing unequalled rejection of random noise, reverberation and feedback without sacrifice of frequency response. The Model 644 allows much greater latitude in loudspeaker placement and will solve many specialized problems where microphones cannot be placed near the source of sound.

A front acceptance angle at high frequencies of 45° each side of the microphone axis also allows best isolation of individual performers when desired. The Model 644 gives improved wind noise rejection compared with conventional microphones and is much less susceptible to generation of noise from mechanical shock.

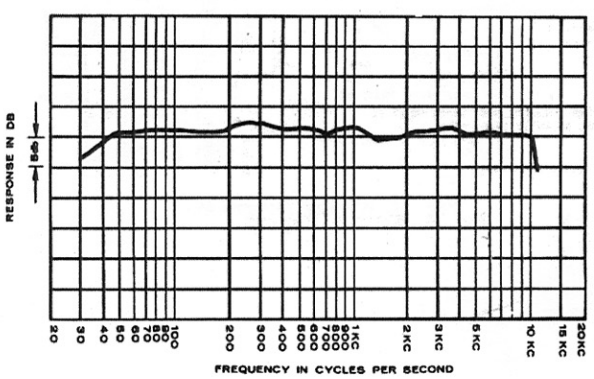


Fig. 1-Response

SPECIFICATIONS

Type: Dynamic
Frequency Response: 40 to 12,000 cps
Directional Characteristics: Cardioid to 700 cycles, 20 to 25 db of rejection at the sides and rear above 700 cycles. See Figure 2.
On-Off Switch: Sliding contact shorts microphone in "OFF" position.
Impedance: 150 ohms or High Impedance
Impedance Selection: Selection is made at cable connector. To change from high to 150 ohm impedance, move white lead from terminal #2 to terminal #3 on MC4M connector. 150 ohm impedance is balanced to ground.
Output Level: High impedance: -53 db*; EIA sensitivity rating: -149 db;
150 ohm impedance: -53 db**; EIA sensitivity rating: -147 db.
*0 db = 1 volt/dyne/cm^2
**0 db = 1 mw/10 dynes/cm^2
Diaphragm: Electro-Voice Acoustalloy®
Case: Pressure-cast zinc and brass
Finish: Satin Chrome
Dimensions: Maximum diameter 2-5/16 inch
Length: 15-15/16 inches. See Figure 3
Net Weight: 2 pounds, 9 ounces, less cable
Cable Connector: Amphenol MC4M
Cable: 15-foot, two-conductor, synthetic rubber jacketed, broadcast-type equipped with model MC4M Amphenol connector on microphone end.
Stand Coupler: 5/8" -27 thread on stud
Optional Accessories: Model 419 desk stand

WARRANTY

The Electro-Voice model 644 is guaranteed against defects in workmanship and materials.

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The microphone shall be an Electro-Voice Model 644 or equivalent. The microphone shall be a highly directional, dynamic type, with a combination of cardioid and distributed front opening with a frequency response of from 40 to 12,000 cps. From rear above 700 cps the microphone shall exceed cancellation of 20 db.

The diaphragm shall be nonmetallic Acoustalloy® and shall have a magnetic shield to prevent dust and iron particles from reaching the diaphragm. The available impedances shall be 150 ohm or high-impedance. It shall be possible to select impedance desired by changing microphone leads from one terminal to another at the microphone cable connector. Line shall be balanced to ground and phased on 150 ohms.

The output level shall be -53 db, with 0 db equalling 1 mw/10 dynes/cm^2, with EIA sensitivity rating of -147 db at 150 ohms. The output level shall be -53 db, with 0 db equalling 1 volt/dyne/cm^2; with EIA sensitivity rating of -149 db at high impedance. The magnetic circuit shall be a non-welded circuit and employ Alnico V and Armco magnetic iron.

The case shall be made of pressure-cast zinc and brass. The microphone shall have a maximum diameter of 2-5/16 inch, a length of 15-15/16 inch and a weight of 2 pounds, 9 ounces without cable. Finish shall be satin chrome. A 15-foot, two-conductor, synthetic rubber-jacketed broadcast-type cable shall be provided. The microphone shall have a built-in cable connector similar or equivalent to the Model MC4M - Amphenol which will mate with a connector similar or equivalent to Model MC4F Amphenol.

The microphone shall include a stand coupler with a 5/8" -27 thread on stud. Electro-Voice Model 644 is specified.

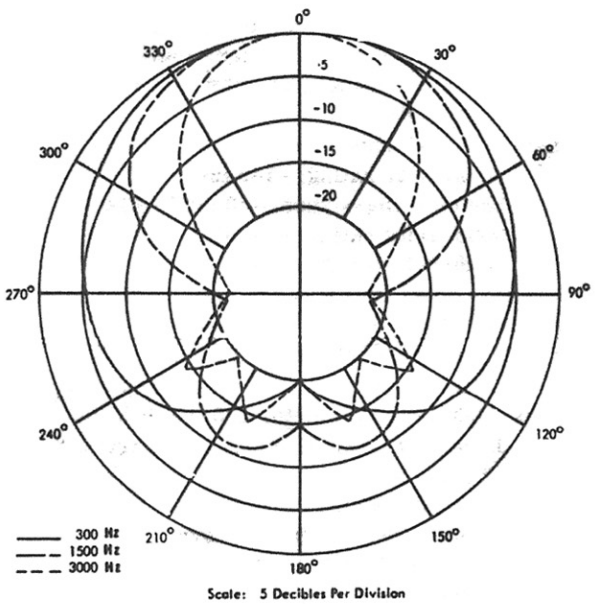


Fig. 2-Polar Pattern

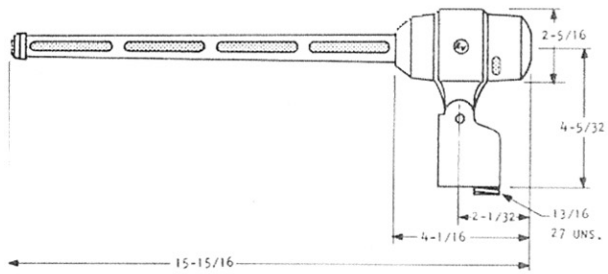


Fig. 3-Dimensions

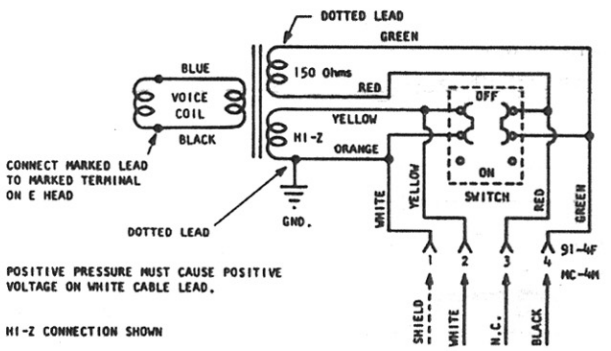


Fig. 4-Wiring Diagram