

Electro-Voice®

ELECTRO-VOICE, INC.
BUCHANAN, MICHIGAN



Specifications Model 646 Microphone

Specifications



ELECTRO-VOICE Model 646 Microphone



Fig. 1 — Model 646 Microphone and Neck Cord

The Electro-Voice Model 646 Lavalier Microphone is a dynamic non-directional type providing smooth, wide range response and high output. Originally created for TV, this small, slim microphone can be hung on a neck cord close to the chest — leaving hands of the announcer or performer free for demonstrations — or it can be held in the hand, used on a desk stand, or suspended from a boom. It is excellent for audience participation, man-in-the-street interviews, panel shows — wherever microphone concealment, individual mobility, or free movement of the hands is desired. No closely associated auxiliary equipment is required.

The microphone is equipped with a pop-proof wire mesh grille which minimizes wind and breath blasts. A recessed screw in the grille permits the raising of high-frequency response when the microphone is used in lavalier applications. See "Frequency Response" below.

The Model 646 features the exclusive Electro-Voice Acoustalloy diaphragm. This nonmetallic diaphragm permits smooth response over a wide frequency range and withstands high humidity, temperature extremes, corrosive effects of salt air, and severe mechanical shocks. It is practically indestructible with normal use.

SPECIFICATIONS

Type: Dynamic

Frequency Response: Uniform from 50 to 10,000 cps in flat position (when recessed screw in grille is down) for hand-held and desk stand applications. See A. fig. 2. This screw is turned upward to provide rising response, assuring crisp, clean pickup when microphone is hung on neck cord for lavalier use. See B. fig. 2. Also see fig. 3 for adjustment instructions.

Impedance: Single choice of 50, 150, or 250 ohms. Line balanced to ground and phased.

Output Level:

50-ohm impedance: -55 db*; RETMA sensitivity rating, -148 db
150-ohm impedance: -55 db*; RETMA sensitivity rating, -149 db
250-ohm impedance: -55 db*; RETMA sensitivity rating, -147 db
*0 db = 1 mw/10 dynes/cm²

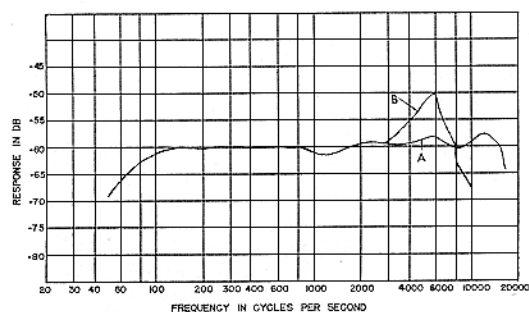


Fig. 2 — Response

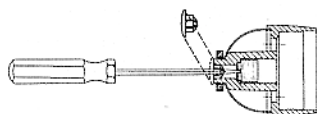
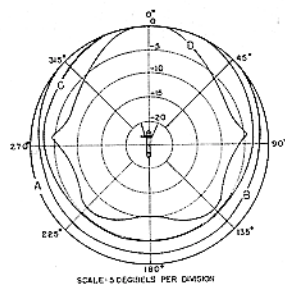


Fig. 3 — Adjustment of Frequency Response

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A — 500 cps C — 5,000 cps
B — 1,500 cps D — 10,000 cps

Fig. 4 — Polar Pattern

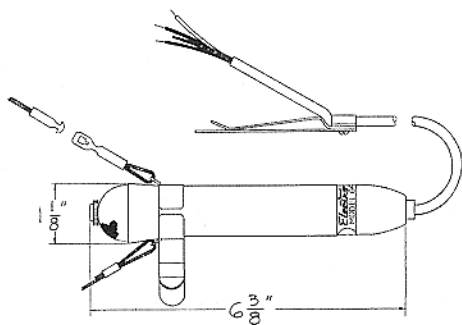


Fig. 5 — Dimensions

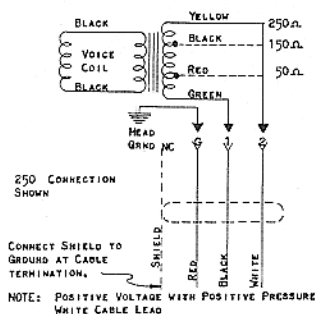


Fig. 6 — Wiring Diagram

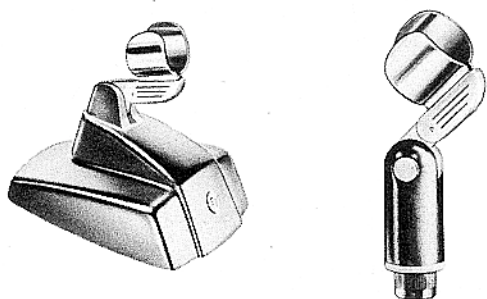


Fig. 7 — Optional Accessories

Polar Pattern: Nondirectional, becoming slightly directional at high frequencies. See fig. 4.

Diaphragm: Electro-Voice Acoustalloy.

Magnetic Circuit: Employs Alnico V and Armco magnetic iron in a nonwelded circuit.

Case: High tensile, lathe-turned aluminum

Finish: Nonreflecting gray

Dimensions:

Diameter: $1\frac{1}{8}$ in.

Length: $6\frac{1}{4}$ in.

See fig. 5.

Net Weight: $6\frac{1}{2}$ oz without cable or neck cord assembly

Cable: 30-ft., three-conductor, shielded, synthetic rubber jacketed, broadcast type.

Cable Connector: Lug type, detachable

Standard Accessories:

Carrying bag

Neck Cord

Belt strain relief clip

Spanner wrench

Optional Accessories: Model 416 Rubber Desk Stand for permanent installations. Model 420 Desk Stand. Model 300 Stand Adapter. See fig. 7.

Warranty: The Electro-Voice Model 646 Microphone is guaranteed against defects in workmanship and material.

Architects' and Engineers' Specifications

The microphone shall be the Electro-Voice Model 646 or equivalent. The microphone shall be an omnidirectional, dynamic type with a nonmetallic Acoustalloy diaphragm. The microphone shall have a magnetic shield to prevent dust and iron particles from reaching the diaphragm. A recessed screw shall be provided in the microphone grille to permit adjustment of frequency response for different applications. A flat, uniform response from 50 to 10,000 cps shall be obtained when this screw is turned clockwise. A rise in the high frequencies shall be obtained when the screw is turned counterclockwise. The microphone shall have an impedance of 50, 150, or 250 ohms. Line shall be balanced to ground and phased.

The output level shall be -55 db with 0 db equalling 1 mw/10 dynes/cm². RETMA sensitivity rating shall be -148 db for 50-ohm impedance, -149 db for 150-ohm impedance, and -147 db for 250-ohm impedance. The magnetic circuit shall be a nonwelded circuit and employ Alnico V and Armco magnetic iron.

The case shall be made of high-tensiles, lathe-turned aluminum. The microphone shall have a diameter of $1\frac{1}{8}$ in., a length of $6\frac{1}{4}$ in., and a net weight of $6\frac{1}{2}$ oz, without cable or neck cord assembly. Finish of the microphone shall be non-reflecting gray. A 30-ft, three conductor, shielded, synthetic rubber jacketed, broadcast-type cable shall be provided.

The microphone shall be supplied with a carrying bag, neck cord, belt strain relief clip, and spanner wrench. It shall be possible to use the microphone with an accessory such as the Electro-Voice Model 300 Stand Adapter or the Electro-Voice Model 420 Desk Stand.



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