

Electro-Voice®

ELECTRO-VOICE, INC.
BUCHANAN, MICHIGAN



Specifications Model 646 Microphone

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, 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. The nonmetallic diaphragm provides 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.

Fig. 1 — Model 646 Microphone and Neck Cord

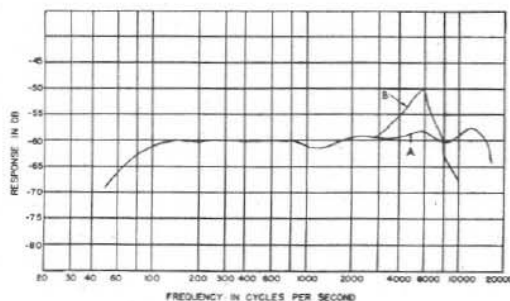


Fig. 2 — Response

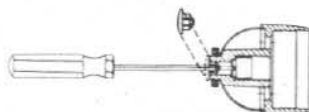


Fig. 3 — Adjustment of Frequency Response

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

Electro-Voice

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

Fig. 4 — Polar Pattern

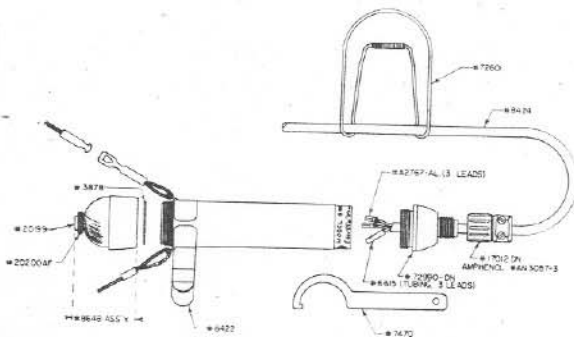


Fig. 5 — Dimensions

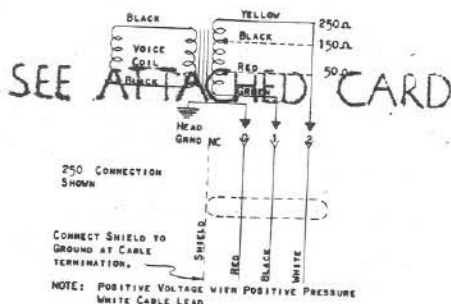


Fig. 6 — Wiring Diagram

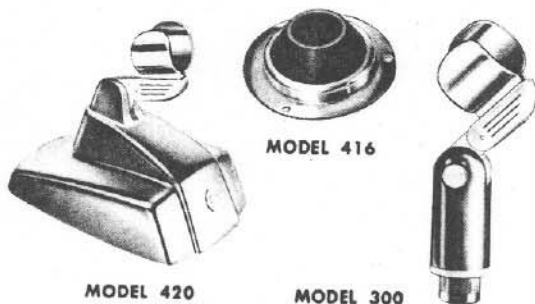


Fig. 7 — Optional Accessories

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 1/8 in.

Length: 6 5/8 in.

Net Weight: 7 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-tensile, lathe-turned aluminum. The microphone shall have a diameter of 1 1/8 in., a length of 6 5/8 in., and a net weight of 7 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.



ELECTRO-VOICE, INC. / BUCHANAN, MICHIGAN

Part No. 53545

Printed in U.S.A.

Electro-Voice

PUBLIC ADDRESS

DYNAMIC MICROPHONE . Model 647

New, Small, Versatile

P.A. LAVALIER

For Chest, Desk or Hand Use

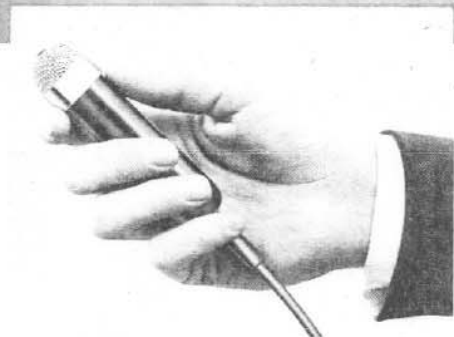
You discover quickly how useful the E-V 647 can be in many P.A. applications covered previously by make-shift arrangements.

First ever produced in such extremely small size (4" x 1"), this E-V engineered lavalier-type microphone is scarcely visible, yet assures rugged and dependable dynamic performance indoors and outdoors.

The "647" can be worn around the neck, or used in the hand, on a desk, or on a boom. When suspended from neck, a unique tie clip provides secure support—frees the announcer's or speaker's hands for gestures and demonstrations, permits him to move around. No closely associated auxiliary equipment is required.

Omnidirectional polar pattern, high output level and smooth, wide-range response provide clean, clear pickup and reproduction. Exclusive E-V Acoustalloy diaphragm is virtually indestructible. Acoustically-treated grille minimizes effects of wind and breath blasts. Supplied complete with combination neck cord and tie clip for microphone, belt clip for cable, rubber desk stand, and 18 ft. cable. Available in a choice of 150, 300 ohms or Hi-Z.

Model 647. List Price\$80.00



Research-engineered and produced under E-V laboratory control. Light weight and small size—can be hand-held comfortably and inconspicuously. Cable runs through center hole in bottom of microphone case. Makes it easy to use microphone and control cable slack. Provides uniformly excellent performance under constant hard use.



Rubber Desk Stand and Cable with Neck Cord, Tie Clip and Belt Clip are furnished with microphone. Cable has rubberized 3-pin plug and strain relief. The cable can be replaced quickly and easily.

SPECIFICATIONS

Frequency Response: Smooth, peak-free, 60-13,000 cps, with slightly rising characteristic specifically calculated to assure crisp, clear pickup when 647 is used on the chest as lavalier, or in hand or on desk.

Output Level: Power Rating (0 db = 6 mw/10 dynes/cm²) —55 db. RTMA Sensitivity Rating —151 db.

Impedance: Specify 150, 300 ohms or Hi-Z.

Polar Pattern: Omnidirectional, becoming slightly directional at extremely high frequencies.

Diaphragm: Exclusive Acoustalloy. Withstands high humidity, temperature extremes, corrosive effects of salt air, and severe mechanical shocks.

Magnetic Circuit: Uses Alnico V and Armco magnetic iron. All parts precision ground.

Grille: Wire mesh grille, acoustically designed to avoid wind and breath blasts.

Case: Lathe turned, high tensile strength aluminum.

Finish: Black aluminite with satin chrome trim and clip.

Cable: 18 ft. rubber-jacketed.

Cable Repair: Unique rubberized 3-pin plug and strain relief. Accessible for quick, easy replacement of cable.

Dimensions: Microphone—4" long, 1" diameter. Desk Stand—2 3/4" base diam., 1" high.

Weight: Microphone, Net 6 oz. Desk Stand, Net 1 1/2 oz. Shpg. combined, 12 oz.

Electro-Voice INC.

BUCHANAN, MICHIGAN

Export: 13 East 40th St., New York 16, U.S.A. Cables: Arlab

MICROPHONES • PHONO-CARTRIDGES • HI-FI SPEAKER SYSTEMS • TV BOOSTERS • P.A. SOUND PROJECTORS

Electro-Voice

TELEVISION AND
BROADCAST DYNAMIC

LAVALIER *Model* 646



The New LAVALIER

Remarkably Small and Versatile
For Chest, Desk or Hand Use

Created for TV...the "646" has all the E-V features preferred by video and audio engineers. It is fully field tested and proved on telecasts and broadcasts.

Here you have omnidirectional pickup, smooth ultra-wide range response and high output in a lavalier-type dynamic microphone so small and inconspicuous it can be worn around the neck close to the chest—or it can be used in the hand, on a desk, or suspended from a boom. It is particularly versatile for announcing, commentary, audience participation, man-in-the-street interviews, panel television shows—wherever microphone concealment, individual mobility or free movement of the hands is desired. No additional closely associated auxiliary equipment is required.

The "646" is extremely rugged—has the exclusive E-V Acoustalloy diaphragm—can be used in the studio or on remotes, indoors or outdoors. Grille is acoustically designed to avoid effects of wind and breath blasts. Supplied with combination neck cord and tie clip to suspend the microphone, belt clip for cable, and 30 ft. rubber-jacketed broadcast type cable. Unique rubber desk stand available for permanent installations. Available in a choice of 50, 150 or 250 ohms.

Model 646. List Price \$140.00

Model 416. Desk Stand. List Price \$5.00



Lavalier style leaves hands of the announcer or performer free for demonstrations or for dramatic effects.



Broadcast Type Cable, Neck Cord and supporting Clips supplied with microphone. Rubber desk stand available as optional equipment.



For panel-type shows, new miniaturized rubber desk stand disguises microphone, becomes integral part of table props. Stays in fixed position. Friction-fit holds microphone firmly in place.



Extra small and light. Concealed comfortably in palm of hand. Cable extends through center hole in bottom of case. Convenient to use in any position for interviewing or announcing.

SPECIFICATIONS

Frequency Response: Smooth, peak-free, 40-15,000 cps, with slightly rising characteristic specifically calculated to assure crisp, clear pick-up when 646 is used on the chest as lavalier, or in hand or on desk.

Output Level: Power Rating (0 db = 1 mw/10 dynes/cm²) —57 db.

RTMA Sensitivity Rating —149 db at 250 ohms.

Impedance: Single choice of 50, 150 or 250 ohms.

Polar Pattern: Omnidirectional, becoming slightly directional at extremely high frequencies.

Diaphragm: Exclusive Acoustalloy. Withstands high humidity, temperature extremes, corrosive effects of salt air, and mechanical shocks.

Magnetic Circuit: Uses Alnico V and Armco magnetic iron. All parts precision ground.

Grille: Wire mesh grille, acoustically designed to avoid wind and breath blasts.

Case: Lathe turned, high tensile strength aluminum.

Finish: TV gray.

Cable: 30 ft. rubber-jacketed broadcast type.

Cable Repair: Unique rubberized 3-pin plug and strain relief. Accessible for quick, easy replacement of cable.

Dimensions: Microphone—6 1/4" long, 1" diameter. Desk Stand—3 1/8" base diameter, 1" high.

Weight: Microphone, less cable, Net 6 oz. Desk Stand, Net 2 oz.