# Electro Voice ENGINEERING DATA





# DESCRIPTION AND APPLICATIONS

The Electro-Voice Model 631 is a dynamic omnidirectional microphone designed to yield outstanding performance in demanding public address and semi-professional recording applications. Created particularly for close working, hand held situations, it is equally effective for musical pickup on table or floor stand. A unique new concept utilizes a sealed magnetic "on-off" switch inside the microphone case. A magnetic actuator outside the case is easily removable without tools - leaving the microphone connected for the "on" mode of operation.

The 631 features the exclusive non-metallic Electro-Voice Acoustalloy ® diaphragm which permits very smooth response over a wide frequency range, and withstands extremes of humidity and temperature and corrosive effects of salt air, making it nearly indestructible with normal use. The microphone utilizes the mechanical nesting principle by means of which internal parts are nested, one within another, resulting in an assembly that is nearly indestructible.

A specially designed internal shock absorber dramatically reduces pickup of cable noise and other mechanical noise generated by external contact. The integral four-stage pop and dust filter ensures unusual freedom from noise generated by the movement of air over the microphone surfaces.

## WARRANTY

The Electro-Voice Model 631 is guaranteed against defects in materials and workmanship.

#### SPECIFICATIONS

Generating Element: Dynamic Frequency Response: 80 - 13,000 Hz Polar Pattern: Omnidirectional

Impedance: Hi-Z (nominally, 25,000

ohms) and Lo-Z (150 ohms)

Output Level:

 $Hi-Z: -55 \text{ db } (0 \text{ db} = 1 \text{ volt/dyne/cm}^2)$ Lo-Z: -55 db (0 db = 1 mw/10 dynes/cm<sup>2</sup>)

EIA Sensitivity rating: Hi-Z: -151 db Lo-Z: -149 db

Diaphragm: Electro-Voice Acoustalloy®

Case Material: Die-cast zinc

Finish: Satin Chrome or Matte Satin Nickel Dimensions:

6-1/32" long, 1-25/64" dia. (major), 3/4" shank dia.

Net Weight: 6 oz. (excluding cable)

On-Off Switch: Magnetic

Cable Connector: 80-MC2M (Amphenol) Lo-Z,

80M (Amphenol) Hi-Z

Cable: Hi-Z, 15'single conductor,

shielded, synthetic-rubber

jacketed.

Lo-Z, 15' two-conductor, shielded, synthetic-rubber

jacketed.

Accessories Furnished: Model 310 stand mounting

clamp

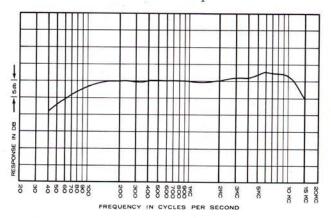


Figure 1 - Frequency Response

#### WIRING

Model 631 (high impedance) is supplied with a 15-foot, single conductor cable, with Amphenol 80M connector installed at the microphone end. To connect the free end of the cable to the proper plug for mating with your microphone input, the outer sheath (shield) of the cable just under the synthetic rubber jacket is at ground potential and should be connected to that portion of the plug which completes the ground or chassis part of the circuit (i.e., the outer shell for standard phone plug). The shielded center conductor is the "hot" side of the microphone circuit. (For phone plug, center conductor should be connected to center contact).



Model 631 (low impedance) is supplied with a 15-foot, two-conductor shielded cable with Amphenol 80-MC2M connector installed at the micro-The connector for mating with your phone end. microphone input should provide one pin for connection of the cable shield to chassis ground, and two additional pins for connection of the two cable conductors to the microphone input. The two cable conductors, with the microphone, form a circuit that is "balanced" to ground.

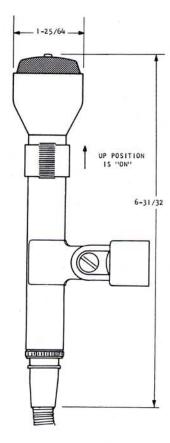


Figure 2 - Dimensions

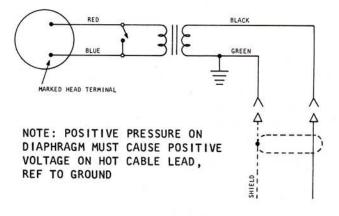


Figure 3 - Wiring, Hi-Z

### ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The microphone shall be an omnidirectional dymanic type with wide-range frequency response from 80 to 13,000 Hz It shall have a non-metallic Acoustalloy diaphragm and magnetic shield to prevent dust and magnetic particles from reaching the diaphragm. A four-stage pop filter shall be provided for maximum reduction of effects of wind and breath blasts.

The microphone shall be available in high impedance and low impedance. Output level for high impedance shall be -55 db and EIA sensitivity rating shall be -151 db (0 db = 1 volt/dyne/cm<sup>2</sup>). Output level for low impedance shall be -55 db, and EIA sensitivity rating shall be -149 db  $(0 \text{ db} = 1 \text{ mw/}10 \text{ dynes/cm}^2)$ . A magnetic type onoff switch shall be provided, so designed that the external actuator may be removed without tools, leaving the microphone in the "on" mode. entire switch assembly shall be contained within the microphone case. A fifteen foot, single conductor, shielded, synthetic-rubber jacketed cable with Amphenol 80M connector installed at the microphone end, shall be provided with the Model 631 high impedance. A fifteen foot, two-conductor, shielded, synthetic-rubber jacketed cable with Amphenol 80-MC2M connector installed at microphone end shall be provided with the Model 631 low impedance. Low-impedance connections shall provide balanced line configuration.

The case shall be pressure-cast zinc. Dimensions shall be 6-1/32" long and diameter (major) shall be 1-25/64" with 3/4" shank diameter. Net weight (less cable) shall be 6 oz. An Electro-Voice model 310 stand clamp adapter shall be furnished. Finish shall be satin chrome (or matte satin nickel).

The Electro-Voice Model 631 is specified.

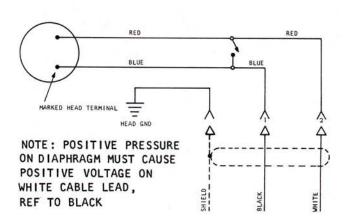


Figure 4 - Wiring, Lo-Z