



**DESCRIPTION AND APPLICATIONS**

The Model 666 is a cardioid microphone of the dynamic type with only one moving element. The cardioid pattern is obtained through use of three sound entrances located in the microphone case at different distances in back of the diaphragm. These three apertures, each having a selected acoustical impedance, combine to form one effective back entrance which varies in distance from the diaphragm inversely with frequency. The resulting phase and amplitude conditions produce a uniform cardioid pattern over a wide frequency range. This variable front-to-back distance,\* along with dynamic type construction, affords high resistance to mechanical shock and virtually eliminates proximity effect.

The Model 666 is an all-purpose microphone designed to provide wide-range reproduction under a great variety of conditions. Because of its excellent and uniform polar response, it is especially useful in locations where ambient noise and severe reverberation exist.

The Model 666 can be used on a floor or desk stand or carried in the hand. It may be used as a boom microphone, also, by employing Model 366 suspension shock mount.

The microphone features the exclusive non-metallic Electro-Voice Acoustalloy® diaphragm which 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 in normal use.

The Model 666R is a dynamic cardioid microphone having the same polar response and physical dimensions as the Model 666, but with a rising frequency response. The 666R frequency response rises 4-1/2 db from 100 cps to 2000 cps, as shown in Figure 1. \*Variable-D, U.S. Patent No. 3,115,207

**FEATURES**

- Smooth wide range response combined with excellent front-to-back ratio
- Light weight, rugged dynamic microphone

**SPECIFICATIONS**

- TYPE:** Cardioid dynamic
- FREQUENCY RESPONSE:** Model 666 (Figure 2.)  
Model 666R (Figure 1.)
- IMPEDANCE:** 50, 150, and 250 ohms (connected for 150 ohms when shipped). Instructions for changing impedance - See Figure 6. To change impedance, press down on the locking pin (A) and remove the male insert by pulling on one of the pins. Unsolder the lead or leads marked "150" ohms and solder wire marked with desired impedance to pin (2). Caution: Cover exposed 150-ohm wire or wires with tubing (B).
- |                      |   |               |
|----------------------|---|---------------|
| <b>OUTPUT LEVEL:</b> | <b>Model 666</b>                          |               |
|                      | <u>Impedance</u>                          | <u>Rating</u> |
|                      | 50-ohm:-58 db* ;EIA sensitivity: -151 db  |               |
|                      | 150-ohm:-58 db* ;EIA sensitivity:-152 db  |               |
|                      | 250-ohm:-58 db* ;EIA sensitivity: -150 db |               |
- 
- |                      |   |               |
|----------------------|---|---------------|
| <b>OUTPUT LEVEL:</b> | <b>Model 666R</b>                         |               |
|                      | <u>Impedance</u>                          | <u>Rating</u> |
|                      | 50-ohm:-56 db* ;EIA sensitivity: -149 db  |               |
|                      | 150-ohm:-56 db* ;EIA sensitivity: -150 db |               |
|                      | 250-ohm:-56 db* ;EIA sensitivity: -148 db |               |
- \* 0 db=1 mw/10 dynes/cm<sup>2</sup>
- HUM PICKUP LEVEL:** -125 dbm\*\*  
Shielded transformer with special hum-bucking coil almost totally eliminates hum pickup when in vicinity of AC fields.  
\*\*Relative to 0.001 gauss field
- POLAR PATTERN:** Cardioid. Uniform front-to-back discrimination. See Figure 3.
- DIAPHRAGM:** Electro-Voice nonmetallic Acoustalloy®
- MAGNETIC CIRCUIT:** Employs Alnico V and Armco magnetic iron in a non-welded circuit.
- CASE:** Cast Aluminum
- FINISH:** Nonreflecting gray
- DIMENSIONS:** Diameter, 1-11/16-in. max.,  
Length, 7-11/16-in. See Figure 4.

NET WEIGHT: 11 oz. without cable  
 CABLE: 20-ft., three conductor, shielded, neoprene rubber jacketed broadcast type. Equipped with UA-3-11 Cannon Connector which mates with UA-3-12 Cannon Connector.

STAND COUPLER: 1/2 in. pipe thread on Model 300, also has 5/8 in. -27 adaptor.

STANDARD ACCESSORIES: The Model 300 Detachable Stand Coupler. Protective carrying case.

OPTIONAL ACCESSORIES: Model 366 Suspension Shock Mount, Model 420 desk stand.

WARRANTY: Two year unconditional warranty with a life-time warranty against defects in workmanship and materials.

## ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The microphone shall be an Electro-Voice Model 666 (or 666R) or equivalent. The microphone shall be a cardioid dynamic type with wide-range, uniform response from 30 to 16,000 cps. 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 50, 150, or 250 ohms. It shall be possible to select desired impedance by changing one soldered connection in removable insert at end of microphone. Lines shall be balanced to ground and phased.

The output levels shall be -58 db at all impedances, with 0 db = 1 mw/10 dynes/cm<sup>2</sup>. (For Model 666R, output level shall be -56 db at all impedances, with 0 db = 1 mw/10 dynes/cm<sup>2</sup>.) The magnetic circuit shall be a non-welded circuit employing Alnico V and Armco magnetic iron.

The case shall be of cast aluminum. The microphone shall have a maximum diameter of 1-11/16" and a length of 7-11/16": weight shall be 11 ounces. Finish shall be abrasion-proof, non-reflecting gray. A twenty-foot, three-conductor, shielded neoprene rubber jacketed broadcast type cable shall be provided. The microphone shall have a built-in cable connector similar or equivalent to the model UA-3-11 which will mate with a connector similar or equivalent to model UA-3-12 on the cable.

Electro-Voice Model 666 (666R) is specified.

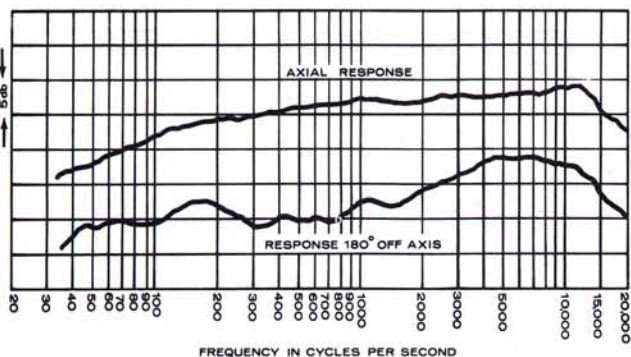


Figure 1 - 666R Frequency Response

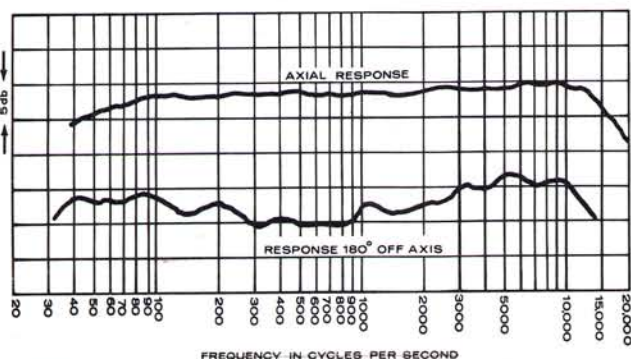


Figure 2 - 666 Frequency Response

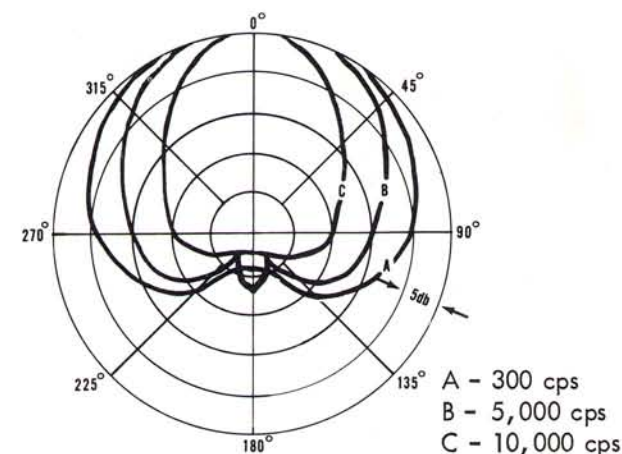


Figure 3 - Polar Pattern

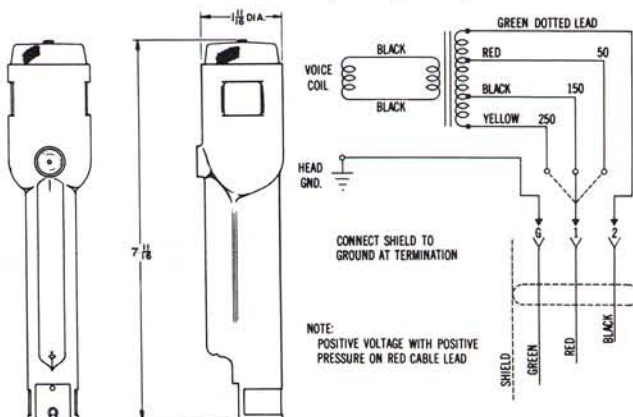


Figure 5 - Wiring Diagram

Figure 4 - Dimensions



Figure 6 - Method of Impedance Adjustment