

**Cardinal**  
**Professional Cardioid**  
**Condenser Microphone**



### Key Features:

- Pressure Gradient Cardioid Condenser
- Class-A Discrete Ultra-low Noise Circuitry
- Unique Double Swivel-Mounted Design for Ideal Positioning
- Innovative Visual Design with Cherry Finish
- Great for Voice or Instruments



### General Description:

The Electro-Voice® Cardinal is a cardioid condenser microphone designed to capture the detail of both voice and instrument in live sound or studio applications. Employing Class A, discrete ultra-low noise amplifier circuitry, it incorporates the latest sound engineering and state-of-the-art technology for natural reproduction regardless of the source. The Cardinal has a solid low end and extended high frequency response for a clear warm and open sound quality. The elegant streamlined modern design and eye catching retro styling including cherry stained hardwood outer housing and nickel chrome detail provide an aesthetically pleasing appearance. The adjustable double swivel mount provides exceptional results in many positions and situations making this microphone very versatile. The Cardinal's smooth and detailed performance is sure to please even the most discerning artists and engineers.

### Application Notes:

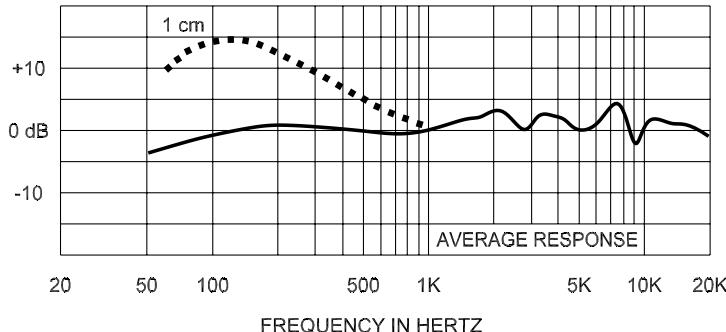
The low frequency response of the Cardinal microphone varies with the distance from the sound source. Known as "proximity effect," maximum bass response is produced in "close-up" use with the microphone 1/4 inch from the sound source. Normal bass response is experienced with working distances greater than 24 inches. Working close to the microphone will produce a more robust sound. Close up positioning of the microphone will also reduce the potential for feedback from the sound reinforcement system. When close-talked, the bass-boost provides an increase in overall microphone output level. The mixer gain may be proportionately reduced, resulting in a reduction of the system's sensitivity to feedback caused by sound entering the microphone from the loudspeakers.



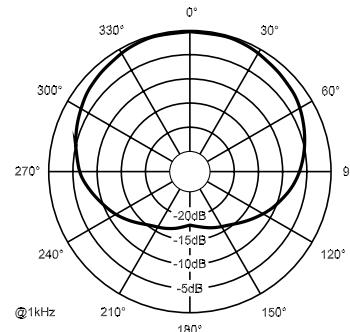
### Technical Specifications:

Generation Element:	Self-Biased Condenser
Frequency Response:	35 - 20,000 Hz
Polar Pattern:	Cardioid
Sensitivity, Open Circuit Voltage, 1 kHz:	10.6mV/Pascal
Clipping Level (1% THD):	148 dB SPL
Self Noise:	24 dB SPL "A" weighted (0 dB=20 micropascals)
Dynamic Range:	124 dB
Signal-to-Noise Ratio:	70 dB (@ 94 dB SPL)
Output Impedance, 1 kHz:	50 ohms
Power Requirements:	Phantom Supply Requirement: 24 to 48 VDC, 1.8mA
Polarity:	Positive pressure on diaphragm produces positive voltage on pin 2 relative to pin 3
Finish:	Cherry stained hardwood, Nickel Chrome
Dimensions:	Length = 3.65" (93mm) Width = 3.70" (94mm) Height = 5.33" (135mm)
Accessories Included:	Velvet carry bag, Hex wrench, Euro-thread adapter
Net Weight:	13.8 oz (391g)
Shipping Weight:	25.8 oz (731g)

## Frequency Response:



## Polar Response:



### Microphone Use and Placement

Please note that micing techniques are a matter of personal preference. These are merely guidelines to assist in the placement of the microphone to gain optimal performance.

#### Usage

Vocals

Spoken Word

#### Optimal Placement

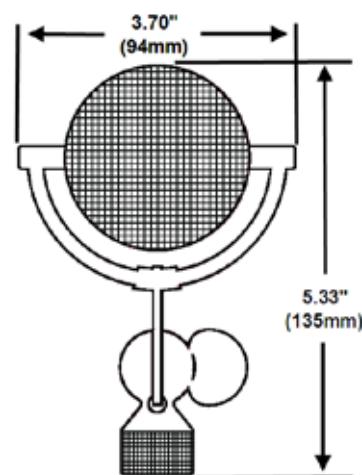
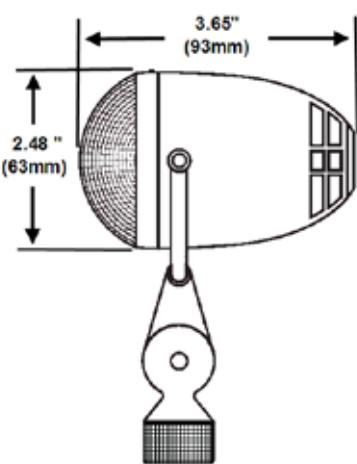
Zero to six inches from the windscreens, and on axis with the microphone.

Five to ten inches from the windscreens, and on axis with the microphone.

### Standard Placement & Use Guidelines

1. Always point the microphone at the desired source of sound, and away from any unwanted sources.
2. The microphone should be located close to the sound source to minimize interference from other potential sound sources.
3. Use the 3-to-1 rule when using multiple microphones. Place each microphone three times farther from other microphones as from the desired sound source.
4. Minimize over-handling of the microphone to reduce unwanted mechanical noise.
5. Working close to the microphone will increase the bass tone and also provide increased gain-before-feedback.

### Dimension Drawing:



**Cardinal Part Number: 301856-000**

**Electro-Voice®**

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[www.electrovoice.com](http://www.electrovoice.com)  
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For technical assistance, contact Technical Support at: **866/78AUDIO**

Specifications subject to change without notice.