



## PolarChoice™ 12

## PolarChoice™ 18

- Four polar patterns: Omnidirectional, Cardioid, Supercardioid, and Hypercardioid.
- Consistent on-axis response.
- Available in 12 or 18 inch versions.
- Shielded pre-amp is highly-resistant to electrical noise and radio frequency interference.
- Non-reflecting black finish.
- Three-pin male XLR-type output connector.
- Phantom powered backed electret condenser
- Packaged with a two-piece shock mount

### Description

The PolarChoice™ 12 and PolarChoice™ 18 are back-electret condenser gooseneck podium microphones designed for sound reinforcement systems where sound clarity and gain-before-feedback are of major importance. The flat-bladed screwdriver activated rotary selector switch has the following settings:

Switch Setting	Polar Pattern
0	Omnidirectional
1	Cardioid
2	Supercardioid
3	Hypercardioid

Altering the polar pattern does not change the on-axis sonic character of the microphone; therefore changes in equalizer settings are unnecessary.

The PolarChoice™ 12 and PolarChoice™ 18 are acoustically designed for high-quality sound reinforcement and broadcast applications. The frequency response is tailored for wide-range sound reproduction with very natural sound pick-up for either distant or close-up use. The small-diameter gooseneck has two supple joints and a rigid center tube. The rigid tube prevents unsightly twisting of

the gooseneck but permits the user to exactly position the microphone. The electronics housing's 3/4-inch diameter base is terminated with an XLR-type 3-pin connector which allows the microphone to be plugged directly into an existing panel-mount XLR receptacle. The housing is machined steel for ruggedness and superior EMI/RFI attenuation. The PolarChoice™ 12 and PolarChoice™ 18 are designed to be phantom-powered with a wide voltage range of 9-52V dc (DIN Standard 45 596).

### Shock Mount Installation

Drill a 1-3/8 inch hole to mount the hard plastic flange into the desk, table, or lectern top. Drill three holes to secure the flange. The type of screws to fasten the flange depend on the desktop material.

To insert the flexible shock mount:

1. Gently push the flexible shock mount onto the electronics housing. Position the flexible shock mount to cover the polar selection switch.
2. Insert the microphone and shock mount into the hard plastic flange using a twisting action to seat the shock mount.

### Applications

The PolarChoice™ 12 and PolarChoice™ 18

can be used on lecterns, podiums, desk and table-tops, or other applications which require a quick plug-in gooseneck microphone. To maximize gain-before-feedback the PolarChoice™'s multipolar design has three directional polar patterns which allow the user to pick the directional polar pattern for optimum effect. For those applications where gain-before-feedback is not a problem an omnidirectional pattern is included.

Applications requiring speaking close to the microphone at podiums, lecterns, or pulpits normally require a windscreen to control breath noise and P-popping or, in some cases, wind noise from circulating air. A small external foam windscreen is included with the PolarChoice™ 12 and PolarChoice™ 18 microphones for those applications.

### Architectural & Engineering Specifications

#### PolarChoice™ 12

The microphone shall be a back-electret condenser type with a frequency response of 75 Hz to 15 kHz. The microphone shall have a nominal, balanced output impedance of 200 ohms. The microphone shall have four selectable polar patterns: omnidirectional, cardioid, supercardioid, and hypercardioid. The

microphone shall have an output power level of -44 dB, where 0 dB = 1 milliwatt per pascal, and outputs shall not be appreciably affected by the following temperature and humidity extremes: -29° to 74° C (-20° to 165° F) when the relative humidity is 0-50%; -29° to 57°C (-20° to 135°F) when the relative humidity is 0-95%.

Dimensions shall be 20 mm (0.79 in.) diameter and 409.7 mm (16.1 in.) long. The microphone shall include a 298.5 mm (11.8 in.) gooseneck with professional XLR-type 3-pin style terminating connector and an external windscreen. The microphone shall have a nonreflecting black finish. Termination to the electronics module shall be a 3-pin male XLR type connector. The microphone shall be of metal construction.

The Electro-Voice PolarChoice™ 12 is specified.

**PolarChoice™ 18**

The microphone shall be a back-electret condenser type with a frequency response of 75 Hz to 15 kHz. The microphone shall have a nominal, balanced output impedance of 200 ohms. The microphone shall have four selectable polar patterns: omnidirectional, cardioid, supercardioid, and hypercardioid. The microphone shall have an output power level of -44 dB, where 0 dB = 1 milliwatt per pascal, and outputs shall not be appreciably affected by the following temperature and humidity extremes: -29° to 74° C (-20° to 165° F) when the relative humidity is 0-50%; -29° to 57°C (-20° to 135°F) when the rela-

tive humidity is 0-95%.

Dimensions shall be 20 mm (0.79 in.) diameter and 575.3 mm (22.7 in.) long. The microphone shall include a 461.0 mm (18.2 in.) gooseneck with professional XLR-type 3-pin style terminating connector and an external windscreen. The microphone shall have a nonreflecting black finish. Termination to the electronics module shall be a 3-pin male XLR type connector. The microphone shall be of metal construction.

The Electro-Voice PolarChoice™ 18 is specified.

**Warranty (Limited)**

Electro-Voice products are guaranteed against malfunction due to defects in materials or workmanship for a specified period, as noted in the individual product-line statement(s) below, or in the individual product data sheet or owner’s manual, beginning with the date of original purchase. If such malfunction occurs during the specified period, the product will be repaired or replaced (at our option) without charge. The product will be returned to the customer prepaid.

**Exclusions and Limitations:** The Limited Warranty does not apply to: (a) exterior finish or appearance; (b) certain specific items described in the individual product-line statement(s) below, or in the individual product data sheet or owner’s manual; (c) malfunction resulting from use or operation of the product other than as specified in the product data sheet or owner’s manual; (d) mal-

function resulting from misuse or abuse of the product; or (e) malfunction occurring at any time after repairs have been made to the product by anyone other than Electro-Voice Service or any of its authorized service representatives. **Obtaining Warranty Service:**

To obtain warranty service, a customer must deliver the product, prepaid, to Electro-Voice Service or any of its authorized service representatives together with proof of purchase of the product in the form of a bill of sale or receipted invoice. A list of authorized service representatives is available from Electro-Voice Service at 600 Cecil Street, Buchanan, MI 49107 (800/234-6831 or FAX 616/695-4743). **Incidental and Consequential Damages Excluded:** Product repair or replacement and return to the customer are the only remedies provided to the customer. Electro-Voice shall not be liable for any incidental or consequential damages including, without limitation, injury to persons or property or loss of use. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you. **Other Rights:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**For technical assistance,** contact Technical Support at 800/234-6831 or 616/695-6831, M-F, 8:00 a.m. to 5:00 p.m. Eastern Standard time.

Specifications subject to change without notice.

Figure 1—Frequency Response

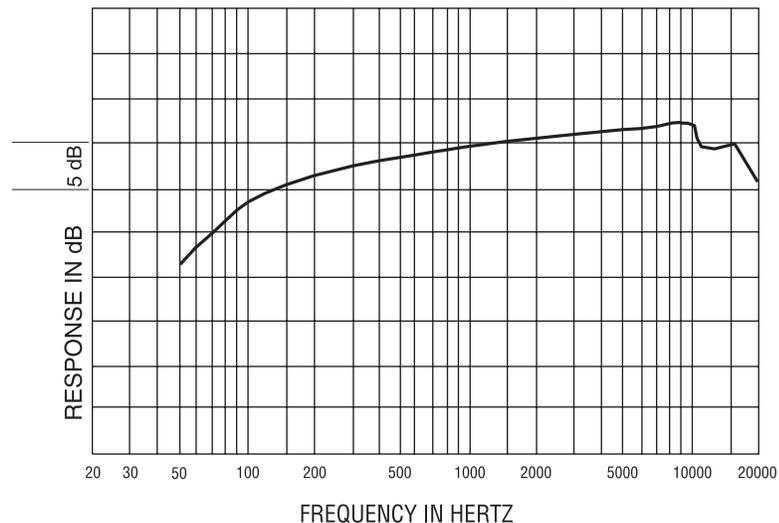


Figure 2—Polar Response

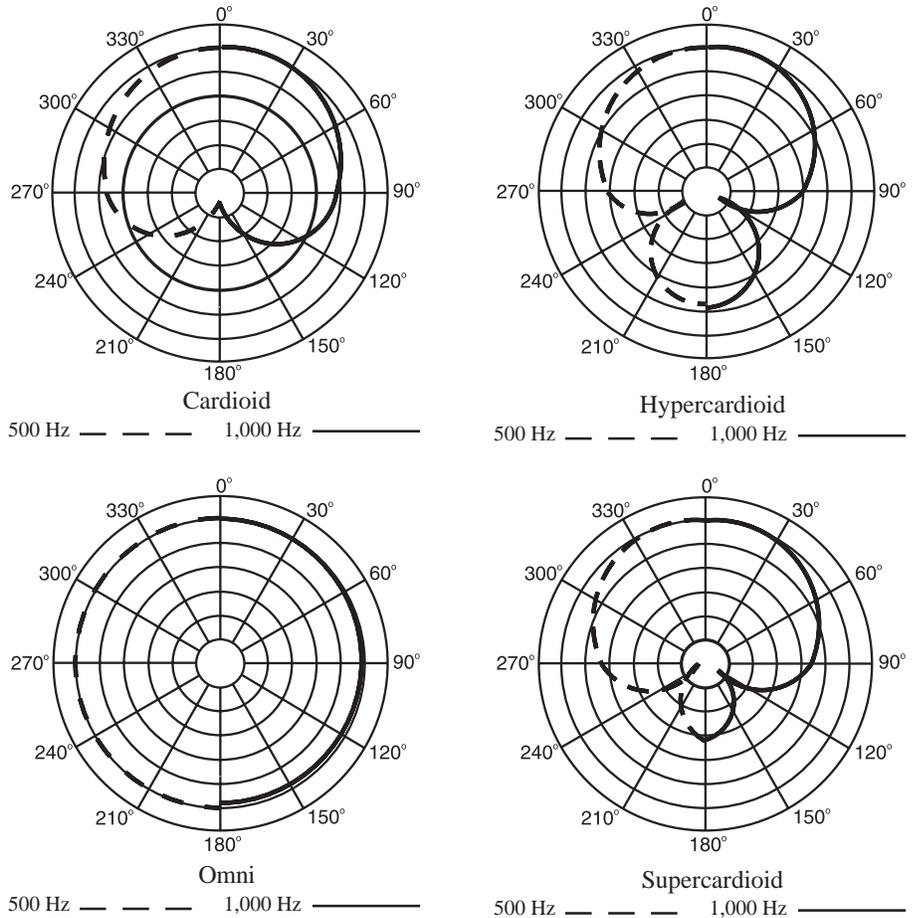
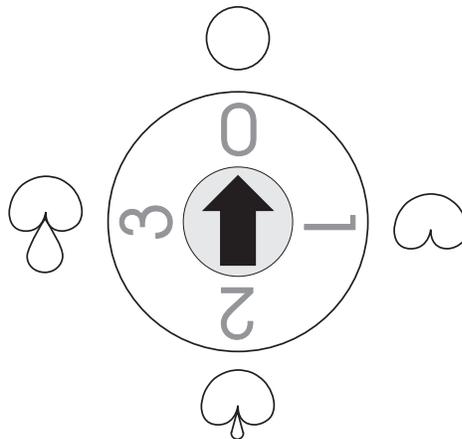
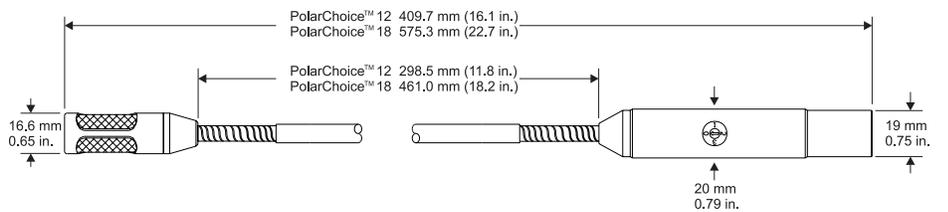


Figure 3—Switch



Switch Positions:  
 0 Omnidirectional  
 1 Cardioid  
 2 Supercardioid  
 3 Hypercardioid

Figure 4—Dimension



# PolarChoice™ 12/PolarChoice™ 18

## Specifications

### Generation Element:

Dual condenser, back electret

### Frequency Response:

75 Hz to 15,000 Hz

### Polar Patterns:

Omnidirectional  
Cardioid  
Supercardioid  
Hypercardioid

### Sensitivity,

### Open Circuit Voltage, 1 kHz:

5.6mV/pascal

### Power Level, 1 kHz (0 dB =

1 mW/pascal):

-44dB

### Clipping Level (1% THD):

>130 dB SPL

### Equivalent Noise:

<28 dB SPL "A" weighted  
(0 dB=20 micropascals)

### Dynamic Range:

>102 dB

### Output Impedance, 1 kHz:

200 ohms

### Power Requirements:

9 to 52 V dc phantom supply

### Current Consumption:

2.8 mA

### Polarity:

Pin 2 positive, referenced to pin 3,  
with positive pressure on the dia-  
phragm

### Color:

Nonreflecting black

### Environmental Conditions,

### Relative Humidity 0-50%:

-29° to 74°C (-20° to 165°F)

### Relative Humidity 0 to 95%:

-29° to 57°C (-20° to 135°F)

### Net Weight:

**PolarChoice™ 12:**

193 grams (6.8 oz)

**PolarChoice™ 18:**

255 grams (9.0 oz)

### Shipping Weight:

**PolarChoice™ 12:**

411 grams (14.5 oz)

**PolarChoice™ 18:**

539 grams (19.0 oz)

### Mounting:

Male XLR-type 3-pin connector

### Dimensions

### Gooseneck Length:

**PolarChoice™ 12:**

298.5 mm (11.8 in.)

**PolarChoice™ 18:**

461.0 mm (18.2 in.)

### Maximum Head Diameter:

16.6 mm (0.65 in.)

### Gooseneck Diameter:

6.4 mm (0.25 in.)

### Electronics Module Diameter:

20 mm (0.79 in.)

### Connector Diameter:

19 mm (0.75 in.)

### Accessories Furnished:

Windscreen

Two-piece shock mount

### Optional Accessories:

FMK flange-mount kit

CPSM shock-mount kit

PolarChoice™ 12/PolarChoice™ 18

# Electro-Voice®

600 Cecil Street, Buchanan, MI 49107

616/695-6831, 616/695-1304 Fax