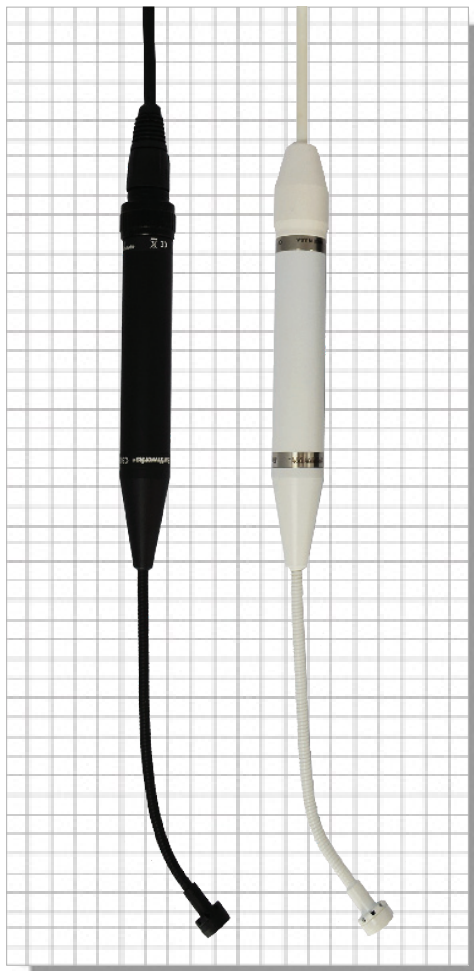


# Earthworks CHOIR MIC SYSTEM



## Architectural & Engineering Specifications

### 30kHz Cardioid & Hypercardioid

The microphone shall be a back-electret condenser type with a wide-range uniform frequency response of 50 Hz to 30 kHz  $\pm 2$  dB (C30/C) or 100 Hz to 30 kHz  $\pm 2$  dB (C30/H). The microphone shall have an output level of 10 mV/Pa. The microphone shall be of a single capsule, single membrane design. The microphone shall have an impulse response with the rise time no longer than 25 microseconds, and total settling time, including the rise time, no longer than 120 microseconds. The microphone shall have polar characteristics uniform in all planes to form a cardioid of revolution for C30/C and a hypercardioid of revolution for C30/H. The microphone shall accept sound pressure levels up to 145dB (C30/C) or 139 dB (C30/H) producing no more than 3% THD. Dimensions shall be 9.84 in (250mm) long by .860 in (22mm) diameter. The maximum head diameter shall be .540 in (14mm) without the windscreen, and .9 in (23mm) with the windscreen. The microphone shall be terminated with a 30 ft. (10m) long braid-shielded Canare® StarQuad™ microphone cable. The microphone shall require 24-48V phantom power. The microphone shall be made of metal with black or white finish. The Earthworks C30/C and C30/H is specified.

# C30/C & C30/H

Hanging High Definition Choir Microphones™

- Hear Detail That Other Microphones Miss
- 30kHz Flat Frequency Response
- Uniform Frequency Response at 0°, 45° & 90°
- More Gain Before Feedback
- Exceptional Rejection of Sounds From the Rear
- 5" Mini-gooseneck with Small Microphone Head
- Very Easy to Position via Mini-gooseneck
- 30-foot Canare® StarQuad™ Cable will not Rotate with Time or Temperature Changes
- Available in Cardioid & Hypercardioid
- Available in Black or White

## High Definition Microphones™ for Choir

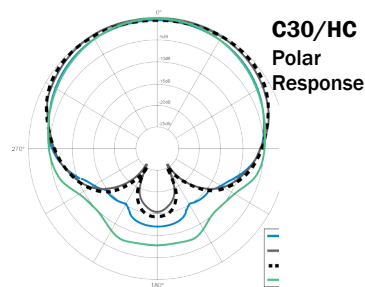
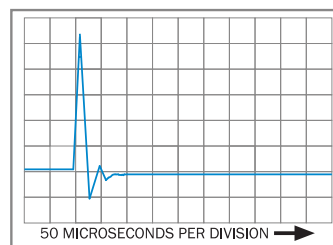
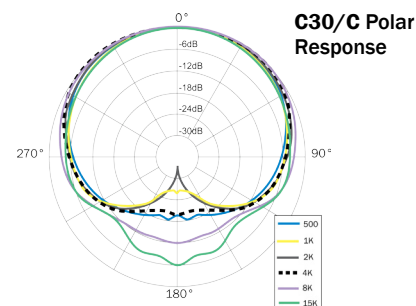
The Earthworks ChoirMic™ series of Hanging High Definition Microphones™ provides astounding audio quality for fixed installations. The ChoirMics™ uniquely designed small cardioid head and flexible mini-gooseneck allow it to be easily positioned. Their near perfect polar patterns will not beam or spotlight and will provide more gain before feedback. The frequency response at 90 degrees off-axis is within 2dB of the on-axis response. These exceptional polar patterns allow the use of fewer microphones with placement closer to the choir, obtaining even more gain before feedback. The exceptional rejection of sounds from the rear of the microphones will dramatically reduce the sounds from an orchestra or band in front of the choir. If you prefer stand mounting for your choir microphones, look at the Earthworks Periscope™ Series, which are identical to the ChoirMic™ series, except they terminate with XLR connectors instead of an attached cable. The ChoirMic™ Series offers the ultimate in sound quality, flexibility and installation.

## About High Definition Microphones™

During the last decade it has become commonplace for sound recording and broadcast equipment to accommodate extended frequency responses up to 100kHz. With few exceptions, even the very best of conventional professional microphones do not offer frequency responses above 20kHz. However, making a High Definition Microphone involves far more than extending the frequency response. Impulse response, diaphragm settling time and pristine electronics are also key elements. Earthworks' founder David Blackmer foresaw the need for higher quality microphones, and Earthworks has been offering High Definition microphones, with extended frequency response beyond 40kHz, since 1996. Earthworks High Definition Microphones™ have an extremely clean, natural on-axis pickup, and smooth, uncolored off-axis response with high front-to-back rejection that makes them superb for a wide range of applications including sound reinforcement, broadcast, and recording of voice and musical instruments. You will hear exceptional sound quality that is extremely accurate, detailed, open and crystal clear even on analog or digital sound systems that are limited to a 15kHz or 20kHz bandwidth. You will notice a remarkable improvement in sound quality on nearly all audio systems when using Earthworks High Definition Microphones™.

## Polar Response

David Blackmer also invented a totally new approach to microphone design, resulting in near-perfect polar patterns. When you look at a polar pattern of an Earthworks microphone, the mid frequencies, high frequencies and low frequencies all look very close to a "textbook" polar pattern. In practice this means the polar response of an Earthworks microphone is extremely



uniform over its operating frequency range; the frequency response at 90 degrees off-axis is very close to the on-axis response. Such uniform polar response results in less phase problems on the sides of the microphone and there are fewer phase cancellations when using multiple microphones placed close together. This new microphone technology also provides more rejection of unwanted sounds from the rear of the microphone and more gain before feedback in live sound applications.

## The ChoirMic™ Series

ChoirMic™ High Definition Microphones™ have a 30kHz high frequency response that enables them to pick up high frequency overtones that conventional microphones miss. In addition, they have an extremely fast impulse response that allows them to pick up transients far more accurately. Their exceptionally short diaphragm settling time will enable you to hear subtle details that conventional microphones mask.

## Specifications

<b>C30/C Frequency Response:</b>	50Hz to 30kHz
<b>C30/H Frequency Response:</b>	100Hz to 30kHz
<b>Polar Pattern:</b>	Cardioid or Hypercardioid
<b>C30/C Sensitivity:</b>	10mV/Pa (-40dBV/Pa)
<b>C30/H Sensitivity:</b>	20mV/Pa (-34dBV/Pa)
<b>Power requirements:</b>	24 - 48V Phantom, 10mA
<b>Max Acoustic Input:</b>	145dB SPL (C) / 139dB SPL (H)
<b>Output:</b>	Attached 30 ft. (10m) cable with tinned leads (blue +)
<b>Output Impedance:</b>	65Ω, balanced (between pin 2 & 3)
<b>Min Output Load:</b>	600 ohms between pins 2 & 3
<b>C30/C Noise:</b>	16dB SPL equivalent (A weighted)
<b>C30/H Noise:</b>	20dB SPL equivalent (A weighted)
<b>Dimensions L x D:</b>	9.84 x .860 in. (250 x 22mm)
<b>Weight:</b>	100g (0.22 lb.)

