



COUNTRYMAN ASSOCIATES INC

ISOMAX 2-H

AUDIENCE AND CHOIR MICROPHONE

Supplied with windscreen, cable spool, stiffener for hanging and phantom-powered preamp.

The ISOMAX Audience and Choir Microphone is a very small, wide response condenser microphone configured in omnidirectional, cardioid, and hypercardioid patterns for hanging over choirs, orchestras, stage productions, audiences, or other groups.

The ISOMAX 2 employs the latest microphone technology for outstanding transient response and frequency-independent directional patterns. The hypercardioid pattern picks up a whole choir evenly—that means the front row of singers doesn't overpower the back rows, and nobody sounds like a soloist simply because he or she is closest to the mic. The omnidirectional and cardioid patterns provide flexibility for ambient miking or isolating groups.

The ISOMAX 2 Audience and Choir Microphone also comes equipped with a low-profile integrated steel wire that can be bent to allow the mic to point in any direction and 50 feet of specially constructed, high-stability cable that keeps the mike in position with time and variations in temperature. These features allow innovative placement techniques that use fewer microphones and produce more uniform pickup of the entire choir, crowd, or orchestra.

Frequency Response:

40 Hz to 18 kHz

Output Impedance:

350 Ohms

Sensitivity:

-40 dBV/Pa (10.0 mV) 1 kHz open circuit

Maximum SPL:

130 dB @ 1% THD 1 kHz

Equivalent Input Noise:

29 dB SPL (A-Weighted)

Signal to Noise Ratio:

65 dB referred to 94 dB SPL

Dynamic Range:

101 dB

Power Requirements:

Phantom 9 V @ 1 mA to 55 V @ 8 mA

Applications

- Virtually invisible mics for choir, stage and audience.
- Lightweight and easy to hang without scaffolding, eliminating the risk of bulky equipment falling on performers or the house.

Style

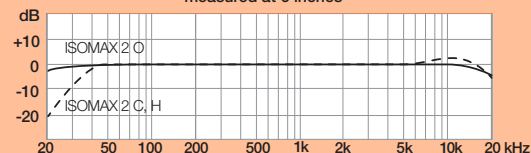
- Sleek, small, lightweight mic doesn't distract the instrumentalist or the house.

Performance

- Unusually uniform pickup over entire choir or production
- Precision cardioid and hypercardioid polar patterns are uniform with frequency for excellent stereo separation and rejection of unwanted sounds
- Flat frequency response and high SNR provide natural, world-class sound
- Excellent gain before feedback
- Wide dynamic range (> 100 dB), with only 1% THD at high 130 dB SPL levels

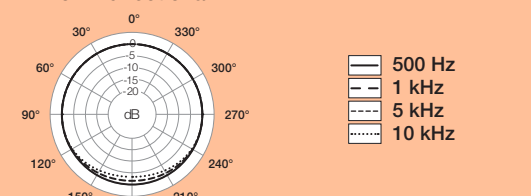
Frequency Response

measured at 6 inches

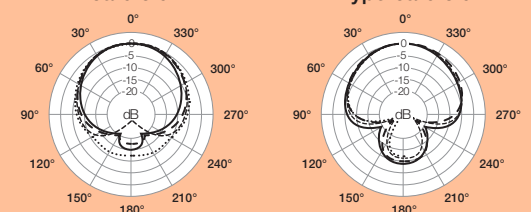


Polar Response

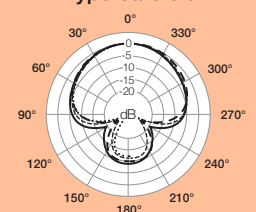
omnidirectional



cardioid



hypercardioid



ISOMAX 2-H Application Guide for Church Installations

Practically every church could benefit from proper installation of high-quality microphones. This application guide details simple, proven techniques that you can implement.

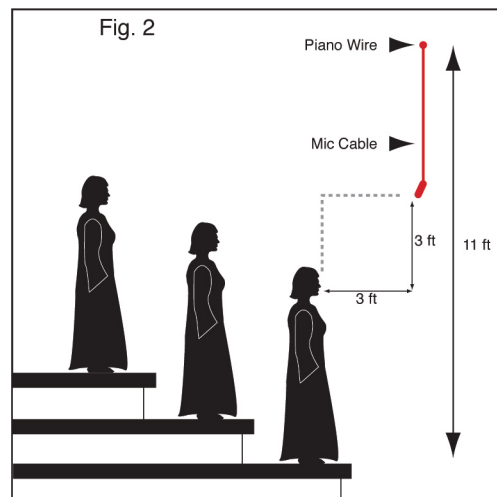
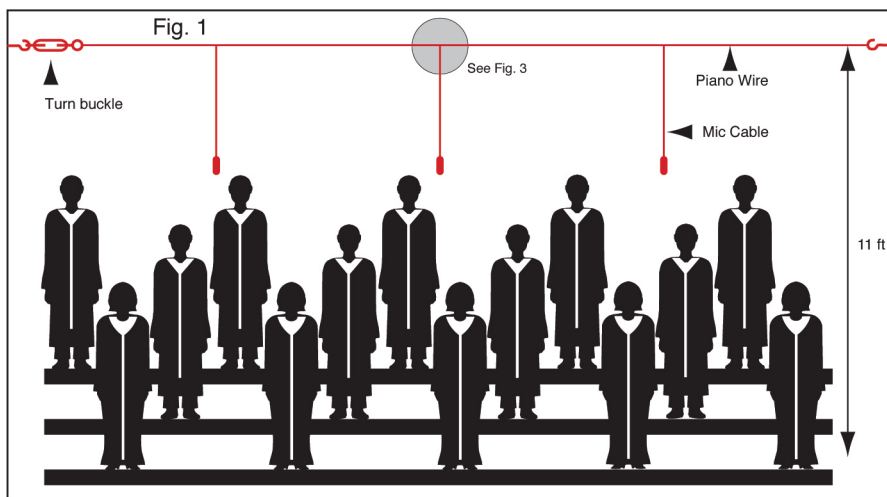
Choir Microphones

Successfully installing a microphone system for the choir can be difficult and expensive. Countryman Associates has developed a simple, sure-fire approach—using the Countryman ISOMAX 2-H hypercardioid choir microphone—that does not require access to the ceiling and results in truly superior performance using the fewest possible microphones.

The solution is twofold:

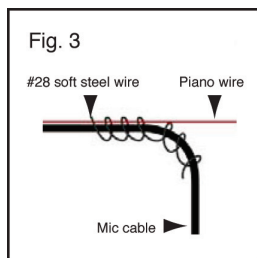
- 1) The Countryman ISOMAX 2-H hypercardioid microphone, which weighs only 1/25 ounce, is light enough to hang safely from a stretched horizontal wire instead of from the ceiling.
- 2) The directional pattern of the ISOMAX 2-H is so uniform that it allows balance between the front and back of the choir to be achieved simply by adjusting the angle at which the mics are secured.

Best of all, every item needed to complete the Countryman choir mic installation can be purchased from the local hardware store. One person following the guidelines below can easily complete this installation in half a day.

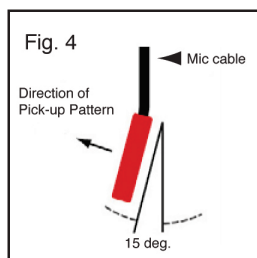


Installation

- Begin by rigging a piece of .010" diameter piano wire horizontally across choir's front row and 11 feet above the feet of the front row. Rig the wire between two screw hooks with a turn buckle to tension the wire on one end. (See Figures 1 and 2.) Tighten piano wire until all slack is taken up and the wire makes a "ping" sound when plucked. Do not over-tighten! This placement should allow banners, flags and other tall items to pass safely under the piano wire.



- Tie the cable of each ISOMAX 2-H microphone to the piano wire spaced 6 feet apart with each mic hanging 2 feet below the piano wire. The microphone will be 3 feet in front of and 3 feet above the heads of the front row singers. (See Figures 1, 2 and 3.)
- Placing the microphones in the front provides the best response, but the front rows are picked up more strongly because they are closer to the mics. The cable of each microphone is wrapped with soft steel wire that allows you to adjust the direction of the mics. Tilt the mics up approximately 15 degrees from vertical (see Figure 4). This will reduce the pickup of the front rows by putting them farther around the side of the pickup pattern until they balance with the back rows.



- After completing the mic cable run a rehearsal to fine-tune the balance of the choir's various sections. If you need less gain for the front rows, then increase the angle of the microphones from 15 degrees to 20 degrees. If you wish to raise the level of the front rows, relative to the rest of the choir, then reduce the angle of the mics from 15 degrees to 10 degrees. All you need is a step stool to adjust the angle and fine-tune the balance from front to back.

This installation has worked successfully for a wide variety of churches and it can work for you. If you have any questions, please don't hesitate to call Countryman Associates at (650) 364-9988. Specification sheets for these microphones and other Countryman products are available online at countryman.com.