

# RE92H/RE92HW

## Unidirectional Condenser Hanging Microphone



### Key Features:

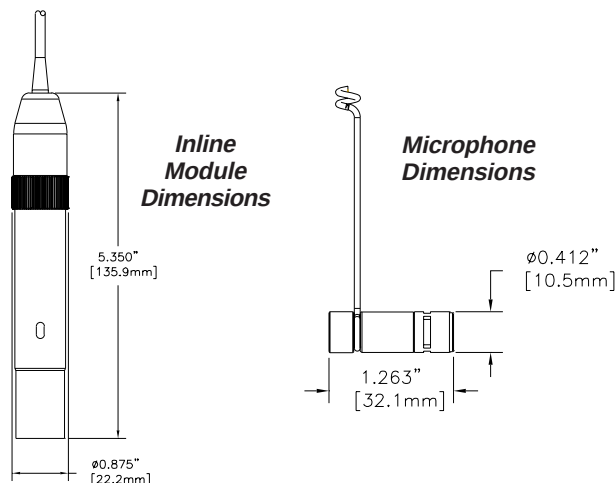
- Wide, Smooth Frequency Response
- Cardioid Polar Pattern
- Available in Black or White
- In-line Electronics Module
- 12dB/Octave Switchable High Pass Filter
- Transformerless Differential Output to Drive Long Cables

### General Description:

The Electro-Voice® model RE92H / RE92HW is a professional quality miniature cardioid, electret condenser microphone. It's designed specifically for applications where the microphone needs to be suspended from above the sound source. The RE92H / RE92HW has a cardioid polar pattern for high gain before feedback, and its condenser element provides clear and natural sound reproduction. Exceptionally high sensitivity, a uniform cardioid polar response, and smooth frequency response make the RE92H / RE92HW ideally suited for distant sound pick-up. The RE92H / RE92HW is ideal for theatre, houses of worship, or any application where a small, high quality mic needs to be "heard but not seen".

The microphone is available in two colors, RE92H (Black), and RE92HW (White). The integrated wire director can be easily formed at the proper angle so that the mic points at the desired sound source. The RE92H / RE92HW comes supplied with 25 feet of cable. The cable is attached to the inline module by means of screw terminals, so that if needed, the cable can be easily shortened.

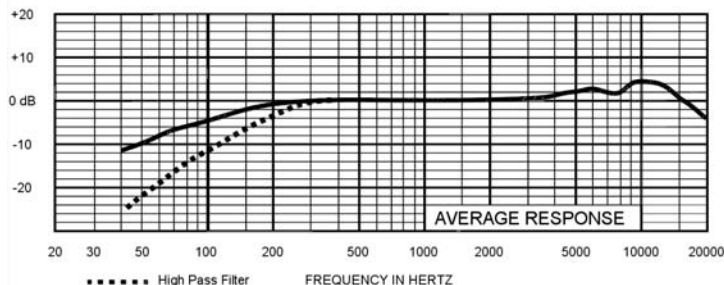
### Dimensions:



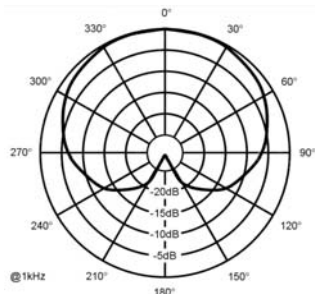
### Technical Specifications:

|                                           |                                                                                                                         |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Generation Element:                       | Self-Biased condenser, back electret 2-micron thick, gold sputtered diaphragm                                           |
| Frequency Response:                       | 40 Hz to 20,000 Hz (see chart)                                                                                          |
| Polar Pattern: (see chart)                | Cardioid                                                                                                                |
| Sensitivity, Open Circuit Voltage, 1 kHz: | 5.6mV/Pascal                                                                                                            |
| Clipping Level (1% THD):                  | >135 dB SPL                                                                                                             |
| Equivalent Noise:                         | <30 dB SPL "A" weighted (0 dB=20 micropascals)                                                                          |
| Dynamic Range:                            | >105 dB                                                                                                                 |
| Signal to Noise (RE: 94 dB SPL):          | 64 dB                                                                                                                   |
| Output Impedance, 1 kHz:                  | 250 ohms                                                                                                                |
| Power Requirements:                       | 24 to 52 Volt Phantom Power                                                                                             |
| Current Consumption:                      | 6 mA typ. with P48 supply                                                                                               |
| Microphone Dimensions:                    | Diameter = 0.412" (10.5 mm)<br>Length = 1.263" (32.1 mm), less strain relief                                            |
| Inline Module Dimensions:                 | Diameter = 0.875" (22.2 mm)<br>Length = 5.350" (135.9 mm)                                                               |
| Cable:                                    | 0.100" (2.54 mm) diameter x 25 ft (7.6m) long                                                                           |
| Polarity:                                 | Pin 2 positive, reference to pin3, with positive pressure on the diaphragm                                              |
| Accessories Furnished:                    | Mounting Hardware for inline module                                                                                     |
| Color:                                    | Nonreflecting black (H) or white (HW)                                                                                   |
| Environmental Conditions:                 | Relative Humidity 0-50%:<br>-29° to 74°C (-20° to 165°F)<br>Relative Humidity 0 to 95%:<br>-29° to 57°C (-20° to 135°F) |
| Net Weight:                               | 8.5 oz. (240 grams), with inline module                                                                                 |

## Frequency Response:



## Polar Response:

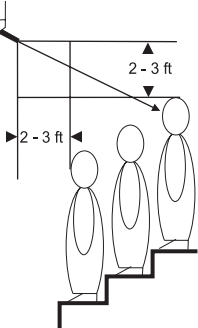


## Application Notes:

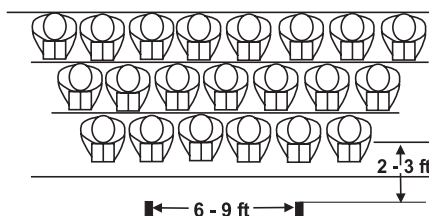
When hanging one or more microphones to provide coverage for a choir, instrumental or theater group, the best microphone position for optimum sound quality and feedback control depends on many factors—sound system characteristics, construction of the auditorium or theater, and the size and nature of the performing group. Two general rules to observe for the best sound coverage are (1) microphone position and (2) the “3-to-1 rule.”

The first rule is to suspend the microphone approximately two to three feet in front of the first row of performers and two to three feet higher than the heads of the last row of performers. The microphones are usually aimed to point at the last row of performers (see Figure 1). The second rule, the “3-to-1 rule,” should be applied when more than one microphone is required, and their outputs are combined (as with a mixer). Following the 3-to-1 rule avoids the deep voids and dips in frequency response that occur when two or more microphones “see” the same signal from slightly different distances. The 3-to-1 rule is as follows: when multiple microphones are used, place them at least three times as far apart as any one of them is from the nearest sound source. Figure 2 shows a proper application of the 3-to-1 rule. The RE92H/HW may also be used to provide coverage for live theater applications (Figure 3). Most of the action occurs at center stage, so the microphone should be positioned above and pointed to the center of the stage.

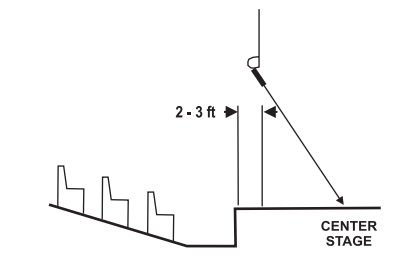
**Figure 1: Hanging Mic Placement**



**Figure 2: 3-to-1 Rule**



**Figure 3: Live Theater Placement**



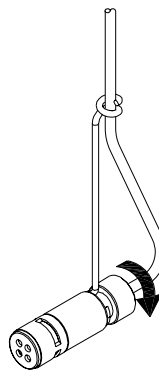
## Adjusting the Microphone Direction:

For fixed installations, allow the microphone cable to hang for at least 24 hours so the cable can completely relax and establish a set. This allows the microphone to be accurately positioned over a choir, stage or orchestra.

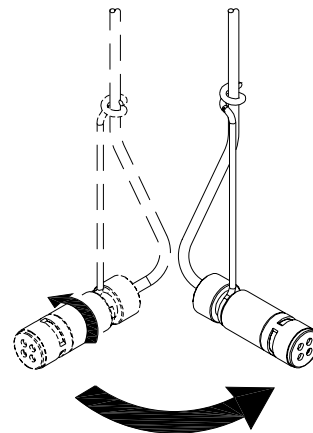
If the microphone needs to be pointed downward from its suspended location, this can be accomplished by bending the wire director as needed.

If the microphone needs to be pointed in a different direction after installation:

- 1) Loosen the locking nut.
- 2) Twist the microphone, making sure the cable also rotates in the wire director.
- 3) When you release the microphone, the direction it's pointing will have changed.
- 4) Repeat this process until the microphone is positioned properly, and retighten the locking nut.



**STEP 1:**  
SLIGHTLY LOOSEN RETAINER NUT ON THE BACK OF THE MICROPHONE.



**STEP 2:**  
TWIST THE HOUSING OF THE MICROPHONE CLOCKWISE OR COUNTER-CLOCKWISE TO ROTATE THE POSITION OF THE MICROPHONE.



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Specifications subject to change without notice.