

## RE92H/RE92HW



Electro-Voice

- Wide, Smooth Frequency Response
- Cardioid Polar Pattern
- Available in Black or White
- In-line Electronics Module
- Transformerless Differential Output to Drive Long Cables



The 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.

## Technical specifications

Generation Element:	Self-Biased condenser, back electret 2-micron thick, gold sputtered diaphragm
Frequency Response:	40 Hz to 20,000 Hz
Polar Pattern:	Cardioid
Sensitivity, Open Circuit Voltage, 1 kHz:	5.6mV/Pascal

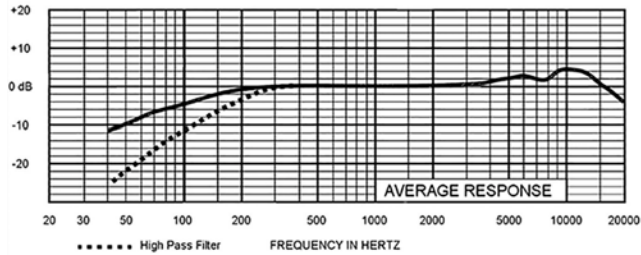
Clipping Level (1% THD):	>135 dB SPL
Equivalent Noise:	<30 dB SPL "A" weighted (0 dB=20 micropascals)
Dynamic Range:	>105 dB
Signal to Noise (RE: 94 dB SPL):	64 dB
Output Impedance, 1 kHz:	250 ohms
Output Impedance, 1 kHz:	24 to 52 Volt Phantom Power
Current Consumption	6 mA typ. with P48 supply
Microphone Dimensions:	Diameter = 0.412 in (10.5 mm) Length = 1.263 in (32.1 mm), less strain relief
Inline Module Dimensions:	Diameter = 0.875 in (22.2 mm) Length = 5.350 in (135.9 mm)
Cable:	0.100 in (2.54 mm) diameter x 25 ft (7.6 m) long
Polarity:	Pin 2 positive, reference to pin 3, with positive pressure on the diaphragm
Accessories Included:	Mounting Hardware for inline module
Color:	Nonreflecting black (H) or white (HW)

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)

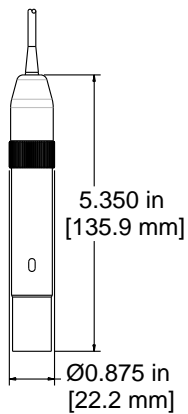
Net Weight: 8.5 oz. (240 grams), with inline module

## System overview

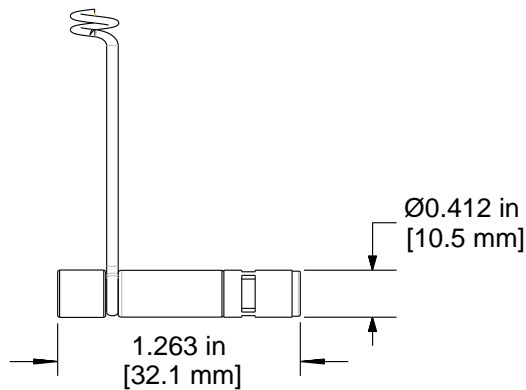
### Frequency Response:



### Dimensions:

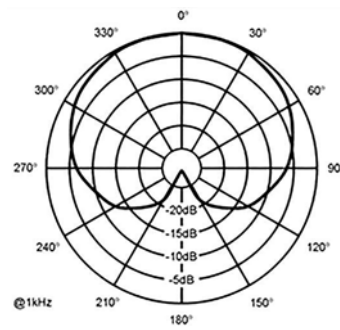


Inline Module Dimensions



Microphone Dimensions

### Polar Response:



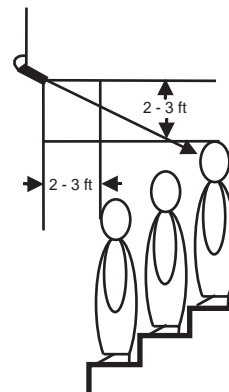
### Application Notes:

#### Microphone Position and 3-to-1 Rule

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.

#### Microphone Position

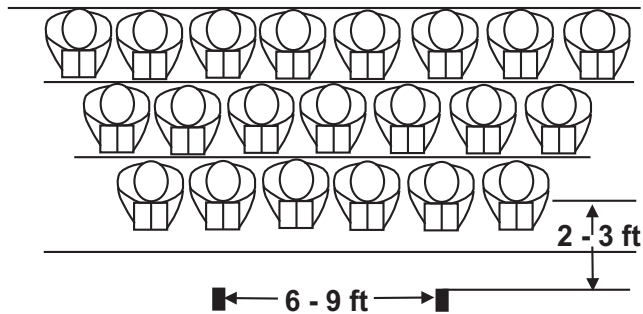
The first rule is to suspend the microphone approximately two to three feet in front of the first row of performers and two to three feet higher than the heads of the last row of performers. The microphones are usually aimed to point at the last row of performers.



Hanging Mic Placement

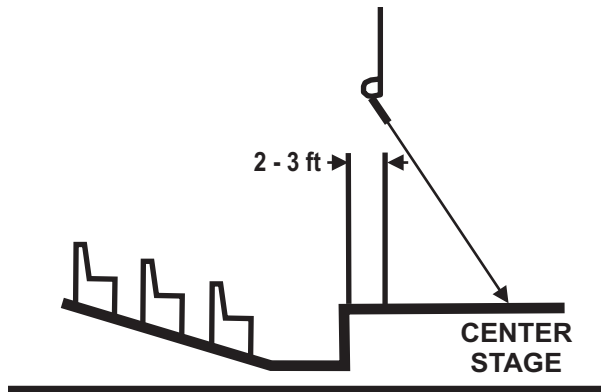
**3-to-1 Rule**

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.



*3-to-1 Rule*

The RE92H/HW may also be used to provide coverage for live theater applications. Most of the action occurs at center stage, so the microphone should be positioned above and pointed to the center of the stage.



*Live Theater Placement*

**Adjustng 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.

Represented by:

**Germany:**  
 Bosch Sicherheitssysteme GmbH  
 Robert-Bosch-Ring 5  
 85630 Grasbrunn  
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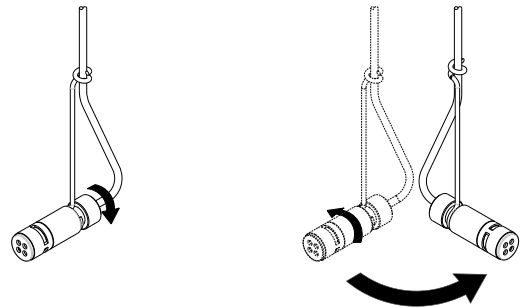
Bosch Security Systems, Inc.  
 12000 Portland Avenue South  
 Burnsville MN 55337  
 USA

www.electrovoice.com

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, do the following:

1. Loosen the retainer nut on the back of the microphone.
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.

**Ordering information**

**RE92H**  
 Premium Hanging Microphone, Cardioid black  
 Order number **RE92H**

**RE92HW**  
 Premium Hanging Microphone, Cardioid white  
 Order number **RE92HW**