COMMUNITY R SERIES
R.15-3696 THREE-WAY FULL-RANGE (90° x 60°) LOUDSPEAKER
Installation Guide

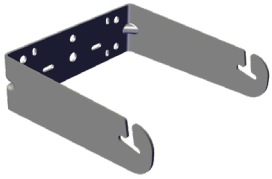
PRODUCT DESCRIPTION

- Excellent musicality and intelligibility, and low distortion in an extremely compact enclosure
- Weather-resistant, compact, matte finish paintable high impact ABS plastic modified-trapezoidal enclosure
- 100 W Autoformer (standard), selectable 4 ohm or 70 V / 100 V operation
- Water-resistant grille and drivers
- Corrosion-resistant zinc-plated, powder-coated low-profile steel yoke and grille

CONTENTS

- R.15-3696 Loudspeaker
- Rear input cover with 90° gland nut preinstalled
- Mounting bracket
- Hardware(not shown)
  - M8 Hex bolts (2)
  - M8 Flat washers (2)
  - Rubber washers (2)
  - M4 Phillips screws (3)
- Documentation: Bracket drilling template with QR code; Loudspeaker safety guide

Loudspeaker

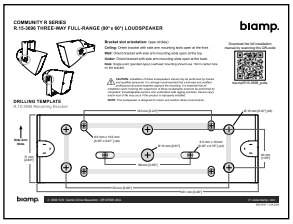


Mounting bracket

INSTALLER SUPPLIED TOOLS / HARDWARE

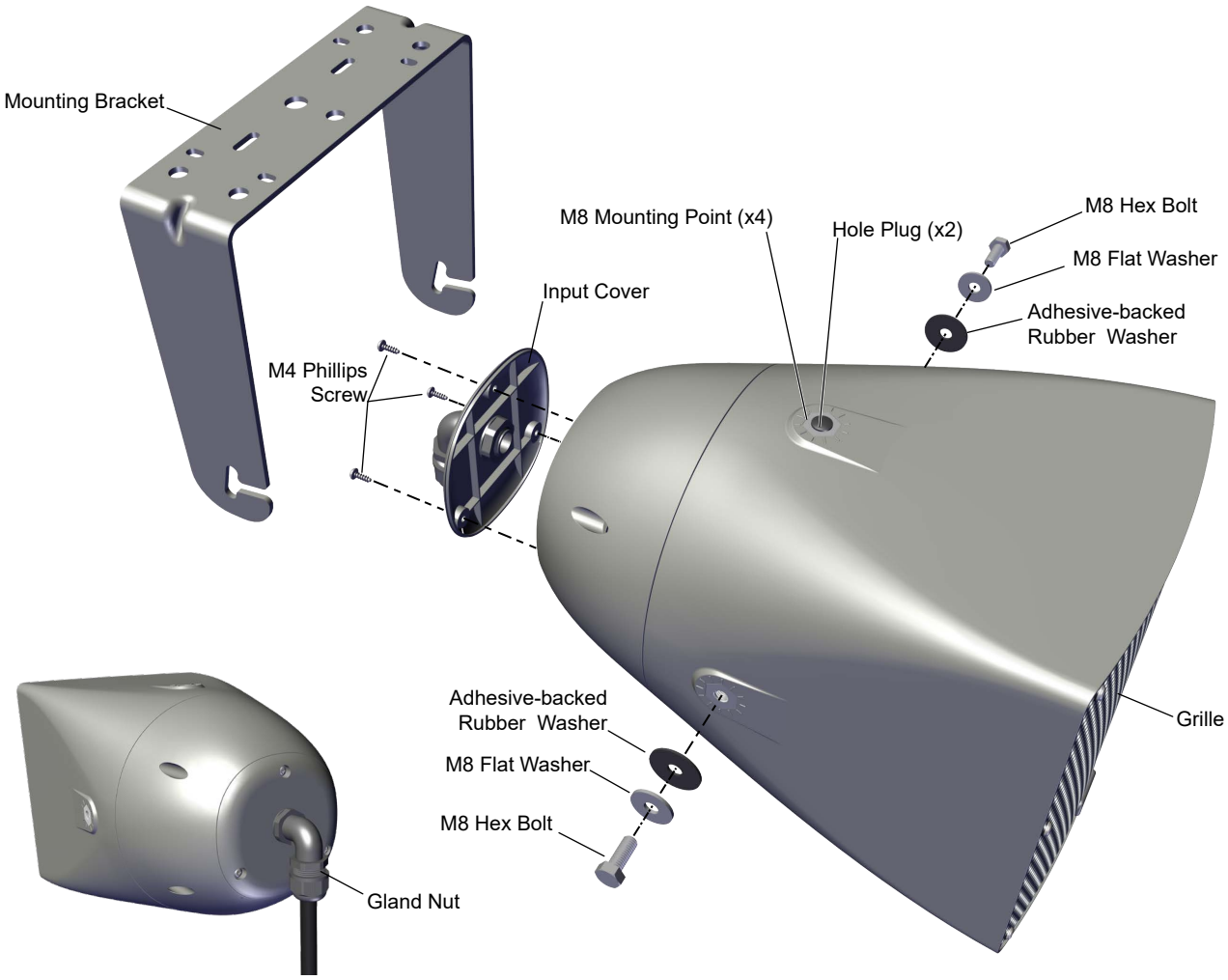
- Safety-rated M8 eyebolt or fastener and safety cable
- #2 Phillips screwdriver
- 13 mm socket or wrench

Input panel cover with gland nut



Bracket drilling template

PRODUCT REPRESENTATION



R.15-3696

RIGGING AND ELECTRICAL SAFETY

IMPORTANT: The loudspeaker described in this manual are designed and intended to be mounted to different building surfaces using a variety of rigging hardware, means and methods. Installation of loudspeakers should only be performed by trained and qualified personnel. All electrical connections must conform to applicable city, county, state, and national (NEC) electrical codes.

DANGER: It is possible to experience severe electrical shock from a power amplifier. Always make sure that all power amplifiers are in the "OFF" position and unplugged from an AC Mains supply before performing electrical work.

IMPORTANT: Refer to the sections on installation and connections later in this manual for additional information on rigging and electrical safety.

IMPORTANT: When installing loudspeakers outdoors, use a support system with enough wind-load strength to comply with applicable codes and standards.

IMPORTANT: Please review the safety guide accompanying this product and these installation instructions prior to installing this loudspeaker.

CAUTION: Installation of Biamp loudspeakers should only be performed by trained and qualified personnel. It is strongly recommended that a licensed and certified professional structural engineer approve the mounting. Severe injury and/or loss of life may occur if this product is improperly installed.

DANGER: It is advised that a safety cable be secured to a suitable load-bearing point separate from the primary loudspeaker mounting point, with as little slack as possible so as not to develop undue kinetic force if the primary mount were to fail.

PRODUCT INSTALLATION

Basic Installation Steps:

- Run wires to locations as defined by system design
- Mount brackets (may also be done when installing the loudspeakers)
- Pre-wire speakers with sufficient cable length to include a drip or service loop
- Attach the loudspeakers to the brackets, set the angles and make the wiring connections
- Power the amps and commission (test) the system

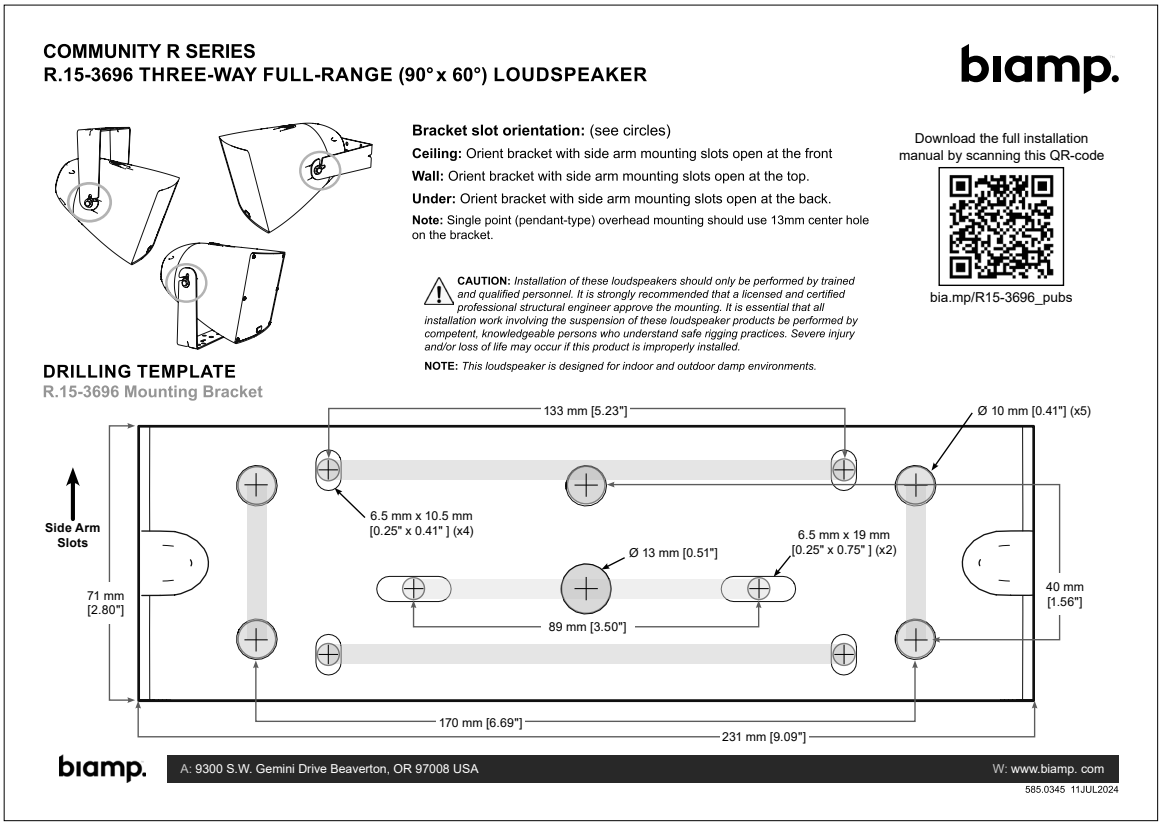
Mount Bracket to Structure

Follow the system design recomendations for placement and spacing. Run cabling to each location, ideally terminating in a junction box close to the mounting location.

1. Use the bracket template included with the loudspeaker to mark the holes.

Important: Bracket attachment hardware must be supplied by the installer and rated for the load and structure material.

1

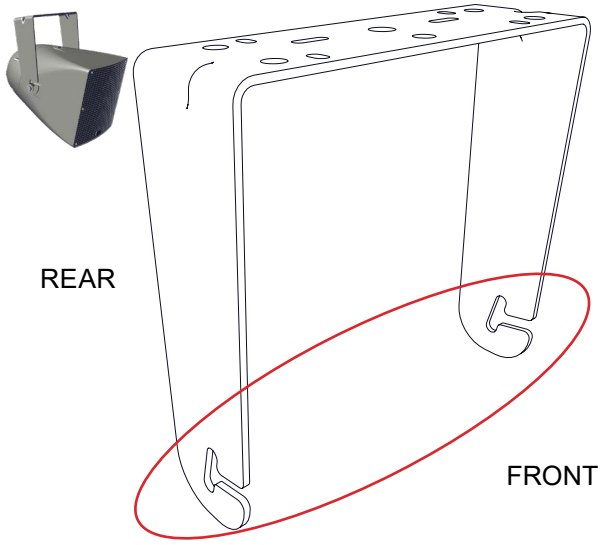


Mount Bracket to Structure (continued)

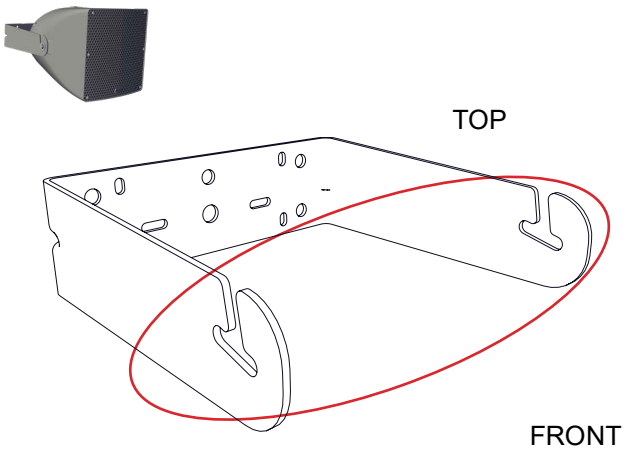
2. Mount the bracket with the side arm slots oriented correctly. (See circles noting slot directions).

Overhead Mounting: Single point (pendant-type) mounting should utilize the 13 mm center hole on the bracket. Beam clamps should attach to the long slots on either side of that 13 mm center hole, if feasible. Those three holes are aligned with the loudspeaker's center of gravity.
Perch (Under) Mounting: Maximum rotation for the R.15 is 40° tilt down if mounted on the corner/edge of a structure.

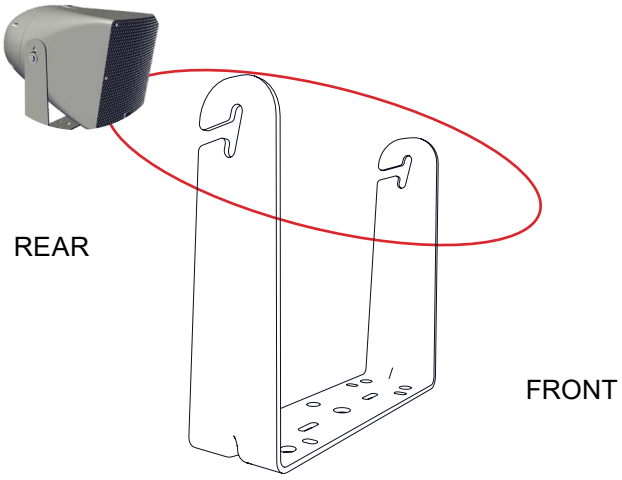
2



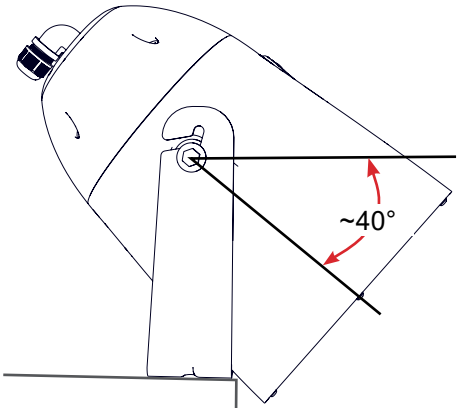
Ceiling Orientation
(bracket mounted above)



Wall Orientation
(bracket mounted behind)



Perch (Under) Orientation
(bracket mounted behind)



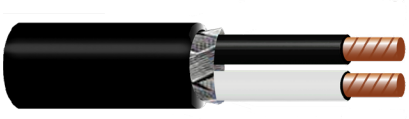
Perch (Under) Orientation
maximum down-tilt

Wire the Loudspeaker

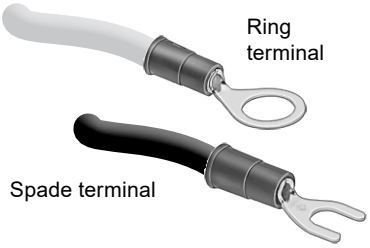
The loudspeaker is intended to be connected directly to an amplifier with digital signal processing (DSP). It must have factory processing (high pass filter & limiter) applied to prevent damage.

If installed outdoors or damp environments, the insulation of the installer-provided cabling should be resistant to water, the effects of temperature, and the effects of ultraviolet radiation from the sun. Use of a SJOW or SJOOW rated cable is recommended for most applications. Using this cable type with the gland nut and input cover will form a good weather-tight seal.

1. Thread the cable through the gland nut. Accepted cable diameter is 10-14 mm.
2. Wire the loudspeaker. See **2a** for 4 Ohm Low impedance operation - jumper must be moved to unused terminals on the terminal strip. Keep the jumper in place on the 4 Ω and Jumper terminals for 70 V / 100 V operation. See **2b**.



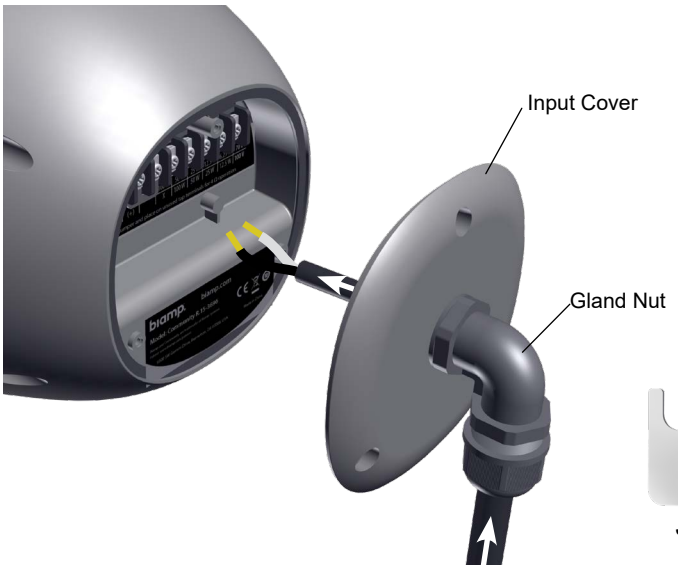
Standard Wiring

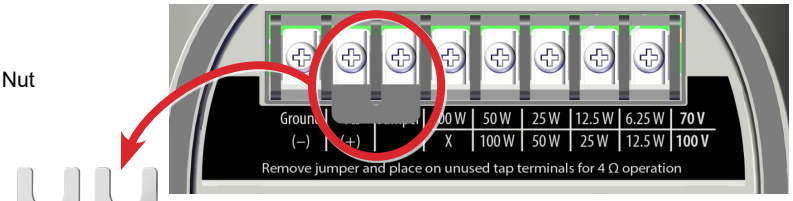


Wire Connectors

Note: Spade or ring terminals with barrel-type crimp connectors that are crimped with a forged crimp tool are recommended. The maximum width of the ring or spade lug should be 0.25" (6.5 mm), or less. The maximum wire size that can be accommodated for bare wire connections for 70 V / 100 V is 10 AWG (5.26 mm²).

1

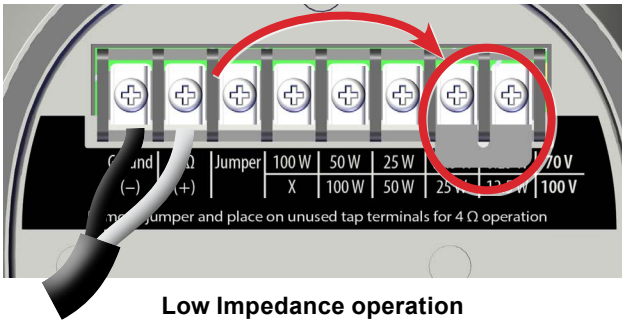




Default jumper position

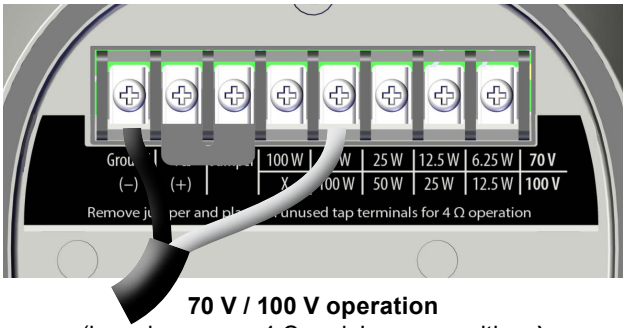
Jumper

2a



Low Impedance operation
(move preinstalled jumper to unused terminals)

2b



70 V / 100 V operation
(keep jumper on 4 Ω and Jumper positions)

Install the Loudspeaker

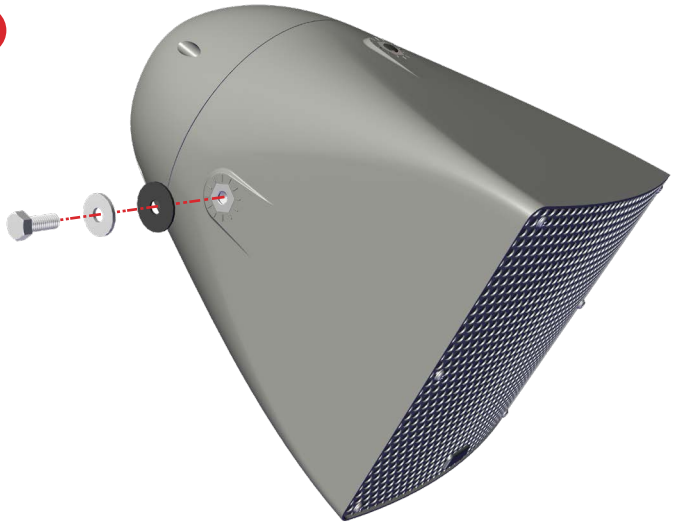
Normal orientation of the loudspeaker will have the Biamp badge at the bottom center of the grille.

Note: To provide 60° horizontal x 90° vertical coverage pattern, rotate the loudspeaker 90° (if advised by the system designer). In this instance, use the top and bottom holes as the mounting points. Remove the preinstalled hole plugs and reinsert them in the unused mointing points.

1. Install the input cover. The gland nut elbow should be pointing down to ensure no moisture wicks in via the cable.
2. Install the side hardware (x2). Adhere the rubber washer to side of the unit, aligned with the insert, before installing the bolt and flat washer.
3. Leave appoximately 6-7 mm (0.25") of thread exposed on the bolts.

1

2



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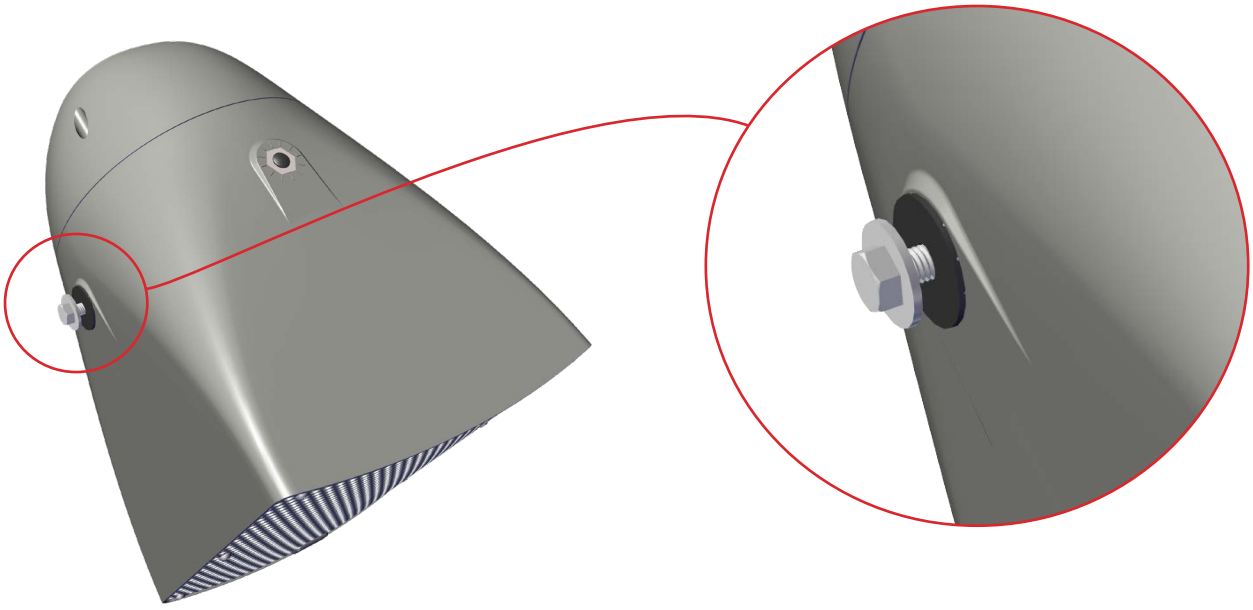


Install the Loudspeaker (continued)

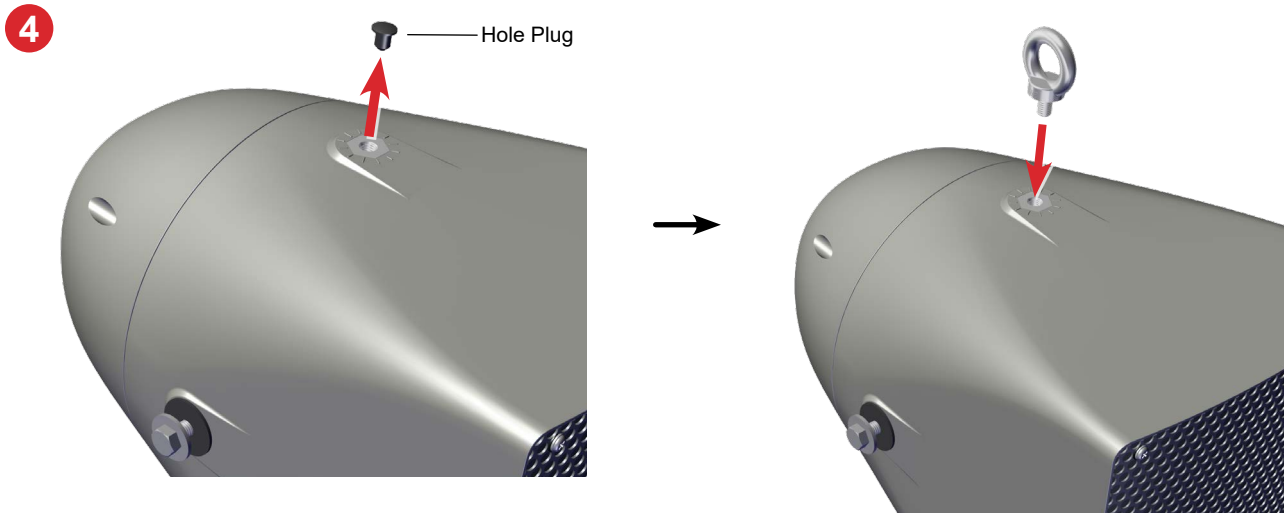
4. Remove the hole plug from the top mounting point. Install an M8 eyebolt or similar fastener for safety cable attachment. Refer to the grey box at right for details. *The eyebolt is shown as an example.*
5. Mount the loudspeaker on the bracket as shown.
6. Snug tighten the bolts to set the aiming angle, and fully tighten once that angle is set. (Torque 8 Nm [5.9 ft-lb] ±10%)

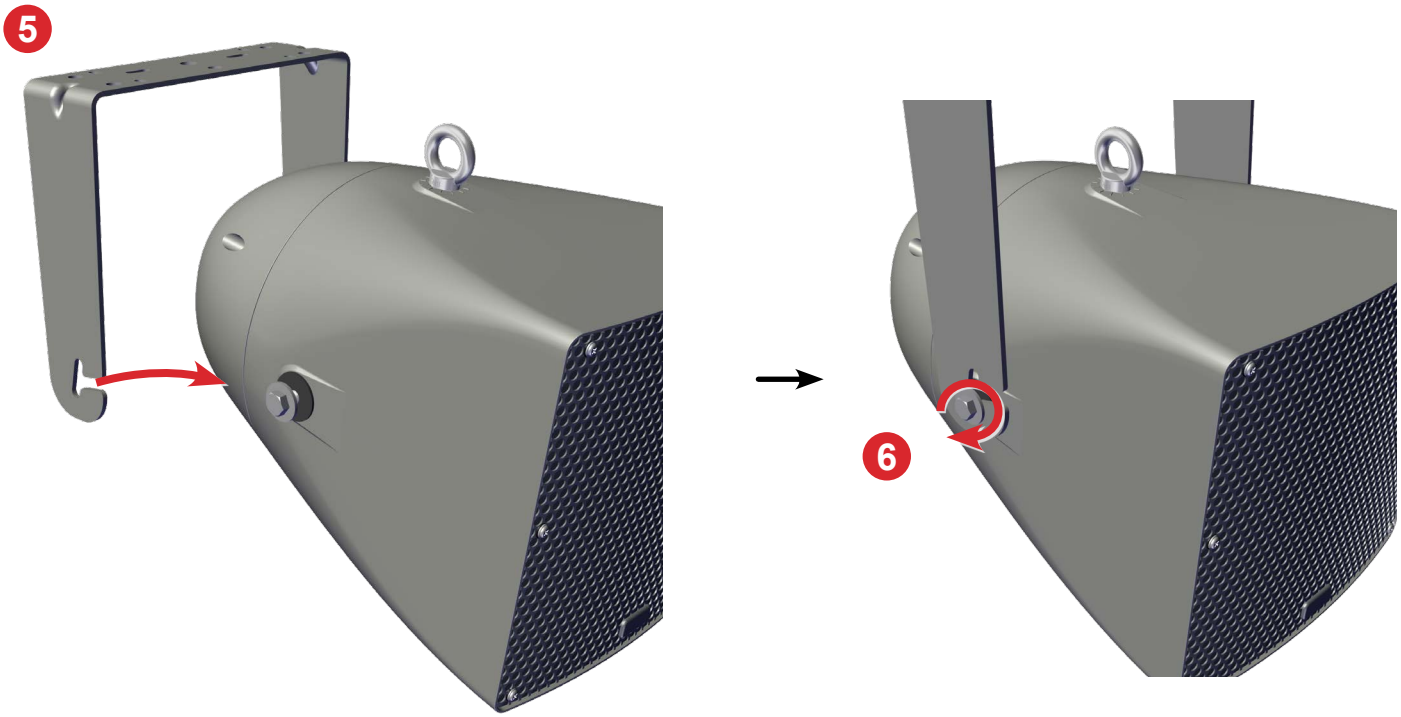
Note: Add a drip loop with the cable in outdoor or damp environments to ensure moisture doesn't travel into the loudspeaker.

DANGER: A Safety Cable or Tether **MUST** be installed on loudspeakers that are installed in outdoor applications or where there is seismic activity.

The safety cable and hardware are not included. Consult a structural engineer for the appropriate cable for the load and application. The safety cable must be secured to a suitable load-bearing point separate from the loudspeaker mounting point, with as little slack as possible, so as not to develop undue kinetic force if the primary mounting were to fail.

Optional Accessory: The PMB-1RR Pole Mount Kit is intended to hold one loudspeaker or be a safety point for one or more loudspeakers when mounted to a pole.





Final Installation Steps

7. Ensure all mounting points are filled with hardware or hole plugs to maintain performance, weather-resistance and preserve the product warranty.
8. Power and test the system. Refer to safety and performance information at right.

Note: Technical Drawings, specifications and DSP settings can be found on the website in the downloads section or on the product page "Resources" tab.

IMPORTANT: All electrical installation connections for loudspeaker lines are subject to all applicable governmental building and fire codes. The selection of appropriate electrical hardware to interface with the R Series loudspeaker lies solely with the installation professional. Biamp recommends that an appropriately licensed engineer, electrician, or other qualified professional identify and select the appropriate conduit, fittings, wire, etc. for the installation.

DANGER: The output power capabilities of audio amplifiers present a danger to installers especially in 70-volt and 100-volt distributed systems. To minimize the risk of electric shock from loudspeaker connecting cables, confirm that the power amplifiers are turned “off" before connecting loudspeaker cable(s) to the loudspeaker or amplifier. Always follow local electrical codes and proper electrical safety procedures.

WARNING: After wiring the amplifier(s) to the loudspeaker(s), first power-up all devices that are upstream of the amplifier, such as mixers, equalizers, compressor/limiters, etc., before powering-up the amplifier. This is to avoid passing any clicks or pops that may originate in the upstream devices to the loudspeakers. The amplifier should initially be powered-up with its gain controls turned all the way down. After making sure that a continuous signal is present, such as a music CD or audio stream, slowly raise the level of the gain controls to establish that the wiring has been installed correctly. Only then should the loudspeaker be operated at normal output levels.

Performance

Use A Digital Signal Processor

For best performance, loudspeaker protection and system longevity, a digital signal processor (DSP) should be used with all Biamp loudspeakers. Biamp recommends using an appropriate combination of Biamp amplifiers and/or DSP controllers. Loudspeaker DSP libraries and/or Settings to fully optimize your system are available for all Biamp DSP platforms. Download from the Biamp website.

CONTACT US

Email: support@biamp.com
Web: support.biamp.com
Warranty: biamp.com/legal/warranty-information
Safety & Compliance: biamp.com/compliance

biamp. A: 9300 S.W. Gemini Drive Beaverton, OR 97008 USA W: www.biamp.com

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