

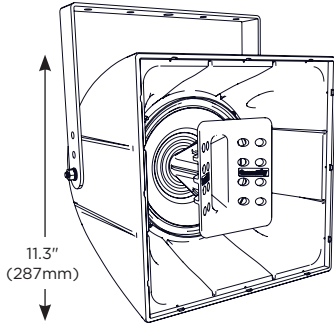
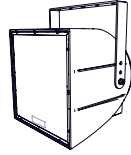
# DATA SHEET

## COMMUNITY R Series



# R.25-94Z R.25-94TZ

TWO-WAY COAXIAL HORN-LOADED 90° X 40°  
WEATHER-RESISTANT LOUDSPEAKER



shown with grille off

### FEATURES

- High fidelity, high efficiency horn-loaded system with high power passive crossover
- Weather-treated drivers and crossovers
- Weather-resistant, rotomolded UV enclosure with Integral mounting points
- Corrosion-resistant dual-layer powder-coated low-profile steel yoke and aluminum grille
- Optional 200W, 70V autoformer version available (model (R.25-94TZ))

### TECHNICAL SPECIFICATIONS<sup>1</sup>

Operating Mode	Passive - Low Impedance or 70V/100V models		
Operating Environment	Indoor or Weather-Resistant Outdoor		
Operating Range <sup>2</sup>	100 Hz to 16 kHz		
Nominal Beamwidth (H x V)	90° x 40°		
Transducers	LF 1 x 8" (203mm) carbon ring, hydrophobic cone, 2.5" (64mm) HF 1 x 3/4" (19mm) exit, non-metallic Ferrofluid-cooled comp driver DYNA-TECH protection circuitry for drivers		
Continuous Power Handling <sup>3</sup> @ Nominal Impedance	Passive	40V	200W @ 8 Ohms (800W peak)
Autoformer Taps R.25-94TZ	70V: 200W,100W, 50W, 25W 100V: 200W,100W, 50W		
Nominal Sensitivity <sup>4</sup>	@ 1W/1m 97 dB	@ 2.83V 97 dB	
Nominal Maximum SPL <sup>5</sup> (Whole Space)	Peak 126 dB	Continuous 120 dB	
Equalized Sensitivity <sup>6</sup>	@ 1W/1m 96 dB	@ 2.83V 96 dB	
Equalized Maximum SPL <sup>7</sup>	Peak 125 dB	Continuous 119 dB	
Required Accessories	High Pass Filter - 100 Hz, 24 dB /octave, Digital Signal Processor		
Recommended Amplifiers	R.25-94Z	200W - 400W @ 8 Ohms, (40V - 57V)	

### APPLICATIONS

Theme and Amusement Parks · Malls  
Fairgrounds · Outdoor Entertainment  
Centers Convention Centers · Factories  
Background Music / Voice Paging Systems  
Fill for Stadiums, Race Tracks and Athletic Fields

### DESCRIPTION

The R.25-94Z is a 2-way, full-range loudspeaker system designed to provide high quality voice and music reproduction in applications requiring extreme weather resistance. It is designed to withstand long-term exposure to tough, environmental conditions and to provide performance normally associated only with indoor loudspeakers. Both the R.25-94Z and R.25-94TZ have an 8-inch (203mm) cone LF driver and a 3/4-inch (20 mm) exit HF compression driver with weather resistant diaphragms. The HF driver is coupled to a nominal 90° x 40° horn. The HF assembly is coaxially mounted with the LF driver. The R.25-94TZ has a built-in multi-tap 200W autoformer for 70V /100V operation and a rotary switch for tap selection.

The R.25-94Z's high efficiency, modest power requirements and 8 Ohm impedance makes it easy to deploy large numbers of loudspeakers using only one amplifier, keeping the overall system costs to a minimum. The large 200W autoformer in the R.25-94TZ allows the loudspeaker to maintain its full high output capability even when running on 70V/100V systems. Both models carry a 5 year product warranty and a 15 year enclosure warranty.

### PHYSICAL

Input Connection	16-2 SJOW cable (12 ft / 4m), with stripped ends
Controls	R.25-94Z: None R.25-94TZ: 4-position tap selection rotary switch (behind plug)
Mounting Points	Five (5) M8 rigging points, 1-3/8" pole mount socket
Included Accessories	Zinc-rich epoxy dual-layer powder-coated yoke
Environmental	IP55W per IEC 529, designed to MIL-STD-810G
Dimensions H x W x D	11.30" x 11.30" x 13.30" (287 x 287 x 338 mm)
Weight	R.25-94Z: 20.0 lbs (9.1 kg) with included yoke R.25-94TZ: 23.0 lbs (10.4 kg) with included yoke
Finish	Refer to the Technical Drawing (page 3)

### OPTIONS

Accessories	PMB-1RR, PMB-2RR: Single or dual pole mount brackets
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Biamp strives to improve its products on a continual basis. Specifications are therefore subject to change without notice.



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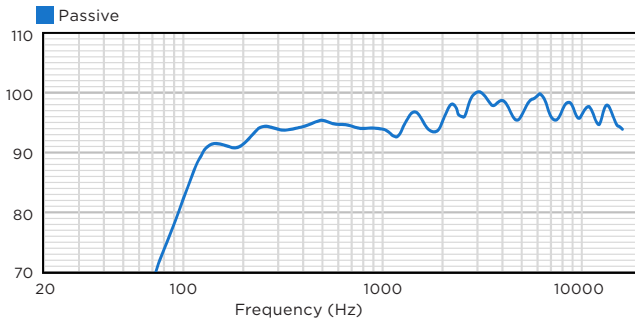
W: www.biamp.com

# COMMUNITY R Series

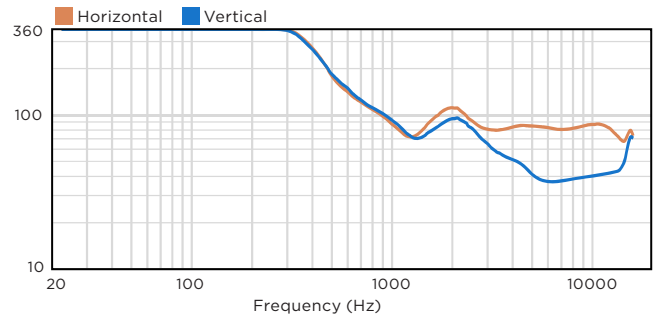
## R.25-94Z R.25-94TZ

TWO-WAY COAXIAL HORN-LOADED 90° X 40°  
WEATHER-RESISTANT LOUDSPEAKER

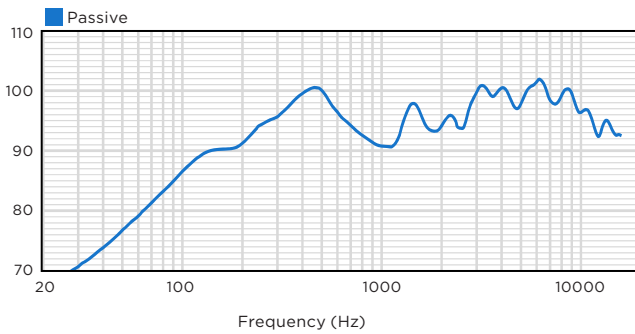
### AXIAL PROCESSED RESPONSE (dB)<sup>8</sup>



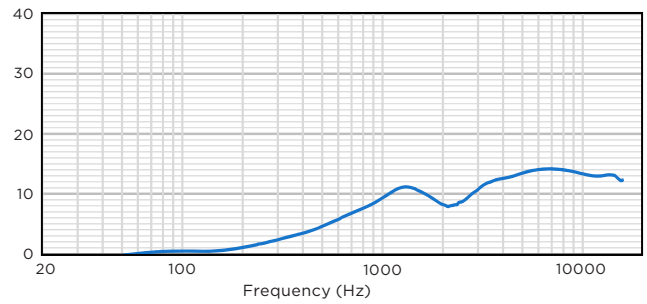
### BEAMWIDTH (Degrees)<sup>12</sup>



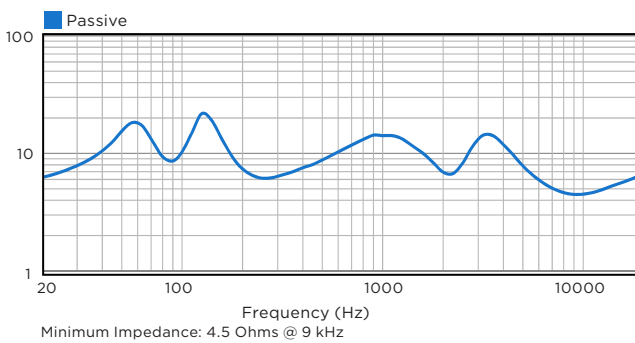
### AXIAL SENSITIVITY (dB SPL)<sup>9</sup>



### DIRECTIVITY INDEX (dB)<sup>11</sup>



### IMPEDANCE (Ohms)



### ARCHITECTURAL SPECIFICATIONS

The loudspeaker system shall be a two-way, full-range bass reflex design with a single cast 8" and one 3/4" exit HF driver coaxially mounted on a 90° x 40° horn. Drivers shall be connected to an integral crossover with a crossover frequency of 2 kHz with driver protection using DYNA-TECH active protection circuitry. The input connections shall be one 12' (4m) SJOW #16-gauge 2-conductor cable with stripped ends. The R.25-94Z system shall be equipped for low impedance (8 Ohm) operation. The R.25-94TZ system shall be equipped with a high performance 200W autoformer for use in 70V/100V distributed systems, with taps of 25W, 50W, 100W, and 200W for 70V operation (50W, 100W, and 200W for 100V distributed systems).

The enclosure shall be a rotomolded low linear density polyethylene enclosure providing weather and UV resistance with a three-layer weather-resistant 1mm perforated dual-layer powder-coated aluminum grille. The enclosure shall incorporate five M8 rigging points for multiple mounting options, and an included dual-layer zinc-rich epoxy powder-coated steel mounting yoke. Integrated ribbing and internal reinforcements provide added structural support. The system shall have an IEC529 IP rating of IP55W. The system shall have an operating range of 100 Hz to 16 kHz (-10 dB) and a low impedance (8 Ohm) input capability of 40V RMS. The nominal sensitivity on axis at one meter with a power input of 1 Watt shall be 97dB. The nominal dispersion shall be 90° H x 40° V. The loudspeaker shall be 11.3" (287mm) H (front) x 11.3" (287mm) W x 13.3" (338mm) D. The R.25-94Z shall weigh 20 lbs (9.1 kg) including the mounting yoke, and the R.25-94TZ shall weigh 23 lbs (10.4 kg) including the mounting yoke.

# COMMUNITY R Series

## R.25-94Z R.25-94TZ

TWO-WAY COAXIAL HORN-LOADED 90° X 40°  
WEATHER-RESISTANT LOUDSPEAKER

### TECHNICAL DRAWING / DIMENSIONS / FINISH

#### H x W x D

11.3" x 11.3" x 13.3"  
(287 x 287 x 338 mm)

#### Unit Weight (includes yoke)

R.25-94Z: 20.0 lbs (9.1 kg)  
R.25-94TZ: 23.0 lbs (10.4 kg)

#### Shipping Weight

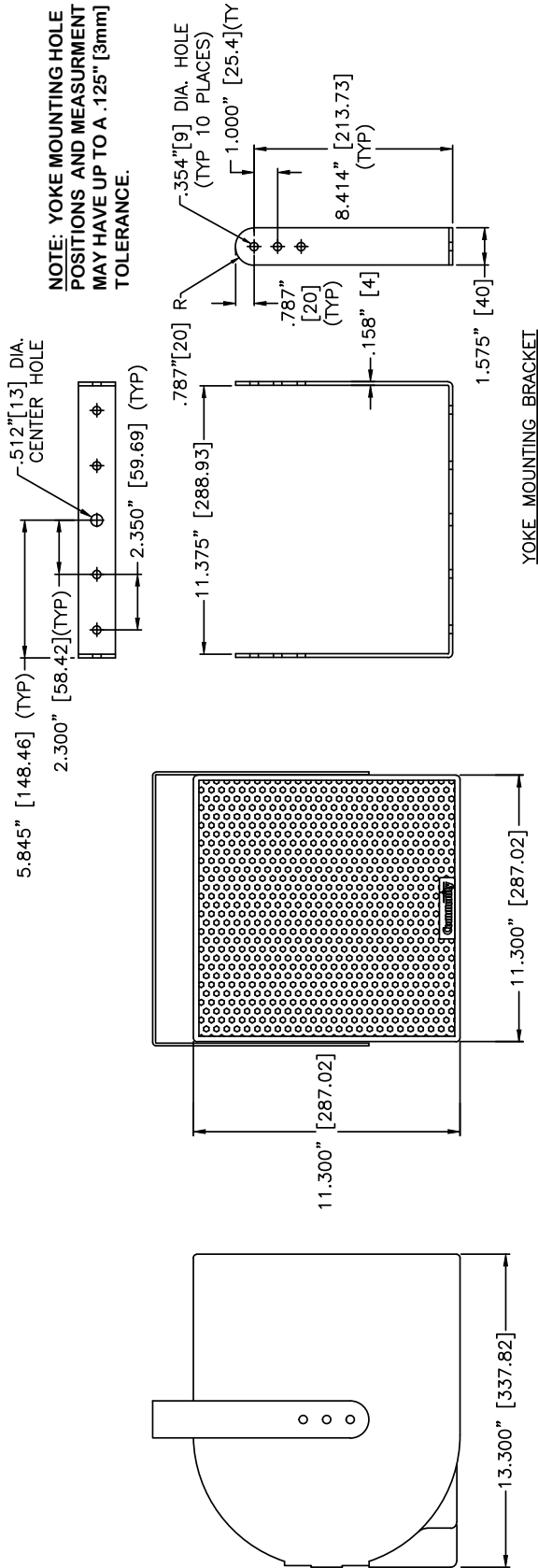
R.25-94Z: 27 lbs (12.2 kg)  
R.25-94TZ: 29.1 lbs (13.2 kg)

#### Grille:

3-layer WeatherStop™ powder-coated perforated marine-grade aluminum backed with woven poly mesh and foam backing. Grey (RAL#7038)

#### Enclosure / Finish

Color-matched grey rotomolded LLDPE



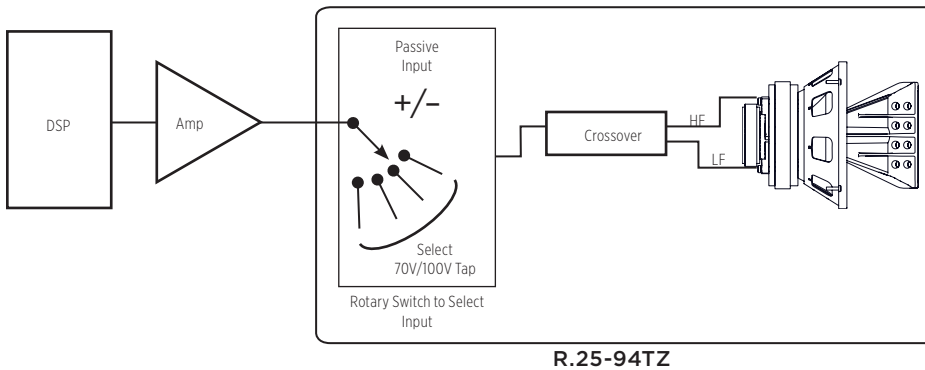
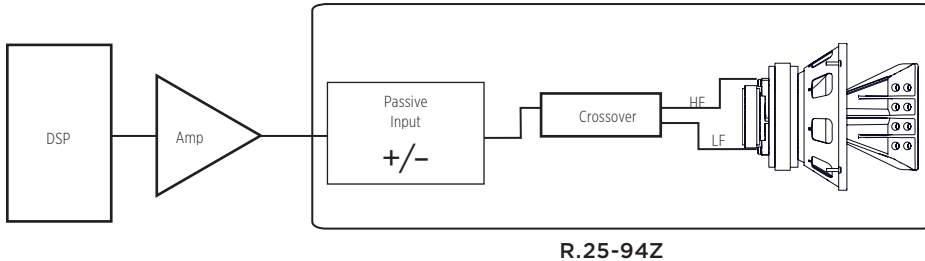
R.25

# COMMUNITY R Series

## R.25-94Z R.25-94TZ

TWO-WAY COAXIAL HORN-LOADED 90° X 40°  
WEATHER-RESISTANT LOUDSPEAKER

### CONNECTION DIAGRAM



IMPEDANCE: 8Ω  
 POWER HANDLING: 200 WATTS RMS  
 500 WATTS PGM  
 INPUT: WHITE +  
 BLACK -

R.25-94Z

TWO-WAY LOUDSPEAKER SYSTEM

COMMUNITY LIGHT & SOUND, INC.  
 333 East Fifth Street, Chester, PA 19013 USA

Made in China

USE ADEQUATE HEARING PROTECTION

**R.25-94Z**

INPUT: 70V/100V LINE  
 POWER: 200 WATTS, 100 WATTS  
 50 WATTS, 25 WATTS  
 INPUT: WHITE +  
 BLACK -

R.25-94TZ

TWO-WAY LOUDSPEAKER SYSTEM

COMMUNITY LIGHT & SOUND, INC.  
 333 East Fifth Street, Chester, PA 19013 USA

Made in China

USE ADEQUATE HEARING PROTECTION

TRANSFORMER SWITCH UNDER PLUG

70V	100V
① 25W	50W
② 50W	100W
③ 100W	200W
④ 200W	NC

**R.25**

**R.25-94TZ**

Input Labels

### NOTES

1. **PERFORMANCE SPECIFICATIONS** All measurements are taken indoor using a time-windowed and processed signal to eliminate room effects, approximating an anechoic environment, a distance of 6.0 m. All acoustic specifications are rounded to the nearest whole number. An external DSP with settings provided by Biamp is required to achieve the specified performance; further performance gains can be realized using the FIR loudspeaker optimization presets available in Biamp's Community Loudspeaker Controllers (ALC Series).
2. **OPERATING RANGE** The frequency range in which the on-axis processed response remains within 10dB of the average SPL.
3. **CONTINUOUS POWER HANDLING** Maximum continuous input voltage (and the equivalent power rating, in watts, at the stated nominal impedance) that the system can withstand, without damage, for a period of 2 hours using an EIA-426-B defined spectrum; with recommended signal processing and protection filters.
4. **NOMINAL SENSITIVITY** Averaged SPL over the operating range with an input voltage that would produce 1 Watt at the nominal impedance and the averaged SPL over the operating range with a fixed input voltage of 2.83V, respectively; swept sine wave axial measurements with no external processing applied in whole space, except where indicated.
5. **NOMINAL MAXIMUM SPL** Calculated based on nominal / peak power handling, respectively, and nominal sensitivity; exclusive of power compression.
6. **EQUALIZED SENSITIVITY** The respective SPL levels produced when an EIA-426-B signal is applied to the equalized loudspeaker system at a level which produces a total power of 1 Watt, in sum, to the loudspeaker subsections and also at a level which produces a total voltage, in sum, of 2.83V to the loudspeaker subsections, respectively; each referenced to a distance of 1 meter.
7. **EQUALIZED MAXIMUM SPL** The SPL produced when an EIA-426-B signal is applied to the equalized loudspeaker system, at a level which drives at least one subsection to its rated continuous input voltage limit, referenced to a distance of 1 meter. The peak SPL represents the 2:1 (6dB) crest factor of the EIA-426-B test signal.
8. **AXIAL PROCESSED RESPONSE** The on-axis variation in acoustic output level with frequency of the complete loudspeaker system with recommended signal processing applied. 1/6 octave Gaussian smoothing applied.
9. **AXIAL SENSITIVITY** The on-axis variation in acoustic output level with frequency for a 1 Watt swept sine wave, referenced to 1 meter with no signal processing. 1/6 octave Gaussian smoothing applied.
10. **HORIZONTAL / VERTICAL OFF-AXIS RESPONSES** The loudspeaker's magnitude response at various angles off-axis, with recommended signal processing applied in the operating mode which utilizes the largest number of individually amplified pass bands. 1/6 octave Gaussian smoothing applied.
11. **DIRECTIVITY INDEX** The ratio of the on-axis SPL squared to the mean squared SPL at the same distance for all points within the measurement sphere for each given frequency; expressed in dB. 1/6 octave Gaussian smoothing applied.
12. **BEAMWIDTH** The angle between the -6dB points in the polar response of the loudspeaker when driven in the operating mode which utilizes the largest number of individually amplified pass bands. 1/6 octave Gaussian smoothing applied.

Data presented on this spec sheet represents a selection of the basic performance specifications for the R.15COAX. These specifications are intended to allow the user to perform a fair, straightforward evaluation and comparison with other loudspeaker spec sheets. For a detailed analysis of this loudspeaker's performance, please download the GLL file and/or the CLF file from our website: [biamp.com](http://biamp.com)

**CAUTION:** Installation of 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 design.