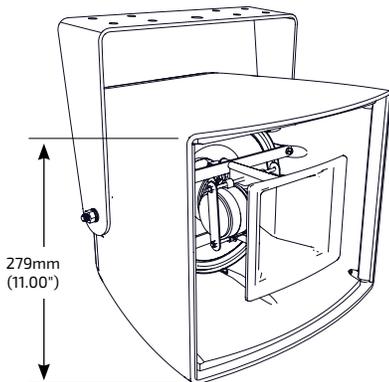


**R SERIES**  
 Point Source

# R.35-3896-EN

 THREE-WAY FULL-RANGE (90° x 60°)  
 WEATHER-RESISTANT LOUDSPEAKER

**APPLICATIONS**
**MAIN PA (Small to Medium Size Venues)**

 Entertainment centers · Background Music/Paging  
 Swimming Pools · Meeting Rooms · Theaters ·  
 Corporate A/V Systems · Night Clubs

**DISTRIBUTED OR FILL (Larger Size Venues)**

 Malls · Stadiums · Theaters · Cruise Ships  
 Theme / Amusement parks · Factories

**DESCRIPTION**

The R.35-3896-EN is a fully horn-loaded triaxial three-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 musical performance normally only associated with indoor loudspeakers. The R.35-3896-EN features Community's innovative MultiSource Waveguide™ horn design; the output from the dual midrange compression drivers and 1-inch exit HF driver are combined seamlessly into a single time-coherent source, resulting in excellent musicality, intelligibility and dispersion consistency. The high output, 3-inch voice coil, 8-inch carbon ring cone LF driver features a flange-less frame design that permits a cone area nearly equivalent to a typical 10-inch driver, resulting in high sensitivity and increased LF extension. The low LF/MR passive crossover point results in improved mid-range pattern control and elimination of horn coloration in the LF response.

The Music / Voice switch allows for additional application flexibility. The "Music" setting provides an out-of-the-box flat response and selecting "Voice" provides up to a 5dB boost for increased vocal projection and intelligibility. The LF cone is treated with the same hydrophobic coating as the grille cloth to ensure trouble-free performance in the harshest conditions.

**FEATURES**

- EN54-24 Certification
- Excellent musicality and intelligibility, low distortion, and high sensitivity and output
- Weather-resistant, compact, high impact ABS plastic modified-trapezoidal enclosure
- Hydrophobically-treated grille and LF driver cones, polymer HF and MR diaphragms, and moisture-sealed crossover

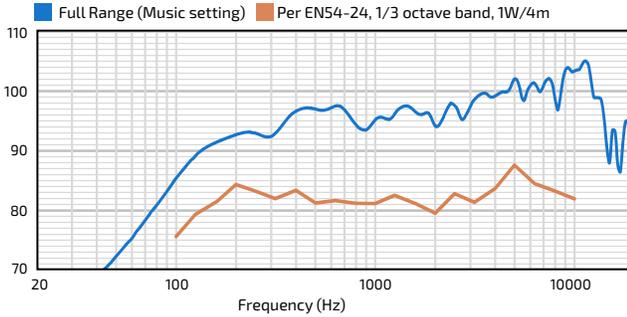
**TECHNICAL SPECIFICATIONS<sup>1</sup>**

<b>Operating Mode</b>	Passive, Low impedance or 70V/100V				
<b>Operating Environment</b>	All Conditions, suitable for continuous outdoor direct exposure				
<b>Operating Range<sup>1,2</sup></b>	95 Hz to 19 kHz				
<b>Nominal Beamwidth</b>	90° x 60°				
<b>Triaxial Transducers</b>	LF 1 x 8" Carbon ring hydrophobically-treated cone, 3" VC MF 2 x 2.35" MultiSource Waveguide™ compression HF 1 x 1" exit compression				
<b>Continuous Power Handling @ Nominal Impedance<sup>3</sup></b>	56V	400W @ 8 ohms (1600W peak)			
<b>Sensitivity<sup>4</sup></b>	1W/1m 1W/4m <sup>5</sup>	<b>Music</b>		<b>Speech</b>	
		98 dB 82.4 dB		100 dB	
<b>Nominal Maximum SPL<sup>4</sup> (Whole Space)</b>	@1m <sup>6</sup> @4m <sup>5,7</sup>	Continuous 124 dB 103.4 dB	Peak 130 dB	Continuous 126 dB	Peak 132 dB
<b>Autoformer Taps/Impedance</b>	25W (70V), 50W (100V) Tap: 143 Ω 50W (70V), 100W (100V) Tap: 75 Ω		100W (70V), 200W (100V) Tap: 41 Ω 200W (70V), N/A (100V) Tap: 23 Ω		
<b>Declared values of SPL 1/3 Oct band CPB, 1W/4m, per EN54-24 (Hz:dB)</b>	500: 69.3, 630: 69.7, 800: 69.2, 1000: 69.2, 1250: 70.5, 1600: 69.1, 2000: 67.5, 2500: 70.8, 3150: 69.4, 4000: 71.7				
<b>Coverage (-6dB) Horiz/Vert per EN54-24</b>	500Hz: 146 / 180 1 kHz: 110 / 110		2 kHz: 88 / 103 4 kHz: 81 / 46		
<b>Required Accessories</b>	Digital Signal Processor; 80 Hz 24 dB / Octave High Pass Filter				
<b>PHYSICAL</b>					
<b>Input Connection</b>	NL4 Speakon-type connector for low impedance operation only; and 7-position terminal strip for low impedance or constant voltage operation				
<b>Mounting/Suspension Points</b>	Two M8 rigging points, zinc-rich epoxy dual-layer powder-coated yoke, included integral safety cable mounting point				
<b>Input Panel Weather Cover</b>	Color-matched ABS plastic with 13.5mm ID gland nut installed in 21mm knockout				
<b>Environmental</b>	IP55W per IEC 60529 (with a recommended 5° down-tilt); designed to meet MIL-STD-810G standard				
<b>Dimensions H x W x D</b>	279 x 330 x 343 mm (11" x 13" x 13.5")				
<b>Weight</b>	15.4 kg (34 lbs) with included yoke				
<b>Finish</b>	Refer to the Technical Drawing				
<b>OPTIONS</b>					
<b>Accessories</b>	R-VTY35: Provides pan-tilt aiming; color-matched zinc-rich epoxy DLPC steel with SS hardware R-FRY35: Provides full rotation mounting capability for down-firing application; color-matched zinc-rich epoxy DLPC steel with SS hardware				

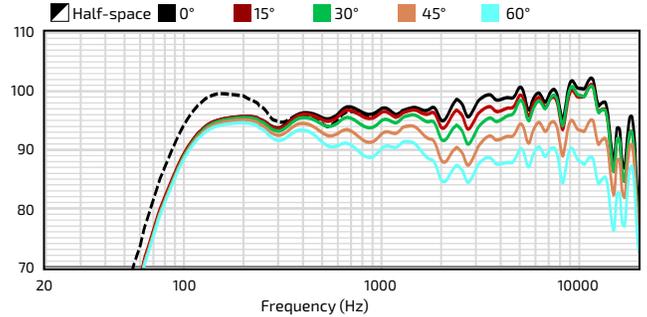
# R.35-3896-EN

THREE-WAY FULL-RANGE (90° x 60°)  
WEATHER-RESISTANT LOUDSPEAKER

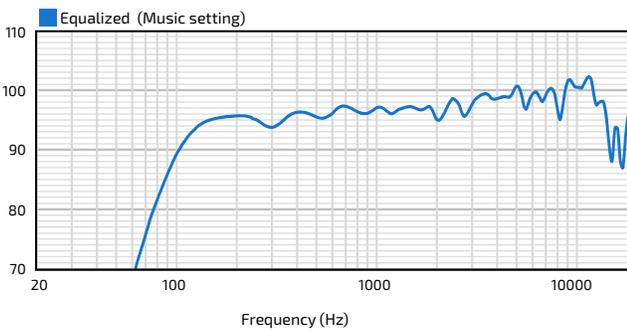
### AXIAL SENSITIVITY (dB SPL)



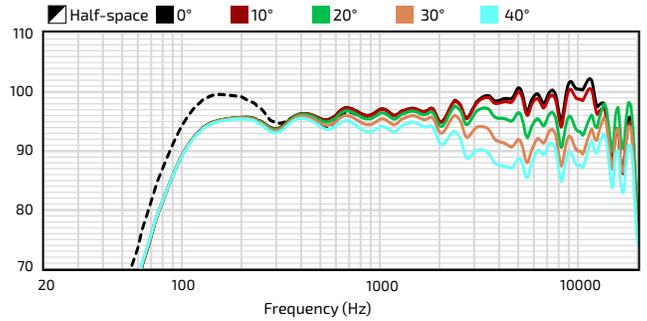
### HORIZONTAL OFF-AXIS RESPONSE (dB)



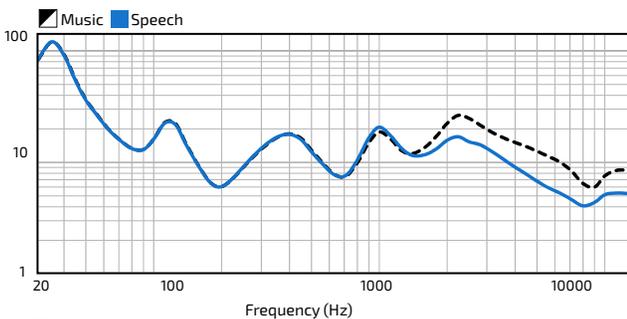
### AXIAL PROCESSED RESPONSE (dB)



### VERTICAL OFF-AXIS RESPONSE (dB)

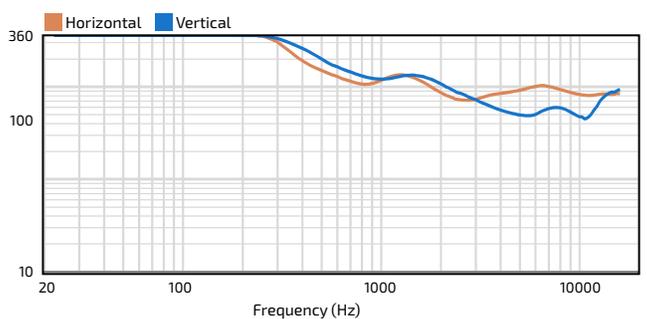


### IMPEDANCE (Ohms)

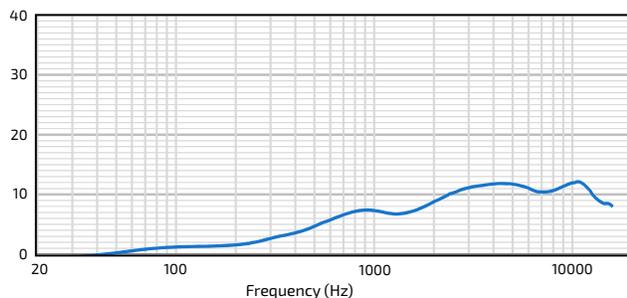


Minimum Impedance:  
(Music) 6 ohms @ 9000 Hz, (Speech) 4.1 ohms @ 8000 Hz

### BEAMWIDTH (Degrees)



### DIRECTIVITY INDEX (dB)



### FOOTNOTES

- Operating Range:** 10dB from rated sensitivity
- Axes and Planes:** See Diagram (page 4)
- Continuous Power Handling:** IEC, 2 hours
- Measurement Environment:** All measurements are made in outdoor free-field conditions
- Sensitivity/Max SPL @ 4m (per EN54-24):** "Music" mode must be used for applications necessitating EN54-24 compliance
- Nominal Max SPL @ 1m:** Calculated from continuous power handling and sensitivity @ 1m
- Rated Noise Power (per EN54-24):** The 100W/ 100V and 50W/100V taps are certified for EN54-24 use. Low impedance, all 70V inputs, and 200W/100V tap are not rated for EN54-24 use.

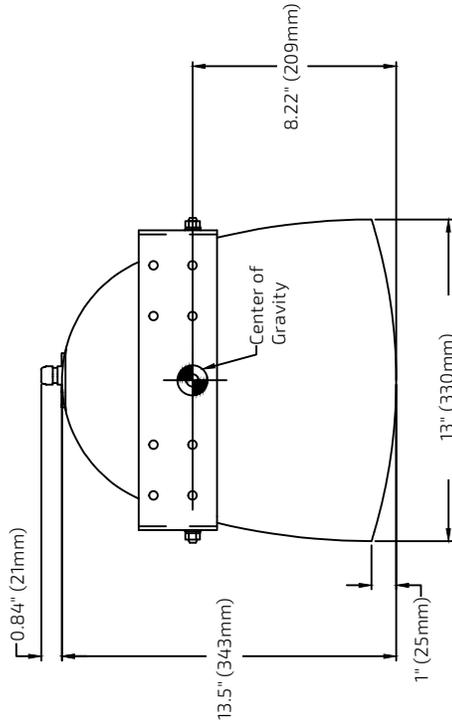
R.35-3896-EN THREE-WAY FULL-RANGE (90° x 60°)  
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TECHNICAL DRAWING / DIMENSIONS / FINISH

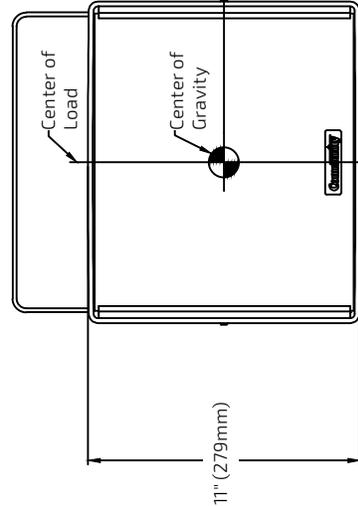
- H x W x D**  
279 x 330 x 343 mm  
(11" x 13" x 13.5")
- Unit Weight**  
15.4 kg (34 lbs) with included yoke
- Shipping Weight**  
18.1 kg (40 lbs)

**Grille**  
3-layer Weather-Stop™ featuring hydrophobically-treated polyester mesh, foam, zinc-rich dual-layer powder-coated perforated aluminum color-matched to enclosure

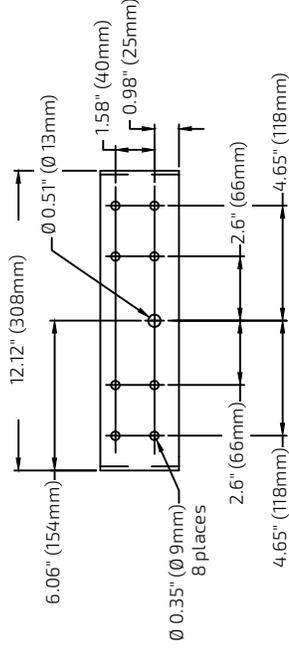
**Enclosure / Finish**  
ABS plastic, matte finish, Light Grey (RAL# 7038)



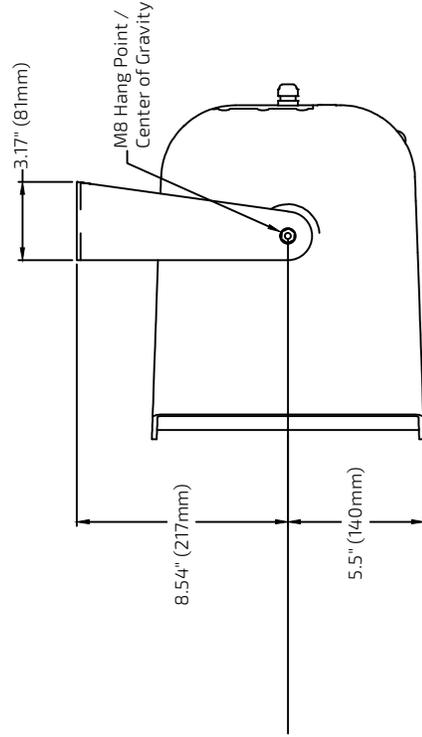
Top



Front



Yoke Hole Dimensions



Sides

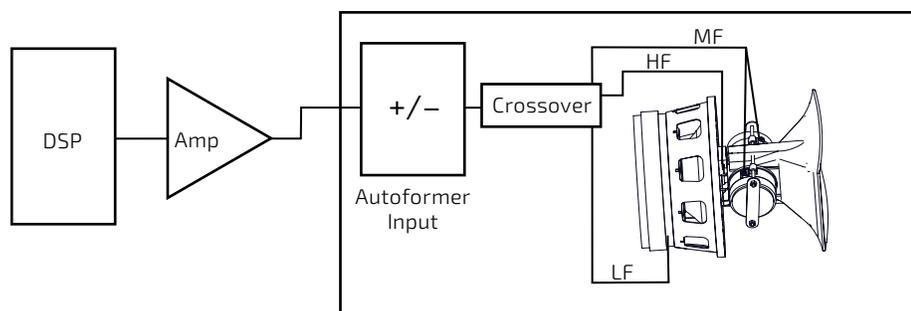
M8 Hang Point /  
Center of Gravity

## R SERIES Point Source

# R.35-3896-EN

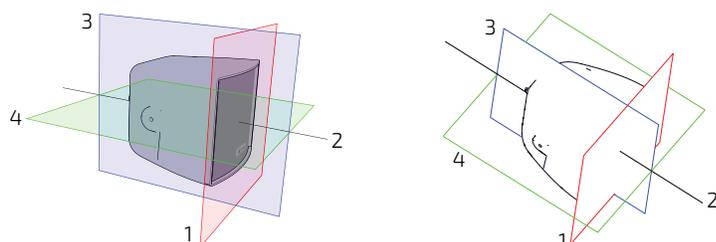
THREE-WAY FULL-RANGE (90° x 60°)  
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### CONNECTION DIAGRAMS



Three-way single amp

### AXES AND PLANES

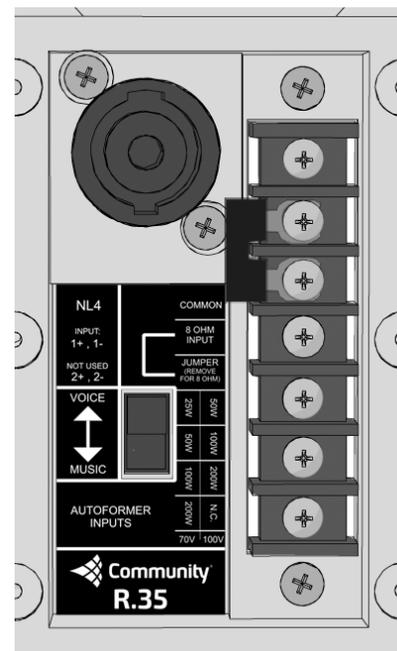


1. Reference Plane (red) is coincident with the center of the loudspeaker grille
2. Reference Axis (black) perpendicular to the reference plane, passing through the center of the grille
3. Vertical Plane (blue) intersects the reference plane at a right angle including the reference axis and the center point of the cabinet's front radius
4. Horizontal Plane (green) intersects the reference plane at a right angle and includes the reference axis

### ARCHITECTURAL SPECIFICATIONS

The loudspeaker system shall be a three-way, full-range modified trapezoidal design with one 8-inch (203mm) high-output LF driver mounted triaxially behind a MultiSource Waveguide™ horn containing one 1-inch exit HF compression driver and two 2.35-inch midrange compression drivers. Drivers shall be connected to an integral crossover with crossover frequencies of 850 Hz and 2.7 kHz. The input connections shall be an NL4-type connector and a 7-position terminal strip for standard or autoformer tap operation. There is also a 2-position switch for voice or music applications. The loudspeaker enclosure shall be matte finish high impact ABS plastic with a 1mm perforated aluminum grille backed by hydrophobically-treated polyester mesh and open cell foam. There shall be two M8 rigging points, and an included steel dual-layer powder-coated mounting yoke. The LF horn and cabinet shell are internally fused to create a monolithic, extremely rigid, resonance-free enclosure. The system shall have an operating range of 95 Hz to 19 kHz (10 dB from rated sensitivity) and an input capability of 56V RMS. The loudspeaker shall have user selectable autoformer taps for 200, 100, 50, and 25 watts at 70V and 200, 100 and 50 watts at 100V. The system shall be switchable between 8Ω (bypass) and constant-voltage operation. At the music setting, it shall have a sensitivity at 1W / 1m, 8 ohms nominal impedance, of 98 dB and a continuous maximum output of 124dB in full space. At the voice setting, it shall have a sensitivity at 1W / 1m, 8 ohms nominal impedance, of 100 dB and a continuous maximum output of 126dB in full space. The nominal dispersion shall be 90° H x 60° V. The loudspeaker shall be 279mm (11" ) H (front) x 330mm (13") W x 343mm (13.5") D and shall weigh 15.4 kg (34 lbs) including the mounting yoke.

**Community Professional Loudspeakers**  
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Input panel

**Note:** NL4 connection is not available for autoformer operation

**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.