

# R.35-3896 THREE-WAY FULL-RANGE (90° X 60°) WEATHER-RESISTANT LOUDSPEAKER



## TECHNICAL SPECIFICATIONS

### SYSTEM

<b>Loudspeaker Type:</b>	Full-range, three-way, triaxial, weather-resistant	
<b>Operating Range:</b>	80 Hz to 16 kHz (-10 dB)	
<b>Frequency Response:</b>	120 Hz to 12.5 kHz (-3 dB)	
<b>Max Input Ratings:</b>	400W RMS, 800W Program 56 volts RMS, 113 volts momentary peak	
<b>Autoformer Taps—70V:</b>	200W, 100W, 50W, 25W and low impedance	
<b>100V:</b>	200W, 100W, 50W	
	<b>MUSIC</b>	<b>SPEECH</b>
<b>Maximum Output:</b>	124 dB (130 dB peak)	126 dB (132 dB peak)
<b>Sensitivity (1W / 1m)</b>	98 dB (125 Hz - 10 kHz)	100 dB (125 Hz - 10 kHz)
<b>Free Space SPL:</b>	97 dB (250 Hz - 4 kHz)	99 dB (250 Hz - 4 kHz)
<b>Nominal Impedance :</b>	8 ohms, 6 ohms @ 9 kHz minimum	8 ohms, 4.1 ohms @ 8 kHz minimum
<b>Nominal Beamwidth (-6dB):</b>	90° x 60° , 1.6 kHz to 10 kHz	
<b>Axial Q / DI:</b>	11.6/10.7, 1.6 kHz to 10 kHz	
<b>Crossover Frequency:</b>	850 Hz, 2.7 kHz	
<b>Recommended High Pass:</b>	80 Hz 24 dB / Octave	
<b>Recommended Amplifier :</b>	800W to 1200W at 8 ohms	

### TRIAxIAL TRANSDUCERS

<b>Low Frequency:</b>	1 x 8" Carbon ring NeverWet™ treated cone, 3" VC
<b>Middle Range:</b>	2 x 2.35" MultiSource Waveguide™ compression
<b>High Frequency:</b>	1 x 1" exit compression

### PHYSICAL

<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>Controls:</b>	Music / speech switch, 70V/100V operation jumper
<b>Enclosure:</b>	ABS plastic, matte finish, paintable
<b>Finish:</b>	Light Grey, Black or White (standard) RAL # 7038, 9004 or 9003
<b>Mounting/Rigging Provisions:</b>	Two M8 rigging points, zinc-rich epoxy DLPC yoke, included integral safety cable mounting point
<b>Grille:</b>	3-layer Weather-Stop™ featuring NeverWet™ treated polyester mesh, foam, zinc-rich DLPC perforated steel color-matched to enclosure
<b>Input Panel Weather Cover:</b>	Color-matched ABS plastic with 13.5mm ID gland nut installed in .82" knockout
<b>Environmental:</b>	IP55W per IEC 529 at the recommended 5° down-tilt, designed to MIL-STD-810G
<b>Dimensions – H x W x D:</b>	11" x 13" x 13.5" (279 x 330 x 343 mm)
<b>Loudspeaker Unit Weight:</b>	34 lbs (15.4 kg) with included yoke
<b>Shipping Weight:</b>	40 lbs (18.1 kg)

### ACCESSORIES

<b>Vari-Tilt™ Yoke:</b>	R-VTY35. Provides pan-tilt aiming; color-matched zinc-rich epoxy DLPC steel with SS hardware
<b>Full Rotation Yoke:</b>	R-FRY35. Provides full rotation mounting capability for down-firing application (i.e. top of press box); zinc-rich epoxy DLPC steel with SS hardware
<b>400W Transformer:</b>	TRC400-8. Transformer for 70V and 100V lines; 400W @ 8 ohms; taps for full, 1/2, 1/4 and 1/8 power.

NOTE: All wattage figures are calculated using the rated impedance.

\* NeverWet is a registered trademark of NeverWet, LLC.

Community strives to improve its products on a continual basis. Specifications are therefore subject to change without notice.



Shown with grille removed



Available in Light Grey, Black or White (standard)

### APPLICATIONS

- Theme and Amusement Parks
- Outdoor Entertainment Centers
- Malls, Fairgrounds, Race Tracks
- Multipurpose Indoor/Outdoor Venues
- Stadiums and Arenas
- Swimming pools
- Athletic Fields
- Convention Centers
- Cruise Ships
- Factories

### FEATURES

- Excellent musicality and intelligibility, low distortion, and high sensitivity and output
- Weather-resistant, compact, matte finish paintable high impact ABS plastic modified-trapezoidal enclosure
- NeverWet™ treated grille and LF driver cones, polymer HF and MR diaphragms, and moisture-sealed crossover
- Corrosion-resistant zinc-rich epoxy dual-layer powder-coated (DLPC) steel grille and low-profile yoke
- Innovative MultiSource Waveguide™ (MSW) horn design for high frequency and dual midrange drivers
- 200W autoformer (standard)
- Light Grey, Black and White finish standard. Custom colors available upon request
- Five-year product warranty / Fifteen-year enclosure warranty

### DESCRIPTION

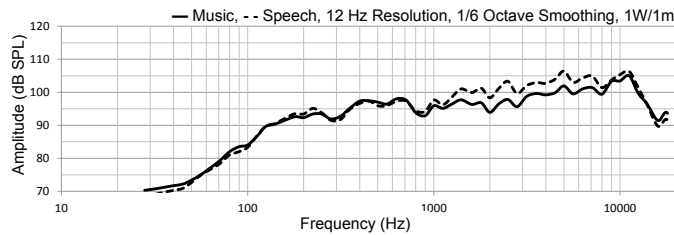
The R.35-3896 is a fully horn-loaded triaxial three-way, full-range loudspeaker system designed to provide high quality voice and music reproduction in applications requiring extreme weather resistance. It is designed to withstand long-term exposure to tough, environmental conditions and to provide musical performance normally only associated with indoor loudspeakers. The R.35-3896 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 NeverWet™ coating as the grille cloth to ensure trouble-free performance in the harshest conditions.

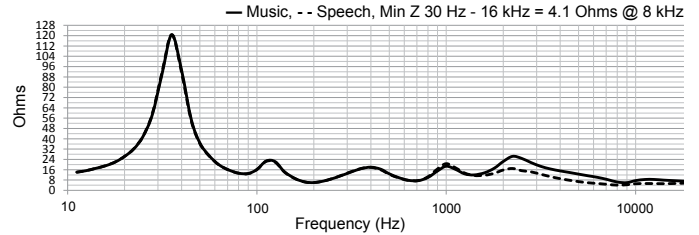
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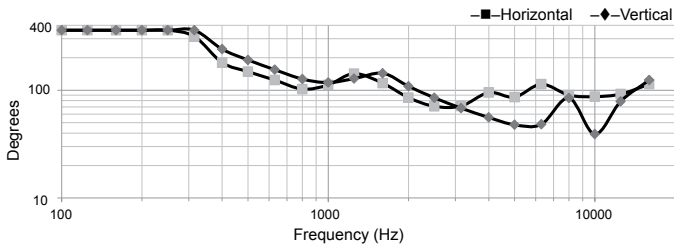
## FREQUENCY RESPONSE



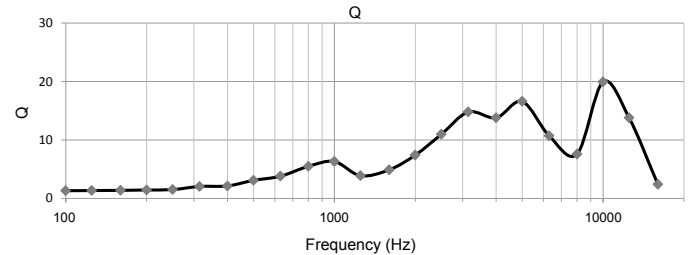
## IMPEDANCE



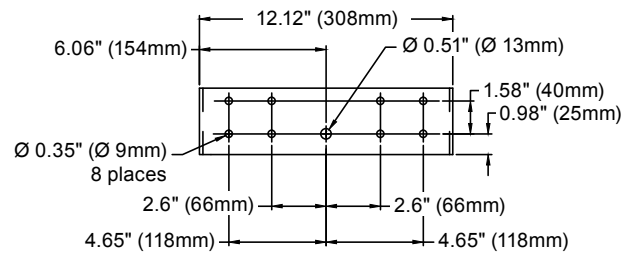
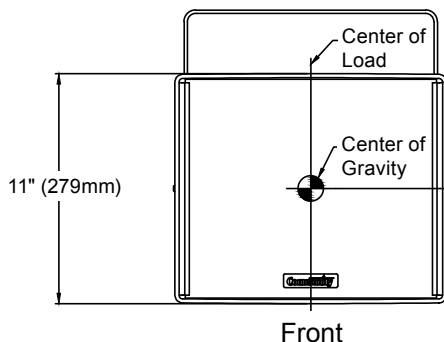
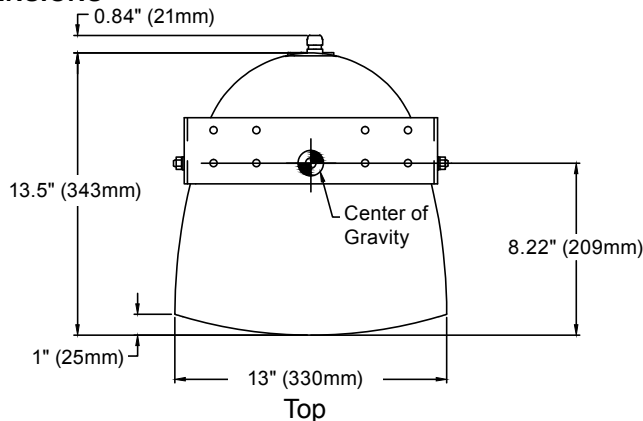
## BEAMWIDTH



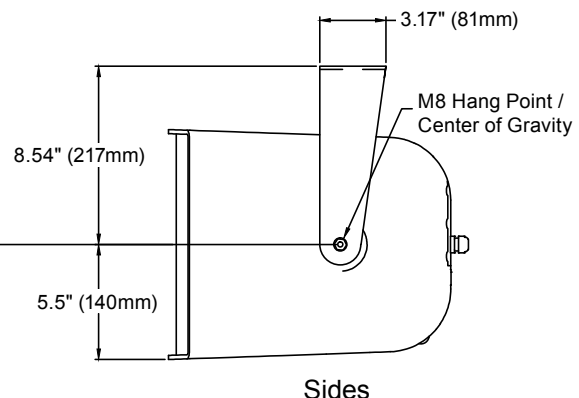
## AXIAL Q - MUSIC



## DIMENSIONS



Yoke Hole Dimensions



## 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 steel grille backed by NeverWet™ 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 a frequency response of 120 Hz to 12.5 kHz (-3 dB SPL) and an input capability of 56V RMS. At the music setting, it shall have a sensitivity at 1W / 1m, 8 ohms nominal impedance, of 98 dB (125 Hz - 10 kHz) and 97 dB (250 Hz - 4 kHz). At the voice setting, it shall have a sensitivity at 1W / 1m, 8 ohms nominal impedance, of 100 dB (125 Hz - 10 kHz) and 99 dB (250 Hz - 4 kHz). The nominal dispersion shall be 90° H x 60° V from 1.6 kHz to 10 kHz. The loudspeaker shall be 11" (279mm) H (front) x 13" (330mm) W x 13.5" (343mm) D and shall weigh 34 lbs (15.4 kg) including the mounting yoke.

**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.