

### Professional Series

### Key Features:

- ▶ Highly weather-resistant IP56 rating.
- ▶ Consistent 120° x 120° broadband pattern control.
- ▶ Components:
  - 200 mm (8 in) woofer with Kevlar-reinforced cone and 50 mm (2 in) voice coil.
  - 25 mm (1 in) exit compression driver with unique patented design and high temperature polymer diaphragm.
- ▶ Extraordinary clarity for speech, with extended frequency response for music.
- ▶ Advanced high-slope crossover network for constant coverage and smooth, natural midrange.
- ▶ 250 Watt power handling (average continuous pink noise) with high sensitivity provides high SPL capability.
- ▶ High-power passive crossover network.
- ▶ Overload protection.
- ▶ 80 Hz – 20 kHz frequency response.
- ▶ 200 Watt 70V/100V multi-tap (built-in transformer) or direct 8Ω low-impedance.

### Applications:

The AWC82 is a compact, coaxial-driver, 2-way, highly weather-resistant full-range loudspeaker system which is ideal for speech and music-fill in a wide variety of applications, including sports facilities, racetracks, stadiums, fairgrounds, rodeos, skating rinks, themed entertainment venues, cruise ships, water parks, outdoor background music/paging systems, swimming pools, and a wide variety of other outdoor or indoor venue types.

The AWC82 is comprised of a high-power coaxial 200 mm (8 in) low frequency driver and 25 mm (1 in) high frequency compression driver. The co-axial design utilizes a unique tapered pole-piece design and transitions to the cone of the low frequency driver as a large diameter pattern control horn for the high frequencies, both eliminating high-frequency beaming which is common among this category of speaker and extending pattern control to the lowest possible frequencies. The result is a coaxial speaker with wide, extremely consistent 120° coverage on a broadband basis.

Component features include a Kevlar-reinforced low frequency cone for reliability, well-damped surround for smooth frequency response, high temperature voice coil and a reduced distortion design through saturated-gap magnet geometry. The high frequency compression driver features a unique patented design, high temperature polymer diaphragm, and fluid-cooling for high output levels with low distortion.

The paintable enclosure is constructed of thick, ABS plus fiberglass and is heavily braced to maximize low-frequency performance. The corrosion-resistant zinc-rich extra-thick powder coated steel grille is backed with open cell foam and high thread-count mesh, providing excellent protection in the harshest environments. The system is rated IP-56, per IEC529 when installed at minimum 5° down-tilt.

The system is equipped with a 200W 70V/100V multi-tap transformer. Connection is made via outdoor-rated terminals in a recessed terminal cup. A protective terminal compartment cover is included, along with gland nut, which forms a water-tight seal with round-jacketed cable having outside diameter between 4 mm (0.16 in) and 9 mm (0.36 in).

A heavy-duty weather-capable zinc-rich, thick powder coated U-type mounting bracket is included.



### Specifications:

<b>System:</b>	
Frequency Range (-10 dB):	80 Hz – 20 kHz
Frequency Response (±3 dB):	100 Hz – 20 kHz
Coverage Pattern:	120° x 120°
Directivity Factor:	8.1 (1 k – 16 kHz)
Directivity Index (DI):	7.9 dB (1 k – 16 kHz)
Long-Term System Power Rating (IEC):	250 W 2 hrs. 200 W 100 hrs
Sensitivity (2.83V @ 1m):	94 dB (Ave. 100 Hz – 20 kHz)
Maximum SPL:	Direct 8Ω: 118 dB (peaks of 124 dB) 200 W Tap: 117 dB
Crossover Network:	1.8 kHz, 3rd order (18 dB/oct) high-pass plus conjugate to HF, 2nd order low-pass to LF
Nominal Impedance:	8 ohms
Transformer Taps:	70V: 200W, 100W, 50W, 25W 100V: 200W, 100W, 50W
<b>Transducers:</b>	
Low Frequency Driver:	Kevlar-reinforced cone with weather treatment, 50 mm (2 in) voice coil.
High Frequency Driver:	25 mm (1 in) diaphragm and voice coil diameter, high temperature polymer diaphragm, patented design, fluid-cooling.
HF Driver Protection:	Minimum audibility SonicGuard™ HF overload protection
<b>Physical:</b>	
Enclosure:	ABS with Glass enclosure
Attachment:	Two M10 (fine-thread) points for included U-bracket. Reference torque 15 ft-lb (20 N·m). M6 secondary safety attachment point on back panel.
Grille:	Corrosion-resistant zinc-rich extra-thick powder coated steel grille, 3-layer assembly with foam and woven poly mesh backing.
Input Connection:	CE-compliant covered barrier strip terminals. Barrier terminals accept up to 8 mm outside 4 mm inside open-lug (#6 or #8) plus bare wire up to 2.5 mm <sup>2</sup> (12 AWG) wire or spade lugs. Terminal compartment cover equipped with gland nut that forms water-tight seal with round-jacketed cables with outside diameters between 4.0 mm (0.16") and 9.0 mm (0.36").
Environmental:	IP56 per IEC529, with a minimum 5° downward aiming angle. Exceeds Mil Spec 810 for humidity, salt spray, temperature & UV, and ASTM G85 for salt spray (168 hrs).
Dimensions:	300 x 300 x 305 mm (11.8 x 11.8 x 12.0 in), cabinet 331 mm (13.0 in) including gland nut 359 mm (14.2 in) including bracket extending to back
Colors:	Available in gray (similar to Pantone 420C) and black (-BK)
Net Weight:	9.8 kg (21.5 lb), 11.6 kg (25.5 lb) with U-bracket
Shipping Weight:	14.1 kg (31.0 lb)
Included Accessories:	U-bracket, matches loudspeaker color (gray or black), zinc-rich extra thick powder coated, steel.

<sup>1</sup> Full-space (free-field)

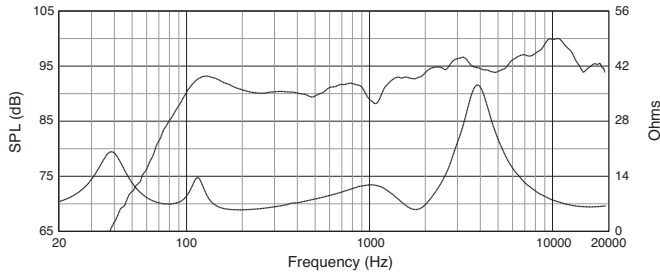
<sup>2</sup> Average 1 kHz to 10 kHz

<sup>3</sup> IEC standard, full bandwidth pink noise with 6 dB crest factor.

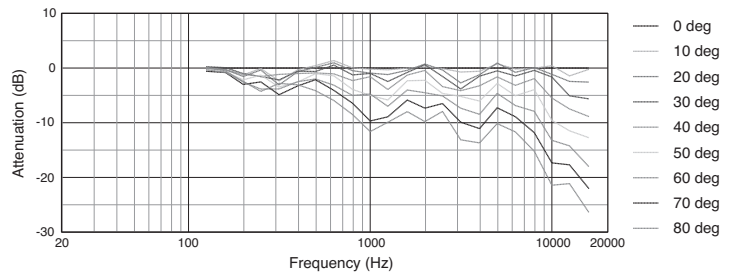
<sup>4</sup> Calculated based on power rating and measured full-space sensitivity.

# ► AWC82 All-Weather Compact 2-Way Coaxial Loudspeaker with 8" LF

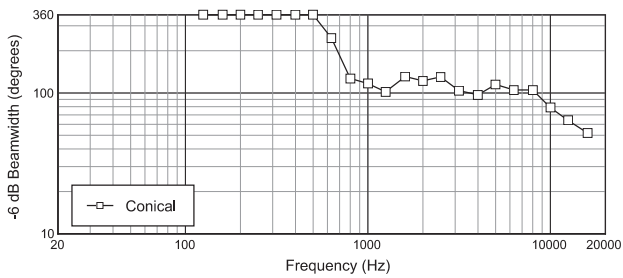
## Frequency Response and Impedance



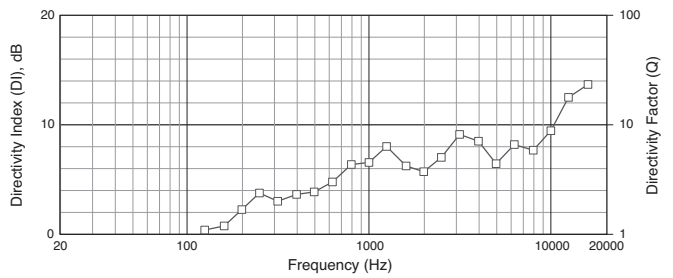
## Off-Axis Frequency Response



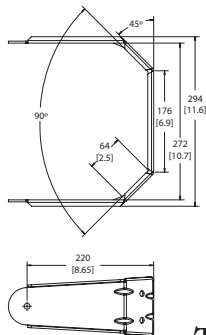
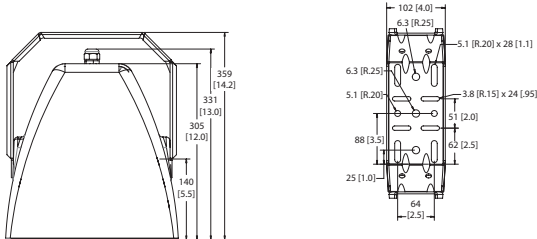
## Beamwidth



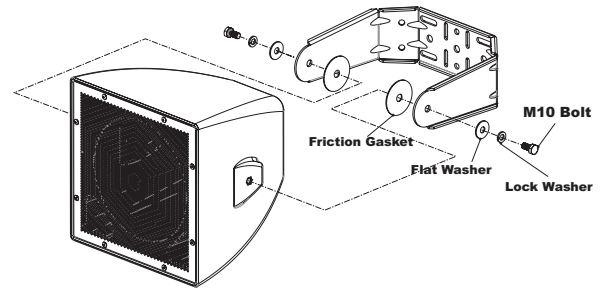
## Directivity Index



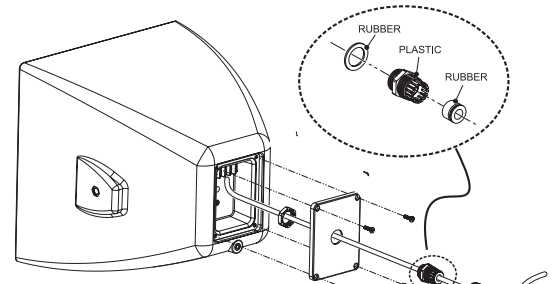
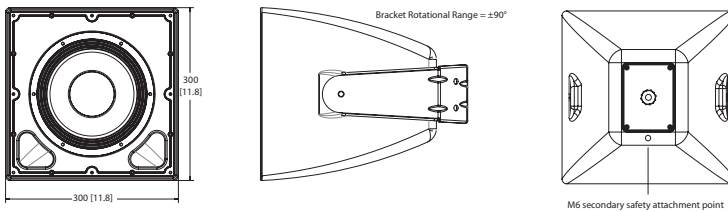
## Dimensions



## Attaching U-Bracket to Cabinet



## Terminal Compartment



Gland nut for round jacketed cable between 4.0mm (0.16") and 9.0mm (0.36") O.D.



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