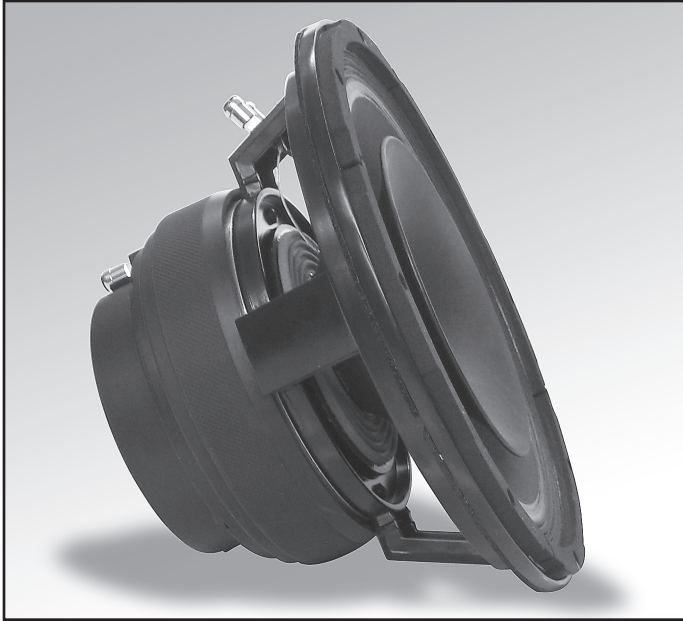


212-8A TWO-WAY LOUDSPEAKER



GENERAL DESCRIPTION

Great Plains Audio designs and manufactures some of the finest loudspeakers in the world. We continue this tradition of excellence with the release of our newest loudspeaker, the Great Plains Audio Model 212-8A.

The extension of usable lower frequency limits and the expansion of available dynamic range have placed greater demands on audio monitoring systems. As audio-video facilities are constructed or upgraded to accommodate HDTV, equal attention should be placed on providing a superior acoustic setting. The 212-8A will deliver the high definition audio reproduction required for this environment. Recording studios, mastering facilities, and home theater rooms are also perfect applications for this amazing loudspeaker.

The 212-8A is a high efficiency, two-way loudspeaker. Lower profile and less weight are both realized from this incisive design, because the two transducers of the 212-8A share a single magnet. The back section of the magnet is utilized for the high frequency voice-coil, while the front section of the magnet is used for the low frequency voice-coil. A high grade aluminum alloy diaphragm is attached to the back voice-coil. High frequency sound waves, produced by the voice-coil and diaphragm assembly, are guided into an exponential throat with a 1.4 in. (36 mm) diameter exit, and delivered through a 90° horn. This exponential throat actually passes through the center of the front voice-coil. Low frequency sound waves are produced by a 12 in. (305 mm) diameter cone, which is attached to this high power voice-coil. A N1500-8A crossover is provided for directing the appropriate band

limited energy to both the high and low frequency elements. The two separate transducer elements work together, from a single die-cast frame, to approach a virtual point-source soundscape.

Each member of our team at Great Plains Audio has over 20 years of experience in building high quality audio products. We employ our combined skills and expertise to make the 212-8A one of the best two-way loudspeakers in the world.

SPECIFICATIONS

Frequency Response:	45 Hz - 16 kHz (See Figure 1.)
Power Rating:	300 watts continuous band limited (40 Hz - 16 kHz) pink noise with a 6 dB crest factor according to AES Standard 2.
Sensitivity:	97 dB SPL from 1 watt input, measured at 1 meter
Maximum Output:	121.5 dB SPL (at 1M, calculated from Sensitivity and Power Rating)
Nominal Impedance:	8.0 ohms
Crossover:	N1500-8A - (1,500 Hz, 12 dB / Octave, Passive LF and HF)

Thiele-Small Parameters

Free Air Resonance (f_s):	51.2 Hz
Equivalent Volume Compliance (V_{AS}):	3.76 ft. ³ (106.4 l)
Total Q (Q_{TS}):	0.46
Electrical Q (Q_{ES}):	0.48
Mechanical Q (Q_{MS}):	10.57
Reference Efficiency (η_o):	2.89%
D.C. Resistance (R_E):	5.83 ohms
Peak Linear Displacement (X_{MAX}):	0.12 in. (3 mm)
Peak Linear Volume Displacement (V_D):	9.8 in. ³ (0.16 l)
Effective Piston Area (S_D):	81.7 in. ² (527.1 cm ²)

Additional Parameters

Effective Piston Diameter:	10.2 in.
Voice Coil Inductance:	0.7 mH
BL Factor:	18
Magnet Type:	Ferrite
Magnet Weight:	6.87 lbs. (3.12 kg)
Flux Density:	LF = 12,800 Gauss HF = 13,500 Gauss

Transducer Components

Low Frequency:	One low frequency woofer - 12 in. (305 mm) diameter cone 3 in. (76 mm) diameter voice-coil
High Frequency:	One high frequency driver - 1.4 in. (36 mm) diameter throat exit 2.8 in. (71 mm) diameter voice-coil

Input Connections: Spring-loaded push terminals

Recommended Enclosure details

Internal Volume:	4.5 ft. ³ (127.4 l)
Tuning:	43.25 Hz - [5 in. (127 mm) diameter by 2.5 in. (64 mm) long vent for the above Internal Volume]

Finish: Textured Black Powdercoat

Weight

Net:	21 lbs. (9.5 kg)
Shipping:	26 lbs. (11.8 kg)

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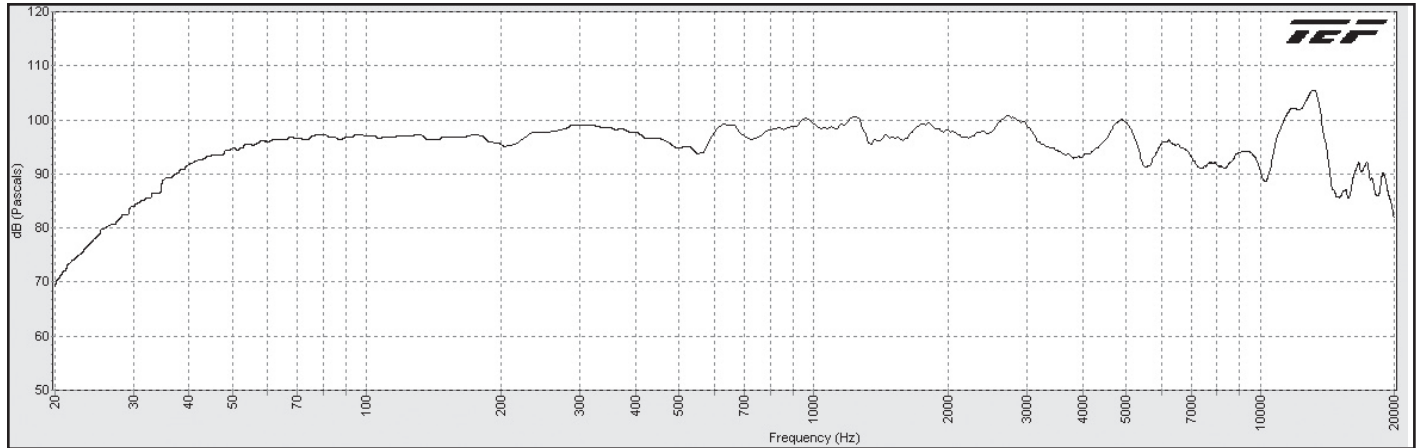
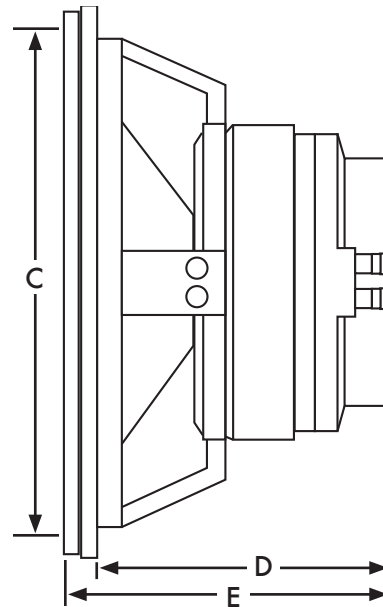
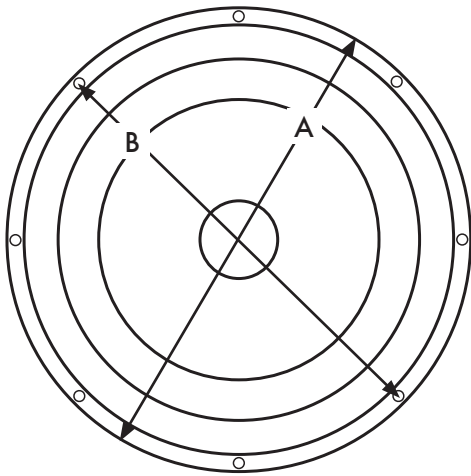


Figure 1. Frequency Response



DIMENSIONS

A. Outside Diameter: 12.250 in. (311 mm)

B. Bolt Circle Diameter: 11.625 in. (295 mm)

C. Cut-out Diameter: 11.188 in. (284 mm)

Depth:

D. Front Mount: 8.00 in. (203 mm)

E. Rear Mount 8.75 in. (222 mm)



Great Plains Audio

7127 Northwest 3rd Street
Oklahoma City, Oklahoma 73127

405 789-0221

www.greatplainsaudio.com

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Specifications subject to change without notice. Overall performance will be maintained or improved.