MODEL 909-8/16A

HIGH FREQUENCY COMPRESSION DRIVERS

GREAT PLAINS AUDIO™

Great Plains Audio's 909-Series of high frequency compression drivers are designed to give excellent audio reproduction at high levels over a wide frequency range with extremely high efficiency. When used with constant-directivity, sectoral, or other appropriate horns, the ***909-series HF Drivers*** provide uniform response to the upper range of human hearing. When combined into system that incorporate low frequency loudspeakers and dividing networks, the **Great Plains Audio Models 909-8A** and **909-16A High Frequency Compression Drivers** provide the natural sound reproduction demanded by even the most discerning listeners. Regardless of where they may be used, whether it be in commercial installations or the finest home audio systems, **Great Plains Audio's 909-series High Frequency Compression Drivers** will provide the most realistic sound reproduction possible today with the least amount of induced distortion at high operating levels.

❑ *Superior HF Reproduction -*

All high frequency compression drivers consist of three basic parts: (1) the diaphragm; (2) an acoustical transformer (also known as a phasing plug); and (3) a motor (the magnet). All ***Great Plains Audio*** high frequency compression drivers have been are designed and built using the finest engineering methods and materials to the highest manufacturing tolerances in the industry.

The focal point of our ***909-series HF Drivers*** is the diaphragm/voice coil assembly, the design of which is critical to accurate sound reproduction. Even though many manufacturers today try to claim they have discovered a superior method of high-frequency reproduction, **Great Plains Audio** has chosen a different paradigm. By utilizing only the finest, time-tested materials and manufacturing methods in the construction of it's high-frequency section, including: (1) an all-metal **Pascalite™** dome structure; (2) a tangential compliance; and (3) a voice-coil of 1 3/4-inch edgewound copper clad aluminum ribbon. These features assure superior sound reproduction of the frequencies above crossover in our ***909-series*** of high frequency drivers.

In order to assure that the sounds being generated by the diaphragm leave the loudspeaker in proper phase alignment, the ***909-series*** use our exclusive **RADIALWAVE™** phasing system, which ensures maximum high frequency reproduction while maintaining proper phasing and smooth overall response to beyond 20 kHz.

Finally, a powerful magnet structure combines the other two portions of our ***909-series*** of high frequency compression drivers together and transforms them into a system that reproduces the sound in a natural manner. Each ***909-series*** high frequency compression driver has an efficient magnetic structure utilizing a 2.5 pound ferrite magnet with a flux density of 18,000 gauss.

Working in tandem, the **Pascalite™** diaphragm, **RadialWave™** phasing system, and the small yet powerful motor structure ensure that the **GPA Models 909-8A** and **909-16A High Frequency Compression Drivers** are capable of uniform, peak-free reproduction throughout the range of human hearing at high operating levels, thus making them excellent choices as the high frequency components in medium and small sound system environments. ■

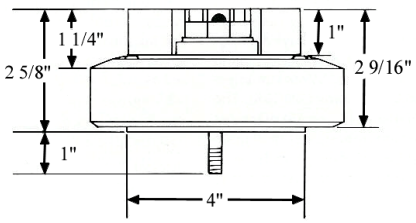
"The Legacy Lives On"™

909-8A & 909-16A High Frequency Compression Drivers

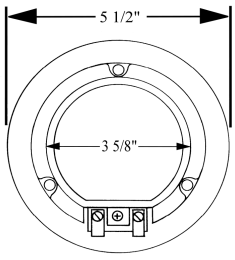
PERFORMANCE SPECIFICATIONS -

Frequency Response:	500 Hz - 20 kHz at rated power.
Power Handling:	30 watts continuous pink noise from 500 Hz to 20 kHz. Measurements made on a Great Plains Audio Model 511B Horn.
Pressure Sensitivity:	108 dB SPL measured at 1 meter from the mouth of a GPA Model 511B Horn with 1 watt input of band limited pink noise, 1200 Hz -5000 Hz.
Minimum Impedance:	Model 909-8A = 8 ohms Model 909-16A = 16 ohms
Input Connections:	Pushbutton terminals.
Diaphragm Construction:	Hydropneumatically formed all-metal **Pascalite™** dome and tangential compliance driven by a 1.75-inch diameter voice coil of edgewound aluminum ribbon.
Magnet:	Ferrite V, 40-ounces
Flux Density:	18,000 gauss
Acoustical Transformer:	RadialWave™ Phasing System.
Venting:	Balanced, internal magnet venting/large rear cover.
Dimensions:	Diameter = 5 ½-inches Depth = 2 5/8-inches (less mounting studs)
Net Weight:	6 lbs., 6 oz.
Shipping Weight:	7 lbs., 3 oz.
Mounting Data:	Two 1/4-20 studs on a 3-inch diameter bolt circle.
Finish:	Gray powder coat paint with black rubber boot.
Replacement Diaphragms:	Model 909-8A = #26420 Model 909-16A = #26421

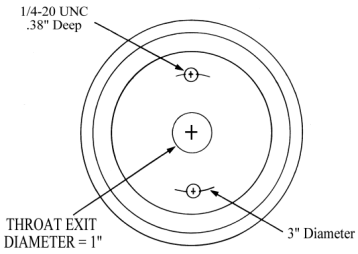
- Dimensions -



SIDE VIEW



TOP VIEW



BOTTOM VIEW

ARCHITECT'S AND ENGINEERS SPECIFICATIONS

Power capacity; 30 watts continuous pink noise, band-limited from 500 to 20,000 Hz when mounted on a Great Plains Audio Model 511B Horn. Frequency Response: uniform from 500 - 20,000 Hz. Pressure Sensitivity: 108 dB SPL when measured at one meter on axis from the mouth of above specified horn with one watt of pink noise, band limited from 1200 - 5,000 Hz. The minimum impedance shall be 8 ohms for the Model 909-8A, and 16 ohms for the Model 909-16A. The voice coil shall be 1 3/4 inches in diameter, manufactured using of edgewound aluminum ribbon, and shall operate in a magnetic gap having a flux density of 18,000 gauss derived from a 40 ounce Ferrite V magnet. The diaphragm dome and tangential compliance shall be of all-metal **Pascalite™** construction. An acoustical transformer with 9 radial acoustic slots installed underneath the diaphragm shall provide proper phase relationship between the sound emanating from the center and edges of the dome. The entire diaphragm shall be field replaceable without requiring special tools. The driver exit throat shall be 1 inch in diameter and shall mount to appropriate horns with two 1/4-20 studs mounted on a 3-inch bolt circle. The driver shall be 5 ½ inches in diameter, 2 5/8 inches deep, and shall have a weight 6 pounds, 6 ounces.

The compression driver loudspeaker shall be the Great Plains Audio Model 909-8A, or the Model 909-16A.

Great Plains Audio

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