GREAT PLAINS AUDIO™

MODEL 416-8C
HIGH-DEFINITION LOW-FREQUENCY LOUDSPEAKER

"The Legacy Lives On"™



Great Plains Audio is pleased to offer one of the most accurate and versatile low frequency loudspeakers available today, the **GPA Model 416-8C High-Definition Low-Frequency Loudspeaker.** Designed to provide unsurpassed low-frequency reproduction, the **Model 416-8C** is suitable for use in professional sound reinforcement venues, studio monitoring systems, and home theatre applications. In systems where smooth frequency response, superb clarity, natural sound quality, high efficiency, low distortion, and excellent linearity are a requisite, the ***Great Plains Audio Model 416-8C High-Definition Loudspeaker*** is the unit of choice.

Audio enthusiasts are not unfamiliar with the ***416-series*** of loudspeakers - they've been in use in some of the most famous audio systems ever built by Altec Lansing, including the A-7 version of the Voice of the Theatre®, their Magnificent and Valencia systems, and the most renown home audio loudspeaker ever produced, the Altec Model 19. Great Plains Audio is proud to keep the legacy of the 416-series alive, assuring that it's legendary sound will not be lost to those who appreciate it's quality of manufacture and solid sonic performance.

❑ *Digital Ready? OF COURSE!*

The amount of low frequency program material found in today's digital recordings is much greater than in other recorded media. When a loudspeaker system accurately reproduces such sounds, the result is impressive. When it does not, the results can often been unbearable to listen to. Most manufacturers, attempting to make their speakers "digital ready", realize that substantial changes must be made in their speaker designs if they are going to be able to keep up with the audio found in the today's world of high-definition audio. Large, heavy voice coils, inarticulate suspension systems, cones that weigh far too much to be able to reproduce the middle of the audio spectrum accurately - these are but a few of the compromises that must be made if ordinary speakers are going to be able to function in the digital world. In addition, speakers of this type require massive amounts of amplifier power to operate. Not only that, but most of these types of designs incorporate voice coils that "overhang" outside of the magnetic field, a method of construction that results in a significant loss of control of cone movement, greatly reducing the ability of the loudspeaker to articulate sounds with the precision demanded by today's listeners and performers.

Great Plains Audio's 416-8C High-Definition Low-Frequency Loudspeaker doesn't rely on such tactics in order to be able to respond to the demands of digital music and sound effects. Instead, it has a lightweight cone, high-compliance suspension, and it's voice coil remains in the magnetic gap at all times. The 416-8C's low cone resonance eliminates self-generation of unwanted harmonic components when mounted in a properly designed enclosure.

The **GPA 416-8C** uses a massive 4.875-pound FerriteV magnet, which provides 11,000 gauss of flux density, an edgewound copper ribbon voice coil, a very light cone assembly, and a low distortion cloth suspension, which enables them to provide extended bass response, extremely high linearity, and amazing efficiency. ■

MODEL 416-8C LOW-FREQUENCY LOUDSPEAKER

PERFORMANCE SPECIFICATIONS -

Frequency Response*: 20-1600 Hz

Power Handling**: 75 watts

Pressure Sensitivity:***

Enclosure:	**612C**	97.0 dB
	816A	99.5 dB
	828G	100.0 dB

Minimum Impedance: 8 ohms

Input Connections: Large push-button type terminals.

Thiele-Small Parameters:

Xmax (inch)	0.15
Re (ohms)	6.55
Vd (cu. in.)	19.70
Fs (Hz)	22.90
Vas (cu. ft.)	24.50
Ref. Eff (%)	6.55
Qts	0.21
Qms	6.70
Qes	0.22

Magnet Type: FerriteV

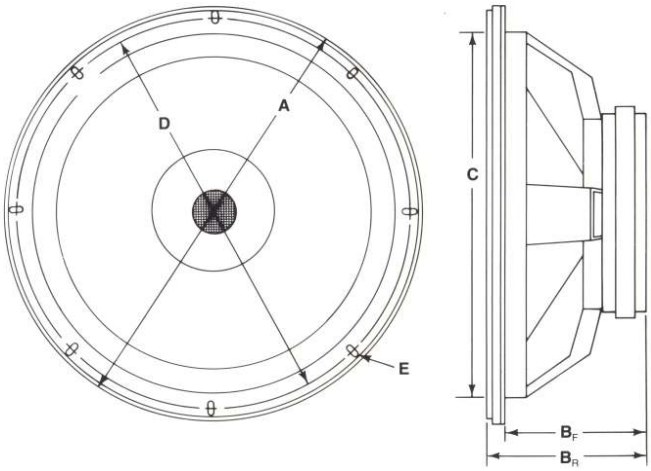
Magnet Weight: 4.875 pounds

Flux Density: 11,000 Gauss

Net Weight: 21 pounds.

Finish: Gray powder coat paint.

Loudspeaker Mounting Dimensions:



A = Loudspeaker Diameter: 16"

B_F = Depth When Front Mounted: 6 1/8"

B_R = Depth When Rear Mounted: 6 15/16"

C = Baffle Opening Diameter: 14 1/8"

D = Bolt Circle Diameter: 15"

E = Bolt Hole Slots: 1/4" x 3/4" (8 slots spaced 45° apart)

NOTES:

* Low frequency limit is the 3 dB down point using the particular enclosure and the Thiele/Small parameters of the loudspeaker.

** AES power rating (measured Power = E^2/R, using Pink Noise with a crest factor of 6 dB and a band limit of 60-600 Hz).

*** Measured in the free-field at 4' on-axis with one watt (Power = E^2/R), of band-limited pink noise from 100 to 1000 Hz.

GREAT PLAINS AUDIO™

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