



JBL 4400 SERIES STUDIO MONITORS.



A NEW STANDARD OF TRUTH IN MONITORING.

WHAT IS A MONITOR?

A system cannot truly be called a monitor unless it is used as a working sonic reference for some branch of recording, broadcasting, or post-production.

Many loudspeaker manufacturers label their products *monitors*, when in fact they are little more than conventional bookshelf hi-fi systems. JBL's manufacturing expertise goes back many years, and we can confidently state that we "wrote the book" on both large and small studio monitors.

FLAT AXIAL RESPONSE AND SMOOTH POWER RESPONSE

With the 4400 Series, we are introducing a new standard in small systems. In addition to the traditional JBL attributes, these new monitors exhibit the smoothest power response we have ever produced in each size class, and the most extended high-frequency axial response (extending out to 27 kHz).

In most monitoring environments, about half of the sound reaching the engineer's ears has been reflected at least once. The ear "zeroes in" on the first arrival sound, and when on-axis response is smooth and free of peaks and dips, this first-arrival sound will be an accurate replica of original input. If this were the only technical criterion involved, many monitors would score passing marks. But once you put a monitor in the control room, the nature of the reflected sound becomes important. The concern is with the total acoustical power radiated by the loudspeaker into the listening environment; in short, its *power response*.

Each element in the 4400 system has been carefully integrated to ensure that the total radiated power from the system is as smooth as it can possibly be given the number of drivers employed. Careful attention has been given to the dividing networks and transitions from driver to driver, so that response is smooth, and interaction phenomena negligible.

The result is a lack of coloration in the reflected sound spectrum, allow-

ing the engineer and producer to work for long periods with little or no listening fatigue.

HIGH POWER OUTPUT CAPABILITY

JBL monitors stand alone in their ability to play loudly and clearly, with no significant limitations in any part of the spectrum.

This performance is the result of thorough engineering at each technical step. Comprehensive transducer technology, including the use of flat edgewound voice coils of large diameter, machined parts with very tight tolerances, unique Symmetrical Field Geometry magnetic structures, and rugged cast frames (rather than the more common stamped frames) all help in maintaining signal purity under high drive input conditions. And because our large, precisely-wound voice coils dissipate heat more efficiently than smaller ones, there is less dynamic compression.

Attention to mechanical details is also important in meeting power handling demands. For example, JBL is one of very few companies to utilize progressive stiffness in internal transducer suspensions to improve overall linearity at high excursions.

JBL's intense focus on high acoustical output has produced a monitor series that delivers dramatically greater power than other systems, with significantly less effort.

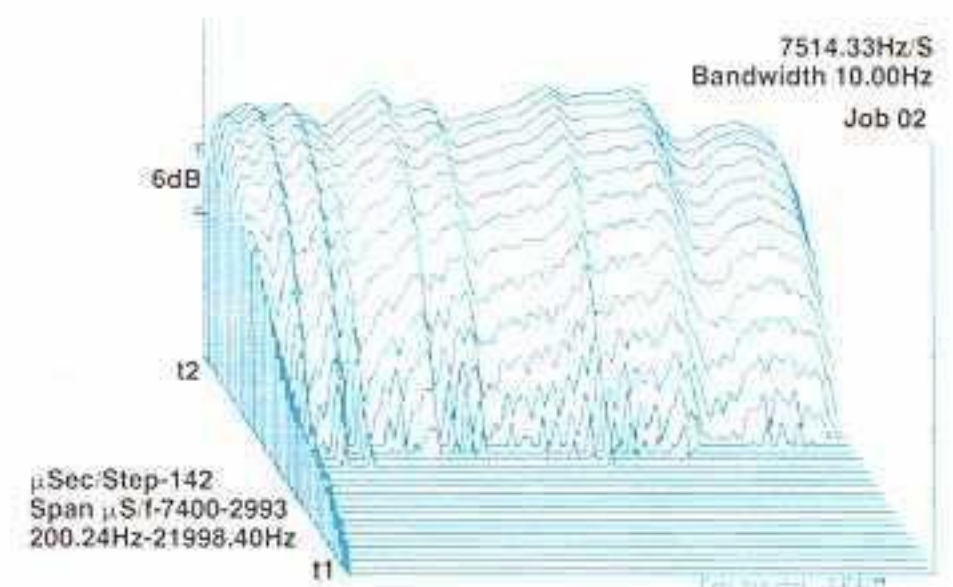


PURE TITANIUM HIGH-FREQUENCY DOME

The new 4400 Series has a high-frequency response that remains remarkably smooth through the critical 3,000 to 20,000 Hz range. In fact, the 4400 Series accuracy extends beyond audibility to 27 kHz, reducing phase shift within the audi-

ble band for more natural sound.

This superlative response is due to JBL's unique titanium-diaphragm dome tweeter, the result of our ongoing research in materials technology. JBL's exclusive rib-domed titanium tweeter and patented diamond surround combine to withstand forces surpassing a phenomenal 1,000 G's. That means the transient details that are so often blurred in other diaphragms are easily reproduced by the JBL driver.

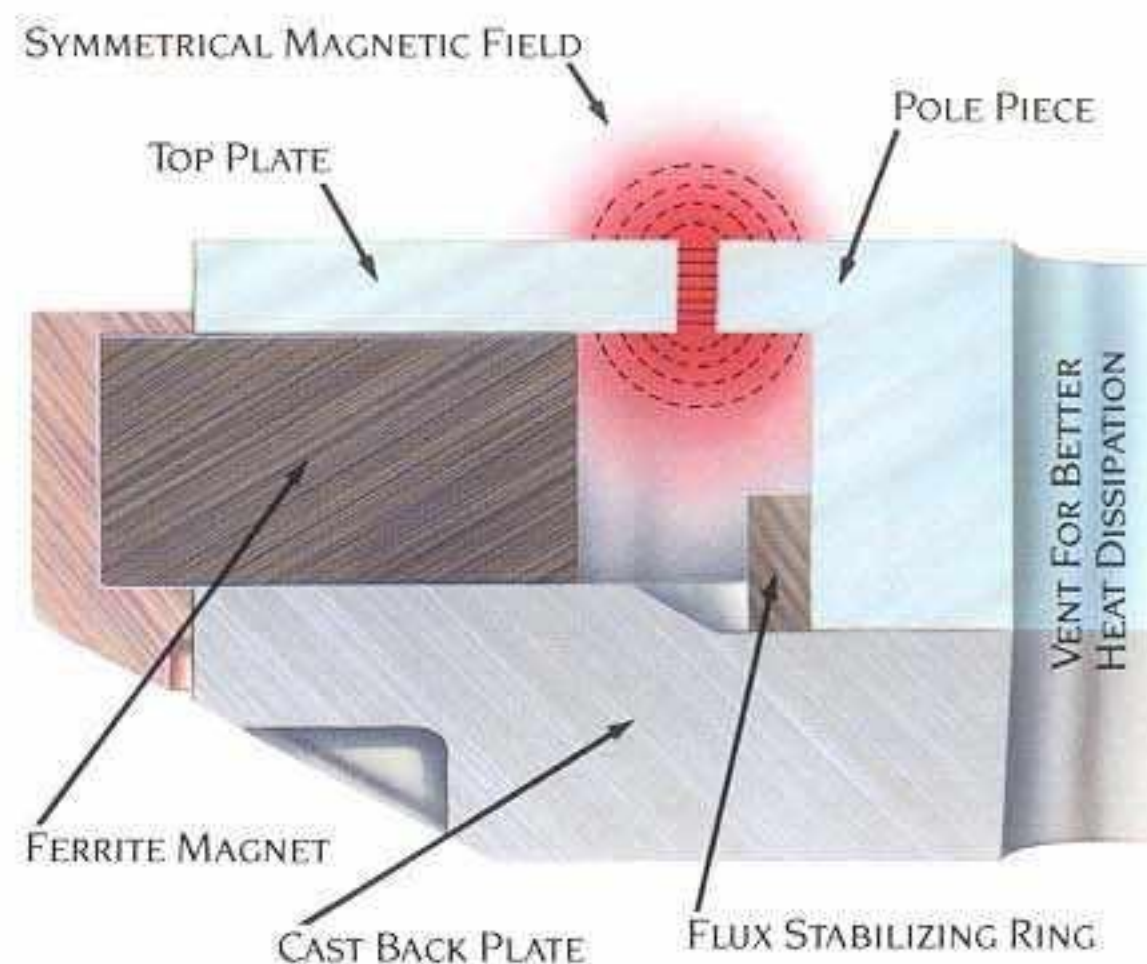


TIME DOMAIN RESPONSE

The 4400 Series monitors exhibit remarkably flat phase response over the critical range from 200 Hz to 20 kHz. For the audio professional, this means far more accurate sound reproduction, allowing the quality of today's advanced recording media to be clearly perceived.

MID AND LOW FREQUENCY DRIVERS

The same technical precision has also been incorporated into each 4400 Series monitor's mid-range and



Cross-section of JBL magnetic structure.

low-frequency drivers. In fact, the size, design, and material of each 4400 Series speaker has been specifically tailored to the function of each monitor.

BASS RESPONSE

Achieving deep, powerful bass is difficult in conventional speakers because of harmonic distortion. Bass frequencies often distort because most drivers' magnetic structures have non-symmetrical magnetic fields, which produce unbalanced forces on the voice coil.

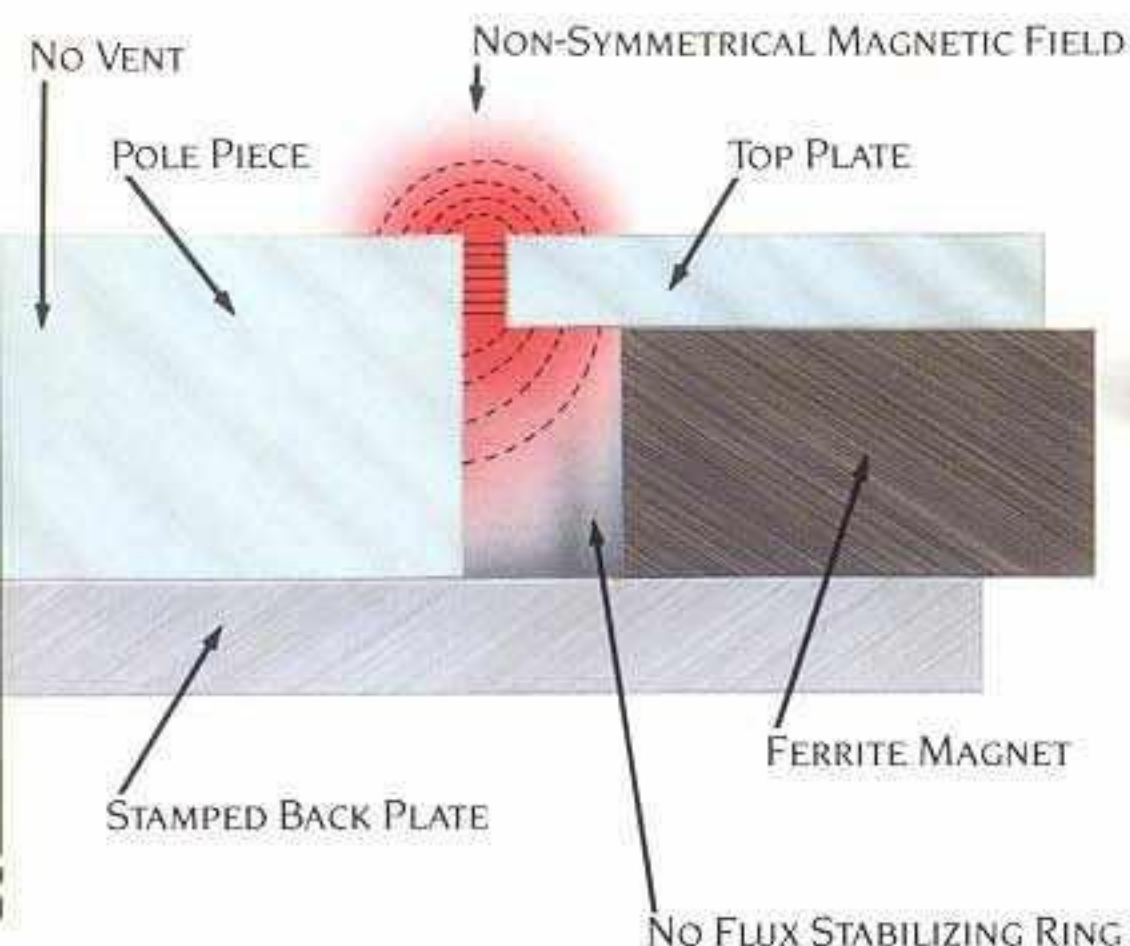
The new 4400 Series dramatically reduces bass distortion through the use of JBL's exclusive Symmetrical Field Geometry magnetic structure. SFG's linear force on each 4400 monitor's large voice coil ensures bass clarity and exceptional transient response.

DIVIDING NETWORKS

The dividing network in each 4400 Series Monitor employs detailed conjugate circuits to allow optimum crossover between drivers in both amplitude and phase domains. Bypass capacitors are used to maintain clear transient detail and clarity. And precisely calibrated reference controls let you adjust for personal preferences, room variations, or specific equalization requirements.

GRILLE DETAIL

The grille design used in the 4400 Series employs tapered boundaries,



Conventional magnetic structure.

which result in minimum diffraction effects and reduced edge reflections. Smooth response is assured with or without grilles.

HEAR THE TRUTH

JBL's remarkable new generation of studio monitors captures the full dynamic range, extended high frequency, and precise character of your sound as no other monitors in the business. Experience the 4400 Series Monitors at your JBL dealer's today, and hear the "truth" about your studio's sound.



4410 STUDIO MONITOR

The powerful 3-way 10-inch Model 4410 features a vertical line array that gives maximum spatial detail at greater listening distances. The special laminated high polymer composite 10" (250 mm) woofer has outstanding power handling capabilities, delivering extraordinary punch and fidelity.



4406 STUDIO MONITOR

The 2-way 6-inch Model 4406 monitor is ideal for console or close-in listening. The low-distortion 6" (170 mm) woofer is composed of a filled polypropylene material which provides both high internal damping and excellent structural integrity.



4412 STUDIO MONITOR

The 3-way 12-inch Model 4412 is highlighted by an ultra-large, ultra-precise 12" (300 mm) laminate composite woofer. Its tight-cluster arrangement and superior power-efficiency make it the ultimate monitor for close-in listening. The mid-range element and larger woofer allow for greater power handling, increased sensitivity, and extended bandwidth.



4408 STUDIO MONITOR

JBL's 2-way 8-inch Model 4408 is an ideal choice for broadcast and general monitoring applications. The low-distortion 8" (200 mm) composite woofer gives maximum stiffness, mass, and internal damping, for superior reproduction of both speech and music.

SPECIFICATIONS:

4406 STUDIO MONITOR

SYSTEM:	
Frequency Range (-6 dB):	45 Hz-27 kHz
Frequency Response (± 2 dB):	55 Hz-20 kHz
Power Rating:	75 watts, pink noise
Sensitivity:	87 dB SPL, 1 watt (2.83 V) at 1 meter
Nominal Impedance:	8 ohms
Crossover Frequency:	3 kHz
Transducer Complement:	165 mm (6.5 in) LF, filled polypropylene cone 25 mm (1 in) HF, pure titanium dome
GENERAL:	
Finish:	oiled walnut
Grille Color:	blue
Optional Equipment:	MC 4401 Speaker Cradle for free standing use or wall mounting
Dimensions:	390 mm x 238 mm x 216 mm (15 3/8 in x 9 3/8 in x 8 1/2 in)
Weight (each):	7.7 kg (17 lb)
Shipping weight (pair):	16 kg (35 lb)

4408 STUDIO MONITOR

SYSTEM:	
Frequency Range (-6 dB):	40 Hz-27 kHz
Frequency Response (± 2 dB):	50 Hz-20 kHz
Power Rating:	100 watts, pink noise
Sensitivity:	89 dB SPL, 1 watt (2.83 V) at 1 meter
Nominal Impedance:	8 ohms
Crossover Frequency:	2.5 kHz
Transducer Complement:	200 mm (8 in) LF, felted cone 25 mm (1 in) HF, pure titanium dome
GENERAL:	
Finish:	oiled walnut
Grille Color:	blue
Dimensions:	438 mm x 305 mm x 293 mm deep (17 1/4 in x 12 in x 11 3/8 in deep)
Weight:	12 kg (26 lbs)
Shipping Weight:	13.6 kg (30 lb)

4410 STUDIO MONITOR

SYSTEM:	
Frequency Range (-6 dB):	35 Hz-27 kHz
Frequency Response (± 2 dB):	45 Hz-20 kHz
Power Rating:	125 watts, pink noise
Sensitivity:	91 dB SPL, 1 watt (2.83 V) at 1 meter
Nominal Impedance:	8 ohms
Crossover Frequency:	800 Hz; 4.5 kHz
Transducer Complement:	250 mm (10 in) LF, Aquaplas laminate cone 125 mm (5 in) midrange cone 25 mm (1 in) HF, pure titanium dome
GENERAL:	
Finish:	oiled walnut
Grille Color:	blue
Dimensions:	597 mm x 362 mm x 286 mm deep (23 1/2 in x 14 1/4 in x 11 1/4 in deep)
Weight:	19 kg (43 lbs)
Shipping Weight:	23 kg (50 lbs)

4412 STUDIO MONITOR

SYSTEM:	
Frequency Range (-6 dB):	35 Hz-27 kHz
Frequency Response (± 2 dB):	45 Hz-20 kHz
Power Rating:	150 watts, pink noise
Sensitivity:	90 dB SPL, 1 watt (2.83 V) at 1 meter
Nominal Impedance:	8 ohms
Crossover Frequency:	800 Hz and 4.5 kHz
Transducer Complement:	300 mm (12 in) LF, Aquaplas laminate cone 125 mm (5 in) midrange felted paper cone 25 mm (1 in) HF, pure titanium dome
GENERAL:	
Finish:	oiled walnut
Grille Color:	blue
Dimensions:	362 mm x 597 mm x 286 mm deep (14 1/4 in x 23 1/2 in x 11 1/4 in deep)
Weight (each):	21 kg (47 lb)
Shipping Weight (each):	24 kg (53 lb)

