

SOUND REINFORCEMENT SYSTEMS



MR Series: A New Standard Of Performance.

At JBL we've worked hard to build our reputation by meeting the evolving needs of professional musicians, engineers, and producers. As the world of music making has become more complex, the ears of musicians and audiences alike have become tremendously more discerning. Consequently, the JBL "standard" of performance has also become equally more sophisticated, catering to an increasingly perceptive market.

One challenge we welcomed was to deliver a combination of perfectly matched top notch components and enclosure construction within a price range that was affordable for the emerging performer. The result of over two years of extensive product development is the MR Series Loudspeaker Systems for music reinforcement.

MR Series systems benefit from recent advancements in transducer technology and enclosure fabrication and construction methods. The experience obtained developing our SR4700 Series helped us achieve new levels of durability and cost efficiency. From completely new transducers to new enclosure materials, MR Series is undeniably your ticket to a great performance.

New 100° x 80° Flat-Front Bi-Radial® horn for wide pattern control of high frequency information.

Double lacquer-dipped curvilinear cone minimizes cone break-up modes for lower distortion.

SHG™ magnet design for a symmetrical magnetic field, resulting in lower distortion.

Thermoset Composite™ voice coil assembly for high structural integrity and reliability.

16 lb. magnet structure for maximum efficiency and heat dissipation.

18-gauge painted steel grille for maximum protection of low frequency transducer. Glass-reinforced Lexan® interlocking corner protectors.

Newly designed high

strength diecast aluminum frames for high reliability under heavy road use. Engineered Strand Board (ESB[™]) hardwood enclosure material assembled with high temperature adhesives and clamped in a 10ton press (patent pending).

- Pure titanium diaphragm compression driver with patented diamond pattern surround for clean, crisp high frequency reproduction.
- Hardwood bracing to eliminate enclosure resonances.
 - Precision crossover network for seamless transition between system components.
 - Absorbtive glass wool lining to neutralize internal standingwaves.
- Integral 35 mm standmount for use with the optional JBL model MT4712 tripod stand.

MR Series systems feature new low frequency transducers designed exclusively for the line. To ensure maximum efficiency and heat dissipation for a high acoustic output and reliability under heavy demand, we've used an impressive 16 lb. magnet as-

sembly. Harmonic distortion elements are suppressed and controlled through the application of Selective Harmonic Geometry (SHG[™]) technology



in the pole piece design, resulting in solid, clean bass output. To significantly increase power handling, a new Thermoset Composite[™] voice coil, employing a fiberglass former and ultra-high temperature adhesives, was developed. Other transducer features include lacquer dipped curvilinear cones for superior strength and rigidity, and carefully matched compliance and spider components for maximum travel and linearity of the cone.

New adhesive technology has also been incorporated in the performance-proven pure titanium diaphragm compression driver used in the MR Series systems, along with the more sophisticated

> annular slit phasing plug utilized in more expensive pro component drivers. Coupled to a newly designed Flat-Front Bi-Radial® horn, high frequencies are accurately reproduced and dispersed over a 100° x 80° pattern for wide coverage. An important feature when a minimal number of speakers must cover a large space. The new horn also provides much closer alignment of the acoustic centers of both the compression driver and low frequency transducer, resulting in superior system clarity and articulation, particularly in the speech range.

All MR Series crossover networks are engineered to provide smooth transitions between system transducers. Bypass capacitors are used to lower distortion and improve system transient response. Close tolerance components, including Mylar capacitors, low DCR inductors and heavy duty switches, are

JBL

As the most compact system in the MR Series, the MR822 is ideal for the 12" 2-Way Speaker System performer on the go. Its small size and big sound make it perfectly suited for use in speech and vocal reinforcement applications, or mated to a subwoofer/bass system for higher

level music playback. The standmountable MR822 features a 12" low frequency transducer matched with a pure titanium compression driver on a 100° x 80° Flat-Front Bi-Radial® horn.



MR825 A 15" low frequency transducer and a pure titanium compression driver on a 15" 2-Way Speaker System 100° x 80° Flat-Front Bi-Radial® horn makes the standmountable MR825 a truly great general purpose full-range sound reinforcement system. The 15" LF driver produces strong bass output while the compression driver/horn combination smoothly disperses mid- and high-frequencies over an optimum field. A great reinforcement system for speech or vocals, full range music playback, or reproduction of amplified musical instruments.

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level music playback. The standmountable MR822 features a 12" low frequency transducer matched with a pure titanium compression driver on a 100° x 80° Flat-Front Bi-Radial® horn.



A 15" low frequency transducer and a pure titanium compression driver on a 15" 2-Way Speaker System 100° x 80° Flat-Front Bi-Radial® horn makes the standmountable MR825 a truly great general purpose full-range sound reinforcement system. The 15" LF driver produces strong bass output while the compression driver/horn combination smoothly disperses mid- and high-frequencies over an optimum field. A great reinforcement system for speech or vocals, full range music playback, or reproduction of amplified musical instruments. Featuring a new 15" low frequency transducer, 8" cone midrange, and a 15" 3-Way pure titanium compression driver mounted to a Flat-Front Bi-Radial® horn, the MR835 offers smooth, wideband frequency

> response and high power handling. The cone midrange gives a much "warmer" character to midrange sounds, making the MR835 ideal for use in close-proximity applications; DJ music playback, on-stage monitoring, or general sound reinforcement where the audience is close to the sound system.



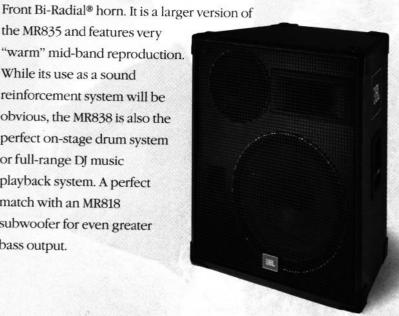
MR826 The highest possible acoustic output is delivered with maximum efficiency by 15" Horn-Loaded the horn-loaded 15" low frequency transducer.

The large vented enclosure (nearly 5 cubic feet) results in a deep, powerful bass with minimal effort. The low frequency section is complemented by a pure titanium compression driver mated to a 100° x 80° Flat-Front Bi-Radial® horn. The result is a system of unparalleled performance at an incredibly affordable price. Unbeatable for all-around sound reinforcement applications.



 MR838
 The MR838 integrates an 18" low frequency transducer, 10" cone
 15" 3-Way midrange, and a pure titanium Speaker System compression driver on a Flat-

> the MR835 and features very "warm" mid-band reproduction. While its use as a sound reinforcement system will be obvious, the MR838 is also the perfect on-stage drum system or full-range DJ music playback system. A perfect match with an MR818 subwoofer for even greater bass output.



MR818 Our new 18" low frequency transducer anchors this powerful bass system.

18" Subwoofer System The enclosure's volume and tuning are designed to optimize lowend response for sound reinforcement subwoofer applications or as the driving bass element in a DJ playback system. The extended high frequency response of this speaker also make it ideal as a full range bass instrument speaker system.



Instra

Instra

MR812Is the perfect choice for any
guitar player wanting to hear every12" Musicalnuance of their performance loud and
clear. This ultra-

compact speaker system, designed with interlocking corner protectors for easy stacking, employs JBL's new 12" M121-8 transducer.



A new system designed for electric bass, features the new 15" M151-8 transducer.
15" Musical It outputs a prodigious bass sound relative to its minimum size and portability. Also ideal as a complementary bass system for general sound reinforcement and DJ playback systems.

MR802Designed to provide either
30° or 60° playback angles,12" 2-Way Stagethis compact two-wayMonitor Systemsystem features a new 12"

low frequency transducer and a pure titanium diaphragm compression driver on a Flat-Front Bi-Radial® horn.

This low profile, compact two-way system matches a 15" low frequency
15" 2-Way Stage transducer with a pure titanium
Monitor System diaphragm compression driver

mounted to a Flat-Front Bi-Radial® horn. Like the MR802, the MR805 also gives you the choice of 30° or 60° angulation for increased versatility. securely mounted to high grade printed circuit boards. This ensures solid intercomponent connection during repeated setup, teardown and shipping typical of road use.

The crossover network is mounted on a deep recessed terminal cup. These deeper cups hide connectors and prevent possible connector and/or terminal cup breakage if the speaker is accidentally pushed up against a wall or over on its back. And, the increased wall thickness of the new cup's tougher design also provides greater reliability against those road hazards.

MR Series enclosures are made of ultra-modern materials and employ assembly technologies unique to JBL. The enclosures are fabricated of Engineered Strand Board (ESB[™]). After exhaustive tests, ESB has proven to have the durability of plywood with several additional benefits. Made of hardwood, ESB exhibits the resiliency of plywood at a significantly lower cost. This is a major reason why MR Series offers greater performance and component quality without the greater price.

Finally, and of extreme importance, ESB is made of Aspen, a tree that quickly regenerates and can be commercially cultivated. Unlike the manufacturing of plywood, the ESB production process does not produce toxic wastes. At JBL we are as vitally interested in a sound environment as we are the development of sound reproduction.

The unique enclosure assembly (patent pending) involves the use of tongue-

in-groove construction, high temperature adhesive and a 10 ton press which clamps the assembly together while the adhesive completely sets. Other enclosure features include the use of hardwood stiffeners, fiberglass acoustic lining, heavy-duty component mounting hardware, glass-reinforced Lexan® corner protectors and comfort-fit handles.

The exterior of the enclosures is finished in a rugged pebble-finish Tolex[®]. The speaker components are protected by an 18 gauge perforated steel grille, and 35 mm standmount receptacles are standard equipment *(on designated models)* for use with our MT4712 tripod.

With exception of the MR812 and MR815 musical instrument systems and the MR802 and MR805 stage monitors, MR Series enclosures are trapezoid in shape. This permits the forming of arced arrays when using multiples in tight cluster arrangements. The corner protectors are designed with interlocking feet so that those models of the same width and depth dimensions can be safely stacked.

Now, as you read through this brochure remember, we've developed the MR Series for you. Serious loudspeaker systems that deliver out-of-this-world performance at down to earth prices. From the single transducer guitar boxes and 2-way stage monitors to 3-way full range systems and 18" subwoofer, MR Series systems produce a powerful, clean, contemporary JBL sound. The kind of sound you and your audience will deeply appreciate.



Sound Reinforcement Systems MR822, MR825, MR838, MR818, MR835, MR826, MR812, MR815, MR802, MR805

Specifications

	MR822	MR825	MR838	MR818
Frequency Range (-10 dB):	60 Hz - 20 kHz	60 Hz - 20 kHz	38 Hz - 20 kHz	35 Hz - 4.5 kHz
Power Capacity: (Continuous Pink Noise)	250 Watts	250 Watts	250 Watts	300 Watts
(Peak Pink Noise)	1000 Watts	1000 Watts	1000 Watts	1200 Watts
Nominal Impedance:	8 Ω	8 Ω	8 Ω	8 Ω
Sensitivity: 1 W, 1 m	100 dB	101 dB	100 dB	100 dB
Nominal Dispersion:	100°H x 80°V	100°H x 80°V	100°H x 80°V	N/A
Crossover Frequency:	2 kHz	1.5 kHz	600 Hz, 2 kHz	N/A
LF Driver(s):	300 mm (12 in)	380 mm (15 in)	460 mm (18 in)	460 mm (18 in)
MF Driver(s):	N/A	N/A	250 mm (10 in)	N/A
HF Driver(s):	Pure Titanium Diaphragm Compression Driver/ Flat-Front Bi-Radial* Horn	Pure Titanium Diaphragm Compression Driver/ Flat-Front Bi-Radial® Horn	Pure Titanium Diaphragm Compression Driver/ Flat-Front Bi-Radial [®] Horn	N/A
Enclosure Material:	ESB™	ESB™	ESB™	ESB'*
Dimensions:	590mm x 432mm x 279mm 23.25" x 17" x 11"	667 x 495mm x 337mm 26.25" x 19.5" x 13.25"	845mm x 714mm x 457mm 33.25" x 28.125" x 18"	1035mm x 714mm x 457mr 40.75" x 28.125" x 18"
Net Weight:	22.7 kg (50 lb)	26.3 kg (58 lb)	45.4 kg (100 lb)	42.2 kg (93 lb)
Shipping Weight:	24.5 kg (55 lb)	28.2 kg (62 lb)	48.2 kg (106 lb)	45 kg (99 lb)
	MR835	MR826	MR812	MR815
Frequency Range (-10 dB):	38 Hz - 20 kHz	38 Hz - 20 kHz	60 Hz - 5.5 kHz	55 Hz - 4 kHz
Power Capacity: (Continuous Pink Noise)	250 Watts	250 Watts	300 Watts	300 Watts
(Peak Pink Noise)	1000 Watts	1000 Watts	1200 Watts	1200 Watts
Nominal Impedance:	8 Ω	8 0	8 Ω	8 Q
Sensitivity: 1 W, 1 m	100 dB	101 dB	100 dB	100 dB

100 dB	101 dB	100 dB	100 dB
100°H x 80°V	100°H x 80°V	N/A	N/A
850 Hz, 2.2 kHz	1.3 kHz	N/A	N/A
380 mm (15 in)	380 mm (15 in)	300 mm (12 in)	380 mm (15 in)
200 mm (8 in)	N/A	N/A	N/A
Pure Titanium Diaphragm Compression Driver/ Flat-Front Bi-Radial® Horn	Pure Titanium Diaphragm Compression Driver/ Flat-Front Bi-Radial* Horn	N/A	N/A
ESB [™]	ESB™	ESB™	ESB™
714mm x 714mm x 457mm 28.125" x 28.125" x 18"	1035mm x 714mm x 457mm 40.75" x 28.25" x 18"	464mm x 413mm x 311mm 18.25" x 16.25" x 12.25"	578mm x 527mm x 311mm 22.75" x 20.75" x 12.25"
41.3 kg (91 lb)	50.8 kg (112 lb)	19 kg (42 lb)	23.6 kg (52 lb)
45.4 kg (100 lb)	52.2 kg (115 lb)	20.9 kg (46 lb)	25.5 kg (56 lb)
	100°H x 80°V 850 Hz, 2.2 kHz 380 mm (15 in) 200 mm (8 in) Pure Titanium Diaphragm Compression Driver/ Flat-Front Bi-Radial* Horn ESB'* 714mm x 714mm x 457mm 28.125" x 28.125" x 18" 41.3 kg (91 lb)	100°H x 80°V 100°H x 80°V 850 Hz, 2.2 kHz 1.3 kHz 380 mm (15 in) 380 mm (15 in) 200 mm (8 in) N/A Pure Titanium Diaphragm Compression Driver/ Flat-Front Bi-Radial* Horn Pure Titanium Diaphragm Compression Driver/ Flat-Front Bi-Radial* Horn ESB** ESB** 714mm x 714mm x 457mm 28.125" x 28.125" x 18" 1035mm x714mm x 457mm 40.75" x 28.25" x 18" 41.3 kg (91 lb) 50.8 kg (112 lb)	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

	MR802	MR805
Frequency Range (-10 dB):	50 Hz - 20 kHz	55 Hz - 20 kHz
Power Capacity: (Continuous Pink Noise)	250 Watts	250 Watts
(Peak Pink Noise)	1000 Watts	1000 Watts
Nominal Impedance:	8 Ω	8 Ω
Sensitivity: 1 W, 1 m	100 dB	101 dB
Nominal Dispersion:	100°H x 80°V	80°H x 100°V
Crossover Frequency:	2 kHz	1.5 kHz
LF Driver(s):	300 mm (12 in)	380 mm (15 in)
MF Driver(s):	N/A	N/A
HF Driver(s):	Pure Titanium Diaphragm Compression Driver/ Flat-Front Bi-Radial® Horn	Pure Titanium Diaphragm Compression Driver/ Flat-Front Bi-Radial® Horn
Enclosure Material:	ESB™	ESB [™]
Dimensions:	441mm x 590mm x 403mm 23.25" x 17" x 16"	505mm x 667mm x 441mm 20" x 26.25 x 17"
Net Weight:	24.9 kg (55 lb)	28.6 kg (63 lb)
Shipping Weight:	27.2 kg (60 lb)	34 kg (75 lb)

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8500 Balboa Boulevard, Northridge, CA 91329 H A Harman International Company

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