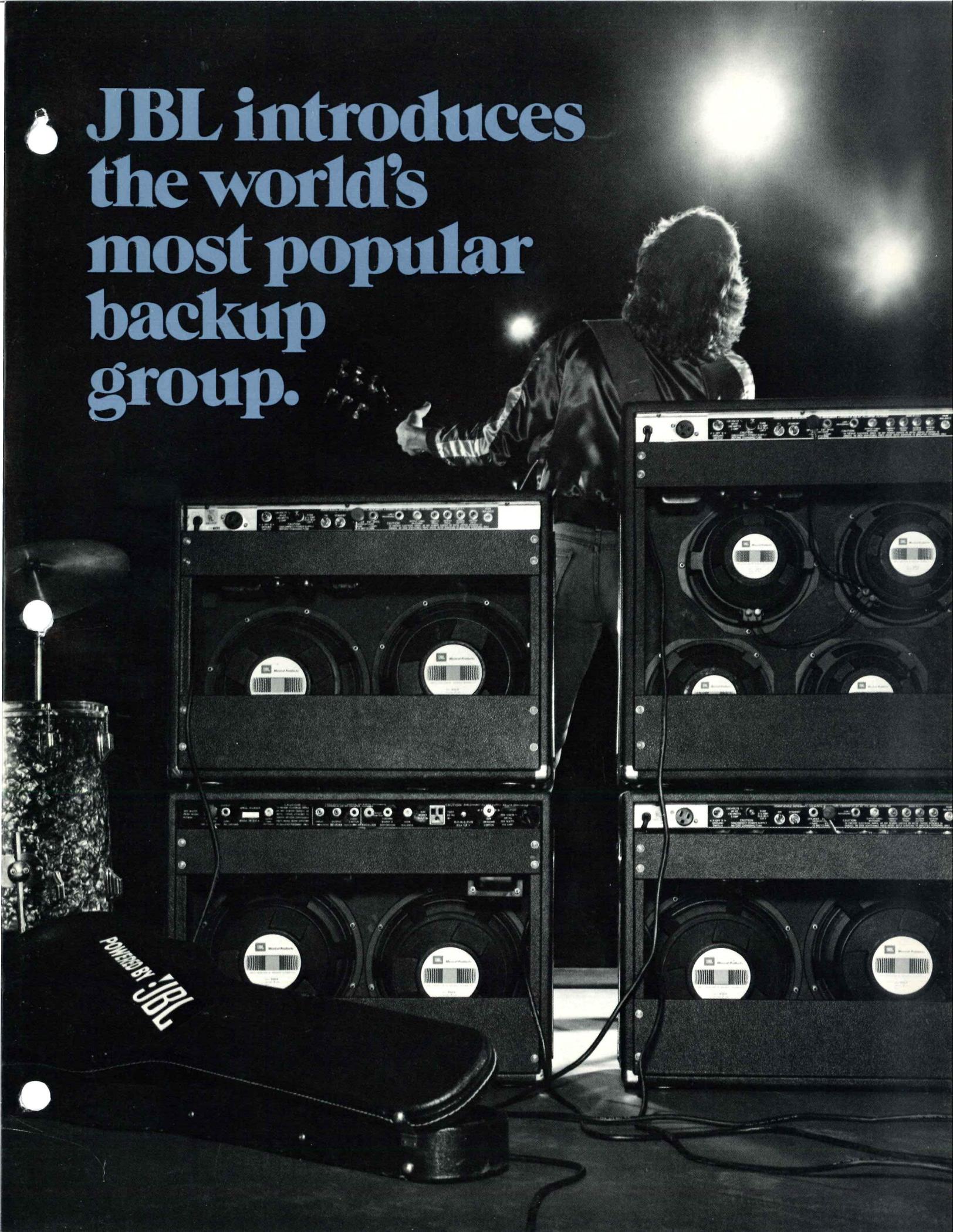


**JBL introduces  
the world's  
most popular  
backup  
group.**



**POWERED BY JBL**



# The E Series Musical Instrument Loudspeakers

**T**ake a look behind today's hottest concert performers and you'll find some legendary names in amplification. From combo twins to monster stacks. And if you could look inside these amps you'd probably find another name—JBL. Because for over 30 years professional musicians have been depending on JBL loudspeakers to give them the performance and sound quality they demand.

At JBL, we're very proud of the reputation our speakers have earned over the years. And we're constantly working to maintain that reputation through product improvements and innovations.

Case in point: the new JBL E Series Musical Instrument Loudspeakers.

Simply stated, the E Series speakers were designed to deliver a higher level of performance than any other speakers now on the market. Performance that was only achievable with the development of totally unique transducer technologies and materials.

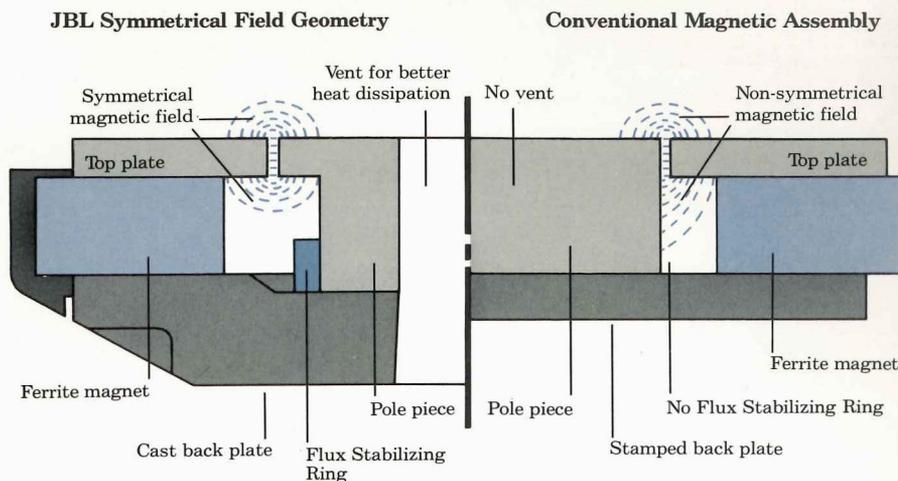
Power capacity, for instance, has been substantially increased through the use of new high-temperature adhesives, plastic materials, and optimally constructed voice coil formers. The result of these improvements can be seen in the E Series power ratings—up as much as 50 per cent over the previous power ratings.

For total performance, however, high power capacity must be matched with high efficiency. So we've also engineered the speakers to be the most efficient musical instrument loudspeakers we've ever produced. This increased efficiency combined with the speaker's power capacity results in greater dynamic range and significantly higher maximum sound output.

And the improvements aren't limited to power capacity and efficiency. The E Series also features a unique new magnetic structure that provides extremely high accuracy with minimum speaker distortion.

At the heart of this new magnetic structure design is JBL's new Symmetrical Field Geometry (SFG).

Accurate audio reproduction requires that a speaker's cone and voice coil move in and out with equal ease. In conventional designs, however, this does not happen because the magnetic field around the voice coil gap is non-symmetrical. The SFG design creates a symmetrical magnetic field on both sides of the gap. Cone movement is therefore much more consistent and speaker accuracy is greatly enhanced.



*Cross-sections of JBL and conventional magnetic structures*

Of course, the one thing that we would never change is the unmistakable sound quality of our speakers. So the E Series maintains the distinctive tone character that has made JBL loudspeakers an industry standard. From tight, solid bass response to brilliant top end.

But don't take our word for it. Ask your local JBL dealer for a demonstration. And find out for yourself why the top performers in the industry have made JBL loudspeakers the world's most popular backup group.

#### **E110 250 mm (10 in)**

The E110 delivers more sound per amplifier watt than any other loudspeaker in its size class. Sustain is highly predictable and overtone characteristics are brilliant. The E110 is an obvious choice for those applications that require big system performance in a small package. The speaker is right at home with lead or rhythm guitar, keyboards, or stacked in a column for PA use.

#### **E120 300 mm (12 in)**

The E120 is the latest version of JBL's most popular musical instrument loudspeaker. Its efficiency and power capacity are greater than many extended range 380 mm (15 in) speakers. The E120's tone character maintains the traditional JBL sound—tight bass, crisp midrange, and brilliant highs. It directly replaces conventional speakers used in guitar amplifiers, organs, electric pianos, or other applications.

#### **E130 380 mm (15 in)**

The E130 is JBL's most rugged and efficient extended range musical instrument loudspeaker. The large

cone area provides considerably more output than smaller cones without the slightest sacrifice in midrange or high frequency reproduction. The E130 is an ideal choice when loudspeaker size is not restricted and maximum sound levels are desired.

#### **E140 380 mm (15 in)**

The E140 is specially designed for the bass guitarist or keyboard player who wants a bright, sharply defined sound. Bass notes are projected with an incredibly strong punch, and overtones are crisp and clear. The E140 is capable of producing extremely high sound pressure levels with efficiency that's unmatched by any other bass speaker except our own E145.

#### **E145 380 mm (15 in)**

The E145 has the most natural, uncolored sound that JBL has ever created in a bass instrument loudspeaker. Its low distortion characteristics and pure tonal quality make it the ideal choice for keyboards, organs, bass guitars, or P.A. systems. The E145 delivers pure bass notes at thunderous levels with the high efficiency and power capacity that musicians have come to expect from JBL loudspeakers.

#### **E155 460 mm (18 in)**

JBL's powerhouse loudspeaker. The new E155 is made specifically for electric bass and is designed to sound great in horn loaded or reflex enclosures. Its sound audibly surpasses the punch found in other bass speakers in its size class. From C sharp down below low E, every note is distinct, much like a lead instrument. The E155 is recommended whenever a maximum amount of clean bass is required at high volume levels.

Specifications	E110	E120	E130	E140	E145	E155
Primary Application	Lead or rhythm guitar, organ, piano, voice, column	Lead or rhythm guitar, electric piano, organ, vocals	Lead or rhythm guitar, electric piano, organ, vocals	Electric bass, organ	Electric bass, organ	Electric bass, organ
Nominal Diameter	250 mm 10 in	300 mm 12 in	380 mm 15 in	380 mm 15 in	380 mm 15 in	460 mm 18 in
Nominal Impedance <sup>1</sup>	8 Ω	8 Ω	8 Ω	8 Ω	8 Ω	8 Ω
Power Capacity						
Continuous program	150 W	300 W	300 W	400 W	300 W	600 W
Continuous sine wave <sup>2</sup>	75 W	150 W	150 W	200 W	150 W	300 W
Sensitivity <sup>3</sup>	98 dB SPL	103 dB SPL	105 dB SPL	100 dB SPL	98 dB SPL	100 dB SPL
Frequency Range	60-8000 Hz	50-6000 Hz	50-6000 Hz	40-2500 Hz	35-2500 Hz	30-2000 Hz
Voice Coil Diameter	76 mm 3 in	102 mm 4 in	102 mm 4 in	102 mm 4 in	102 mm 4 in	102 mm 4 in
Voice Coil Material	Aluminum	Aluminum	Aluminum	Copper	Copper	Copper
Magnetic Assembly Weight	4.7 kg 10¼ lb	8.5 kg 18⅝ lb	8.5 kg 18⅝ lb	8.5 kg 18⅝ lb	10.3 kg 22⅝ lb	9.1 kg 20 lb
Flux Density	1.02 tesla (10,200 gauss)	1.35 tesla (13,500 gauss)	1.35 tesla (13,500 gauss)	1.35 tesla (13,500 gauss)	.95 tesla (9,500 gauss)	1.25 tesla (12,500 gauss)
Baffle Cutout Diameter						
Front mount	228 mm 9 in	281 mm 11⅛ in	355 mm 13 <sup>31</sup> / <sub>32</sub> in	355 mm 13 <sup>31</sup> / <sub>32</sub> in	355 mm 13 <sup>31</sup> / <sub>32</sub> in	427 mm 16 <sup>13</sup> / <sub>16</sub> in
Rear mount	222 mm 8¾ in	281 mm 11⅛ in	343 mm 13½ in	343 mm 13½ in	343 mm 13½ in	422 mm 16⅝ in
Depth	105 mm 4¼ in	115 mm 4⅝ in	137 mm 5½ in	137 mm 5½ in	160 mm 6¼ in	191 mm 7½ in
Net Weight	5.4 kg 11⅞ lb	9.5 kg 20 lb	10.1 kg 22¼ lb	10.1 kg 22¼ lb	13.0 kg 28½ lb	11.9 kg 26¼ lb

<sup>1</sup>The nominal impedance specified is the standard configuration. The E110, E120, E130, E140, and E145 are also available with an impedance of 16 ohms.

<sup>2</sup>The continuous sine wave rating of power is the most stringent method currently used in the audio industry. It should be noted that many manufacturers use the term "watts rms" as a direct equivalent to the more meaningful "watts continuous sine wave."

<sup>3</sup>Swept from 500 to 2500 Hz, within 1 dB, measured at 1 m (3.3 ft) with a 1 W input.

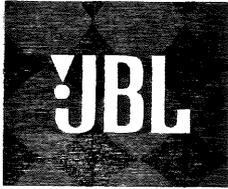
JBL continually engages in research related to product improvement. New materials, production methods, and design refinements are introduced into existing products without notice as a routine expression of that philosophy. For this reason, any current JBL product may differ in some respect from its published description, but will always equal or exceed the original design specifications unless otherwise stated.

*Guitar amplifiers courtesy of Fender Musical Instruments.*



## Professional Division

James B. Lansing Sound, Inc., 8500 Balboa Boulevard, Northridge, California 91329 U. S. A.



# JBL Introduces New E Series Musical Instrument Loudspeakers

## PRELIMINARY TECHNICAL DATA

JBL's ongoing research into materials and manufacturing methods has resulted in significant improvements to our entire line of musical instrument loudspeakers. These changes in power handling, sensitivity, and overall reliability are of such magnitude that we have chosen to rename the line "E Series," for *efficiency*.

Specifically, the improvements over the K Series products will be:

1. A new ferrite magnetic structure incorporating the exclusive JBL Symmetrical Field Geometry (SFG) and Flux Stabilizing Ring. These two features provide higher acoustical output at very low distortion levels.
2. Increased sensitivity over the K Series: The 12" 15" and 18" speakers in the series will exhibit a 1 to 2 dB increase in sensitivity over their counterparts in the K Series. The obvious benefit for the user is more headroom.
3. Higher power rating. Through the use of high-temperature adhesives, plastic materials and aluminum voice coil formers, the E Series products can now be safely rated at significantly higher power. The combined improvement in power rating *and* sensitivity can result in a total increase in output up to 4 dB! The table below shows the improvements, model by model:

K Series			E Series			Net Increase (dB)
Model #	Power*	Sensitivity**	Model #	Power*	Sensitivity**	
K110	150W	98 dB	E110	150W	98 dB	0
K120	200W	101 dB	E120	300W	103 dB	4
K130	250W	103 dB	E130	300W	105 dB	3
K140	300W	98 dB	E140	400W	100 dB	3
K145	300W	97 dB	E145	400W	98 dB	2
K151	300W	99 dB	E151	400W	99 dB	1

\*Continuous Program Rating

\*\*Sensitivity: 1 watt at 1 meter

In purely sonic terms, we have remained close to the K Series. The sound characteristics the performer has come to expect of JBL products is continued in the E Series.

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