The E Series Musical Instrument Loudspeakers

The World's Most Popular Backup Group

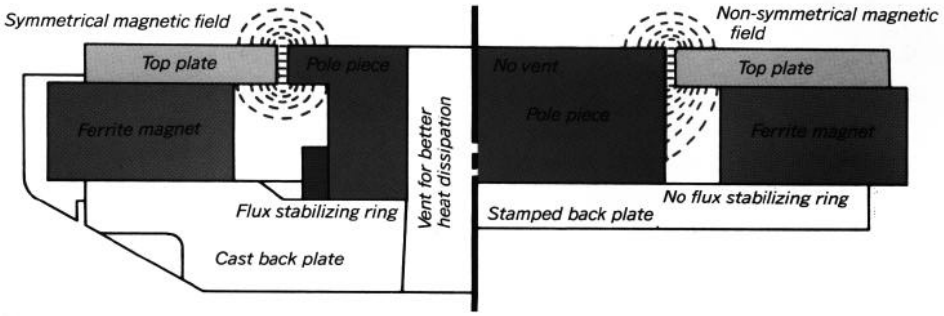
Many of today's hottest shows feature the same performers...from combo twins to monster stacks, you find the same big names in sound equipment again and again. Look a little more closely, and you probably find the name JBL. For over three decades professional musicians have been depending on JBL loudspeakers to deliver the performance and sound quality that they demand. We haven't let them down yet.

Take the latest E series line. Designed with advanced transducer technologies and materials, we think that they achieve a higher level of performance than any other loudspeakers on the market. Their power capacity has been increased substantially through the use of new high-temperature adhesives and optimally constructed voice coil formers. They're also the most efficient loudspeakers we've ever produced. This combination of high power capacity and efficiency gives the speakers outstanding dynamic range as well as significantly higher maximum acoustic output. The E Series also features our unique Symmetrical Field Geometry (SFG) magnetic structure, providing extremely high accuracy with minimum speaker distortion.

Of course the one thing we never change is the unmistakable sound quality of our speakers. So the E Series maintains the distinctive tone character that has made them an industry standard. But don't just 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.



Cross-sections of JBL (left) and conventional magnetic structures.

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)

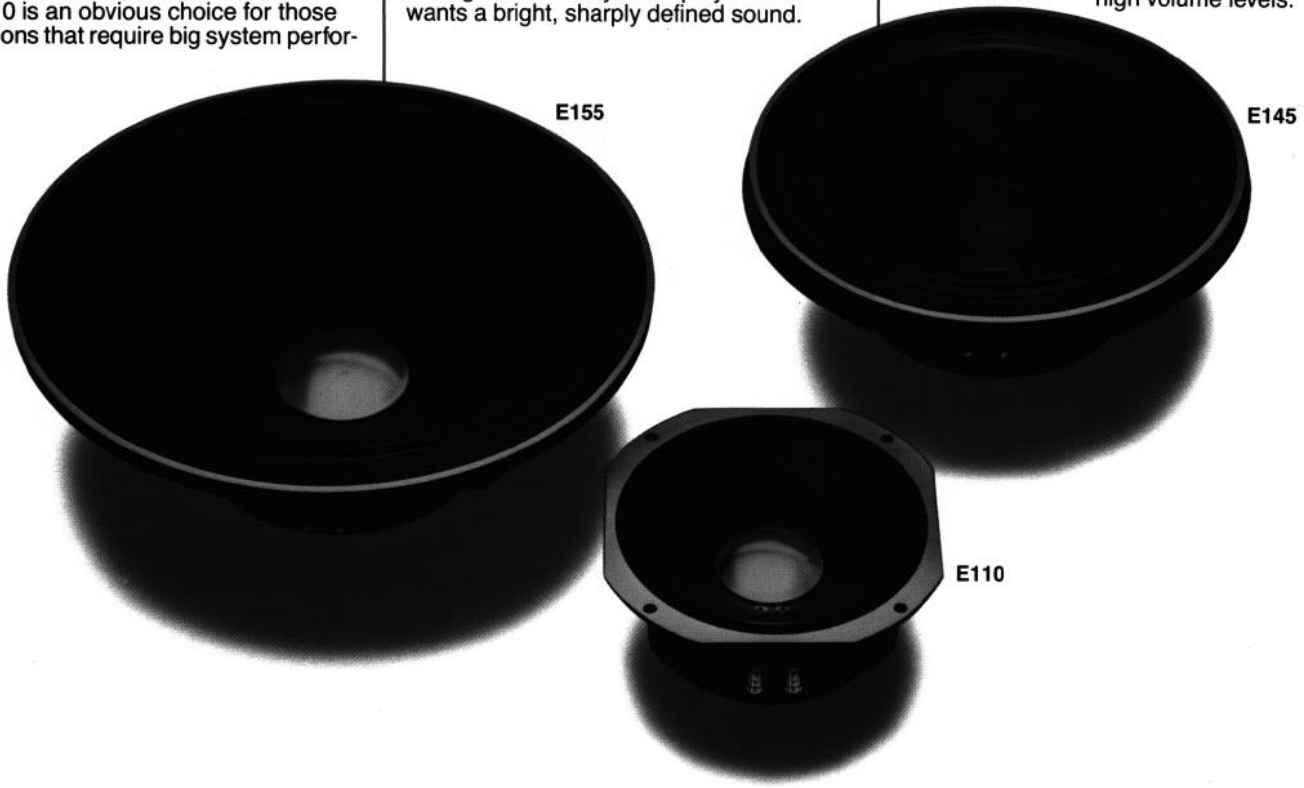
The E140 is specially designed for the bass guitarist or keyboard player who wants a bright, sharply defined sound. Bass notes are projected with an incredibly strong punch, and overtones are crisp and clear. The E140 is capable of producing extremely high sound pressure levels with efficiency that's 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	E110-8	E120-8 (-16)	E130-8	E140-8	E145-8	E155-8 (-4)
Primary Application	Lead or rhythm guitar, piano, vocals, line array	Lead or rhythm guitar, electric piano, organ, vocals	Lead or rhythm guitar, electric piano, organ, vocals	Electric bass, organ low frequency reinforcement	Organ, synthesizer, low frequency reinforcement	Electric bass, sub-woofer, low frequency reinforcement
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[1]	8 Ω	8 Ω (or 16 Ω)	8 Ω	8 Ω	8 Ω	8 Ω (or 4 Ω)
Power Capacity						
Continuous program	150 W	300 W	300 W	400 W	300 W	600 W
Continuous sine wave[2]	75 W	150 W	150 W	200 W	150 W	300 W
Sensitivity[3]	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 11 1/16 in	355 mm 13 31/32 in	355 mm 13 31/32 in	355 mm 13 31/32 in	427 mm 16 13/16 in
Rear mount	222 mm 8¾ in	281 mm 11 1/16 mm	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

Thiele-Small Parameters	E110-8	E120-8 (-16)	E130-8	E140-8	E145-8	E155-8 (-4)
f_s (Hz)	65	60	40	32	35	30
R_e (ohms)	6.0	6.3 (13.0)	6.3	5.5	5.7	6.0 (2.5)
Q_{ts}	.36	.17	.19	.17	.25	.20
Q_{ms}	4.0	1.8	1.8	5.0	6.0	2.2
Q_{es}	.40	.19	.21	.19	.26	.22
V_{as} (L) (cu ft)	45 1.6	80 2.8	300 10.5	300 10.5	275 9.7	425 15
S_D (m^2) (in^2)	.031 48	.053 82	.089 138	.089 138	.089 138	.115 177
X_{max} (mm) (in)	2.5 0.1	2.5 0.1	2.5 0.1	3.5 0.14	7.0 0.28	5.0 0.2
V_D (cm^3) (in^3)	78 4.8	133 8	233 13.6	312 19	623 38	575 35
L_e (mH)	0.4	0.4 (1.1)	0.4	1.1	1.6	1.4 (1.0)
η_o (Half space) (%)	3.0	8.6	8.6	4.9	4.3	4.9
P_e (Max) (W)	75	150	150	200	150	300

[1]The nominal impedance specified is the standard configuration. The E120 is also available with an impedance of 16 ohms and the E155 is also available in 4 ohms.
[2]The continuous sine wave rating of power is the most stringent method currently used in the audio industry.
[3]Swept from 500 to 2500 Hz, within 1 dB, measured at 1 m (3.3 ft) with a 1 W input.