

# K100 Series Loudspeakers



The K100 Series: A new generation of powerful musical instrument loudspeakers with the unmistakable sound quality and high efficiency that have become a virtual JBL trademark since the famous "F Series" was introduced a decade ago.

In the early sixties, performers using amplified musical instruments had very special ideas about the kind of sound they wanted—sound they couldn't get from standard loudspeakers. To satisfy their unique requirements, major guitar manufacturers and musicians—from profes-

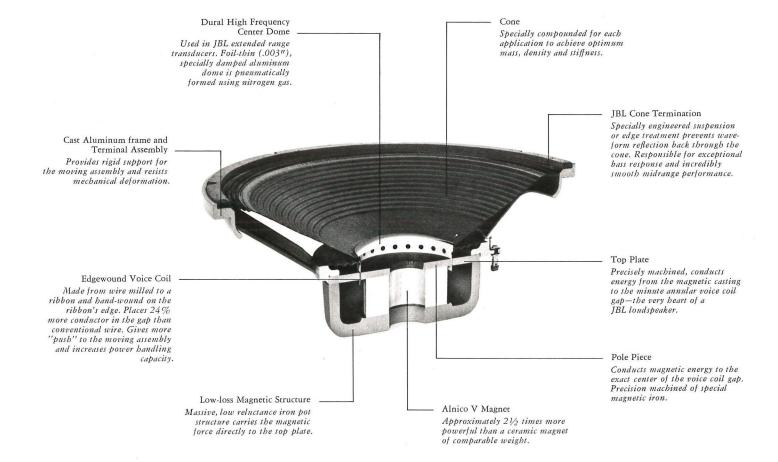
sional to beginner—turned to JBL. The F Series provided the answer—with sound quality, efficiency and reliability only JBL could offer.

That was the sixties. Today, amplifier power is much greater, listening tastes have grown increasingly sophisticated and the demands placed on musical instrument loudspeakers are more critical than ever before—precisely the reasons why JBL developed the K100 Series.

New materials have been formulated for high stress areas of the cone and voice

coil which give K100's double the power handling capability of the previous F Series. For example, a K140 will take the full output of any 150-Watt RMS amp and still sound clean at any volume level—from a whisper to an explosion.

The K100 Series delivers more sound per Watt than other musical instrument loudspeakers. The punch in bass notes is deep and solid; midrange bite is crisp and clear; with brilliance in the highs for distinctive tone character. JBL sound at its best, with efficiency to match.



## The K100 Series technology

Each loudspeaker in the K100 Series is designed to traditional JBL quality standards. High strength Alnico V magnets in massive cast iron magnetic structures conduct energy directly to large, handwound voice coils made of ribbon wire. These precisely machined components yield maximum loudspeaker efficiency and power handling capacity. Cone surround fatigue has been virtually eliminated by the use of new compounds and materials developed by JBL. Such improvements meet the stringent demands of amplified musical instruments and provide unsurpassed durability.

#### K110 10-inch

Here is a loudspeaker that can take 75 Watts RMS and deliver more sound output per amplifier watt than any other loudspeaker its size.

Sustain is highly predictable and overtone characteristics are brilliant, making the K110 an obvious choice where small size and big system performance are required. Considered to be JBL's crispest sounding musical instrument loudspeaker, it's right at home with lead and rhythm guitar, organ, or when stacked in a column for PA use.

The K110 may be small, but its large 3-inch diameter voice coil speaks with real musical authority. The K110's mounting dimensions are standard, and will directly replace any existing 10-inch loudspeaker.

#### K120 12-inch

This remarkable loudspeaker is more efficient and can handle greater power than most 15-inch models. Its full-range reproduction and 100-Watt RMS rating offer performance that will satisfy the most critical musician. The K120 directly replaces conventional 12-inch musical instrument loudspeakers used in guitar amps, organs, electric pianos and similar applications.

The K120 has the same huge magnet structure and 4-inch voice coil as the 15-inch K130. That's why midrange and highs are bright, bass is smooth, and the

efficiency's so outstanding in this 12-inch music maker by JBL.

### K130 15-inch

The K130 is JBL's most rugged and efficient extended range musical instrument loudspeaker. Its 125-Watt RMS power handling capability qualifies it as the ideal reproducer for lead and rhythm instruments. The 15-inch cone area provides considerably more output than smaller cones without the slightest sacrifice in midrange and high frequency reproduction.

K130 — the only choice when loudspeaker size is not restricted and tremendous musical sound levels are required.

#### K140 15-inch

This superb low frequency transducer is specially designed for bass guitarists and organists to reproduce the rich fundamental tone character of their instruments.

Conservatively rated at 150 Watts RMS, the K140 delivers pure bass notes even at thunderous levels with efficiency that's unmatched by any other 15-inch bass loudspeaker. The K140 is 14 pounds of low frequency dynamite.

#### Power handling capacity

JBL rates the power handling capacity of all K100 Series loudspeakers by the RMS method. Since a number of manufacturers continue to use the less stringent "Continuous Program Power" approach, JBL has included these figures for your reference.

The Continuous Program Power method of rating is acceptable for loudspeakers used at home, because the dynamic range of the music they reproduce has been greatly compressed in the recording process and playback levels are relatively moderate. As a result, demands placed on home entertainment loudspeakers are far less critical than those used with amplified musical instruments.

In contrast, musical instrument loudspeakers receive their signal directly from a performer's instrument—with all of its wide dynamic range and explosive transients. Amplifier power and volume level are often very high—especially during live performances.

Because these conditions are unusually severe, JBL chose the RMS method for rating power handling capacity. This laboratory standard test is far more demanding than actual performance situations, and provides a truly credible measure of a loudspeaker's capability.

Loudspeakers can be most easily over-driven where their measured impedance is at its minimum point (impedance actually varies from low to high frequencies in all loudspeakers). For this reason, JBL requires the K100 Series to withstand their full rated power input (Watts RMS) at all frequencies within one-half an octave on each side of the minimum impedance region — and to sustain this performance continuously for one hour without damage.

While other methods can be used to achieve even greater RMS power rating figures (such as Instantaneous RMS or Peak RMS), JBL's tests and power ratings provide a musician with specifications that are realistic in relation to his performance requirements.

### Warranty

All K100 Series musical instrument loudspeakers have a five year warranty, which covers any original manufacturing defects in workmanship or materials. JBL will, at its option, repair or replace any K100 Series loudspeaker if factory inspection reveals a manufacturing defect, without time limitation.

Specifications	K110	K120	K130	K140
Cone Diameter	10 in (25 cm)	12 in (30 cm)	15 in (37.5 cm)	15 in (37.5 cm)
Voice Coil Diameter	3 in (7.6 cm)	4 in (10.2 cm)	4 in (10.2 cm)	4 in (10.2 cm)
Voice Coil Material	Edgewound Aluminum Ribbon	Edgewound Aluminum Ribbon	Edgewound Aluminum Ribbon	Edgewound Copper Ribbon
Magnetic Assembly Weight	6.75 lbs (3.0 kg)	12 lbs (5.4 kg)	12 lbs (5.4 kg)	12 lbs (5.4 kg)
Magnet Material	Alnico V	Alnico V	Alnico V	Alnico V
Sensitivity 1 Milliwatt Input 1 Watt Input	49 dB SPL @ 30 feet 99 dB SPL @ 3 feet	52 dB SPL @ 30 feet 102 dB SPL @ 3 feet	54 dB SPL @ 30 feet 104 dB SPL @ 3 feet	49 dB SPL @ 30 feet 99 dB SPL @ 3 feet
Power Capacity Continuous RMS Continuous Program	75 Watts 150 Watts	100 Watts 200 Watts	125 Watts 250 Watts	150 Watts 300 Watts
Frequency Range	60-8,000 Hz	50-6000 Hz	50-6000 Hz	40-2500 Hz
Flux Density	10,000 gauss	12,000 gauss	12,000 gauss	12,000 gauss
Impedance*	4, 8 or 16 ohms	4, 8 or 16 ohms	4, 8 or 16 ohms	4, 8 or 16 ohms
Primary Application	Lead or rhythm guitar, column, organ, piano, voice.	Lead & rhythm guitar, electric piano, organ, vocals.	Lead & rhythm guitar, organ, electric piano, vocals.	Electric bass, organ.
Depth	4-3/8 in (11.1 cm)	4-3/4 in (12.1 cm)	5-5/8 in (14.3 cm)	5-5/8 in (14.3 cm)
Baffle Hole Diameter Front Mount Rear Mount	9 in (22.8 cm) 8-3/4 in (22.2 cm)	11-1/16 in (28.0 cm) 11-1/16 in (28.0 cm)	14 in (35 cm) 13-1/2 in (34.3 cm)	14 in (35 cm) 13-1/2 in (34.3 cm)
Net Weight	8-1/4 lbs (3.7 kg)	14 lbs (6.4 kg)	15-1/2 lbs (7.0 kg)	15-1/2 lbs (7.0 kg)
Shipping Weight	9-1/2 lbs (4.3 kg)	15-1/2 lbs (7.0 kg)	18-1/2 lbs (8.3 kg)	18-1/2 lbs (8.3 kg)

<sup>\*8</sup> ohms standard, 4 or 16 ohms optional.

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 is always warranted to equal or exceed the original design specifications unless otherwise stated.

