

JBL Professional Series

**Model 4662 and 4663
Sound Reinforcement Loudspeaker Systems**



Low Frequency Loudspeaker

Bass is provided by the 380-mm (15-in) K130 loudspeaker, especially designed to deliver the rich fundamentals and low frequency characteristics of lead or rhythm guitar, electric piano, organ and vocals.

A 100-mm (4-in) edgewound aluminum ribbon voice coil places the greatest amount of conductor in the voice coil gap to provide maximum interaction between the input signal and the permanent magnetic field, improving both transient response and efficiency. The unit is energized by a 5.4 kg (12-lb) Alnico V magnetic assembly. Closed construction and precise tolerances of the assembly ensure a concentrated magnetic field of 1.2 T (12,000 gauss).

High Frequency

The model 2461 high frequency compression driver is capable of generating high sound pressure levels, while providing extremely natural reproduction of voice or music. The magnetic assembly is heavy cast iron, machined to closer tolerances than most industry standards. The diaphragm is constructed of phenolic-impregnated linen for reliable performance and long life.

Horn Assembly

The 2345 is a compact radial horn producing a sound distribution pattern of 90° horizontal x 40° vertical. Output through these angles diminishes no more than 6 dB relative to output measured directly on axis.

Ultra-High Frequency Transducer

The 4663 is also equipped with the 2405 ultra-high frequency transducer. This transducer achieves exceptional realism in reproducing overtones above 8 kHz. The unit consists of a compression driver and integral diffraction horn, both specifically designed for high efficiency and wide dispersion at the extreme upper end of the audio spectrum.

Frequency Dividing Network

The 4662 and 4663 systems incorporate the model 3110 frequency dividing network. The 4663 is also equipped with a 3106 network for the high to ultra-high frequency transition. In each system, the circuitry has been designed with consideration for the specific performance characteristics of the drivers and their location on the enclosure baffle panel.

Enclosure

A professional loudspeaker system often receives rough handling during transport. The 4662 and 4663 enclosures have been designed to withstand such treatment, and are constructed of 7-ply 16-mm ($\frac{5}{8}$ -in) plywood. Baffle panels are fitted with $\frac{1}{4}$ -20 threaded T-nuts to facilitate loudspeaker mounting.

The 4662/4663 low frequency section has an ex-

potential horn flare designed for high efficiency above 90 Hz. The enclosure is ported for extra bass punch below 90 Hz. Finish is utility black.

Power Capacity

The 4662 and 4663 are each rated at 125 watts continuous sine wave*. Since many manufacturers continue to use the "Continuous Program Power" rating, we have also included it 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 demands made on musical instrument loudspeakers.

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

Since these conditions are so severe, we prefer the continuous sine wave method for rating power handling capacity. This laboratory standard test is far more stringent than actual performance situations, and provides a more reliable measure of a loudspeaker's power handling capability.

Loudspeakers can be most easily overdriven at frequencies corresponding to the loudspeaker's lowest measured impedance. For this reason, we require the 4662 and 4663 to withstand their full rated power input (125 watts continuous sine wave) at all frequencies within one-half an octave above and below the frequency at which minimum impedance occurs. They are also required to sustain this performance for a minimum of one hour without damage.

While other methods can be used to achieve even greater power rating figures, such as testing for shorter lengths of time or testing at other than the loudspeaker's minimum impedance region, our tests and power ratings provide specifications that are very realistic—or, by commonly used standards, conservative.

*The continuous sine wave rating of amplifier power is the most stringent method currently used in the audio industry. Many amplifier manufacturers use the term "watts rms" as a direct equivalent to the more meaningful "watts continuous sine wave."

Musicians today need a sound system that's rugged and powerful, with clarity and punch. JBL engineers have now designed two such sound reinforcement loudspeaker systems—the 4662 and 4663.

These systems are capable of high acoustic output, can handle large amounts of power, and are designed for reliability and durability. They produce clear, vivid, natural sound, while maintaining controlled dispersion.

Outdoors, with no support from room acoustics, either system will continuously produce an impressive 110 dB at 5 m (16.4 ft) when driven at its rated power of 125 watts continuous sine wave.

Where higher sound pressure levels are desired, systems may be paired to produce up to 6 dB more SPL than a single unit, with consequent improvement in peak power capability. The effective SPL will also be increased significantly when one or more systems are used indoors.

The 4662 two-way system delivers outstanding performance from 40 Hz to 9 kHz. The 4663 three-way system extends the top end performance to beyond 20 kHz.

Specifications

Maximum Power Input	125 W continuous sine wave 250 W continuous program
Nominal Impedance	8 Ω
Power Output	100 dB SPL, free field, 15 m (50 ft)
Frequency Range	
4662	40 Hz - 9 kHz
4663	40 Hz - 21 kHz
Sensitivity	103 dB SPL, 1 W, 1 m (3.3 ft) 54 dB SPL, 1 mW, 30 ft (9.1 m)
Crossover Frequencies	
4662	800 Hz
4663	800 Hz, 8 kHz
Finish	Black
Enclosure Dimensions	914 mm x 762 mm x 606 mm deep 36 in x 30 in x 23 $\frac{3}{8}$ in deep
Net Weight, assembled systems	
4662	60 kg 132 lb
4663	64 kg 140 lb

Dealer assembly required.



Professional Division

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