





**JBL Industrial Series  
Improved Fidelity  
Loudspeakers**

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Simplicity in design, ease of installation, reliability, unobtrusive appearance, full, distributed sound coverage within a specified budget — if asked to describe the qualities of a good distributed sound system, these are the basic attributes that would satisfy most sound contractors.

However, distributed sound system components designed solely around these qualities are becoming inadequate for another key group: customers. End-users are looking for one more quality that ordinary distributed sound systems, by nature, simply do not provide. The missing attribute is fidelity. The recent prevalence of high fidelity sound, from cinemas to foreground music situations, has created the demand for higher fidelity in nearly every sound application. That demand has been driven by a generation of end-users accustomed to high fidelity sound in their homes.

In fact, one answer was derived directly from the home stereo system. But distributed sound systems consisting of small home-type speakers mounted in ceilings or walls are costly and difficult to install, raising critical safety issues as well. Moreover, they are usually obtrusive and may not be sufficiently reliable for long-term installed use.

In short, this makeshift fidelity approach simply does not meet the sound contractor's basic parameters for a good commercial distributed sound system.

A leader in the home, professional, and studio recording sound industries, JBL challenged the long-standing assumption that distributed sound systems could achieve necessary commercial parameters only at the expense of fidelity. Backed by 60 years of experience in loudspeaker engineering and one of the world's most sophisticated loudspeaker manufacturing facilities, JBL is uniquely capable of turning out a high-end commercial speaker for a reasonable price.

In fact, JBL *routinely* manufactures its own critical loudspeaker components — from professional products to home systems — to satisfy the criteria of high quality, high fidelity, and affordability. So JBL turned its considerable speaker manufacturing resources to the task of creating a single distributed system that could offer all the usual attributes of distributed sound *plus* improved fidelity — one that could satisfy the demands of both sound contractors and their clients. The result are the Industrial Series Improved Fidelity loudspeakers, dedicated distributed sound system components that are easy to install, more reliable and less expensive than home hi-fi derived alternatives, and with significantly improved performance over comparably priced, yet lower-end, installed systems.

Designed for a variety of distributed sound applications including music reproduction, paging and noise masking, Industrial Series loudspeakers are ideal for use in restaurants, lounges, hospitals, airports, office buildings and boardrooms — any place where fidelity, intelligibility and coverage are critical. Each speaker model is available in a variety of configurations — with or without transformer and/or baffle — to match the requirements of almost any installation.

**Fidelity and coverage you expect from a JBL system.**

In 1936, speakers designed by James B. Lansing himself won an award from the Academy of Motion Picture Arts and Sciences for technical excellence in cinema sound applications. JBL has maintained its preeminence in the motion picture sound industry

with systems employed in some of the most prestigious theaters in the world, including the Samuel Goldwyn Theatre at the Academy's headquarters and Mann's Chinese Theatre. Today, JBL is equally preeminent in the fields of professional, home and commercial speaker systems, and JBL-built monitors are the first choice in recording studios throughout the world. In short, when it comes to sound reproduction, the name JBL is synonymous with clarity, definition and intelligibility.

The critical edge of definition required for improving clarity and intelligibility in a good distributed sound system is in the reproduction of high frequencies above 2,000 Hz. Many commercial distribution speakers simply cannot achieve this. JBL Industrial

Series loudspeakers, however, offer the wide dispersion, excellent power capacity, and unmatched clarity that are the hallmarks of *all* JBL systems. This isn't surprising, since they are derived from the same technical science and share much of the same engineering and manufacturing expertise.

Industrial Series Improved Fidelity loudspeakers maintain smooth high-end response well beyond 10,000 Hz, qualifying them as high fidelity transducers. And while the high frequency response of most distribution speakers drops rapidly off-axis, JBL Industrial Series loudspeakers offer wide dispersion response, dramatically improving their coverage/performance ratio.





**Transformers that sound as good as the speakers.**

The fidelity of a distributed sound system is only as good as its transformer. Typically, transformers actually *limit* the fidelity of the speakers. JBL realized that achieving the goal of an improved fidelity distributed sound system would require creating a transformer that could perform as well as the speaker; one that would not degrade the speaker's performance. Such a transformer would have to have the same characteristics as the transducers: flat frequency response, reliability and high-quality workmanship.

The result was a family of 100 volt line matching transformers with secondary outputs of 8 ohms and 4 ohms and flat frequency response from 40 - 10,000 Hz with less than .5% distortion. That means every Industrial Series loudspeaker is equipped with what is essentially a bonus component: a JBL-quality transducer *plus* a transformer of *equal fidelity*.

**Built to traditional JBL standards of quality and precision.**

Like all JBL speakers, most critical Industrial Series components are precision-crafted at JBL using the highest quality materials, and produced on JBL's advanced fully automated transducer line. This ensures that each speaker fully meets JBL's criteria of consistency in quality, performance and fidelity. JBL's manufacturing technology and in-house production keeps the cost of such high-end transducers more reasonable. As a result, JBL Industrial Series loudspeakers represent the greatest value in their price range.

All speaker frames are precision fabricated from rugged, heavy gauge steel, and feature a cold-formed backplate that improves magnetic circuit performance. Aluminum voice coil formers are utilized for improved power handling and reliability. Stringent environmental tests ensure that the materials and adhesives will stand up to long term use, even under the most adverse conditions.



**Construct a system that's custom-suited to your needs.**

Four Industrial Series speaker models, five transformer models, and a round, white ceiling speaker baffle for 200 mm (8 in) speakers are available in a variety of configurations, allowing you to create a system that meets the exact specifications of the application. Speakers may be purchased with 100 volt line transformers only. Or purchase the transducer only and create your own configuration with the transformer of your choice, with or without baffle.



#### **8110H HIGH COMPLIANCE FULL RANGE TRANSDUCER\***

Very high power handling 100 mm (4 in) loudspeaker ideal for applications where a full-range, small format transducer is desirable (e.g., low-ceiling area).

Nominal Diameter	100 mm (4 in)
Rated Impedance	8 ohms
Power Capacity	40 W continuous program
Sensitivity	92 dB SPL, 1W, 1m
Frequency Range	50 Hz - 18 kHz
Frequency Response ( $\pm 4$ dB)	200 Hz - 10 kHz

\*Also available with 9404HT 100 volt line transformer (Model 8110HT/100)



#### **8130H DUAL CONE FULL RANGE TRANSDUCER\***

Improved fidelity 200 mm (8 in) full-range transducer for low-level background music and paging applications, offering higher frequency response and sensitivity.

Nominal Diameter	200 mm (8 in)
Rated Impedance	8 ohms
Power Capacity	40 W continuous program
Sensitivity	97 dB SPL, 1W, 1m
Frequency Range	30 Hz - 20 kHz
Frequency Response ( $\pm 4$ dB)	100 Hz - 10 kHz

\*Also available with 9404HT 100 volt line transformer (Model 8130HT/100) and with 100 volt line transformer and round white baffle (Model 8130HTWB/100)



#### **8120H HIGH COMPLIANCE FULL RANGE TRANSDUCER\***

The Industrial Series' lowest-cost, 200 mm (8 in) full range transducer for low-level background music and paging applications.

Nominal Diameter	200 mm (8 in)
Rated Impedance	8 ohms
Power Capacity	30 W continuous program
Sensitivity	96dB SPL, 1W, 1m
Frequency Range	30 Hz - 18 kHz
Frequency Response ( $\pm 4$ dB)	100 Hz - 10 kHz

\*Also available with 9404HT 100 volt line transformer (Model 8120 HT/100) and with 100 volt line transformer and round white baffle (Model 8120 HTWB/100)

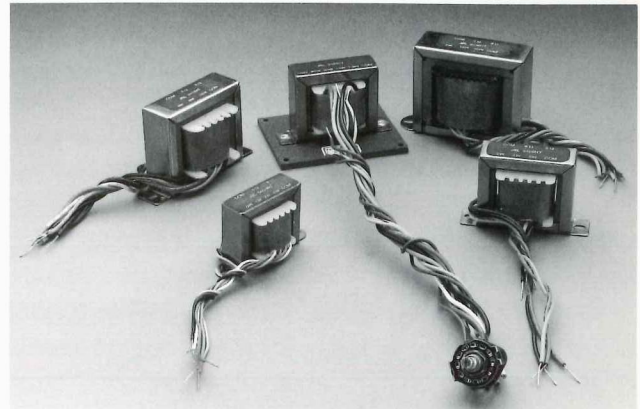


**8140H CO-MOTIONAL™ COAXIAL TRANSDUCER\***

The Industrial Series' premier Co-motional™ transducer featuring a piezo-electric tweeter attached to the cone for improved frequency response, high frequency coverage, and phase coherency for lower distortion. Ideal for use in high-power, true high fidelity systems. The most "musical" system.

Nominal Diameter	200 mm (8 in)
Rated Impedance	8 ohms
Power Capacity	40 W continuous program
Sensitivity	97 dB SPL, 1W, 1m
Frequency Range	30 Hz - 20 kHz
Frequency Response (± 4dB)	100 Hz - 10 kHz

\*Also available with 9404HT 100 volt line transformer (Model 8140HT/100) and with 100 volt line transformer and round white baffle (Model 8140 HTWB/100)



**TRANSFORMERS**

- **9404HT** - 100 volt audio transformer with power taps of .5, 1, 2 and 4 watts
- **9408HT** - 100 volt audio transformer with power taps of 2, 4 and 8 watts
- **9416HT** - 100 volt audio transformer with power taps of 4, 8 and 16 watts
- **9432HT** - 100 volt audio transformer with power taps of 8, 16 and 32 watts
- **9460AT** - 100 volt auto transformer with switch and taps of 7.5, 15, 30 and 60 watts

**Baffle**

WB8 - Round, white ceiling speaker baffle for 200 mm (8 in) speakers

**JBL and Harman International**

JBL is part of the Harman International audio companies, a group with a common purpose: combining technology with a love of music to manufacture audio products that provide new levels of satisfaction, performance and value.

To promote diversity and creativity, JBL operates independently in research and development. When it comes to translating the results of these efforts into actual consumer and professional products, JBL draws on the full combined strength of the Harman companies, which includes one of the world's most advanced manufacturing facilities. The result of this teamwork is that JBL's renowned excellence in engineering is

successfully carried through to each individual product, regardless of its application or price range.

As new audio concepts and technologies are pioneered, the partnership of JBL and Harman International guarantees that consumer and professional audio users everywhere will be able to enjoy their full benefits.



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