

# OWNER'S GUIDE



<b>S4800</b>
<b>3-WAY FLOORSTANDING SPEAKER SYSTEM</b>
<b>JBL</b>

®

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## PREFACE

Thank you for selecting a JBL® S4800 loudspeaker system. It represents the sum total of our research and developmental efforts in sound reproduction over the last half-century. We have labored to create a loudspeaker system with no acoustical or electrical limitations whatsoever. While the S4800 loudspeaker is itself a new development, the goal behind it goes right back to the earliest days of the original James B. Lansing Sound Company.

But it is your listening pleasure that ultimately determines how successful we are in this endeavor. It is solely in the interest of ensuring a perfect listening experience that we ask you to faithfully follow the setup and operation procedures outlined in this owner's guide.

This guide exists for several purposes. As your owner's manual, it contains all necessary background information and detailed instructions for setting up your S4800 loudspeaker system, including unpacking the loudspeaker; selecting the correct location, speaker wire, wiring scheme and amplification; and connecting it to its associated electronics. This information will be found in Chapters 2 through 6. In addition, we have included a detailed description of the S4800 speaker (Chapter 1) so that you may become thoroughly acquainted with its unique design and technological features.

Although physically and materially imposing, the setup procedure of the S4800 loudspeaker system is relatively simple. We strongly urge you to read this manual thoroughly before you begin, and consult it frequently throughout the process. Considerations must be made in placing the speakers; their stature and weight make it imperative that you become familiar with the entire setup process in advance.

Please take a moment to register your product online at [www.jbl.com](http://www.jbl.com). Registration enables us to keep you posted on our latest advancements, and helps us to better understand our customers and build products that meet their needs and expectations.

## CHAPTER 1 - THE S4800 LOUDSPEAKER: A TRIUMPH IN ACOUSTICS AND TECHNOLOGY

The new S4800 employs a 3-way, three-driver design, incorporating an ultrahigh-frequency (UHF) compression driver and horn to reproduce high frequencies up to 40kHz. With the UHF handling the ultrahigh frequencies, the high-frequency (HF) transducer could then be upgraded to a new design using a 3-inch diaphragm for better reproduction of lower frequencies and better blend with the woofer than the older generations' 2-inch diaphragm. Both compression

drivers are mounted in a unique combination Bi-Radial<sup>®</sup> horn structure, precision-molded from JBL's proprietary SonoGlass<sup>™</sup> material, an extremely dense and mechanically inert substance that is easily molded into the unusual shapes required for superior acoustic performance.

In order to re-create the extremely high dynamic range provided by today's audio sources, a new low-frequency transducer was used, incorporating a ferrite magnet, 3-inch edge-wound voice coil, and an Aquaplas-coated 15-inch cone made of Kevlar<sup>®</sup> composite, a mixture of Kevlar fiber and pulp material that provides increased rigidity. An EPDM rubber surround was chosen for both its flexibility and long life. The Symmetrical Field Geometry<sup>™</sup> (SFG<sup>™</sup>) magnetic structure minimizes second harmonic distortion by providing a uniform flux field that prevents uneven cone movement. The rigid cast-aluminum frame is also designed to minimize distortion, as aluminum has no effect on the magnetic field. Extensive computer-aided engineering and design effort made to develop the optimized port tuning employed in the S4800 has resulted in a significant advance in the concept of state-of-the-art bass reproduction. This proprietary alignment method offers the best damping characteristics and provides extremely fast alignment, eliminating the typical "bass-reflex" sound of a ported system.

All three transducers are built using the most advanced materials and precision manufacturing techniques refined from renowned JBL professional sound systems.

High power-handling capability results in no limitations on the types of source material. The S4800 has very high input sensitivity; even a relatively small high-end amplifier can provide full dynamic range without compression.

Despite its power and sophistication, the S4800 embodies both tradition and technology. It reflects the design, engineering and manufacturing expertise derived and refined through nearly six decades of experience that are the exclusive province of one loudspeaker builder – JBL.

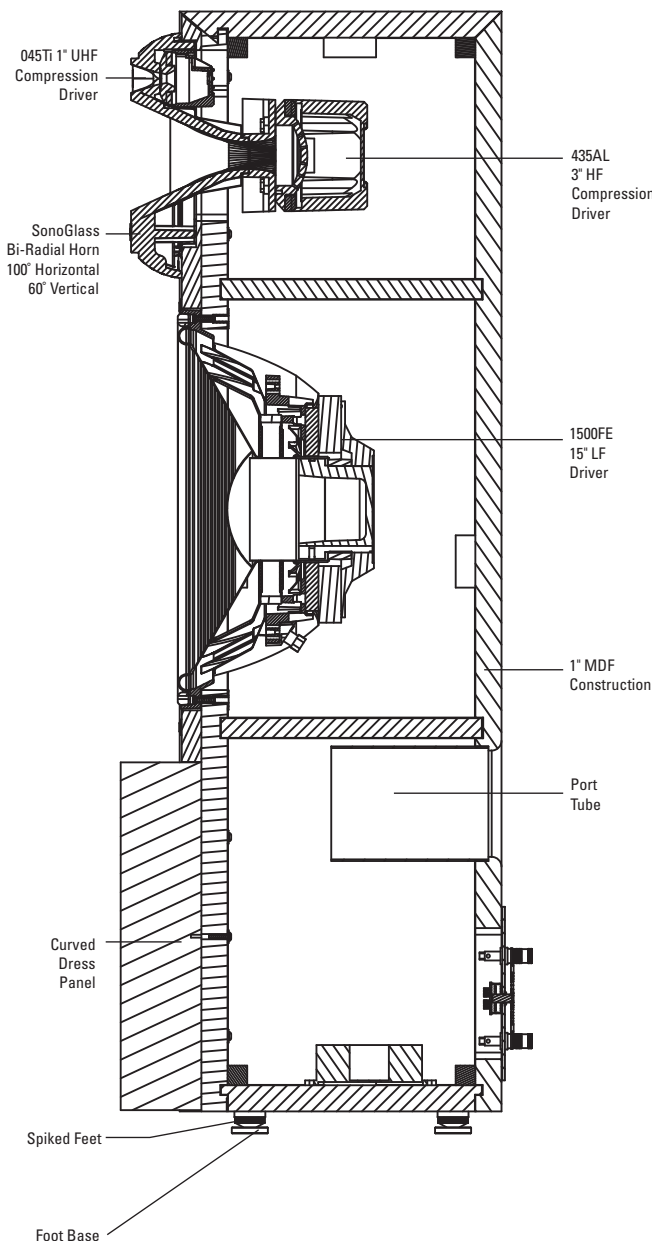


Figure 1. Cutaway view of S4800 speaker system.

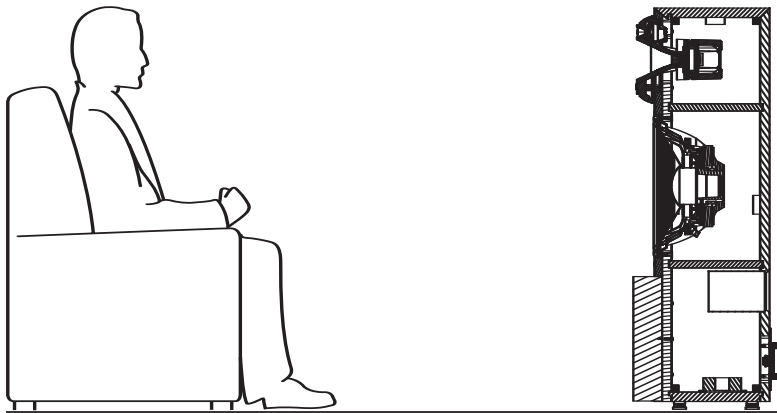


Figure 2. Height of S4800 speaker system in relation to listener.

The following sections describe the primary features and components of the S4800 loudspeaker system.

The enclosure of the S4800 is specially designed to transfer unwanted mechanical energy away from any acoustically active surfaces, virtually eliminating coloration.

The massive enclosure, along with its specially designed brass modular feet, couples directly to the floor, and the system literally becomes a structural part of its environment. Any vibration is transmitted harmlessly down the channel provided by the ring/disc axes and into the floor. The SonoGlass combination horn maintains a smooth energy transmission path.

The S4800 transducer/enclosure arrangement represents the best possible balance of the various tuning options and avoids the mid-bass response buildup found in other vented systems. Response works with, rather than against, the effects of "room loading."

The unique design of the system is the platform for its equally unique acoustical attributes.

Thanks to the combination horn, both the UHF (ultrahigh-frequency) and HF (high-frequency) drivers are located at the ear level of the listener.

See Figure 2.

The large 3-inch HF transducer allows the 15-inch woofer to be crossed over at a frequency low enough to eliminate any audible effects of its exact location and proximity.

Full image coherency is maintained, resulting in an acoustically stable pinpointed stereo image. All

the sound seems to come from the combination horn. Music imaging is more realistic since the sound appears to emanate from one point and not from multiple points at different times.

The S4800 is a constant-angle system without regard to frequency. Careful horn design enables the loudspeaker to strictly adhere to a 100° horizontal/60° vertical coverage pattern. This controlled coverage arrangement precisely defines the optimum listening area and minimizes room effects. At the same time, it provides a generous "sweet spot" for more comfortable critical listening sessions.

### THE 1500FE LOW-FREQUENCY DRIVER

See Figure 3.

In order to achieve the lowest possible distortion and compression along with the high linear excursion necessary, the 1500FE is equipped with a ferrite magnet. As with earlier JBL low-frequency drivers, it utilizes forced-air cooling. The entire magnetic structure

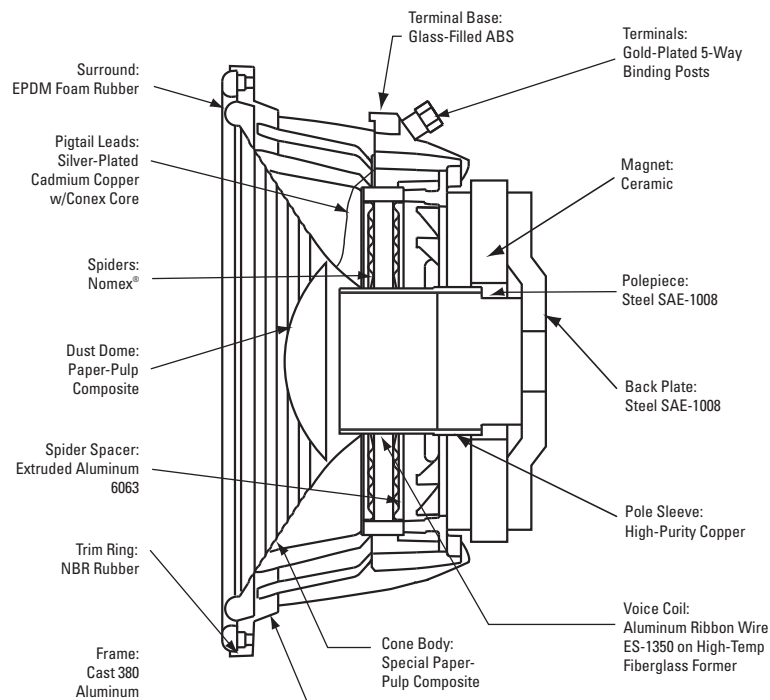


Figure 3. Cutaway view of 1500FE low-frequency transducer.

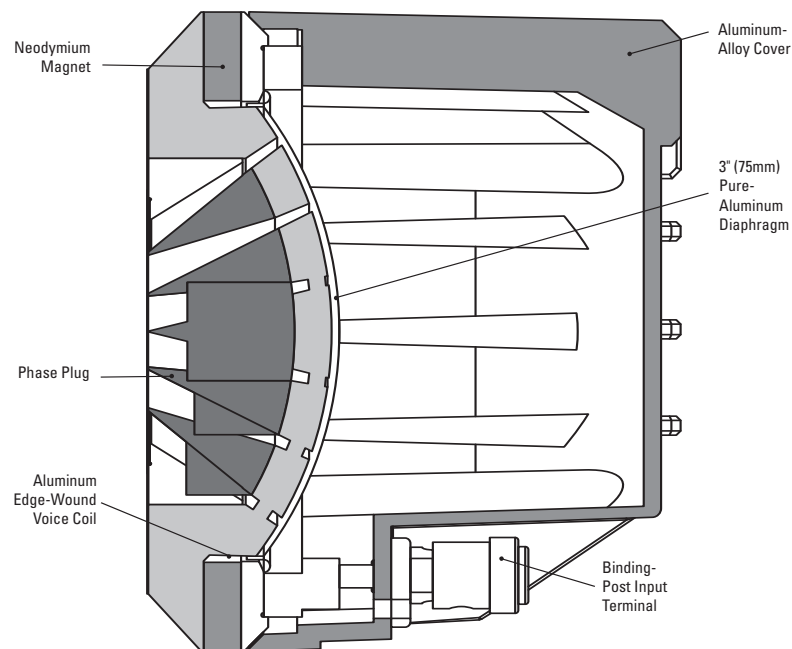


Figure 4. Cutaway view of 435AL high-frequency transducer.

is attached to a die-cast aluminum-alloy frame. This provides accurate, rigid support for the motor and cone mounting points, as well as doubling as a massive heatsink by providing a huge surface area for heat dissipation.

The 1500FE has a central cooling duct that effectively cools the voice coil and reduces the likelihood of hot spots. By reducing the operating temperature of the voice coil, power compression is significantly reduced, which enables the low-frequency driver to operate in a more linear fashion over a wider sound pressure level (SPL) range.

The voice coil itself is constructed from edge-wound aluminum wire on a massive 4-inch-diameter fiberglass former. This configuration provides for further cooling ability in conjunction with the motor design.

The Aquaplas-coated, Kevlar-composite cone, along with the EPDM rubber surround, provides excellent damping and transient response characteristics.

#### **435AL ALUMINUM DIAPHRAGM/ NEODYMIUM MAGNET HIGH-FREQUENCY COMPRESSION DRIVER**

See Figure 4.

The 435AL neodymium high-frequency compression driver is based on the professional JBL 2430 device. It incorporates a rare-earth neodymium magnet structure, designed by extensive computer modeling, including finite element analysis, which combines the attributes of efficiency, strength, low mass and compact size. This motor structure is coupled with a 3-inch aluminum diaphragm. Aluminum provides improved low-distortion characteristics and flat frequency response.

High-temperature materials and adhesives allow the driver to handle extremely high power levels over extended periods of time. The SonoGlass horn is acoustically inert and precision-molded to exacting tolerances.

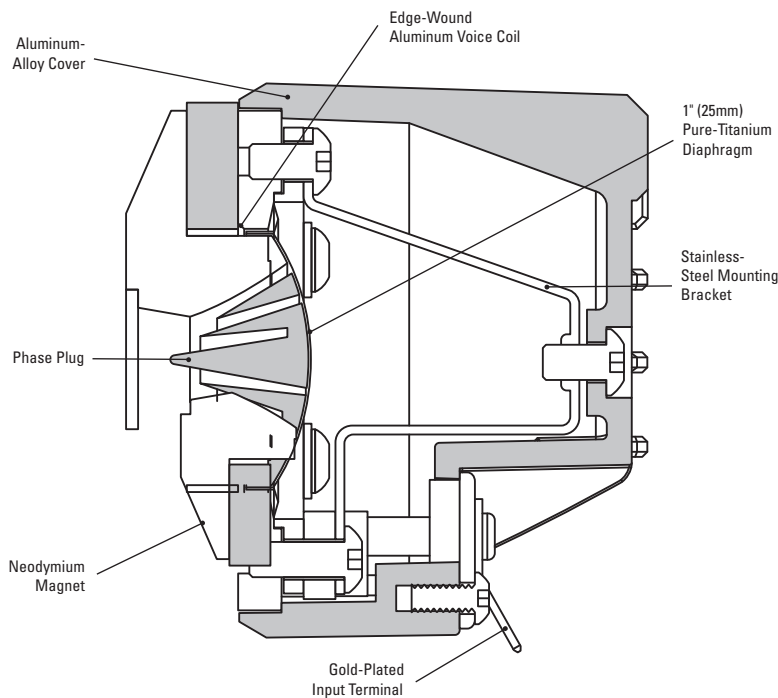


Figure 5. Cutaway view of 045Ti ultrahigh-frequency transducer.

**045TI PURE-TITANIUM DIAPHRAGM/ NEODYMIUM MAGNET ULTRAHIGH-FREQUENCY COMPRESSION DRIVER**

See Figure 5.

The 045Ti utilizes the same principles as the 435AL, in a smaller footprint so that a frequency response up to 40kHz can be achieved.

**INTERNAL CROSSOVER NETWORK**

Each loudspeaker unit has two internal dividing networks, one for the LF transducers and one for the combined HF and UHF transducers.

The low-frequency section interfaces with the external main control panel for input connections and switch functions. They also employ massive air core inductors for the best possible sonic characteristics and lowest possible coloration.

All internal connections use proprietary Monster Cable<sup>®</sup>, and all critical connections are gold-plated for long life. Capacitors are ultrahigh-grade polypropylene for extremely low loss. All switches and components are of the highest quality for long life and reduced distortion of all types.

The network also facilitates bi-wiring as necessary, using shorting straps where only a single-wire connection is desired.

The HF trim control allows fine-tuning of the high-frequency output level to the acoustics of the listening space as well as to the listener's liking.

**EXTERNAL CONNECTIONS**

The all-metal, gold-plated, 5-way binding-post input connectors provide for bi-wiring, which is explained in detail later in this guide.

**ENCLOSURES**

The enclosure design of the S4800 minimizes coloration by dramatically reducing panel radiation. It is constructed from 1-inch (25mm)-thick MDF.

The enclosure's unusual thickness, along with the SonoGlass horn assembly, add up to the lowest-vibration, most acoustically inert loudspeaker enclosure presently possible to construct. Enclosures are finished with a high-gloss polyurethane lacquer.

## CHAPTER 2 - UNPACKING THE S4800 SYSTEM

All components of the S4800 system have been very carefully packed for maximum protection against damage.

As with any superior audio product, it is advisable to keep the original packing materials in case it is necessary to transport the S4800 system.

Because of the bulk and weight of this loudspeaker, at least two people are required to unpack it in the following manner: Open the front as well as the top of the carton. Slowly

and carefully “walk” the loudspeaker in its Styrofoam™ end pads out of the carton. Two people may then lift the system out of the end pads.

The four spiked feet are pre-installed in the bottom of the S4800 in four locations. Four metal coasters are packed in the end pads. These are to be placed between the feet and the floor for further protection of floor coverings. See Figure 6.

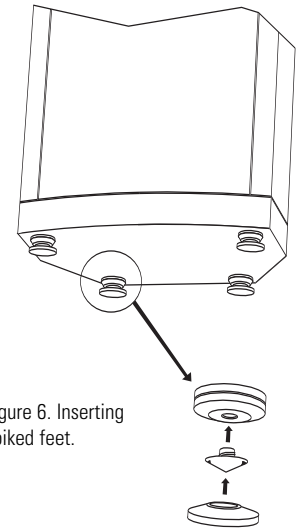


Figure 6. Inserting spiked feet.

## CHAPTER 3 - SELECTING CABLE

Speaker wire and interconnecting cables are critical components in any audio system. With a system such as the S4800, they assume a new level of importance.

S4800 loudspeakers are internally wired with high-quality copper Monster Cable, specially designed for JBL. The same care that was given to the selection of internal system wiring should be afforded to the selection and application of the cables that will connect S4800 loudspeakers to other system components.

It is advisable to use high-quality wire, such as Monster Cable, and to select the highest-grade wire available from the manufacturer. Many manufacturers produce audiophile cables worth considering for the S4800. As with all electronics and associated components, however, every manufacturer offers products of varying quality to suit a range of budgets and applications.

We recommend using an audiophile-quality speaker wire of not less than 16 gauge for connections up to 15 feet (5 meters) as a **minimum** requirement. If your connections will be longer, heavier-gauge wire is recommended. JBL specialist dealers have the experience and knowledge to recommend suitable speaker wire to best complement a particular system.

The amount of speaker wire required will depend on the distance between the loudspeakers and amplifier(s), how many amplifiers will be used, and the method you select for connecting the amplifier and loudspeakers (passive or bi-wire; see Chapter 6). For maximum signal purity, it is advisable to locate the amplifier(s) as close as possible to the loudspeakers, even if this means that a longer distance will be needed between the amplifier(s) and preamplifier.

Both the left and right speaker/amplifier connections should be the same length. If the distance between one speaker and the amplifier(s) is greater than the other speaker and amplifier(s), use the longer length for both connections.

For bi-wire connections, the same type of wires may be used for both the low-frequency and high-frequency sections to reduce wire effects (resistance, inductance, etc.) and to avoid intermodulation of low and high frequencies in the wires. Specialized wires for low-frequency and high-frequency sections may yield excellent results. Whatever wires are used, be sure that the low-frequency wires are as short as possible, and the left and right wires for each section are the same length.



## CHAPTER 4 - AMPLIFIER RECOMMENDATIONS

No single type of amplifier is specified for use with the S4800 system. The speakers are highly efficient and will operate adequately with an amplifier or receiver of 70–100 watts.

However, the transient response and audio definition of a high-end system such as the S4800 will pick up all inefficiencies and distortion in an amplifier system. For full-range operation, the S4800 system can be used with an amplifier/receiver of as little as 30 watts. Amplifiers/receivers of 100–300 watts will ensure optimum system performance.

There is no effective limit to the power handling capabilities of the S4800 loudspeakers when driven by consumer audio amplifiers. No damage will occur when used with high-powered components. Source impedance is an important criterion in selecting an appropriate unit; the selected amplifier(s) should have a very high current capacity and must be capable of driving a low impedance load.

For bi-wiring applications, four identical amplifiers or two dual-channel units may be used, although specialized low-frequency and high-frequency amplifiers offer clear advantages.

**NOTE:** When using separate high- and low-frequency amplifiers with dual wires to each speaker, the amplifiers must have exactly the same gain structure, or one of them must have a level control to adjust the gain between the two amplifiers. If four amplifier channels are used, the high-frequency amplifier may be up to 6dB less powerful than the low-frequency amplifier. Due to the *power versus frequency* distribution of the music, the low-frequency section requires approximately four times the power of the high-frequency section.

JBL specialist dealers can recommend amplification to best suit individual needs. In all cases, the left and right amplifiers for each section must be identical. Make sure that the input sensitivity of the two amplifiers is equal or that input level controls are provided to maintain the proper low to mid/high balance. If two identical stereo amplifiers are chosen, each amplifier may be located near a loudspeaker and drive low-frequency and high-frequency sections through short wire runs.

## CHAPTER 5 - PLACEMENT AND SETUP CONSIDERATIONS

The S4800 loudspeaker system is designed to be less affected by room acoustics than conventional imaging systems. However, it is very sensitive to overall symmetry, and proximity to walls, ceilings and corners.

Ideally, any listening room should contain a combination of live surfaces (e.g., walls and windows) and absorbent surfaces (e.g., drapes, carpets, upholstery). If the distance from floor to ceiling is short, it is preferable that one surface has an absorbent covering. With the S4800, it is most important to be able to accommodate the optimum listening area that is defined by the 100° horizontal/60° vertical coverage pattern of the horn.

The listener should be centered in front of the speakers, and furniture should be of an appropriate height so that when the listener is sitting, his or her ears are level with the horn (approximately 32 inches/80cm), as illustrated in Figure 2.

**CAUTION:** The S4800 is a massive system comprising materials chosen for their density, with its weight concentrated in a relatively narrow

area. Verify the integrity of the floor surface before placing and setting up the speakers. See **Floor Requirements**.

If possible, the distance between the speakers should be the same as the distance between each speaker and the listening area. Angle the speaker in toward the listener so that when seated, the listener can look straight into the center of the speaker (Figure 7). As the distance increases between the speakers, increase the inward angle of the speaker.

The imaging qualities enable the speakers to be placed relatively far apart from each other. In addition, the low-frequency alignment feature enables placing the speakers near, or even in, a corner without producing an overabundance of bass. This corner placement ability allows optimum performance even in small rooms.

The S4800 system can operate fairly close to the wall. Leave enough clearance between the back of each speaker and the wall to allow for making the connections on the back of the speaker (approximately 2 inches – 3 inches

is sufficient), and to avoid interference with the performance of the tuned port. Remember that these speakers weigh close to 143 lb (65kg) each and cannot be easily moved.

### FLOOR REQUIREMENTS

The floor in the location selected for setting up the S4800 speakers must be capable of supporting a load of 143 lb (65kg) per speaker. Because of the coupling effect of the stainless-steel feet, a flat, hard surface such as wood or linoleum is preferable. However, the design of the loudspeaker's coupling system, along with the speaker's extreme weight, should result in excellent performance on any surface, even on carpets.

To prevent indentations on wood or linoleum floors caused by the weight of the loudspeaker, always utilize the enclosed coasters. Do not set up the S4800 system directly on a ceramic tile floor; the concentrated weight might cause the tiles to crack.

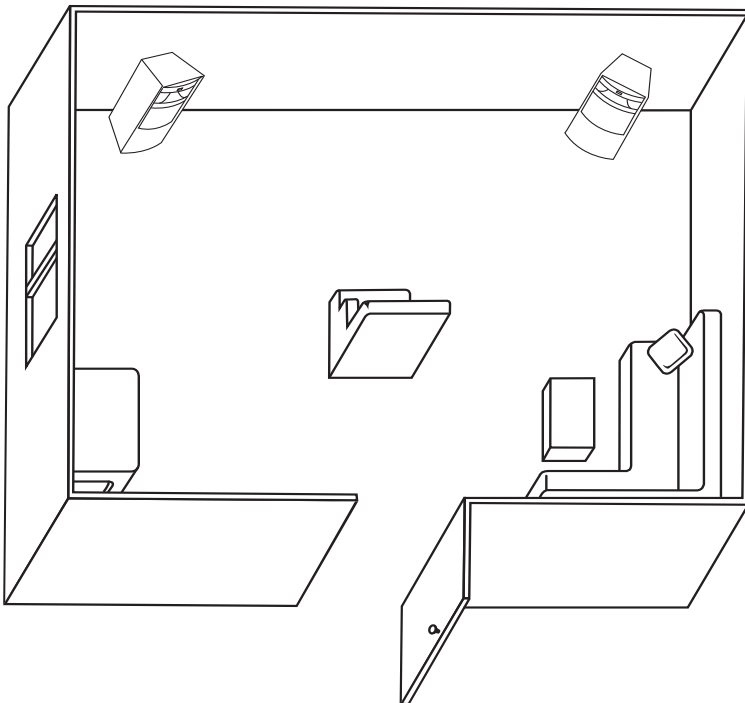


Figure 7. Room placement of S4800 speaker system.

## CHAPTER 6 - S4800 SWITCH OPERATIONS

The S4800 has an HF trim switch mounted on the network panel on the rear of the enclosure. The **HF Trim Switch** ③ adjusts the high-frequency level over the range of approximately 1000Hz to 10kHz. The +1dB position gives the highest HF output and measures the most level. 0dB reduces the HF level by 1dB, and the -1dB position reduces the HF level by an additional 1dB.

Although the range of these control settings is rather small, each of them operate over a reasonably wide frequency range and thus have a noticeable effect on the overall tonal balance of the system. It is recommended that the system first be played with the switch in the middle position. This setting gives the most uniform measurements in a controlled environment. Of course, we are interested in producing the most pleasing sound in your environment with your choice of program material. It is, therefore, recommended that the **HF Trim Switch** ③ be tested in its various settings on a variety of program material. Once you become familiar with their individual character, you should have no difficulty determining the setting that produces the most pleasing, natural sound in your room with your equipment.

### CONTROLS AND CONNECTIONS

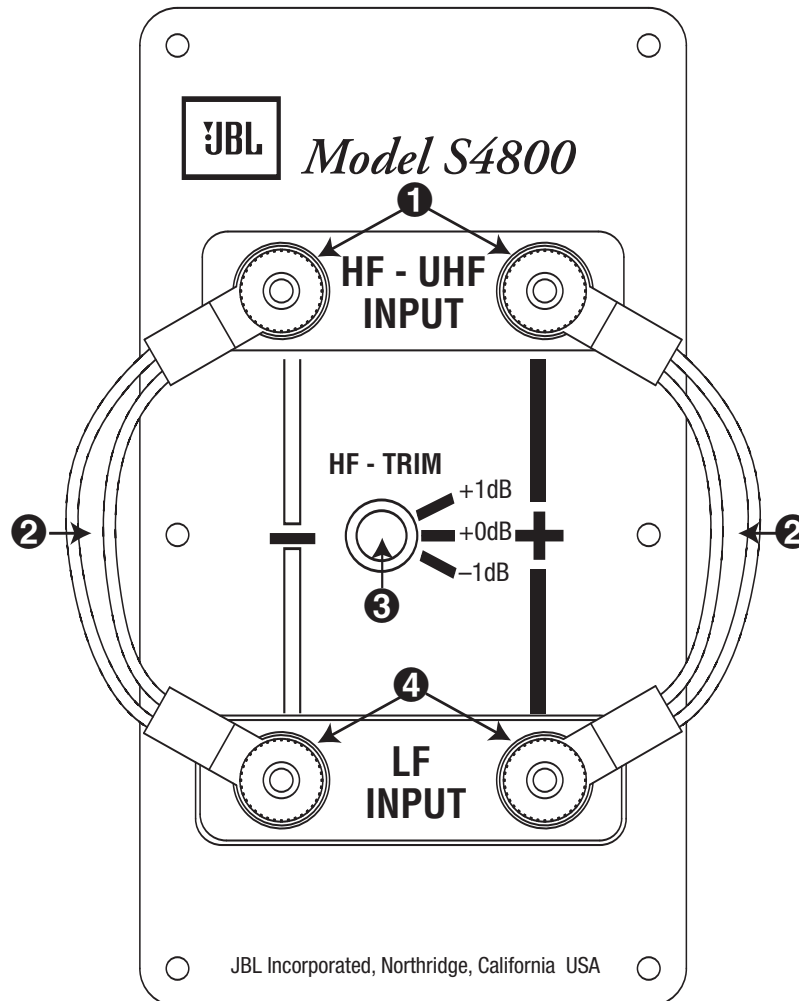


Figure 8. S4800 controls and connections.

#### ① Mid-/High-Frequency Input

**Terminals:** For bi-wire configurations, connect the speaker wires for the mid- and high-frequency ranges to these terminals.

**② Shorting Straps:** Leave the shorting straps in place only if you are using the passive single-wire connection option described on page 13. Otherwise, remove the straps to prevent possible damage to the speakers or your electronics.

**③ HF Trim Switch:** This switch allows you to adjust the output of the high-frequency transducers to compensate for the acoustics of your room. The +1dB position

increases the output, the 0dB position is a flat-level position, and the -1dB position decreases the output. Each position will affect the tonal balance over a wide frequency spectrum. Experiment by placing the switch in each position while listening to familiar program material and choose the position that suits your room acoustics and listening preferences. You may find after a few months, once the transducers have settled in, that another adjustment is necessary. This is normal. The switch may be adjusted using a flat-head screwdriver.

#### ④ Low-Frequency Input

**Terminals:** For bi-wire configurations, connect the speaker wires for the low-frequency range to these terminals.

## SHORTING STRAPS

The S4800 is shipped with shorting straps installed between its low-frequency and high-frequency terminals. Please see Figure 8.

To prepare the S4800 for bi-wire operation, these straps must be removed by completely unscrewing each binding-post knob, removing the straps, and replacing the knob. Speaker wires can then be connected to each set of terminals (see Figure 9).

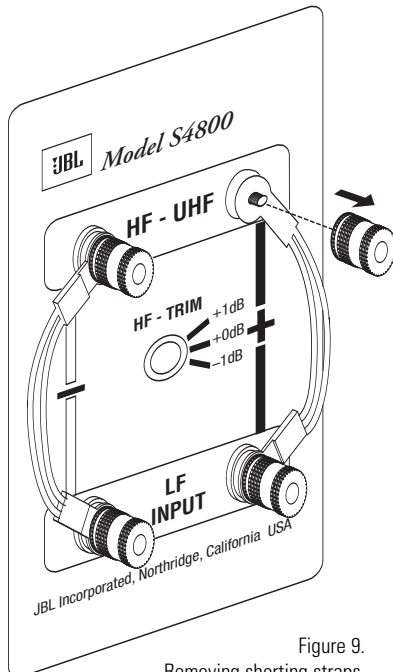


Figure 9.  
Removing shorting straps.  
(Bi-Wire Connection Method)

## AMPLIFIER CONNECTIONS

**IMPORTANT:** Turn all amplifiers off before connecting or disconnecting S4800 loudspeakers. Making connections while an amplifier is operating could seriously damage the loudspeaker system and void the warranty. All amplifiers must also be turned off before connecting or disconnecting cables at the amplifier or preamplifier inputs.

All connections between the amplifier(s) and the S4800 loudspeaker system are made at the terminals located on the back of the enclosure (see Figures 9 through 12).

The left-hand terminals (black stripe) are negative, and the right-hand terminals (red stripe) are positive. These correspond to the negative and positive conductors in the speaker wire. Each speaker wire contains two conductors, one of which will have a stripe, color markings or a ridge. Assign one of the two conductors as the negative conductor and the other as the positive conductor. Use these same designations for all system wiring. Always connect the conductors of the speaker wire appropriately to the corresponding negative and positive terminals on all system components. This will ensure that all components will work together ("in phase"). Connecting the speakers out of phase will not damage them but will result in reduced low-frequency output and impaired stereo effect. Speaker wires may be fastened to the terminals by several methods. The most positive connection is made by directly connecting clean, bare connectors (exposed by stripping the ends of the wire) to the terminal posts.

For this type of connection, loosen the knobs on the terminals and insert the exposed (bare) ends of each speaker wire into the hole exposed on the terminal shaft ( + to +, - to - ) (see Figure 12). Refasten the knob on each terminal so that a snug connection is achieved. Do not apply excessive force and do not overtighten. To avoid a short circuit, trim off any excess wire that is not in contact with the binding post contact surfaces.

S4800 terminals are also designed to accept spade or banana-type connectors, which are fastened to the ends of the wires and, in turn, are attached to the terminal posts.

## WIRING CONFIGURATIONS

As mentioned earlier, the S4800 speakers may be connected to the amplifier(s) by one of these methods: passive or bi-wire. Each method (described on page 13) has its own advantages, and the loudspeaker system will deliver superb performance with both methods.

Each speaker is shipped with external shorting straps in place (see Figure 8), connecting the upper and lower terminal posts on the left and right sides. These straps must remain in place for passive connections but must be removed for all bi-wire connections.

**IMPORTANT:** If the amplifiers are connected to the S4800 loudspeakers in the bi-wire mode with the shorting straps still on, the amplifier outputs will be shorted, which could result in costly amplifier damage when the power is switched on.

### PASSIVE CONNECTION METHOD

The passive method requires one amplifier and one set of wires. Connections are made to the lower terminals (one black, one red). Do not remove the shorting straps. Loosen the lower terminal caps. Connect the positive conductor to the right (red) terminal and the negative conductor to the left (black) terminal (see Figure 10). Refasten the terminal caps.

### BI-WIRE CONNECTION METHODS

The bi-wire connection method requires one amplifier and two sets of speaker wires. By removing the shorting straps, connections may be made to the individual network sections using four conductors, one for each of the four terminals (see Figure 11).

The optimal method of powering the S4800 system is with two amplifiers, one for the low-frequency unit and one for the high-frequency unit. Since each amplifier drives only one speaker, this method allows the user to select amplifiers with the desired sonic

character for low and high frequencies (see Figure 11).

**NOTE:** When using separate high- and low-frequency amplifiers with dual wires to each speaker, the amplifiers must have exactly the same gain structure, or one of them must have a level control to adjust the gain between the two amplifiers.

Four identical amplifiers (or two dual-channel units) may be used, although specialized low- and high-frequency amplifiers offer clear advantages. A JBL specialist dealer can recommend the amplification that will best suit individual needs.

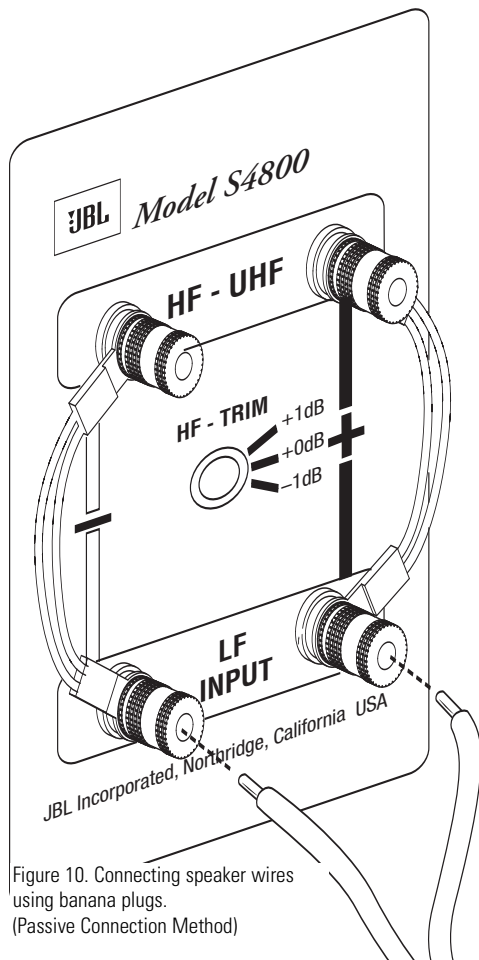


Figure 10. Connecting speaker wires using banana plugs. (Passive Connection Method)

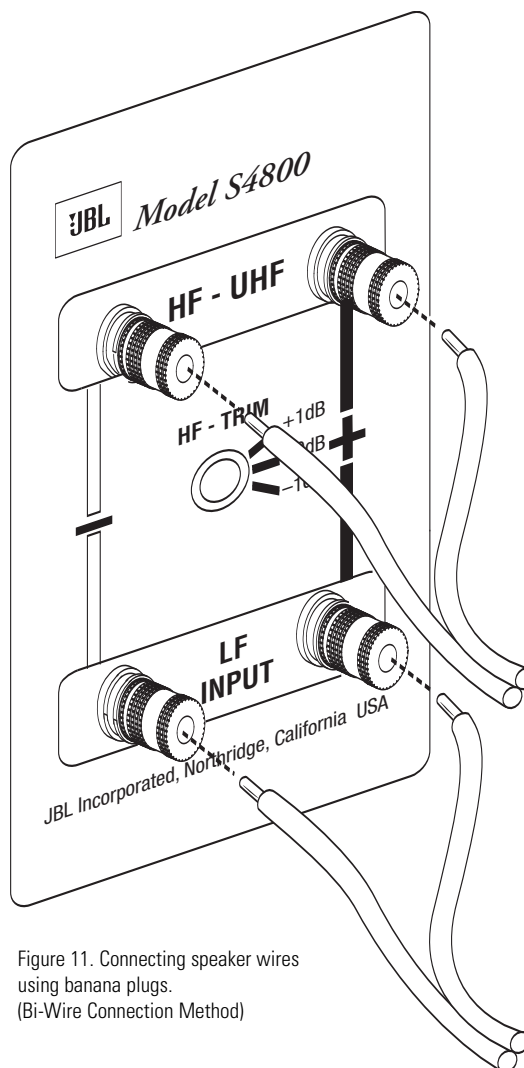


Figure 11. Connecting speaker wires using banana plugs. (Bi-Wire Connection Method)

In all cases, the left and right amplifiers for each section must be identical. Make sure that the input sensitivity of the amplifier for each section is equal, or that input level controls are provided to maintain the proper low-to-mid/high balance. If two identical stereo amplifiers are used, one may be located near each loudspeaker and drive low- and high-frequency sections through short wire runs.

**NOTE:** Input polarity must be the same for both the low- and high-frequency sections. Some amplifiers invert polarity. If the polarity is reversed to one section, a discontinuity in response will be apparent in the crossover region. If a problem is suspected, reverse the polarity to either low- or high-frequency sections of both loudspeakers. Amplifier polarity markings may not ensure correct polarity connections.

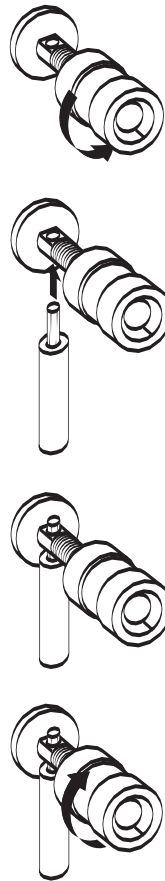


Figure 12. Connecting speaker wires using bare-wire method.

### THE WOOFER GRILLE

Grilles on the S4800 loudspeaker system have been designed for maximum acoustical transparency. For the most critical listening, however, JBL suggests removing the grilles. The grilles are connected by four pins inserted into four holes on the face of the cabinet.

To remove each grille, hold the grille edges with your fingers and gently pull the grille away. Do not use any tools to pry the grille off – this will damage the finish of the cabinet. To replace the grille, position the mounting pins over the holes and gently press until the grille meets the enclosure.

### FINAL CHECKLIST

- Connect and plug in all other system electronics.
- Check all connections. If bi-wiring, make sure both shorting straps are removed.
- Make sure the **HF Trim Switch** ③ is correctly set.

The system is now ready for use. The S4800 speaker system is fully functional as soon as it is set up. The amplifier power should not exceed 300 watts (RMS). There may be some subtle tonal changes in bass output over the first week to 10 days of operation. These are caused as the movement of the low-frequency drivers becomes more fluid and the parts settle in. This process is completely normal with transducers of this caliber.

## CHAPTER 7 - CARE AND MAINTENANCE

The S4800 loudspeaker system is sprayed in a polyurethane finish and requires no maintenance other than an occasional dusting with a soft, dry, lint-free cotton cloth.

The horns may also be wiped with a soft cloth. Treat the surface very carefully to avoid scratching the finish. To remove fingerprints and smudges, apply a small amount of ammonia-free window cleaner to the cloth and gently clean the surface.

Never use any abrasive cleaners or chemicals to clean the enclosure. If the enclosure becomes perceptibly scratched or otherwise damaged, consult a qualified furniture repair shop.

The grilles should never be washed in water, which might cause discoloration or sagging. The grilles may be cleaned using a vacuum cleaner with the suction set extremely low.

To clean the woofer surfaces, use a soft, dry paintbrush to carefully sweep the dust away. *Never* use a damp cloth.

All wiring connections should be inspected and cleaned, or remade periodically. The frequency of the maintenance depends on the metals involved in the connections, atmospheric conditions and other factors. Consult a JBL specialist dealer for specific recommendations.

## CHAPTER 8 - TROUBLESHOOTING AND SERVICE GUIDE

S4800 loudspeakers are designed to provide years of trouble-free service.

If you are experiencing difficulties, we suggest you check these possibilities before contacting your JBL specialist dealer for assistance.

### **IF THERE IS NO SOUND FROM ANY OF THE SPEAKERS:**

- Check that the receiver/amplifier is on and a source is playing.
- Check all wires and connections between the receiver/amplifier and the speakers. Make sure all wires are connected, and are not frayed, cut or punctured. No wires or strands should be touching each other or the shorting straps connected to other terminals.
- Review proper operation of your receiver/amplifier.

### **IF THERE IS NO SOUND COMING FROM ONE SPEAKER:**

- Check the "Balance" control on your receiver/processor.
- Check all wires and connections between the receiver/amplifier and the speakers. Make sure all wires are connected, and are not frayed, cut or punctured. No wires or strands should be touching each other or the shorting straps connected to other terminals.
- In digital surround sound modes, make sure that the receiver/processor is configured so that the speaker in question is enabled.

- Switch the speaker wires between the speaker with the problem and one that is working correctly. If the problem remains in the same speaker, then the fault is in the loudspeaker. In this event, consult your JBL specialist dealer for assistance. If, however, the problem has moved to the other speaker, then the cause is in either a cable or an electronic component.

### **IF THE SYSTEM PLAYS AT LOW VOLUMES BUT SHUTS OFF AS VOLUME IS INCREASED:**

- Check all wires and connections between the receiver/amplifier and the speakers. Make sure all wires are connected, and are not frayed, cut or punctured. No wires or strands should be touching each other or the shorting straps connected to other terminals.
- If more than one pair of main speakers is being used, check the minimum impedance requirements of your receiver/amplifier.

### **IF THERE IS LOW (OR NO) BASS OUTPUT:**

- Make sure the connections to the left and right speaker terminals have the correct polarity.
- In digital surround sound modes, consider adding a powered subwoofer to play the LFE (low-frequency effects) channel of the program.



## S4800 SPECIFICATIONS

POWER HANDLING:	300W (RMS)*
FREQUENCY RESPONSE:	55Hz – 40kHz (-6dB)
LOW-FREQUENCY EXTENSION:	28Hz (-10dB)
SENSITIVITY:	93dB (2.83V/1m)
NOMINAL IMPEDANCE:	8 Ohms
CROSSOVER FREQUENCIES:	900Hz, 8kHz
LOW-FREQUENCY DRIVER:	15" (380mm) Kevlar®-composite-cone woofer (1500FE)
HIGH-FREQUENCY DRIVER:	3" (75mm) Aluminum compression driver (435AL) in 1-1/2" (38mm)-throat Bi-Radial® horn
ULTRAHIGH-FREQUENCY DRIVER:	1" (25mm) Pure-titanium compression driver (045Ti) in 0.35" (8.9mm)-throat Bi-Radial horn
DIMENSIONS (H X W X D):	42" (42-3/4" with spike feet) x 19-3/4" x 14-5/8" 1067mm (1086mm with spike feet) x 501mm x 376mm
WEIGHT:	143 lb (65kg) per speaker

\* The maximum recommended amplifier power rating will ensure proper system headroom to allow for occasional peaks. We do not recommend sustained operation at these maximum power levels.  
All features and specifications are subject to change without notice.



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**NOTES:**

# JBL

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