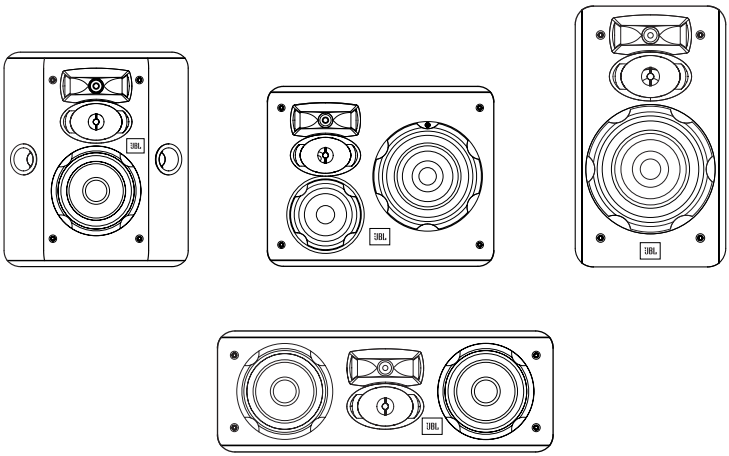
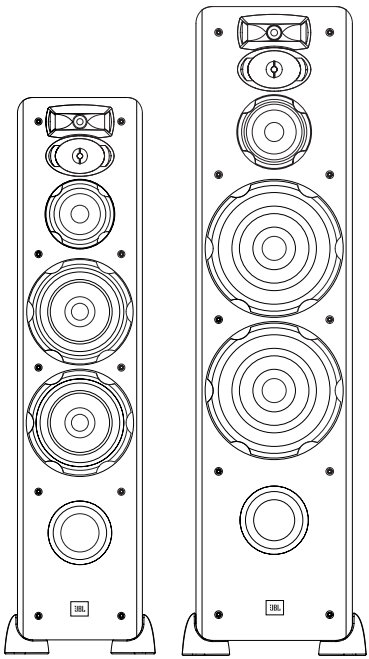




JBL®

**STUDIO™ L SERIES**

L810, L820, L830, L880,
L890, LC1, LC2

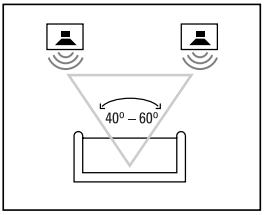
# OWNER'S GUIDE

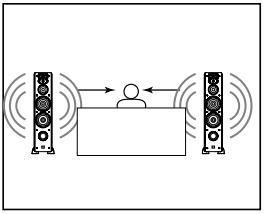
# SPEAKER PLACEMENT

Proper placement of the speakers is an important step in obtaining the most realistic soundstage possible. These recommendations are for the optimum placement of the loudspeakers. Use these placement recommendations as a guide. Slight variations will not diminish your listening pleasure.

All of the Studio L Series loudspeakers referred to in this guide are video-shielded and may safely be placed near a television.

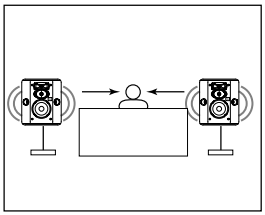
## MODELS: L830, L880, L890



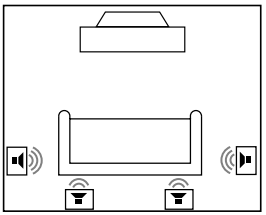



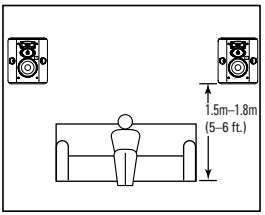
## MODELS: L810 AND L830

As front speakers



As surround speakers

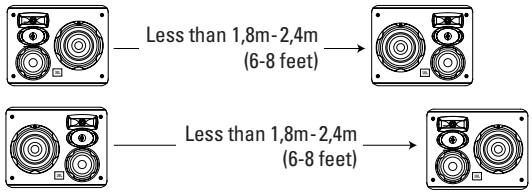




## MODEL: L820

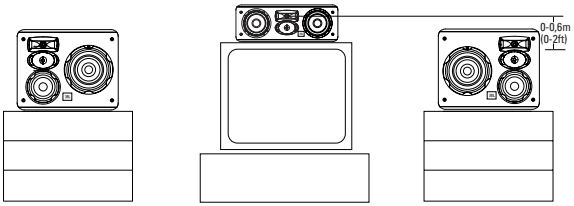
The L820 loudspeakers are designed to be oriented horizontally, as shown in the illustrations below. Although these loudspeakers are designed as a mirrored pair, the decision as to which one is left or right will depend on the amount of space left between them.

For stereo-only applications:



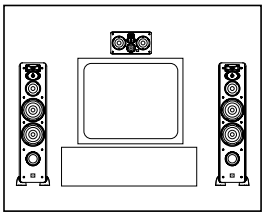

A wider stereo image is presented with the tweeter/ midrange array outboard, and a tighter image is presented with the array inboard.

For home theater applications:



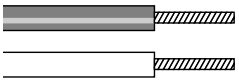

This placement provides a wide spread in sound, supplemented by the center channel speaker.

## MODELS: LC1, LC2

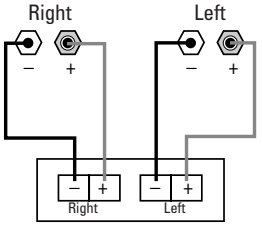


The LC1 and LC2 center channel loudspeakers are designed to complement all of the Studio L Series loud-speakers. Either speaker is ideal for re-creating the cinematic experience in your home.

# SPEAKER CONNECTIONS

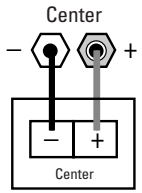


### MODELS: L810, L820, L830, L880, L890




**Receiver's Speaker Outputs**

### MODELS: LC1, LC2




**Receiver's Speaker Outputs**

Speakers and electronics have corresponding (+) and (–) terminals. It is important to connect both speakers identically: (+) on the speaker to (+) on the amplifier and (–) on the speaker to (–) on the amplifier. Wiring "out of phase" results in thin sound, weak bass and poor imaging.

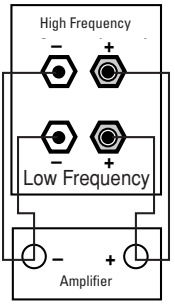
To use the binding-post speaker terminals, unscrew the colored collar until the pass-through hole in the center post is visible. Insert the bare end of the wire through this hole; then screw the collar down until the connection is tight.

The hole in the center of each collar is intended for use with banana-type connectors. To comply with European CE certification, these holes are blocked with plastic inserts at the point of manufacture. To use banana-type connectors requires the removal of the inserts. Do not remove these inserts if you are using the product in an area covered by the European CE certification.

### BI-WIRING

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

For single-wire connection, leave the shorting bars in place and connect only a single set of speaker wires (two conductors) to the two upper terminals.

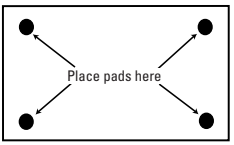



**Bi-Wire Connections**

# SPEAKER SETUP

### MODELS: L810, L820, L830, LC1, LC2

The supplied self-adhesive rubber feet may be attached to the bottom corners of your speakers to protect your furniture.




### MODELS: L880, L890

These models feature four rubber feet that enable them to be placed on a smooth-surfaced floor, such as tile or hardwood. Four metal spikes are supplied for use when the speaker is to be placed on a carpeted surface, to decouple the speaker from the floor and prevent unwanted damping. To insert the spikes, gently lay the speaker on its side (not its front or back) on a soft, nonabrasive surface. Each spike screws into the threaded insert in the center of each rubber foot. Make sure all four spikes are screwed in completely for stability.

**NEVER** drag the speaker to move it, as this will damage the spikes, the feet and/or the wood cabinet itself. Always lift the speaker and carry it to its new location.

**CAUTION:** Floorstanding (tower) loudspeakers have a high center of gravity and may become unstable and tip over during earthquakes, or if rocked, tipped or improperly positioned. If this is a concern, these speakers should be anchored to the wall behind them, using the same procedures and hardware customary for anchoring bookcases and wall units. The customer is responsible for proper installation and proper selection of hardware.

# WALL-MOUNTING

### (Models L810, L820, LC2)

**Important Safety Notes**

• Proper selection of mounting hardware and installation of the wall brackets are the responsibility of the customer.

• This product is not intended for ceiling mounting.

Two Number 8 round-head or pan-head screws should be used for each loudspeaker. The screw head should be between 5/16 inch (8mm) and 1/4 inch (6.3mm) in diameter, and the screw should be at least 2 inches (50mm) in length.

When installing screws in any wall, it is always preferable to screw them into a wall stud. If none is available, it is important to always use properly selected wall anchors.

Attach two of the four self-adhesive rubber pads that came with the loudspeaker to the back of the enclosure in the two bottom corners so that the cabinet is spaced evenly from the wall. Select a suitable mounting location on a wall. (The ceiling is not a suitable mounting location.)

Drill two pilot holes, appropriately sized for the specific self-tapping screw or wall anchor that you will be using. A template is included with your loudspeaker that indicates the proper locations for the pilot holes. In the event that the template is missing, refer to this chart:

| Model | Distance Between Pilot Holes |
|---|---|
| L810 | 152mm (6") |
| L820 | 216mm (8-1/2") |
| LC2 | 368mm (14-1/2") |

See Figure 1. The holes should be 57mm below where you want the top of the enclosure to be positioned. Use a carpenter's level to ensure that the holes are even and that the speaker will mount on the level.

Install the two screws into either a wooden wall stud or anchor, and tighten them until the back of each screw head is about 1/8" (3mm) from the wall. See Figure 2.

Models L810 and L820 may also be corner-mounted using the keyholes located on the bezeled corners. For corner mounting, fold the mounting template in half, place the fold in the corner at the desired height, and use the outer holes. In case the template is missing, for corner mounting drill each pilot hole 7-3/4" (197mm) from the corner for model L810, or 9-11/16" (246mm) from the corner for model L820. However, if your corner is not precisely 90 degrees, these measurements may not work. In that case, it is recommended that you contact a professional custom installer, who can determine the correct locations for the pilot holes. Install the loudspeaker by slowly moving the cabinet toward the screws so that the screw heads clear the larger circular portion of the two keyholes. Once both screw heads have entered the keyholes, the loudspeaker should gently be lowered onto the screw shafts. Check that the loudspeaker is firmly locked onto the screws by gently pulling the speaker down and forward.

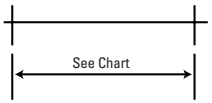



Fig. 1

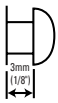



Fig. 2

# SPECIFICATIONS

| | L810 | L820 | L830 | L880 |
|---|---|---|---|---|
| **Description** | 3-Way, 5-1/4" Bookshelf/ Wall-Mount Satellite | 4-Way, 6" High-Performance, Mirror-Image, Wall-Mount Satellite | 3-Way, 6" Bookshelf | 4-Way, Dual 6" Floorstanding |
| **Maximum Recommended Amplifier Power** | 150W | 150W | 150W | 200W |
| **Power Handling (Continuous/Peak)** | 75W/300W | 75W/300W | 75W/300W | 100W/400W |
| **Nominal Impedance** | 8 Ohms | 8 Ohms | 8 Ohms | 8 Ohms |
| **Sensitivity (2.83V/1m)** | 88dB | 90dB | 90dB | 91dB |
| **Frequency Response (±3dB)** | 60Hz – 40kHz | 55Hz – 40kHz | 48Hz – 40kHz | 30Hz – 40kHz |
| **Crossover Frequencies** | 3500Hz, 20kHz | 600Hz, 3500Hz, 20kHz | 2500Hz, 20kHz | 700Hz, 5000Hz, 20kHz |
| **Ultrahigh-Frequency Transducer** | 19mm (3/4") Mylar® Dome With Cast-Aluminum Chassis | 19mm (3/4") Mylar® Dome With Cast-Aluminum Chassis | 19mm (3/4") Mylar® Dome With Cast-Aluminum Chassis | 19mm (3/4") Mylar® Dome With Cast-Aluminum Chassis |
| **High-Frequency Transducer** | 1" Pure-Titanium Dome With Cast-Aluminum Chassis in JBL EOS™ Waveguide | 1" Pure-Titanium Dome With Cast-Aluminum Chassis in JBL EOS™ Waveguide | 1" Pure-Titanium Dome With Cast-Aluminum Chassis in JBL EOS™ Waveguide | 1" Pure-Titanium Dome With Cast-Aluminum Chassis in JBL EOS™ Waveguide |
| **Midrange Transducer** | N/A | 4" PolyPlas™ Cone With Rubber Surround and Cast-Aluminum Chassis; HeatScape™ Motor Structure | N/A | 4" PolyPlas™ Cone With Rubber Surround and Cast-Aluminum Chassis; HeatScape™ Motor Structure |
| **Low-Frequency Transducer(s)** | 5-1/4" PolyPlas™ Cone With Rubber Surround and Cast-Aluminum Chassis; HeatScape™ Motor Structure; Symmetrical Field Geometry™ (SFG™); Oversized Kapton® Voice Coil; Magnetic Shorting Ring | 6" PolyPlas™ Cone With Rubber Surround and Cast-Aluminum Chassis; HeatScape™ Motor Structure; Symmetrical Field Geometry™ (SFG™); Oversized Kapton® Voice Coil; Magnetic Shorting Ring | 6" PolyPlas™ Cone With Rubber Surround and Cast-Aluminum Chassis; HeatScape™ Motor Structure; Symmetrical Field Geometry™ (SFG™); Oversized Kapton® Voice Coil; Magnetic Shorting Ring | Dual 6" PolyPlas™ Cones With Rubber Surrounds and Cast-Aluminum Chassis; HeatScape™ Motor Structures; Symmetrical Field Geometry™ (SFG™); Oversized Kapton® Voice Coils; Magnetic Shorting Rings |
| **Magnetic Shielding** | Yes | Yes | Yes | Yes |
| **Baffle** | Low Diffraction, IsoPower™ | Low Diffraction, IsoPower™ | Low Diffraction, IsoPower™ | Low Diffraction, IsoPower™ |
| **Enclosure** | Bass-Reflex with Dual FreeFlow™ Front-Firing Ports | Sealed | Bass-Reflex with FreeFlow™ Rear-Firing Port | Bass-Reflex with FreeFlow™ Front-Firing Port |
| **Network** | Straight-Line Signal Path™ (SSP) | Straight-Line Signal Path™ (SSP) | Straight-Line Signal Path™ (SSP) | Straight-Line Signal Path™ (SSP) |
| **Terminals** | Gold-Plated 5-Way Binding Posts, Bi-Wirable | Gold-Plated 5-Way Binding Posts, Bi-Wirable | Gold-Plated 5-Way Binding Posts, Bi-Wirable | Gold-Plated 5-Way Binding Posts, Bi-Wirable |
| **Dimensions (HxWxD)** | 362mm x 311mm x 127mm (14-1/4" x 12-1/4" x 5") | 311mm x 391mm x 127mm (12-1/4" x 15-1/2" x 5") | 385mm x 222mm x 320mm (15-1/4" x 8-3/4" x 12-3/4") | 990mm x 222mm x 370mm (39" x 8-3/4" x 14-3/4") |
| **Weight per Speaker** | 14 lb (6.4kg) | 19 lb (8.6kg) | 22 lb (10kg) | 54 lb (24.4kg) |

| | L890 | LC1 | LC2 |
|---|---|---|---|
| **Description** | 4-Way, Dual 8" Floorstanding | 3-Way, Dual 5-1/4" Center | 4-Way, Dual 6" Wall-Mount Center |
| **Maximum Recommended Amplifier Power** | 250W | 150W | 150W |
| **Power Handling (Continuous/Peak)** | 125W/500W | 75W/300W | 75W/300W |
| **Nominal Impedance** | 8 Ohms | 8 Ohms | 8 Ohms |
| **Sensitivity (2.83V/1m)** | 91dB | 91dB | 92dB |
| **Frequency Response (±3dB)** | 28Hz – 40kHz | 55Hz – 40kHz | 50Hz – 40kHz |
| **Crossover Frequencies** | 700Hz, 5000Hz, 20kHz | 3000Hz, 20kHz | 700Hz, 4000Hz, 20kHz |
| **Ultrahigh-Frequency Transducer** | 19mm (3/4") Mylar® Dome With Cast-Aluminum Chassis | 19mm (3/4") Mylar® Dome With Cast-Aluminum Chassis | 19mm (3/4") Mylar® Dome With Cast-Aluminum Chassis |
| **High-Frequency Transducer** | 1" Pure-Titanium Dome With Cast-Aluminum Chassis in JBL EOS™ Waveguide | 1" Pure-Titanium Dome With Cast-Aluminum Chassis in JBL EOS™ Waveguide | 1" Pure-Titanium Dome With Cast-Aluminum Chassis in JBL EOS™ Waveguide |
| **Midrange Transducer** | 4" PolyPlas™ Cone With Rubber Surround and Cast-Aluminum Chassis; HeatScape™ Motor Structure | N/A | 4" PolyPlas™ Cone With Rubber Surround and Cast-Aluminum Chassis; HeatScape™ Motor Structure |
| **Low-Frequency Transducer(s)** | Dual 8" PolyPlas™ Cones With Rubber Surrounds and Cast-Aluminum Chassis; HeatScape™ Motor Structures; Symmetrical Field Geometry™ (SFG™); Oversized Kapton® Voice Coils; Magnetic Shorting Rings | Dual 5-1/4" PolyPlas™ Cones With Rubber Surrounds and Cast-Aluminum Chassis; HeatScape™ Motor Structures; Symmetrical Field Geometry™ (SFG™); Oversized Kapton® Voice Coils; Magnetic Shorting Rings | Dual 6" PolyPlas™ Cones With Rubber Surrounds and Cast-Aluminum Chassis; HeatScape™ Motor Structures; Symmetrical Field Geometry™ (SFG™); Oversized Kapton® Voice Coils; Magnetic Shorting Rings |
| **Magnetic Shielding** | Yes | Yes | Yes |
| **Baffle** | Low Diffraction, IsoPower™ | Low Diffraction, IsoPower™ | Low Diffraction, IsoPower™ |
| **Enclosure** | Bass-Reflex With FreeFlow™ Front-Firing Port | Bass-Reflex With FreeFlow™ Rear-Firing Port | Sealed |
| **Network** | Straight-Line Signal Path™ (SSP) | Straight-Line Signal Path™ (SSP) | Straight-Line Signal Path™ (SSP) |
| **Terminals** | Gold-Plated 5-Way Binding Posts, Bi-Wirable | Gold-Plated 5-Way Binding Posts, Bi-Wirable | Gold-Plated 5-Way Binding Posts, Bi-Wirable |
| **Dimensions (HxWxD)** | 1075mm x 259mm x 380mm (42-1/4" x 10-1/4" x 15") | 191mm x 534mm x 254mm (7-1/2" x 21" x 10") | 311mm x 559mm x 127mm (12-1/4" x 22" x 5") |
| **Weight per Speaker** | 27,5kg (60 lb) | 10.5kg (23 lb) | 13,2kg (29 lb) |

# TROUBLESHOOTING

**If there is no sound from any of the speakers:**

• Check that receiver/amplifier is on and that a source is playing.

• Review proper operation of your receiver/amplifier.

**If there is no sound coming from one speaker:**

• Check the "Balance" control on your receiver/ amplifier.

• Check all wires and connections between receiver/ amplifier and speakers.

• Make sure no wires are touching other wires or terminals and creating a short circuit.

• Make sure all wires are connected. Make sure none of the speaker wires are frayed, cut or punctured.

• In Dolby* Digital or DTS® modes, make sure that the receiver/processor is configured so that the speaker in question is enabled.

• Turn off all electronics and switch the speaker in question with one of the other speakers that is working correctly. Turn everything back on, and determine whether the problem has followed the speakers, or has remained in the same channel. If the problem is in the same channel, the source of the problem is most likely with your receiver or amplifier, and you should consult the owner's manual for that product for further information. If the problem has followed the speaker, consult your dealer for further assistance or, if that is not possible, visit www.jbl.com for further information.

**If the system plays at low volumes but shuts off as volume is increased:**

• Check all wires and connections between receiver/ amplifier and speakers.

• Make sure all wires are connected. Make sure none of the speaker wires are frayed, cut or punctured.

• If more than one pair of main speakers is being used, check the minimum impedance requirements of your receiver/amplifier.

**If there is no (or low) bass output:**

• Make sure the polarities (+ and –) of the left and right "Speaker Inputs" are connected properly.

• Consider adding a powered subwoofer to your system for use with digital ".1" surround formats.

**If there is no sound from the surround speakers:**

• Check all wires and connections between receiver/ amplifier and speakers. Make sure all wires are connected. Make sure none of the speaker wires are frayed, cut, punctured or touching each other.

• Review proper operation of your receiver/amplifier and its surround sound features.

• Make sure the movie or TV show you are watching is recorded in a surround sound mode. If it is not, check to see whether your receiver/ amplifier has other surround modes you may use.

• In Dolby Digital or DTS modes, make sure your receiver/ processor is configured so that the surround speakers are enabled.

• Review the operation of your DVD player and the jacket of your DVD to make sure that the DVD features the desired Dolby Digital or DTS mode, and that you have properly selected that mode using both the DVD player's menu and the DVD disc's menu.

Declaration of Conformity

CE

We, Harman Consumer Group International
2, route de Tours
72500 Chateau-du-Loir
France

declare in own responsibility that the products described in this owner's manual are in compliance with technical standards:

EN 61000-6-3:2001
EN 61000-6-1:2001

Laurent Rault
Harman Consumer Group International
Chateau-du-Loir, France 4/05

JBL PRO SOUND COMES HOME™

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8500 Balboa Boulevard, Northridge, CA 91329 USA, phone 516-255-4JBL (USA only)
2, route de Tours, 72500 Chateau-du-Loir, France
www.jbl.com



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* Trademarks of Dolby Laboratories.
DTS is a registered trademark of Digital Theater Systems, Inc.
Mylar and Kapton are registered trademark of E.I. du Pont de Nemours and Company.

** 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.
All dimensions include grilles and feet, but not spikes.