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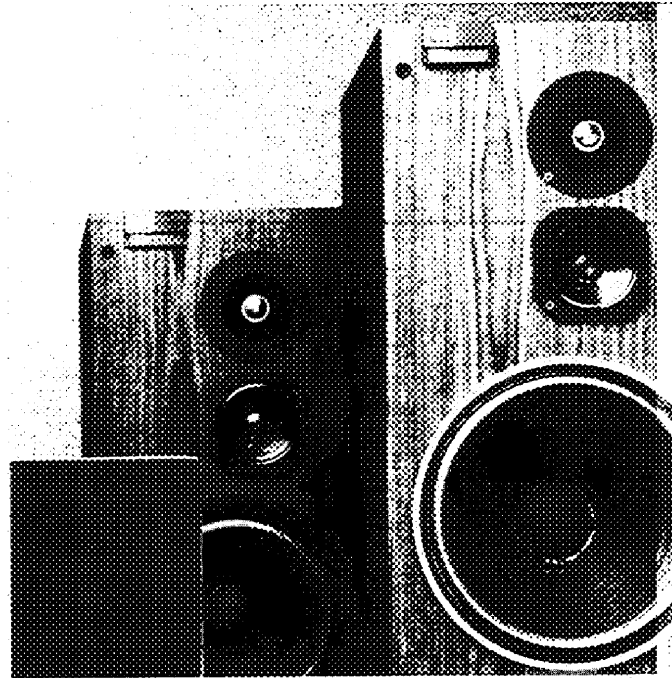
INSTRUCTION MANUAL

L20T3

L40T3

L80T3

L100T3



L Series Loudspeaker Systems

JBL

L Series Instruction Manual

Congratulations on choosing JBL's L Series loudspeakers. Each L Series model lets you hear sound the way it was recorded, mixed and mastered because each has a direct JBL studio monitor counterpart.

L Series loudspeakers were designed so that you can enjoy the same sonic accuracy, dynamic response, efficiency and freedom from power compression demanded by professionals. Built with careful attention to detail, and with only the highest-quality materials, your JBL speakers will provide many years of excellent performance.

The few moments it will take you to read the instructions in this manual will be rewarded by many years of continued listening pleasure.

Connections

The amplifier or receiver should be turned off before making any loudspeaker connections. To connect loudspeaker systems placed up to 50 feet (15 m) from the amplifier, #18 AWG (1 mm) insulated wire

(ordinary household lamp cord) is the minimum size recommended. For greater distances, heavier wire is desirable: #16 AWG (1.3 mm) for distances up to 100 feet (30 m), and #14 AWG (1.6 mm) for distances up to 200 feet (60 m).

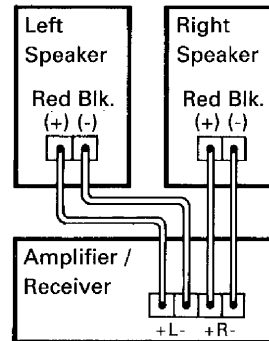


Fig. 1

Connections to the loudspeaker system are made at the two terminals located on the back of the enclosure, near the bottom. The terminals will accept stranded or solid wire up to #12 AWG (12 mm).

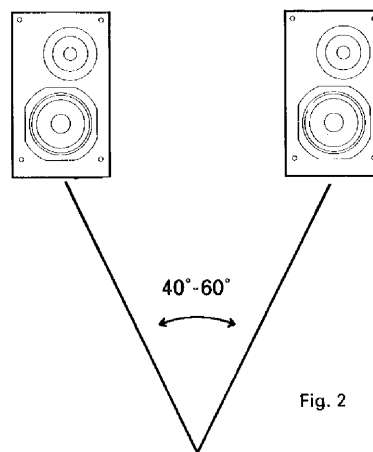
For each loudspeaker system, connect the wire from the black terminal to the amplifier output terminal labeled "common," "ground," (-), or colored black, and the wire from the red terminal to the amplifier terminal labeled "8 ohms," "8Ω", (+), or colored red (Fig. 1). If lamp cord is used, the wires can be distinguished from one another by noting that one insulating jacket is smooth, while the other has a distinct ridge. Connecting both systems as described will ensure in-phase operation; i.e., their diaphragms will respond to a monophonic signal by moving simultaneously in the same direction, and not opposite to each other.

(Note: Some amplifiers have a chassis grounding terminal, which is usually isolated from the other connectors. This should not be confused with the "ground" designation sometimes used to describe one of the terminals in each set of loudspeaker connections.)

Placement

The performance of any loudspeaker is affected by room placement. For example, bass response will be augmented if the enclosures are placed near adjoining room surfaces (i.e., in a corner, or near a wall). If possible, experiment with placement before deciding on a final arrangement.

For the best possible stereo performance, the systems should be arranged symmetrically in front of the listener. As a general rule, a person sitting in the usual listening position should be at the apex of a



40 degree to 60 degree angle to the two systems (Fig. 2). The distances between the systems should be determined by their distance from the listener and by the listening angle.

Power Capacity

JBL loudspeaker systems are unique in combining high efficiency with the ability to handle large amounts of power. Each L Series model will produce sound at comfortable listening levels when driven by an amplifier having an output of as little as 20 watts continuous, undistorted power per channel. However, for reproduction of the full dynamic range of contemporary recordings, including compact discs, at high volume, an amplifier delivering up to 200 watts for use with the L20T3 and up to 400 watts with the L100T3 will provide optimum performance. Such an amplifier has the reserve power necessary for accurate reproduction of transients, which can reach momentary peaks equivalent to ten times the average power level.

In any case, an amplifier should be chosen with an output power rating that is greater than that required to produce the loudest output desired. The margin of reserve power will help ensure that the amplifier will not attempt to deliver more power than its design allows. When overdriven, most amplifiers will clip signal waveforms, a condition of severe distortion which may damage the high frequency transducers in the systems.

In almost all cases, the acoustic level generated by an L Series model will become noticeably objectionable to the ear before the loudspeaker can be damaged.

There is virtually no danger of damaging your L Series loudspeaker if you follow these guidelines: 1) the signal from the amplifier, regardless of its rated power, is not distorted; 2) the amplifier is not driven into clipping; 3) audio connectors are not inserted or unplugged while the amplifier is operating.

However, a powerful, wide-range amplifier can accidentally damage any loudspeaker under certain conditions. For example, fast winding a tape recorder with the playback volume turned up can generate "squeals" powerful enough to burn out the high frequency driver. Similarly, powerful low frequency pulses extending down into the subsonic range can eventually damage the low frequency loudspeaker. If the phonograph pickup is dropped with the volume control at maximum, or if the system is played very loudly with excessive bass boost, nearly the full rated power of the amplifier can be channeled into dangerous subsonic energy.

Service

Should your loudspeaker system ever need service, contact the authorized JBL dealer from whom it was purchased. Please remember to bring your sales receipt along. You can obtain warranty service from any authorized station listed on the enclosed brochure.

Simply take or ship your speakers, postage prepaid, to the nearest authorized station. We suggest you insure your shipment, as damages may occur and are not covered by this warranty.

Grille—The grille is secured to the enclosures by pins located near the corners. To remove the grille, grasp it by the top or bottom corners and pull gently. To replace the grille, reposition it on the enclosure and press lightly to reseat the pins in their sockets.

Low Frequency Loudspeakers—The low frequency loudspeaker is mounted from the front of the baffle panel and is held in place by four Phillips-head screws threaded into T-nuts on the back of the panel. Place the enclosure on its back on a clean, padded surface, and unscrew the machine screws. Be careful not to apply pressure that might dislodge the T-nuts. Then gently lift the edge of the

loudspeaker frame from the baffle panel, disconnect the wires at the tab connectors and remove the loudspeaker from the enclosure.

High Frequency Loudspeaker—First, remove the low frequency loudspeaker. The high frequency loudspeaker is secured to the baffle panel by four Phillips-head screws threaded into T-nuts. Carefully remove the screws. Lift the assembly from the enclosure by reaching through the woofer opening and pushing the high frequency assembly from behind. Disconnect the two leads from the dividing network at the tab connectors on the back of the frame.

Dividing Network—If you think that the dividing network is malfunctioning, do not attempt to remove it. Instead, we recommend that you return the entire speaker unit to your JBL dealer.

Although JBL loudspeakers are extremely rugged, the cone and other moving parts are subject to accidental damage. Exercise caution when using a screwdriver or other tools in their immediate vicinity.

Enclosure—L Series enclosures are lock mitred, extra high density composite, rock solid and completely free from unwanted resonances. Every exposed surface is finished with furniture grade, hand-rubbed oak or walnut veneer.

The finish is treated with an oil/wax preparation. Occasional dusting with a clean, soft cloth will maintain the original beauty of the finish. Since moisture cannot penetrate the oiled surface, most household stains can be removed with a damp cloth.

The grille cloth can be cleaned by gentle dusting with a vacuum cleaner. Stains can be removed by using a soft bristle brush moistened with mild soap and water. Do not use any cleaning fluids or solvents of any kind as they could damage the grille. The surface should be treated only with wax specifically formulated for use on oiled finishes. Conventional furniture waxes, polishes or cleaners are not recommended.

If you require further information contact:

JBL in the USA
240 Crossways Park West
Woodbury, New York 11797

Technical Specifications

	L20T3	L40T3	L80T3	L100T3
High Frequency Transducer	1" pure titanium dome	1" pure titanium dome	1" pure titanium dome	1" pure titanium dome
Midrange Frequency Transducer	—	—	5" high-polymer laminate	5" high-polymer laminate
Low Frequency Transducer	6.25" die-cast filled polypropylene	8" die-cast polymer laminate	10" Aquaplas laminate	12" Aquaplas laminate
Crossover Frequency	3 kHz	2.5 kHz	800 Hz/4.5 kHz	800 Hz/4.5 kHz
Frequency Response (± 6 dB)	55 Hz-27 kHz	45 Hz-27 kHz	40 Hz-27 kHz	35 Hz-27 kHz
Sensitivity (1 watt/1 meter)	87 dB	88 dB	90 dB	91 dB
Nominal Impedance	8 Ohms	8 Ohms	8 Ohms	8 Ohms
Recommended Amplifier Power*	200 watts	250 watts	300 watts	400 watts
Dimensions (HxWxD)	9.5" x 15.5" x 8.125" (243 mm x 394 mm x 206 mm)	11.25" x 21" x 9.75" (266 mm x 533 mm x 248 mm)	12.75" x 32" x 14.25" (324 mm x 813 mm x 362 mm)	14.5" x 36.25" x 15.75" (368 mm x 919 mm x 400 mm)
Weight (each)	14 lbs (6.4 kgs)	24 lbs (10.9 kgs)	44 lbs (20 kgs)	58 lbs (26 kgs)

* Undistorted, continuous power per channel.

JBL continually strives to improve its speakers. New materials, production methods and engineering refinements are introduced into existing models without notice as a routine expression of our design philosophy. For this reason, LSeries speakers may differ in some respect from their published specifications and descriptions, but will always equal or exceed the original specifications unless otherwise stated.

