

JBL

J SERIES
LOUDSPEAKERS

OWNER'S
MANUAL



J5120

INTRODUCTION

Congratulations on choosing JBL loudspeakers. Their highly accurate, uncolored and balanced sound character will greatly increase your enjoyment of recorded music. JBL speakers are built with careful attention to detail, using only the highest quality materials. They will provide many years of excellent performance.

The J Series is the result of concentrated efforts to combine traditional JBL performance values with elegant contemporary appearance at affordable prices. Some of the engineering features of the J Series are:

1) *High output levels.* This means that modest amplifiers or receivers will be able to produce acoustical levels normally associated with amplifiers of substantially higher power ratings.

2) *Smooth, extended response.* The J Series 14mm pure titanium dome tweeter, polymer laminated cone drivers and carefully designed dividing network deliver clear, crisp, quality sound.

3) *Accurate time/phase response.* Speakers in the J Series exhibit the same transient response characteristics of JBL's larger home and studio loudspeaker systems. This means more accurate realization of the fine details in today's dynamic digital recordings.

4) *Accurate stereo imaging.* The in-line component arrays of the baffle ensure the best possible stereo imaging for listeners both on and off axis.

PLACEMENT

For the best stereo reproduction, the two loudspeaker systems should be placed an equal distance from your listening position and separated so that the angle between them, at the listening position, is between 40 and 60 degrees (see Fig. 1). For example, if your listening position is 8 to 12 feet (2.5 to 4m) from each speaker, the two systems should be about 8 feet (2.5m) apart. Placing the loudspeaker in a corner or against a wall will result in the strongest (but not necessarily the most accurate) bass. Since the J5120 is ported on the back, do not place the speaker closer than 12 inches (305mm) to the wall behind it.

Some systems will also benefit from placement on stands. For the best stereo imaging, we recommend that the systems be placed so that the high frequency transducers are as close as possible to the ear level of a seated listener. Every room is different and there are different tastes. So don't hesitate to experiment on your own.

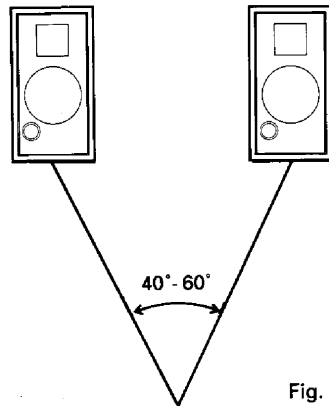


Fig. 1

Thanks to their high efficiency, the JBL J5120 loudspeakers will produce reasonable volume levels in a room of moderate size with very little amplifier power. However, using a small amplifier to obtain the desired volume listening levels may lead to overdriving the unit. This will generate high distortion levels and may cause damage to your loudspeaker. For the best performance, an amplifier should be selected with an output rating that is greater than the maximum power that will be used. This margin of reserve power will ensure that the amplifier will not attempt to deliver more power than its design allows. However, the power amplifier's power rating per channel must not exceed the maximum recommended amplifier power for that specific loudspeaker model. Please see the specifications section for details. Following these two guidelines will provide virtually distortion-free sound reproduction and long loudspeaker life.

NOTE: The J5120 uses tweeter protection circuitry that may emit visible light under very high listening levels. This light may be visible through the port tube, or the surround of the woofer in a darkened room. Although this is normal, it is advisable not to continue listening at such high levels for extended periods of time. Otherwise, you may possibly damage your hearing, as well as your loudspeakers and amplifier.

CONNECTIONS

The J5120 has a 6 ohm impedance rating. However, it will work with most amplifiers and receivers rated for 8 ohms or lower impedance. When in doubt, contact the manufacturer of the amplifier or receiver. To connect the loudspeaker systems to the receiver or amplifier, use two-conductor insulated wire. Your JBL dealer can

recommend suitable cables, or you can buy wire at most hardware stores. We recommend #16 AWG wire as a minimum size. If your speakers are more than 30 feet (10m) from your receiver or amplifier, use larger diameter wire. Connections are made at the terminals located on the back of the loudspeaker system. The terminals accept bare wire or dual banana plugs, either of which will provide easy, secure connections.

Preparing the hookup wire

1. First determine the distance between the most distant speaker.
2. Now make the hookup wires for both speakers this length, even if one J5120 loudspeaker is much closer to your amplifier than the other. This will help maintain proper signal balance.
3. Strip off 3/8" of insulation from both ends of each conductor.
4. Twist each set of thin wires into a tightly-bunched spiral.
5. At this point you need to identify a visual difference between the two conductors of each molded pair of speaker wire. Differentiating marks can be a different color wire (copper or "silver"); a strand of yarn in one conductor; thin, raised ribs on one part

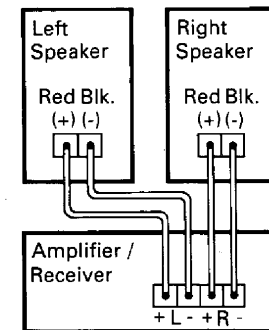


Fig. 2

of the outer insulation; or a printed "+" marking on one of the insulators. It does not make a difference which of the two conductors of wire go to (+) and (-) on the speakers and amplifier, as long as both speakers are connected identically. Push down on the button below the terminal and insert the wire, or the banana plug, through the hole (see Fig. 2).

For each channel, the red terminal on the loudspeaker should be connected to the red or (+) loudspeaker connection terminal on the receiver or amplifier, and the black to the black or (-). Connecting the loudspeakers in this manner ensures that they will be in phase; that is, work together rather than in opposition. Connecting the loudspeakers out of phase will not damage them, but will result in less bass and poor imaging.

Hooking up multiple sets of speakers

If your receiver has two complete sets of speaker terminals ("A" and "B"), it's possible to hook up an additional pair of speakers for *simultaneous* sound in another room. However, some speakers may not be usable as a second pair if you want to play two sets at once. Before hooking up another set of speakers besides your J5120 check the following:

1. Your amplifier's **minimum load impedance**.
2. The **nominal impedance** of the second set of speakers. Both of these specifications are expressed in ohms and both can be found in the owner's manuals which came with your speakers and amplifier or receiver. The receiver's minimum load impedance is determined by whether or not power ratings are given for 4 ohms. This is because two sets of 8 ohm speakers will present a 4 ohm load to the receiver. The J5120, when

combined with an 8 ohm speaker, produces an impedance sufficiently close to the 4 ohms. For example, the following entry in an amplifier owner's manual...

POWER:

A) 100 watts RMS into 8 ohms, both channels driven, 20-20kHz with less than 0.02% THD

B) 160 watts RMS into 4 ohms, both channels driven, 20-20kHz with less than 0.02% THD.

Part B indicates that the amplifier can handle 4-ohm combined impedances created by two sets of speakers. If only an 8-ohm rating is given, the amp/receiver may or may not be designed to handle 4-ohm combined ratings. Consult the manufacturer of the amplifier or receiver or its owner's manual for clarification.

TROUBLESHOOTING

The vast majority of new speaker "malfunctions" end up being traced to connections or switch settings. To avoid packing up correctly functioning speakers and sending them off, only to find that they're not really at fault, check the following tips first, before requesting service.

No sound at all or very faint sound from both speakers

1. Amp/receiver tape monitor button pushed in while using CD, FM or phono inputs.
2. Wrong speaker switch, "A" or "B" speaker output.
3. Sound source (CD, cassette deck, turntable) not turned on, not activated, not hooked up or not selected on amp/receiver front panel.

No sound from one speaker

1. Balance control turned all the way left or right.
2. Speaker wire has become disconnected.

3. One of the connections between sound source and amp/receiver is faulty or has become disconnected.

Both speakers play at low volumes but shut off as volume is increased OR sound turns on and off intermittently

A few strands of speaker wire may be shorting out. Recheck the connections. Recheck the impedance requirements of the amp.

Bass is very weak AND/OR sound seems to come from, instead of between the speakers

1. The polarity (+&-) of one speaker has been reversed relative to the other. Double check connections.
2. Speakers are too far away from back and side walls or too far apart. Experiment again with the speaker placement. If you are still experiencing problems, consult your JBL dealer.

GENERAL CARE

The grille is held in place by pins near the edges. To remove the grille, grasp it by both top and bottom edges and pull gently. To replace grille, reposition it carefully and press gently at the corners. Do not push on the center area of the grille.

The loudspeaker cabinet may be cleaned with a slightly damp cloth. To remove dust from the grille cloth, use a vacuum with a brush attachment. Spots may be removed with a commercial spot remover. Do not use any cleaners or solvents on the speaker drivers themselves.

SERVICE

Should your loudspeaker ever need service, return it to the JBL dealer from whom it was purchased. If for some reason this is impractical, call 800-336-4JBL for your nearest warranty station. Do not return products to the JBL factory without prior authorization.



JBL 5 Year Limited Warranty

This is an important document. Keep your bill of sale and this manual in a safe place. Your bill of sale is your warranty.

The JBL warranty on loudspeaker products (except enclosures) remains in effect for **five years** from the date of the first consumer purchase. Enclosures are warranted for two years from the date of purchase.

WHO IS PROTECTED BY THIS WARRANTY

The JBL warranty protects the original owner and all subsequent owners providing that the JBL product has been purchased in the United States. Military personnel who purchased JBL loudspeakers from authorized military outlets should contact JBL International at the California address. The original dated bill of sale **must** be presented whenever warranty service is required.

WHAT IS COVERED BY THIS WARRANTY

Except as specified below the JBL warranty covers all defects in material and workmanship. The following are not covered: Damage caused by accident, misuse, abuse, product modification or neglect, damage occurring during shipment, damage from failure to follow instructions contained in the instruction manual, damage resulting from the performance of repairs by someone not authorized by JBL, or any claims based upon any misrepresentations by the seller. This warranty does not cover incidental or consequential damages. It does not cover the cost of removing or reinstalling the unit.

Outside the United States, contact your local distributor. You are responsible for transporting your product for repair. However, JBL will pay the return charges if the repair is covered under warranty.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above may not apply to you.

Specifications

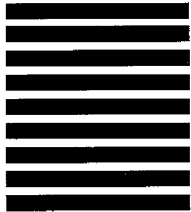
High Frequency Dome Transducer	14 mm Titanium
Midrange Transducer (High Polymer Laminate)	5"
Low Frequency Transducer (High Polymer Laminate)	12"
Crossover Frequencies	1 kHz / 4 kHz
Frequency Response	38 Hz to 23 kHz
Sensitivity(1 Watt / 1 meter)	92 dB
Nominal Impedance	6 Ohms
Power Handling Range	10 to 250 Watts
External Dimensions (H x W x D)	32" x 14-3/4" x 12" 813 x 375 x 305 mm
Weight (each)	40 lbs / 18.2 kg

JBL continually strives to improve its products. New materials, production methods and design refinements are introduced into existing models without notice as a routine expression of our design philosophy. For this reason, J5120 loudspeakers may differ in some respect from their published specifications and descriptions, but will always equal or exceed the original specifications unless otherwise stated.



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD
FIRST CLASS MAIL PERMIT NO. 42 WOODBURY, NY



POSTAGE TO BE PAID BY ADDRESSEE

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