



HT SERIES  
LOUDSPEAKERS

OWNER'S  
MANUAL



HT1F

HT1D

HT1S

HT

## INTRODUCTION

Congratulations on choosing JBL HT Series loudspeakers. Their highly accurate, uncolored and balanced sound character will greatly increase your enjoyment of the Home Theater experience. We at JBL build with careful attention to detail, using only the highest quality materials. They will give you many years of excellent performance.

The HT Series rivals the performance of more expensive loudspeakers. It meets Home THX® Audio System Performance Standards.

**THX®-Licensed Home Audio System:** When used with a Home THX® controller and amplifiers, your complete 7-piece JBL HT Series speaker system, will deliver state-of-the-art THX® home theater experience to your home. The HT Series also delivers accurate stereo music reproduction when listening to CD's, tapes, or other program information.

**Pure Titanium Tweeter with Diamond Surround:** provides a well-defined high frequency output with low distortion, flat and smooth high frequency response, and no break-up in the audio range.

**High Polymer Laminate Mid-bass Drivers and Woofers:** combine to provide tight bass and well-defined, smooth midrange, without harshness, stridency, or listener fatigue.

**High Quality Crossover Network:** Our computer-optimized dividing network employs up to third-order (18 dB per octave) crossover sections. JBL uses audiophile-grade polypropylene capacitors and low-loss/low-distortion inductors to prevent phase or amplitude distortions.

**Acoustically Optimized Cabinet and Grille Design:** provide smooth uncolored sound and eliminate diffraction and unwanted resonances.

**Magnetic Shielding:** allows you to place your front channel and subwoofer speakers near video monitors without creating interference or distorting the picture.

## PLACEMENT

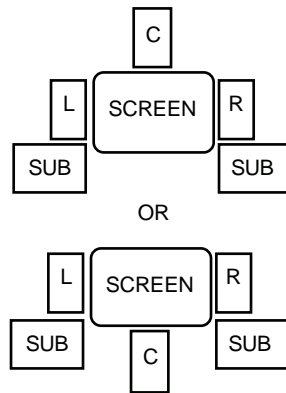
Placing your speaker components properly is vital to achieving the correct sonic performance. Please read the following sections carefully for proper placement. They are divided into front channel speakers (HT1F: Left-Center-Right), subwoofers (HT1S), and dipolar surround speakers (HT1D).

## FRONTS (Left-Center-Right)

The **Left** and **Right** front channel speakers should be located on either side of the T.V. screen or projector. Closer to the screen gives you more localization while farther (two to three feet from the screen on each side) will give you a wider sound field. Ideally, you want to try to put the speakers about 45 degrees apart from each other, viewed from the listening position. The center line of the speaker (the area between the two tweeters) should be at the same height as actors on the screen would be. Depending on the height of your T.V. screen, you may be able to place the **Left** and **Right** speakers directly on top of your subwoofer cabinets. If your screen height doesn't allow this, you may place the **Left** and **Right** speakers on a speaker stand to achieve the proper height. Depending upon your configuration, you may also need a stand for the center speaker that tilts it so that it points towards the listener's ear level. Your JBL dealer can help you purchase a stand that meets your height requirement.

The **Center** channel front speaker should be positioned **vertically** and centered either above or below the middle of the screen (or behind the screen if you have a projection T.V. with a perforated screen). All three front speakers should be mounted "flush" to the screen and in the same plane relative to the screen.

*The **Left** and **Right** should be at the exact same height, and the **Center** should be no more than 2 feet higher or lower. Your **Center** channel speaker must be **vertically** oriented. Turning it on its side will prevent your HT1 system from producing the correct sound field.*



## SUBWOOFERS

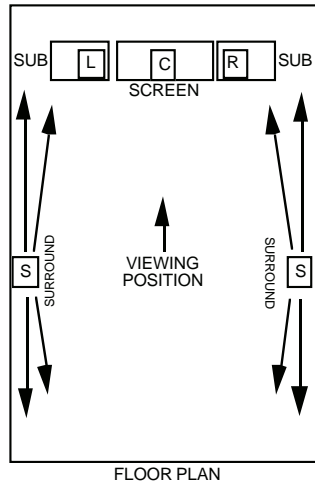
The **Subwoofers** can be placed on either side of the screen or in the corners of the room. A good configuration for a mono amplifier/dual HT1S setup that lessens the effect of room modes is one subwoofer in a corner, the other in the middle of a wall.

## SURROUNDS

Place the **Surrounds** to the sides, or slightly behind the viewing position with the rear panel of the speaker (where the speaker wire connections are) up against the wall. *Do not* position the **Surround** speakers so that the drivers (under the grille area) point directly at the listener. Remove both grilles from each **Surround** and note the location of the oval port tube hole on the baffle. Align the driver side with the oval port tube so it faces the direction of the screen. This will mean one surround is "right-side-up" and the other "upside-down" in relation to each other. This will not affect the sound quality. You may replace the grilles so that the orientation of the JBL Logo is correct. Correct height placement for the **Surrounds** is between 2 and 3 feet above seated ear level. Mount your **Surrounds** on speaker stands or place them on shelves attached to the wall.

If your home theater room is of a configuration that does not lend itself to the above placement suggestions, then it becomes more important to consider the "null" direction of the **Surround**. The null baffle is the blank panel between the two rounded edges of the cabinet. It is most important to point this panel at the listening position. Creativity and careful listening will tell you where the ideal position is for the placement of the **Surround** speakers. For example, if your listening position is up against the rear wall of the room, placing the **Surrounds** about 3 feet in front of the listening position with the null baffle turned to the point at the listening position would work best. Further guidance can be had from your certified THX® dealer.

**NOTE: Do not attempt to install any type of mounting brackets onto your speakers. Drilling holes in the**



***product or improperly installing mounting brackets may void your JBL warranty and cause a safety hazard.***

A JBL factory authorized custom installer can suggest and install appropriate brackets. Contact JBL or your installer/dealer for additional information.

## CONNECTIONS

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. High-quality connectors and cable offer consistent performance that won't deteriorate over time. We recommend #16 AWG wire as a minimum size. If your speakers are more than 30 feet (10 m) from your receiver or amplifier, use larger diameter wire. Make connections 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 your amplifier and the most distant speaker in each group (fronts, surrounds, subwoofers).
2. Now make the hookup wires for all speakers in each group (fronts, surrounds, subwoofers) this length, even if one HT Series 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. Now find 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 of the outer insulation; or a printed "+" marking on one of the insulators. It doesn't matter which of the two strands of wire go to (+) and (-) on the speakers and amplifier, as long as all speakers are connected identically. Unscrew the binding post, insert the wire into the hole, then re-tighten the binding post. If using banana plug type wire connectors just insert them directly into the posts making sure the lug on the negative (-) side of the banana plug is placed into the black binding post. For each channel, connect the red terminal on the loudspeaker to the red or (+) loudspeaker connection

terminal on the amplifier and the black to the black or (-). Connecting the loudspeakers this way ensures that they will be in phase; that is, work together, not in opposition. Connecting the loudspeakers out of phase will not damage them, but will result in less bass and poor imaging.

### **HOOK UP TO AMPLIFIER**

*Connect your HT speakers to your amplifier following the Red (+) to Red and Black (-) to Black convention as outlined in the last section.*

### **LEFT and RIGHT FRONTS**

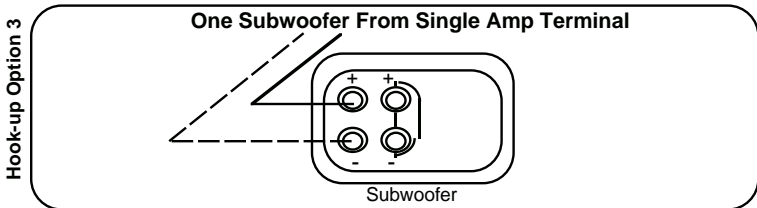
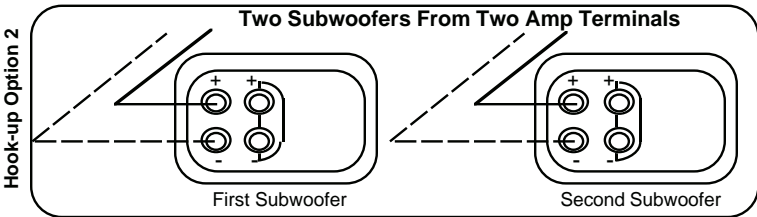
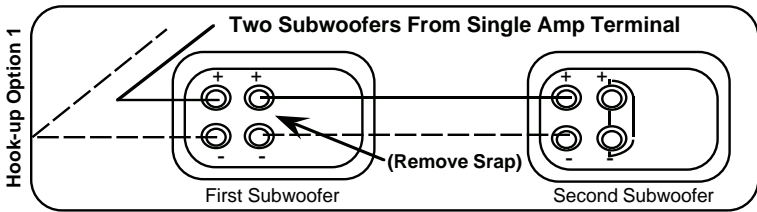
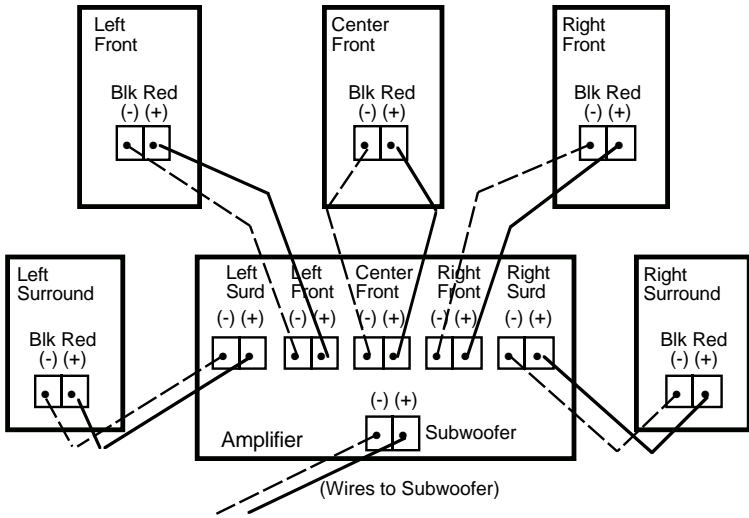
As seated in your viewing area, the front speaker to your left should be connected to the terminals labeled "**Left Front**" on the amplifier. The speaker to the right should be connected to the amplifier terminals labeled "**Right Front**".

### **CENTER CHANNEL**

Your remaining front channel speaker (located above, below or behind the screen) should be connected to the amplifier terminals labeled "**Center Channel**".

### **SURROUNDS**

As seated in your viewing area, the surround speaker to your left should be connected to the terminals labeled "**Left Surround**" of the amplifier. The surround speaker to the right should be connected to the amplifier terminals labeled "**Right Surround**".



## SUBWOOFERS

*You may connect your subwoofers in several ways depending on how many subwoofer amplifier outputs are available. Read the following instructions carefully to insure proper hook-up of your subwoofers. Improper hook-up can degrade performance or even damage to your amplifier.*

### **REFER TO SUBWOOFER HOOK-UP DIAGRAM.**

**Note:** You will need at least one subwoofer amplifier channel to drive your passive HT1S Subwoofers.

#### **Using two HT1S Subwoofers (from single subwoofer amplifier terminal output).**

Connect the wire from the amplifier speaker terminal marked "**Subwoofer**" to the left-hand set of Red and Black binding posts on the **first subwoofer**. Make sure you follow the Red (+) to Red and Black (-) to Black convention. Unscrew the right-hand binding posts and remove the connecting strap. Place the strap with your owner's manual for safekeeping. Run a second wire from the right hand binding post of the **first subwoofer** over to the **second subwoofer** and connect to the left-hand binding posts. **DO NOT** remove the strap connecting the **second** subwoofer's right-hand set of binding posts. This results in a series connection of your subwoofers that will not damage your amplifier. Your dual subwoofer connection is complete. See figures on page 7.

#### **Using two HT1S Subwoofers (from two subwoofer amplifier terminal outputs).**

If your amplifier is equipped with

two subwoofer outputs, you must determine how they are wired. If they are two parallel-wired outputs from the same amplifier channel, wire the subwoofers as in the previous paragraph to only one output.. If on the other hand, they are two separate channels of amplification, follow the hook-up method described under "Using a single HT1S Subwoofer". Connect wires from one amplifier subwoofer output terminal to the first subwoofer's left-hand binding posts *leaving the connecting strap in place on the right-hand binding posts*. Connect wires from the other amplifier subwoofer output terminal to the other subwoofer's left-hand binding posts *leaving the connecting strap in place on the right-hand binding posts*. Your dual subwoofer connection is complete. See figures on page 7.

#### **Using a single HT1S Subwoofer.**

Connect the wire from the amplifier terminal marked "**Subwoofer**" to the left-hand set of Red and Black binding posts on the subwoofer. Make sure you follow the Red (+) to Red and Black (-) to Black convention. **DO NOT** remove the strap connecting the right-hand set of binding posts. Your single subwoofer connection is complete.

**NOTE: THX®-LICENSE IS DEPENDENT ON THE USE OF TWO SUBWOOFERS. USING JUST ONE SUBWOOFER WITH YOUR THREE FRONTS AND TWO SURROUNDS MAY ACHIEVE SUFFICIENT SOUND PRESSURE LEVELS IN SMALLER ROOMS, BUT IS NOT THX® CERTIFIED. CONSULT YOUR JBL DEALER.**

## **TROUBLESHOOTING**

The vast majority of new speaker "malfunctions" end up being traced to connections or switch settings. To avoid requesting service for correctly functioning speakers, check the following tips before requesting service.

### ***No sound at all or very faint sound from either speaker***

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.

### ***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 the back and side walls or too far apart. Experiment again with the speaker placement. If you are still encountering 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, re-position 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 this is impractical, call 800-336-4JBL for your nearest warranty station. Do not return products to the JBL factory without prior authorization.



<b>Specifications</b>	<b>HT1F</b>	<b>HT1D</b>	<b>HT1S</b>
High Frequency Dome Transducer	1" Pure Titanium	1" Pure Titanium	N/A
Mid-bass Transducer (High Polymer Laminate)	5"	5"	N/A
Low Frequency (High Polymer Laminate)	N/A	N/A	12"
Crossover Frequency	2.8 kHz	2.8 kHz	N/A
Frequency Response (- 6 dB)	70 Hz to 20 kHz	110 Hz to 20 kHz	35 Hz to 80 Hz
Sensitivity(1 Watt/1 meter)	87 dB	87 dB	91 dB
Nominal Impedance	8 ohms	6 ohms	6 ohms
Recommended Amplifier Power*	10 to 100 Watts	10 to 100 Watts	10 to 100 Watts
External Dimensions			
Height	17-1/2"	13-7/8"	21-1/2"
Width	10"	9-1/4"	25-1/4"
Depth	8-1/2"	7-3/4"	17-5/8"
External Dimensions			
Height	445 mm	352 mm	546 mm
Width	254 mm	235 mm	641 mm
Depth	216 mm	197 mm	448 mm
Weight (each)	21 lbs 9.5 kg	15 lbs 6.8 kg	62 lbs 28.1 kg
Shipping Weight	73 lbs 33.2 kg	38 lbs 17.3 kg	76 lbs 34.5 kg

\*Undistorted continuous power per channel.


JBL continually strives to improve its speakers. 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, JBL HT Series Loudspeakers may differ in some respect from their published specifications and descriptions, but will always equal or exceed the original specifications unless otherwise stated.

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