

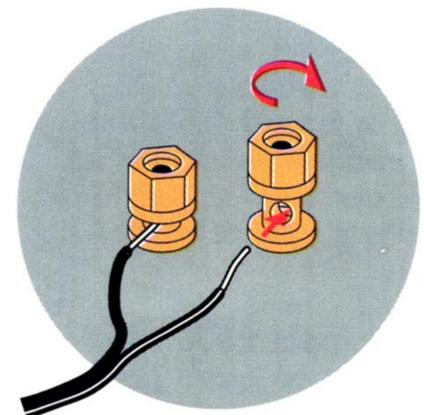
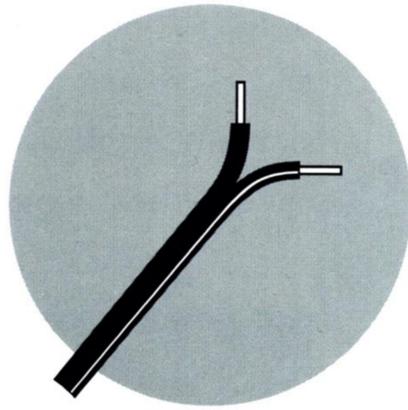
# HOW TO CONNECT YOUR SPEAKERS

**Correctly wiring your speakers is important for achieving the best sound quality and a rich stereo image. Wiring should take just a few minutes; but it's important to do it carefully, since incorrect wiring (such as reversed connections) can result in a poor stereo sound stage or poor bass.** We recommend 18 gauge wire or thicker for runs up to 25 feet (8m) and 16 gauge wire or thicker for longer runs. Separate the first few inches of the wire conductors. Strip off ½ inch (12mm) of insulation from the ends of each speaker wire to expose the two conductors and tightly twist the wire strands.

**Warning:** To prevent electrical shock hazard, always switch off the amplifier or receiver when making connections to the speaker.

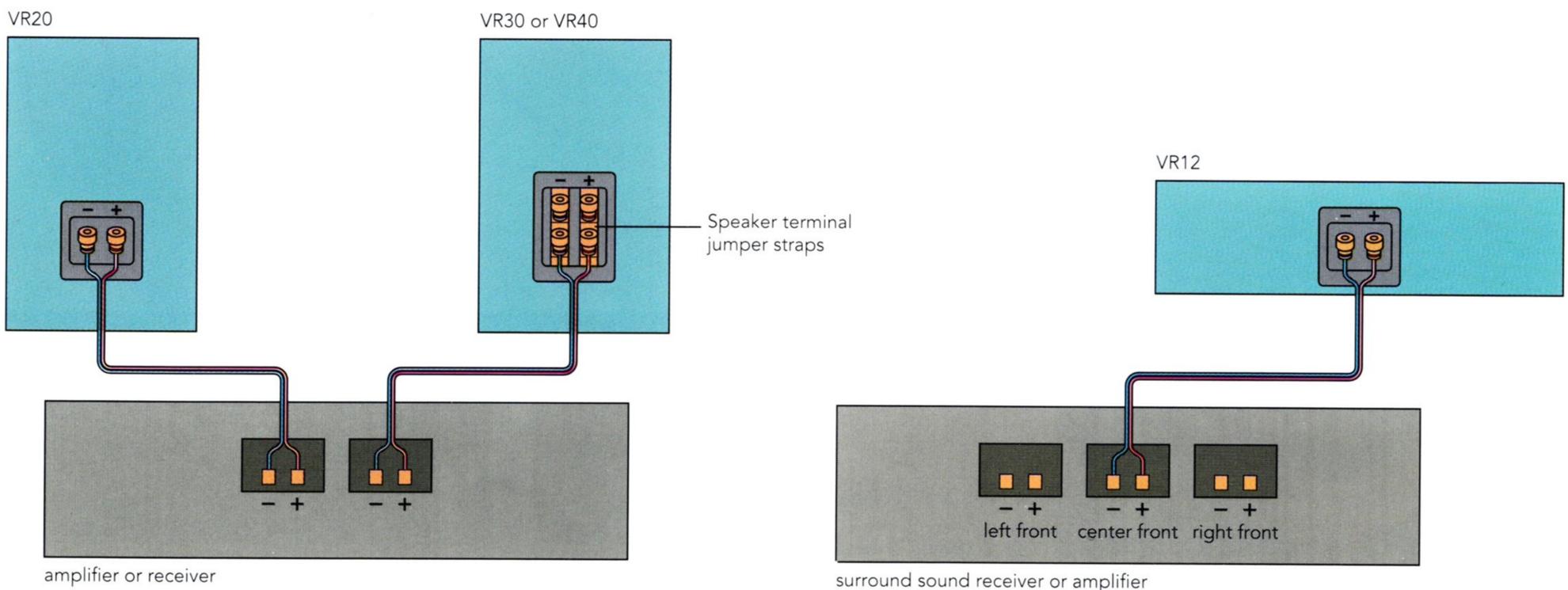
**Using the five-way binding posts:** The binding posts permit easy connection to banana plugs, spade lugs and bare wire. The metal surfaces are plated with 24K gold to prevent corrosion.

**Important:** Typically, one side of the wire is smooth. Connect this side to the – (black) connection. The other side has a rib or stripe. Connect this to the + (red) connection.



Insert the wire in the hole and tighten.

## Basic Hookup



1. Connect the speaker terminals to the amplifier speaker outputs.
2. Make sure the speaker terminal jumper straps (models VR30 and VR40 only) are in place on the back of the speaker.
3. When making all connections, be sure to connect + to + (red) and – to – (black).

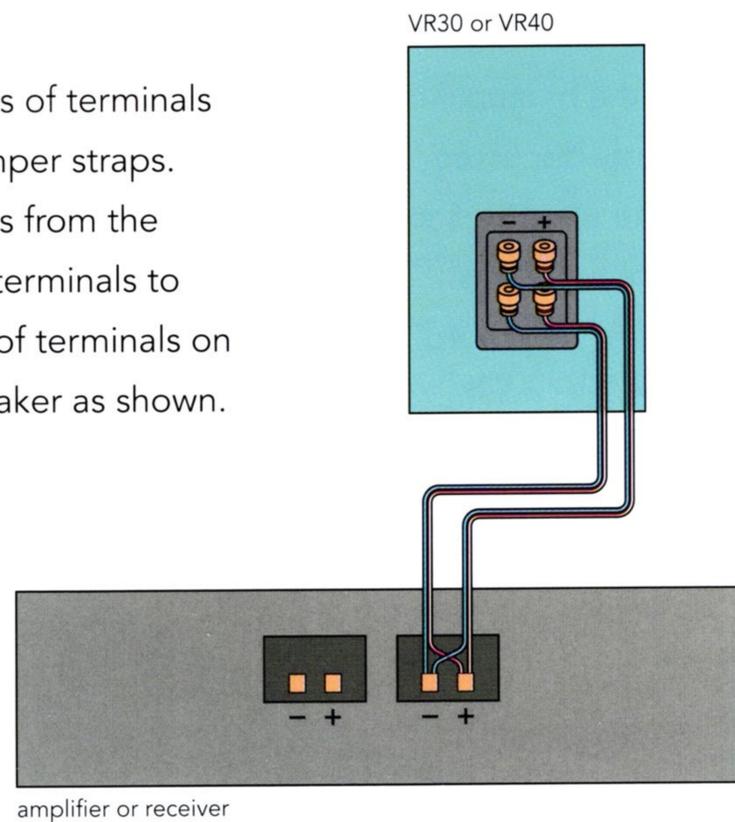
### Center channel hookup.

Connect the VR12 to the center front terminals of your surround sound receiver or amplifier.

Bi-wiring increases the flow of current and decreases intermodulation of different frequencies by providing separate inputs to the woofer and midrange/tweeter sections. Bi-wiring will usually improve the sound quality, although the improvement may be quite subtle. If you choose to bi-wire, use the same type and length of wire for all connections. When making all connections, be sure to connect + to + (red) and – to – (black).

## Bi-wiring (models VR30 and VR40)

1. Unscrew both sets of terminals and remove the jumper straps.
2. Connect the wires from the amplifier's speaker terminals to each individual set of terminals on the back of the speaker as shown.

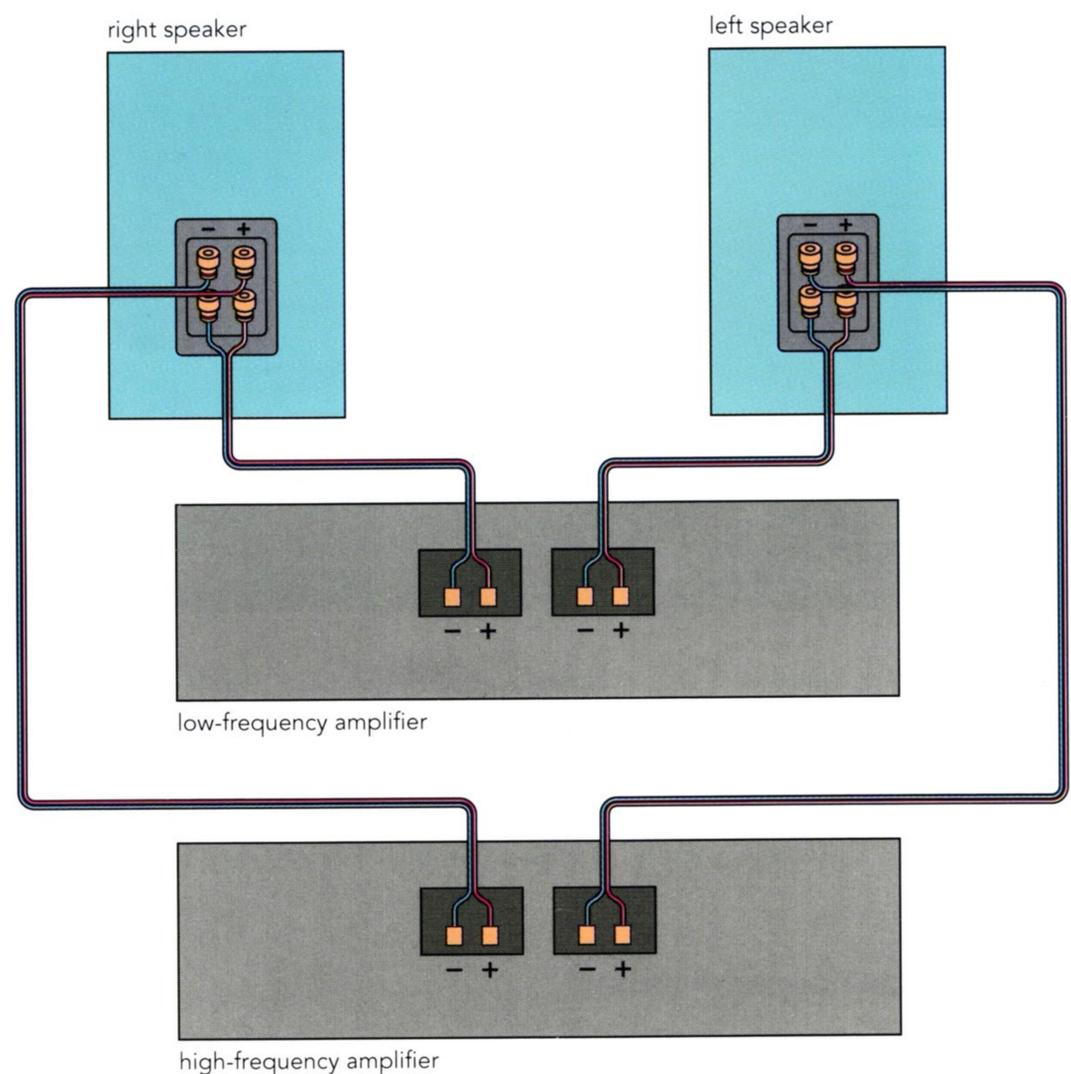


Bi-amplification requires using separate amplifiers dedicated to high and low frequencies. Using more than one amplifier can enhance the dynamic performance of your system.

“Splitting the load” between two amplifiers lets each amplifier work less hard, increasing the available current to the drive units. When making all connections, be sure to connect + to + (red) and – to – (black).

1. Unscrew the terminal collars of both sets of terminals and remove the connector straps.
2. Connect the wires from the bottom set of terminals to the amplifier driving the woofers.
3. Connect the wires from the top set of terminals to the amplifier driving the midrange/tweeter.

## Bi-amplification (models VR30 and VR40)



**Caution:** Do not use an external active crossover with your Lynnfield VR speakers. The external crossover and the VR's internal crossover can interact and distort the phase and frequency response of the system.

# Alternative Bi-amplified Connection

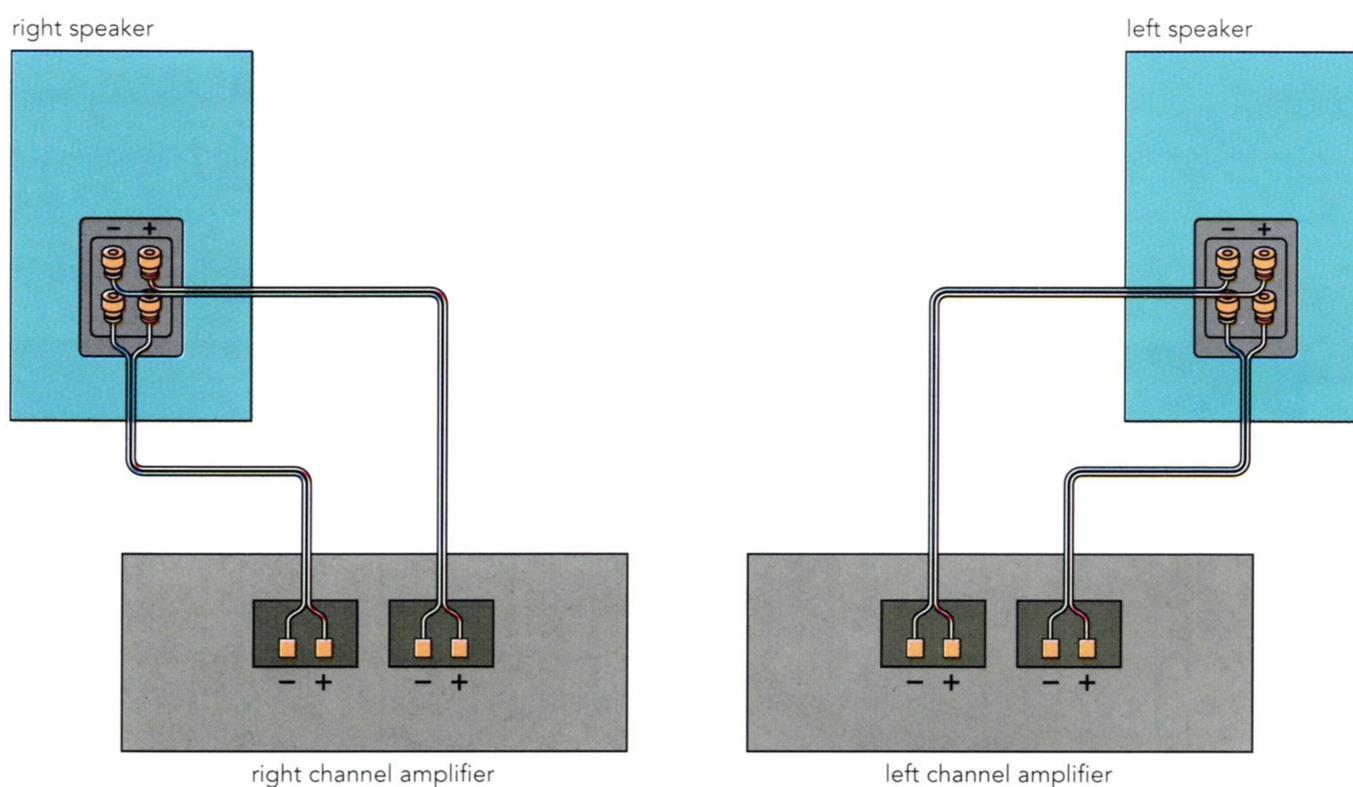
(models VR30 and VR40)

As an alternative to the bi-amplification hookup previously discussed, you may use separate amplifiers for the left and right channels. This allows the amplifiers to be placed close to the speakers and minimizes the length of speaker wire.

**Do not use this method of bi-amplification unless the amplifiers are identical.**

When making all connections, be sure to connect + to + (red) and – to – (black).

1. Unscrew the terminal collars of both sets of terminals and remove the connector straps.
2. Connect the wires from the woofer terminals to one channel of the amplifier's speaker terminals.
3. Connect the wires from the midrange/tweeter terminals to the amplifier's other channel.
4. Repeat the process with the other speaker and amplifier.



## Checking The Connections

It is critical that your speakers are hooked up with similar polarity or "in phase." A simple listening test will tell you if the speakers are connected properly. Place the speakers face-to-face, as close as possible. While listening to music with your amplifier set to mono, reverse the connections at one speaker only. You'll hear a dramatic change in sound. The connection that yields the fuller bass and louder sound is the correct one.

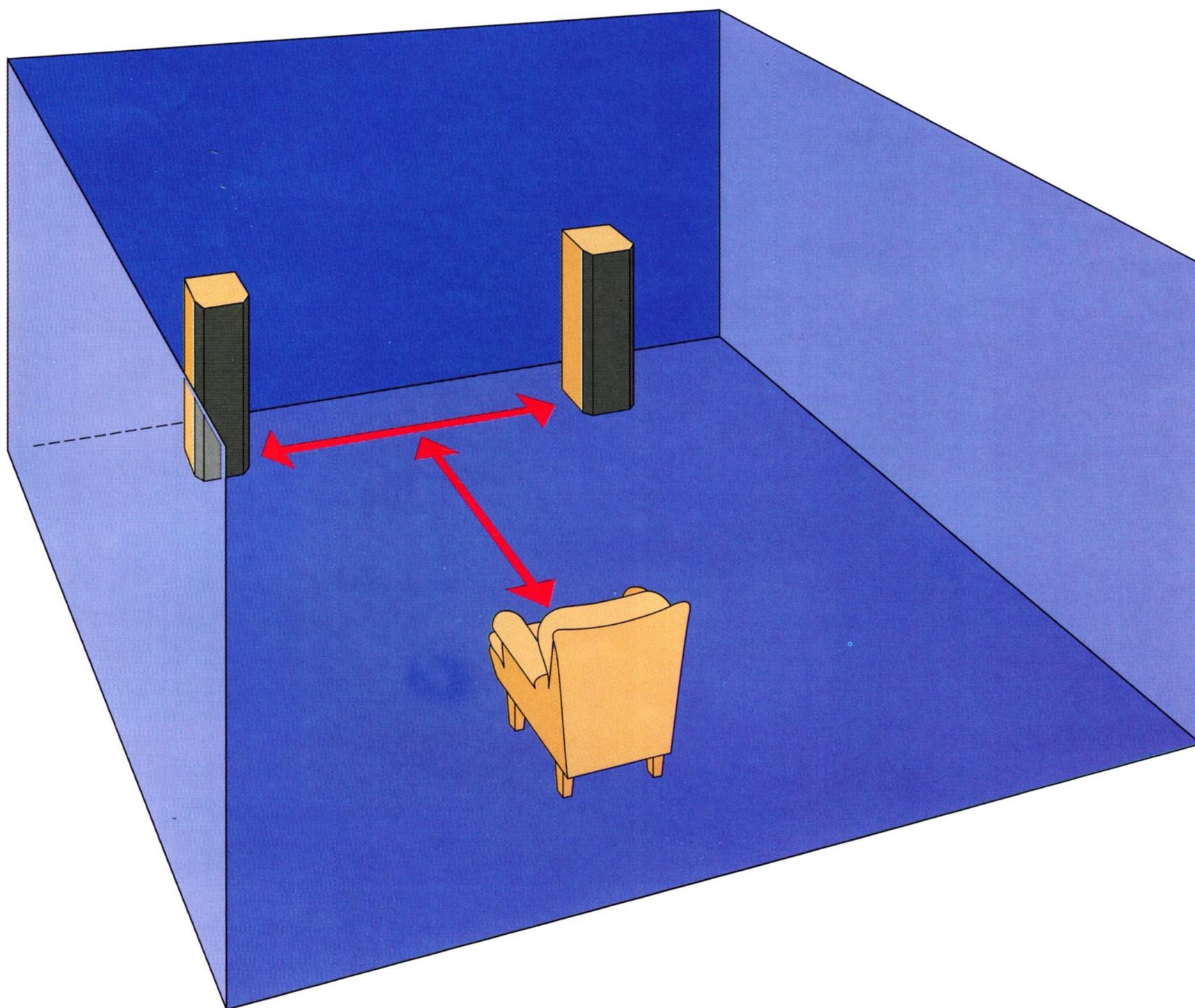
### Listening levels and power-handling

The power recommendation for the VR speakers assumes that you will operate the amplifier in a way that will not produce distortion. Even a rugged system like the Lynnfield VR can be damaged by an amplifier if it is producing distortion. If you hear a harsh, gritty noise, turn down the volume. Prolonged or repeated operation of your speaker with a distorted signal from the amplifier can cause damage that is not covered by the warranty.

# R O O M P L A C E M E N T F O R B E S T R E S U L T S

**As a starting point,** place the speakers 6 to 12 feet (2–4m) apart so that they form a triangle with the main listening position. If your listening area is more than 16 feet away from the speakers, more separation may be needed. The speakers should be at least 2 feet (.6m) from the corners of the room. Putting the speakers too close to a corner produces an unnatural bass reinforcement that detracts from its balanced, uncolored sound. If a speaker must be placed near a corner, move it away from the wall behind it, to preserve its natural tonal balance.

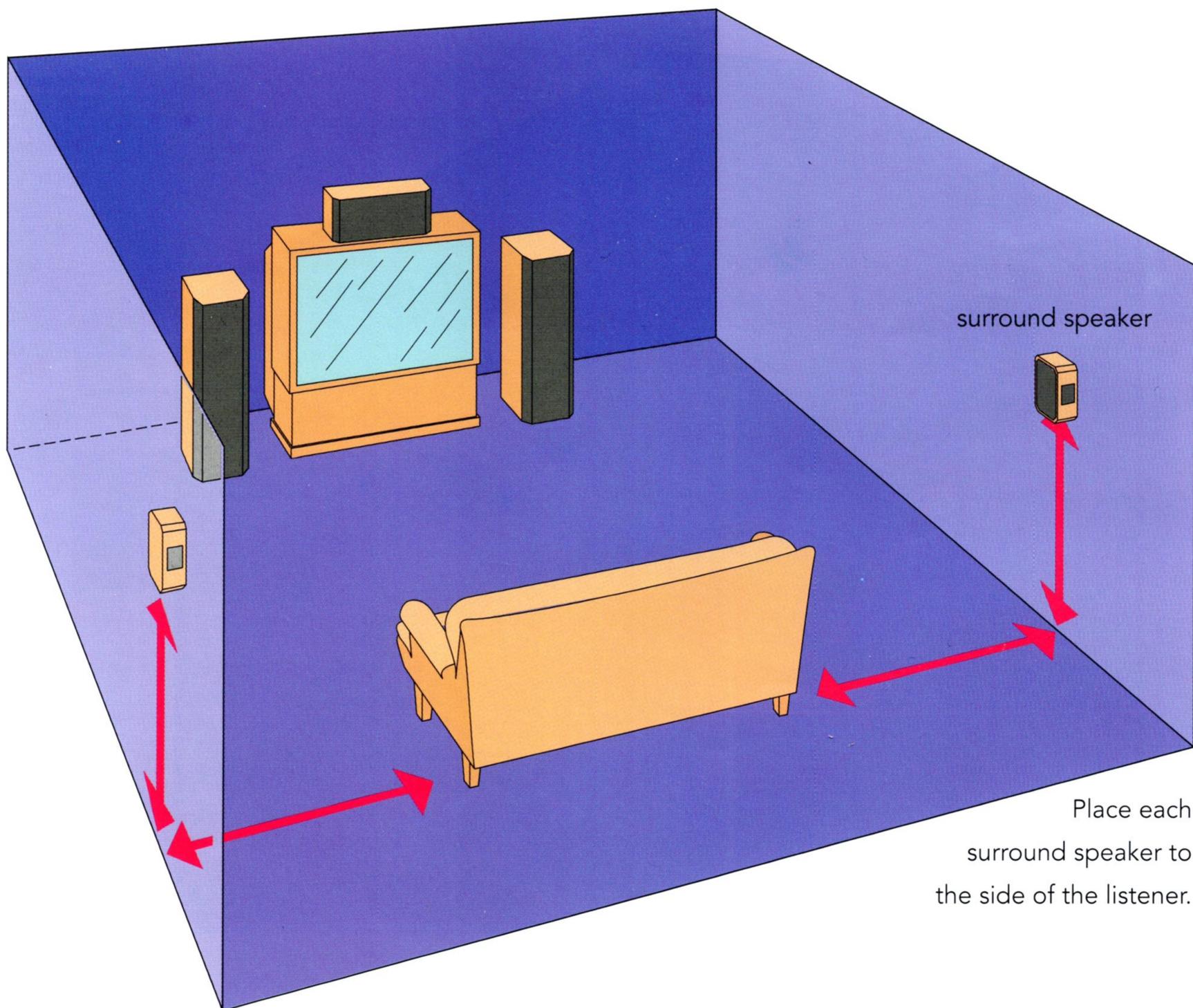
The tonal balance of the sound is also affected by your listening location. Bass will sound stronger if you are seated close to a wall or corner. Keep this in mind when experimenting with speaker placement. If the speaker is placed adjacent to a television (or piece of furniture), be sure the front of the speaker is forward of the front surface of the television. This will help ensure a proper stereo image.



# SETTING UP YOUR HOME THEATER SYSTEM

**Volume levels** — To obtain the best home theater effect, match the individual volume levels of each speaker. Dolby® Pro Logic® Surround and home THX® systems include a test signal that simplifies this level matching. Refer to the instructions provided with the decoder or receiver.

**VR12 placement** — Place the VR12 as close to the TV monitor as possible, with its front panel flush with the front of the television. This placement provides the most natural and uniform results. The VR12 is specially tuned to sit atop (or below) a large, flat TV screen. This fact, while simplistic sounding, is actually quite important since the TV screen surface acts as a baffle that can alter an ordinary speaker's sound, distorting music and dialogue. Four self-adhesive rubber feet are provided for the VR12 to protect the TV's finish and prevent vibration.



**Center channel mode** — Generally, with all surround systems, including Dolby Pro Logic and THX, the center channel mode should be set to "Normal." The "Normal" setting diverts low bass to front left and right speakers (which have greater bass capability than the center channel speaker). Also, if your system includes separate subwoofers connected to the left and right channels, the "Normal" setting ensures that subwoofers receive the most bass information under all conditions. The "Phantom" setting, which presumes you do not have a center channel speaker, should be avoided.

**Exceptions:** If you are using a THX preamp and surround-sound decoder, and are making use of its built-in subwoofer crossover, you should set the center mode to "Wide." The THX controller will then send bass from all three front channels to the subwoofer.

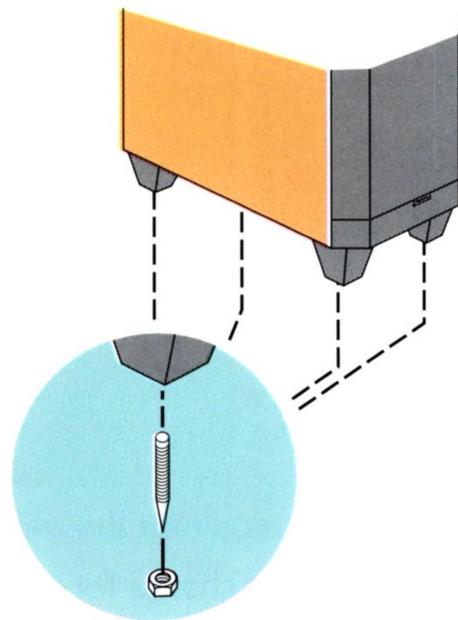
# CARING FOR YOUR SPEAKER'S FINISH

**The cabinet of your Lynnfield VR speaker system** is finished in either a furniture-grade wood or vinyl veneer. This finish should be treated like any other piece of fine furniture. To clean, simply wipe lightly with a slightly damp cloth. Do not use abrasive cleaners, solvents, wax, oil or furniture polish.

**For placing speakers on thick carpet,** we recommend using the four threaded carpet spikes and lock nuts (VR30 and VR40 only) which serve three purposes—leveling (an aesthetic issue), stability (a practical issue) and rigidity (an acoustic issue). The spikes concentrate the speaker's weight on four points, creating focused pressure that anchors the speaker cabinet to the floor and enhances rigidity. Spikes should pierce the carpet and padding to reach the hard surface beneath. For most carpeting, leaving about ½ inch (12mm) of the carpet spike exposed is sufficient, although this may be adjusted as necessary.

**For placing speakers on hard, flat surfaces,** use the four circular self-adhesive rubber pads provided.

**To clean the grilles,** remove from the cabinet and vacuum lightly.



## Specifications

	<b>VR20</b>	<b>VR30</b>	<b>VR40</b>	<b>VR12</b>
Frequency Response (±3dB)	46–20,000 Hz	42–20,000 Hz	40–20,000 Hz	58–20,000 Hz
Recommended Amplifier Power	15–200 watts	15–250 watts	15–300 watts	15–250 watts
Nominal Impedance	8 ohms	8 ohms	8 ohms	8 ohms
Sensitivity (1 watt (2.83V) at 1m)	89dB	91dB	91dB	91dB
Bass Unit	180mm DCD	Dual 180mm DCD	Dual 180mm DCD	Dual 165mm
Midrange	—	—	135mm copolymer	115mm copolymer
Tweeter	25mm anodized aluminum dome	25mm anodized aluminum dome	25mm anodized aluminum dome	25mm anodized aluminum dome
Crossover Frequency	3300 Hz	3300 Hz	400, 3300 Hz	500, 3300 Hz
Dimensions (H x W x D)	32½ x 8¼ x 12" (816 x 210 x 305mm)	35½ x 8¼ x 14½" (889 x 210 x 368mm)	38½ x 8¼ x 14½" (978 x 210 x 368mm)	8¾ x 25 x 8½" (222 x 635 x 216mm)
Weight/each	35 lbs (16kg)	45 lbs (20kg)	55 lbs (25kg)	30 lbs (14kg)
Finish	Black ash or cherry vinyl veneer	Black ash or cherry vinyl veneer	Black ash or walnut wood veneer	Black ash vinyl veneer

# T H E B O S T O N S O U N D

The standards by which Lynnfield VR speakers are measured are literally the toughest in the industry—ours. We build VR components on our state-of-the-art robotics assembly line, so every VR driver is virtually identical. Next, we test every driver and crossover to be within  $\pm 1$ dB of a reference standard. Finally, after assembly, we test every finished system again to be within  $\pm 1$ dB of reference (impressive, considering that the typical industry standard is  $\pm 3$ dB). This process, while painstaking, is the only way we know to ensure that every VR pair is an exact sonic “twin.” And that every Lynnfield VR speaker exhibits what we call The Boston Sound—a sound that is tight, clean and smooth.

## **Limited Warranty**

For five years from the date of purchase, Boston Acoustics will repair for the original owner any defect in materials or workmanship that occurs in normal use of the VR system, without charge for parts and labor.

Your responsibilities are to use the system according to the instructions supplied, to provide safe and secure transportation to an authorized Boston Acoustics service representative and to present proof-of-purchase in the form of your sales slip when requesting service.

Excluded from this warranty is damage that results from abuse, misuse, accidents, shipping or repairs or modifications by anyone other than an authorized Boston Acoustics service representative. This warranty is void if the serial number has been removed or defaced. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

## **If service seems necessary**

First, contact the retailer from whom you purchased the speakers. If that is not possible, call us at 508-538-5000, or write to: Boston Acoustics, Inc., 300 Jubilee Drive, Peabody, MA 01960

We will promptly advise you of what action to take. If it is necessary to return your speaker to the factory, please ship it prepaid. After it has been repaired, we will return it freight prepaid in the U.S. and Canada.

## **Boston**Acoustics

300 Jubilee Drive  
Peabody, MA 01960  
508-538-5000