

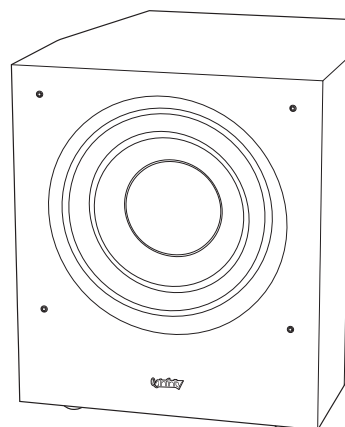
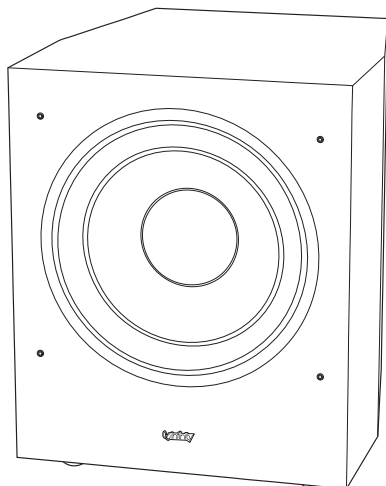


## INFINITY REFERENCE SUBWOOFERS

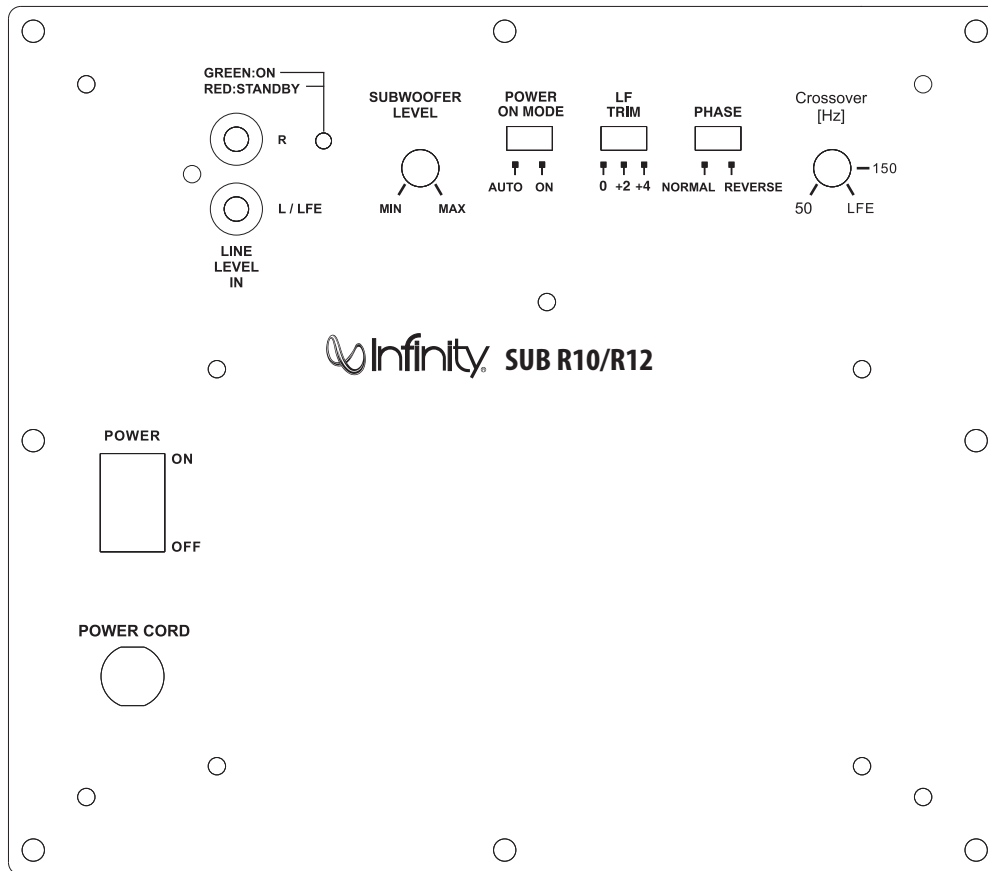
Owner's Manual

SUB R10

SUB R12



## SUBWOOFER REAR-PANEL CONTROLS AND CONNECTIONS



**1) Crossover Control:** This control determines the highest frequency at which the subwoofer reproduces sounds. The higher you set the Crossover control, the higher in frequency the subwoofer will operate, allowing it to mate better with smaller speaker systems that output less bass on their own.

**2) Phase Switch:** This switch determines whether the subwoofer transducer's piston-like action moves in and out in phase with the applied signal. If the subwoofer were to play out of phase with the main speakers, the sound waves from the main speakers could partially cancel out the sound waves from the subwoofer, reducing bass performance and sonic impact. This phenomenon depends in part on the placement of all the speakers relative to the listening position and to each other in the room as well as the satellite amplifier phase.

**3) LF Trim:** The LF Trim switch has a range of 0 to +4dB and by default is set at 0. You will want to adjust this setting depending on your personal preference, equipment, the location of the subwoofer, and room acoustics.

**4) Power On Mode:** When switched to 'Auto' position, the subwoofer will then be in Standby mode. It will automatically turn 'On' when an audio signal is detected at its inputs, and will return to the Standby mode when no audio signal is detected by its inputs after approximately 10 minutes. Otherwise, subwoofer will always remain powered until Power Switch is turned 'Off.'

**5) Subwoofer Level:** Use this control to adjust the subwoofer's volume. Turn the knob clockwise to increase the volume; turn the knob counterclock-wise to decrease the volume.

**6) On/Standby LED:** When the Power switch is in the 'On' position, this LED indicates whether the subwoofer is in the On or Standby state.

- When the LED glows green, the subwoofer is turned on.
- When the LED glows red, the subwoofer is in the Standby mode.

### 7) Line In/LFE Input Connectors:

- When you're connecting the subwoofer to the dedicated subwoofer output of a receiver/processor that has its own low-pass crossover network, use the LFE Input connector. When using this input, remember to also set the Crossover Control to 'LFE'.
- When you're connecting the subwoofer to the preamp or subwoofer outputs of a receiver/processor that does not have its own low-pass crossover network, use both Line In connectors. If your receiver/processor only has one subwoofer output you can use either Line In connector.

**8) Power Switch:** Set this switch in the 'On' position to turn the subwoofer on.

If you will be away from home, or will not be using the subwoofer for an extended period, set this switch in the 'Off' position to conserve energy.

**9) Power Cord:** After you have made and verified the subwoofer's input connections, plug the power cord into an active, unswitched electrical outlet for proper operation of the subwoofer. DO NOT plug the power cord into the accessory outlets found on some audio components.

## PLACING THE SUBWOOFER

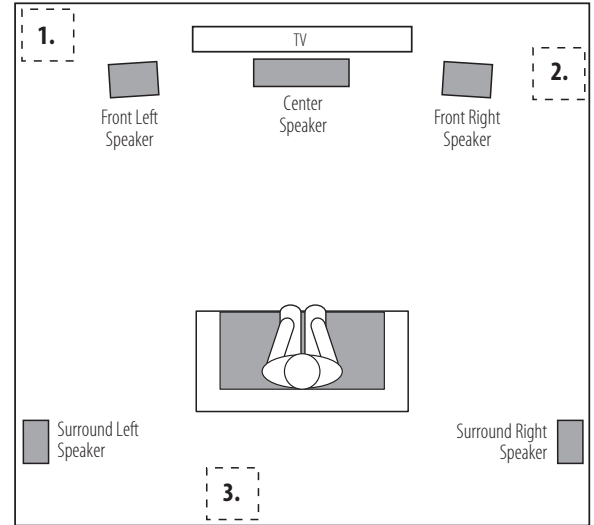
The performance of a subwoofer is directly related to its placement in the listening room and its physical position relative to the other speakers in the system.

While it is true that in general our ears do not hear directional sounds at the low frequencies where subwoofers operate, when installing a subwoofer within the limited confines of a room, the reflections, standing waves and absorptions generated within the room will strongly influence the performance of any subwoofer system. As a result, the specific location of the subwoofer in the room does become important to the amount and quality of bass that is produced.

For example, placing the subwoofer next to a wall generally will increase the amount of bass in the room; placing it in a corner (1) generally will maximize amount of bass in the room. However, corner placement can also increase the destructive effect of standing waves on bass performance. This effect can vary depending on the listening position – some listening positions may yield very good results while others may have far too much (or too little) bass at certain frequencies.

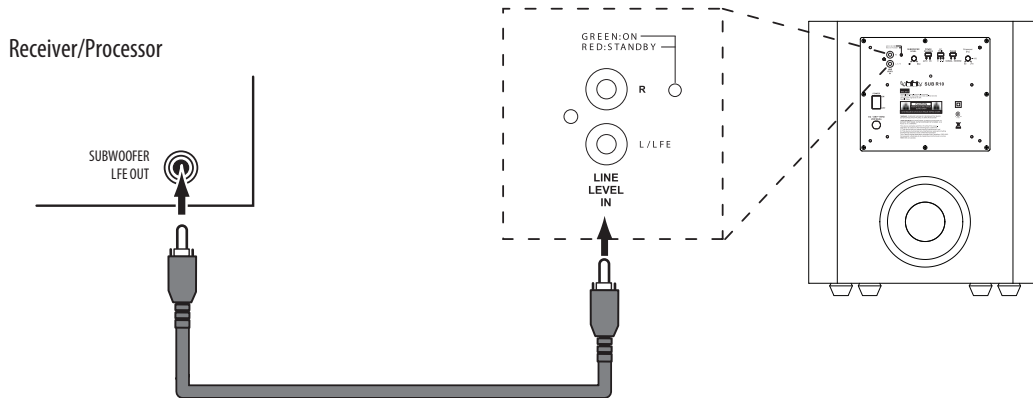
In many rooms, placing the subwoofer along the same plane as the left and right speakers (2) can produce the best integration between the sound of the subwoofer and that of the left and right speakers. In some rooms, the best performance could even result from placing the subwoofer behind the listening position (3).

We strongly recommend that you experiment with placement before choosing a final location for your subwoofer. One way you can determine the best location for the subwoofer is by temporarily placing it in the listening position and playing music with strong bass content. Move around to various locations in the room while the system is playing (putting your ears where the subwoofer would be placed), and listen until you find the location where the bass performance is best. Place the subwoofer in that location.

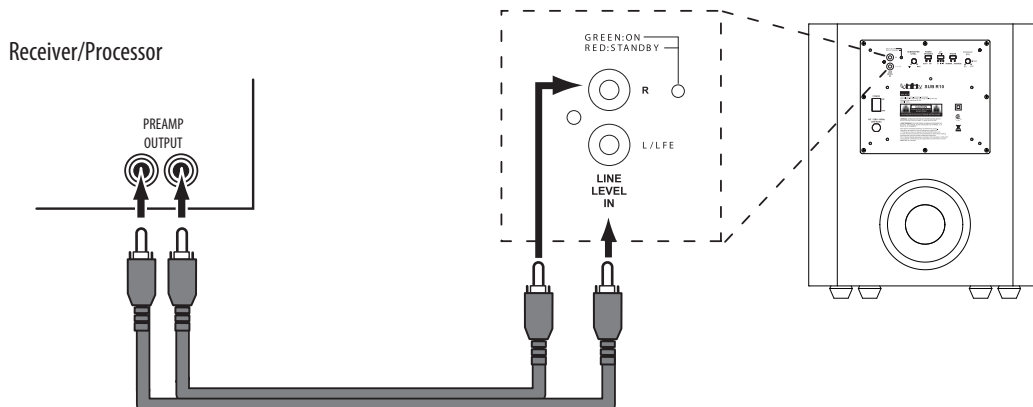


## CONNECTING THE SUBWOOFER

### TO A RECEIVER OR PREAMP/PROCESSOR WITH A LOW-PASS FILTERED DEDICATED SUBWOOFER OUTPUT



### TO A RECEIVER OR PREAMP/PROCESSOR WITH PREAMP OUTPUTS



## OPERATING THE SUBWOOFER

### TURNING THE SUBWOOFER ON AND OFF

Set the subwoofer's Power switch to the 'On' position. Now set the subwoofer's Power On Mode to the 'Auto' position. The subwoofer will automatically turn itself on when it receives an audio signal, and it will go into Standby mode after it has received no audio signal for approximately 10 minutes. The subwoofer's LED will glow green when the subwoofer is on and will glow red when the subwoofer is in Standby.

If you will not be using the subwoofer for an extended period — for instance, if you're going on vacation — set the Power Switch to the 'Off' position.

### SUBWOOFER ADJUSTMENTS: CROSSOVER CONTROL

The Crossover control adjusts the subwoofer's built-in low-pass filter crossover between 50Hz and 150Hz. This adjustment helps achieve a smooth transition of bass frequencies between the subwoofer and various sized speakers for a variety of different rooms and subwoofer locations.

To set the Crossover control, listen for the smoothness of the bass frequencies where the subwoofer transitions to the main speakers. If the bass in this region seems too strong, try a lower Crossover control setting. If the bass in this region seems too weak, try a higher Crossover control setting. If you're connecting the subwoofer via the LFE Input connector (from a dedicated subwoofer output of a receiver/processor that has its own loss-pass crossover network), set the Crossover Control to 'LFE'.

### SUBWOOFER ADJUSTMENTS: VOLUME

Use the Level control to set the subwoofer's volume. Turn the knob clockwise to increase the subwoofer's volume; turn the knob counterclock-wise to decrease the volume. Once you have balanced the subwoofer's volume with that of the other speakers in your system, you shouldn't have to change the Level control setting.

Notes on Setting Subwoofer Volume:

- Sometimes the ideal subwoofer volume setting for music is too loud for films, while the ideal setting for films is too quiet for music. When setting the subwoofer volume, listen to both music and films with strong bass content and find a 'middle ground' volume level that works for both.
- If your subwoofer always seems too loud or too quiet, you may want to place it in a different location. Placing the subwoofer in a corner will tend to increase its bass output, while placing it away from any walls or corners will tend to lessen its bass output.

### SUBWOOFER ADJUSTMENTS: PHASE

The Phase switch determines whether the subwoofer driver's piston-like action moves in and out in phase with the with the applied signal. If the subwoofer were to play out of phase with the speakers, the sound waves from the speakers could partially cancel out the waves from the subwoofer, reducing bass performance and sonic impact. This phenomenon depends in part on the placement of all the speakers relative to the listening position and to each other in the room as well as the satellite amplifier phase.

Although in most cases you should leave the Phase switch in the 'Normal' position, there is no absolutely correct setting for the Phase switch. When the subwoofer is properly in phase with the speakers, the sound will be clearer and have maximum impact, and percussive sounds like drums, piano and plucked strings will sound more life-like. The best way to set the Phase switch is to listen to music that you know well and to set the switch in the position that gives drums and other percussive sounds maximum impact.

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