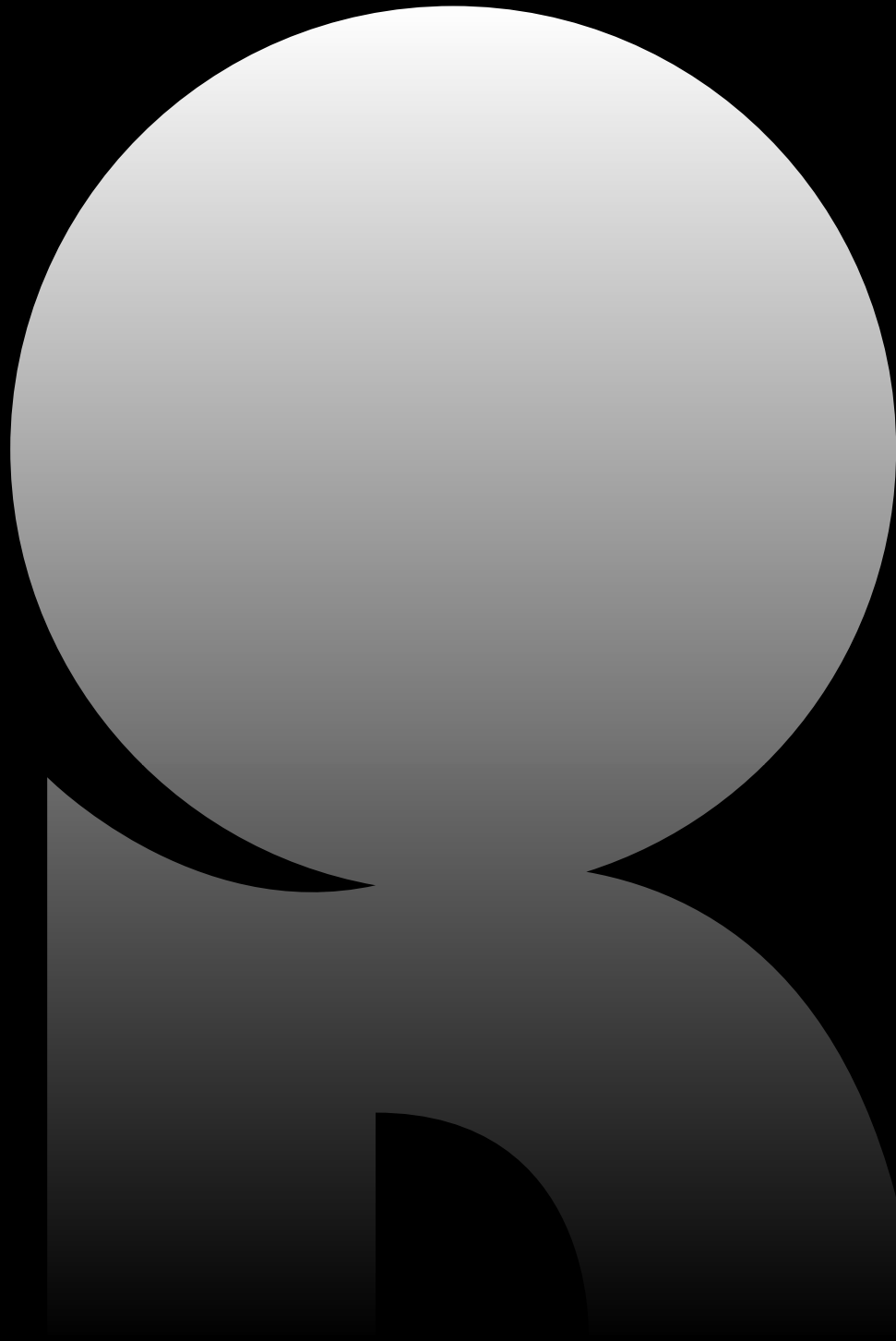


Revel® Performa™ S30 Loudspeaker



REVEL®

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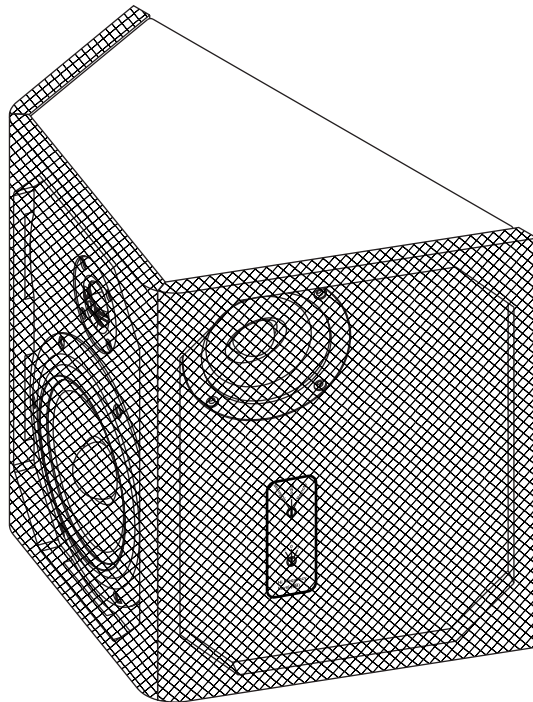
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# INTRODUCTION

The REVEL® PERFORMA™ S30 surround loudspeaker draws upon the same research, resources, and unique perspective made famous by Revel's ULTIMA™ Series, resulting in standard-setting low coloration and freedom from distortion over an extraordinarily wide dynamic range.

The REVEL PERFORMA S30 surround loudspeaker combines a timbre-matched direct-radiator with a state-of-the-art dipolar loudspeaker. The resulting configuration creates superb surround sound over a wider dynamic range with low power compression for a larger number of listeners to enjoy. Its superior performance, validated by our objective listening tests, will greatly enhance the enjoyment of music or film sound in your home.

*Figure 1. The REVEL PERFORMA S30 surround loudspeaker.*



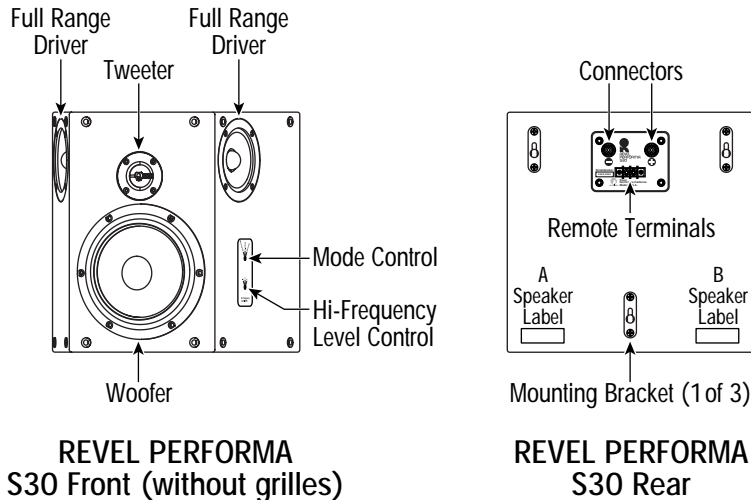
## ABOUT THE MANUAL AND WARRANTY

To begin enjoying your new loudspeaker, first read and then perform the instructions in this owner's manual. Maximum performance depends on following all instructions described here, as well as those found in the owner's manuals of associated components in your audio system. Save these instructions for future reference.

The REVEL PERFORMA S30 surround loudspeaker is covered by a limited 5-year warranty, so save the bill of sale to protect your purchase and aid in any service-related questions.

# DESCRIPTION

The REVEL PERFORMA S30 loudspeaker features a 6.5-inch (165 mm) high-power handling woofer, two 4-inch (102 mm) full-range drivers with specially-designed dispersion patterns, and an aluminum-alloy dome 1-inch (25 mm) tweeter.



*Figure 2. The REVEL PERFORMA S30 transducer, control, and connection locations.*

*NOTE: The front view shows a B loudspeaker. The rear view shows label locations of A and B loudspeakers. See "Placement" on page 7.*

The REVEL PERFORMA S30 loudspeaker also features a user-selectable control for dipole or monopole dispersion that optimizes the system for any recording format. When used in dipole mode, a unique radiation angle allows more listeners to enjoy theater-like performance for film sound, and more natural results in reproducing music. When used in monopole mode, the unique design facilitates placement which matches surround-music monitoring standards.

## WOOFER

The 6.5-inch (165 mm) woofer features:

- 1.5-inch (38 mm) diameter voice coil on a Kapton<sup>®</sup> former for extraordinary power handling and freedom from distortion in monopole and dipole modes.
- Fully-pistonic operation throughout its entire operating range for low coloration and distortion.
- Die-cast basket to eliminate coloration from resonances.

## FULL-RANGE DRIVERS

Each 4-inch (102 mm) full-range driver features:

- 1.5-inch (38 mm) diameter voice coil on a Kapton<sup>®</sup> former for extraordinary power handling and freedom from distortion.

- Unique dispersion pattern to minimize localization in the dipole mode.
- Die-cast basket to eliminate coloration from resonances.

## TWEETER

The 1-inch (25 mm) tweeter features:

- An aluminum-alloy dome for fully-pistonic operation.
- Ferrofluid magnetic cooling for high power handling and low dynamic compression.
- Large co-polymer surround for linear operation over a wide dynamic range.

## CROSSOVER NETWORK

Built into each REVEL PERFORMA S30 loudspeaker is an individually-optimized crossover network with the following features:

- An extremely sophisticated variable crossover offers dipole, monopole, and remote capability.
- Hand-wired filter networks with air-core inductors and film capacitors are calibrated to match each REVEL PERFORMA S30 loudspeaker to the reference standard.
- An external high-frequency level control to tailor sound output from the tweeter for varying acoustic conditions.

## CABINET

The REVEL PERFORMA S30 loudspeaker's inspiring Revel industrial design uniquely complements the most refined home interiors. While the cabinet design offers exquisite appearance, it also contributes to the system's performance with asymmetrical construction for mirror-imaged left and right surround loudspeakers.

The sophisticated main enclosure and its internal bracing were designed based on our exclusive knowledge developed from laser interferometry. The result is an acoustically-inert platform for the generation of sound waves.

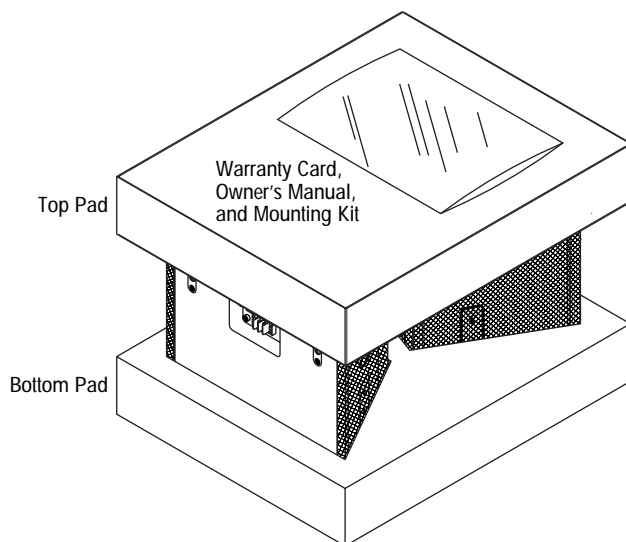
Each cabinet is constructed of 0.75-inch (19 mm) thick MDF walls and includes an integral mounting system for direct wall or ceiling placement.

# UNPACKING

***To avoid injury, please use care during unpacking. Always stand as straight as possible and use your leg muscles to lift the REVEL PERFORMA S30 loudspeakers. Do not lift it while bending from the waist.***

To unpack a pair of REVEL PERFORMA S30 loudspeakers, perform the following steps:

1. Place the carton onto its top and open the bottom flaps.
2. Turn the carton over and open the top flaps.
3. Lift the carton off the loudspeakers and set it aside, being careful not to damage the contents (see Figure 3).



4. Remove the mounting kit and set it aside.
5. Remove the top and bottom pads and the protective bags. Use caution to avoid scraping finishes or pulling off the grilles.

After unpacking, carefully inspect each loudspeaker for possible damage due to shipping. If you discover any damage, immediately contact your Revel dealer for further assistance. When moving a REVEL PERFORMA S30 loudspeaker (e.g., when experimenting with placement), avoid touching the transducers.

**Keep all packing materials for future shipping.** In the unlikely event a product will need repair, Revel will only accept a unit in its original shipping carton. Using any other packing materials may result in damage to the product and is not covered by the warranty. See *Obtaining Service* on page 21 for additional details.



WARNING

*Figure 3. REVEL PERFORMA S30 loudspeakers with their inner packing materials.*

# PLACEMENT

Sound quality is heavily dependent on the accuracy of all your loudspeakers, their placement in the listening room, and the acoustics of the room itself. Not only are REVEL PERFORMA S30 surround loudspeakers extremely accurate, they offer flexible placement on walls or ceiling in 5.1- or 7.1-channel systems.

IMPORTANT



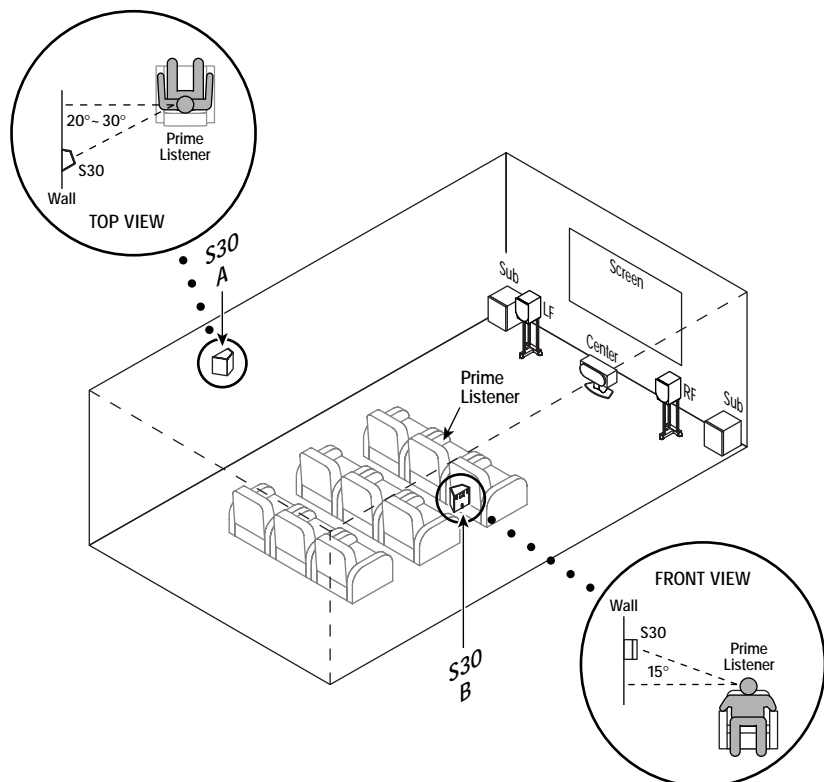
***Each pair of REVEL PERFORMA S30 surround loudspeakers has distinct A and B versions, as denoted by labels on the rear. To insure correct surround operation, be sure to mount the appropriate loudspeaker; either A or B, as shown and described in Figures 4 through 8 on pages 7 through 11. See mounting instructions and precautions, starting on page 12.***

## 5.1-CHANNEL WALL PLACEMENT

The most common home theater system configuration uses a pair of REVEL PERFORMA S30 surround loudspeakers, placed on the side walls above the listening area, as shown in Figure 4. The loudspeaker's radiation pattern is optimized for use at 110 degrees, or up to 120 degrees, and to the sides of the primary listening area. This occurs when the loudspeakers are placed somewhat behind the front row, along the side walls. The ideal height is located at 15 degrees above the prime listener's ears.

*Figure 4. In this 5.1-channel dipole system, a pair of REVEL PERFORMA S30 surround loudspeakers are placed on side walls. Optimum surround coverage for all listeners is attained by placing the loudspeakers 20 to 30 degrees behind the prime listener (see top view) at a height of 15 degrees above the prime listener's ears (see front view).*

*NOTE: Also see mounting instructions and precautions, starting on page 12.*



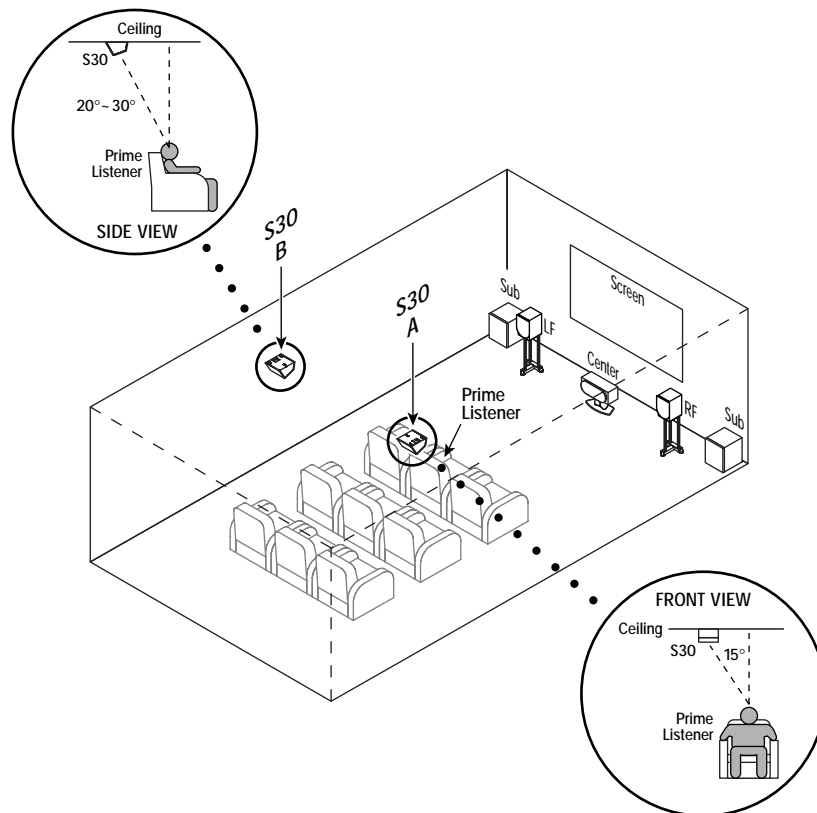
# PLACEMENT (CONTINUED)

## 5.1-CHANNEL CEILING PLACEMENT

As an alternative, a pair of REVEL PERFORMA S30 surround loudspeakers may be placed on the ceiling from 20 to 30 degrees behind the prime listening area, as shown in Figure 5. They may be used in either dipole or monopole mode (see *System Optimization* on page 19).

The ideal placement is behind the first row of listeners so sound radiates down upon all listeners. A less favorable placement is behind the last row of listeners with sound radiating down towards the backs of all listeners.

*NOTE: In order to be effective, each REVEL PERFORMA S30 surround loudspeaker on the ceiling must be orientated so that the woofer and tweeter on the largest enclosure plane fires towards the listeners.*



*Figure 5. In this 5.1-channel dipole system, a pair of REVEL PERFORMA S30 surround loudspeakers are placed on the ceiling behind the first row of listeners.*

*NOTE: Also see mounting instructions and precautions, starting on page 12.*



## 7.1-CHANNEL PLACEMENT

Some multi-channel controllers can independently drive two pairs of surround loudspeakers. Three configurations are possible:

- One pair of REVEL PERFORMA S30 surround loudspeakers may be placed on the side walls, along with another pair on the rear wall (see details below).
- One pair of REVEL PERFORMA S30 surround loudspeakers may be placed on the side walls, along with another pair on the rear ceiling (see details on the next page).
- Two pairs of REVEL PERFORMA S30 surround loudspeakers may be placed on the ceiling (see details on page 10).

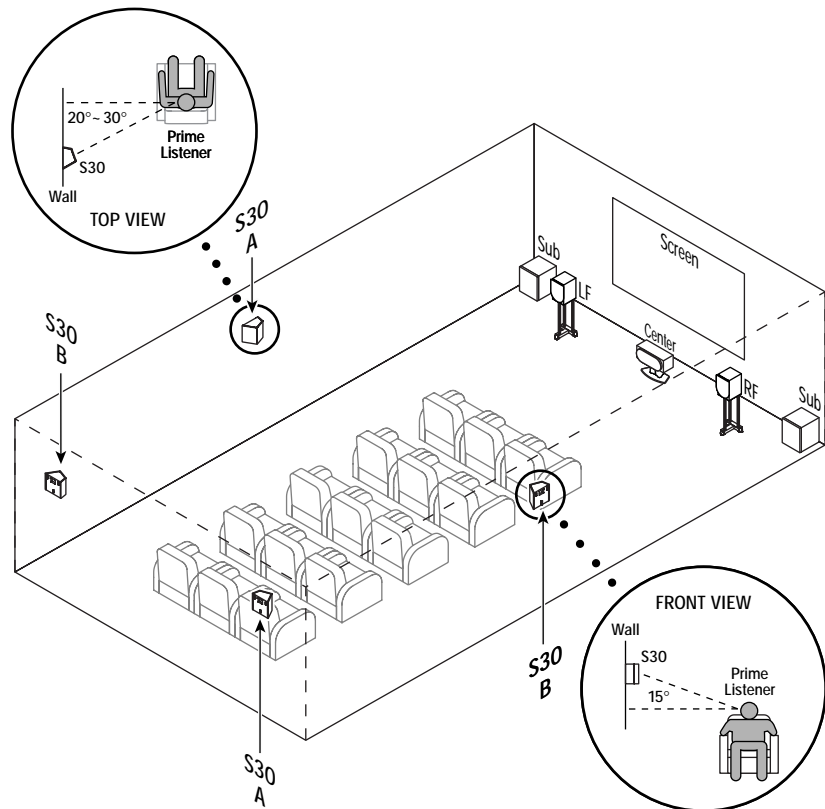
*NOTE: If you not sure which configuration is appropriate for your needs, review all three before deciding on placement.*

### 7.1-CHANNEL PLACEMENT ON SIDE AND REAR WALLS

In this recommended placement, a pair of REVEL PERFORMA S30 surround loudspeakers may be placed on the side walls with a second pair on the rear wall, as shown in Figure 6. For film sound reproduction, the front pair should be set to dipole mode, while the rear pair may be set to dipole or monopole mode.

*Figure 6. In this recommended 7.1-channel system, two pairs of REVEL PERFORMA S30 surround loudspeakers are placed on side and rear walls.*

*NOTE: Placement on the rear wall is opposite of the placement on the side walls. Also see mounting instructions and precautions, starting on page 12.*



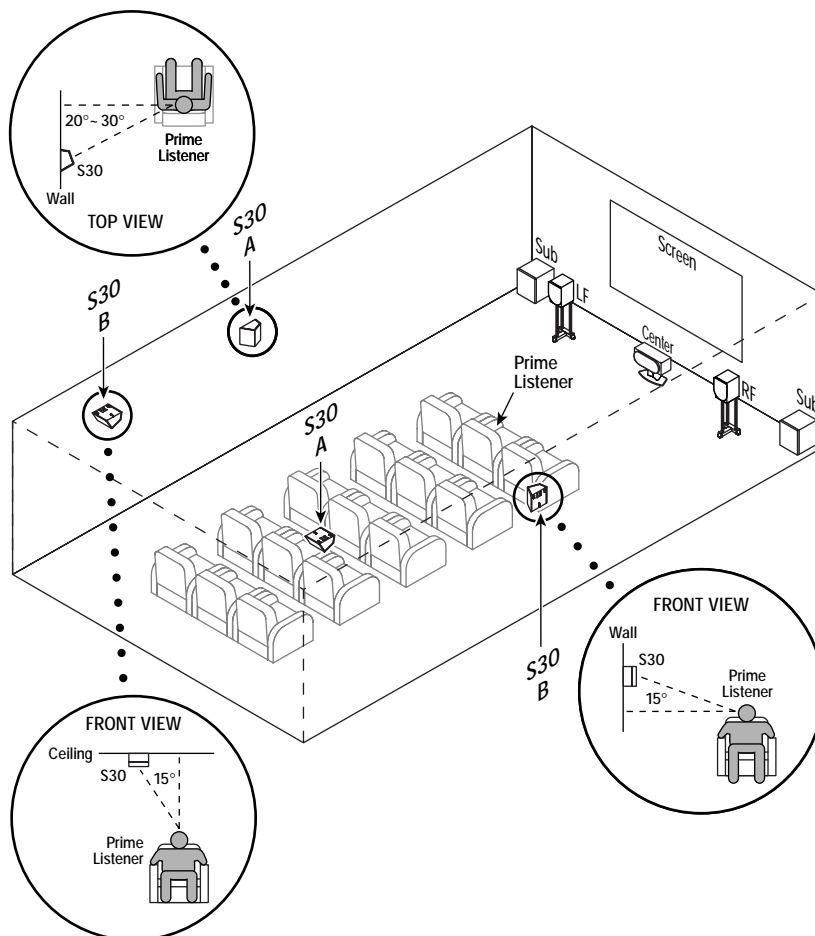
# PLACEMENT

## 7.1-CHANNEL PLACEMENT (Continued)

### 7.1-CHANNEL PLACEMENT ON SIDE WALLS AND REAR CEILING

If placing a second pair REVEL PERFORMA S30 surround loudspeakers on the rear wall is impossible, try placing this pair on the rear ceiling, as shown in Figure 7. For film sound reproduction, the front pair (on the side walls) should be set to dipole mode, while the rear pair may be set to dipole or monopole mode.

*NOTE: In order to be effective, each REVEL PERFORMA S30 surround loudspeaker on the ceiling must be orientated so that the woofer and tweeter on the largest enclosure plane fires towards the listeners.*



*Figure 7. As an alternative 7.1-channel system, one pair of REVEL PERFORMA S30 surround loudspeakers is placed on side walls, while another pair is placed on the rear ceiling.*

*NOTE: Placement on the rear ceiling is opposite of the placement on the side walls. Also see mounting instructions and precautions, starting on page 12.*

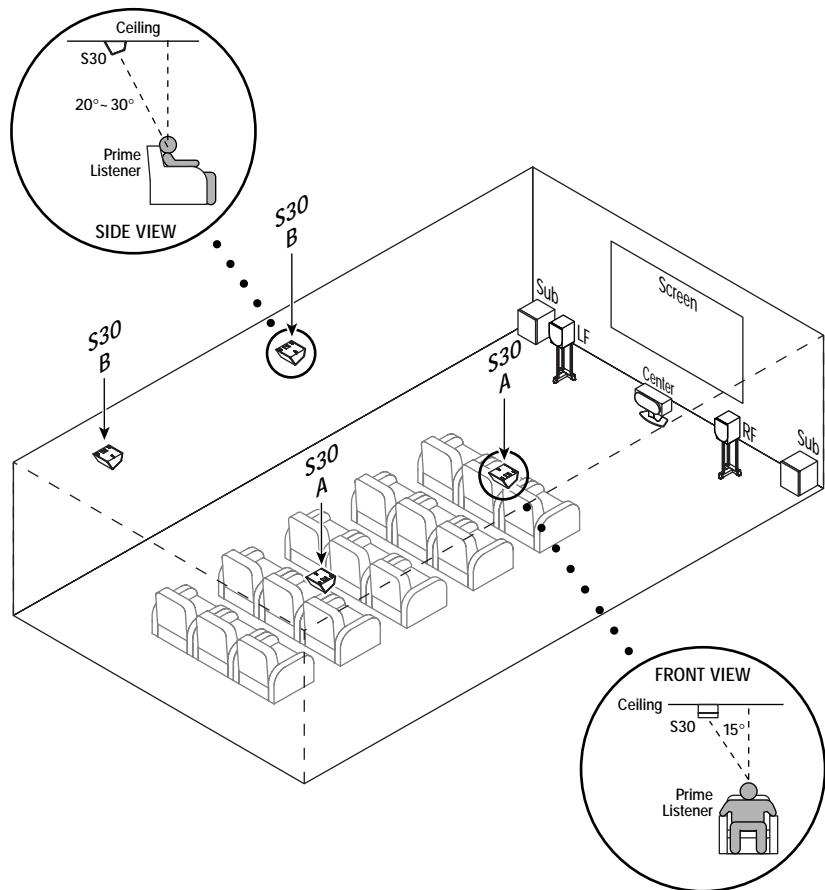
## 7.1-CHANNEL PLACEMENT ON FRONT AND REAR CEILING

A pair of REVEL PERFORMA S30 surround loudspeakers may be placed on the front ceiling with a second pair on the rear ceiling, as shown in Figure 8. For film sound reproduction, the front pair should be set to dipole mode, while the rear pair may be set to dipole or monopole mode.

*NOTE: In order to be effective, each REVEL PERFORMA S30 surround loudspeaker on the ceiling must be orientated so that the woofer and tweeter on the largest enclosure plane fires towards the listeners.*

*Figure 8. In this 7.1-channel system, two pairs of REVEL PERFORMA S30 surround loudspeakers are placed on the ceiling, front and rear.*

*NOTE: Also see mounting instructions and precautions, starting on page 12.*



# MOUNTING

Each REVEL PERFORMA S30 surround loudspeaker comes with an integral wall/ceiling mounting system. Three built-in brackets (on the rear) are designed for use with supplied hardware and will require installation into wallboard between studs or rafters.

***Do not use substitute mounting hardware! The supplied shoulder screws and plastic toggles are part of a factory-tested mounting system that works on wallboard only. To obtain additional hardware, contact your authorized Revel dealer.***



IMPORTANT

## MOUNTING A LOUDSPEAKER ON A WALL

***Installation should only be done by qualified individuals who are experienced in affixing and installing wall-mounted electrical equipment, and who understand and observe all relevant safety precautions. REVEL disclaims any liability whatsoever for injury or damage to persons or property arising from installation of its products or use of hardware it provides.***



IMPORTANT

1. Determine wall locations for each pair of left and right loudspeakers (see *Placement* starting on page 7).
2. At each proposed site, use a stud finder to locate the nearest studs, which should be on 16-inch centers.
3. Tape the enclosed mounting templates to walls between the studs, leaving a minimum clearance of  $\frac{3}{4}$ " (19 mm) from the cabinet top to the ceiling. Use a level to verify tilt is zero. Be sure to account for any mouldings when determining a minimum clearance distance.

*NOTE: For best performance, mount the loudspeakers at least 18" (46 cm) away from the ceiling at an optimum height of 15° above the prime listening position (see "Placement" on page 7).*

4. At each site, drill three (3)  $\frac{5}{16}$ " (8 mm) holes at the designated locations on the mounting template. Also create a cutout for speaker wire within the noted boundary.

*NOTE: The cutout should be wide enough to provide adequate clearance to connect large spade lugs on terminal sides.*

5. At each site, insert three (3) plastic toggles into the drilled holes and install three (3) shoulder screws, as shown in Figure 9 (on the next page).
6. At each site, route the speaker wire through the cutout and, using correct polarity, attach the ends to the terminals on the

rear of the loudspeaker. Also refer to *Connections* starting on page 16.

7. Align the brackets on each cabinet with the shoulder screws on the wall, as shown in Figure 10 (on the next page). Slide each cabinet securely down onto the shoulder screws. After mounting, remove the tape and template.

Figure 9. Inserting plastic toggles and installing shoulder screws in a wall.

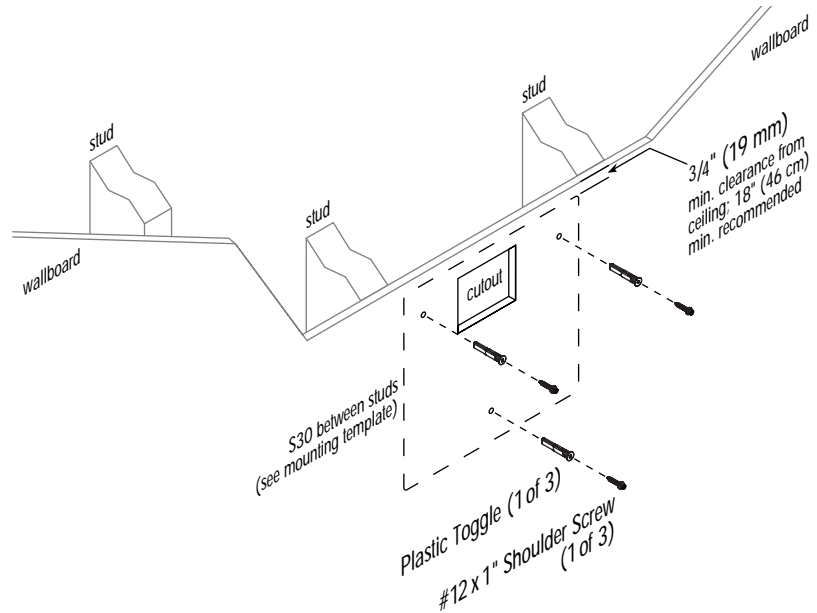
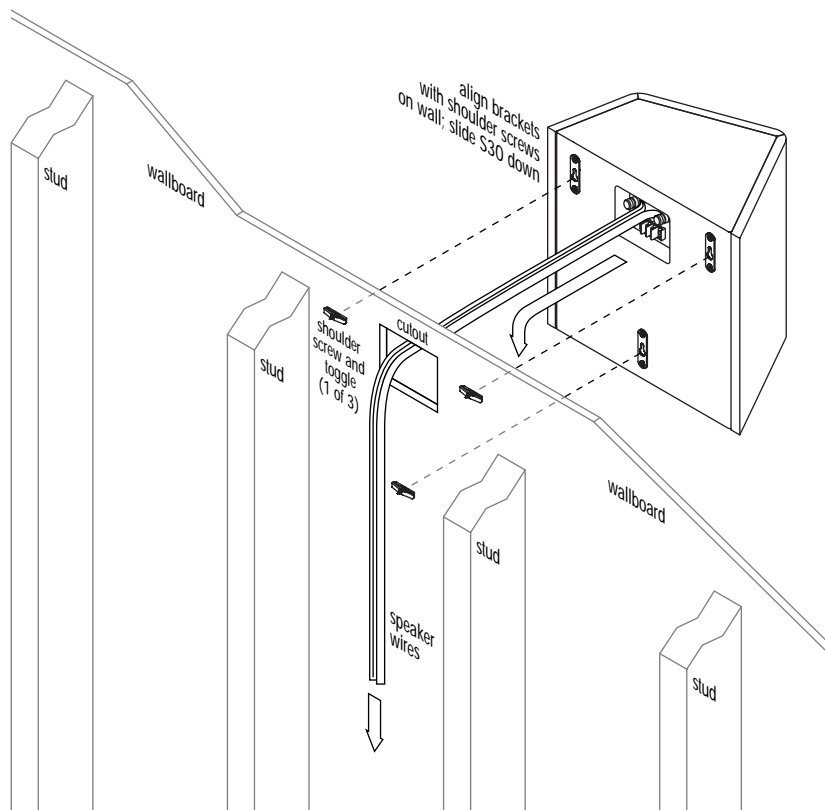


Figure 10. Mounting a REVEL PERFORMA S30 surround loudspeaker on a wall.



# MOUNTING (Continued)

## MOUNTING A LOUDSPEAKER ON A CEILING

***Installation should only be done by qualified individuals who are experienced in affixing and installing and ceiling-mounted electrical equipment, and who understand and observe all relevant safety precautions. REVEL disclaims any liability whatsoever for injury or damage to persons or property arising from installation of its products or use of hardware it provides.***



IMPORTANT

1. Determine ceiling locations for each pair of left and right loudspeakers (see *Placement* starting on page 7).
2. At each proposed site, use a stud finder to locate the nearest rafters, which should be on 16-inch centers.
3. Use tape to attach the enclosed mounting templates to the ceiling between the rafters, leaving a minimum clearance of  $\frac{3}{4}$ " (19 mm) from the cabinet top to the wall. Verify that the template is parallel to the wall. Be sure to account for any mouldings when determining a minimum clearance distance.

*NOTE: For best performance, mount the loudspeakers at least 18" (46 cm) away from the wall at an optimum angle of 15° off-axis from the prime listening position (see "Placement" on page 7).*

4. At each site, drill three (3)  $\frac{5}{16}$ " (8 mm) holes at the designated locations on the mounting template. Also create a cutout for speaker wire within the noted boundary.

*NOTE: The cutout should be wide enough to provide adequate clearance to connect large spade lugs on terminal sides.*

5. At each site, insert three (3) plastic toggles into the drilled holes and install three (3) shoulder screws, as shown in Figure 11 (on the next page).
6. At each site, route the speaker wire through the cutout and, using correct polarity, attach the ends to the terminals on the rear of the loudspeaker. Also refer to *Connections* starting on page 16.
7. Align the brackets on each cabinet with the shoulder screws on the ceiling, as shown in Figure 12 (on the next page). Slide each cabinet securely across the shoulder screws away from the side wall. After mounting, remove the tape and template.

Figure 11. Inserting plastic toggles and installing shoulder screws in a ceiling.

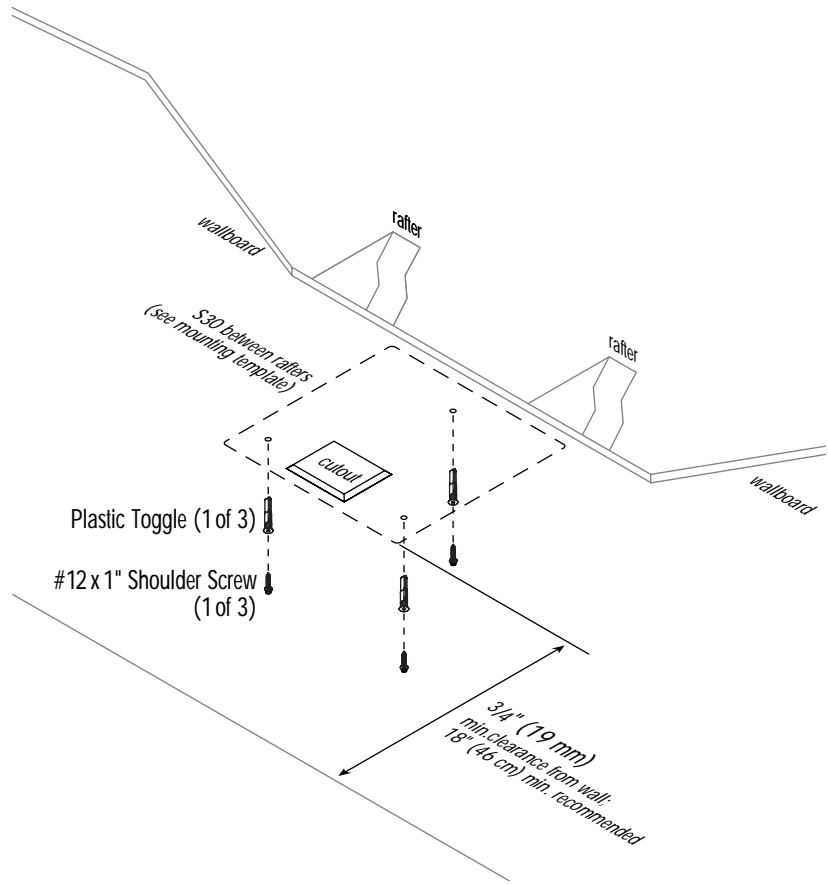
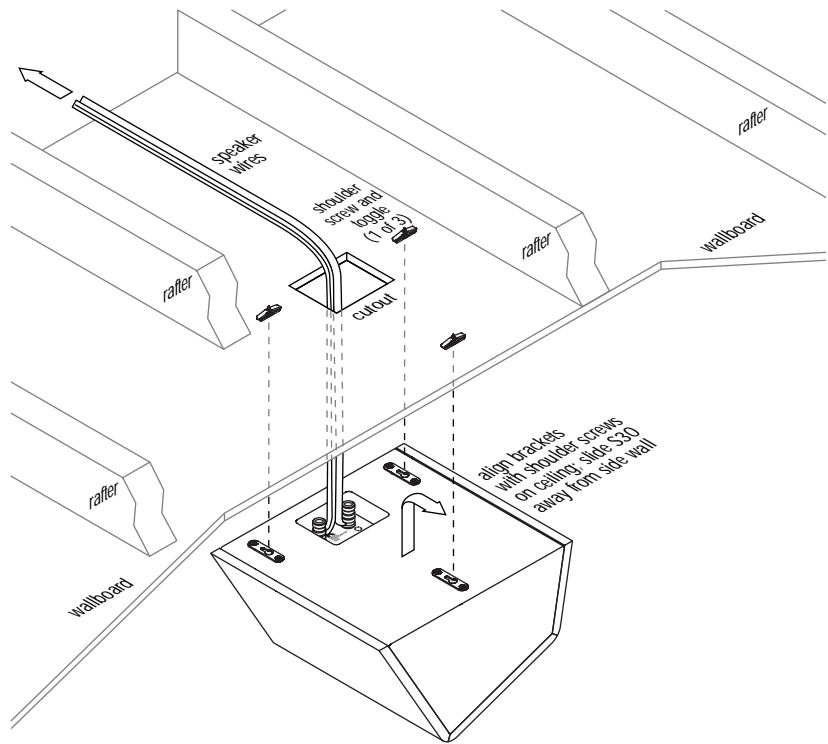


Figure 12. Mounting a REVEL PERFORMA S30 surround loudspeaker on a ceiling.



# CONNECTIONS

For best results, please read the following points before connecting the REVEL PERFORMA S30 surround loudspeakers:

- Use high-quality speaker cable with a maximum total loop resistance (for each wire run) of 0.07 ohms or less. Use the chart in Figure 13 below to determine the maximum wire gauge.

***A high loop resistance will result in mis-termination of the filter networks, and serious degradation of sound quality. Use high-quality connectors on the loudspeaker cables. Consult your Revel dealer as to specific recommendations for your application.***

- Turn off all audio system power before making any connections.
- Read the owner's manuals that were included with your audio components to confirm their connection procedures.
- Verify correct polarities (i.e., + to + and - to -) when making connections, as shown in Figure 14 on the next page. Failure to do so will cause poor imaging and diminished bass response.

| WIRE GAUGE (AWG) | LENGTH (FEET) | LENGTH (METERS) |
|------------------|---------------|-----------------|
| 6                | 87            | 27              |
| 7                | 69            | 21              |
| 8                | 58            | 18              |
| 9                | 43            | 13              |
| 10               | 34            | 10              |
| 11               | 27            | 8               |
| 12               | 22            | 7               |
| 13               | 17            | 5               |
| 14               | 14            | 4               |
| 15               | 11            | 3               |
| 16               | 9             | 3               |
| 17               | 7             | 2               |
| 18               | 5             | 2               |



IMPORTANT

*Figure 13. Wire gauge versus maximum wire run (with a maximum loop resistance of 0.07 ohms) for less than 0.2 dB response error.*

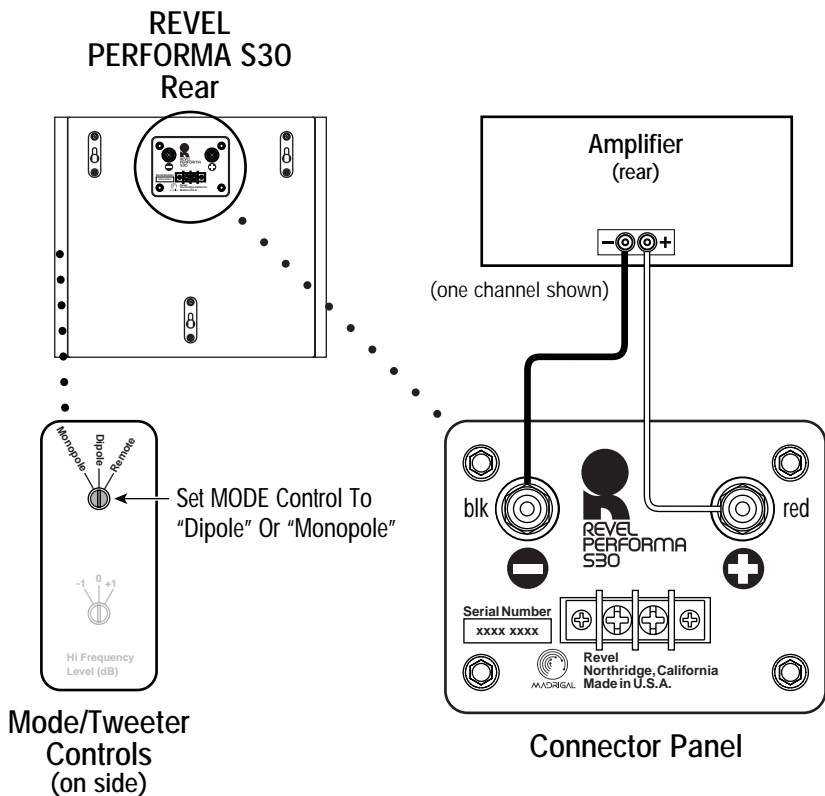
*NOTE: "Loop resistance" is the DC resistance measured at one end of a loudspeaker cable, with the other ends shorted together.*



## DIPOLE OR MONOPOLE SYSTEM CONNECTIONS

For dipole or monopole operation, connect a set of speaker wires to an amplifier channel output, as shown in Figure 14.

*Figure 14. How to connect the REVEL PERFORMA S30 surround loudspeaker for dipole or monopole operation.*



## REMOTE DIPOLE/MONOPOLE SWITCHING

REVEL PERFORMA S30 surround loudspeakers feature remote dipole/monopole selection via a compatible interface with popular system integration systems, as shown in Figure 15 (on the next page). Moreover, most remote systems can also be set up to customize the mode for the type of selection. For example, any "movie" mode could automatically switch the loudspeakers to dipole mode.

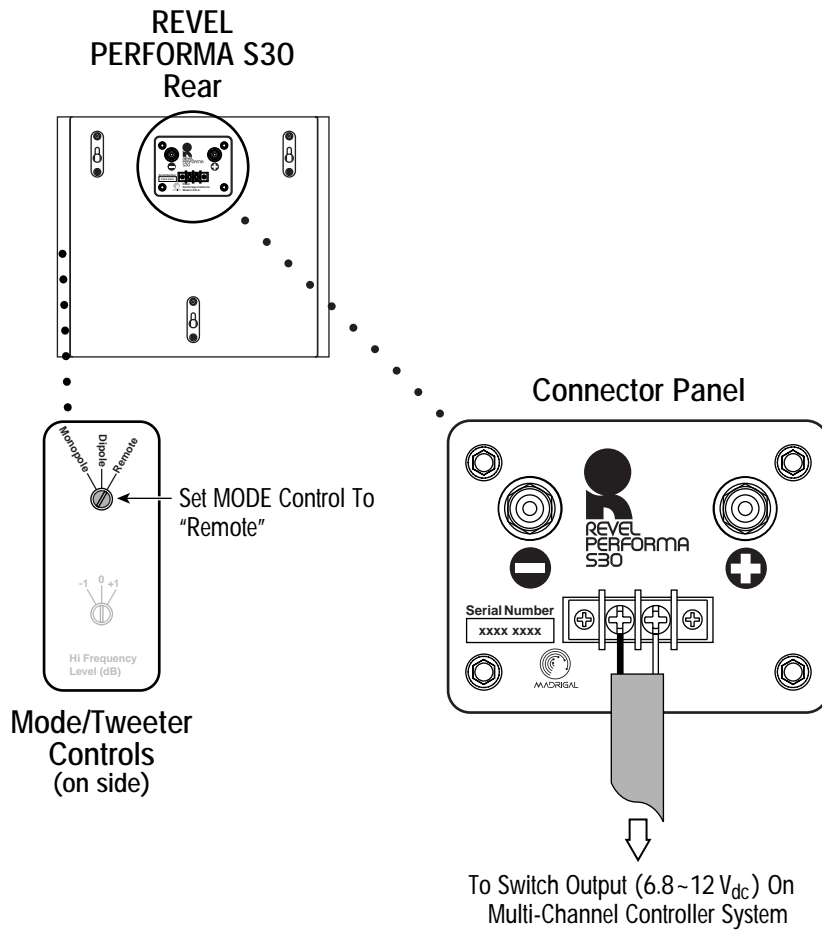
For remote operation, use a coin or small screwdriver to select REMOTE on the front-panel control (see Figure 15 on the next page). Energizing the Remote Dipole/Monopole connector (on the rear panel) with a voltage from 6.8 to 12 Vdc will engage dipole operation. Contact your Revel dealer for help in enabling this feature for your REVEL PERFORMA S30 surround loudspeakers.

*NOTE: The front panel switch is set to DIPOLE at the factory, and must be set to REMOTE to enable remote dipole/monopole switching.*

*...continued on next page*

# CONNECTIONS

## REMOTE DIPOLE/MONOPOLE SWITCHING (Continued)



*Figure 15. How to connect a remote control system to the relay input terminals on the rear panel of the REVEL PERFORMA S30 surround loudspeaker.*

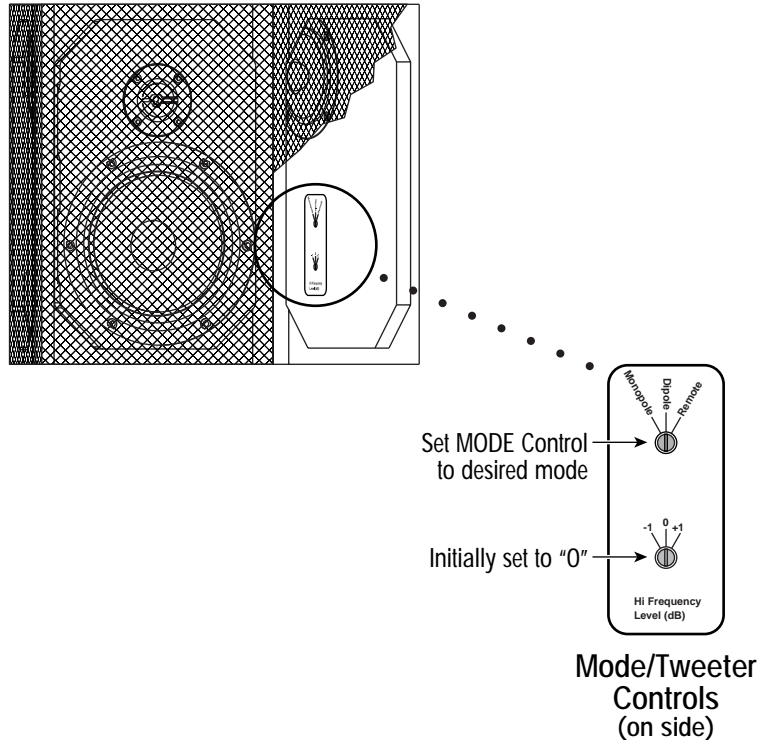
# SYSTEM OPTIMIZATION

The REVEL PERFORMA S30 surround loudspeaker may be operated in dipole or monopole mode, manually or remotely.

1. After connecting the loudspeakers and with system power off, initially set the HIGH FREQUENCY LEVEL control (on the front panel) to the “0” position, as shown in Figure 16.

REVEL PERFORMA S30  
Front

Figure 16. Tweeter level and mode control locations and initial settings for dipole or monopole operation.



2. For manual operation, set the mode switch to DIPOLE or MONOPOLE. For remote operation, set it to REMOTE:
  - Select the *dipole* position for the greatest freedom from “localization” and for all film sound, since it is always mixed using non-localizable surrounds. Most acoustic recordings, including classical, are mixed utilizing the surrounds for a natural ambiance. The *dipole* mode is also the best choice for such recordings.
  - Select the *monopole* position for discrete multi-channel recordings that feature equal emphasis on the front and surround (rear) loudspeakers. Multi-channel “pop” recordings are mixed using monopole surrounds and are most faithfully reproduced using the *monopole* setting.

...continued on next page

## SYSTEM OPTIMIZATION (Cont'd)

3. Turn on the system power and play a variety of material. Slowly increase the volume to a comfortable level and listen from your main listening position. Be sure to set your multi-channel controller to a mode that utilizes the surround channels.
4. You may also wish to further adjust the tweeter's HIGH FREQUENCY LEVEL control (see Figure 16 on the previous page) to achieve the most natural sound in your room. Varying the control will change the high-frequency balance and timbre.

## CABINET CARE

The cabinet for the REVEL PERFORMA S30 surround loudspeaker has a painted finish and does not require any routine maintenance.

Occasionally use a soft cloth, dampened with water, to remove any fingerprints or dust. Clean the grilles by gentle vacuuming.

## LOUDSPEAKERS AND POWER

A REVEL PERFORMA S30 surround loudspeaker uses high-order crossovers with steep cut-offs to eliminate damage caused by “out of band” frequencies. Using this approach, in combination with carefully selected components and transducers, gives us confidence that a REVEL PERFORMA S30 loudspeaker will not fail, even under extreme conditions.

However, there is a limit to how loud *any* speaker can play continuously. A good rule of thumb is to avoid playing the system at volume levels beyond where the sound is “clear.” If the sound becomes distorted or strained, reduce the volume level immediately to avoid damage.

If you are unsure of the suitability of current or planned amplifier components, please ask your Revel dealer to review them before connecting your REVEL PERFORMA S30 surround loudspeakers.

## OBTAINING SERVICE

We take great pride in our dealers. Experience, dedication, and integrity make these professionals ideally suited to assist with our customers' service needs.

**If your Revel component requires service, please contact your dealer.** Your dealer will then decide whether the problem can be remedied locally, or whether to contact Revel for further service information or parts, or to obtain a Return Authorization. If needed, call the Revel Customer Service Department at:

**1-818-830-8777** on any business day, from 9 A.M. to 5 P.M. PST.

The Revel Customer Service Department works closely with your dealer to solve your service needs expediently.

IMPORTANT



***Return Authorization must be obtained through your dealer BEFORE a unit is shipped for service.***

It is extremely important that information about a problem be explicit and complete. A specific, comprehensive description of the problem helps your dealer and the Revel Customer Service Department locate and repair the difficulty as quickly as possible.

A copy of the original bill of sale will serve to verify warranty status. Please include it with the component when it is brought in for warranty service.

WARNING



***All returned units must be properly packaged in their original packing material, and the proper return authorization numbers must be marked on the outer carton for identification. If the packaging to protect the unit is, in our opinion or that of our dealer, inadequate to protect the unit, we reserve the right to repackage it for return shipment at the owner's expense. Neither Revel nor your dealer can be responsible for shipping damage due to improper (i.e., non-original) packaging***

Your dealer can order a new set of shipping materials for you if you need to ship your component and no longer have the original materials, or if they are in poor condition. There will be a charge for this service. We strongly recommend saving all packing materials in case you need to ship your unit some day.

# SPECIFICATIONS

Revel utilizes proprietary measurement methods in the design and specification of our loudspeakers. Our research has developed a series of tests that represent a great leap forward in making measurements that dramatically contribute to our goal of accurately reproducing music or film.

*NOTE: Specifications are the same for monopole and dipole modes unless noted below.*

Sensitivity:

*90 dB SPL, with 2.83 V<sub>rms</sub> @ 1 m  
(2 pi anechoic)*

Sensitivity provides an indication of how much amplifier power is required for the loudspeaker to play at satisfactory volume levels. This conservatively-rated specification indicates moderate sensitivity and denotes that the REVEL PERFORMA S30 surround loudspeaker does not require huge amplifiers to achieve realistic levels in all but the largest rooms.

Impedance:

*Monopole Mode –  
6 ohms (nominal), 3 ohms (min.) @ 3.6 kHz*

*Dipole Mode –  
6 ohms (nominal), 3 ohms (min.) @ 355 Hz*

Impedance indicates whether the speaker system presents a “hard” or “easy” load on the amplifier. A minimum impedance value of 3 ohms, together with moderate phase angles, signifies that any competently-designed amplifier can easily drive the REVEL PERFORMA S30 surround loudspeaker.

Filters (Crossover):

*Monopole Mode –  
2-way, high-order, in-phase @ 2.5 kHz*

*Dipole Mode –  
2-way, high-order @ 250 Hz*

The steep filter slopes ensure good acoustical behavior in the crossover regions, with a minimum of acoustical interference, along with low distortion and wide dynamic range. The filters feature specially selected components. Woofer and tweeter filter boards are physically independent.

Frequency Responses:  
(Monopole Mode)

***In-Room Response;**  
±1.5 dB from 90 Hz to 16 kHz*

In-room response is a breakthrough measurement that, in a single curve, closely correlates to sound quality and has been a goal of loudspeaker engineers for years. Research, and simple observation, reveals that ubiquitous “on-axis” response curves often cannot distinguish between two loudspeakers with radically different sound quality. This REVEL PERFORMA S30 surround loudspeaker specification is even more powerful when it is taken in context with the other measurements presented here.

***In-Room Response Relative to Target Response;**  
±0.75 dB from 80 Hz to 20 kHz*

A target response is the ideal response goal and is not flat at the frequency extremes and is used when the ideal reference is not a “flat” line. A target response must be tailored to the loudspeaker’s intended application and takes into account the acoustic impact of the loudspeaker’s location, such as freestanding, or placement near a wall.

**Frequency Responses:  
(Monopole Mode)**

***First-Reflections Response;***  
*±1.75 dB from 88 Hz to 14 kHz*

First reflection response is a measure of the response a listener hears that is contributed by the first reflections from the walls, floor, and ceiling. This superb specification indicates that REVEL PERFORMA S30 surround loudspeaker will remain accurate, even in the presence of strong reflections.

***Listening Window Response;***  
*±1.5 dB from 90 Hz to 18 kHz*

This improved "on-axis" measurement reduces the visual confusion of inaudible local interference, yet still retains full accuracy without using "spectral smoothing" which results in significant data loss.

***Low Frequency Extension;***  
*-3 dB @ 80 Hz, (-6 dB @ 65 Hz, -10 dB @ 50 Hz)*

Studies have shown that the -10 dB low frequency extension specification is the one that best correlates to controlled listening tests. At low frequencies, most loudspeaker/room combinations will exhibit significant "room gain", which is an increasing rise in level as frequencies decrease. In addition, the -10 dB specification reflects the steepness (i.e., order) of the low-frequency roll-off, which is not significantly indicated in -3 dB specifications.

**Dimensions:**

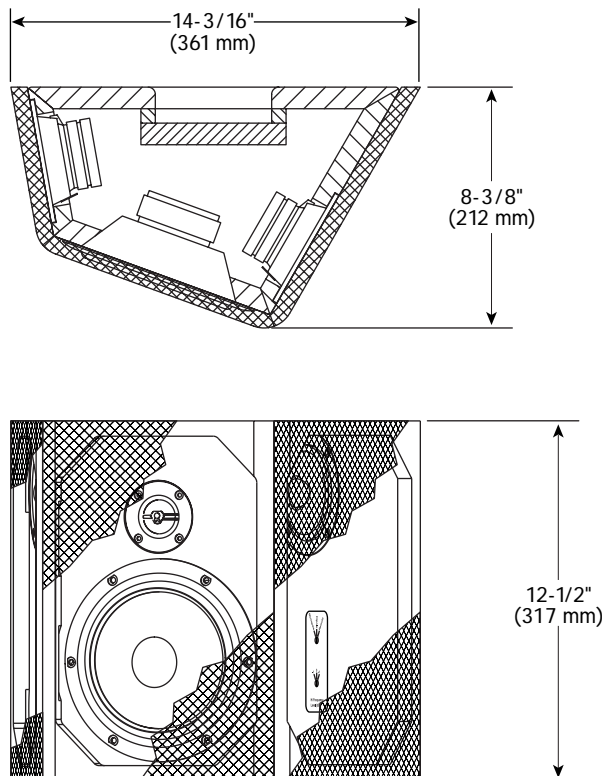
*12 1/2" H x 14 3/16" W x 8 3/8" D*  
*317 mm H x 361 mm W x 212 mm D*  
*(including grilles – see Figure 17 below)*

**Weight:**

*40 lb (18 kg) net, shipping weight per pair*  
*18 lb (8 kg) net, individual weight*

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*Figure 17. Overall dimensions for the REVEL PERFORMA S30 surround loudspeaker.*





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