

Revel® Performa™ F32 Loudspeaker

Owner's Manual



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DOCUMENTATION CONVENTIONS

This document contains general safety, installation, and operation instructions for the Revel Performa F32 Floor-Standing Loudspeaker. It is important to read this document before attempting to use this product. Pay particular attention to safety instructions.

WARNING Calls attention to a procedure, practice, condition, or the like that, if not correctly performed or adhered to, could result in injury or death.

CAUTION Calls attention to a procedure, practice, condition, or the like that, if not correctly performed or adhered to, could result in damage to or destruction of part or all of the product.

Note Calls attention to information that is essential to highlight.

This owner's manual assumes that two F32s are included in the loudspeaker setup.

ABOUT THE F32

Thank you for purchasing the Revel Performa F32 Floor-Standing Loudspeaker. A true full-range reproducer, the F32 delivers an impressive combination of expansive frequency response, low distortion, and maximum output across the entire audible spectrum. Four proprietary transducers, sophisticated filter networks, and an acoustically inert cabinet allow the F32 to achieve acoustical precision and performance befitting the most demanding home entertainment systems.

A critical aspect of loudspeaker design, transducers convert electrical signals into audible sounds, profoundly affecting loudspeaker performance. Combining superior form and function, the F32 transducers feature a distinctive design that allows for smoother frequency response. The woofer and midrange cones are constructed with Organic Ceramic Composite cone material to reduce distortion, while the spiders are constructed with a high-strength Nomex blend with optimized geometry for increased linearity.

A three-way design, the F32 transducers effectively cover the entire audible spectrum. Two 6.5-inch (165mm) woofers deliver highly refined and dynamically authoritative low frequencies down to the very lowest octaves. Housed in its own sub-enclosure, a 5.25-inch (133mm) midrange handles critical mid-band frequencies with natural tonal balance over a wide operating range. And, a 1-inch (25mm) titanium-dome tweeter reproduces high frequencies well above audible levels, with wide dispersion for open, airy treble.

An advanced woofer and midrange motor structure includes two high-grade Neodymium magnets placed at the center of the motor structure, inside the voice coil, for improved magnetic shielding. Inside the motor, a black-plated steel shield cup facilitates heat dissipation for higher power

handling. An integrated aluminum flux-stabilization ring minimizes modulation inside the motor's static gap flux field, greatly reducing distortion. A copper ring inside the motor's gap reduces distortion even further. Both rings are optimally sized and placed to maintain constant linear voice coil inductance with forward and backward motions.

High-order filters at 220Hz and 2.8kHz optimize loudspeaker on and off-axis response, helping to ensure smooth octave-to-octave balance and timbral accuracy. Separate woofer, midrange, and tweeter filter boards prevent mutual interference between filter network components, dramatically reducing distortion over a wide dynamic range. Removable shorting-straps and gold-plated binding posts accommodate single-wired, bi-wired, and bi-amplified connections, while separate Low Frequency Compensation and Tweeter Level controls provide precise balance to compensate for less-than-ideal listening room acoustics and loudspeaker placement.

The F32 cabinet is constructed with 1-inch (25mm) thick walls and extensive internal bracing to reduce cabinet-induced colorations. Rounded baffle edges minimize diffraction and optimize treble response for even greater sound enhancement. Adjustable spike footing is attached to the bottom of the cabinet for optimal stability, accommodating installations on tile, hardwood, and carpeted floors. A sonically-optimized grille is also included.

Since 1996, Revel has stood at the forefront of loudspeaker design. Backed with Harman International's extensive research and design facilities, the Revel Performa Series Loudspeakers benefit from cutting-edge tools such as a multi-channel listening lab for double-blind listening tests; a laser interferometer for detailed driver and cabinet analysis; real anechoic chambers for precise tests and measurements; finite element analysis for advanced loudspeaker modeling; and a stereo lithography apparatus for tight tolerances.

Adding to the proud lineage of Revel's Ultima and Performa Series Loudspeakers, the F32 further advances Revel's reputation as the leading designer and manufacturer of high-quality, high-performance loudspeakers. Each F32 is individually hand-tuned during manufacturing to match the production reference standard within a fraction of a decibel, ensuring incomparable loudspeaker- to-loudspeaker consistency. As a result, the F32 is an ideal match for most home entertainment systems.

HIGHLIGHTS

- True full-range reproduction
- Two proprietary 6.5-inch (165mm) Organic Ceramic Composite woofers
- Proprietary 5.25-inch (133mm) Organic Ceramic Composite midrange
- Proprietary 1-inch (25mm) titanium-dome tweeter
- High output with low distortion
- Separate filter boards for each frequency range
- Removable gold-plated shorting-straps
- Gold-plated binding posts
- Low Frequency Compensation control
- Tweeter Level control
- Advanced woofer and midrange motor structure
- Magnetic shielding
- Large voice coils for wide dynamic range without compression
- Hand-tuned to match the production reference standard within a fraction of a decibel
- Adjustable spike footing
- Elegant cabinet design in real wood veneer finishes

PRODUCT REGISTRATION

Please register the F32 within 15 days of purchase. To do so, register online at www.revelspeakers.com or complete and return the included product registration card. The product registration card serves no warranty purposes. Retain the original, dated sales receipt as proof of warranty coverage.

UNPACKING

The F32 requires special care and handling during unpacking. Pay particular attention to the precautions that appear in this section and to other precautions that appear throughout this owner's manual.

WARNING

Do not attempt to lift or move the F32 alone. Proper lifting requires at least two strong people. When lifting the F32, stand as straight as possible using the leg muscles to lift. Do not attempt to lift the F32 while bending at the waist. When moving the F32, rock it side-to-side into the desired position. Failure to follow these procedures may result in personal injuries and/or loudspeaker damage.

When unpacking, save all packing materials for possible future shipping needs. Refer to the Obtaining Service section on page 21 for additional information.

To unpack the F32:

1. Place the packing carton on its side and fully open the top flaps as shown in Figure 1 on the next page (top-left).

(continued on next page)

Figure 1: Unpacking the F32

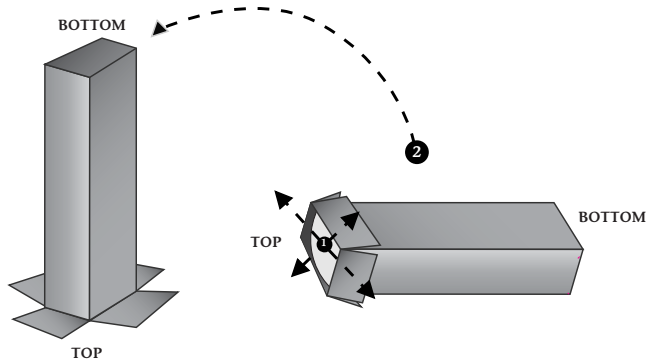
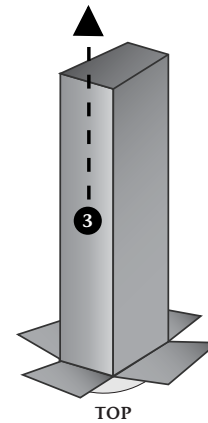


Figure 2: Lifting the Carton



Unpacking (continued)

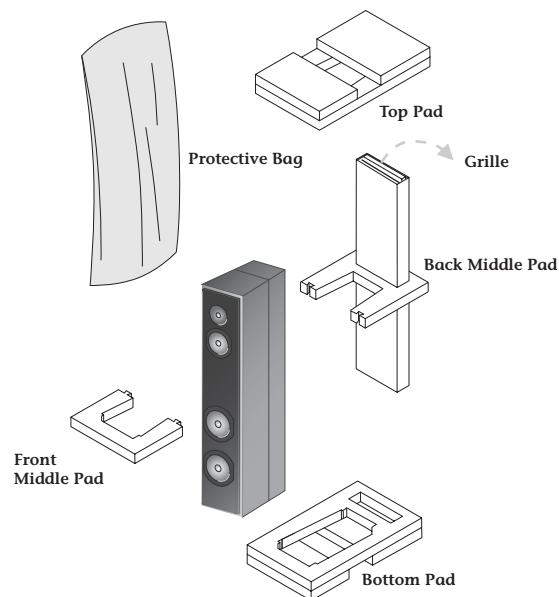
- Without allowing the top flaps to close, stand the packing carton in an inverted position as shown in Figure 1 (top-left).
- Lift the packing carton off of the loudspeaker as shown in Figure 2 (top-right). Use caution to avoid damaging the loudspeaker cabinet and objects located above the packing carton. At this point, the loudspeaker will be upside-down.
- Remove the bottom pad and the front and back middle pads. These items are identified in Figure 3 (right). Then, remove the grille from the back middle pad.

- Grasping the sides of the cabinet, place the F32 on its side. Then, place the F32 in the upright position without allowing the protective bag identified in Figure 3 (below) to become “stuck” under the spike footing.
- When the F32 is in the upright position, remove the protective bag.

Note

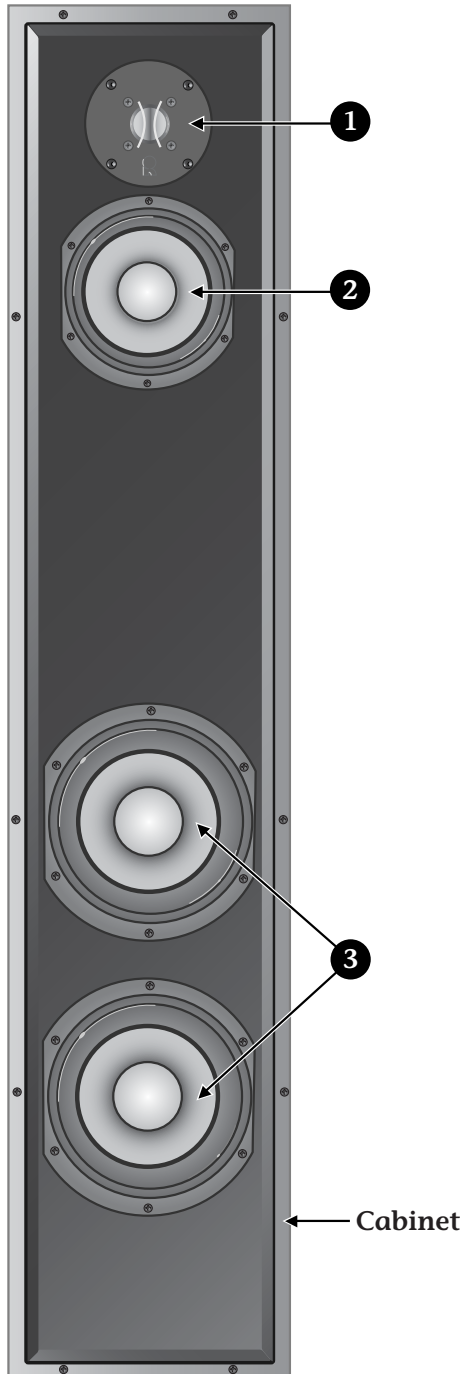
While the loudspeaker is upside-down, it is recommended to adjust the spike footing if the F32 will be placed on a carpeted floor. Refer to the Adjustable Spike Footing section that begins on page 12 for instructions.

Figure 3: Packing Materials



LOUDSPEAKER OVERVIEW

Figure 4: F32 Loudspeaker (Front View)



The numbers in Figure 4 (above) correspond with the numbered items in the Driver Complement section that begins in the next column.

DRIVER COMPLEMENT

The numbers in Figure 4 (left) correspond with the numbered items in this section.

1. Tweeter

- 1-inch (25mm) titanium dome
- Under-hung with copper-clad aluminum wire for low distortion
- Ferrofluid for high-power handling with reduced compression
- Magnetic shielding to prevent video monitor interference

2. Midrange

- 5.25-inch (133mm) cone constructed with Organic Ceramic Composite cone material for low distortion
- True pistonic operation for increased freedom from coloration
- Optimized and shielded magnetic circuits to minimize harmonic distortion and prevent video monitor interference
- Copper ring inside the motor's gap for modulation control and low distortion
- Aluminum flux-stabilization ring for modulation control and reduced distortion
- Butyl rubber surround for large, linear excursion capabilities
- Oversized 1.5-inch (38mm) voice coil with a high-temperature bobbin for high-power handling

3. Woofers

- Two 6.5-inch (165mm) cones constructed with Organic Ceramic Composite cone material for low distortion

(continued on next page)

Driver Complement *(continued)*

3. Woofers *(continued)*

- True pistonic operation for increased freedom from coloration
- Two high-grade Neodymium magnets placed inside the voice coil for optimal magnetic shielding
- Copper ring inside the motor's gap for modulation control and low distortion
- Aluminum flux-stabilization ring for modulation control and reduced distortion
- Butyl rubber surround for large, linear excursion capabilities
- Carbon composite aluminum (CCA) flat-wire voice coil wound on a 2-inch (50mm) fiberglass bobbin for low mass and higher power handling
- Vented center pole for improved heat dissipation and low compression

CABINET

Reduces cabinet-induced colorations with 1-inch (25mm) thick walls and extensive internal bracing. For even greater sound enhancement, rounded baffle edges minimize diffraction and optimize treble response. Adjustable spike footing is attached to the bottom of the cabinet for optimal stability, accommodating installations on tile, hardwood, and carpeted floors.

The cabinet's wood veneer finish does not require routine maintenance. However, cabinet surfaces that have been marked with fingerprints, dust, or other dirt can be cleaned using a soft cloth and a high-quality furniture polish. If a higher-gloss finish is desired, a high-quality wax can also be used.

To clean the cabinet:

1. Apply a high-quality furniture polish to a soft cloth.
2. Use the cloth to lightly wipe the cabinet surface.

To clean the grille:

1. Gently vacuum using a soft bristled brush vacuum attachment.

CAUTION

To prevent cabinet damage, do not use a cloth made with steel wool or metal polish to clean the cabinet. To prevent possible transducer damage, do not apply furniture polish directly to the cabinet.

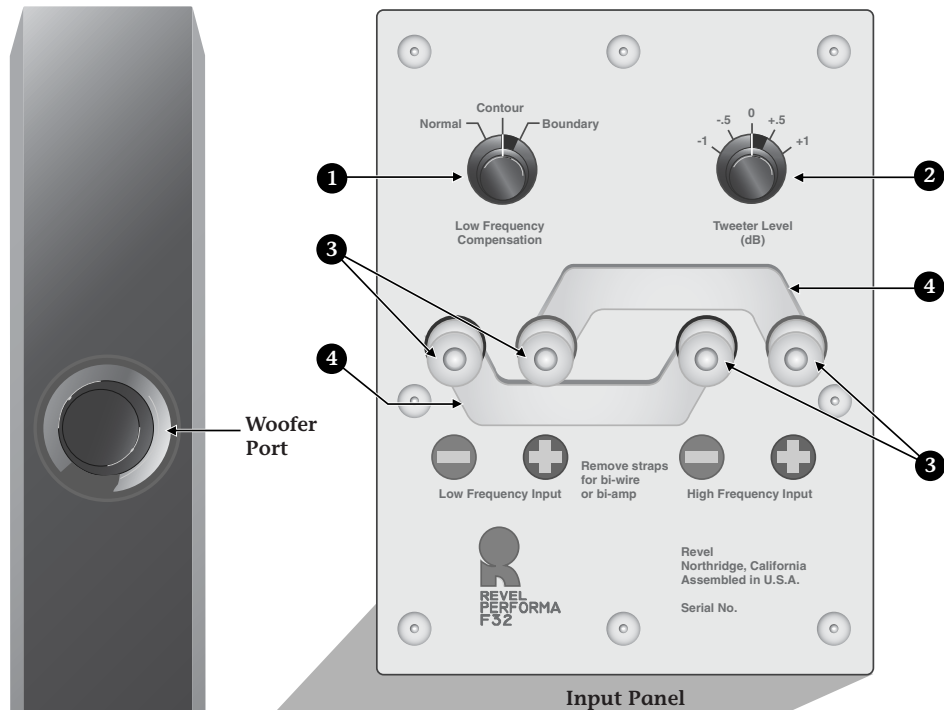
FILTER NETWORK

Optimize loudspeaker on and off-axis response with high-order filters at 220Hz and 2.8kHz, helping to ensure smooth octave-to-octave balance and timbral accuracy. Separate woofer, midrange, and tweeter filter boards prevent mutual interference between filter network components, dramatically reducing distortion over a wide dynamic range. Removable shorting-straps and gold-plated binding posts accommodate single-wired, bi-wired, and bi-amplified connections, while separate Low Frequency Compensation and Tweeter Level controls provide precise balance to compensate for less-than-ideal listening room acoustics and loudspeaker placement.

WOOFER PORT

Enhances low-frequency extension. Computer-optimized internal and external flares minimize distortion resulting from air turbulence.

Figure 5: F32 Loudspeaker (Rear View)



The numbers in Figure 5 (shown here) correspond with the numbered items in the Input Panel section that begins below.

INPUT PANEL

The numbers in Figure 5 (above) correspond with the numbered items in this section.

1. Low Frequency Compensation Control

Compensates for less-than-ideal loudspeaker placement near a wall, in an entertainment center, or in a room that “boosts” low frequencies.

- Select the **Normal** setting if the loudspeaker is located at least 3 feet (0.91m) from walls and other large objects.
- Select the **Contour** setting to reduce low-frequency signal levels.
- Select the **Boundary** setting if the loudspeaker is built into an entertainment center or shelving unit or if the loudspeaker is located less than about 2 feet (0.61m) from walls or other large objects.

(continued on next page)

2. Tweeter Level (dB) Control

Alters tweeter output levels by -1, -.5, 0, +.5, or +1dB.

Note

Refer to the Optimizing Performance section on page 19 for more information about the Low Frequency Compensation and Tweeter Level controls.

3. Input Connectors

Provide high and low-frequency input connections from the associated power amplifier(s). Two high-frequency and two low-frequency gold-plated binding posts are available. These input connectors can be configured for single-wired, bi-wired, or bi-amplified connections. Refer to the Making Connections section that begins on page 14 for additional information.

4. Shorting-Straps

Accommodate single-wired, bi-wired, and bi-amplified connections. Two gold-plated shorting-straps are installed for single-wired connections. The shorting-straps must be removed when the input connectors are configured for bi-wired or bi-amplified connections. Refer to the Making Connections section that begins on page 14 for additional information.

INSTALLATION CONSIDERATIONS

Loudspeaker fidelity depends on the following three factors:

1. Loudspeaker accuracy
2. Loudspeaker placement
3. Listening room acoustics

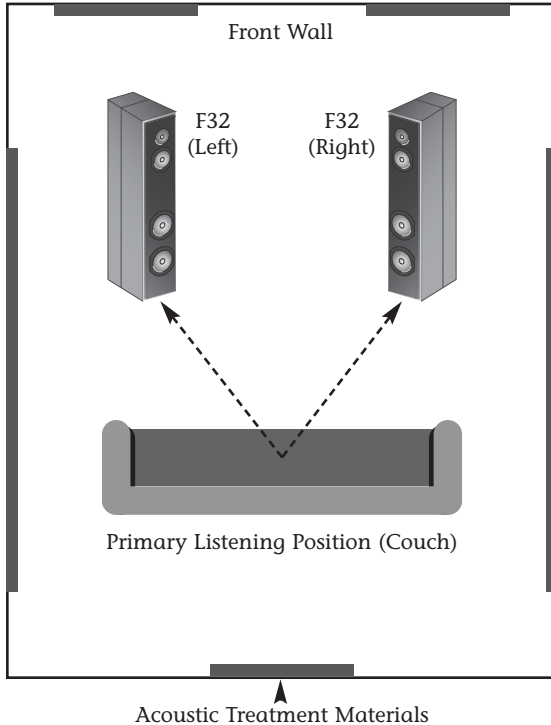
Advanced Revel design features allow the F32 to achieve exceptional acoustical precision. Each F32 is individually hand-tuned during manufacturing to match the production reference standard within a fraction of a decibel, ensuring incomparable loudspeaker-to-loudspeaker consistency. As a result, experimenting with loudspeaker placement and listening room acoustics have the most significant impact on the F32's performance.

LOUDSPEAKER PLACEMENT

The bulleted items that begin below indicate important loudspeaker placement considerations for the F32.

- Remove all obstructions between the F32 and the primary listening position. For instance, a coffee table between the F32 and the primary listening position will degrade stereo imaging and timbre. Placing the F32s near large objects may also cause unwanted reflections.
- For the best stereo imaging, place the F32s at equal distances from the primary listening position and the side walls as shown in Figure 6 at the top of the next page.

Figure 6: Loudspeaker Placement



- For optimal stereo imaging and timbre, point the F32s almost directly toward the primary listening position as shown in Figure 6 (above). The toe-in angle can be reduced to widen the soundstage, even to the point at which the F32s are pointing straight forward.
- Move the F32s farther from the front and side listening room walls to improve stereo imaging and the sense of spaciousness in the listening space.
- Move the F32s closer to the corners or walls of the listening room to increase bass response.

LISTENING ROOM ACOUSTICS

Listening rooms have a profound impact on sound, particularly at lower frequencies. In fact, listening rooms can dominate sounds below about 400Hz. Ideally, listening rooms would include optimized dimensional ratios to minimize the effects of room resonances. But in reality, most listening rooms are not designed to enhance loudspeaker performance.

The interaction between loudspeakers and listening rooms is complex, depending on two important determinants that affect the loudspeaker and the listener.

1. Surfaces and other boundaries often cause large peaks and dips in low-frequency extension. These peaks and dips often range 12dB or more.
2. Standing waves (also known as room modes or resonances) interact with both the loudspeaker and the listener, resulting in large frequency response errors.

Unfortunately, there is no simple solution that considers both factors. Even computer software programs that examine both factors may not calculate proper primary listening position or loudspeaker placement values.

In most cases, proper selection of the primary listening position combined with proper placement of the loudspeaker can still result in superior performance at lower frequencies. The difference between superior and inferior results is often just a small adjustment of the primary listening position or loudspeaker placement. Contact an authorized Revel dealer for assistance.

Acoustic Treatment Materials

The F32 features high-order filters at 220Hz and 2.8kHz that optimize loudspeaker on and off-axis response, minimizing degradations that occur in overly “live” rooms. Placing acoustic treatment materials at primary reflection points will reduce these distortions even further. Ideally, acoustic absorbers should be placed at the first reflection points on the front and side walls and either acoustic absorbers or diffusers should be placed at the first reflection point on the rear wall.

Because the listener’s eyes and ears are on the same plane, the “mirror method” is an accurate determinant of critical reflection points. This method can be used to determine reflection points for side walls, rear walls, front walls, and even the ceiling. Applying acoustic treatment materials to the side walls is most important, followed by the front wall, rear wall, and ceiling.

To determine reflection points using the mirror method:

1. Once the F32s have been placed, sit in the primary listening position.
2. Ask another person to slide a mirror along the listening room walls.
3. Note the locations at which the person sitting in the primary listening position can see either F32. Be sure to look for both F32s in the reflection on each room boundary. These are primary reflection points that will most benefit from acoustic treatment materials.

If acoustic treatment materials are not available, hanging a rug over the reflection points will help to reduce degradation in overly “live” rooms. Carpeting the floor between the loudspeakers and the primary listening position and placing irregular surfaces such as bookcases at first reflection points will also help minimize strong reflections.

ADJUSTABLE SPIKE FOOTING

When shipped, adjustable spike footing is attached to the bottom of the cabinet for optimal stability, accommodating installations on tile, hardwood, and carpeted floors. The F32 is shipped with spike footing attached as shown on the left side of Figure 7 at the top of the next page, with the round end protruding from the cabinet. The protective cap is placed over the round end to protect tile and hardwood floors.

Note

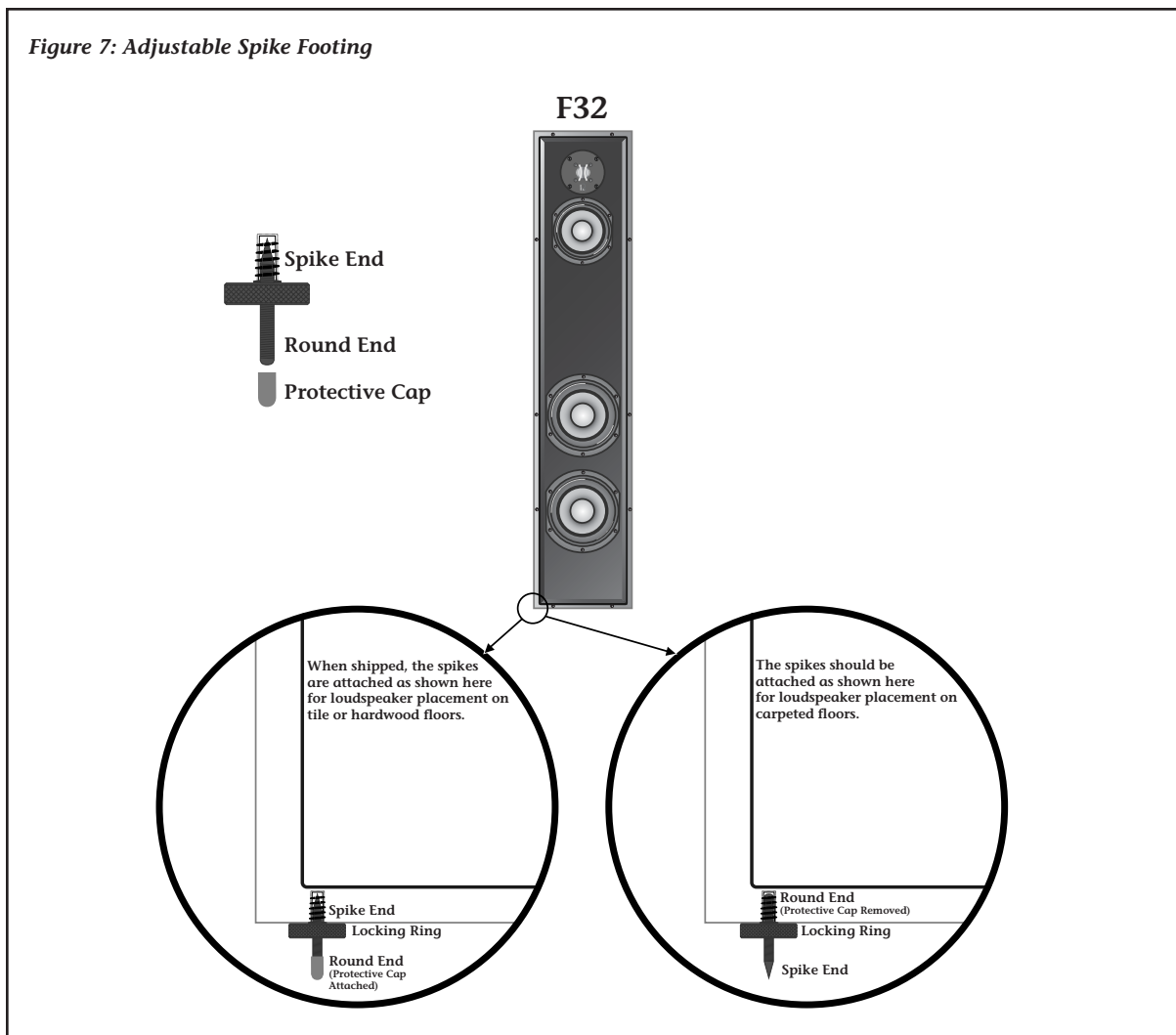
When moving the F32, do not drag it across the floor.

If the F32 is placed on a carpeted floor, the spike footing should be adjusted as shown on the right side of Figure 7 (next page), with the spike end protruding from the cabinet. If needed, follow the instructions that begin below to adjust the spike footing.

To adjust the spike footing:

1. Place the F32 on its side on a soft towel or carpeted floor.
2. Remove the protective cap from the round end of the spike. Save it for possible future use.
3. Rotate the locking ring counterclockwise to detach it from the spike. Save it for use in step 6.
4. Rotate the spike counterclockwise to remove it from the cabinet.
5. Rotate the spike clockwise into the cabinet, round end first, as shown on the right side of Figure 7 (next page).

Figure 7: Adjustable Spike Footing



6. Reattach the locking ring, rotating it clockwise to firmly secure the spike to the cabinet.
7. Repeat steps 2 through 6 for the remaining three spikes.
8. When all four spikes have been reversed, stand the F32 in the upright position. If needed, repeat steps 1 and 6 to achieve a level balance.
9. Repeat these steps to adjust the spike footing on the other F32.

CAUTION

Floor-standing loudspeakers such as the F32 have a high center of gravity, which may cause them to fall if tipped or improperly positioned. To avoid this, anchor the loudspeaker to the floor and/or wall using the same procedures and hardware used to anchor bookcases, wall units, and other furniture. Harman Specialty Group assumes no responsibility for proper selection and installation of hardware or for any personal injuries or product damages resulting from improper installation or a fallen loudspeaker.

MAKING CONNECTIONS

The F32 features gold-plated binding posts and shorting-straps that allow it to be configured for single-wired, bi-wired, or bi-amplified connections.

CAUTION

- **Never make or break connections unless all system components are powered off.**
 - **Remove the input panel shorting-straps identified in Figure 5 (page 9) before making bi-wired or bi-amplified connections. Failure to do so may cause damage to some power amplifiers.**
-

Before making connections, note the following:

- Make all connections observing the proper polarity, positive-to-positive (+) and negative-to-negative (-). Connections that do not observe the proper polarity will cause poor stereo imaging and diminished bass response.
- Vertical bi-amplified connections must be made with identical power amplifiers. Horizontal bi-amplified connections can be made with identical or non-identical power amplifiers with identical “gain factors.”
- When making bi-amplified connections, both power amplifiers must receive identical input signals from the associated pre-amplifier. A “Y” adaptor is required if the associated pre-amplifier does not offer two connectors per output channel.

- Use high-quality loudspeaker cable with a maximum total loop resistance of 0.07ohms or less (for each wire run). Refer to the table below to determine the appropriate maximum wire gauge.

Maximum Wire Gauge

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

Note

High loop resistances that exceed 0.07ohms (for each wire run) will cause the filter network to mis-terminate, resulting in considerable degradation of sound quality.

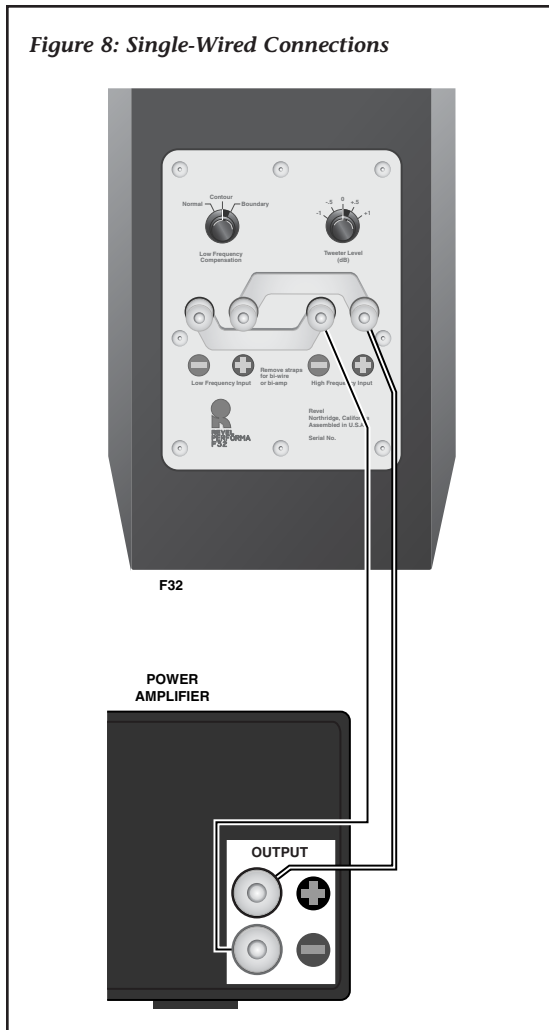
- If desired, contact an authorized Revel dealer for information about the suitability of power amplifier components before connecting the F32 to the associated power amplifier.
- Review the owner’s manuals for associated audio components to determine their connection procedures.

SINGLE-WIRED CONNECTIONS

Single-wired connections are made between one pair of F32 input connectors and one power amplifier output channel as shown in Figure 8 (below).

To make single-wired connections:

1. Connect one pair of loudspeaker wires to the desired F32 input connectors. Then, connect the same pair of loudspeaker wires to the desired power amplifier output channel.
2. Repeat step 1 to connect the second F32 to a separate power amplifier output channel.



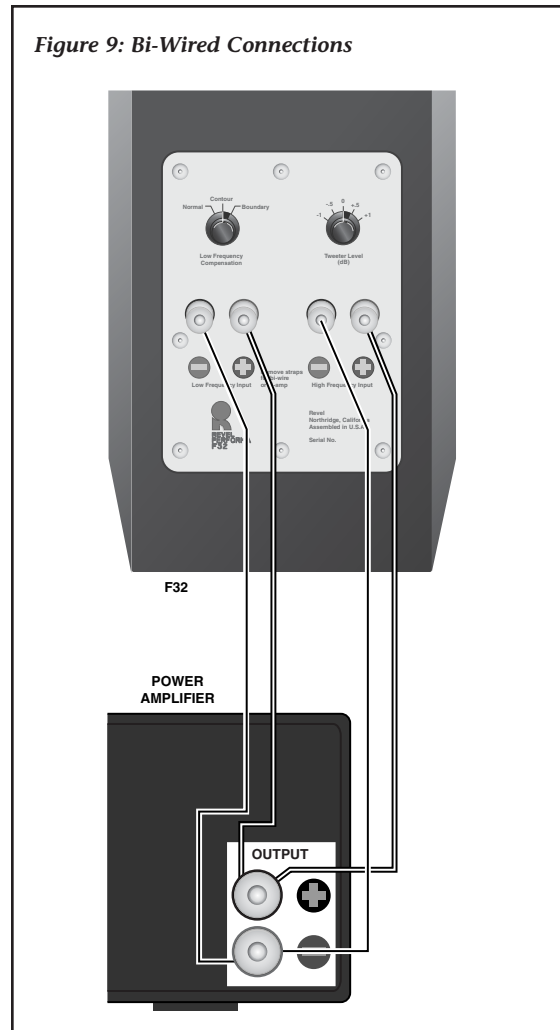
BI-WIRED CONNECTIONS

Bi-wired connections are made between both pairs of F32 input connectors and one power amplifier output channel as shown in Figure 9 (below).

To make bi-wired connections:

1. Remove the input panel shorting-straps identified in Figure 5 (page 9).
2. Connect one pair of loudspeaker wires to the F32 input connectors labeled High Frequency. Then, connect the same pair of loudspeaker wires to the desired power amplifier output channel.

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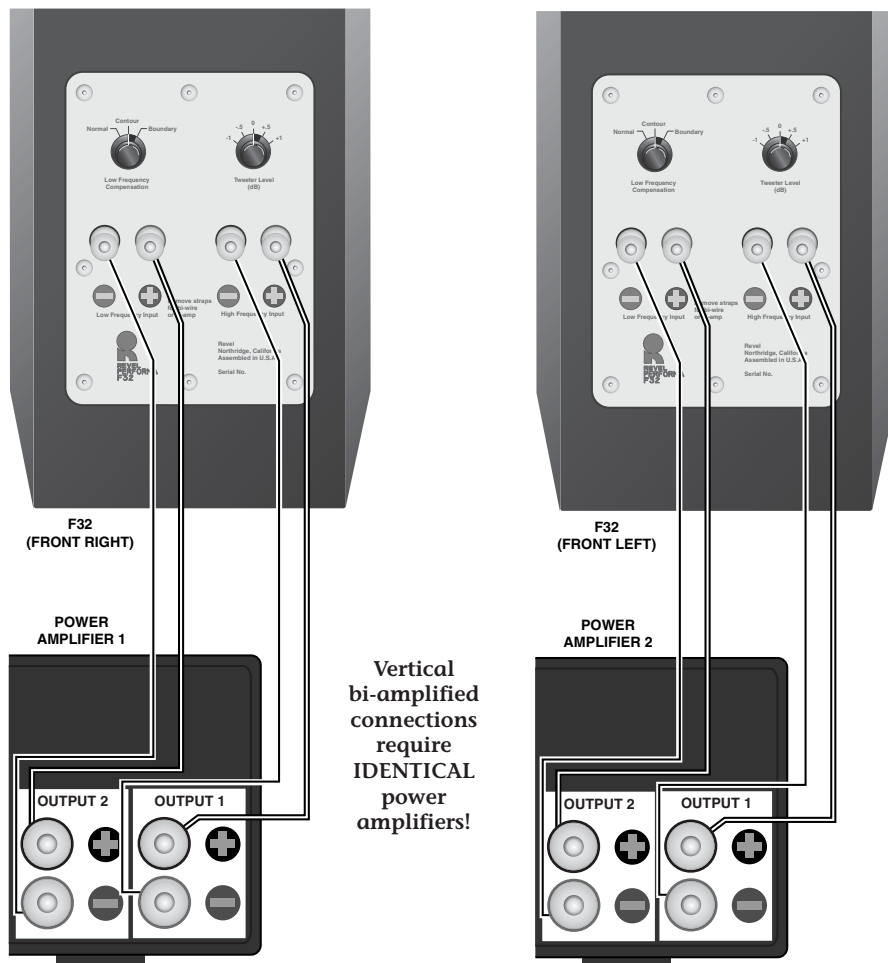
Bi-Wired Connections *(continued)*

3. Connect another pair of loudspeaker wires to the F32 input connectors labeled Low Frequency. Then, connect the same pair of loudspeaker wires to the same power amplifier output channel that was selected in step 2.
4. Repeat steps 2 and 3 to connect both pairs of input connectors on the second F32 to a separate power amplifier output channel.

VERTICAL BI-AMPLIFIED CONNECTIONS

Vertical bi-amplified connections are made between both pairs of F32 input connectors and two separate power amplifier output channels. Each F32 is connected to its own power amplifier, which sometimes increases sonic performance. These power amplifiers must be identical. Vertical bi-amplified connections are shown in Figure 10 (below).

Figure 10: Vertical Bi-Amplified Connections



Note

When making vertical bi-amplified connections, both power amplifiers must receive identical input signals from the associated pre-amplifier. A “Y” adaptor is required if the associated pre-amplifier does not offer two connectors per output channel.

To make vertical bi-amplified connections:

1. Remove the input panel shorting-straps identified in Figure 5 (page 9).
2. Connect one pair of loudspeaker wires to the F32 input connectors labeled High Frequency. Then, connect the same pair of loudspeaker wires to the desired power amplifier output channel.
3. Connect another pair of loudspeaker wires to the F32 input connectors labeled Low Frequency. Then, connect the same pair of loudspeaker wires to a separate output channel on the same power amplifier.
4. Repeat steps 2 and 3 to connect both pairs of input connectors on the second F32 to another, identical power amplifier.

Note

Vertical bi-amplified connections must be made using two identical power amplifiers.

HORIZONTAL BI-AMPLIFIED CONNECTIONS

Horizontal bi-amplified connections are made between both pairs of F32 input connectors and two separate output channels on two separate power amplifiers. The F32 input connectors labeled High Frequency are connected to one power amplifier, while the F32 input connectors labeled Low Frequency are connected to another power amplifier. These power amplifiers can be identical or non-identical, but must have identical “gain factors.” If the gain factors are not identical, a means of adjusting the input level of at least one power amplifier is required. Horizontal bi-amplified connections are shown in Figure 11 at the bottom of the next page.

Note

When making horizontal bi-amplified connections, both power amplifiers must receive identical input signals from the associated pre-amplifier. A “Y” adaptor is required if the associated pre-amplifier does not offer two connectors per output channel.

To make horizontal bi-amplified connections:

1. Remove the input panel shorting-straps identified in Figure 5 (page 9).
2. Connect one pair of loudspeaker wires to the F32 input connectors labeled High Frequency. Then, connect the same pair of loudspeaker wires to the desired power amplifier output channel.

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Horizontal Bi-Amplified

Connections *(continued)*

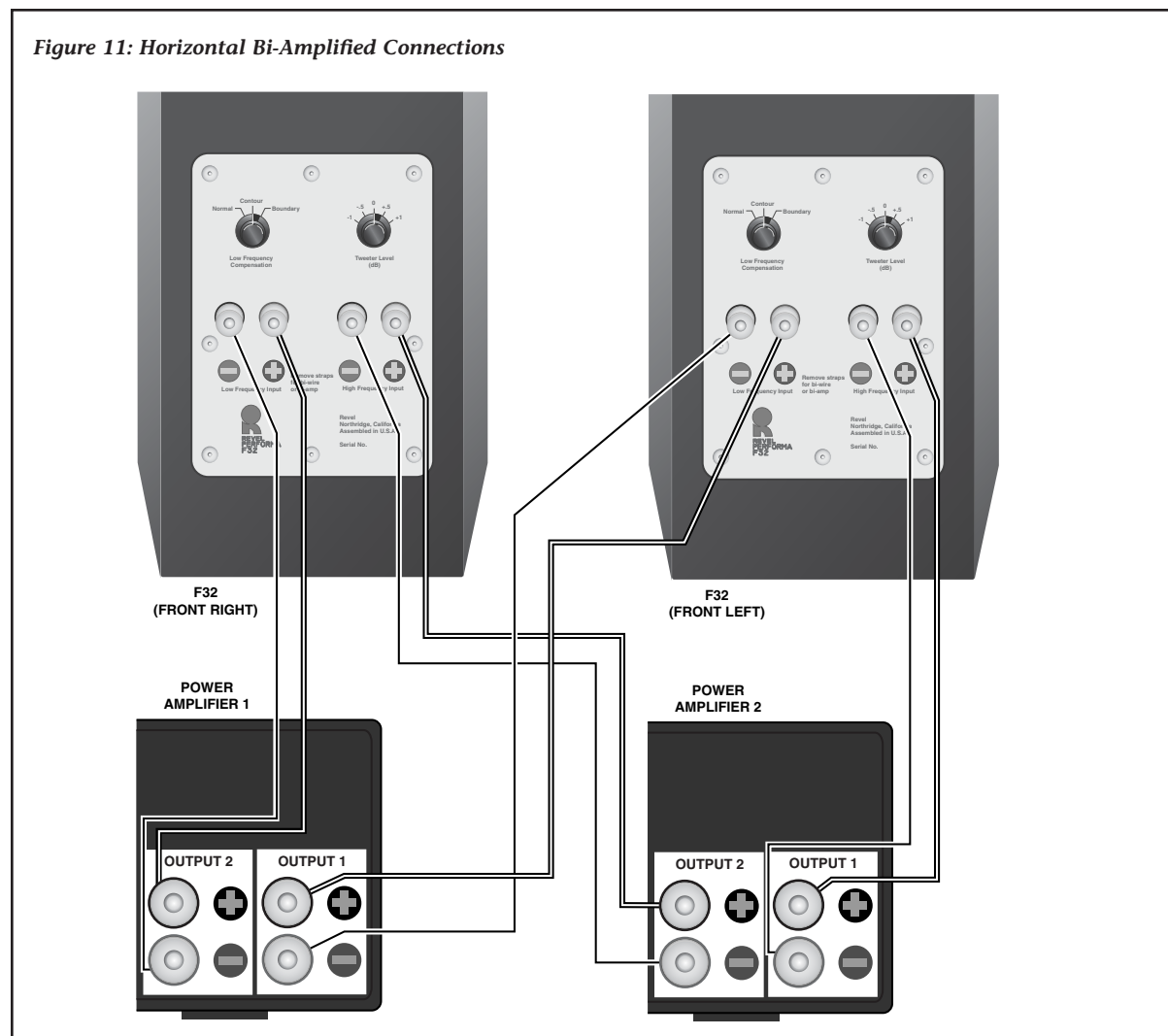
3. Connect another pair of loudspeaker wires to the F32 input connectors labeled Low Frequency. Then, connect the same pair of loudspeaker wires to the desired output channel on another power amplifier.
4. Repeat step 2 to connect the input connector labeled High Frequency on the second F32 to the same power amplifier that was selected in step 2.

Note

Horizontal bi-amplified connections can be made using identical or non-identical power amplifiers. However, these power amplifiers must have identical "gain factors." If the gain factors are not identical, a means of adjusting the input level of at least one power amplifier is required. Contact an authorized Revel dealer for assistance.

5. Repeat step 3 to connect the input connectors labeled Low Frequency on the second F32 to the same power amplifier that was selected in step 3.

Figure 11: Horizontal Bi-Amplified Connections



OPTIMIZING PERFORMANCE

To optimize the F32 for best performance:

1. Set the Tweeter Level control to 0.
(Different listening rooms may require other Tweeter Level control settings.)
2. Set the Low Frequency Compensation control to the appropriate position.
 - Select the **Normal** setting if the loudspeaker is located at least 3 feet (0.91m) from walls and other objects.
 - Select the **Contour** setting to reduce low-frequency signal levels.
 - Select the **Boundary** setting if the loudspeaker is built into an entertainment center or shelving unit or if the loudspeaker is located less than about 2 feet (0.61m) from walls and other objects.
3. Begin playback of a familiar music or film source.
4. Listen from the primary listening position, increasing volume to a comfortable level.
5. Experiment with the F32's placement to achieve the best overall tonal balance, image precision, and sense of spaciousness in the listening room. Refer to the Loudspeaker Placement section that begins on page 10 for additional information about loudspeaker placement.
6. Adjust the Tweeter Level control on each F32 to change high-frequency balance and timbre.

7. Repeat these steps to optimize performance of the second F32.

Note

For best results, set the Tweeter Level control on both F32s to the same position.

LOUDSPEAKER VOLUME LEVELS

High-order filters include steep cut-offs to reduce potential damage from “out-of-band” frequencies. Combined with carefully selected transducers and filter network components, this approach helps the F32 to maintain its performance under extreme operating conditions.

However, all loudspeakers have limits when it comes to continuous playback. To extend these limits, avoid playback at volume levels that distort or strain sound.

CAUTION

To avoid damage, reduce volume level immediately if loudspeaker sound is not clean and clear.

Note

If desired, contact an authorized Revel dealer for information about the suitability of power amplifier components before connecting the F32 to the associated power amplifier.

SPECIFICATIONS

Specification	Value	Definition
Sensitivity	86.5dB SPL with 2.83Vrms @ 1m (4 pi anechoic)	Indicates the amount of power the associated power amplifier must deliver to drive the loudspeaker at reasonable volume levels. Conservatively-rated specifications indicate moderate sensitivity, meaning that a massive power amplifier is not required to drive Revel loudspeakers to reasonable volume levels in large listening spaces.
Impedance	6.5Ω (nominal) 3.7Ω (minimum @ 260Hz)	Indicates whether the loudspeaker presents a “difficult” or “easy” load on the associated power amplifier. Combined with moderate phase angles, a minimal impedance specification of 3.7Ω allows a reasonably designed power amplifier to drive Revel loudspeakers.
Filter Network	Three-way, high-order @ 190Hz and 2.7kHz	Indicates the acoustical characteristics of the filter network. Steep filters indicate an optimized filter network that produces minimal acoustical interference, low distortion, and expansive dynamic range. Revel’s filter networks feature carefully selected components. Woofer, midrange, and tweeter filter boards are independent of one another. Each includes provisions for single-wired, bi-wired, and bi-amplified connections as well as flexible controls for user adjustments.
In-Room Response	±1.0dB from 33Hz to 16kHz	Indicates sound quality in context with other specifications. An advanced measurement, this specification closely correlates to sound quality in a single curve – a long-standing goal of loudspeaker engineers. Research and observation reveals that “on-axis” response curves cannot distinguish between two loudspeakers with radically different sound qualities.
Target Response	±0.75dB from 34Hz to 20Hz	Indicates sound quality in context with the individual loudspeaker’s application, considering the acoustical impact of its placement. An ideal response goal, a target response is not flat at either end of the audible spectrum and is used when the ideal reference is not a flat line.
First Reflections Response	±1.0dB from 33Hz to 15kHz	Indicates the response listeners hear in relation to the first reflections from walls, ceilings, and floors. This specification indicates that Revel loudspeakers will remain accurate, even in listening rooms that cast strong reflections.
Listening Window Response	±1.5dB from 31Hz to 16kHz	Indicates the on-axis response of the loudspeaker. An improved “on-axis” measurement, this specification reduces the visual confusion of inaudible interference. It retains full accuracy without using “spectral smoothing,” which results in significant data loss.
Low-Frequency Extension	-10dB @ 24Hz - 6dB @ 26Hz - 3dB @ 30Hz	Indicates the low-frequency response of the loudspeaker. Studies have shown that the -10dB specification best correlates to controlled listening tests. At low frequencies, most loudspeaker and listening room combinations demonstrate significant “room gain,” which produces an increase in levels as frequencies decrease. Unlike the -3dB specification, the -10dB specification reflects the steepness of low-frequency roll-offs.

Specifications are subject to change without notice.

DIMENSIONS & WEIGHT

- Width:** 8.75 inches (22.2cm)
- Height:** 43.0 inches (109.2cm) with spike footing
41.5 inches (105.4cm) without spike footing
- Depth:** 15.24 inches (38.7cm) with grille
- Weight:** 70 pounds (31.5kg) without packaging

Specifications are subject to change without notice.

OBTAINING SERVICE

Before returning a loudspeaker for warranty or non-warranty service, contact Harman Specialty Group Customer Support to determine the extent of the problem and to obtain a Return Material Authorization (RMA) number. No loudspeakers will be accepted without an RMA number issued from Harman Specialty Group.

If a Revel loudspeaker must be returned for repair, Harman Specialty Group will assume no responsibility for the loudspeaker during shipment from the customer to Harman Specialty Group, whether the loudspeaker is or is not covered under warranty.

All returns must be:

- well-packaged using the original packing materials (if possible)
- properly insured and consigned
- pre-paid to a reliable shipping agent

The following information must be included when a loudspeaker is returned for service:

- name
- company name
- street address, city, state, and zip code
- telephone number, including area code and country code (if applicable)
- loudspeaker serial number
- a detailed description of the problem
- the preferred method of return shipment
- RMA number clearly marked on both the inside and outside of the package

Do not return accessories such as owner's manuals unless instructed to do so.

To contact Harman Specialty Group Customer Support:

Telephone: 781-280-0300

Service Fax: 781-280-0499

Sales Fax: 781-280-0495

www.revelspeakers.com

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