

# Revel® Performa™ C32 Loudspeaker

## Owner's Manual



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**harman specialty group**

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# DOCUMENTATION CONVENTIONS

This document contains general safety, installation, and operation instructions for the Revel Performa C32 Center-Channel 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.

## ABOUT THE C32

Thank you for purchasing the Revel Performa C32 Center-Channel Loudspeaker. With stunning acoustical precision, the C32 delivers exceptional freedom from coloration and distortion across a wide dynamic range, making it the perfect companion for the Revel Performa F32 and M22 Loudspeakers. Four proprietary transducers, sophisticated filter networks, and flexible placement options allow the C32 to serve as the center channel in the most demanding home entertainment systems.

A critical aspect of loudspeaker design, transducers convert electrical signals into audible sounds, profoundly impacting loudspeaker performance. Combining superior form and function, the C32 transducers feature a distinctive design that provides smoother frequency response. The woofer and midrange cones are constructed with Organic Ceramic Composite material to reduce distortion, while the spiders are constructed with a high-strength Nomex blend with optimized geometry for increased linearity.

A true three-way center-channel, the C32 delivers a broad range of frequencies with striking detail. Two 5-inch (127mm) woofers provide high excursion capabilities, reproducing low frequencies with outstanding dynamic range. Housed in its own separate sub-enclosure, a 3.5-inch (89mm) 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 the audible spectrum, with wide dispersion for open, airy treble.

Placement Compensation and High Frequency Level controls allow the C32 to deliver stellar center-channel performance, even when confronted with less-than-ideal loudspeaker placement and listening room acoustics. The Placement Compensation

control offers three settings to accommodate loudspeaker placement in a bookcase or wall unit; on top of a video monitor or above a rear projection screen; or placed on a stand. A separate High Frequency Level control achieves precise balancing of high frequencies for optimal timbral balance.

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 280Hz and 2.5kHz 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 vertical or horizontal bi-amplified connections.

The C32 cabinet is constructed with 0.75-inch (19mm) 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. Two threaded inserts on the bottom of the cabinet accommodate spike footing, providing optimal loudspeaker stability and positioning. 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 C32 further solidifies Revel's reputation as the leading designer and manufacturer of high-quality, high-performance loudspeakers. Each C32 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 C32 is the obvious choice for unrivaled center-channel performance.

## HIGHLIGHTS

- Optimal center-channel performance
- Two proprietary 5-inch (127mm) Organic Ceramic Composite woofers
- Proprietary 3.5-inch (89mm) Organic Ceramic Composite midrange
- Proprietary 1-inch (25mm) titanium-dome tweeter
- Separate woofer, midrange, and tweeter filter boards
- Removable gold-plated shorting-straps
- Gold-plated binding posts
- Placement Compensation control
- High Frequency Level control
- Flexible placement options

- 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 C32 within 15 days of purchase. To do so, register online at [www.revelspeakers.com](http://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.

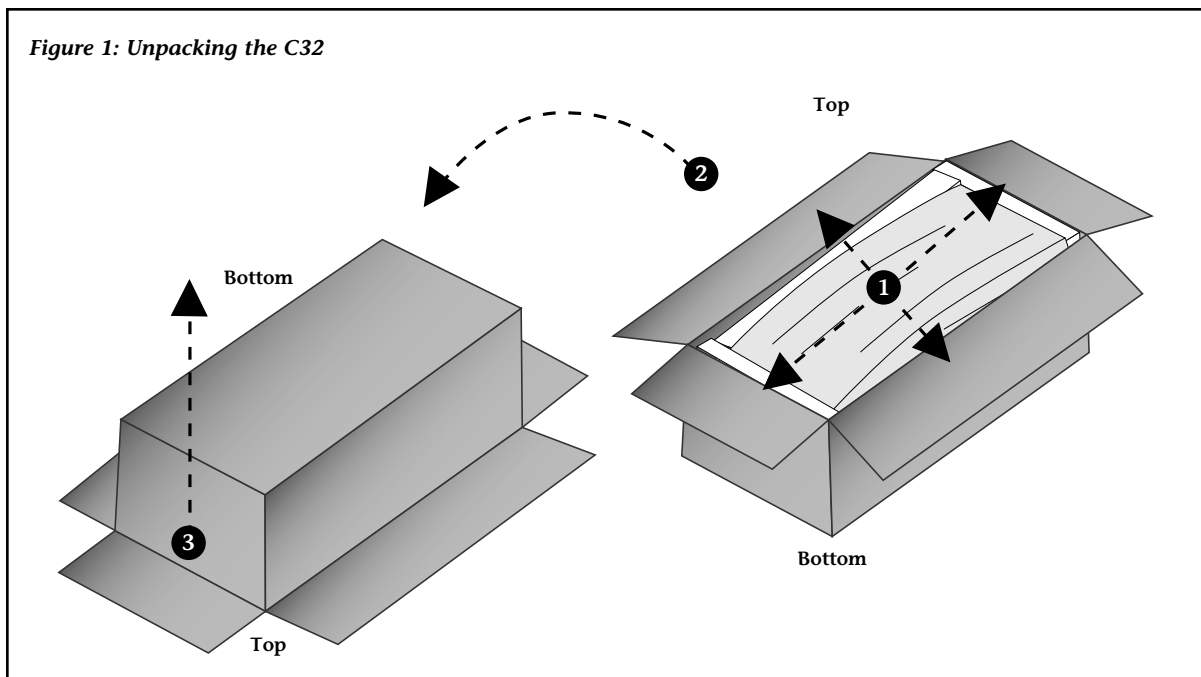
## UNPACKING

The C32 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.

When unpacking, save all packing materials identified in Figure 2 at the bottom of the next page for possible future shipping needs. Refer to the Obtaining Service section on page 20 for additional information.

(continued on next page)

Figure 1: Unpacking the C32



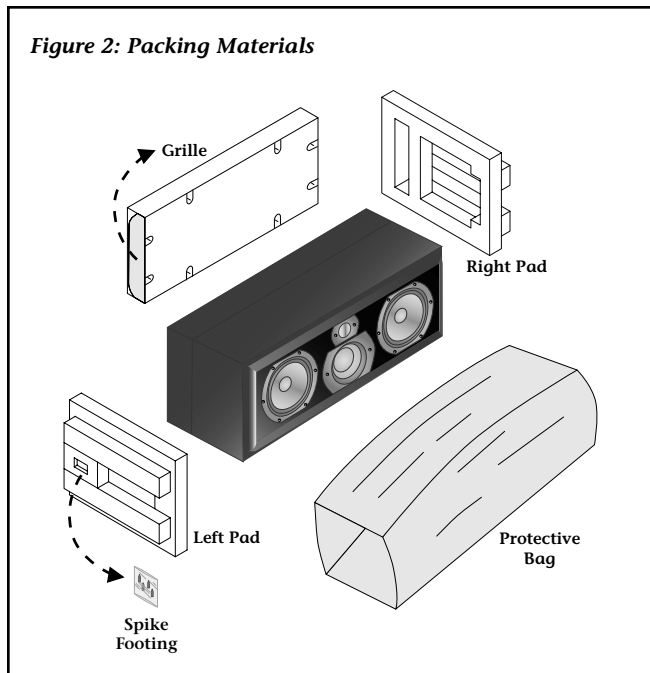
**Unpacking** (continued)

**To unpack the C32:**

1. Place the packing carton upright on a soft towel or carpeted floor and fully open the top flaps as shown in step 1 of Figure 1 (above).
2. Without allowing the top flaps to close, stand the packing carton in an inverted position as shown in step 2 of Figure 1 (above).
3. Lift the packing carton off of the loudspeaker as shown in step 3 of Figure 1 (above). Use caution to avoid damaging the loudspeaker cabinet. At this point, the loudspeaker will be upside-down.

4. Remove the left and right pads and the grille identified in Figure 2 (below).
5. Remove the spike footing attached to the left pad as shown in Figure 2 (below).

Figure 2: Packing Materials



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## Note

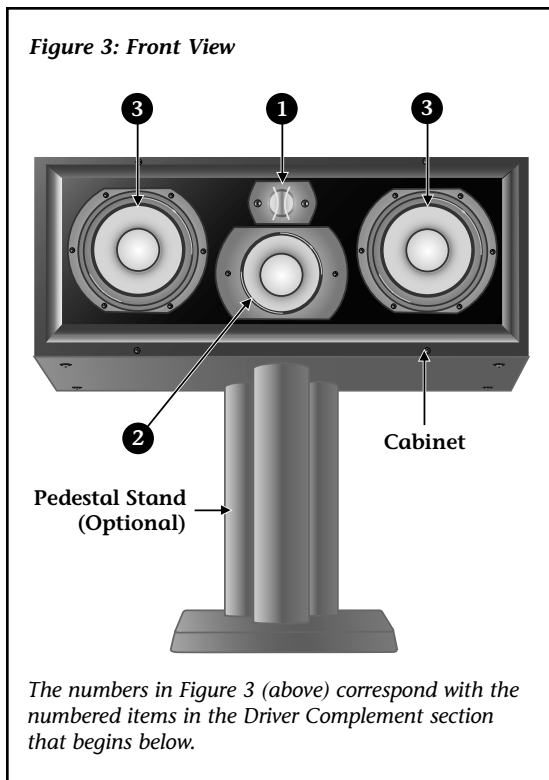
While the loudspeaker is upside-down, it is recommended to position the spike footing as desired. Refer to the Adjustable Spike Footing section that begins on page 11 for instructions.

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- Grasping the sides of the cabinet, place the C32 on its side. Then, place the C32 in the upright position without allowing the protective bag to become “stuck” under the bottom of the cabinet.
- When the C32 is in the upright position, remove the protective bag.

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## LOUDSPEAKER OVERVIEW



## DRIVER COMPLEMENT

The numbers in Figure 3 (above) correspond with the numbered items in this section.

### 1. Tweeter

- 1-inch (25mm) titanium dome
- Large co-polymer surround for linear operation over a wide dynamic range

- Ferrofluid for high-power handling with reduced compression
- Magnetic shielding to prevent video monitor interference

### 2. Midrange

- 3.5-inch (89mm) cone constructed with Organic Ceramic Composite cone material
- Die-cast basket to eliminate coloration from resonances
- True pistonic operation for increased freedom from coloration
- Two high-grade Neodymium magnets placed inside the voice coils for optimal magnetic shielding
- Copper ring inside the motor's gap for modulation control and low distortion
- 1.5-inch (38mm) voice coil wound on a fiberglass bobbin for high-power handling and low distortion
- Optimized and shielded magnetic circuits to minimize harmonic distortion and prevent video monitor interference

(continued on next page)

## Driver Complement *(continued)*

### 3. Woofers

- Two 5-inch (127mm) cones constructed with Organic Ceramic Composite cone material
- Die-cast basket to eliminate coloration from resonances
- True pistonic operation for increased freedom from coloration
- Two high-grade Neodymium magnets placed inside the voice coils for optimal magnetic shielding
- Copper ring inside the motor's gap for modulation control and low distortion
- Integrated aluminum flux-stabilization ring for modulation control and low distortion
- 1.5-inch (38mm) voice coils wound on fiberglass bobbins for low compression
- Vented center pole for improved heat dissipation and low compression

### CABINET

Reduces cabinet-induced colorations with 0.75-inch (19mm) thick walls and extensive internal bracing. For even greater sound enhancement, rounded baffle edges minimize diffraction and optimize treble response. Two threaded inserts on the bottom of the cabinet accommodate spike footing, which provides adjustable tilt when the C32 is placed on or above a video monitor.

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.

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## 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.**

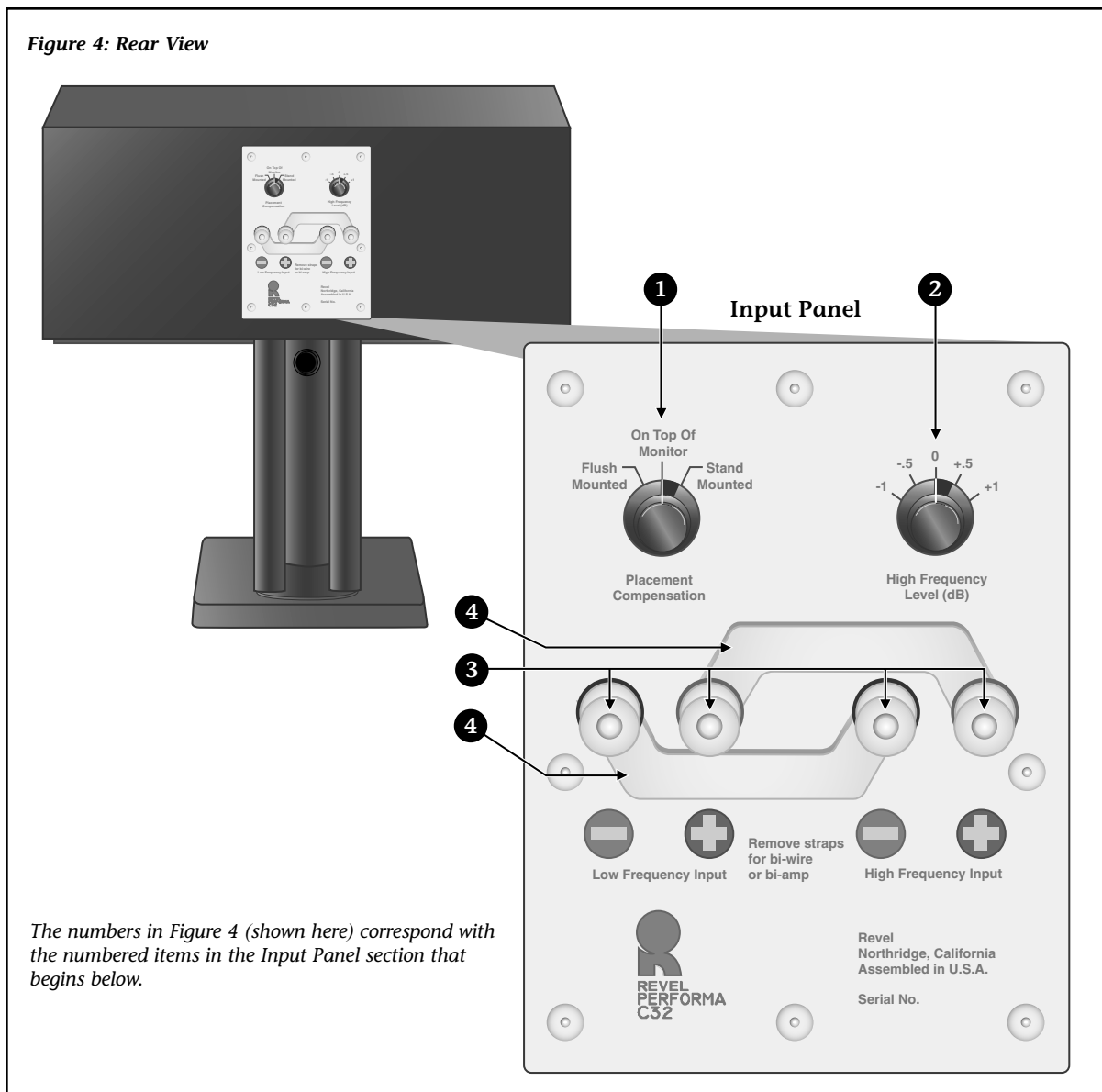
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### FILTER NETWORK

Optimize loudspeaker on and off-axis response with high-order filters at 280Hz and 2.5kHz, 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 Placement Compensation and High Frequency Level controls provide precise balance to compensate for less-than-ideal listening room acoustics and loudspeaker placement.



Figure 4: Rear View



The numbers in Figure 4 (shown here) correspond with the numbered items in the Input Panel section that begins below.

## INPUT PANEL

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

### 1. Placement Compensation Control

Optimizes the C32's response to different loudspeaker placements. Refer to the Loudspeaker Placement section that begins on the next page for more information.

- Select the **Flush Mounted** setting if the C32 is placed in a bookcase or wall unit.
- Select the **On Top of Monitor** setting if the C32 is placed on top of a video monitor or mounted on a shelf.
- Select the **Stand Mounted** setting if the C32 is placed on a stand (such as the optional pedestal stand).

(continued on next page)

## **Input Panel** *(continued)*

The numbers in Figure 4 on the previous page correspond with the numbered items in this section.

### **2. High Frequency Level (dB) Control**

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

### **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 13 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 13 for additional information.

## **LOUDSPEAKER PLACEMENT**

Loudspeaker fidelity depends on the following three factors:

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

Advanced Revel design features allow the C32 to achieve stunning acoustical precision with exceptional freedom from coloration and distortion across a wide dynamic range. As a result, experimenting with loudspeaker placement will have the most significant impact on the C32's performance.

In general, it is recommended to remove all obstructions between the C32 and the primary listening position. The input panel Placement Compensation switch can be used to optimize the C32's performance for the loudspeaker placement options described in this section.

The C32 is magnetically shielded to minimize any effect on CRT video monitors. However, small, stray magnetic fields may affect large CRT monitors located in close proximity to the C32. These magnetic fields decrease rapidly with distance, so moving the C32 farther away from the monitor will reduce interference. It is important to confirm that the C32 is suitable for use with the intended CRT monitor.

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#### **Note**

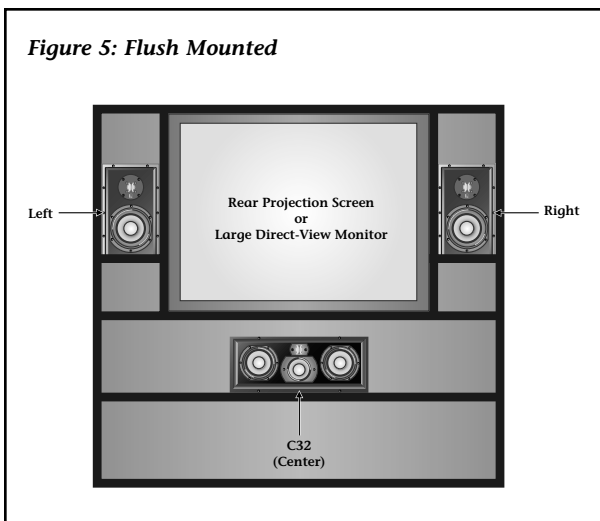
*DLP, LCoS and Plasma display devices are not affected by magnetic fields.*

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### **FLUSH MOUNTED**

Set the Placement Compensation switch to **Flush Mounted** if the C32 loudspeaker is placed in a bookcase or wall unit as shown in Figure 5 on the next page (top).

Figure 5: Flush Mounted



## ON TOP OF MONITOR

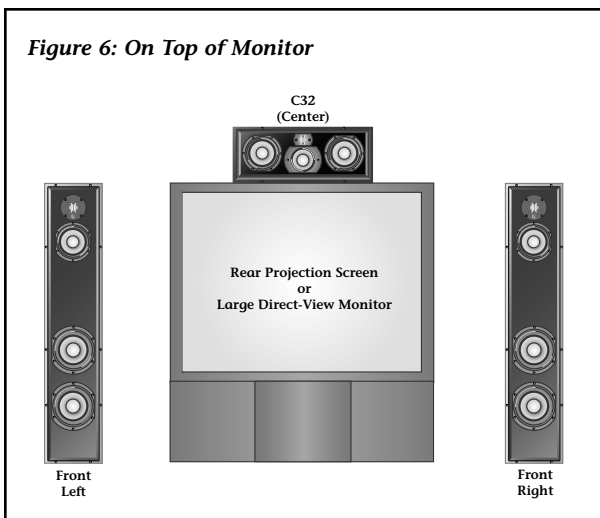
Set the Placement Compensation switch to **On Top of Monitor** if the C32 loudspeaker is placed on top of a video monitor as shown in Figure 6 in the previous column (middle) or a shelf.

If desired, spike footing can be added to the bottom of the cabinet to create the proper tilt angle. Refer to the Adjustable Spike Footing section that begins on the next page for additional information.

## STAND MOUNTED

Set the Placement Compensation switch to **Stand Mounted** if the C32 loudspeaker is placed on a stand as shown in Figure 7 in the previous column (bottom). An optional pedestal stand is available at authorized Revel dealers.

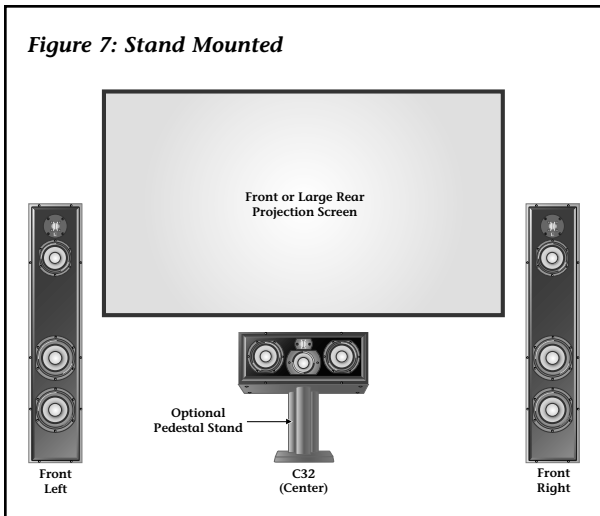
Figure 6: On Top of Monitor



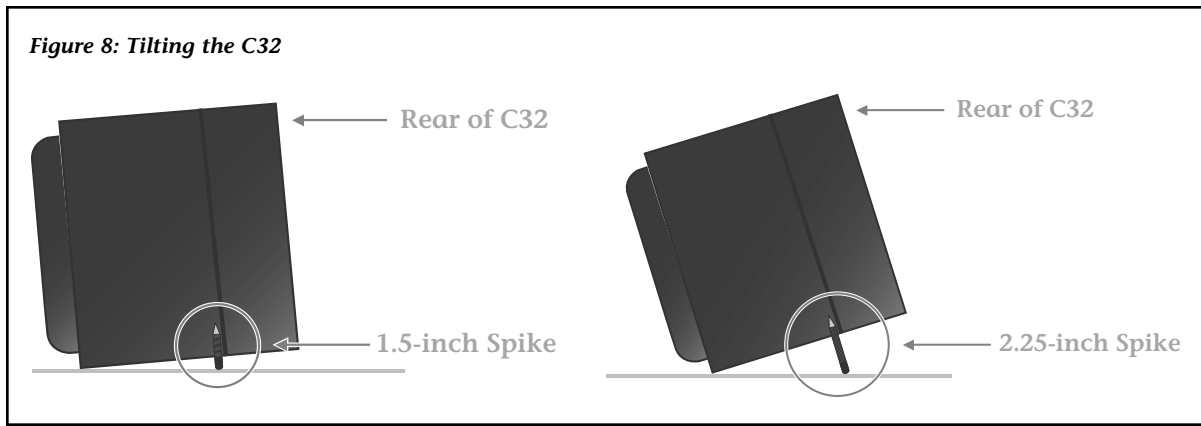
## CAUTION

Loudspeakers placed on stands or on top of video monitors may fall if tipped or improperly positioned. To avoid this, anchor the loudspeaker and stand 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.

Figure 7: Stand Mounted



**Figure 8: Tilting the C32**



### **Adjustable Spike Footing**

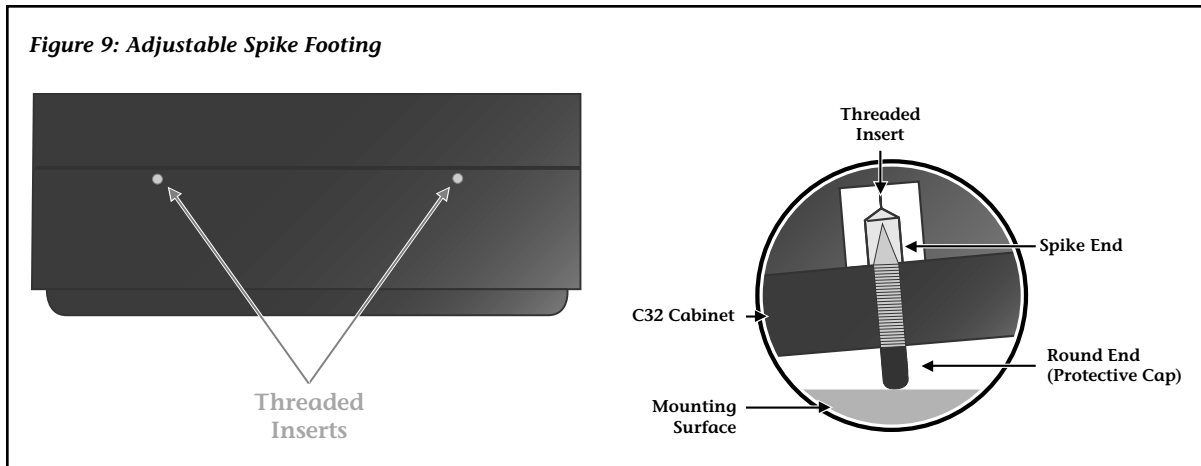
When the C32 is shipped, spike footing is attached to the left pad identified in Figure 2 on the bottom of page 6. For optimal sound quality, these spikes can be positioned in the threaded inserts on the bottom of the cabinet.

Both 1.5-inch (38mm) and 2.25-inch (57mm) adjustable spikes are included, allowing for achievement of the proper tilt angle when the C32 is placed on top of a video monitor as shown in Figure 6 on the previous page (middle) or a shelf. For best results, the C32 should be tilted so the front of the speaker is facing directly toward the listener's head.

### **To position the spike footing:**

1. Place the C32 on its side on a soft towel or carpeted floor.
2. Select the appropriate set of spikes to create a tilt angle that aligns the tweeter with the listener's head.
  - Select the 1.5-inch spikes for a slight downward tilt as shown on the left side of Figure 8 (above).
  - Select the 2.25-inch spikes for a greater tilt as shown on the right side of Figure 8 (above). These spikes are required for a higher loudspeaker placement.

**Figure 9: Adjustable Spike Footing**



3. Locate the two threaded inserts on the bottom of the cabinet. These inserts are identified on the left side of Figure 9 at the bottom of the previous page.
4. Rotate the first spike clockwise, spike end first, to attach it to the threaded insert.
5. Repeat step 4 using the other spike and threaded insert. Make sure the two spikes are evenly threaded to achieve a level balance.
6. Place the protective caps over the round end of the spikes as shown on the right side of Figure 9 at the bottom of the previous page to prevent the spikes from scratching the mounting surface.
7. When both spikes have been inserted, stand the C32 in the upright position. If needed, adjust the spikes to achieve a level balance.

## MAKING CONNECTIONS

The C32 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 4 (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:

- Use high-quality loudspeaker cable with a maximum total loop resistance of  $0.07\Omega$  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  $0.07\Omega$  (for each wire run) will cause the filter network to mis-terminate, resulting in considerable degradation of sound quality.*

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- Make all connections observing the proper polarity, positive-to-positive (+) and negative-to-negative (-).

(continued on next page)

## Making Connections *(continued)*

- 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.
- If desired, contact an authorized Revel dealer for information about the suitability of power amplifier components before connecting the C32 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 C32 input connectors and one power amplifier output channel as shown in Figure 10 (right).

### To make single-wired connections:

- Connect one pair of loudspeaker wires to the desired C32 input connectors. Then, connect the same pair of loudspeaker wires to the desired power amplifier output channel.

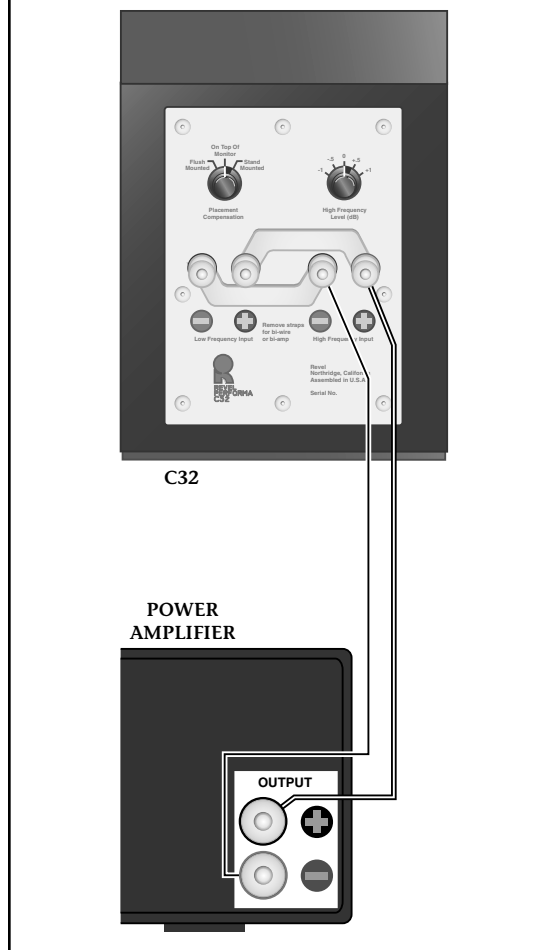
## BI-WIRED CONNECTIONS

Bi-wired connections are made between both pairs of C32 input connectors and one power amplifier output channel as shown in Figure 11 at the top of the next page.

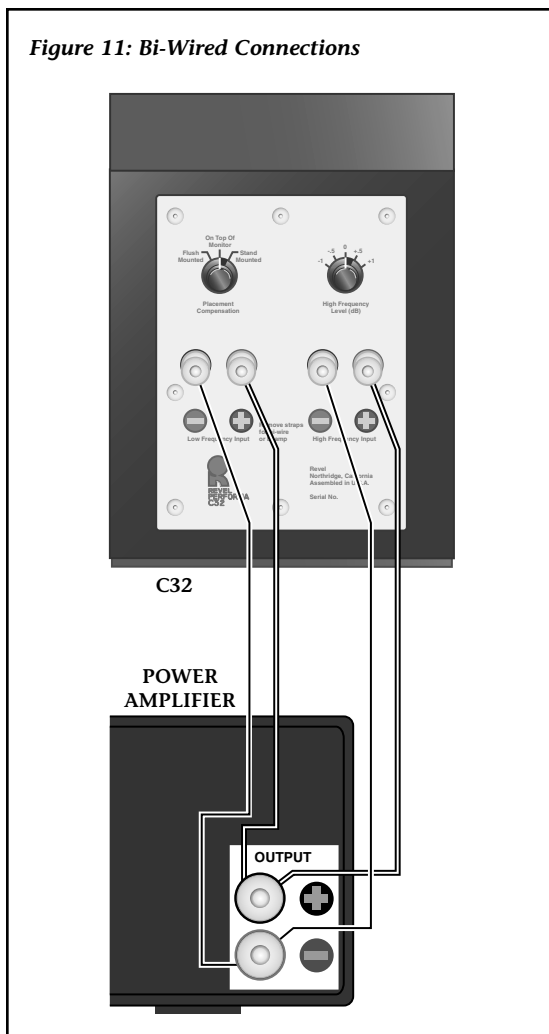
### To make bi-wired connections:

1. Remove the input panel shorting-straps identified in Figure 4 (page 9).
2. Connect one pair of loudspeaker wires to the C32 input connectors labeled High Frequency. Then, connect the same pair of loudspeaker wires to the desired power amplifier output channel.

Figure 10: Single-Wired Connections



**Figure 11: Bi-Wired Connections**



amplifiers must be identical. Vertical bi-amplified connections are shown in Figure 12 (below).

**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.*

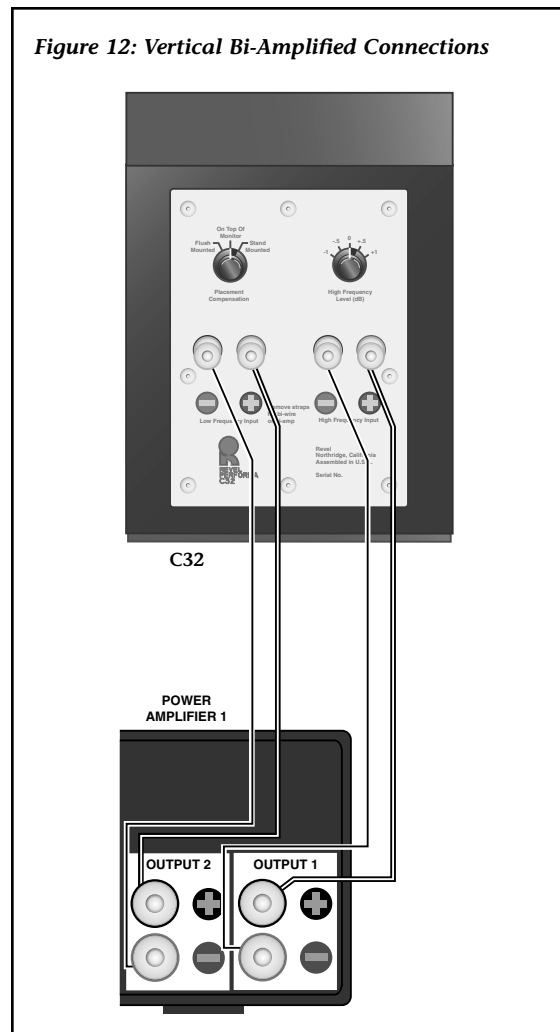
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3. Connect another pair of loudspeaker wires to the C32 input connectors labeled Low Frequency. Then, connect the same pair of loudspeaker wires to the same power amplifier output channel that was selected in step 2.

**VERTICAL BI-AMPLIFIED CONNECTIONS**

Vertical bi-amplified connections are made between both pairs of C32 input connectors and two separate power amplifier output channels. These output channels can be on one or two power amplifiers. However, if two power amplifiers are used, these power

**Figure 12: Vertical Bi-Amplified Connections**



## Vertical Bi-Amplified Connections

(continued)

### To make vertical bi-amplified connections:

1. Remove the input panel shorting-straps identified in Figure 4 (page 9).
2. Connect one pair of loudspeaker wires to the C32 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 C32 input connectors labeled Low Frequency. Then, connect the same pair of loudspeaker wires to a separate power amplifier output channel.

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#### Note

*Vertical bi-amplified connections must be made using two separate output channels on one power amplifier or separate output channels on two identical power amplifiers.*

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## HORIZONTAL BI-AMPLIFIED CONNECTIONS

Horizontal bi-amplified connections are made between both pairs of C32 input connectors and two separate output channels on two separate power amplifiers. The C32 input connectors labeled High Frequency are connected to one power amplifier, while the C32 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 13 at the top of the next page.

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#### 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.*

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### To make horizontal bi-amplified connections:

1. Remove the input panel shorting-straps identified in Figure 4 (page 9).
2. Connect one pair of loudspeaker wires to the C32 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 C32 input connectors labeled Low Frequency. Then, connect the same pair of loudspeaker wires to the desired output channel on another power amplifier.

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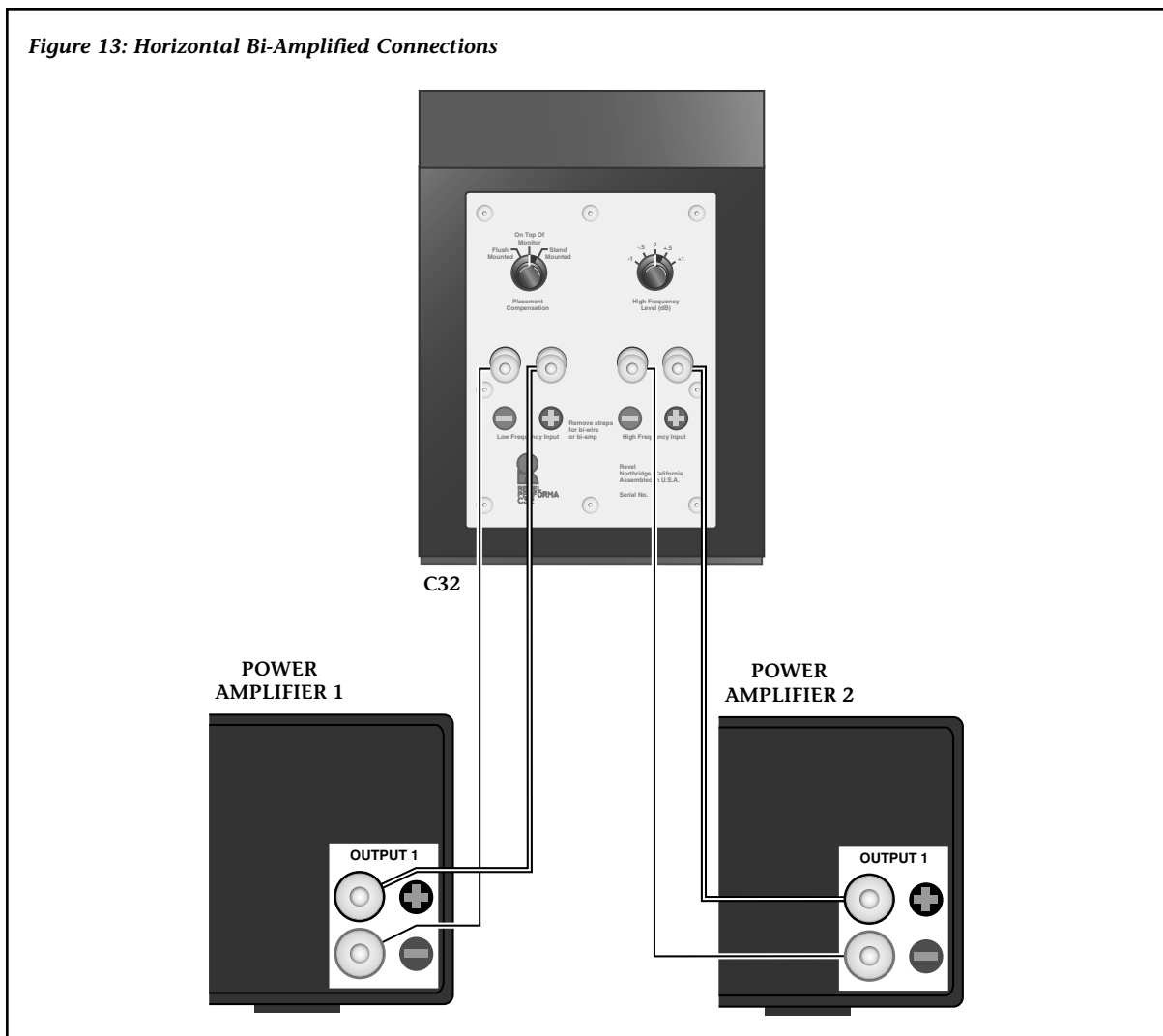
#### Note

*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.*

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Figure 13: Horizontal Bi-Amplified Connections



## OPTIMIZING PERFORMANCE

To optimize the C32 for best performance:

1. When the C32 is connected, set the High Frequency Level identified in Figure 3 (page 7) control to 0. (Different listening rooms may require other High Frequency Level control settings.)
2. Set the associated multi-channel controller or receiver for an 80Hz crossover (or higher), even if the loudspeaker setup does not include a subwoofer. In its absence, the associated multi-channel controller or receiver will use bass management to route frequencies below 80Hz to the front left and right channels, without losing center-channel low-frequency information.

(continued on next page)

## Optimizing Performance *(continued)*

- The C32 must be used with at least an 80Hz crossover.
  - Selecting the appropriate crossover based on accurate in-room response measurements will result in decreased distortion, accurate timber, and increased dynamic capabilities.
  - Contact an authorized Revel dealer for assistance setting the associated multi-channel controller or receiver for the appropriate crossover.
3. Set the Placement Compensation control identified in Figure 3 (page 7) to correspond with the C32's placement.
    - Select the **Flush Mounted** setting if the C32 is placed in a bookcase or wall unit.
    - Select the **On Top of Monitor** setting if the C32 is placed on top of a video monitor or mounted on a shelf.
    - Select the **Stand Mounted** setting if the C32 is placed on a stand (such as the optional pedestal stand).
  4. Begin playback of a familiar multi-channel music or film source. Make sure to set the associated multi-channel controller or receiver to a mode that uses the center channel.
    - It is recommended to listen to well-recorded dialogue from more than one film source, as sound quality varies from film to film.
  5. Listen from the primary listening position, increasing volume to a comfortable level.
  6. Experiment with the Placement Compensation control setting to compensate for effect of loudspeaker placement on the C32's timbre and overall balance.

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### Note

*Rotating the Placement Compensation control counterclockwise increases low-frequency output.*

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7. If desired, experiment with the High Frequency Level control to change high-frequency balance and timbre.

## 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 C32 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.

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### CAUTION

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

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### Note

- Refer to step 2 on the previous page for information about C32 crossover requirements.
  - If desired, contact an authorized Revel dealer for information about the suitability of power amplifier components before connecting the C32 to the associated power amplifier.
-

## SPECIFICATIONS

| Specification                     | Value   | Definition   |
|-----------------------------------|---|--|
| <b>Sensitivity</b>                | 86.5dB SPL with<br>2.83Vrms @ 1m<br>(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.   |
| <b>Impedance</b>                  | 5.8Ω (nominal)<br>3.3Ω (minimum @ 80Hz)             | 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.  |
| <b>Filter Network</b>             | Three-way, high-order<br>@ 300Hz 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. |
| <b>In-Room Response</b>           | ±1.0dB<br>from 80Hz 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.   |
| <b>Target Response</b>            | ±0.75dB<br>from 90Hz to 18kHz                       | 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.   |
| <b>First Reflections Response</b> | ±1.0dB<br>from 75Hz 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.  |
| <b>Listening Window Response</b>  | 1.5dB<br>from 85Hz to 15kHz                         | 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.  |
| <b>Low-Frequency Extension</b>    | -10dB @ 38Hz<br>-6dB @ 51Hz<br>-3dB @ 63Hz          | 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:** 21.0 inches (53.3cm)
- Height:** 8.5 inches (21.6cm)  
20.5 inches (52.1cm) with optional pedestal stand
- Depth:** 9.0 inches (22.9cm) with grille
- Weight:** 30 pounds (13.6kg) (not including packaging)  
48 pounds (21.8kg) with optional pedestal stand (not including 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](http://www.revelspeakers.com)



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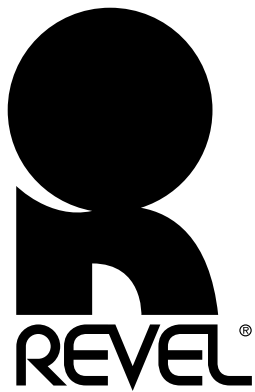
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**Customer Support:** Telephone: 781-280-0300 | Sales Fax: 781-280-0495 | Service Fax: 781-280-0499

*Please contact Customer Support for information about product shipments.*

**harman specialty group**

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