

Polk Audio R400

Polk Audio Reserve Series R400 Center Channel Loudspeaker Instruction Manual

Model: R400

1. INTRODUCTION

This manual provides essential information for the proper setup, operation, and maintenance of your Polk Audio Reserve Series R400 Center Channel Loudspeaker. The R400 is designed to deliver clear, detailed, and immersive audio performance for your home theater system.

2. KEY FEATURES

- **Pinnacle Ring Radiator Tweeter:** Features a 1-inch Pinnacle Ring Radiator Tweeter for ultra-clear, crisp highs and wide dispersion, ensuring a consistent listening experience across the room.
- **Turbine Cone Woofers:** Equipped with dual 6.5-inch Turbine Cone Drivers that provide smooth, detailed midrange and effortless bass, minimizing unwanted resonances.
- **X-Port Technology:** Incorporates Polk's Patented X-Port Technology with Eigentone Filter (ETF) to eliminate port noise and distortion, delivering tight, impactful bass.
- **Hi-Res Audio Certified:** Supports high-resolution audio formats like DSD, FLAC, WAV, ALAC, and MQA for superior audio performance.
- **Dolby Atmos & IMAX Enhanced:** Designed to complement home theater systems with Dolby Atmos and IMAX Enhanced support, providing immersive soundscapes.
- **Robust Cabinet Design:** Features a sealed enclosure with cross-braced cabinets to minimize internal resonances and inert anti-diffraction magnetic grilles for a clean aesthetic.
- **Versatile Placement:** Can be placed on a stand, shelf, tabletop, or wall-mounted using integrated rubber feet.

Feature Details:

RIGID BY DESIGN, TUNED FOR PERFORMANCE

Our Turbine Cone woofers provide strength without weight, revealing detail with stunning clarity, smooth cinematic mids, and bass that lands with effortless impact.



Image: The 1-inch Pinnacle Ring Radiator Tweeter, designed for ultra-clear and crisp high-frequency sound.

The Pinnacle Ring Radiator Tweeter dramatically improves the dispersion of high-frequency energy, ensuring a wide and consistent sweet spot for all listeners.

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Video: Explanation of Polk's Pinnacle Ring Tweeter technology, detailing how it creates a wider, more consistent listening area.



Image: The Turbine Cone Woofer, engineered for strength and performance.

The Turbine Cone woofers are designed to provide strength without excessive weight, delivering stunning clarity, smooth cinematic mids, and bass with effortless impact by minimizing cone breakup.

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Video: Detailed explanation of Polk's Turbine Cone Woofer technology, highlighting its design for stiffness and lightness to prevent distortion.

CRYSTAL-CLEAR VOCALS FOR HOME THEATER

As the heart of your home theater, the R400 center channel uses Polk's flagship transducers to deliver crystal-clear dialogue and detail to every seat.



Image: The innovative X-Port design, featuring advanced Eigentone filters.

The dual X-Ports feature advanced Eigentone filters that eliminate distortion and unleash tight, effortless bass, enhancing the overall audio experience.

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Video: Explanation of Polk's Power Port Technology, demonstrating how it reduces air turbulence and port noise for cleaner, deeper bass.

3. WHAT'S IN THE BOX

Upon unpacking, please ensure all items are present and in good condition:

- Polk Audio Reserve Series R400 Center Channel Loudspeaker
- Magnetic Grille



Image: The Polk Audio R400 Center Channel Loudspeaker, showing its main body and the removable magnetic grille.

4. SETUP

4.1 Placement

The R400 is designed to be the voice of your home theater system. Optimal placement is crucial for clear dialogue and balanced sound. Place the center channel speaker directly below or above your television, centered horizontally with the screen. Ensure it is positioned at or near ear level when seated in your primary listening position.

- **On a Stand/Shelf:** Ensure the surface is stable and can support the speaker's weight (approximately 32.8 lbs).
- **Wall Mounting:** The R400 can be wall-mounted using appropriate hardware (not included) and the integrated rubber feet for stability. Consult a professional for wall mounting to ensure safety and proper installation.



Image: The R400 speaker positioned centrally below a television, illustrating typical home theater placement for clear vocals.

4.2 Connections

Connect the R400 to the center channel output of your AV receiver using high-quality speaker wire. The speaker features premium, large 5-way binding posts for a secure and lossless connection.

1. Ensure your AV receiver is turned off before making any connections.
2. Strip approximately 1/2 inch (12mm) of insulation from the ends of your speaker wire.
3. Twist the bare wire strands tightly.
4. Unscrew the binding post caps on the R400 and your AV receiver.
5. Insert the bare wire into the hole in the binding post. Connect the positive (+) terminal (red) on the speaker to the positive (+) terminal on your receiver, and the negative (-) terminal (black) on the speaker to the negative (-) terminal on your receiver.
6. Tighten the binding post caps securely, ensuring no stray wire strands are touching other terminals.

1" PINNACLE RING RADIATOR TWEETER

Polk's 1" Pinnacle Ring Radiator tweeter reveals every whisper, shimmer, and soaring note with stunning clarity, free from distortion or unwanted coloration.



Image: Rear panel of the R400, highlighting the premium 5-way binding posts for speaker wire connections.

5. OPERATING INSTRUCTIONS

Once connected, your R400 Center Channel Loudspeaker is ready for use. The speaker is designed to integrate seamlessly into a multichannel surround sound system.

- **AV Receiver Calibration:** It is highly recommended to run your AV receiver's automatic room calibration (e.g., Audyssey, MCACC, YPAO) after connecting the R400. This will optimize the speaker's performance for your specific room acoustics.
- **Volume Control:** Adjust the volume through your AV receiver. The R400 is capable of handling up to 200 Watts of power.
- **Break-in Period:** Like all high-fidelity speakers, the R400 may benefit from a break-in period of several hours of normal listening to achieve its optimal sound performance.

INNOVATIVE NEW PORT DESIGN

The dual X-Ports feature advanced eigentone filters that eliminate distortion and unleash tight, effortless bass you can feel in your chest.



Image: The R400 speaker in a living room setting, emphasizing its Hi-Res Audio Certified performance for an elevated listening experience.

1" PINNACLE RING RADIATOR TWEETER

Polk's 1" Pinnacle Ring Radiator tweeter reveals every whisper, shimmer, and soaring note with stunning clarity, free from distortion or unwanted coloration.



Image: A home theater setup featuring Polk Reserve Series speakers, including the R400, demonstrating its compatibility with Dolby Atmos and DTS:X for immersive sound.

6. MAINTENANCE

To ensure the longevity and optimal performance of your R400 loudspeaker, follow these simple maintenance guidelines:

- **Cleaning:** Dust the cabinet and grille gently with a soft, dry cloth. Avoid using harsh chemicals, abrasive cleaners, or excessive moisture, as these can damage the finish or components.
- **Grille Care:** The magnetic grille can be removed for cleaning or for a different aesthetic. Handle it carefully to avoid bending or damaging the fabric.
- **Placement Environment:** Avoid placing the speaker in direct sunlight, near heat sources, or in areas with high humidity. Ensure adequate ventilation around the speaker.
- **Driver Protection:** While the drivers are robust, avoid touching them directly to prevent accidental damage.

7. TROUBLESHOOTING

If you experience issues with your R400 loudspeaker, consult the following common troubleshooting steps:

- **No Sound:**

- Check all speaker wire connections at both the speaker and the AV receiver. Ensure they are secure and correctly matched (positive to positive, negative to negative).
 - Verify that the AV receiver is powered on and set to the correct input source.
 - Confirm that the center channel output is enabled and not muted in your AV receiver's settings.
- **Distorted Sound:**
 - Reduce the volume on your AV receiver.
 - Check speaker wire connections for loose strands or short circuits.
 - Ensure the speaker is not overdriven. If distortion occurs at moderate volumes, your amplifier may be underpowered or clipping.
- **Weak Bass:**
 - Verify that the speaker is correctly configured as a "Small" or "Large" speaker in your AV receiver's settings, and that the crossover frequency is appropriately set (typically 80Hz for most systems).
 - Ensure the X-Port is not obstructed.
 - Consider running your AV receiver's room correction software again.
- **Unbalanced Sound/Dialogue Unclear:**
 - Confirm the speaker is centered relative to your listening position and television.
 - Check the channel levels in your AV receiver's settings to ensure the center channel is not set too low.
 - Ensure the speaker is not obstructed by furniture or other objects.

If these steps do not resolve the issue, please contact Polk Audio customer support for further assistance.

8. SPECIFICATIONS

Feature	Detail
Model Name	R400
Speaker Type	Center Channel Loudspeaker
Tweeter	1" Pinnacle Ring Radiator Tweeter
Woofers	Dual 6.5" Turbine Cone Woofers
Frequency Response	50 KHz (upper limit)
Impedance	4 Ohms
Speaker Maximum Output Power	200 Watts
Product Dimensions (D x W x H)	14"D x 24"W x 8"H
Item Weight	32.8 Pounds
Connectivity Technology	5-way binding posts
Special Features	Bass Boost, Dolby Enabled, X-Port Technology
Mounting Type	Wall Mount (with integrated rubber feet)

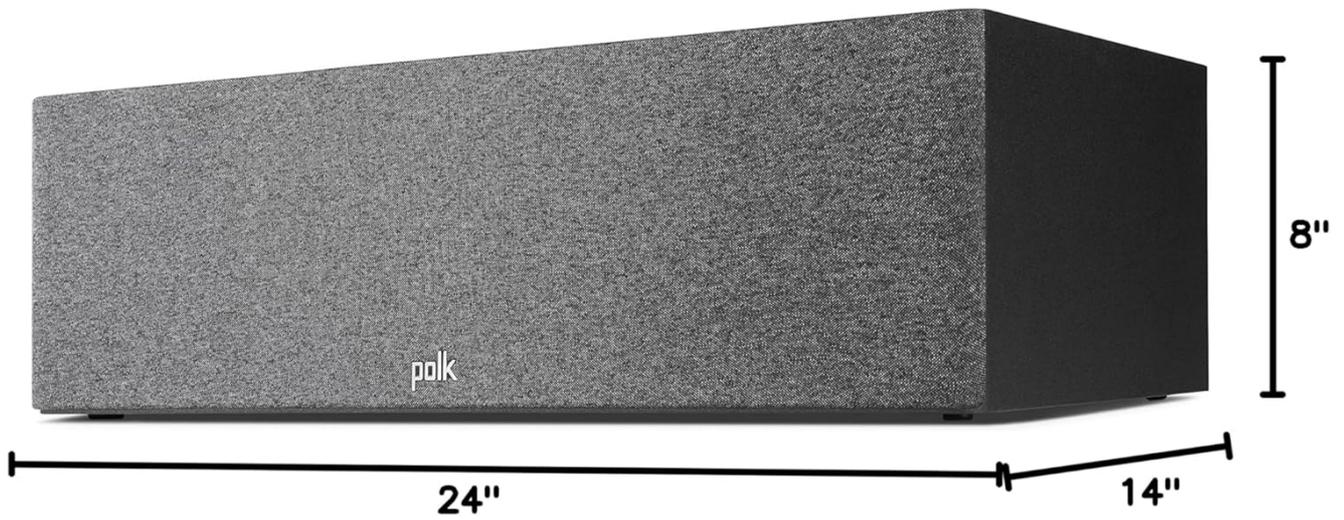


Image: Diagram showing the dimensions (Depth, Width, Height) of the Polk Audio R400 speaker.

9. WARRANTY AND SUPPORT

The Polk Audio Reserve Series R400 Center Channel Loudspeaker comes with a limited warranty. Please refer to the warranty card included with your product for specific terms and conditions. For technical support, service, or warranty claims, please visit the official Polk Audio website or contact their customer service department.

Polk Audio Website: www.polkaudio.com