OSD®

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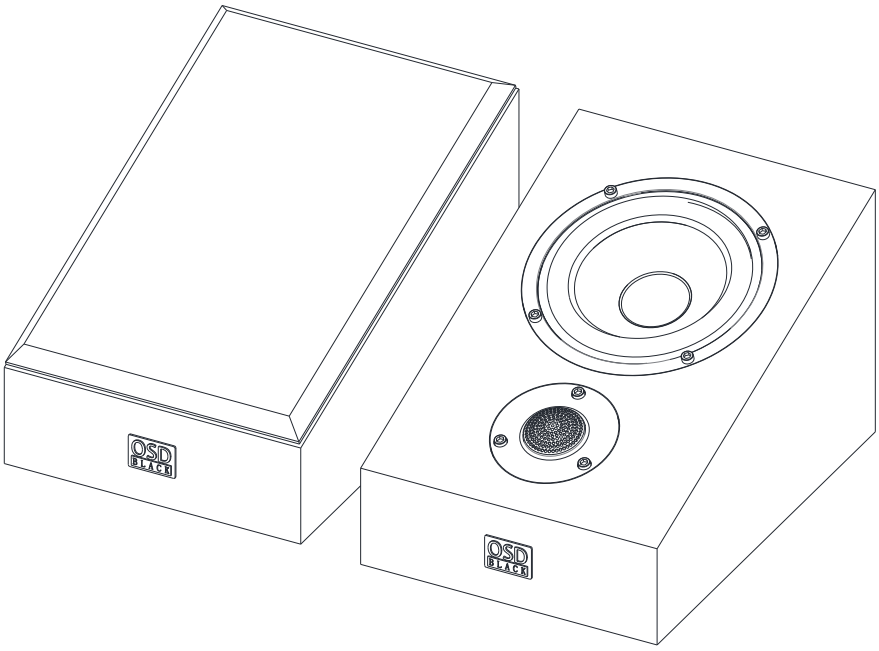
T55E MKII INSTALL GUIDE



Introduction:

Thank you for purchasing OSD T55E loudspeakers. The T55E is designed primarily for Dolby Atmos® height and effects applications, with flexible options for on-wall mounting or two-channel stereo use.

Please read this manual to enjoy this product to the fullest.

Before You Begin:

Unpacking & Inspection

- Carefully unpack the speakers and inspect for shipping damage.
- Retain the original carton and packing materials for future transport or service.
- Rubber feet and wall-mount hardware are included in the box but not pre-installed.

Safety Guidelines

- Store this manual for future reference.
- Do not connect speakers to a power source or AC outlet.
- Place speakers on a stable surface or securely mount them to a wall.
- Keep away from moisture, liquids, and heat sources.
- Do not block ventilation openings.
- Do not attempt to service the product yourself—contact an authorized service center if needed.

1. Understanding the T55E Speaker:

Intended Use

- Dolby Atmos® upward-firing speakers (primary use)
- Front or rear height speakers
- On-wall surround or effects speakers
- Compact speakers for 2-channel stereo systems with a subwoofer

Key Design Notes

- Optimized for 8–9 ft ceilings when used as upward-firing Atmos speakers
- Sealed acoustic suspension enclosure
- 4-ohm impedance (see Section 9 before connecting to entry-level AVRs)

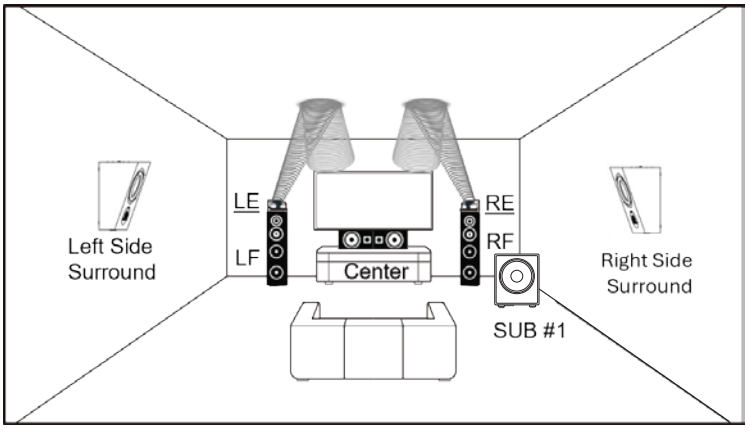
Dolby Atmos Configuration Basics

5.1.2 – One pair of T55E speakers (front height)
5.1.4 – Two pairs (front and rear height)
5.2.4 / 7.2.2 – Advanced Atmos layouts

Understanding Atmos Configurations

Example: **5.1.2**

5 = Traditional speakers (front L/R, center, surrounds)
1 = Subwoofer
2 = Height or Atmos speakers



2. Speaker Placement (Most Important Section):

Dolby Atmos Up-Firing Placement

- Place T55E speakers on top of your front or rear floor-standing speakers
- Angled baffle must face upward toward the ceiling
- Best performance with flat ceilings between 8–9 ft high
- Sound reflects off the ceiling and disperses toward the listening area

The Atmos signal reflects off the ceiling and disperses toward the listening area, creating height effects without ceiling-mounted speakers. **Fig. 1**

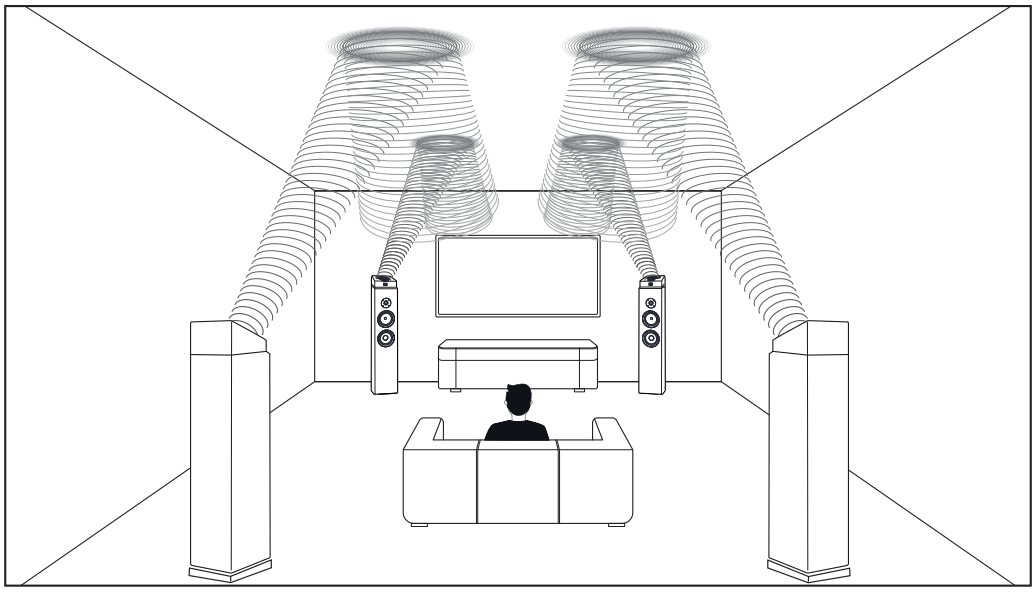


Fig. 1

Front Speaker Spacing (Home Theater)

For proper imaging and tonal balance:

- Minimum 20 in (50 cm) from TV
- Minimum 12 in (30 cm) from rear wall
- Minimum 20 in (50 cm) from side walls

On-Wall Height or Effects Placement

The T55E can also be mounted directly on the wall.

Mounting notes:

- Use built-in keyhole mounts
- Mount with the tweeter at the bottom
- Recommended height: **4–6 ft (150–185 cm)** from the floor
- Front height speakers may be mounted higher, closer to the ceiling

Fig. 2

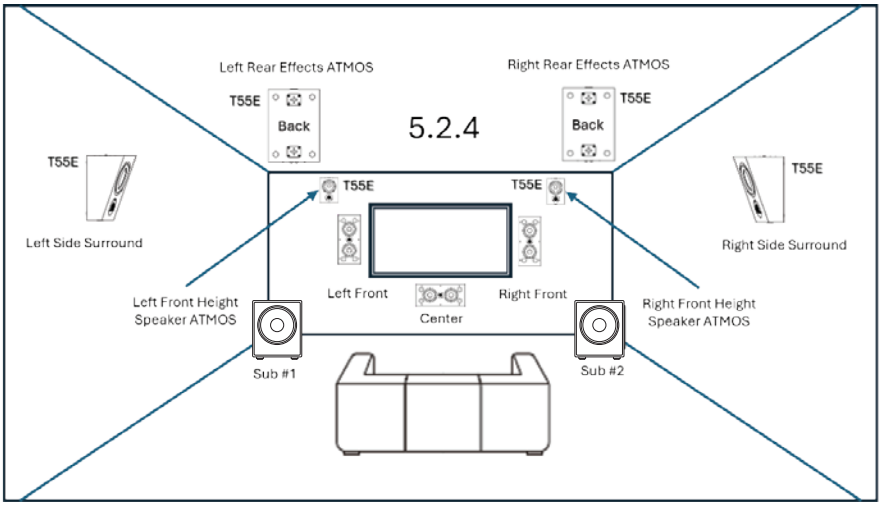


Fig. 2

Two-Channel Stereo & Music Systems

The compact size and angled design also make the T55E suitable for music-focused systems.

Typical uses:

- Wall-mounted or bookshelf stereo speakers
- Paired with a powered or in-wall subwoofer
- Integrated amps, stereo receivers, or Wi-Fi streamers

3. Receiver Compatibility (Important)

The T55E is a **4-ohm** speaker.

- Most mid-range and higher-end AVRs support 4-ohm loads
- Some entry-level AVRs may require 6-ohm minimum speakers

Before connecting:

- Verify impedance support in your receiver manual
- If unsure, consult your dealer or AVR manufacturer

4. Speaker Wiring & Connections

- Use quality speaker cable (**14–16 AWG** recommended)
- Separate conductors approximately **2 in (50–60 mm)**
- Strip **½ in (15 mm)** of insulation
- Twist exposed strands tightly

Connecting to the Receiver

- Most modern AVRs allow reassignment of surround back or height channels.
- Height channels may be labeled: *Front Height, Rear Height, Top Front, or Dolby Enabled*
- Always confirm assignments in your receiver's setup menu
  Power OFF the AVR before connecting
- Maintain correct polarity:
- Red (+) to Red (+)
- Black (–) to Black (–)
- Incorrect polarity will reduce bass response and disrupt imaging.

Fig. 3

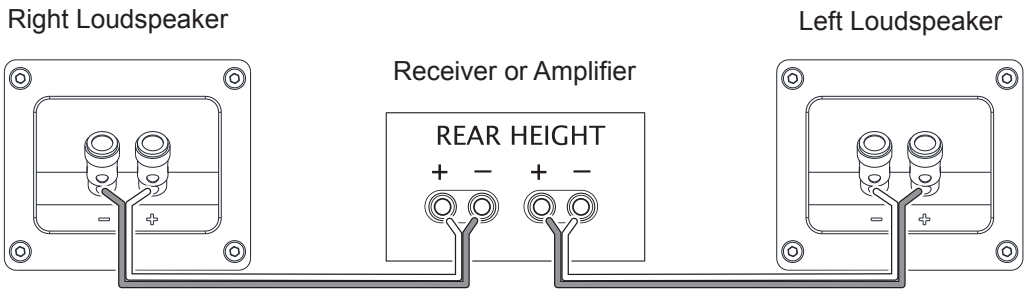
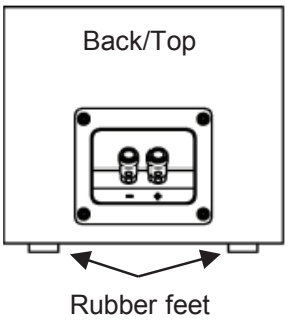


Fig. 3

5. Final Setup & Optimization

Rubber Feet

- Included but not pre-installed
- Recommended when placing speakers on furniture
- Reduces vibration and protects surfaces



Break-In Period

- Allow 15–20 hours of playback at normal listening levels
- Drivers will settle and tonal balance will stabilize
- Perform final placement and calibration after break-in

Maintenance & Care

- Clean with a soft, damp cloth only
- Do not use chemical cleaners
- Avoid touching the drivers
- Keep liquids away from the speaker cabinet

6. Troubleshooting (Quick Reference)

No Sound:

- Check all speaker wire connections
- Confirm receiver is powered ON
- Verify correct channel assignment
- Use AVR test tones to confirm signal

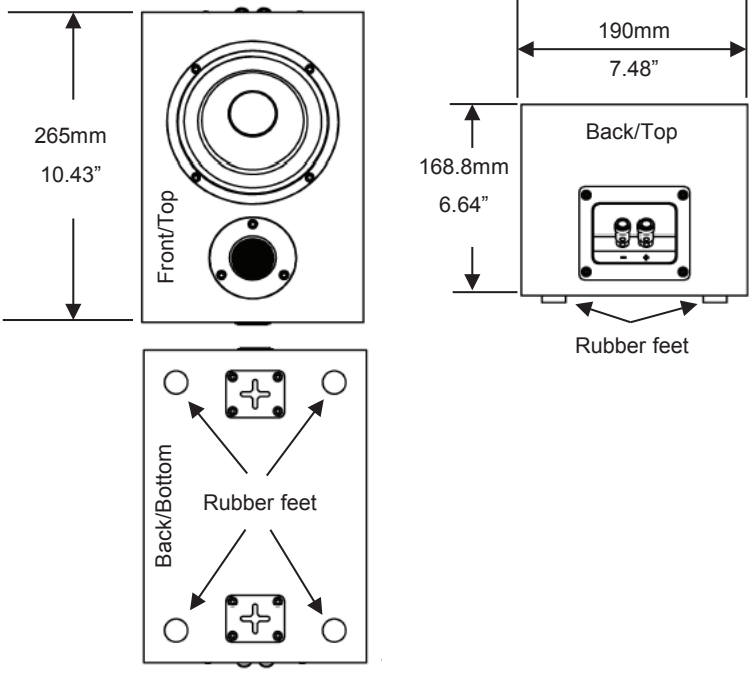
7. Specifications & Dimensions

Technical Specs

- Woofer: 5.25” Carbon Fiber Cone
- Tweeter: 1” Silk Soft Dome
- Power Handling: 25–100 W
- Crossover Frequency: 2.8 kHz
- Frequency Response: 100 Hz – 20 kHz
- Sensitivity: 87 ±2 dB (83V / 1m)
- Impedance: 4 ohms
- Maximum SPL: 107 dB
- Enclosure: Sealed, 2-way acoustic suspension MDF
- Termination: Binding posts

Dimensions & Weight

- Width: 190 mm / 7.48 in
- Depth: 265 mm / 10.43 in
- Height: 168.8 mm / 6.64 in
- Weight: 13.44 lb (6.1 kg) per pair



WARRANTY

All Optimal Speaker Design speaker products have Limited Lifetime Warranty against defects in materials and workmanship. Proof of purchase must accompany all claims. During the warranty period Optimal Speaker Design will replace any defective part and correct any defect in workmanship without charge for either parts or labor Optimal Speaker Design may replace returned speakers with a product of equal value and performance. In such cases, some modification to the mounting may be necessary and are not Optimal Speaker Designs responsibility.

For this warranty to apply, the unit must be installed and used according to its written instructions. If necessary, repairs must be performed by Optimal Speaker Design. The unit must be returned to Optimal Speaker Design at the owner's expense and with prior written permission. Accidental damage and shipping damage are not considered defects, nor is damaged resulting from abuse or from servicing performed by an agency or person not specifically authorized in writing by Optimal Speaker Design

Optimal Speaker Design sells products only through authorized dealers and distributors to ensure that customers obtain proper support and service. Any Optimal Speaker Design product purchased from an unauthorized dealer or other source, including retailers, mail over dealers and on-line sellers will not be honored or serviced under existing Optimal Speaker Design warranty policy. Any sale of product by an unauthorized source or other manner not authorized by Optimal Speaker Design shall void the warranty on the applicable product.

Damage to or destruction of components due to application of excessive power voids the warranty on those parts. In these cases, repairs will be made on the basis of the retail value of the parts and labor. To return for repairs, you must email customer service at RMA@audiogeargroup.com for a Returned Merchandise Authorization (RMA) number# then the unit must be shipped to Optimal Speaker Design at the owner's expense, along with a note explaining the nature of service required. Be sure to pack the speaker(s) in a corrugated container with at least 3 inches of resilient material to protect the unit from damage in transit.

This Warranty Does Not Cover: Damage caused by abuse, accident, misuse, negligence, or improper operation (installation) • Any products that have been altered or modified • Any product whose identifying number of decal, serial #, etc. has been altered, defaced or removed • Normal wear and maintenance.