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TREVOCE **12 PRO**



USER MANUAL



WARNING

Do not ingest the battery. Chemical burn hazard

(The remote control supplied with) This product contains a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.

Keep new and used batteries away from children.

If the battery compartment does not close securely, stop using the product and keep it away from children.

If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with a dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer' s instructions.
- 8) Do not install near any sources such as radiators, heat registers, stoves, or other apparatus(including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provide for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cat, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when the power-supply cord or plug is damaged, liquid has been spilled, objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 15) An appliance inlet coupler is used as the disconnect device, the disconnect device shall remain readily operable.

GET STARTED IN MINUTES

Follow these simple steps to set up your subwoofer for optimal performance.

1. Placement

- Place near the **front wall**, close to main speakers
- Avoid blocking **side passive radiators**
- For more bass: try a **corner position**
- Experiment for best results (“subwoofer crawl”)

Dual Sub Setup (Optional):

- Front left & right (recommended)
 - Opposing walls for smoother bass
-

2. Connect

Home Theater (AV Receiver)

- SUB/LFE Out > **LFE Input (RCA)**
- Enable **LFE Mode**

Stereo System

- Use **RCA L/R** or **XLR input**
 - Disable LFE (use crossover)
-

3. Power On

- Plug into AC power
 - Switch **POWER ON** (rear panel)
 - Auto standby activates with signal
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4. Quick Setup

AV Receiver (Recommended)

- LFE: ON
- Volume: 25–35%
- Phase: 0°
- Run room calibration

Stereo Setup

- LFE: OFF
- Frequency: 80–100 Hz
- Adjust volume to blend
- Tune phase if needed

5. Controls

Rear Knob (Push + Turn) VOL › FRE › LFE › MODE › DIS

- VOL = Volume
- FRE = Crossover (40–250 Hz)
- PHASE = 0–180°
- BASS BOOST = Use sparingly

6. Remote

- VOL +/- : Volume
- FRE +/- : Frequency
- LFE : Toggle mode
- MODE : Auto standby
- DISPLAY : Brightness

7. Pro Tips

- 15–20 hour break-in recommended
- Do not block passive radiators
- Minimal bass boost for best sound
- Small adjustments = big improvements

8. Quick Troubleshooting

No Sound?

- Check power, cables, and source signal

No Display?

- Check power connection and switch

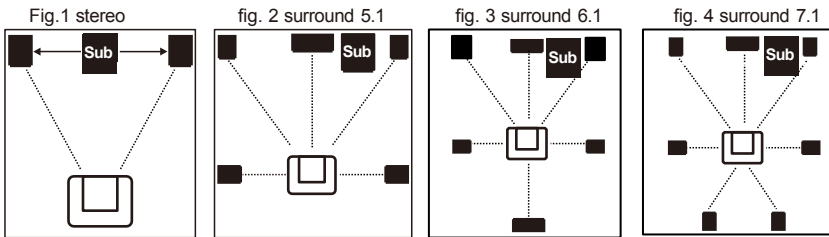
YOU'RE READY

Fine-tune placement and enjoy powerful, accurate bass.

The subwoofer requires a connection to the mains power supply; for your safety, read this instruction manual carefully before connecting.

Subwoofer positioning

Variations in loudspeaker placement can produce significant differences in sound quality. No listening rooms are the same, so we recommend spending time experimenting with which placement works best in yours. The position of a subwoofer is less critical than that of full-range loudspeakers because its low frequencies are difficult to localize in the room. Trust your ears and be willing to experiment freely. You can start with our basic recommendations. Figures: 1-4



Most Audio/Video Receivers feature Dual Mono Subwoofer Outputs

Why Two Subwoofers Are Better Than One

1. Smoother Bass Across the Room

Low frequencies interact heavily with room boundaries, creating **peaks and nulls**. With a single sub, bass may sound great in one seat and weak in another.

Two subs:

- Average out the room modes
- Reduce dead spots
- Deliver more **consistent bass at every listening position**

2. Tighter, More Controlled Low End

With dual subs:

- Each sub works **less hard**
- Reduced distortion
- Faster transient response

Result: bass that sounds **cleaner and more precise**, not just louder.

3. More Headroom (Not Just More Volume)

Running two TreVoce 12 PRO subs doesn't mean cranking them up:

- You gain **dynamic headroom**
- Explosions and bass drops hit harder without strain
- Music bass stays composed at higher levels

4. Better Stereo Integration

For music listening, especially:

- Two subs can preserve **left/right bass information**
- Improves imaging and realism
- Bass feels "part of the music," not detached

Best Dual-Sub Placement Options

Option 1: Front Left & Front Right (Most Common)

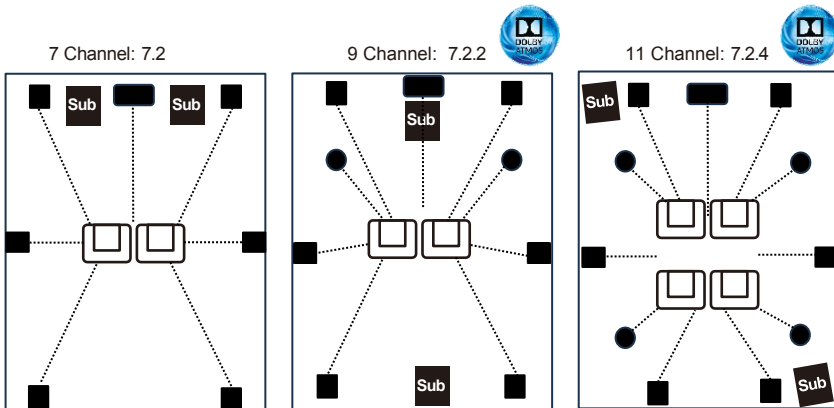
- One sub near each main speaker
- Excellent integration for music and home theater

Option 2: Midpoints of Opposing Walls

- One at the midpoint of the front wall
- One at the midpoint of the rear wall
- Excellent room-mode cancellation

Option 3: Diagonal Corners

- One front-left corner, one rear-right corner
- Maximizes modal smoothing in difficult rooms



How to Set Up Two TreVoce 12 PRO Subs Connections

- Use your AVR's **dual sub outputs** if available
- Or split the SUB/LFE output with a high-quality Y-adaptor

Settings (Starting Point)

- LFE mode: **ON** (if using an AV receiver)
- Volume: set both subs the same, start low
- Phase: start at **0°** on both, adjust only if needed
- Bass Boost: **OFF** (use room gain instead)

Calibration

- Run your AVR's room correction (Audyssey, Dirac, ARC, YPAO, etc.)
- Fine-tune by ear afterward for the best blend

A Single 12" Active Driver, Dual 12" Passive Radiators

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12" Passive Radiator — What It Is & Why It Matters

A **12-inch passive radiator (PR)** is an unpowered diaphragm that resembles a woofer but lacks a **voice coil or magnet**. In the TreVoce 12 PRO, it works with the active 12" driver to extend and control low bass—similar in purpose to a port, but with important advantages.

How a Passive Radiator Works

- The **active 12" woofer** moves air inside the cabinet.
 - That air pressure makes the **12" passive radiator move**.
 - The PR is **mass-tuned** to resonate at low frequencies, reinforcing deep bass output.
- Think of it as a **precision-tuned "air pump"** instead of a tube.

Why Use a Passive Radiator Instead of a Port?

1) Deeper Bass from a Smaller Box

A PR allows very low tuning without the long, noisy ports a compact cabinet would require

2) No Port Noise ("Chuffing")

At high output, ports can hiss or wheeze. A PR stays clean—even during big movie effects.

3) Tighter, Cleaner Low End

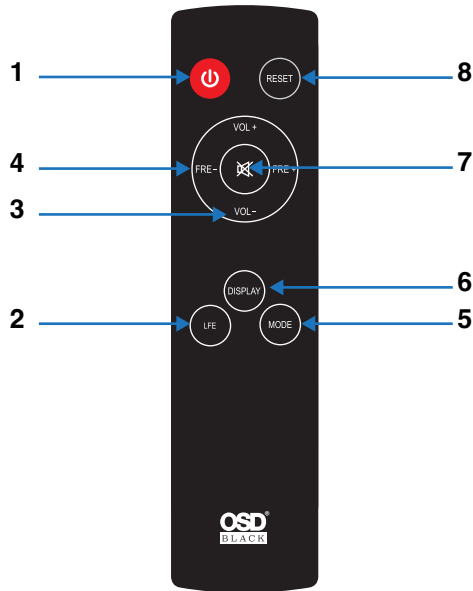
PR systems often sound more controlled and less boomy than ports, especially near tuning.

4) Higher Output Headroom

With a large surface area (12"), the radiator moves plenty of air without turbulence.

Practical Notes for Owners

- Don't block the passive radiator—it needs room to move.
- Keep **bass boost conservative**; the PR is already tuned for deep output.
- Placement matters (crawl still applies!) because the PR interacts with room modes just like the active driver.



Button	Display	Function	Description
1. Power	—	Power On / Standby	Turns the subwoofer on or places it into standby mode.
2. LFE	LFE / ON / OFF	LFE Mode	Enables/disables LFE mode. When ON, AVR controls crossover, phase, and level. Internal crossover is disabled.
3. VOL + VOL -	VOL	Increase Volume Decrease Volume	Raises subwoofer output level. Lowers subwoofer output level.
4. FRE + FRE -	FRE	Increase Frequency Decrease Frequency	Raises crossover when LFE is OFF (40–250 Hz). Lowers crossover when LFE is OFF.
5. MODE	MOD / AUT / ON	Auto Standby	Enables/disables auto standby (~15 min no signal).
6. DISPLAY	DIS	Display Brightness	Adjusts brightness from 0 (off) to 7 (max).
7. MUTE	—	Mute	Temporarily mutes output. Press again to restore.
8. RESET	—	Factory Reset	Restores defaults: Vol 80, X-Over 250 Hz, LFE Off, Auto On, Display 4.

LED Display



Display & Indicators

- **LED Indicator:** Standby (Red)
- **LED Display:**
 - 14-segment, 3-digit "7K" display (Blue)
 - Displays: Status, Scroll/Select, VOL, FRE, LFE, MODE, DIS, VOL

• Control Knob (Back Panel):

- Push to select parameter
- Rotate to adjust the parameter



VOLUME/MENU : Press this knob, you can scroll among "VOL→FRE→LFE→MODE→DIS→VOL ...", turning the knob to change the parameter setting.

LFE stands for **Low-Frequency Effects**.

LFE is limited to **120 Hz** for **technical, psychoacoustic, and system-design reasons**. It's not arbitrary—it's part of the **Dolby / cinema standards**.

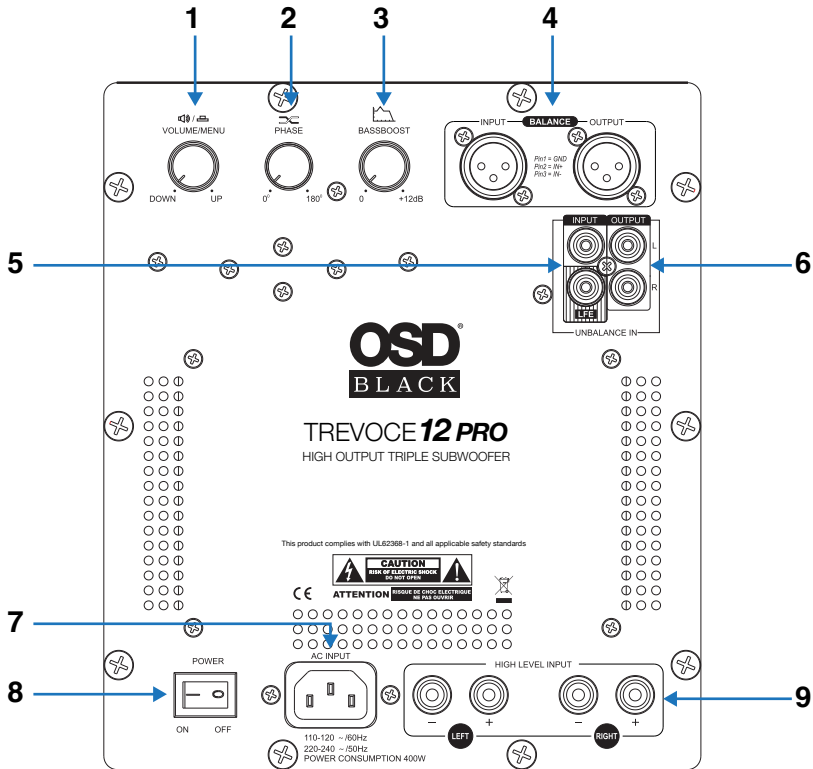
LFE is limited to 120 Hz because:

- Humans can't localize bass below that range
- Cinema standards require it
- It prevents subwoofer localization
- It ensures clean crossover behavior
- LFE content is mixed with +10 dB headroom

In the context of the TreVoce 12 Pro

- **LFE Enabled:** Uses the LFE input, crossover handled externally
- **LFE Disabled:** Subwoofer's internal crossover (40–250 Hz) is active
- **LFE Active/Disabled options:** Allow flexible integration with both AVRs and stereo preamps

Input panel



1. **VOLUME/MENU:** Press this knob, you can scroll among "VOL→FRE→LFE→MODE→DIS→VOL...", turning the knob to change the parameter setting.
2. **Phase adjustment**
3. **Bass boost**
4. **XLR balance input (Female)/output (Male)**
5. **RCA unbalanced stereo and LFE input**
6. **RCA unbalanced output**
7. **AC power socket**
8. **Main power switch**
9. **High-level input**

Audio Features

Item	Specification
Output Power Circuit Configuration:	Class D
Output Rated Power:	300 Watts (RMS) @ 4 ohm loads, THD 1% 800 Watts (PEAK) @ 4 ohm loads, THD 1%
Frequency Response:	18 Hz – 250 Hz (-3dB)
S/N Ratio (A-weighted):	>95 dB
Total Harmonic Distortion:	<0.1% (@1 W, 1 kHz with 22 kHz filter)
DSP Audio Processing:	Yes, IR remote controlled

Input / Output, Indicating & Control Features

Item	Specification
Line In/Out:	Unbalanced (RCA) Input/Output (L & R), LFE Input (RCA R) Balanced Input (Female XLR) / Output (Male XLR)
High-Level Input:	Yes (Speaker terminal L & R inputs)
Variable Volume:	Yes, via volume/menu knob or IR remote control
Variable Frequency (Crossover):	Yes, IR remote controlled (40 Hz – 250 Hz, LFE disabled)
Variable Phase:	Yes (0 – 180°), rear panel knob controlled
Variable Bass Boost:	Yes (0 – 12 dB @ 45 Hz), rear panel knob controlled
Power Mode Switch:	Yes (Auto / On)
LFE:	Yes (Enable/Active – Disable/Off via IR remote)
LED Indicator:	Standby (Red)
LED Display:	14 segments, 3-digit display (Blue)
Knob Control:	Scroll/select: VOL ▶ FRE ▶ LFE ▶ MODE ▶ DIS ▶ VOL Push to select, rotate to adjust parameters
Remote Control:	Yes (Infrared)

Power, Design, Materials, Dimensions, and Weights

Item	Specification
Power Supply & Voltage Range:	SMPS, AC 220–240 V / 50 Hz or AC 100–120 V / 60 Hz
Protection:	Short circuit / Thermal / Overload / DC
Automatic Power Down/Up:	Yes
Standby Power Consumption:	< 0.5 W
Mains Power Switch:	Yes, rear panel
Active Woofer:	12" matte paper cone
Passive Woofer:	Dual 12" matte paper cones
Grille:	Cloth (active subwoofer only)
Cabinet Finish:	PVC with leather grain
Panel Material:	Aluminum
Speaker Size (W × H × D):	16.75" × 16.75" × 17.75" 425 mm × 425 mm × 451 mm
Carton Size:	21.65" × 20.47" × 23.62" 550 mm × 520 mm × 600 mm
Weight (Net / Gross):	Net: 21.1 kg Gross: 24.85 kg

Running-in period

We recommend a running-in time of your new Trevoce 12 PRO SUB of approximately 15-20 hours at normal listening level before you decide on the final positioning and control setting of the subwoofer. During the running-in time, the drive unit will settle in and perform as intended.

Care and cleaning

We do not recommend using any solvents or cleaners on the Trevoce 12 PRO SUB cabinet; the cabinet surface only requires dusting or cleaning with a damp, soft cloth (use cold, Clean water). Avoid touching the drive unit, and do not use the subwoofer as a flower, coffee, or drinks table (risk of liquid spillage into the subwoofer).

We recommend disconnecting the subwoofer from the mains supply if it will be unused for an extended period.

Troubleshooting

If no sound, check:

- that the subwoofer is turned on (display lamp glows)
- that the VOLUME control (1) on the rear panel is not turned down to zero (MIN)
- that the input cable is connected correctly to both the subwoofer and the amplifier
- that the subwoofer gets a signal from the amplifier - check tone on most receivers

Display does not light up, check:

- that the power cord (7) is firmly plugged into the wall outlet
- that the POWER switch (8) is ON
- that the mains voltage is correct and matches the subwoofer

All Optimal Speaker Design powered subwoofer products have a 2 Year Limited 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 in accordance with 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 damage resulting from abuse or from servicing performed by an agency or person not explicitly 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 order dealers, and online sellers, will not be honored or serviced under the existing Optimal Speaker Design warranty policy. Any sale of a product by an unauthorized source or in any other manner not authorized by Optimal Speaker Design shall void the warranty on the applicable product.

Damage to or destruction of components caused by excessive power application voids the warranty on those parts. In these cases, repairs will be performed based on the retail value of the parts and labor. To return the unit for repairs, you must email customer service at RMA@audiogeargroup.com for a Returned Merchandise Authorization (RMA) number. Then ship the unit to Optimal Speaker Design at the owner's expense, along with a note explaining the nature of the 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 during 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.

