

MTX 7512-44

MTX Audio 7512-44 75-Series 12" 750W RMS Dual 4-Ohm Subwoofer

Instruction Manual

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your MTX Audio 7512-44 75-Series 12" 750W RMS Dual 4-Ohm Subwoofer. Please read this manual thoroughly before attempting installation or operation to ensure optimal performance and product longevity. Retain this manual for future reference.



Figure 1: Front view of the MTX Audio 7512-44 subwoofer. This image displays the carbon fiber patterned cone and the robust surround.

2. SAFETY INFORMATION

Observe the following safety precautions during installation and operation:

- **Professional Installation Recommended:** Due to the complexity of car audio systems, professional installation is highly recommended. Incorrect wiring can damage the subwoofer, amplifier, or vehicle electrical system.
- **Power Handling:** Ensure the connected amplifier's power output matches the subwoofer's RMS power handling (375-750W RMS). Exceeding this can cause damage.
- **Wiring:** Always use appropriate gauge wiring for power, ground, and speaker connections. Refer to wiring diagrams for correct impedance matching.
- **Mounting:** Securely mount the subwoofer in a suitable enclosure to prevent movement during vehicle operation.
- **Ventilation:** Ensure adequate ventilation around the subwoofer and amplifier to prevent overheating.
- **Hearing Protection:** Prolonged exposure to high sound pressure levels can cause permanent hearing damage.

Use caution when adjusting volume levels.

3. PRODUCT FEATURES

The MTX Audio 7512-44 subwoofer incorporates several design elements for enhanced performance and durability:

- **Inverted Apex Surround:** This design increases the effective surface area of the cone, leading to increased volume displacement and higher sound pressure levels (SPL) without sacrificing excursion.
- **Spider Plateau Venting (SPV):** A mechanical cooling process that circulates cool air directly to the voice coil, improving thermal performance and increasing reliability and longevity during continuous operation.
- **Radial Ribbed T-Yoke:** Aids in dissipating heat from the motor structure and reduces distortion, contributing to improved sound quality.
- **Cast Aluminum Basket:** Provides a rigid and stable foundation for the subwoofer components, reducing resonance and improving overall sound quality.
- **2.5" Aluminum Voice Coil:** Engineered to handle high power inputs efficiently.
- **Enhanced Backplate Design:** The specially designed backplate increases surface area, further dissipating heat from the voice coil, which helps maintain lower distortion for extended periods.

4. INSTALLATION GUIDELINES

Proper installation is critical for the performance and longevity of your subwoofer. Consider the following:

4.1 Enclosure Requirements

The 7512-44 subwoofer is designed for use in custom enclosures. Recommended net internal volumes are:

- **Sealed Enclosure:** 1.25 cubic feet
- **Vented Enclosure:** 2.0 cubic feet

Consult with a car audio specialist for optimal enclosure design and construction.

4.2 Mounting

The subwoofer requires a cut-out diameter of **11.125 inches** and has a mounting depth of **7.437 inches**. Ensure sufficient clearance behind the subwoofer for proper ventilation and excursion. Use appropriate fasteners to secure the subwoofer to the enclosure.



Figure 2: Side view of the MTX Audio 7512-44 subwoofer, illustrating its depth and terminal connections.

4.3 Wiring Configurations (Dual 4-Ohm Voice Coils)

The 7512-44 features dual 4-ohm voice coils, offering flexibility in wiring to achieve different impedance loads at the amplifier. Always verify your amplifier's stable impedance range before wiring.

- **2-Ohm Load (Parallel Wiring):** Connect the positive terminals of both voice coils together, and the negative terminals of both voice coils together. Then connect the combined positive to the amplifier's positive output and the combined negative to the amplifier's negative output. This configuration presents a 2-ohm load to the amplifier.
- **8-Ohm Load (Series Wiring):** Connect the positive terminal of one voice coil to the negative terminal of the other voice coil. Then connect the remaining positive terminal to the amplifier's positive output and the remaining negative terminal to the amplifier's negative output. This configuration presents an 8-ohm load to the amplifier.

Refer to your amplifier's manual for specific wiring recommendations and stable impedance loads. Incorrect wiring can damage the amplifier or subwoofer.



Figure 3: Rear view of the MTX Audio 7512-44 subwoofer, highlighting the dual voice coil terminals for wiring.

5. OPERATION AND TUNING

Once installed, proper tuning of your amplifier and head unit is essential for optimal sound quality and subwoofer longevity.

- **Amplifier Gain Setting:** Set the amplifier gain according to the manufacturer's instructions, typically by starting low and gradually increasing until distortion is audible, then backing off slightly. Do not use the gain control as a volume knob.
- **Low-Pass Filter (LPF):** Use the low-pass filter on your amplifier or head unit to send only low frequencies to the subwoofer. A common starting point is 80-100 Hz.
- **Subsonic Filter (HPF):** If your amplifier has a subsonic filter (high-pass filter for the subwoofer channel), set it slightly below your enclosure's tuning frequency (for ported enclosures) or around 20-25 Hz (for sealed enclosures) to protect the subwoofer from over-excursion at very low frequencies.
- **Phase Control:** Experiment with the phase switch (0° or 180°) on your amplifier or head unit to achieve the best

blend with your front speakers.

- **Break-in Period:** Allow a break-in period of approximately 20-30 hours of moderate listening before operating the subwoofer at maximum levels. This allows the suspension components to loosen and perform optimally.

6. MAINTENANCE

The MTX Audio 7512-44 subwoofer requires minimal maintenance:

- **Cleaning:** Periodically wipe the cone and surround with a soft, dry cloth to remove dust and debris. Avoid using harsh chemicals or excessive moisture.
- **Inspection:** Regularly inspect the subwoofer for any signs of damage to the cone, surround, or terminals. Ensure all mounting screws remain tight.
- **Environment:** Protect the subwoofer from extreme temperatures, direct sunlight, and moisture.

7. TROUBLESHOOTING

If you experience issues with your subwoofer, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No Sound	No power to amplifier	Check power, ground, and remote turn-on connections to amplifier.
	Incorrect wiring	Verify all speaker and RCA connections.
	Amplifier in protect mode	Check amplifier fuses. Consult amplifier manual.
	Head unit settings	Ensure subwoofer output is enabled and volume is up on head unit.
Distorted Sound	Amplifier gain set too high	Reduce amplifier gain.
	Incorrect LPF setting	Adjust LPF to a lower frequency (e.g., 80 Hz).
	Overpowering subwoofer	Ensure amplifier RMS output matches subwoofer RMS handling.
	Damaged subwoofer	Inspect subwoofer for physical damage.
Subwoofer Overheating	Inadequate ventilation	Ensure sufficient airflow around the subwoofer and amplifier.
	Amplifier gain too high	Reduce amplifier gain.
	Improper impedance match	Verify correct wiring for amplifier's stable impedance.

If problems persist after attempting these solutions, contact MTX Audio customer support or a qualified car audio technician.

8. SPECIFICATIONS

Technical specifications for the MTX Audio 7512-44 subwoofer:

Model Number	7512-44
Speaker Size	12 Inches

Recommended RMS Power	375 - 750 Watts
Peak Power Handling	1500 Watts
Impedance	Dual 4 Ohms
Frequency Response	22Hz - 140Hz
Sensitivity	85.44 dB
Voice Coil Diameter	2.5 Inches (Aluminum)
Magnet Weight	103.4 oz.
Mounting Depth	7.437 Inches
Cut Out Diameter	11.125 Inches
Sealed Enclosure Net Volume	1.25 cu ft
Vented Enclosure Net Volume	2.0 cu ft
Item Weight	22.5 Pounds
Item Dimensions (D x W x H)	13"D x 24.13"W x 11.25"H



Figure 4: Dimensional drawing of the MTX Audio 7512-44 subwoofer, showing key measurements for installation planning.

9. WARRANTY INFORMATION

The MTX Audio 7512-44 subwoofer is covered by a **2-Year Manufacturer Warranty**. This warranty covers defects in materials and workmanship under normal use. It does not cover damage caused by improper installation, abuse, accident, neglect, or unauthorized modification. For full warranty terms and conditions, please refer to the official MTX Audio website or contact customer support.

10. CUSTOMER SUPPORT

For technical assistance, warranty claims, or additional product information, please contact MTX Audio customer support:

- **Website:** Visit the official [MTX Store on Amazon](#) for product information and support resources.

- **Contact:** Refer to the MTX Audio official website for direct contact methods (phone, email).

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

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