

MTX S6512-44

MTX S65 Series S6512-44 12-inch Square Subwoofer Instruction Manual

Model: S6512-44 | Brand: MTX

PRODUCT OVERVIEW

The MTX S6512-44 is a 12-inch square car subwoofer designed to deliver powerful bass performance. This dual 4-ohm subwoofer features a peak power handling of 1000 Watts and an RMS power handling of 500 Watts, making it suitable for various car audio systems. Its unique square design maximizes cone area for increased sound pressure levels (SPL) compared to traditional round subwoofers of the same size.

Included Components: 12-inch subwoofer, vented sub box enclosure.

KEY FEATURES

- **Square Design:** Maximizes cone area for higher SPL and volume displacement.
- **Spider Plateau Venting:** A mechanical cooling process that circulates air at the voice coil to maintain optimal operating temperatures.
- **Optimized Backplate:** Specially designed to conduct heat away from the voice coil, enhancing durability and performance.
- **Power Handling:** Recommended amplifier power (RMS) of 250 - 500 Watts.
- **Frequency Response:** Operates within a frequency range of 23Hz - 130Hz for deep bass reproduction.

SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and longevity of your MTX S6512-44 subwoofer. It is recommended to have this unit installed by a professional car audio technician. If you choose to install it yourself, ensure you have the necessary tools and knowledge of car audio wiring.

1. **Choose an Enclosure:** The subwoofer comes with a vented sub box enclosure. Ensure it is securely placed in your vehicle's trunk or desired location.
2. **Select an Amplifier:** A suitable amplifier with an RMS output between 250-500 watts is recommended to power this subwoofer. Ensure the amplifier's impedance matches the subwoofer's dual 4-ohm configuration.
3. **Wiring:** Connect the subwoofer to the amplifier using appropriate gauge speaker wire. Pay close attention to polarity (+/-) to avoid phase issues. For dual voice coil subwoofers, ensure correct wiring for the desired impedance (e.g., parallel for 2 ohms, series for 8 ohms).

4. **Power Connection:** Connect the amplifier to your vehicle's battery using a power wire with an inline fuse. Ensure proper grounding for the amplifier.
5. **Signal Connection:** Connect the amplifier to your car's head unit (stereo) using RCA cables or speaker-level inputs, depending on your amplifier's capabilities.
6. **Testing:** After all connections are made, double-check your wiring. Start with low volume and gradually increase it, listening for any distortion or issues.



Image: Angled view of the MTX S6512-44 subwoofer, highlighting the cone and the robust backplate with connection terminals.

OPERATING INSTRUCTIONS

Once installed, operate your subwoofer by adjusting the settings on your amplifier and head unit. Begin with conservative settings and gradually increase them to achieve your desired bass level without distortion.

- **Gain Setting:** Adjust the amplifier's gain control to match the output voltage of your head unit. This is not a volume control; it sets the maximum input level.

- **Crossover Frequency:** Set the low-pass filter (LPF) on your amplifier or head unit to direct only low frequencies to the subwoofer. A common starting point is 80-100 Hz.
- **Bass Boost:** Use bass boost sparingly, if at all, as excessive boosting can lead to distortion and potential damage to the subwoofer.
- **Phase Control:** Some amplifiers offer a phase switch (0° or 180°). Experiment with this setting to find the one that provides the most cohesive bass response with your main speakers.



Image: Front view of the MTX S6512-44 12-inch square subwoofer, showcasing its unique design.

MAINTENANCE

To ensure the longevity and optimal performance of your MTX S6512-44 subwoofer, follow these maintenance guidelines:

- **Regular Cleaning:** Keep the subwoofer and its enclosure free from dust and debris. Use a soft, dry cloth for cleaning. Avoid using harsh chemicals or abrasive materials.
- **Inspect Connections:** Periodically check all wiring connections to ensure they are secure and free from corrosion. Loose connections can lead to poor performance or damage.
- **Avoid Overpowering:** Do not exceed the recommended RMS power handling of 500 watts. Overpowering can cause voice coil damage and reduce the subwoofer's lifespan.
- **Temperature Control:** Avoid exposing the subwoofer to extreme temperatures or direct sunlight for extended periods, as this can degrade materials.

TROUBLESHOOTING

If you encounter issues with your subwoofer, refer to the following common troubleshooting steps:

- **No Sound:**
 - Check all power and signal connections.
 - Ensure the amplifier is powered on and not in protection mode.
 - Verify the head unit's subwoofer output settings.
- **Distorted Sound:**
 - Reduce the amplifier's gain setting.
 - Check for damaged speaker wires or loose connections.
 - Ensure the subwoofer is not being overdriven by the head unit or amplifier.
- **Weak Bass:**
 - Increase the amplifier's gain setting gradually.
 - Check the phase setting on your amplifier.
 - Verify the crossover frequency is set correctly to allow low frequencies to the subwoofer.
- **Subwoofer Overheating:**
 - Ensure adequate ventilation around the amplifier and subwoofer.
 - Check for proper impedance matching between the subwoofer and amplifier.
 - Avoid prolonged operation at maximum volume.

SPECIFICATIONS

Feature	Detail
Model Name	S6512-44
Subwoofer Diameter	12 Inches
Speaker Maximum Output Power	1000 Watts (Peak)
Recommended Amp Power (RMS)	250 - 500 Watts
Impedance	Dual 4 Ohms
Frequency Response	23Hz - 130Hz
Mounting Type	Flush Mount
Material	Metal, Plastic, Wood
Product Dimensions	13"D x 24.13"W x 11.25"H
Item Weight	19.2 Pounds
Connectivity Technology	Auxiliary, RCA (Wired)
Included Components	12-inch subwoofer, vented sub box enclosure



Image: Dimensional diagram of the MTX S6512-44 subwoofer.

WARRANTY AND SUPPORT

The MTX S6512-44 subwoofer comes with a **Limited Warranty**. For specific details regarding warranty coverage, terms, and conditions, please refer to the warranty card included with your product or visit the official MTX Audio website. For technical support, installation assistance, or service inquiries, please contact MTX Audio customer support directly.

MTX Audio Official Website: www.mtx.com

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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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