

MTX 5510-22

MTX 5510-22 10-inch Car Audio Subwoofer Instruction Manual

Model: 5510-22 | Brand: MTX

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1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your MTX 5510-22 10-inch Car Audio Subwoofer. The MTX 5510-22 is engineered to deliver robust bass performance and long-term reliability in car audio systems. It incorporates advanced features such as high-temperature voice coils, a durable basket design, and a double-stitched cone for enhanced performance and longevity.

2. SAFETY INFORMATION

Please read all safety instructions before installing or operating the subwoofer. Failure to follow these guidelines may result in injury or damage to the product or vehicle.

- **Professional Installation Recommended:** Installation of car audio components can be complex. It is recommended that a qualified professional perform the installation to ensure proper wiring and system integration.
- **Power Disconnection:** Always disconnect the vehicle's battery negative terminal before beginning any wiring or installation procedures to prevent electrical shorts.
- **Proper Wiring:** Ensure all wiring connections are secure and correctly polarized. Incorrect wiring can damage the subwoofer, amplifier, or vehicle's electrical system.
- **Avoid Moisture:** Do not expose the subwoofer to moisture or extreme temperatures.
- **Secure Mounting:** Ensure the subwoofer is securely mounted in an appropriate enclosure to prevent movement during vehicle operation, which could cause injury or damage.
- **Hearing Protection:** Prolonged exposure to high sound pressure levels can cause permanent hearing damage. Use caution when adjusting volume levels.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- **MTX 5510-22 10-inch Car Audio Subwoofer** (1 unit)

4. KEY FEATURES

- **Power Handling:** 400 Watts RMS, 800 Watts Peak.
- **Impedance:** Dual 2 Ohms voice coils.
- **Inverted Apex Surround:** Designed to increase surface area, which contributes to increased volume displacement and sound pressure level (SPL).
- **Spider Plateau Venting:** Directs cool air to the voice coil, improving thermal performance and reliability.
- **Progressive Suspension:** Manages cone excursion at high power levels, reducing distortion and enhancing sound quality.
- **Radial Ribbed T-Yoke:** Aids in heat dissipation and reduces distortion, contributing to improved sound quality.
- **Voice Coil:** 2-inch dual voice coil design.
- **Magnet Weight:** 56 oz.

5. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and longevity of your subwoofer. Consult a professional installer if you are unsure about any steps.

5.1 Enclosure Recommendations

- **Sealed Enclosure Net Volume:** 0.75 cubic feet.
- **Vented Enclosure Net Volume:** 2.0 cubic feet.

5.2 Mounting Dimensions

- **Mounting Depth:** 5.625 inches.
- **Cut Out Diameter:** 9.188 inches.
- **Volume Displacement:** 35.0 cubic inches.

5.3 Wiring the Subwoofer

The MTX 5510-22 features dual 2-ohm voice coils, offering flexibility in wiring configurations to match your amplifier's impedance requirements. Common configurations include parallel wiring for a 1-ohm load or series wiring for a 4-ohm load.



Figure 1: Top view of the MTX 5510-22 subwoofer. Note the dual terminal connections for wiring.



Figure 2: Side view of the MTX 5510-22 subwoofer, illustrating the speaker terminals and overall construction.

Always refer to your amplifier's manual for compatible impedance loads and wiring diagrams. Ensure all connections are tight and free from corrosion.

6. OPERATING INSTRUCTIONS

Once installed, the subwoofer operates as part of your car audio system. Proper amplifier settings are essential for optimal performance and to prevent damage.

- **Amplifier Gain Setting:** Adjust the amplifier gain to match the output voltage of your head unit. Do not use the gain control as a volume knob; it should be set to prevent clipping (distortion).
- **Crossover Settings:** Utilize the low-pass filter (LPF) on your amplifier or head unit to send only low frequencies to the subwoofer. A common starting point is 80-100 Hz.
- **Subsonic Filter:** If your amplifier has a subsonic filter, set it to protect the subwoofer from playing frequencies below its resonant frequency, which can cause damage.
- **Break-in Period:** Allow a break-in period of approximately 10-20 hours of moderate listening before operating the subwoofer at maximum levels. This allows the suspension components to loosen and perform optimally.

7. MAINTENANCE

The MTX 5510-22 subwoofer requires minimal maintenance to ensure long-term performance.

- **Cleaning:** Periodically wipe the subwoofer cone and surround with a soft, dry cloth to remove dust and debris. Avoid using harsh chemicals or excessive moisture.
- **Inspection:** Regularly inspect the wiring connections for tightness and signs of corrosion. Check the subwoofer surround for any tears or damage.
- **Environmental Protection:** Ensure the subwoofer is protected from direct sunlight, extreme temperatures, and moisture, which can degrade materials over time.

8. TROUBLESHOOTING

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

Problem	Possible Cause	Solution
No Sound from Subwoofer	• Power issue to amplifier • Incorrect wiring connections • Amplifier in protect mode • Head unit settings	• Check amplifier power, ground, and remote turn-on wires. • Verify all speaker and RCA connections. • Check amplifier for fault indicators; ensure proper impedance load. • Confirm subwoofer output is enabled and volume is up on head unit.
Distorted Sound	• Amplifier gain set too high • Incorrect crossover settings • Damaged subwoofer	• Reduce amplifier gain until distortion is eliminated. • Adjust LPF to an appropriate frequency (e.g., 80-100 Hz). • Inspect subwoofer cone and surround for physical damage.
Subwoofer Overheating	• Underpowered amplifier • Improper enclosure • Excessive continuous power	• Ensure amplifier RMS output matches subwoofer RMS rating. • Verify enclosure volume meets recommended specifications. • Reduce listening levels.

9. SPECIFICATIONS

Specification	Value
Model Name	5510-22
Speaker Type	Subwoofer
Speaker Size	10 Inches
RMS Power Handling	400 Watts
Peak Power Handling	800 Watts
Recommended Amp Power	200-400 Watts RMS
Impedance	Dual 2 Ohms
Frequency Response	29Hz - 130Hz

Specification	Value
Sensitivity	83.1 dB
Voice Coil	2 inches (Dual)
Magnet Weight	56 oz.
Mounting Depth	5.625 inches
Cut Out Diameter	9.188 inches
Volume Displacement	35.0 cubic inches
Sealed Enclosure Net Volume	0.75 cubic feet
Vented Enclosure Net Volume	2.0 cubic feet
Item Weight	9.8 Pounds
Material	Metal or Plastic
Connectivity Technology	Wired
UPC	715442352739

10. WARRANTY INFORMATION

The MTX 5510-22 subwoofer comes with a **2-year limited warranty**. This warranty covers defects in materials and workmanship under normal use. It does not cover damage resulting from improper installation, accident, misuse, abuse, neglect, unauthorized repair, or modification. Please retain your proof of purchase for warranty claims.

11. CUSTOMER SUPPORT

For technical assistance, warranty service, or additional product information, please contact MTX Audio customer support. Refer to the official MTX Audio website for current contact details and support resources.

Online Resources: www.mtx.com