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› [MTX Audio](#) /

› [MTX Audio 5512-22 5500 Series Subwoofer Instruction Manual](#)

MTX Audio 5512-22

MTX Audio 5512-22 5500 Series Subwoofer Instruction Manual

Model: 5512-22

1. INTRODUCTION

Thank you for choosing the MTX Audio 5512-22 5500 Series Subwoofer. This 12-inch component subwoofer is engineered to deliver powerful and precise low-frequency sound for your car audio system. This manual provides essential information for proper installation, operation, and maintenance to ensure optimal performance and longevity of your subwoofer.



Figure 1: Front view of the MTX Audio 5512-22 Subwoofer.

2. SAFETY INFORMATION

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

- Always disconnect the vehicle's battery before beginning any electrical work.
- Ensure proper wiring and connections to prevent short circuits and electrical hazards.
- Mount the subwoofer securely to prevent movement during vehicle operation.
- Avoid prolonged exposure to extremely high volume levels, which can cause hearing damage.
- This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

3. SETUP AND INSTALLATION

3.1 Unpacking

Carefully remove the subwoofer from its packaging. Inspect for any signs of damage during transit. Retain the packaging for future transport or service needs.

3.2 Wiring Connections

The MTX Audio 5512-22 features a dual voice coil design with a 2 Ohm impedance. Proper wiring is crucial for optimal performance and amplifier stability. Consult your amplifier's manual for recommended wiring configurations for a 2 Ohm load.



Figure 2: Rear view showing the subwoofer's terminals.

3.3 Enclosure Recommendations

For best results, install the 5512-22 subwoofer in a sealed or ported enclosure designed for its specifications. The enclosure's volume and port tuning (for ported designs) significantly impact sound quality and output. Refer to specialized car audio resources or professional installers for appropriate enclosure designs.



Figure 3: Side view of the subwoofer, highlighting its robust construction.

3.4 Amplifier Gain Setting

Setting the amplifier gain correctly is essential to prevent distortion and potential damage to your subwoofer and amplifier. The gain control is used to match the output voltage of your source unit (head unit) to the input sensitivity of your amplifier, not as a volume control.

To properly set your amplifier's gain, you can use Ohm's Law to calculate the target RMS voltage output. For the 5512-22, with a 400W RMS power rating and 2 Ohm impedance, the desired RMS voltage is approximately 31.62 Volts ($V = \sqrt{P * R} = \sqrt{400W * 2\Omega} = \sqrt{800} \approx 28.28V$, or if using 500W RMS as in the video example, $V = \sqrt{500W * 2\Omega} = \sqrt{1000} \approx 31.62V$).

A multimeter is required for accurate gain setting. Play a test tone (e.g., 50Hz sine wave) at 0dB from your source unit with the volume set to about 75-80% of maximum. With the subwoofer disconnected from the amplifier, measure the AC voltage at the amplifier's speaker terminals. Adjust the amplifier's gain control until the multimeter reads the calculated target RMS voltage. Ensure all bass boost, subsonic filters, and low-pass filters on the amplifier are set to their minimum or off positions during this process to achieve the widest bandwidth for gain setting.

Your browser does not support the video tag.

Video 1: Detailed instructions on how to set your amplifier gain using Ohm's Law for optimal performance and to prevent damage.

4. OPERATION

Once installed and properly configured, your MTX Audio 5512-22 subwoofer is ready for use. Adjust your head unit's volume and amplifier's filters (low-pass filter, subsonic filter, bass boost) to achieve your desired sound. Start with conservative settings and gradually increase them to avoid overdriving the subwoofer or amplifier.

- **Low-Pass Filter (LPF):** This filter allows only frequencies below a set point to pass through to the subwoofer. Typically set between 80Hz and 120Hz, depending on your other speakers.
- **Subsonic Filter:** This filter removes extremely low frequencies that are inaudible and can cause the subwoofer to over-excurt, potentially causing damage. Set it slightly below your enclosure's tuning

frequency.

- **Bass Boost:** Use sparingly. Excessive bass boost can lead to distortion and damage. If more bass is desired, consider adjusting the enclosure or amplifier gain slightly.

5. MAINTENANCE

The MTX Audio 5512-22 subwoofer requires minimal maintenance to ensure long-lasting performance.

- **Cleaning:** Use a soft, dry cloth to wipe down the cone and surround. Avoid using harsh chemicals or excessive moisture.
- **Inspection:** Periodically check all wiring connections for tightness and corrosion. Ensure the subwoofer is securely mounted in its enclosure.
- **Avoid Overdriving:** Listen for signs of distortion (clipping) from your amplifier or subwoofer. Reduce volume or adjust settings immediately if distortion is heard.

6. TROUBLESHOOTING

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

- **No Sound:**
 - Check all power, ground, remote, and signal connections.
 - Verify amplifier is powered on (power indicator light).
 - Check amplifier fuses.
 - Ensure source unit is providing an audio signal.
- **Distorted Sound:**
 - Reduce amplifier gain.
 - Check for proper impedance matching between subwoofer and amplifier.
 - Ensure speaker wires are not shorted.
 - Reduce bass boost settings.
- **Weak Bass:**
 - Increase amplifier gain gradually.
 - Adjust low-pass filter frequency.
 - Verify correct polarity of speaker wiring.
 - Check enclosure for air leaks or improper volume.

7. SPECIFICATIONS

Feature	Specification
Model Name	5512-22
Speaker Type	Subwoofer
Subwoofer Diameter	12 Inches

Peak Power	800 Watts
RMS Power	400 Watts
Impedance	2 Ohm
Polypropylene Cone	Yes
Inverted Apex Rubber Surround	Yes
Spider Plateau Venting	Yes
Product Dimensions	12"D x 12"W x 5"H
Item Weight	10.7 Pounds
Frequency Response	31 Hz (Lower limit)
Included Components	Subwoofer

8. WARRANTY AND SUPPORT

The MTX Audio 5512-22 Subwoofer comes with a **2-Year Limited Warranty**. Please retain your proof of purchase for warranty claims.

For technical assistance or further inquiries, please contact MTX Audio Tech Support at **800.225.5689**.

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Related Documents - 5512-22

 <p> <small> PARA ENTENDER A TR COMO INSTALAR VEHICLE SPECIFIC SUBWOOFER ENCLOSURE OWNER'S MANUAL </small> </p>	<p>MTX Audio FMUST05BK12A-TN Ford Mustang Subwoofer Enclosure Owner's Manual & Installation Guide</p> <p>Comprehensive owner's manual and installation guide for the MTX Audio FMUST05BK12A-TN vehicle-specific subwoofer enclosure for the Ford Mustang (2005-2013). Includes features, specifications, installation steps, troubleshooting, and warranty information.</p>
 <p> <small> PARA ENTENDER A TR COMO INSTALAR VEHICLE SPECIFIC SUBWOOFER ENCLOSURE OWNER'S MANUAL </small> </p>	<p>MTX Audio JWTJ97C20A-TN/JWTJ97T20A-TN Jeep Wrangler TJ Subwoofer Enclosure Owner's Manual</p> <p>This owner's manual provides installation instructions, features, specifications, and warranty information for the MTX Audio JWTJ97C20A-TN and JWTJ97T20A-TN amplified subwoofer enclosure designed for the Jeep Wrangler TJ (1997-2006).</p>

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OWNER'S MANUAL

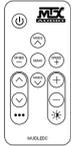
Bluetooth

[MTX 278003880 Owner's Manual - Vehicle Bluetooth Audio System](#)

Owner's manual for the MTX 278003880 Vehicle Bluetooth Audio System. Provides setup instructions, button functions, and important regulatory and compliance information.

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MUDLEDC
LED REMOTE CONTROL
OWNER'S MANUAL

[MTX MUDLEDC LED Remote Control Owner's Manual](#)

Owner's manual for the MTX MUDLEDC LED Remote Control, detailing its features, specifications, general operation, and installation for RGB LED audio components. Includes remote layout and button functions.

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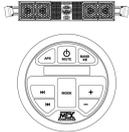
AWBTSW
BLUETOOTH SOURCE CONTROLLER
OWNER'S MANUAL

[MTX Audio AWBTSW Bluetooth Source Controller Owner's Manual](#)

Owner's manual for the MTX Audio AWBTSW Bluetooth Source Controller, detailing its features, operation, pairing, mounting, and wiring. This device allows users to control audio playback from Bluetooth-enabled devices in vehicles.

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MUDSYS41
MUDSYS46
BLUETOOTH OVERHEAD AUDIO SYSTEMS
OWNER'S MANUAL

[MTX MUDSYS41 MUDSYS46 Bluetooth Overhead Audio System Owner's Manual](#)

Comprehensive owner's manual for the MTX MUDSYS41 and MUDSYS46 Bluetooth Overhead Audio Systems, designed for off-road vehicles. Includes installation instructions, operation guide, features, and troubleshooting.