

MTX[®]
AUDIO

TERMINATOR[®]



TNA500D
MONO-BLOCK CLASS-D POWER AMPLIFIER
OWNER'S MANUAL



THANK YOU

Thank you for making the AWESOME decision to purchase our MTX Audio Hi-Performance amplifier. Proper installation matched with MTX speakers and subwoofers provide superior sound and performance for endless hours of enjoyment whether you are waking the neighbors or just out enjoying your tunes. So, congratulations on your purchase, thanks for your support and most importantly, enjoy the ultimate audio experience with MTX!

WE'RE HERE TO HELP

We're here to help with any installation or technical support. Visit mtx.com to chat, call 1-800-225-5689 to speak with an MTX Technical Support representative, or visit youtube.com/user/MTXAudioUSA to view product videos.

DON'T FORGET TO REGISTER YOUR PRODUCT

Don't forget to register your new MTX Audio product. Visit mtx.com/productregistration or scan the QR code to the right.

Model # _____

Serial # _____

Dealer's Name _____

Date of Purchase _____



IMPORTANT NOTICE

Whenever working on the vehicle, it is recommended to disconnect the battery prior to starting work. Failure to do so may lead to a risk of electric shock or equipment damage.

When connecting power and ground wires ensure that the red power wire is fused at the point where it is connected to the vehicle's battery. Failure to do so can result in damage to the vehicle if a short circuit develops between the vehicle connection point and the product.



FEATURES

- High Level Input
- Stable and Reliable Circuit Design
- Surface Mount Component Technology
- Direct Insert Power and Speaker Terminals
- Short Circuit, Thermal, and Voltage Protection
- External Bass Control Knob Included

SPECIFICATIONS

Primary Ratings

- Primary Power Output Rating:
 - 300W at 4Ω , $\leq 1\%$ THD+N
- Signal-to-Noise Ratio (1 Watt): 80dB

Secondary Ratings

- Secondary Power Output Rating:
 - 500W at 2Ω , $\leq 1\%$ THD+N
- THD+Noise (Distortion) (1 Watt): $\leq 1\%$
- Frequency Response ($\pm 1\text{dB}$): 20Hz - 200Hz
- Maximum Input Signal: 5V
- Minimum Input Signal: 200mV
- Crossover: Variable Low Pass Filter 40Hz - 200Hz 12dB/oct
- Variable Subsonic Filter: 20Hz - 50Hz 12dB/oct
- Fuse Size: 30A x 2
- Dimensions: 9.84" x 7.09" x 2.05" (250mm x 180mm x 52mm)

IN THE BOX

- TNA500D Amplifier
- External Bass Control Knob
- (4) #8 $\frac{3}{4}$ " Screws
- (2) Allen Wrenches

INSTALLATION AND MOUNTING

MTX recommends your new TERMINATOR amplifier be installed by an Authorized MTX retailer. Any deviation from specified installation instructions can cause serious damage to the amplifier, speakers and/or vehicles electrical system. Damage caused from improper installation is NOT covered under warranty. Please verify all connections prior to system turn on!

1. Disconnect the vehicle's negative battery cable.
2. Determine the mounting place for your MTX amplifier. Keep in mind there should be sufficient air flow for proper cooling. Mark the mounting holes from the amplifier to be drilled. Before drilling make sure all vehicle wires, gas lines, brake lines and gas tank are clear and will not interfere with installation. Drill the desired holes and mount the MTX amplifier.
3. Install a positive (+) power cable from the vehicle's battery through the firewall using a grommet or firewall bushing to avoid cable damage from sharp edges of the firewall. Run the cable through the interior of the vehicle and connect it to the amplifier's (+12V) terminal. Do Not connect to the battery at this time.

Note: MTX recommends using 8 AWG power wire with the MTX TNA500D amplifier.

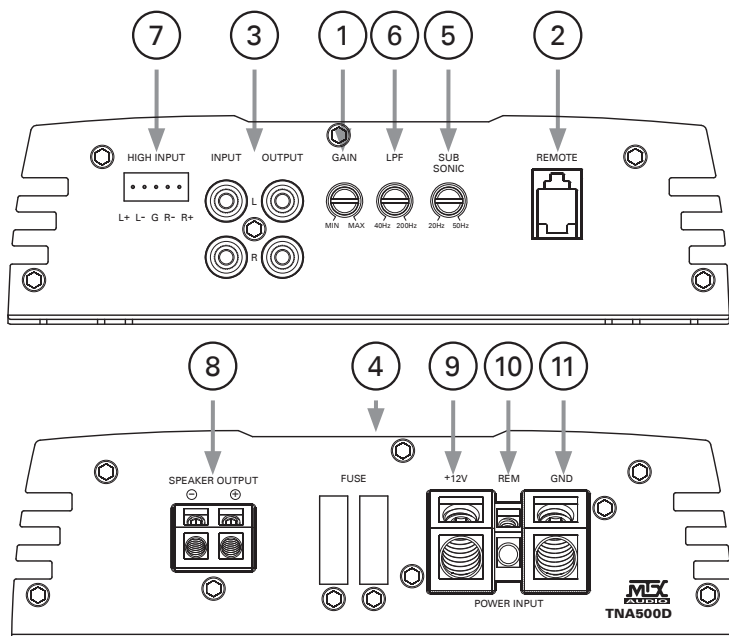
4. Install a circuit breaker or fuse within 18" of the battery or before the firewall. This effectively lowers the risk of severe damage to you or your vehicle in case of a short circuit or accident. Make sure the circuit breaker is switched off or the fuse is taken out of the fuse holder until all connections are made. Now connect your positive power cable to the positive battery terminal of the battery.
5. Grounding - Locate a proper ground point on the vehicle's chassis and remove all paint, dirt or debris to reveal a bare metal surface. Attach the ground wire to that contact point. Connect the opposite end of the ground wire to the (GND) terminal on the MTX amplifier.
6. Connect a Remote Turn-on wire from the source unit to the MTX amplifier's (REM) terminal. If the source unit does not have a dedicated Remote Turn-on lead, you may connect to the source unit's vehicle Acc wire.
7. Connecting signal cables to the amplifier - There are two ways to supply the signal to your amp.
 - To get maximum performance, we suggest connecting a high quality RCA to the corresponding outputs at the source unit and inputs of the amplifier.
 - If a source unit is being used without RCA outputs, use the included high level plug and splice into the speaker output wires of the source unit.
8. Connect your speakers to your MTX amplifier's speaker terminals. Your MTX amp can drive a 2 ohm minimum load for max power.

Note: MTX recommends using 14 AWG speaker wire with the MTX TNA500D amplifier.

9. Double check all previous installation steps, in particular, wiring and component connections. Once verified, reconnect the vehicle's negative battery cable, turn the circuit breaker on or place the fuse in the fuse holder.

Note: Gain Levels on the amplifier should be turned all the way down (counter clockwise) before proceeding with adjustments.

CONTROL FUNCTIONS



- Gain Control** - The gain control matches the input sensitivity of the amplifier to the source unit being used. The operating range varies from 200mv to 10V.
Adjusting the gain:
 1. Turn the gain control on the amplifier all the way down (counter clockwise).
 2. Turn up the volume control on the source unit to approximately $\frac{3}{4}$ of maximum.
 3. Adjust the gain control on the amplifier until audible distortion occurs.
 4. Adjust the gain control down until audible distortion disappears.
 5. The amplifier is now calibrated to the output of the source unit.
- Remote Control Port** - Use this port to connect the included MTX EBC. It allows you to control the output level sitting at the front of the car.
- RCA Inputs** - These RCA inputs are used with source units that have RCA or Line level outputs. (Source units need a minimum level of 100mV output for proper operation of the amplifier). MTX recommends only high quality twisted pair cables (such as StreetWires) to decrease the possibility of radiated noise entering the system.
- Power On / Protection LED** - The LED illuminates red when the amp is switched on. When the amp is in thermal protection, the LED will blink steady. The amplifier will resume after cooling down. When the amp is in short circuit the LED will blink in a burst sequence.
- Subsonic** - This control can filter out unwanted low frequency from 20Hz (OFF) to 50Hz. This function should only be used with vented enclosures.
- Low Pass X-Over Frequency Control** - Use this to select the desired low-pass (LP) x-over frequency. The frequency is adjustable from 40Hz to 200Hz.

CONTROL FUNCTIONS

7. High Input - High level is done through the included wire harness.
8. Speaker Terminals (+ / -) - Connect speakers to these terminals. Observe speaker polarity throughout the system. Improper phase can result in loss of bass response and/or poor overall sound quality. MTX recommends using 14 AWG speaker wire with the MTX TNA500D amplifier.
9. Power Terminal (+12V) - This is the main power input for the amplifier and must be connected directly to the positive terminal of the vehicles battery for proper operation. Use caution when installing (+12) power cable in the vehicle. Avoid running this cable parallel with RCA cables, antennas, or other sensitive equipment due to massive currents that can induce noise into the audio system. It is also very important to have a tight, secure connection for maximum performance. MTX recommends using 8 AWG power wire with the MTX TNA500D amplifier.
10. Remote Terminal - The amplifier can be turned on by applying 12 volts to this terminal. Typically this voltage is supplied by a wire from the source unit marked "remote".
11. Ground Terminal - A proper ground is required for your amplifier to operate at peak performance. A short ground cable the same diameter as the power cable must be used to attach the ground terminal directly to the chassis of the vehicle. Always remove paint, dirt or debris to expose bare metal where the ground will be attached.

MITEK WARRANTY

MiTek Mobile products (including, but not limited to: MTX, Coustic, Streetwires, Xtant, BassSlammer, and Thunder Marine) purchased in the USA from an AUTHORIZED MITEK DEALER are guaranteed against defects in material and workmanship for two years. The warranty period begins the day the product is purchased by the end user, and this warranty is limited to the original retail purchaser of product. Products found to be defective during the warranty period will be repaired or replaced with equivalent product by MiTek at no charge. This warranty is void if it is determined that unauthorized parties have attempted repairs or alterations of any nature, and the warranty does not extend to cosmetics or finish. MiTek disclaims any liability for other incurred or consequential damages resulting from product defects. MiTek's total liability will not exceed the purchase price of the product.

We're here to help! If you experience an issue with any of our products, please contact our customer service technical line at 1-800-CALL-MTX to help troubleshoot your issue. If after speaking with our technical experts it is determined that your product is defective, the technician will provide you with a Return Authorization number and all relevant details you'll need to process your claim quickly.



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Due to continual product development, all specifications are subject to change without notice.

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