



TERMINATOR SERIES AMPLIFIERS



TN250.1 / TN500.1 / TN1000.1
TN150.2 / TN300.4 / TN800.5

INTRODUCTION

Congratulations on the purchase of your new MTX gear. For over 50 years MTX remains an American family-owned manufacturer full of passionate enthusiasts just like you. Thank you for counting on us to help you “Amplify The Ride”!

For best performance and longevity of your audio gear, we recommend you have your new MTX product installed by an Authorized MTX Dealer. Their installation knowledge and expertise will ensure you get the most out of your new equipment while safeguarding against potential issues. Also, please read your product warranty carefully and retain your receipt and original carton for possible future use.

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

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

Model # _____

Serial # _____

Dealer's Name _____

Date of Purchase _____



TABLE OF CONTENTS

2. Introduction / Safety
3. Features / Package Contents
4. Control Functions
6. Installation
7. Wiring
11. Specifications
13. Dimensions
14. Warranty

SAFETY

- Please read and follow these instructions to prevent injury and damage to the unit.
- If you are unsure about installing the system by yourself, please have it installed by a qualified MTX technician.
- 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 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.

⚠ WARNING: This symbol with “WARNING” is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

⚠ CAUTION: This symbol with “CAUTION” is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

FEATURES

- Reliable and Efficient Class-D Circuit Design
- Small Size Footprint for Easy Installation
- Surface Mount Component Technology
- Direct Insert Power and Speaker Terminals
- Power and Protection LED Light Status Indicator
- Short, Thermal, and Under / Over Voltage Protection

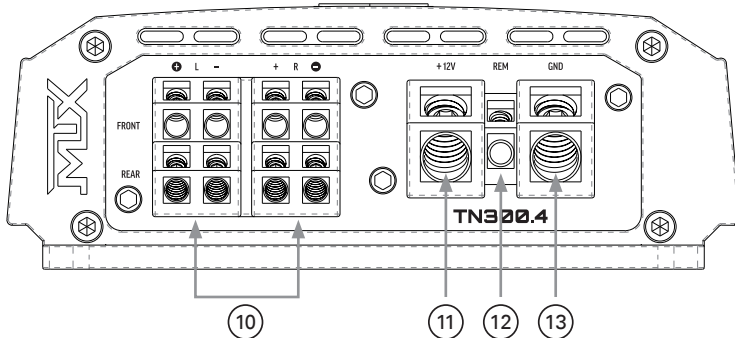
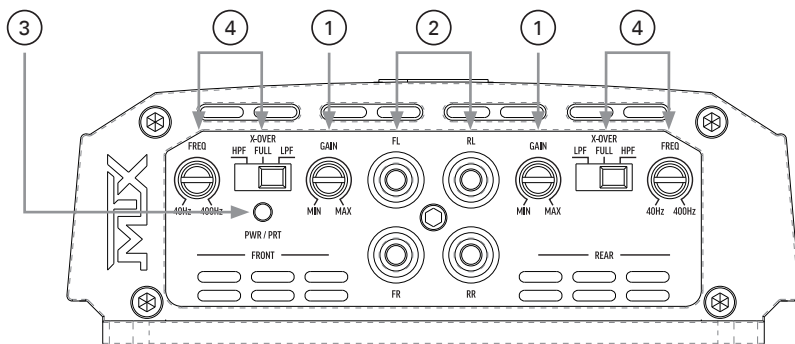
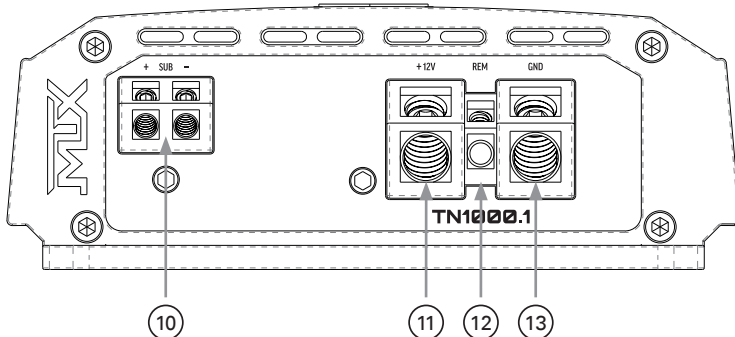
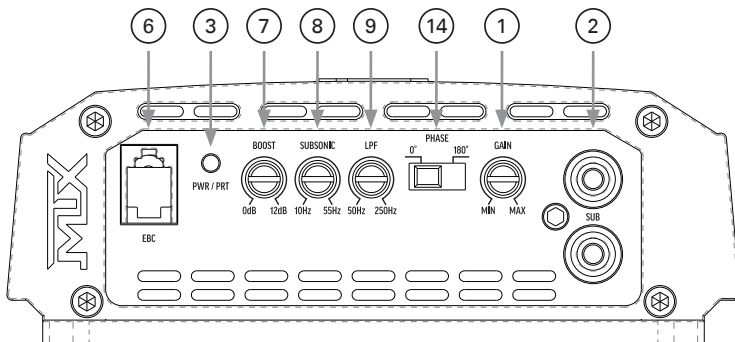
PACKAGE CONTENTS

- (1) TERMINATOR Series Amplifier
- (1) EBC Remote Knob (Not Included with TN150.2 and TN300.4 Models)
- (1) Manual
- (4) Mounting Screws
- (2) Allen Wrenches



CONTROL FUNCTIONS

1. Gain Control - The gain control matches the input sensitivity of the amplifier to the source unit being used. The operating range is 200mv to 6V.
2. RCA Inputs - The RCA inputs accept signal from either low-level (RCA) or high-level (speaker) inputs up to 6V. Source units need a minimum 200mV output for proper operation of the amplifier.
3. Power / Protect LED - The LED illuminates Blue when the amplifier is powered on and operating normally. When the thermal protection circuit is activated, the LED illuminates Red and the output is muted. The LED will return to Blue and the amplifier will resume normal operation once it has cooled to a safe operating temperature. The LED will briefly illuminate Red if the short or over / under voltage protection has been activated. The fault condition must be corrected before the amplifier will return to normal operating condition.
4. X-Over Mode and Frequency Control (TN150.2 / TN300.4) - These controls are used to adjust the frequencies played by the amplifier. Use the switch to select Low Pass, Full Range, or High Pass. In LP or HP mode, the crossover frequency is variable between 40Hz and 400Hz.
5. Input Configuration Switch (TN800.5) - This switch is used to select 4-channel or 5-channel mode based on the number of RCA outputs from the source unit. Select 4-channel if the source unit only has 4 RCA outputs, or 5-channel when connected to a source unit with a dedicated subwoofer output.
6. External Bass Control (EBC) Port (TN250.1 / TN500.1 / TN1000.1 / TN800.5) - This port connects to the included MTX EBC to remotely control the output level of the amplifier (sub channel only on TN800.5).
7. Bass Boost (TN250.1 / TN500.1 / TN800.5 / TN1000.1) - This control is used to adjust the Bass Boost level from 0 - 12dB. The Bass Boost frequency is centered at 45Hz.
8. Subsonic Filter (TN250.1 / TN500.1 / TN1000.1) This control is used to filter out unwanted low frequencies from 10Hz (Off) to 55Hz. This is used more often with vented subwoofer enclosures, but some sealed enclosures can benefit from this as well.
9. Low Pass X-Over Frequency Control (TN250.1 / TN500.1 / TN800.5 / TN1000.1) - This control is used to adjust the Low Pass crossover frequency. The crossover frequency is variable between 50Hz and 250Hz.
10. Speaker Terminals (+ / -) - These terminals are connected directly to the speakers / subwoofers. Terminator Amplifiers will accept up to a 10 AWG speaker cable.
11. Power Terminal (+12V) - This terminal is connected with a power cable and inline fuse or circuit breaker directly to the positive terminal of the vehicle's battery. Terminator amplifiers will accept up to a 4 AWG power cable.
12. Remote Terminal - This terminal is connected to the "remote" wire from the source unit and is used to turn the amplifier on when +12V is applied.
13. Ground Terminal - This terminal is connected with a short ground cable directly to the chassis of the vehicle. The ground cable must be the equivalent gauge as the power cable. Terminator amplifiers will accept up to a 4 AWG ground cable.
14. Phase Switch - This allows you to invert the phase of the amplifier outputs. In phase (0°) is default, but out of phase (180°) can improve bass response in some applications.



INSTALLATION

MTX recommends your new TERMINATOR Series amplifier be installed by an Authorized MTX Dealer. Any deviation from specified installation instructions can cause serious damage to the amplifier, speakers and / or vehicle's 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 amplifier. Keep in mind there should be sufficient air flow for proper cooling. Mark the mounting holes using the amplifier as a template. Before drilling or installing mounting screws, make sure all vehicle wires, gas lines, brake lines, and gas tank are clear and will not interfere with the amplifier installation. Drill mounting holes (where applicable) and install the amplifier using supplied mounting screws.

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.
4. Install a circuit breaker or fuse holder on the power cable within 18" of the battery. 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 the positive power cable to the positive battery terminal.

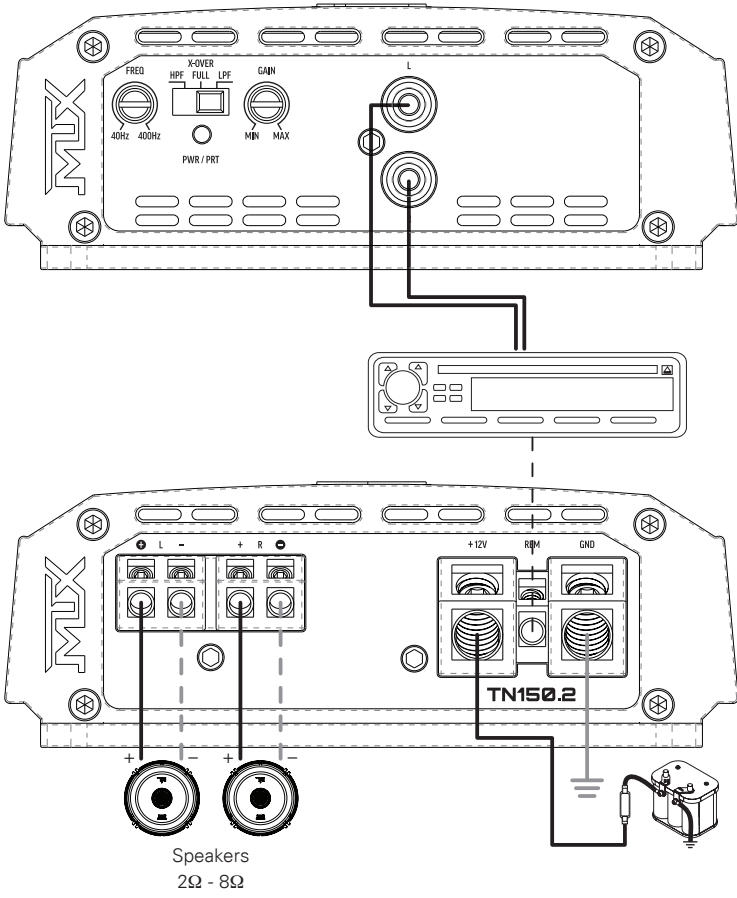
Note: Use equivalent gauge wire for both power and ground connections.

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 amplifier's (GND) terminal.

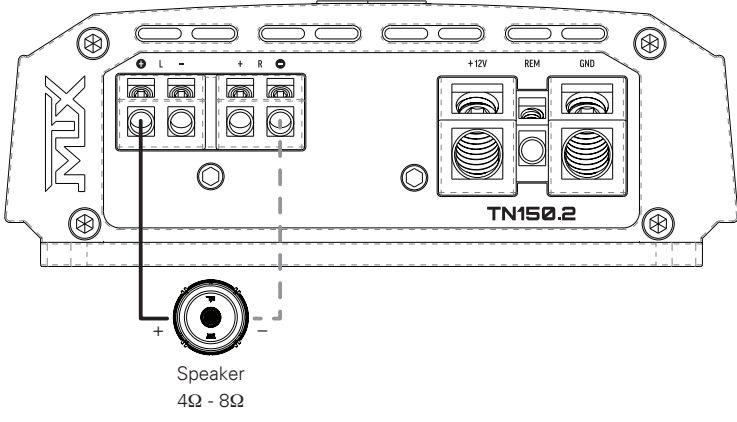
6. Connect a Remote Turn-on wire from the source unit to the amplifier's (REM) terminal. If the source unit does not have a dedicated Remote Turn-on lead, you may connect to the vehicle's accessory wire.
7. Connect the signal cables from the source unit to the amplifier RCA inputs.
 - When using a source unit with low-level (RCA) outputs, use high quality RCA cable(s) to connect directly to the amplifier RCA inputs.
 - When using a source unit with high level (speaker) outputs, use an RCA to speaker level adapter, or splice speaker wires directly to RCA cable(s) and connect to the amplifier RCA inputs.
 - For source units with high level output greater than 6V, a separate high to low level converter is required.
8. Connect your speakers to your amplifier's speaker terminals using the appropriate gauge speaker wire. See Wiring Diagrams on page 7 for minimum speaker impedance requirements per model.
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.
10. Gain Adjustment
 - A. Turn the gain control on the amplifier all the way down (counter clockwise).
 - B. Turn up the volume control on the source unit to approximately 3/4 of maximum.
 - C. Adjust the gain control on the amplifier until audible distortion occurs.
 - D. Adjust the gain control down until audible distortion disappears.
 - E. The amplifier is now calibrated to the output of the source unit.

WIRING

TN150.2

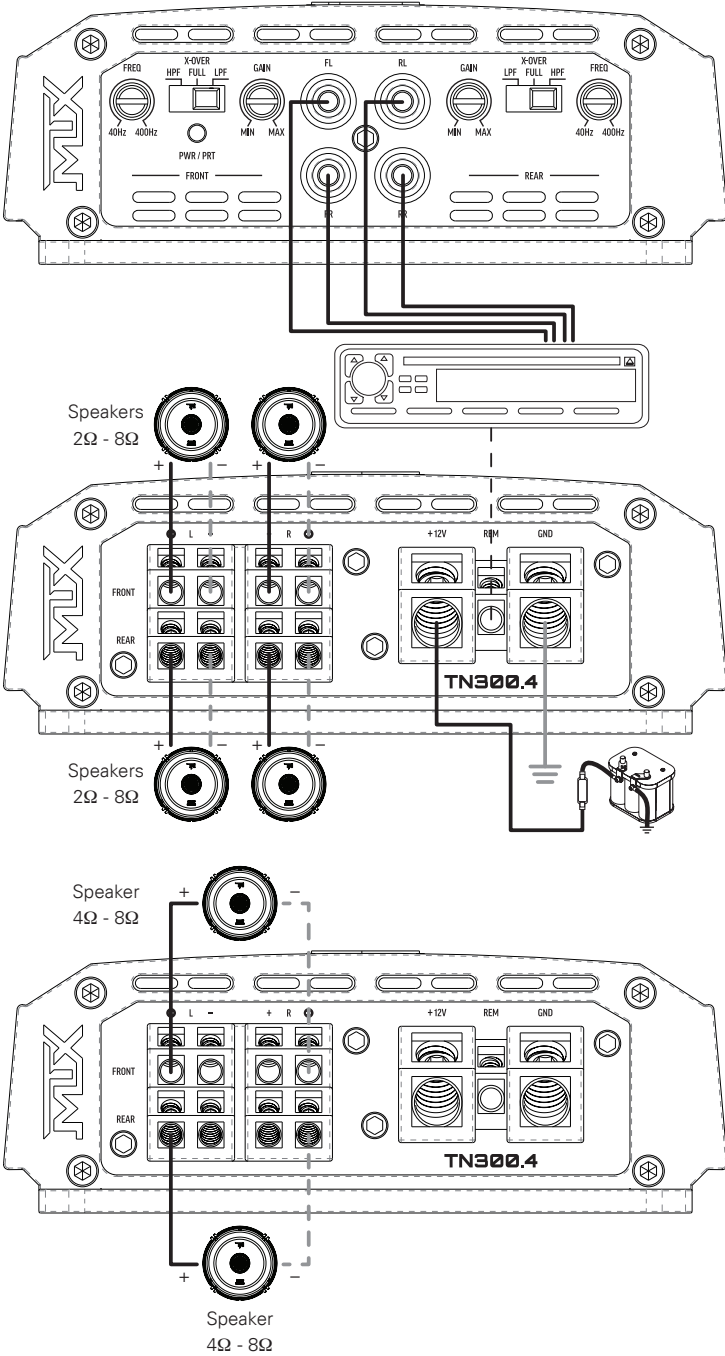


Bridged
Installation



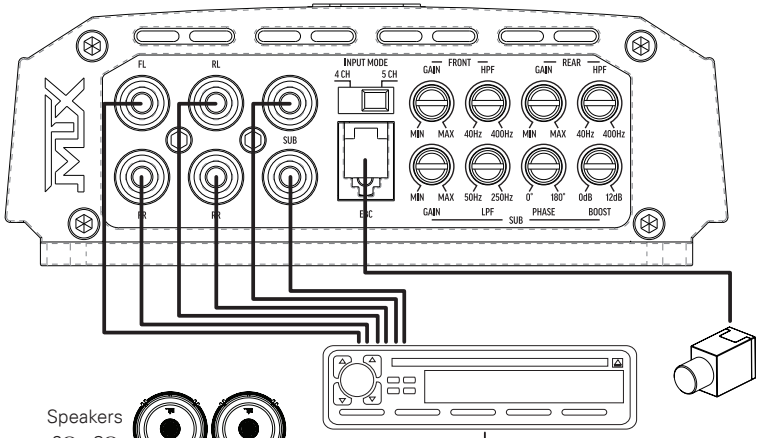
WIRING

TN300.4

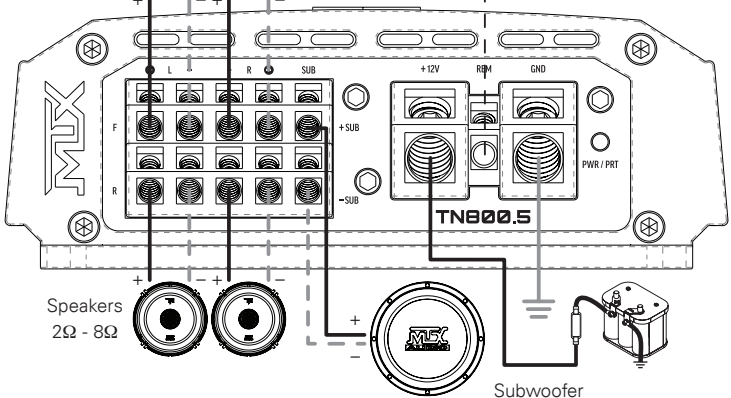


WIRING

TN800.5



Speakers
2Ω - 8Ω

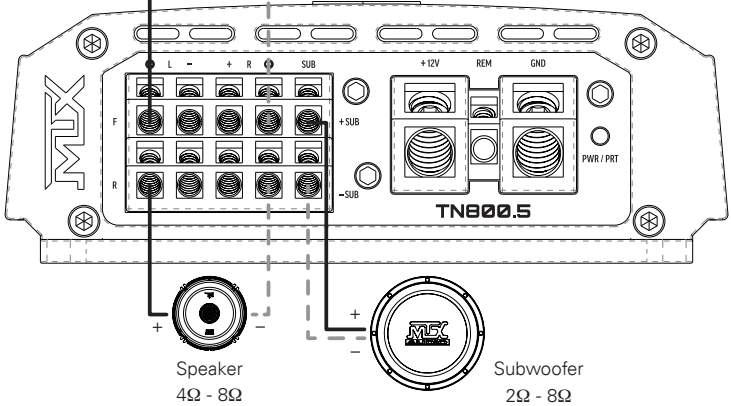


Speakers
2Ω - 8Ω

Subwoofer
2Ω - 8Ω

Speaker
4Ω - 8Ω

Bridged
Installation

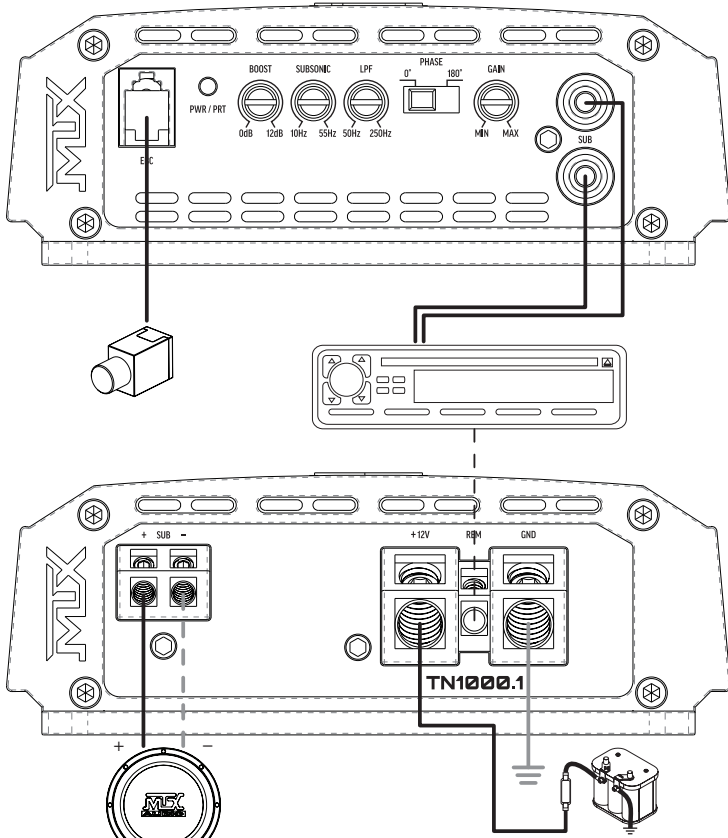


Speaker
4Ω - 8Ω

Subwoofer
2Ω - 8Ω

WIRING

TN250.1
 TN500.1
 TN1000.1



Subwoofer
 1Ω - 8Ω (TN1000.1)
 2Ω - 8Ω (TN500.1 / TN250.1)

SPECIFICATIONS

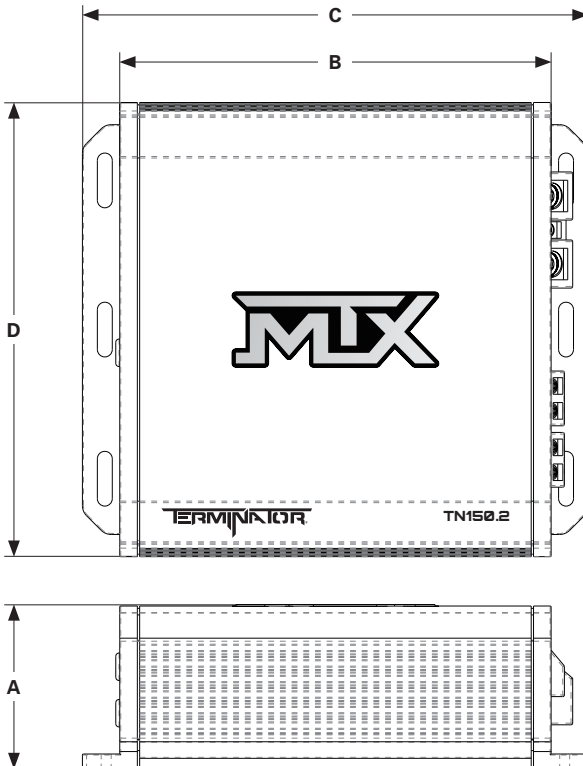
<i>Model</i>	TN250.1	TN500.1	TN1000.1
<i>Circuit Topology</i>	Mono Class-D	Mono Class-D	Mono Class-D
<i>RMS Power Output at 1Ω</i>	N/A	N/A	1000W
<i>RMS Power Output at 2Ω</i>	250W	500W	700W
<i>RMS Power Output at 4Ω</i>	150W	300W	400W
<i>RMS Power Output at 4Ω Bridged</i>	N/A	N/A	N/A
<i>Total Harmonic Distortion</i>	<0.3%	<0.3%	<0.3%
<i>Signal to Noise Ratio</i>	>95dB	>95dB	>95dB
<i>Input Sensitivity</i>	6V - 200mV	6V - 200mV	6V - 200mV
<i>Crossover Range</i>	50Hz - 250Hz	50Hz - 250Hz	50Hz - 250Hz
<i>Frequency Response</i>	20Hz - 250Hz	20Hz - 250Hz	20Hz - 250Hz
<i>Bass Boost</i>	0dB - 12dB	0dB - 12dB	0dB - 12dB
<i>Subsonic Filter</i>	10Hz - 55Hz	10Hz - 55Hz	10Hz - 55Hz
<i>EBC Remote Knob</i>	Yes	Yes	Yes
<i>Recommended Fuse Rating</i>	50A	80A	125A

SPECIFICATIONS

<i>Model</i>	TN150.2	TN300.4	TN800.5
<i>Circuit Topology</i>	Full Range Class-D	Full Range Class-D	Full Range Class-D
<i>RMS Power Output at 1Ω</i>	N/A	N/A	N/A
<i>RMS Power Output at 2Ω</i>	75W x 2CH	75W x 4CH	75W x 4CH + 500W
<i>RMS Power Output at 4Ω</i>	50W x 2CH	50W x 4CH	50W x 4CH + 300W
<i>RMS Power Output at 4Ω Bridged</i>	150W x 1CH	150W x 2CH	150W x 2CH (CH1/2/3/4)
<i>Total Harmonic Distortion</i>	<0.3%	<0.3%	<0.3%
<i>Signal to Noise Ratio</i>	>90dB	>90dB	>90dB
<i>Input Sensitivity</i>	6V - 200mV	6V - 200mV	6V - 200mV
<i>Crossover Range</i>	40Hz - 400Hz	40Hz - 400Hz	40Hz - 400Hz (CH1-4) 50Hz - 250Hz (Sub)
<i>Frequency Response</i>	20Hz - 20KHz	20Hz - 20KHz	20Hz - 20KHz (CH1-4) 20Hz - 250Hz (Sub)
<i>Bass Boost</i>	N/A	N/A	0dB - 12dB (Sub)
<i>Subsonic Filter</i>	N/A	N/A	N/A
<i>EBC Remote Knob</i>	No	No	Yes
<i>Recommended Fuse Rating</i>	30A	60A	125A

DIMENSIONS

<i>Model</i>	<i>Height (A)</i>	<i>Chassis Width (B)</i>	<i>Total Width (C)</i>	<i>Depth (D)</i>
TN250.1	2" (50mm)	6 ⁵ / ₁₆ " (160mm)	7 ³ / ₁₆ " (183mm)	5 ⁷ / ₁₆ " (137mm)
TN500.1	2" (50mm)	7 ¹ / ₈ " (180mm)	8" (203mm)	5 ⁷ / ₁₆ " (137mm)
TN1000.1	2" (50mm)	8 ⁵ / ₁₆ " (210mm)	9 ³ / ₁₆ " (233mm)	5 ⁷ / ₁₆ " (137mm)
TN150.2	2" (50mm)	5 ¹ / ₈ " (130mm)	6" (153mm)	5 ⁷ / ₁₆ " (137mm)
TN300.4	2" (50mm)	7 ¹ / ₈ " (180mm)	8" (203mm)	5 ⁷ / ₁₆ " (137mm)
TN800.5	2" (50mm)	10 ⁵ / ₈ " (270mm)	11 ⁹ / ₁₆ " (293mm)	5 ⁷ / ₁₆ " (137mm)



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.

Let's Get Social
mtx.com



Like, Follow, & Subscribe

© 2024 MiTek Corporation. All rights reserved. MTX is a trademark of MiTek Corporation. All other trademarks are property of their respective owners. Designed and Engineered in the U.S.A.

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

MTX Audio, 4545 East Baseline Rd. Phoenix, AZ 85042 U.S.A. 1-800-225-5689

MTX007546 RevB 3/24 • AW0016204 • 1-19288