



## MTX AUDIO JH3004 Class A B Four Channel Full Range Amplifier Owner's Manual

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## PRODUCT INFORMATION

Model # \_\_\_\_\_

Serial # \_\_\_\_\_

Dealer's Name \_\_\_\_\_

Date of Purchase \_\_\_\_\_

## INTRODUCTION

Thank you for purchasing this 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. Congratulations and enjoy the ultimate audio experience with MTX!

## FEATURES

- Double Sided PCB
- Surface Mount Components
- MOSFET Design
- LPF and HPF Crossover
- Adjustable Bass Boost (Mono and 5-Channel)
- Auto Turn On
- Noise Free Design
- Short, Thermal, and High/Low Voltage Protection

## CONTROL FUNCTIONS

1. Speakers – Connect speakers/subwoofers to these terminals. Be sure to check wire for proper polarity. Never connect the speaker cables to the chassis ground.
2. **+BATT** (+12 Volt Power) – Connect this terminal through a FUSE or CIRCUIT BREAKER to the positive terminal of the vehicle battery or the positive terminal of an isolated audio system battery.

**WARNING:** Always protect this power cable by installing a fuse or circuit breaker of the appropriate gauge within 18 inches (45cm) of the battery terminal connection.

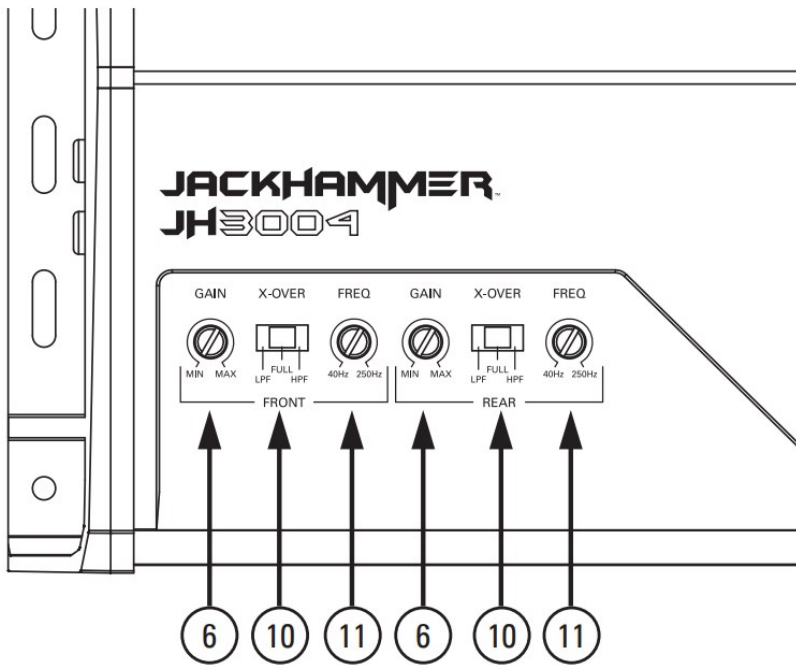
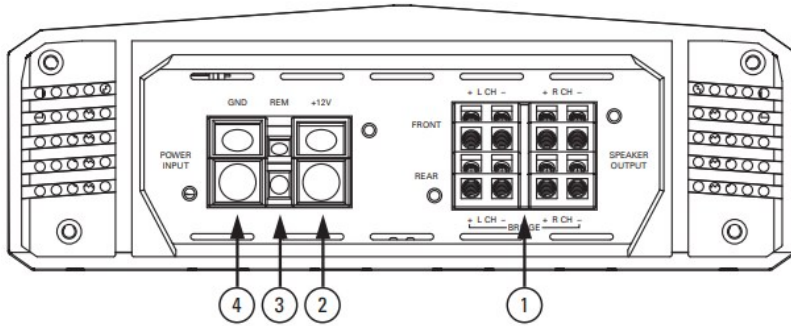
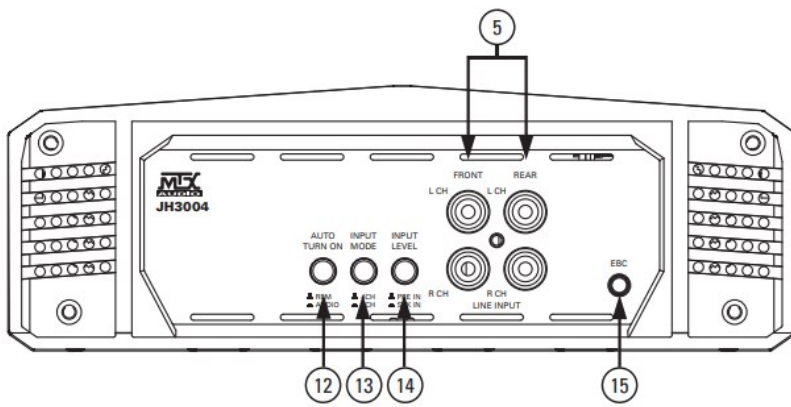
3. **Remote** – This terminal turns on the amplifier when (+) 12 volt is applied to it. Connect it to the remote turn on lead of the head unit or signal source.
4. **GND** – Connect this cable directly to the frame of the vehicle. Make sure the metal frame has been stripped of all paint down to the bare metal. Use the shortest distance possible. It is always a good idea to replace the factory ground at this time with a cable equal or larger than the new amplifier power cable.

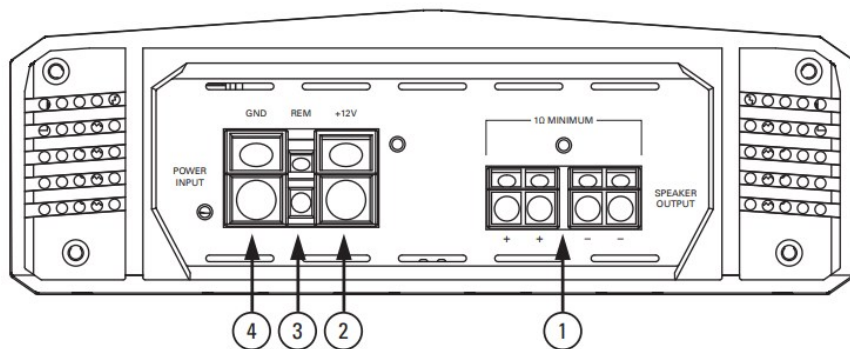
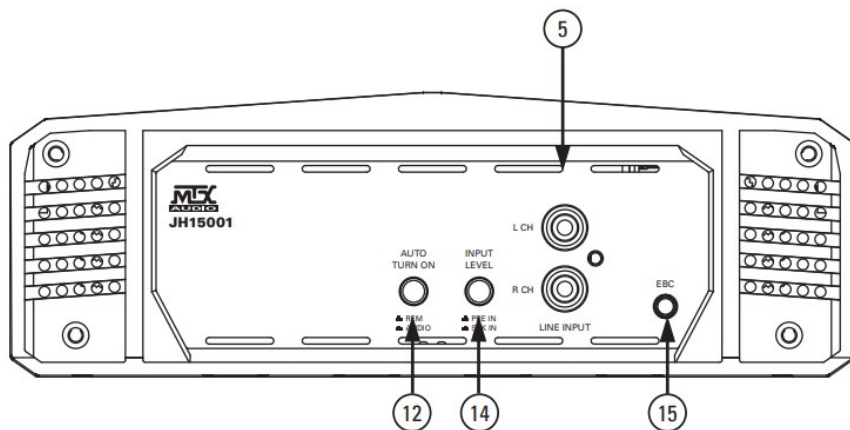
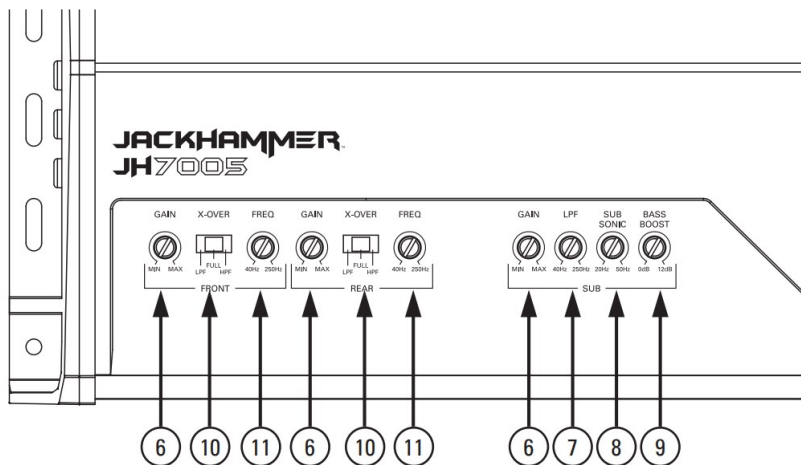
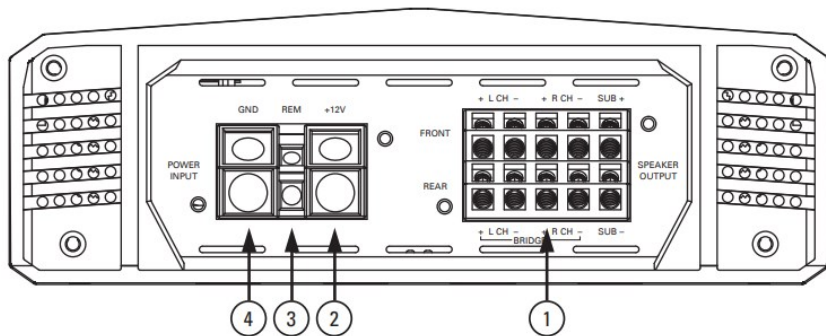
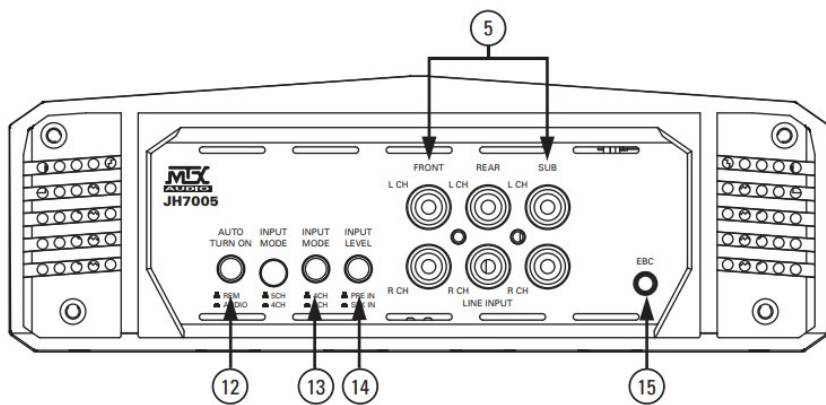
**CAUTION:** Do not connect this terminal directly to the vehicle battery ground terminal or any other factory ground points.

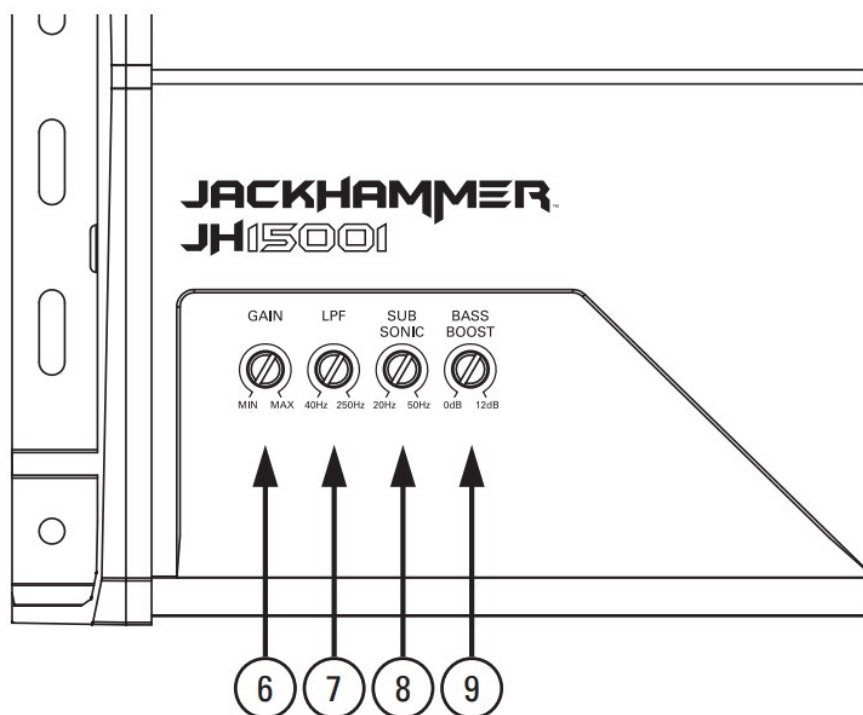
5. **RCA Input Jacks** – These RCA input jacks are for use with source units that have RCA outputs. A source unit with a minimum level of 200mV is required for proper operation. The use of high quality twisted pair cables is recommended to decrease the possibility of radiated noise entering the system.
6. **Level Control** – The Level, or Gain control will match the amplifier's sensitivity to the source units signal voltage. The operating range is 5V to 200mV. NOTE: This is NOT a volume control.
7. **Low Pass Filter Control (Mono Block)** – This control is used to select the desired low pass x-over frequency. The frequency can be adjusted from 40Hz to 250Hz for all bass mono models.
8. **Subsonic Filter Control (Mono Block)** – This control can filter out unwanted low frequency from 10Hz (OFF) to 50Hz. This function should only be used with vented enclosures.
9. **Bass Boost Level (Mono Block)** – This can boost bass level up to 18dB. The boost frequency is centered at 45Hz.
10. **X-OVER (Full Range)** – Selectable low pass, full range, or high pass filter controls the frequencies played for the front and rear channels.
11. **X-Over Frequency Control** – These controls allow control over the frequencies played for the front, rear, or subwoofer channels. In LP or HP mode, the crossover frequency can be tuned from 40Hz to 250Hz.
12. **Auto Turn On Switch** – Each model features auto turn on technology allowing installation without the use of a remote wire. If using a factory or aftermarket radio that does not include RCA outputs, the amplifier can be connected to the source unit using a speaker wire to RCA connection. The Remote Turn On switch when placed in the "Audio" position will allow the unit to turn itself on without the need to connect a remote wire. In the "Rem" position the unit will require a remote wire connection to turn on.
13. **Input Mode** – Push button switch on multi-channel models that tells the amplifier to play in either 4-CH or 5-CH mode (JH7005) or 2-CH or 4-CH mode (JH3004).
14. **Input Level** – Select Pre In if installing with a head unit that includes RCA outputs or Speaker Level In if installing with a factory head unit or head unit without RCA outputs.
15. **EBC** – Input connection for external bass control that is included with mono and 5-channel models.

## PANEL LAYOUT

JH3004 4-Channel Amplifier Panel Layout







## WIRING DIAGRAM

See page 28 for amplifier wiring diagrams.

## INSTALLATION AND MOUNTING

MTX recommends your new JACKHAMMER amplifier be installed by a 12 volt installation specialist. 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 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 (+BATT) terminal. Do not connect to the battery at this time.  
**NOTE:** Use only proper gauge wire for both positive and negative connections.
4. Install a circuit breaker or fuse within 18 inches 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 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 Power Antenna lead.

7. Supply the signal to your MTX amplifier by connecting the signal cables using high quality RCA to the corresponding outputs at the source unit and inputs of the amplifier.
8. Connect your speakers to your MTX amplifier's speaker terminals using the correct gauge speaker wire. Your MTX amp can drive a 2Ω (JH3004 & JH7005) or 1Ω (JH5001, JH10001 & JH15001) minimum load for optimum power.
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.

## INSTALLATION

For proper performance and safety, **MTX** recommends installing an inline fuse per the owner's manual instructions according to the following.

JH15001	150A Fuse (External)
JH10001	100A Fuse (External)
JH5001	60A Fuse
JH7005	100A Fuse
JH3004	50A Fuse

## TROUBLESHOOTING

Problem	Cause	Solution
No LED Indication	No +12V at Remote Connection	Supply +12V to Terminal
	No +12V at Power Connection	Supply +12V to Terminal
	Insufficient Ground Connection	Verify Ground Connection
	Blown Power Fuse	Replace Fuse
Power LED On, No Output	Volume on Source Unit Off	Increase Volume on Source Unit
	Speaker Connections Not Made	Make Speaker Connections
	Gain Control on Amplifier Off	Turn Up Gain
	Signal Processing Units Off	Apply Power to Signal Processor
	All Speakers Blown	Replace Speakers
Output Distorted	Head Unit Volume Set Too High	Lower Head Unit Volume
	Amplifier Gain Set Too High	Lower Amplifier Gain
Balance Reversed	Speaker Wire L & R Reversed	Correct Speaker Wire Orientation
	RCA Inputs Reversed	Reverse RCA Inputs
Bass is Weak	Speakers Wired Out of Phase	Wire Speakers with Correct Phase
	Not Using MTX Sub woofers	Buy MTX Sub woofers
Blowing Fuses	Excessive Output Levels	Lower the Volume
	Amplifier Defective	Return for Service

## SPECIFICATIONS

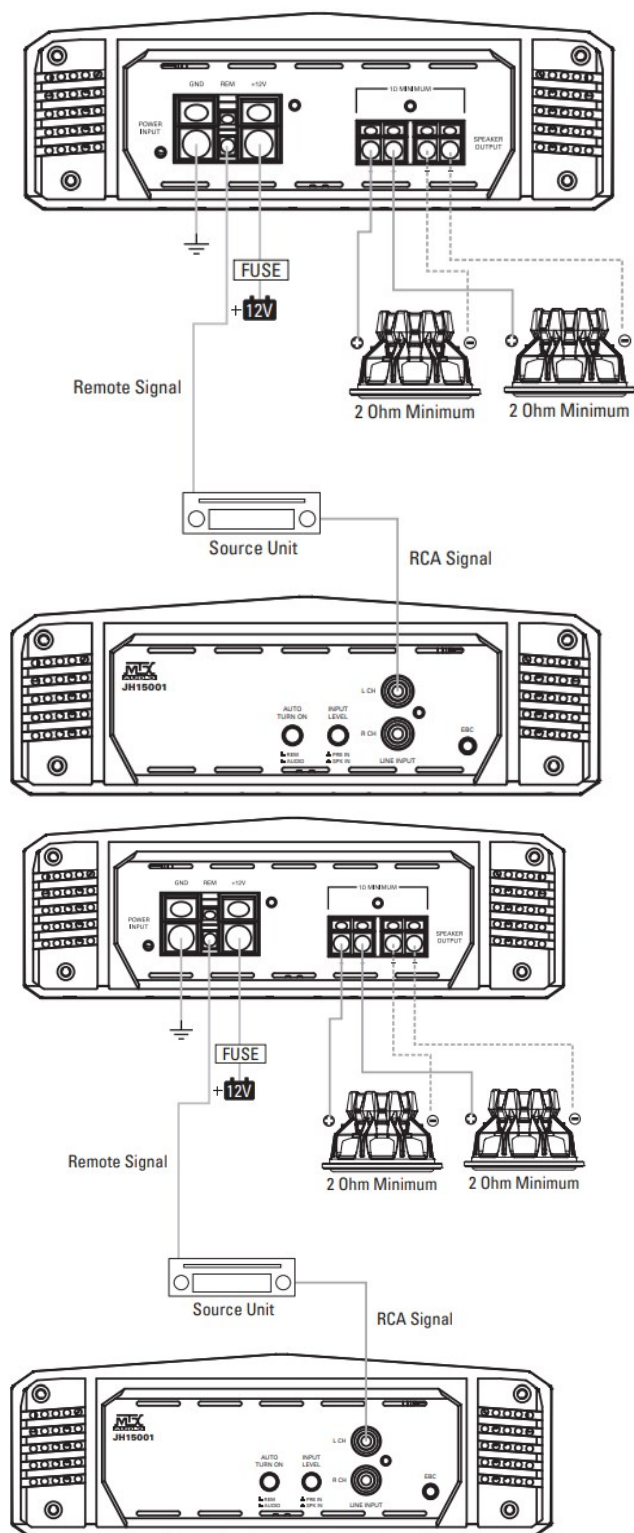
Model	JH15001	JH10001	JH5001	JH7005	JH3004
Description	Mono Block Class-D	Mono Block Class-D	Mono Block Class-D	Class-AB + Class-D	Class-AB
<b>Primary Ratings</b>					
Primary Power	600W at 4W, 20-90Hz and £ 1% THD+N	400W at 4W, 20-150Hz and £ 1% THD+N	200W at 4W, 20-165Hz and £ 1% THD+N	60W x 4 from 20-20kHz and 250W x 1 from 20-150Hz at 4W and £ 1% THD+N	60W x 4 at 4W, 20-20kHz and £ 1% THD+N
SNR Rating	70dBA	68dBA	72dBA	60dBA	63dBA
<b>Secondary Ratings</b>					



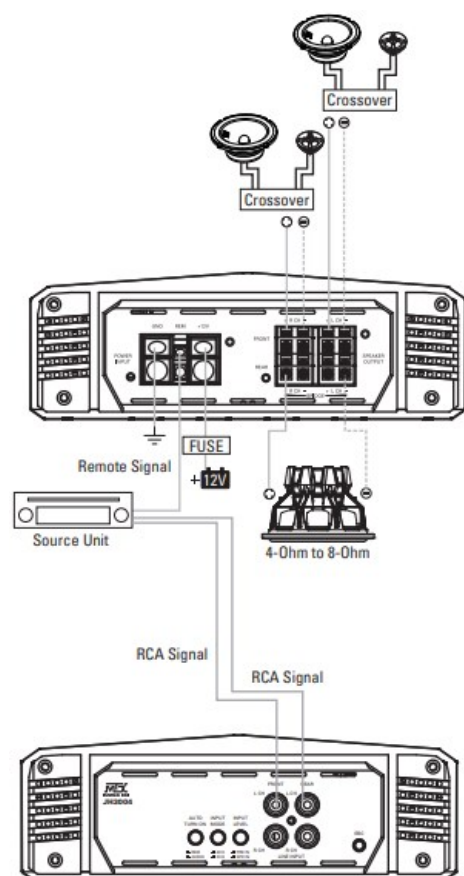
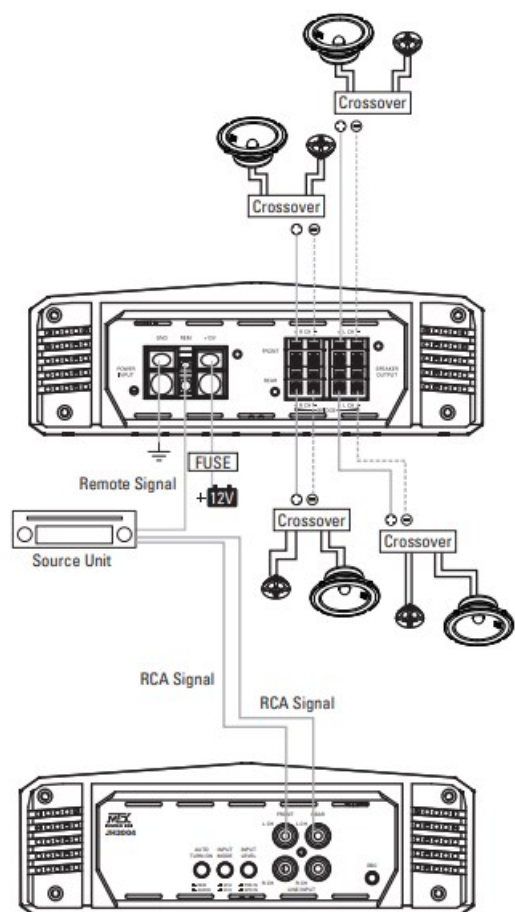
Dynamic Power	650W at 4W, £ 1% THD+N 1100W at 2W, £ 1% THD+N 1650W at 1W, £ 1% THD+N	450W at 4W, £ 1% THD+N 775W at 2W, £ 1% THD+N 1100W at 1W, £ 1% THD+N	225W at 4W, £ 1% THD+N 375W at 2W, £ 1% THD+N 550W at 1W, £ 1% THD+N	60W x 4 at 4W, £ 1% THD+N (Front and Rear) 90W x 4 at 2W, £ 1% THD+N (Front and Rear) 180W x 2 at 4W, £ 1% THD+N (Bridged Front and Rear) 275W at 4W, £ 1% THD+N (Subwoofer) 450W at 2W, £ 1% THD+N (Subwoofer)	60W x 4 at 4W, £ 1% THD+N 90W x 4 at 2W, £ 1% THD+N 180W x 2 at 4W Bridged, £ 1% THD+N
Frequency Response	20Hz to 250Hz	20Hz to 250Hz	20Hz to 250Hz	20Hz to 20kHz 20Hz to 250Hz	20Hz to 20kHz
Maximum Input Signal	10V	10V	10V	10V	10V
Minimum Input Signal	135mV	135mV	135mV	135mV	135mV
Crossover Low Pass Filter	12dB/oct, 40Hz – 250Hz	12dB/oct, 40Hz – 250Hz	12dB/oct, 40Hz – 250Hz	12dB/oct, 40Hz – 250Hz	12dB/oct, 40Hz – 250Hz
Crossover High Pass Filter	NA	NA	NA	12dB/oct, 40Hz – 250Hz	12dB/oct, 40Hz – 250Hz
Bass Boost	0 – 12dB @ 45Hz	0 – 12dB @ 45Hz	0 – 12dB @ 45Hz	0 – 12dB @ 45Hz	NA
Subsonic Filter	12dB/oct, 20Hz – 50Hz	12dB/oct, 20Hz – 50Hz	12dB/oct, 20Hz – 50Hz	12dB/oct, 20Hz – 50Hz	NA
<b>Dimensions</b>					
Height	2.57" (65.2mm)	2.57" (65.2mm)	2.57" (65.2mm)	2.57" (65.2mm)	2.57" (65.2mm)
Width	7.61" (193.4mm)	7.61" (193.4mm)	7.61" (193.4mm)	7.61" (193.4mm)	7.61" (193.4mm)
Length	15.28" (388mm)	12.24" (311mm)	8.97" (228mm)	15.47" (393mm)	11.14" (283mm)

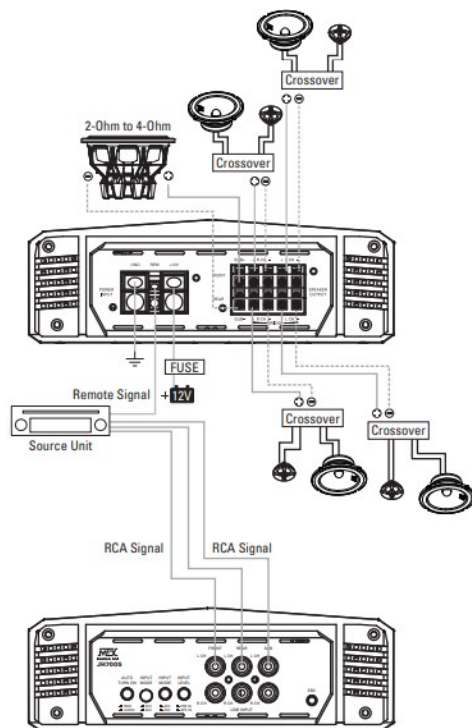
## WIRING DIAGRAM

Mono Block Amplifier Wiring (Single Subwoofer Load)



**NOTE:** Equivalent parallel woofer load cannot be less than the minimum load rating. These are mono block amplifiers, not multi-channel amplifiers. The minimum load for the JH15001, JH10001 and JH5001 amplifier is 1Ω. The minimum load for the Sub Channel JH7005 amplifier is 2Ω.





## WARRANTY INFORMATION

Mitek Mobile products (including MTX, Streetwires, Coustic and Magnum) purchased in the USA after 1/1/2015 from an authorized Mitek retailer are guaranteed to be free from material defects in products and workmanship for two (2) years to the original end user purchaser, subject to the terms and conditions below.

### Length of Limited Warranty and Remedy

The warranty period begins the day the product is purchased by the end user, and is limited to the original retail purchaser of the product. Products found to be defective in materials or workmanship during the first 2 years will be, at Mitek's option, repaired or replaced by Mitek at no charge. When a product is replaced during first 2 years, the warranty does not renew, it continues on from the original date of purchase.

This warranty does not cover the product if it has been subject to neglect, abuse, misuse, incorrect connection, or if it has been subject to unauthorized repair or alterations of any nature, or if the serial number has been altered or removed, and the warranty does not extend to cosmetics or finish. This warranty only applies to products installed and used in the USA.

### What You Must Do to Obtain Warranty Service

You must contact Mitek Warranty via our website at [MTX.com](http://MTX.com), or via email at [mitekwarranty@mitekusa.com](mailto:mitekwarranty@mitekusa.com), or by calling **800-556-2888**. If you did not purchase the product directly from Mitek, a proof of purchase must be provided in order to receive warranty consideration. You will be issued a Return Authorization (RA) number which must be written on the outside of the package before returning the product to Mitek. Shipping costs are the customer's responsibility when returning product to MTX.

### No Other Warranties

**THE LIMITED WARRANTIES DESCRIBED ABOVE ARE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED. MITEK DISCLAIMS AND EXCLUDES ALL OTHER EXPRESS WARRANTIES, AND DISCLAIMS AND EXCLUDES ALL WARRANTIES IMPLIED BY LAW, INCLUDING WITHOUT LIMITATION THOSE OF MERCHANT ABILITY AND FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT THAT APPLICABLE LAW PROHIBITS THE EXCLUSION OF IMPLIED WARRANTIES, THE DURATION OF ANY APPLICABLE IMPLIED WARRANTY IS LIMITED TO THE PERIOD SPECIFIED FOR THE EXPRESS WARRANTY.** Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Any oral or written description of any Mitek product is for the sole purpose of identifying it and shall not be construed as an express warranty.

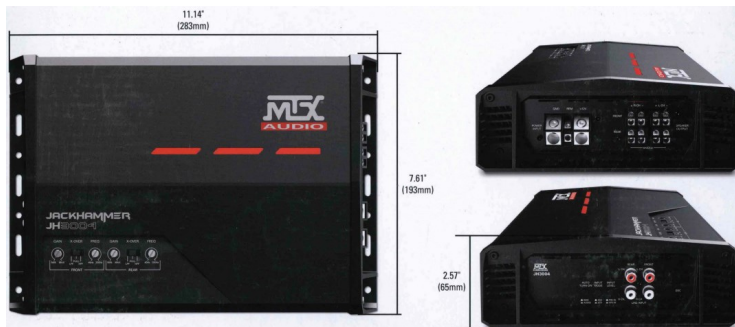
### Limitation of Liability

**MITEK'S OBLIGATION TO PROVIDE A CREDIT, OR REPAIR OR REPLACE AT MITEK'S OPTION, SHALL BE YOUR SOLE AND EXCLUSIVE REMEDY UNDER THIS LIMITED WARRANTY AND MITEK'S SOLE AND EXCLUSIVE OBLIGATION. MITEK SHALL NOT BE LIABLE FOR INCIDENTAL, INDIRECT, CONSEQUENTIAL OR SPECIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE MITEK PRODUCT, ITS USE OR PERFORMANCE.** Incidental damages include, but are not limited to, such damages as loss of time and loss of use. Consequential damages include, but are not limited to, the cost of repairing or replacing other property which was damaged if the Mitek product does not work properly.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. This limited warranty supersedes all prior warranties and is not transferable from the original consumer purchaser.

Any assistance Mitek provides to or procures for you outside the terms, limitations or exclusions of this limited warranty will not constitute a waiver of such terms, limitations or exclusions, nor will such assistance extend or revive the warranty. Mitek will not reimburse you for any expenses incurred by you in repairing or replacing any defective product, except for those incurred with Mitek's prior written permission.

### Dimensions





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Use your smartphone to scan or visit [youtube.com/user/MTXAudioUSA](https://youtube.com/user/MTXAudioUSA) to learn how to properly install this amplifier.



## Documents / Resources

 <p>JACKSON AUDIO CIRCUITRY POWERED BY MTX AUDIO</p> 	<p><a href="#">MTX AUDIO JH3004 Class A B Four Channel Full Range Amplifier</a> [pdf] Owner's Manual JH3004 Class A B Four Channel Full Range Amplifier, JH3004, Class A B Four Channel Full Range Amplifier, Channel Full Range Amplifier, Full Range Amplifier, Range Amplifier, Amplifier</p>
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## References

-  [MTX Audio - Serious About Sound®](#)
-  [P65Warnings.ca.gov](#)

Manuals+.