

# TITANIUM-SERIES AMPLIFIER

## OWNER'S MANUAL

### GZTA 5120X-II

#### Features

- 4 Ohm / 2 Ohm stable Stereo
- Mosfet dual power supply
- Power & Protection indicator
- Variable 12dB bass boost (45Hz) (Channel 5)
- Variable high pass filter
- Variable low pass filter
- Variable subsonic filter (Channel 5)
- Adjustable input sensitivity
- Soft delayed remote turn- on
- Remote control (Channel 5)
- Thermal / Short / Overload protection

## Tools and materials you need

- Screwdriver
- Electric drill, 3 mm / 0.12" carbide drill bit
- Mounting screws
- Power wire min. 20 mm<sup>2</sup> / 4 AWG
- Ground wire min. 20 mm<sup>2</sup> / 4 AWG
- Speaker wire min. 2 x 1,5 mm<sup>2</sup> / 15 AWG

## Please note!

- As a precaution it is advisable to disconnect the vehicle's battery before making connection to the +12 Volts supply wiring (see owner's manual of your car for further information).
- Please use great caution drilling your trunk. Your gas tank and brake lines can be damaged by puncturing with your drill bit – this could cause damage or failure of your car's operating systems.
- Never pass wires over sharp angles. It is recommended to buffer the power supply of the amplifier with a capacitor min. 1 Farad to guarantee a stable operation voltage.

### WARNING I

High powered audio systems in a vehicle are capable of generating "Live Concert" levels of sound pressure. Continued exposure to excessively high volume sound levels may cause hearing loss or damage. Also, operation of a motor vehicle while listening to audio equipment at high volume levels may impair your ability to hear external sounds such as; horns, warning signals, or emergency vehicles, thus constituting a potential traffic hazard. In the interest of safety, Consumer Electronics recommends listening at lower volume levels while driving.

## Planning your system

Before beginning the installation, consider the following:

1. If you plan to expand your system by adding other components sometime in the future, ensure adequate space is left, and cooling requirements are met.
2. If your radio / source is equipped with pre-amp outputs, it is possible to utilize them to drive the amplifier and connecting (amplifier) to the 2 rear speakers.

## Mounting your amplifier

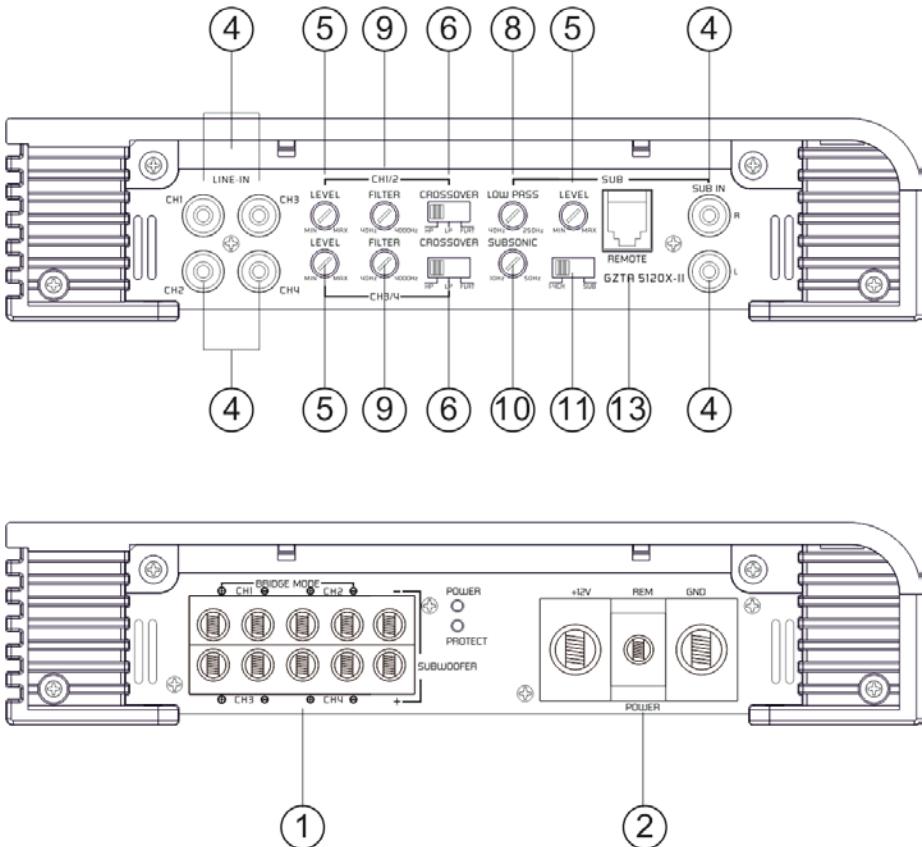
- a. Select a suitable location that is convenient for mounting, is accessible for wiring and has ample room for air circulation and cooling.
- b. Use the amplifier as a template to mark the mounting holes, remove the amplifier

## Warning

Choose a mounting position where all electric wires are protected from being damaged by sharp edges, heat or other conditions. +12Volt DC electrical connections must be fused on the battery side. Make sure your radio and all other devices will be turned off while connection your system.

If you need to replace the power fuse, replace it only with a fuse identical to that supplied with the system. Using a fuse of different type or rating may result in damage to this system which isn't covered by the warranty.

## Controls and functions



## Controls and functions

1	<b>Speaker terminals</b>	For connection of the speakers
2	<b>Power terminals</b>	GND -> Ground connection REM -> Remote antenna terminal BATT -> +12 Volt
3	<b>Status indication</b>	GREEN – OK RED – Error
4	<b>Cinch inputs</b>	Terminal for connection of the RCA wires. To avoid failure, please use high quality RCA wires.
5	<b>Input level controller</b>	With this controller you can adjust the input sensitivity.
6	<b>Mode switch</b>	Adjust the crossover for the chosen utilization. LPF – Only bass frequencies (below 40Hz - 4000Hz) (Channel 5: 40Hz – 250Hz) will be reproduced. FULL – All frequencies will be reproduced. HPF – Only middle and high frequencies over 40 Hz – 4000 Hz will be reproduced.
8	<b>High Pass controller (Subsonic)</b>	Set the filter switch to „HIGH“ position. Adjust the variable HPF crossover frequency to the desired frequency using the controller. All frequency between 40 Hz – 4000 Hz will be reproduced.
9	<b>Filter controller</b>	Depending on the mode switch position, High- or Lowpassfilter can be adjusted in a range from 40 Hz – 4000 Hz with this controller.
10	<b>Subsonic controller (GZTA 5120X Channel 5)</b>	For adjusting the subsonic filter in a range from 10 Hz to 50 Hz.
11	<b>Input mode switch</b>	You can chose if the 5 <sup>th</sup> channel of GZTA 5120X should be operated with Cinch input 5/6 or the summation of input 1/2/3/4.
13	<b>Remote control input</b>	For connection of the bass remote control.

## Turning on the amplifier

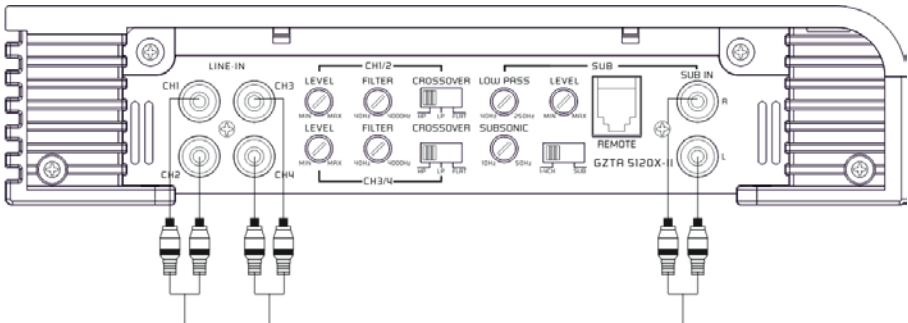
The amplifier automatically turns on a few seconds after you turn on your radio.

Note: Your amplifier temporarily shuts down if it gets too hot, then restarts automatically once it cools (At about 80° / 176° F).

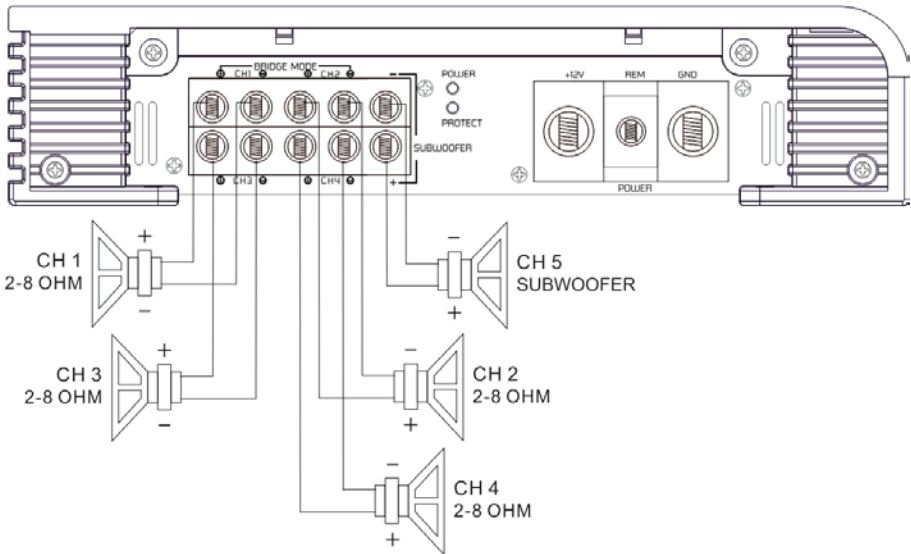
## Adjusting the audio level

1. LEVEL (Min/Max): Turn fully counter- clockwise to MIN position
2. Turn the auto sound system's volume control to about two-third of its full range.
3. Adjust LEVEL to a comfortable listening level.

## Stereo wiring

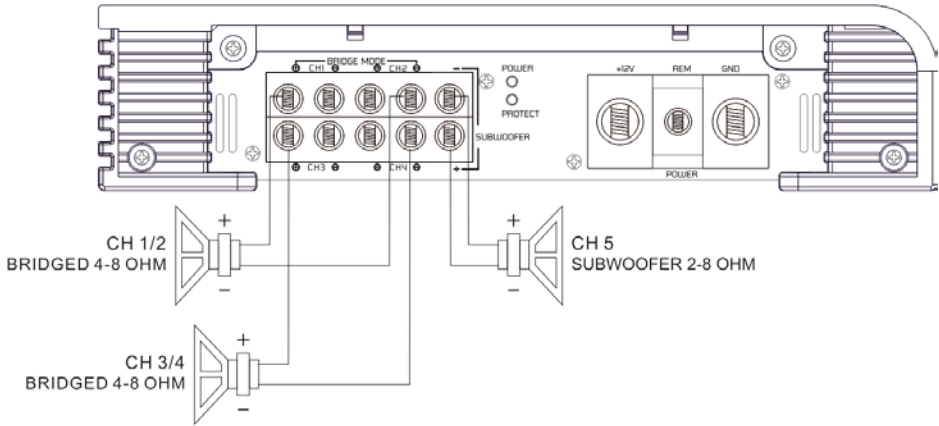


Zum Line Out des Autoradios / To car stereo line out /  
Sortie stéréo de la voiture / Naar line out radio



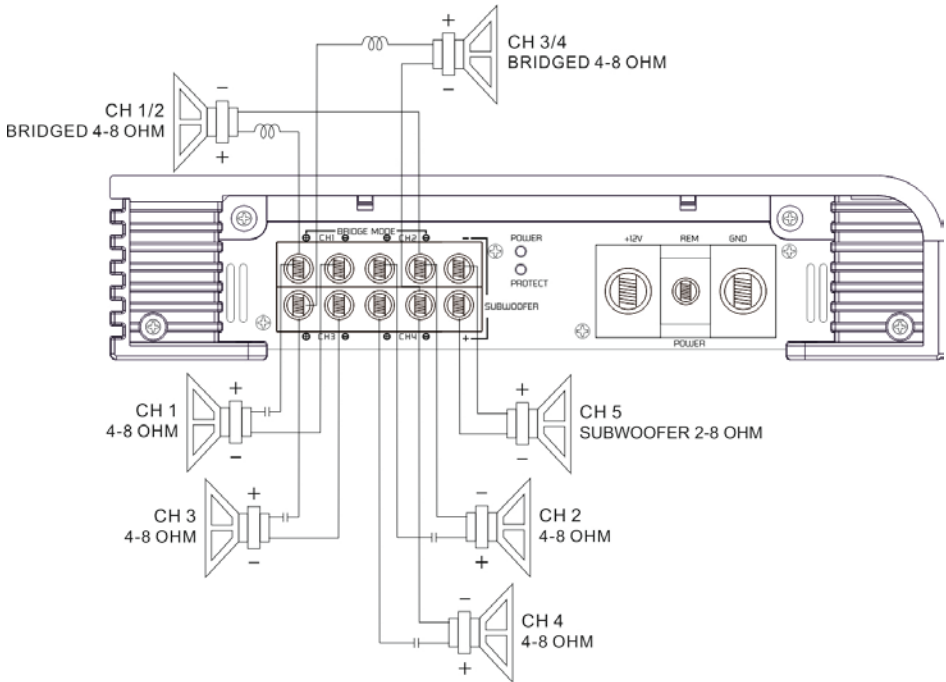
**Speaker impedance 2~8 Ohm**

## Bridged wiring

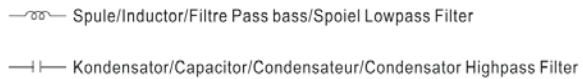


**Speaker impedance 4~8 Ohm**

## Trimode wiring



### SPEAKER IMPEDANCE 4~8 OHM



## Connecting the speaker for trimode operation - notes

TRI MODE operation output allows a subwoofer to be operated in mono mode while the main speakers are playing in stereo. Leave the crossover switch on "Full" position.

Use 100 volt, non-polar capacitors for a high pass crossover to filter out low frequencies and Air-core or Ferrite-core coils with a minimum diameter of 1 mm / 0.039" for the lowpass crossover to filter out high frequencies.

The capacitor and inductor values as written in the below table. The front and rear channels of this amplifier get this capability. Only the rear left and right channels are shown on the following pictures.

### Values for 6dB passive crossover

Frequency	Inductor	Capacitor
80 Hz	7,5 mH	470 uF
100 Hz	6,5 mH	330 uF
120 Hz	5,5 mH	370 uF
150 Hz	4 mH	220 uF



## Specifications

Model	<b>GZTA 5120X-II</b>
Type	5 Channel Class A/B
RMS Power @ 4 $\Omega$ CEA Standard CEA-2006-A	4 x 50 W & 1 x 180 W (1% THD+N)
RMS Power @ 2 $\Omega$ CEA Standard CEA-2006-A	4 x 70 W & 1 x 260 W (1% THD+N)
RMS Power @ 4 $\Omega$ Bridged CEA Standard CEA-2006-A (1% THD+N)	2 x 130 W (Channel 1 – 4)
RMS Power @ 4 $\Omega$ Bridged CEA Standard CEA-2006-A (10% THD+N)	2 x 170 W (Channel 1 – 4)
Damping factor	> 100
Signal to noise Ratio	> 75 dB
Lowpass	40 Hz – 4000 Hz (Channel 1 – 4) & 40 – 250 Hz (Channel 5)
Highpass	40 Hz – 4000 Hz (Channel 1 – 4)
Subsonic filter	10 Hz – 50 Hz (Channel 5)
Bandpass filter	10 Hz – 250 Hz (Channel 5)
Phaseshift	-
Frequency response	5 Hz – 38 KHz ( $\pm$ 1 dB)
Input sensitivity	200 mV – 9 V ( $\pm$ 5%)
THD	< 0,1 %
Bass remote control	✓
Fuse	2 x 35A
Dimensions W x H x L mm	230 x 53 x 476
Dimensions W x H x L inch	9.04" x 2.09" x 18.74"

## Trouble shooting guide

Symptoms	Check Points	Cure
<b>No sound</b>	Is the POWER LED illuminated?	Check fuses in amplifier. Be sure remote lead is connected. Check signal leads. Check again control. Check tuner/deck volume level.
	Is the diagnostic LED illuminated?	Check for speaker short or amplifier overheating
<b>Amp not switching on</b>	No power to the amplifier	Check power wire or connections
	No power to remote wire with receiver on	Check connections to radio
<b>No sound in one channel</b>	Check speaker leads	Inspect for short circuit or an open connection
	Check audio leads	Reverse left and right RCA inputs to determine if it is occurring before the amp
<b>Amp turning off at medium / high volume</b>	Check speaker load impedance	Be sure proper speaker load impedance recommendations are observed  (If you use an ohm meter to check speaker resistance, please remember that DC resistance and AC impedance may not be the same.)
<b>Protection LED is on</b>	Temperature shut down	Turn radio volume down
	Speaker wires short	Separate speaker wires and insulate

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Limited warranty - defective products must be returned in original packaging - please add a copy of the original purchasing invoice showing the purchasing date and a detailed description of the failure. Failure caused by overload, misuse or by using the product for competition purpose are not covered by the warranty. We reserve the right to make needed change or improvement to the product without informing customer about this in advance.

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