

COMPETITION SERIES

Amplifier

Owner's Manual

GZCA 5.0SPL-M1

GZCA 5.0SPL-M2

Features

- 1-ohm (model M1) / 2-ohms (model M2) stable wide range amplifier
- High efficient class D technology
- Power status, clipping and protection LED
- Up to 12 dB adjustable bass boost (@ 35 to 70 Hz)
- Adjustable high-pass filter
- Adjustable low-pass filter
- 1x Mono RCA input
- 1x Mono RCA output
- Adjustable input sensitivity
- Thermal / short circuit / overload protection

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Recommended wiring and fuse value

Model	GZCA 5.0SPL-M1 / -M2
Speaker wire	min 2.5 mm ² / 13 AWG
Power supply wire	min 50.0 mm ² / 1 AWG
Remote wire	min 0.75 mm ² / 20 AWG
Recommended fuse value for music reproduction	240 A (2x 120 A)

General installation notes

- As a precaution, it is recommended to disconnect the vehicles battery before mounting the amplifier. (Note: For new vehicles, disconnecting the battery might cause various errors in your vehicle´s electric system that can be cleared only by authorized service partners of your vehicle´s manufacturer! Please ask your service partner first before disconnecting the battery!)
- The power supply wire (+12 V) has to be protected within max. 20 cm / 8" by a main fuse holder with a fuse value matching the recommendation for your amplifier
(Note: If there is more than one amplifier connected using this power wire, the main fuse value must be equal to the sum of the recommended fuses of all connected devices. However, make sure the diameter of your power wire will be sufficient for the required current!)
- If necessary, replace a defective fuse by a fuse with identical quality and value
- Never drill a hole to the vehicles gas tank or brake lines, to wirings or any other important vehicle parts!
- Never pass wires over sharp edges or vehicle parts due avoid any kind of damage
- Keep the wiring away from the antenna and electronic devices contributing to radio reception
- Lay the power supply wiring always separated from speaker wiring to avoid disturbance
- The amplifier contains a temperature protection circuit that turns the device off in case of overheating. After a certain cooling time, it will turn on automatically. To avoid heat build-up, sufficient air supply for cooling must be provided. Never cover the surface of the amplifier´s heatsink entirely
- The amplifier should **NEVER** be mounted onto a vibrating part or surface such as a subwoofer enclosure. This might lead to malfunction due to loose electrical parts inside the amplifier.
- Some amplifiers offer a high-level input option, however if a pre-amplified output (RCA) is available (at the head unit), it is strongly recommended to make use of them.

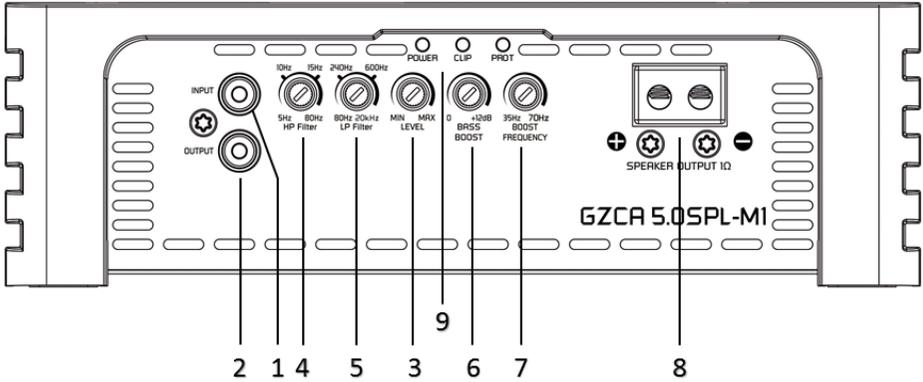
WARNING!

Powerful car audio systems are capable to create an extremely high SPL level comparable to live concert levels.

Permanent exposure to excessively high sound levels may cause damage to or loss of the hearing.

Furthermore, operation of a motor vehicle while listening to audio equipment at high volume levels may impair your ability to concentrate on road traffic and external sounds such as horns, warning signals or emergency vehicles. In the interest of general and own safety, it is recommended to listen to music at appropriately low volume levels while driving.

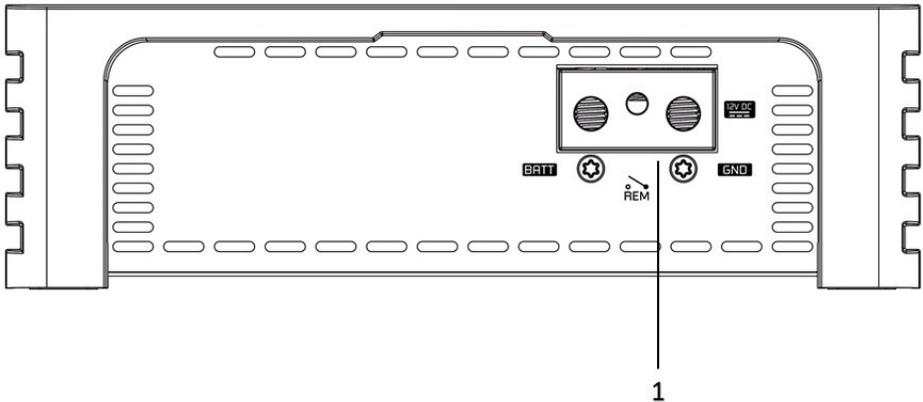
Controls and features – GZCA 5.0SPL-M1/M2



1	RCA signal input	To connect the RCA signal wire* from the audio source / head unit
2	RCA signal output	To connect another amplifier (using an RCA cable)
3	Input sensitivity (LEVEL)	To adjust the input sensitivity
4	High pass filter	To adjust the high pass filter's crossover point (5 Hz - 80 Hz)
5	Low pass filter	To adjust the low pass filter's crossover point (80 Hz - 20 kHz)
6	Bass boost level	To adjust the bass boost level (0 to 12 dB)
7	Bass boost frequency	To adjust the bass boost's center frequency (35 - 70 Hz)
8	Speaker wire terminal	To be connected to one or more speakers (pay attention to the minimum load mentioned for your amplifier model) GZCA 5.0SPL-M1 Minimum load at terminal 1 ohm GZCA 5.0SPL-M2 Minimum load at terminal 2 ohm
9	Power status, clipping and protection LED	Indicating the power and clipping status and activated protection mode

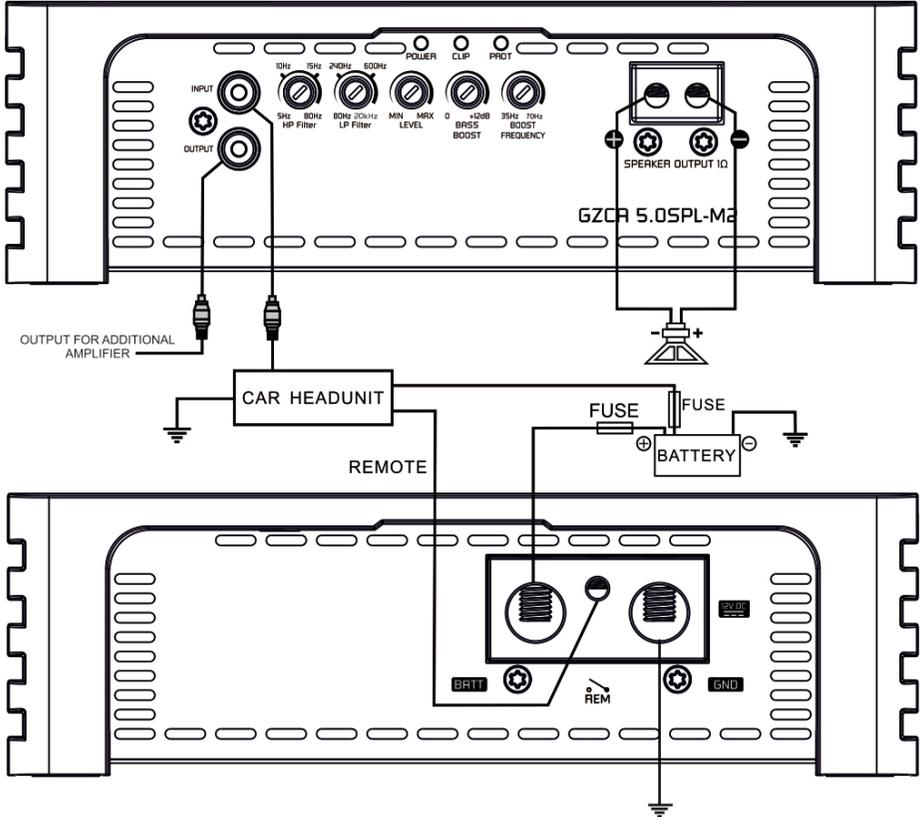
* to avoid any kind of malfunction, it is strongly recommended to use high quality RCA wires!

Connections – GZCA 5.0SPL-M1/M2



1	Power terminal	BAT To be connected to the positive terminal of the battery (+12 V) REM To be connected to the remote output of the head unit GND To be connected to the ground of the vehicle
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Wiring – GZCA 5.0SPL-M1/M2



Specifications

Model	GZCA 5.0SPL-M1	GZCA 5.0SPL-M2
Amplifier type	1 ohm stable mono wide range class D amplifier	2 ohms stable mono wide range class D amplifier
RMS Power measured @ 14.4 V	1x 2800 W @ 2 ohms	1x 2800 W @ 4 ohms
RMS Power measured @ 14.4 V	1x 5600 W @ 1 ohm	1x 5600 W @ 2 ohms
RMS Power measured @ 12.6 V	1x 5000 W @ 1 ohm	1x 5000 W @ 2 ohms
S/N ratio	75 dB (nominal power)	
THD+N	0.1 % (@ nominal power / 100 Hz)	
Damping factor	>1000 (@100 Hz / nominal power)	
Low pass filter *	80 Hz - 20 kHz	
High pass filter *	5 Hz - 80 Hz	
Frequency response	10 Hz - 15 kHz (\pm 3 dB)	
Input sensitivity	500 mV - 8 V	
Operation voltage	9 V - 16 V	
Fuse	240 A (2x 120 A) / available separately	
Dimensions w x h x l (mm)	227.5 x 70 x 315	
Dimensions w x h x l (inch)	9.0 x 2.8 x 12.4	
Weight	3.9 kg / 8.6 lbs	
Recommended battery current	min 240 A / ideally 480 A	

Trouble shooting guide

Symptoms	Check / Cause	Action
No audible sound	Does the power LED turn on? No? Probably there is no power supply	Check the power line fuse(s) Check remote wire connection to the head unit Check +12 Volt power supply wire connection Check ground wire connection
	There might be no audio input signal	Check the RCA wiring to the head unit
	Speaker wires might be interrupted	Check the speaker wiring
Device does not turn on	Does the power LED turn on? No? Probably there is no power supply	Check the power line fuse(s) Check remote wire connection to the head unit Check +12 Volt power supply wire connection Check ground wire connection
Distorted audio signal	Input level (gain) might be set too high	Decrease the amplifier level (level control) or Decrease the volume level of the head unit
Amplifier is working, but...	Does the power LED blink frequently? Yes? The battery voltage might be low	Check and load the battery

Side panels

Both side panels can be detached for wiring purpose. First, lift the side panel upwards. Subsequently, pull it away from the heat sink attachment. The installation has to be done in reverse order.



Terms of warranty

The limited warranty for this product is covered by Ground Zero's local distribution partners and their terms and conditions. For further information contact your local retailer or distributor.

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