

GROUND ZERO[®]

GERMAN ENGINEERING

IRIDIUM-SERIES AMPLIFIER

OWNER'S MANUAL

GZIA 1.600HPX-II

GZIA 2080HPX-II

GZIA 2130HPX-II

GZIA 2235HPX-II

GZIA 4115HPX-II

Features

- 4 / 2 Ohm stable (stereo)
- 1 Ohm stable (mono / GZIA 1.600HPX-II only)
- Power & protection indicator
- Bass boost (1.600HPX-II only)
- Variable high pass filter
- Variable low pass filter
- Auto-on @ high level input
- Adjustable input sensitivity
- Soft delayed remote turn-on
- Bass remote control
 - (included in GZIA 1.600HPX-II / optionally for GZIA 2235HPX-II & GZIA 2130HPX-II)
- Thermal / short / overload protection

Required tools and wiring

- Screwdriver
- Electric drill, 3 mm / 0.12" carbide drill bit
- Mounting screws
- Power wire min. 10 mm² / 7 AWG
- Ground wire min. 10 mm² / 7 AWG
- Speaker wire min. 2 x 1,5 mm² / 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 cars 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!

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

Planning your system

Before starting to install your new amplifier, consider the following, please:

- a. If you plan to expand your system by adding other components in the future, ensure that adequate space is left, and cooling requirements are met
- b. If your head-unit (radio) offers a low level (RCA) output, it's recommended to make use of it to connect the amplifier

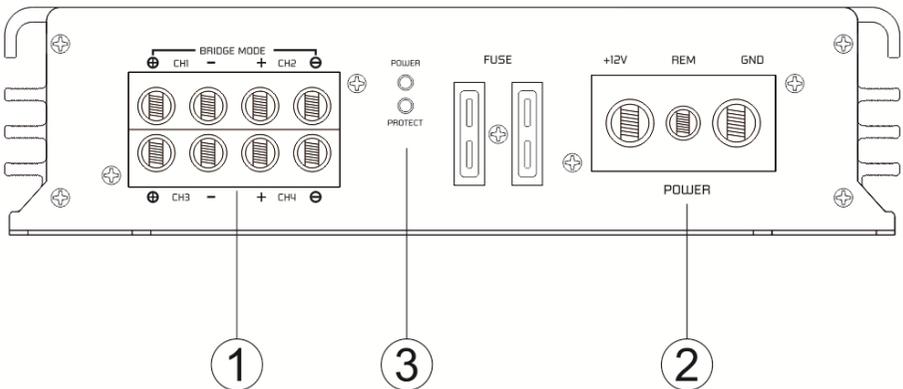
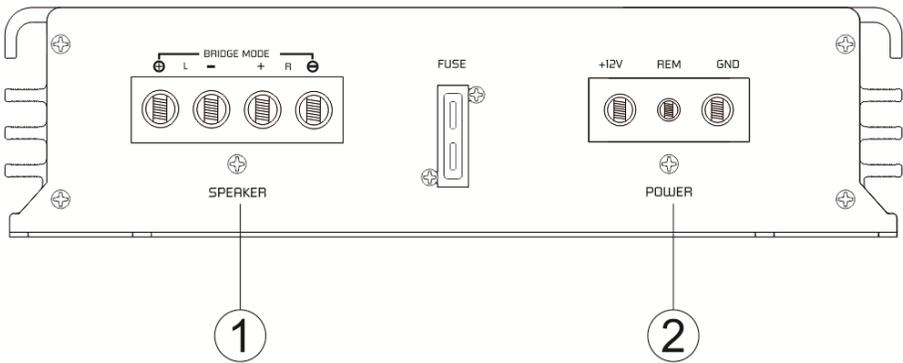
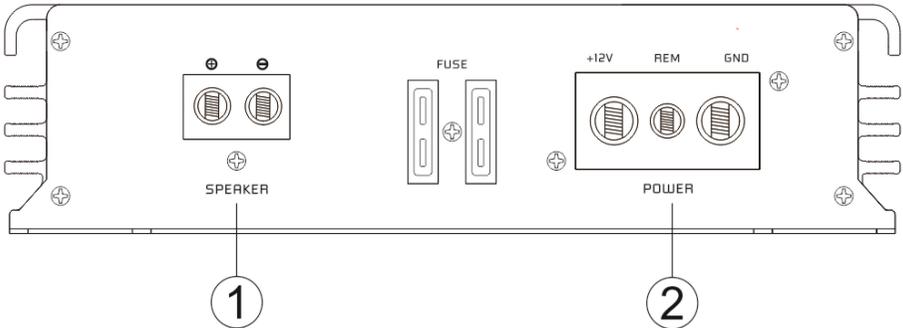
Mounting your amplifier

- a. Select a suitable mounting position for the amplifier which is accessible for the wiring and offers ample room for air circulation and cooling of the heatsink
- b. Use the amplifier as a template to mark the mounting holes, remove the amplifier prior to drilling the holes

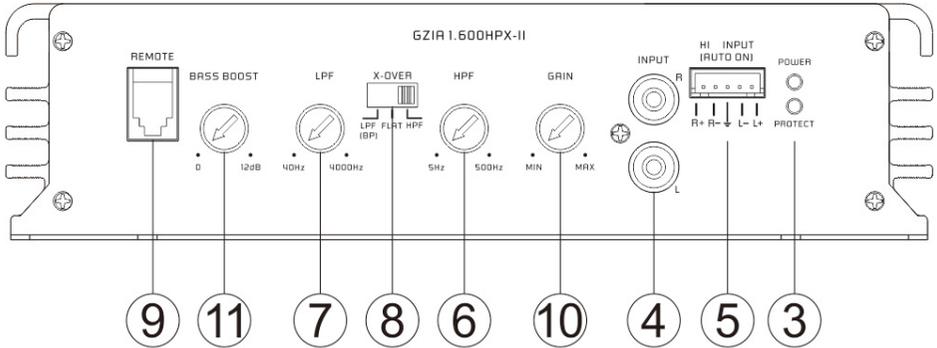
WARNING!

Choose a mounting position where all electrical wires are protected from being damaged by sharp edges, heat or other disadvantageous conditions. +12Volt DC electrical connections must be fused on the battery side within the first 25 cm/ 18" of the wire. Make sure your head unit (radio) and all other devices are turned off while connecting the unit. If it's necessary to replace a broken power fuse, replacement by a fuse with identical value to the originally supplied one is strictly expected. Using any fuse with divergent value or rating may result in damage to the unit or the electrical system which is uncovered by the warranty.

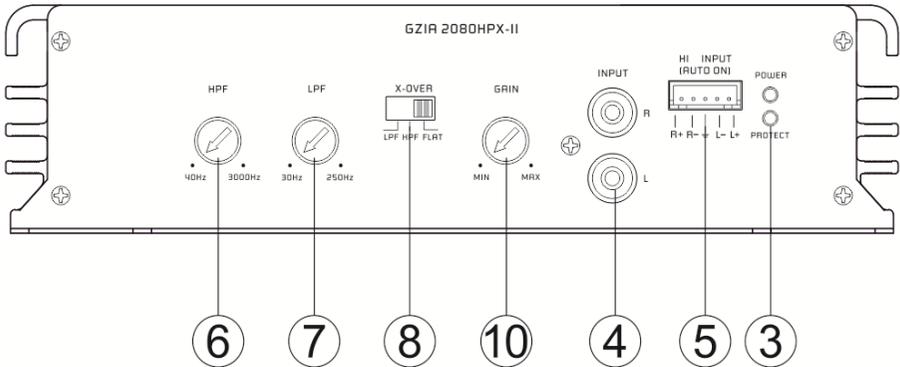
Power and speaker connections



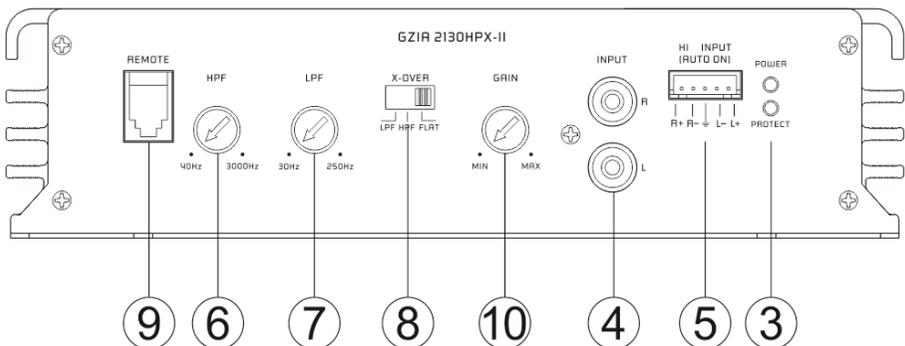
Controls and functions – GZIA 1.600HPX-II



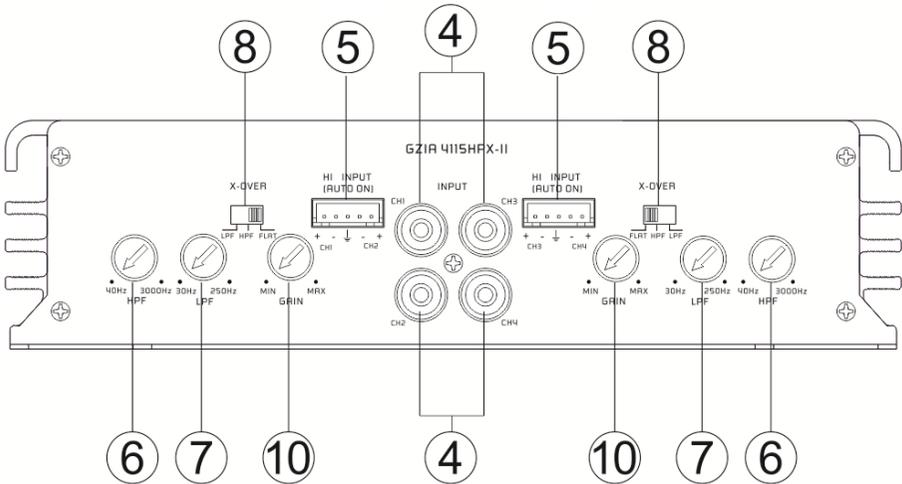
Controls and functions – GZIA 2080HPX-II



Controls and functions – GZIA 2130HPX-II & GZIA 2235HPX-II



Controls and functions – GZIA 4115HPX-II



Connections, controls and functions

1	Speaker terminal	To connect the speaker wires
2	Power terminal	GND -> Ground connection REM -> Remote input terminal* BATT -> +12 Volt connection
3	Status indicator	GREEN – OK RED – Error
4	RCA input*	on the power connection's side for GZIA 4115HPX-II RCA input sockets. We recommend using high quality RCA cable
5	High-level input*	Use this input mode if your head-unit offers no RCA output but only speaker wires. The amplifier automatically turns on as soon as a signal is detected (Auto-on function). The remote connection (2) can be omitted
6	HPF - High pass controller	Set the X-OVER mode switch to HIGH/HPF position. Adjust the variable HPF crossover to the desired frequency using the controller. Frequencies below the selected value will be cut
7	LPF - Low pass controller (BP for GZIA 1.600HPX-II)	Set the X-OVER mode switch to LOW/LPF position. Adjust the variable LPF crossover to the desired frequency using the controller. Frequencies above the selected value will be cut (also be used as a subsonic filter)
8	X-OVER mode switch	LPF – Frequencies above the selected value are cut HPF – Frequencies below the selected value are cut FLAT – Complete frequency range is reproduced
9	REMOTE connection	To connect the of bass remote control (GZIA 2130HPX-II & 2235HPX-II optionally available/GZIA 1.600HPX-II included)
10	GAIN level controller	To adjust the input sensitivity of the amplifier according the output level of the connected source (head-unit). Exceeding the correct setting may lead to distorted sound and to danger of damaging the speakers.
11	Bass Boost level controller	To adjust the level of the bass boost function at 45 Hz (0 – 12 dB)

***IMPORTANT!**

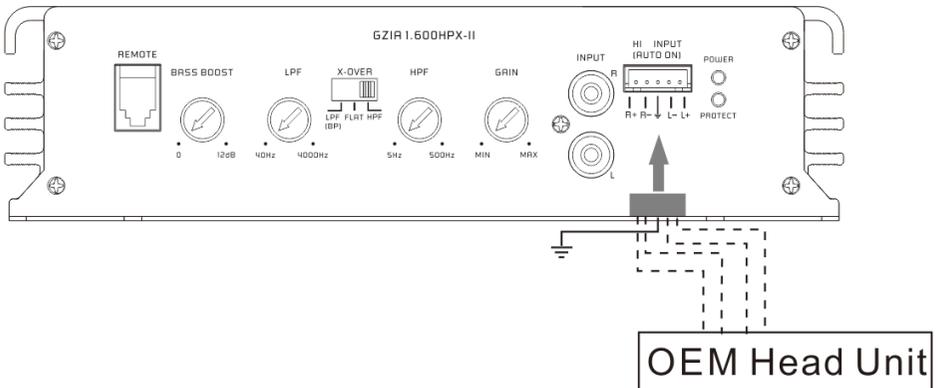
Do not use the high-level input and the RCA input simultaneously, as this may damage the amplifier. Use either the RCA or high-level input.

High-level input

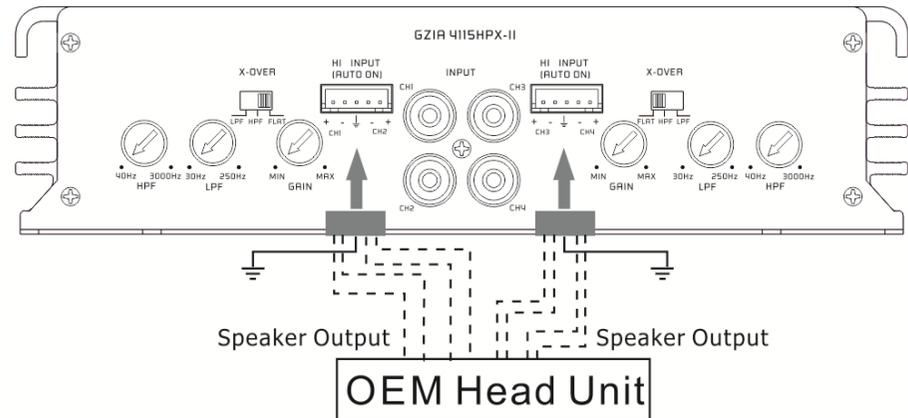
Depending on the original equipment of the car and its sound system, noises may appear when using the high-level inputs. Please, use the additional middle ground-connection of the input harness to reduce these noises.

The Auto-on function allows to connect the amplifier without an additional remote wire. By this, the operation with an OEM head-unit without low-level (RCA) output or switched remote wire is enabled.

High-level input – wiring 1 and 2-channel GZIA amplifiers



High-level input – wiring (GZIA 4115HPX-II)

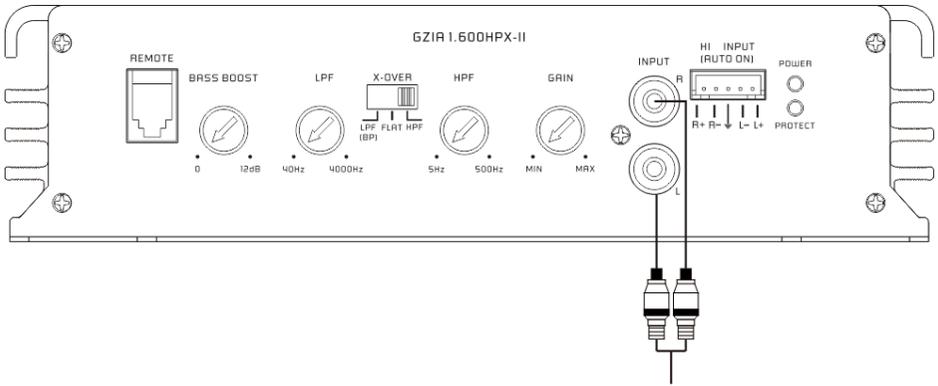


Amplifier's operation

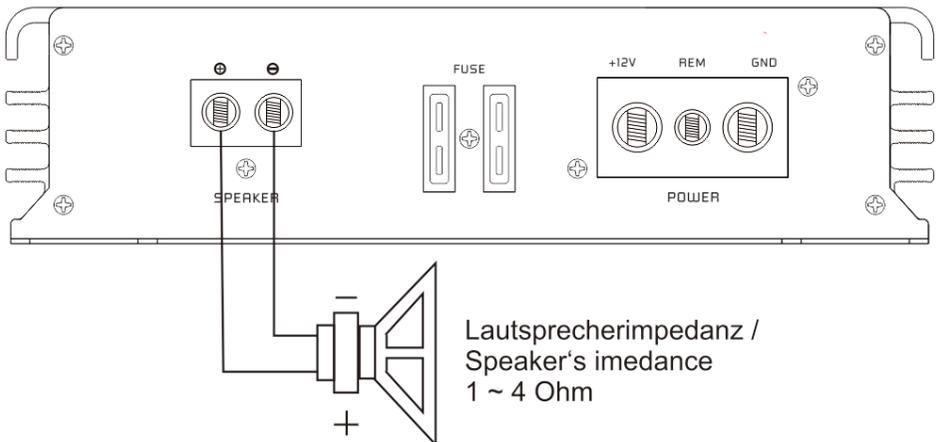
The amplifier will turn and off automatically, if the connections have been made correctly.

Note: Your amplifier will temporarily shut down if the temperature reaches a critical level (at about 80° C / 176° F). It will restart automatically, once it will have cooled down again.

Wiring – GZ1A 1.600HPX-II

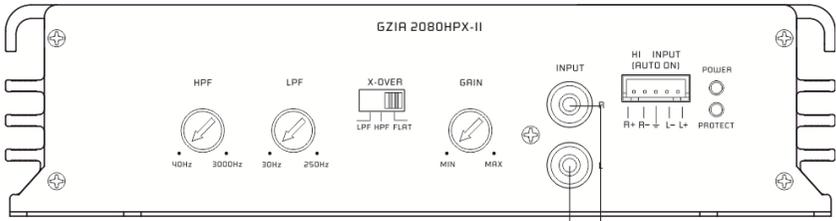


Zum Line out des Autoradios /
To car stereo line out

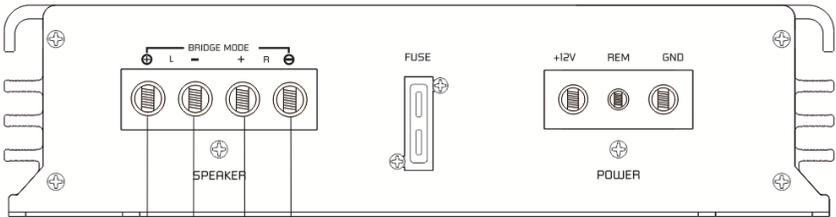
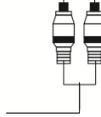


Lautsprecherimpedanz /
Speaker's impedance
1 ~ 4 Ohm

Stereo / bridged wiring GZIA 2080/2130/2235HPX-II



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To car stereo line out

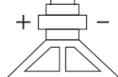
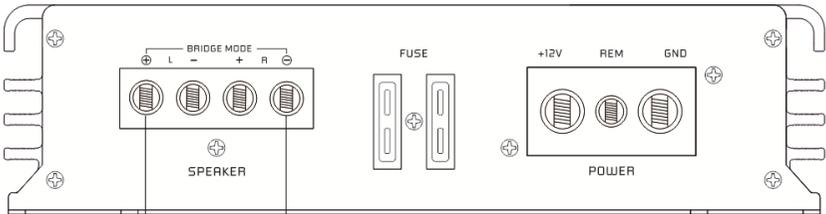


Linker Kanal/
Left channel

Rechter Kanal/
Right channel

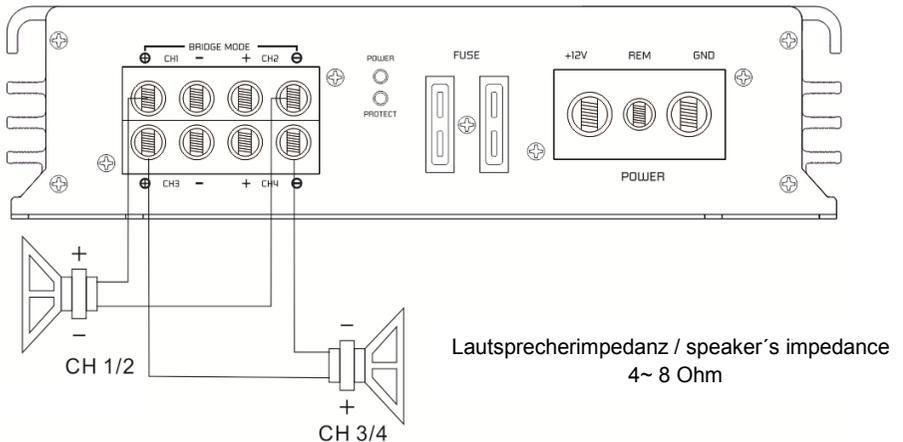
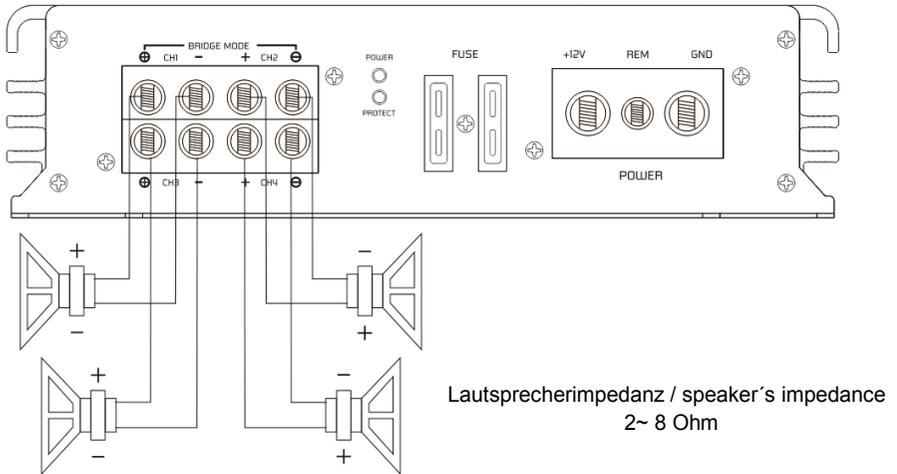
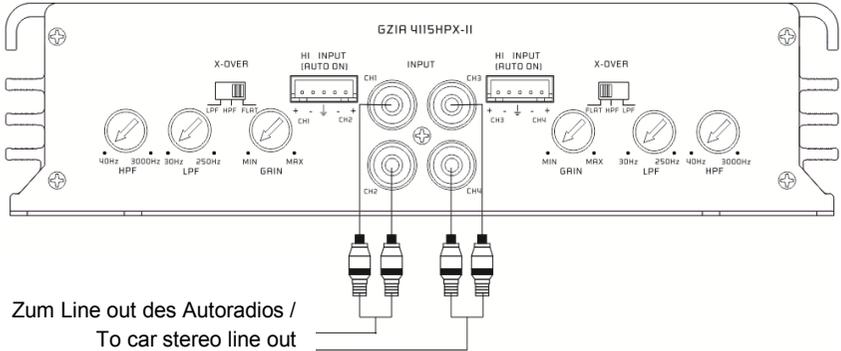


Lautsprecherimpedanz / speaker's impedance
2 ~ 8 Ohm



Lautsprecherimpedanz / speaker's impedance
4~ 8 Ohm

Stereo / bridged wiring – GZIA 4115HPX-II



Specifications

Model	GZIA 1.600HPX-II
Type	1 channel class A/B
RMS Power @ 4 Ω CEA Standard CEA-2006-A	1 x 230 W (1% THD+N)
RMS Power @ 2 Ω CEA Standard CEA-2006-A	1 x 400 W (1% THD+N)
RMS Power @ 1 Ω CEA Standard CEA-2006-A	1 x 600 W (1% THD+N)
MAX Power CEA Standard CEA-2006-A	1 x 700 W @ 1 Ω (10% THD+N)
Damping factor	> 150
Signal to noise Ratio	> 80 dB
Lowpass	40 – 4000 Hz
Bass Boost	0 – 12 dB
Highpass	5 – 500 Hz
Frequency response	10 Hz – 30 KHz
Input sensitivity	200 mV – 6 V
Bass remote control	✓
Auto-on (with high-level input)	✓
Fuse(s)	2 x 30A
Dimensions / heatsink only W x H x L (mm)	192 x 49 x 332
Dimensions / overall W x H x L (mm)	192 x 49 x 360
Dimensions / heatsink only W x H x L (inch)	7.56 x 1.93 x 13.07
Dimensions / overall W x H x L (inch)	7.56 x 1.93 x 14.17

Specifications

Model	GZIA 2080HPX-II	GZIA 2130HPX-II	GZIA 2235HPX-II	GZIA 4115HPX-II
Type	2 Channel Class A/B	2 Channel Class A/B	2 Channel Class A/B	4 Channel Class A/B
RMS Power @ 4 Ω CEA Standard CEA-2006-A	2 x 60 W (1% THD+N)	2 x 85 W (1% THD+N)	2 x 150 W (1% THD+N)	4 x 70 W (1% THD+N)
RMS Power @ 2 Ω CEA Standard CEA-2006-A	2 x 80 W (1% THD+N)	2 x 130 W (1% THD+N)	2 x 235 W (1% THD+N)	4 x 115 W (1% THD+N)
RMS Power @ 1 Ω CEA Standard CEA-2006-A	-	-	-	-
RMS Power @ 4Ω Bridged CEA Standard CEA-2006-A	1 x 160 W (1% THD+N) 1 x 240 W (10% THD+N)	1 x 260 W (1% THD+N) 1 x 320 W (10% THD+N)	1 x 470 W (1% THD+N) 1 x 540 W (10% THD+N)	2 x 230 W (1% THD+N) 2 x 250 W (10% THD+N)
Damping factor	> 150	> 150	> 100	> 100
Signal to noise Ratio	> 85 dB	> 85 dB	> 80 dB	> 80 dB
Lowpass	30 – 250 Hz			
Highpass	40 – 3000 Hz			
Frequency response	10 Hz – 30 KHz			
Input sensitivity	200 mV – 6 V			
Bass remote control	-	✓ (optional)	✓ (optional)	-
Auto-On @ High Input	✓	✓	✓	✓
Fuse	1 x 20A	2 x 15A	2 x 25A	2 x 25A
Dimensions / heatsink only W x H x L (mm)	192 x 49 x 174	192 x 49 x 214	192 x 49 x 284	192 x 49 x 284
Dimensions / overall W x H x L (mm)	192 x 49 x 202	192 x 49 x 242	192 x 49 x 312	192 x 49 x 312
Dimensions / heatsink only W x H x L (inch)	7.56 x 1.93 x 6.85	7.56 x 1.93 x 8.43	7.56 x 1.93 x 11.18	7.56 x 1.93 x 11.18
Dimensions / overall W x H x L (inch)	7.56 x 1.93 x 7.95	7.56 x 1.93 x 9.53	7.56 x 1.93 x 12.28	7.56 x 1.93 x 12.28

Trouble shooting guide

Symptoms	Check Points	Cure
No sound	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
Amp not switching on	No power to the amplifier	Check power wire or connections
	No power to remote wire with receiver on	Check connections to radio
No sound in one channel	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
Amp turning off at medium / high volume	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.)
Protection LED is on	Temperature shut down	Turn radio volume down
	Speaker wires short	Separate speaker wires and insulate

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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