

# HYDROGEN-SERIES

## Mono Amplifier

Owner's manual

# GZHA MINI ONE-K

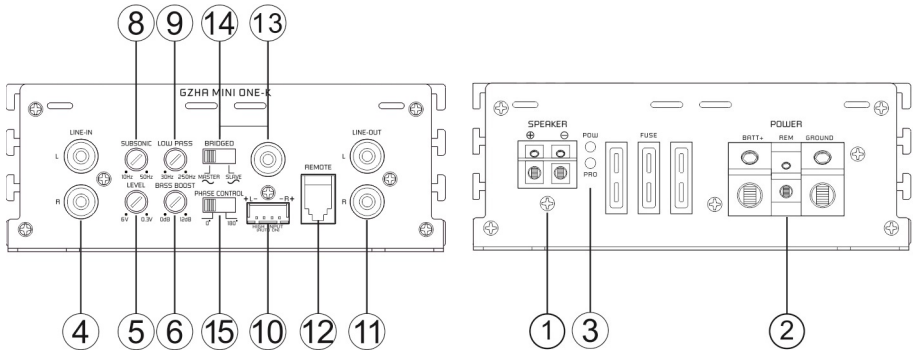
### Features

- High-efficient class D amplifier technology
- Installer friendly dimensions
- 1 ohms stable / 2 ohms (in linked configuration)
- High-level input with auto-on function
- 12 dB adjustable bass boost (@45 Hz)
- Adjustable low pass filter
- Adjustable input sensitivity
- Adjustable subsonic filter
- 0° / 180° Phase shift switch
- Bass remote control
- Thermal / short circuit / overload protection

## General mounting instructions

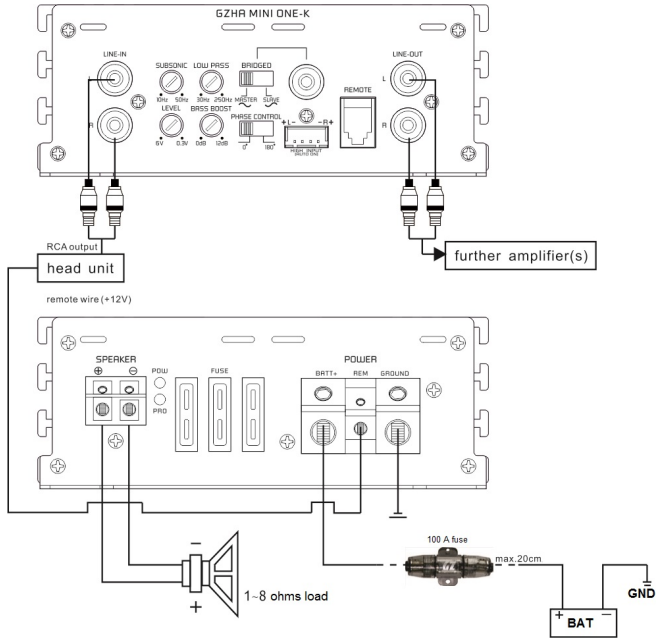
- As a precaution, it is recommended to disconnect the vehicle's battery before mounting the amplifier. (Note: For new vehicles, disconnecting the battery might cause various errors in your vehicle's electric system that can be cleared only by authorized service partners of your vehicle's manufacturer! 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 vehicle's gas tank or brake lines, to wirings or any other important vehicle parts!
- Never pass wires over sharp edges or vehicle parts due to 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 loosened 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.

## Controls & Features

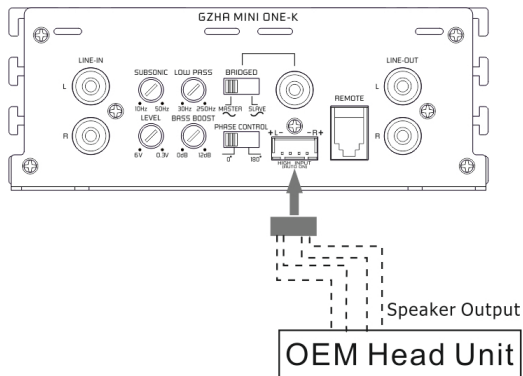


1	<b>SPEAKER terminal</b>	Speaker connection
2	<b>POWER supply terminal</b>	GROUND - ground terminal REM - remote wire / not to be used together with high-level input BATT+ - +12 Volt wire from battery terminal
3	<b>Status LEDs</b>	POW - green -> ok (correct operation) PRO - red -> error / protection
4	<b>LINE-IN (RCA input)</b>	Input sockets to connect RCA wires - to avoid any malfunction, it is recommended to use only high-quality RCA cables. <b>Attention:</b> High-level and RCA inputs should <b>never</b> be used simultaneously! This may cause serious damage to the amplifier
5	<b>LEVEL control</b>	Controller to adjust the input sensitivity
6	<b>BASS BOOST control</b>	Controller to adjust the bass boost level (0 to +12 dB at 45 Hz)
8	<b>SUBSONIC filter</b>	To adjust the required crossover for subsonic frequencies. Those frequencies below the selected crossover point will be filtered (10 Hz to 50 Hz).
9	<b>LOW-PASS (LPF) control</b>	To adjust the required crossover point. Frequencies above the selected crossover point will be filtered (30 Hz to 250 Hz)
10	<b>HIGH LEVEL input</b>	As an alternative to the RCA input (4), the high-level input can be used to connect the speaker output of the head unit directly. The amplifier turns on automatically (Auto-On) while the REM (remote) input of the power supply terminal remains unused. <b>Attention:</b> High-level and RCA inputs must <b>never</b> be used simultaneously! This may cause damage to the amplifier
11	<b>LINE OUT / OUTPUT</b>	Fullrange RCA output to connect further amplifiers
12	<b>REMOTE socket</b>	To connect the bass remote control
13	<b>BRIDGED socket</b>	To connect an RCA cable for link mode operation High quality RCA cable is recommended (max. 1.5m / 4.9 ft)
14	<b>BRIDGED mode switch (MASTER / SLAVE)</b>	To select the operation mode of the amplifier (see also link mode diagram)
15	<b>PHASE CONTROL switch</b>	To select the phase of the connected subwoofer in relation to further speakers (0° / 180°)

## RCA input wiring

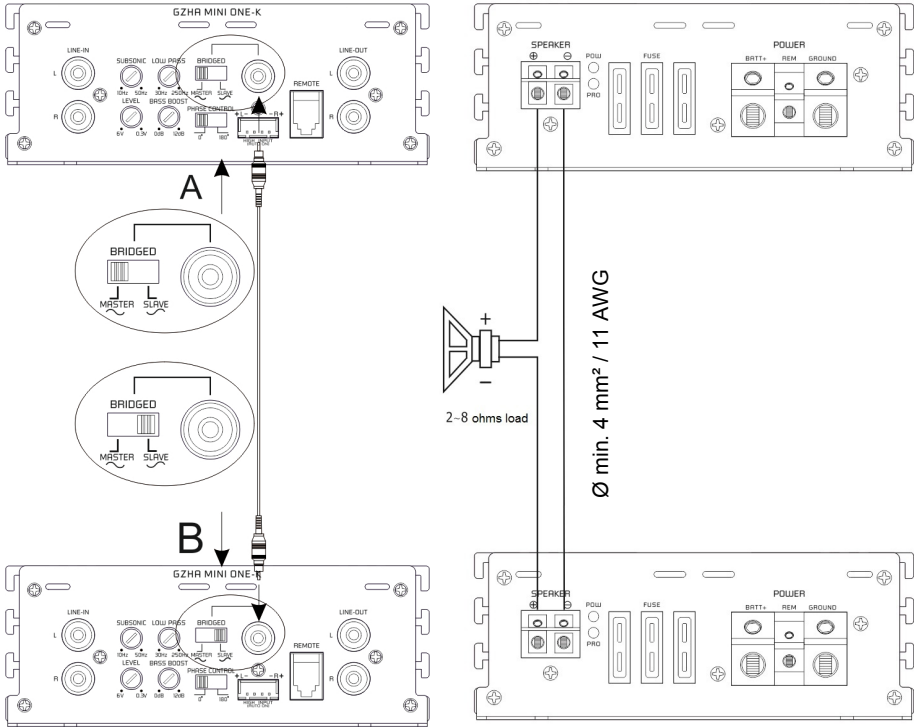


## High-level input wiring





# Link mode mode wiring



## Specifications

Model	GZHA MINI ONE-K
Type	Mono Class D
RMS Power @ 4 $\Omega$ CEA Standard CEA-2006-A	340 W (1% THD+N)
RMS Power @ 2 $\Omega$ CEA Standard CEA-2006-A	600 W (1% THD+N)
RMS Power @ 1 $\Omega$ CEA Standard CEA-2006-A	1000 W (1% THD+N)
RMS Power @ 2 $\Omega$ link mode CEA Standard CEA-2006-A	2000 W (1% THD+N) 2300 W (10% THD+N)
Damping factor	> 100
Low pass crossover	30 Hz – 250 Hz (24 dB/Octave)
High pass crossover (subsonic)	10 Hz – 50 Hz (24 dB/Octave)
Band pass crossover	10 Hz – 250 Hz (24 dB/Octave)
Bass boost	0 ~ +12 dB (45 Hz)
Frequency range	10 Hz – 250 Hz ( $\pm$ 1 dB)
Input sensitivity	300 mV – 6 V ( $\pm$ 5%)
Bass remote control	✓
Fuse(s)	3 x 35 A
Dimensions (B x H x L)	135 x 52 x 322 mm 5.32 x 2.05 x 12.68"

## Trouble shooting guide

Symptoms	Check / Cause	Action
No audible sound	Does the POW LED turn to green?	Check protection fuse(s) of the amplifier Check remote wire connection (RCA input mode) Check +12 Volt power supply wire connection Check ground wire connection
	Did the PRO LED turned to red?	Check for speaker short or amplifier overheating
Device does not turn on	Power supply of the amplifier?	Check power wire or connections
	Remote wire powered? (RCA input mode)	Check remote wire connection to the head unit
No sound on one channel	Speaker wiring undamaged?	Check for short circuit or open connections
	Input signal on both RCA leads?	Reverse left and right RCA inputs to check the audio input signal
Device turns off at medium / high volume	Load impedance of each speaker correct?	Check if each speaker load impedance matches the technical specifications of the amplifier
Status LED turned on red	Temperature protection circuit active	Decrease head units volume / wait for cooling
	Speaker wires short / speaker damaged	Check speaker / wires and insulate if necessary

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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