

GLADEN[®]
GERMAN TECHNOLOGY

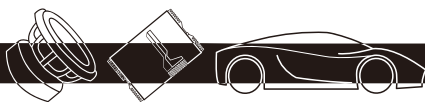
**User`s Guide
for amplifiers**

XL 250c2

XL 275c2

XL 150c4

XL 250c4



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FEATURES

XL 250c2 / XL 275c2

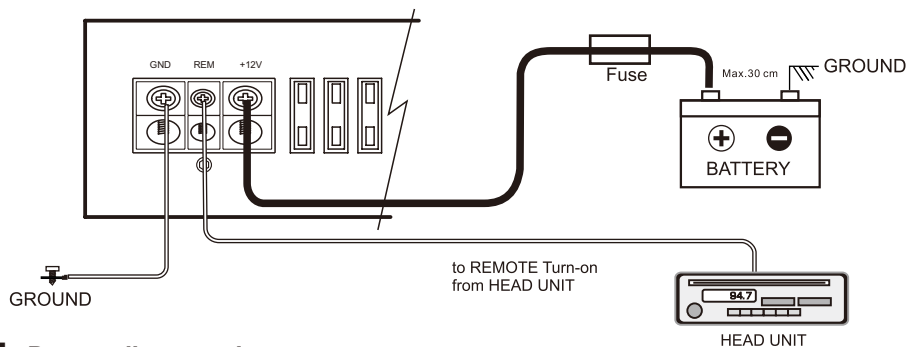
- * 2-Channel high power class-AB amplifier
- * Full MOS-FET power supply
- * Stable into 2 ohm stereo per channel and 4 ohm bridged mode(XL 250c2)
- * Stable into 1 ohm stereo per channel and 2 ohm bridged mode(XL 275c2)
- * 12dB octave crossover slope
- * -6dB~6dB bass boost equalization control variable
- * Variable switchable Low Pass Filter from 50 to 300 Hz
- * Variable switchable High Pass Filter from 25 to 175 Hz
- * High/Low and auto sense function
- * Input Sensitivity: variable 200 mV maximum to 8 V minimum
- * Protection for overhead, over current, short circuitry and speaker DC protection
- * RCA line input and output
- * Operating voltage : DC10V~16V
- * Massive heavy aluminum-heatsink with intelligent fan cooling
Wired Remote Controller *RTC* (Optional)

XL150c4 / XL 250c4

- * 4-Channel high power class-AB amplifier
- * Full MOS-FET power supply
- * Stable into 2 ohm stereo per channel and 4 ohm bridged mode
- * 12dB octave crossover slope
- * Variable switchable Low Pass Filter from 25 to 175 Hz(CH1/2), 50 to 300 Hz(CH3/4)
- * Variable switchable High Pass Filter from 25 to 175 Hz(CH1~4)
- * High/Low and auto sense function
- * 2/4 input mode selectable switch
- * Input Sensitivity: variable 200 mV maximum to 8 V minimum
- * Protection for overhead, over current, short circuitry and speaker DC protection
- * Operating voltage : DC10V~16V
- * Massive heavy aluminum-heatsink with intelligent fan cooling

POWER CONNECTION

XL 250c2 / XL 275c2 / XL 150c4 / XL 250c4



1. Battery disconnection

First, disconnect the power supply of the vehicle by removing the ground cable of the battery.

2. Ground connection

Connect the GND (ground) connection of the amplifier with the car chassis. Keep this cable as short as possible (not longer than 50 cm) and use a suitable cross section (AWG size 6 - 4). Make sure, that the connection with the vehicle chassis is free of paint, dirt and dust.

3. +12 V Power connection

Connect the +12 V contact of the amplifier with the supply cable via a fuse directly to the vehicle battery. Keep in mind, that the length of the cable from fuseholder to vehicle battery has to be maximum 30cm..

For the amplifier to function at its best, use a high quality fuse holder and suitable cable preferably AWG 6-4 cable.

This fuse protects the amplifier and the vehicle against the possibility of a short circuit in the power cable.

4. Remote connection

Connect the REM-terminal of the amplifier to the remote-output (automatic 12 V antenna-output) of the head unit. Use a 0,5 - 1,5 mm power cable.

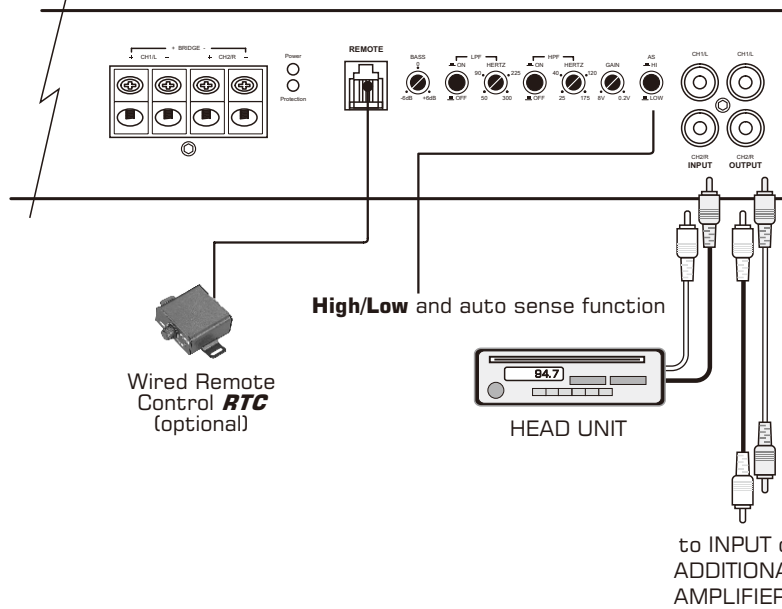
⚠ Caution ⚠

Please take the following precautions when installing your amplifier:

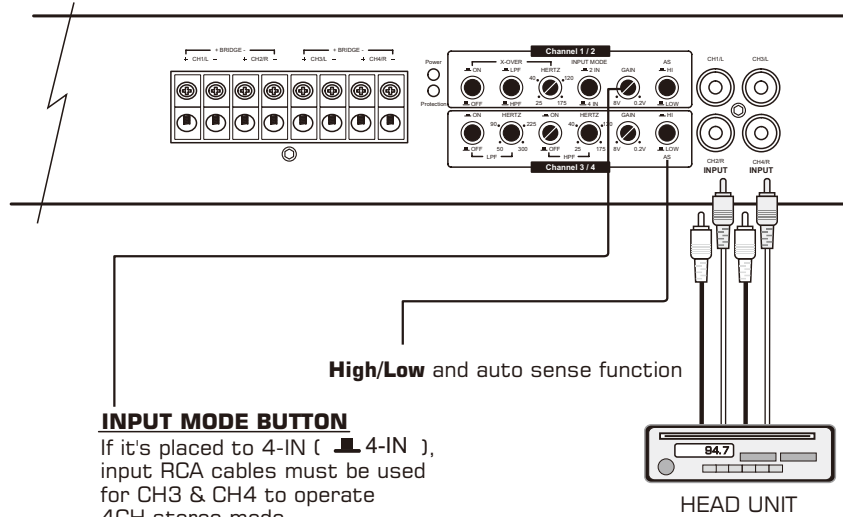
- a) Take extra care when making the connections. Make sure that no electrical cable, gas tank, hydraulic brakes or other components get damaged.
- b) Allow enough cooling and air circulation and avoid installing the unit in small closed boxes or close to parts that heats up easily.
- c) Keep the amplifier away from liquid, moisture, heat and foreign materials.
- d) This amplifier can only be used in vehicles with 12V DC power supply.
- e) Never install the power supply cable with other original vehicle wires (gas cables), fan motors, control modules etc.
- f) Install the signal cable (cinch cable) as well as speaker cable far away from the power cables to avoid interference with music signals.
- g) To avoid dangers of cables binding, squeezing or breaking, use the cables supplied with your amplifier.



RCA CONNECTION

XL 250c2 / XL 275c2



XL 150c4 / XL 250c4

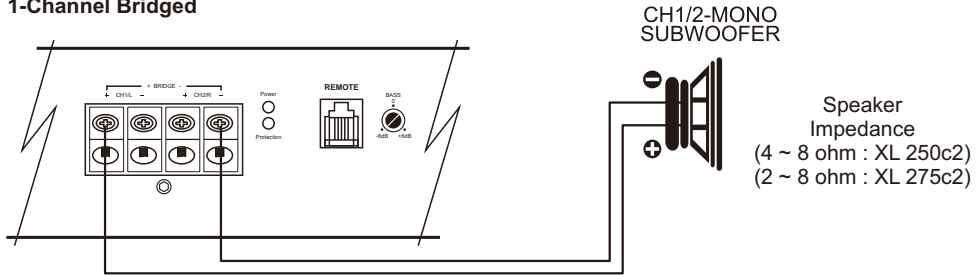


INPUT MODE BUTTON
 If it's placed to 4-IN ( 4-IN),
 input RCA cables must be used
 for CH3 & CH4 to operate
 4CH stereo mode.
 If it's placed to 2-IN ( 2-IN),
 it allows 4 channel stereo mode
 even though you don't use
 input RCA cables for CH3/CH4.

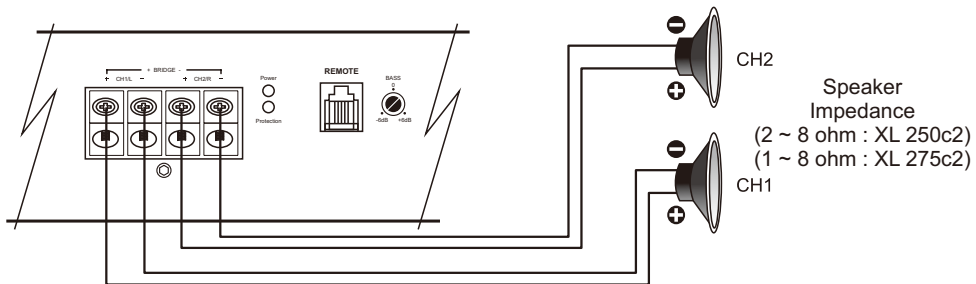
SPEAKER CONNECTION

XL 250c2 / XL 275c2

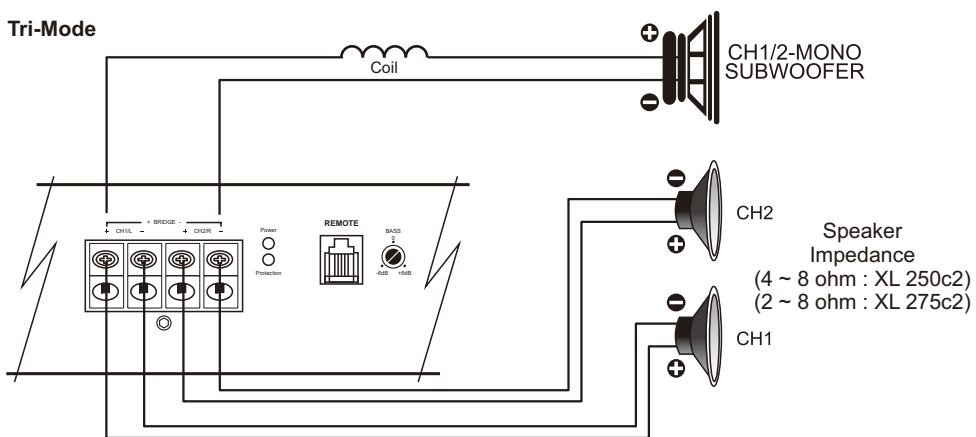
1-Channel Bridged



2-Channel Stereo



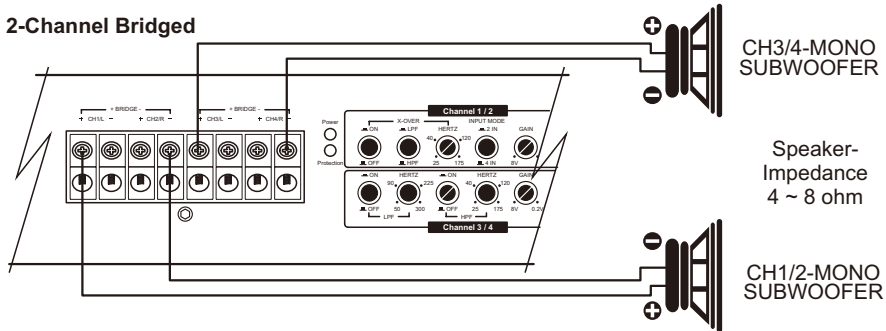
Tri-Mode



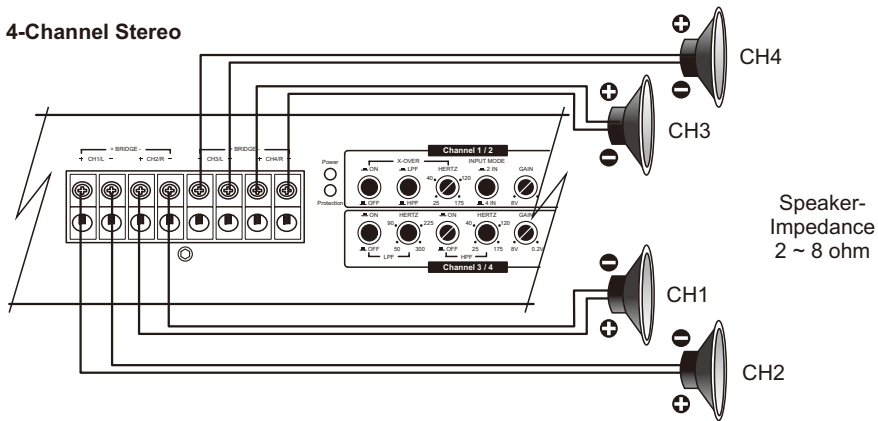
SPEAKER CONNECTION

XL 150c4 / XL 250c4

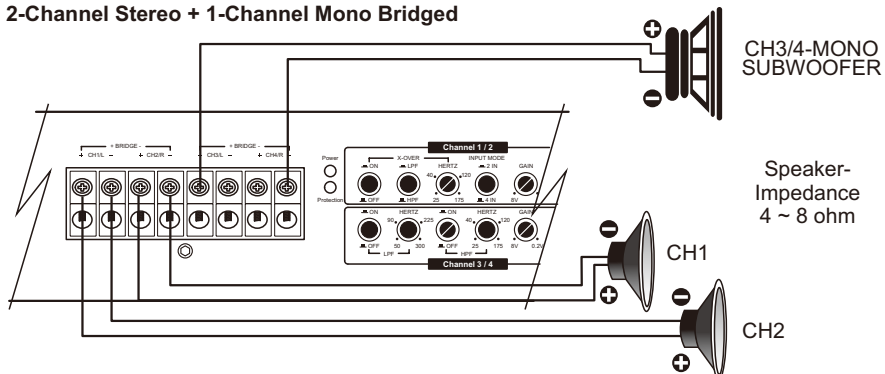
2-Channel Bridged



4-Channel Stereo



2-Channel Stereo + 1-Channel Mono Bridged



SPECIFICATIONS

| | XL 250c2 | XL 275c2 |
|-------------------------------|-----------------------|-----------------------|
| Rated power output | | |
| -RMS power, 4 ohms stereo | 243W x 2CH | 285W x 2CH |
| -RMS power, 2 ohms stereo | 375W x 2CH | 470W x 2CH |
| -RMS power, 1 ohm stereo | N.A | 750W x 2CH |
| -RMS power, 4 ohms bridged | 750W x 1CH | 940W x 1CH |
| -RMS power, 2 ohms bridged | N.A | 1500W x 1CH |
| Signal to noise ratio | >90dB | >90dB |
| Low pass crossover | 50Hz ~ 300Hz | 50Hz ~ 300Hz |
| High pass crossover | 25Hz ~ 175Hz | 25Hz ~ 175Hz |
| Bass boost @ 45Hz | -6dB~+6dB | -6dB~+6dB |
| Frequency response | 10Hz ~ 30KHz (+/-1dB) | 10Hz ~ 30KHz (+/-1dB) |
| THD@RMS watts | 0.1% | 0.1% |
| Channel separation | 75dB | 75dB |
| Fuse rating | 25A x 3 | 40A x 3 |
| Input sensitivity | 200mV ~ 8V (+/- 5%) | 200mV ~ 8V (+/- 5%) |
| Dimensions [58(H) x 180(W)]mm | 324(L) | 546(L) |

| | XL 150c4 | XL 250c4 |
|-------------------------------|--|--|
| Rated power output | | |
| -RMS power, 4 ohms stereo | 146W x 4CH | 241W x 4CH |
| -RMS power, 2 ohms stereo | 225W x 4CH | 370W x 4CH |
| -RMS power, 4 ohms bridged | 450W x 2CH | 740W x 2CH |
| Signal to noise ratio | >90dB | >90dB |
| Low pass crossover | 25Hz ~ 175Hz(CH1/2) 50Hz ~ 300Hz(CH3/4) | 25Hz ~ 175Hz(CH1/2) 50Hz ~ 300Hz(CH3/4) |
| High pass crossover | 25Hz ~ 175Hz(CH1~4) | 25Hz ~ 175Hz(CH1~4) |
| Frequency response | 10Hz ~ 30KHz (+/-1dB) | 10Hz ~ 30KHz (+/-1dB) |
| THD@RMS watts | 0.1% | 0.1% |
| Channel separation | 75dB | 75dB |
| Fuse rating | 30A x 3 | 40A x 3 |
| Input sensitivity | 200mV ~ 8V (+/- 5%) | 200mV ~ 8V (+/- 5%) |
| Dimensions [58(H) x 180(W)]mm | 424(L) | 546(L) |

TROUBLESHOOTING

This power amplifier features an efficient protection system to prevent damages due to overheating, overvoltage, short-circuit and DC at the loudspeaker output. If there is an error or problem, the protection LED will light up red.

To check the problem, first turn down all levels of the head unit and then turn it off.

| | |
|---|---|
| AMPLIFIER DOESN'T POWER UP / LED DOESN'T LIGHT UP | <ul style="list-style-type: none"> - check condition of ground connection - check if 12V power cable has been connected properly - check condition of remote cable connection - check if fuses have been inserted properly - check voltage on the amplifier |
| PROTECTION LED LIGHTS GREEN WHEN AMPLIFIER IS SOUNDLESS | <ul style="list-style-type: none"> - check condition of cinch cable - check condition of loudspeaker connection - check condition of head unit |
| PROTECTION LED LIGHTS RED WHEN AMPLIFIER IS POWERED UP | <ul style="list-style-type: none"> - Check if amplifier is too hot - Check for short-circuit at the loudspeaker output - Check for short-circuits caused by loudspeaker cable with vehicle chassis (ground) - Check if input voltage is too high (Ex: Faulty Lighting Dynamo) |
| OVERHEATING (PROTECTION LED LIGHTS RED WHEN AMPLIFIER IS POWERED UP) | <ul style="list-style-type: none"> - check impedance - check for problems on loudspeaker - check if there is adequate airflow around the amplifier <p style="text-align: center;">! CAUTION !</p> <p>When changing fuses, make sure you use the fuses with the same values.</p> |
| ERROR IN AMPLIFIER FUSE | <ul style="list-style-type: none"> - check condition of ground connection - check if correct loudspeaker impedance has been used <p style="text-align: center;">! CAUTION !</p> <p>When changing fuses, make sure you use the fuses with the same values.</p> |
| SOUND TOO LOW / LOW DISTORTED SOUND | <ul style="list-style-type: none"> - check if input level control "Gain" has been set to match the head unit - check output level control of the head unit - check for problems on loudspeaker - check loudspeaker cables - check if crossover frequencies have been set properly (Check head unit, amplifier, DSP, sound processor, equalizer, frequency bandpassfilter...) |
| HIGH HISS-ENGINE NOISE FROM SPEAKER | <ul style="list-style-type: none"> - Check condition of ground connection - Check for short-circuits caused by loudspeaker cable with vehicle chassis (ground) - Check if cinch cable (RCA) and/or loudspeaker cables are installed too close to power connection cable - Check if cinch ground (RCA) of head unit is in good condition |

⚠ CAUTION ⚠

Please contact your authorized dealer if your amplifier still doesn't work even after following the troubleshooting guides!

For warranty adjustment / repairs, the original invoice has to be attached!

Opening or disassembling the power amplifier will void your warranty!