

since 1988

AUDIO
SYSTEM

the sound

HIGH-PERFORMANCE CAR-AMPLIFIER

MANUAL

HX SERIES
AMPLIFIER



HX-175.2
HX-265.2
HX-85.4
HX-175.4

CE

Congratulation on your purchase of your new **HX SERIES** amplifier.

IMPORTANT: Before installation your power amplifier, we recommend to read the owner's manual carefully and to follow the instructions regarding connection and fitting exactly.

ATTENTION: Pay attention to advices and instructions of the car manufacturer.

IMPORTANT: Your proof of purchase is evidence of warranty claim for repair or replacement. Keep your proof of purchase, manual and original packaging.

ATTENTION: Use of sound components can impair your ability to hear necessary traffic sounds and may constitute a hazard while driving your automobile.

AUDIO SYSTEMGERMANY accepts no liability for hearing loss, bodily injury or property damage as a result of use or misuse of our products.

We recommend installing the equipment by an authorized service center or dealer. A professional fitting and connection is the requirement for further warranty and perfect sound.

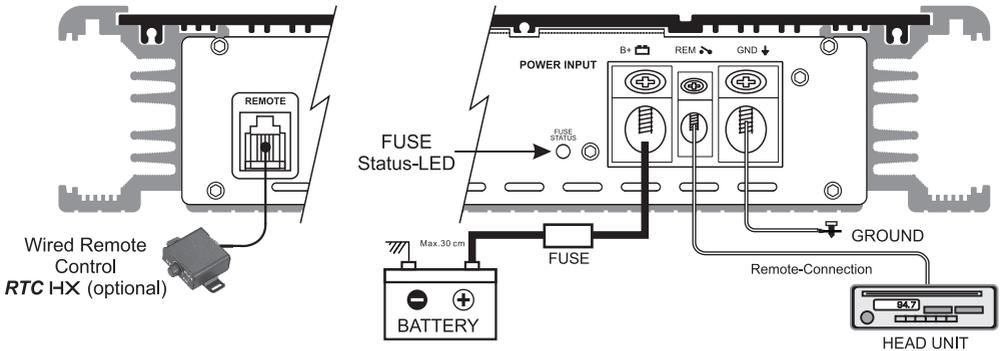
HX-175.2 / HX-265.2

- 2-Channel Full MOS-FET High Power Class-AB amplifier with SMD technology
 - Stable into 1 ohm stereo per channel and 2 ohm bridged mode
 - Variable switchable Low, High and Band Pass Filter from 25 to 300 Hz with on/off button
 - Variable Phase Shift Filter from 0 to 360 degrees
 - Stereo / Mono select switchable button with 12dB / 24dB Slope
 - Input Sensitivity: variable 200 mV maximum to 8 V minimum
 - **Multi-Way Protection Circuitry:** overhead, over current, short circuitry and speaker DC protection
 - Operating Voltage: DC 10 ~ 16 V Power Input
 - Massive heavy aluminum-heatsink with fan cooling
 - Wired Remote Controller **RTC HX** (Optional)
 - **DIRECT INPUT** controlling
-

HX-85.4 / HX-175.4

- 4-Channel Full MOS-FET High Power Class-AB amplifier with SMD technology
- Stable into 1 ohm stereo per channel and 2 ohm bridged mode
- Variable switchable Low Pass Filter from 50 to 300 Hz, on channel B 1000 to 6000 Hz
- Variable switchable High Pass Filter from 35 to 175 Hz, on channel A 1400 to 7000 Hz
- Full-Active-Modus selectable High and/or Low pass possible
- Variable Phase Shift Filter from 0 to 360 degrees
- Stereo / Mono select switchable button with 12dB / 24dB Slope
- 2 IN / 4 IN selectable button
- Input Sensitivity: variable 200 mV maximum to 8 V minimum
- **Multi-Way Protection Circuitry:** overhead, over current, short circuitry and speaker DC protection
- Operating Voltage: DC 10 ~ 16 V Power Input
- Massive heavy aluminum-heatsink with fan cooling
- Wired Remote Controller **RTC HX** (Optional)
- **DIRECT INPUT** controlling

HX-175.2 / HX-265.2 / HX-85.4 / HX-175.4



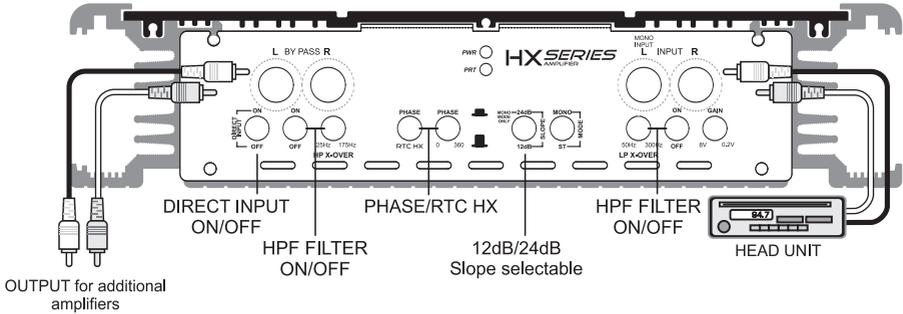
- 1. Battery disconnection:** First disconnect the power supply of the vehicle. This works out the best by removing the ground cable of the battery.
- 2. Ground connection (GND):** Connect the GND (ground) connection of the amplifier with the car chassis. Keep this cable as short as possible (not longer than 50 cm) and use a suitable cross section (AWG size 2 - 0). Make sure, that the connection with the vehicle chassis is free of paint, dirt and dust.
- 3. +12 V Power connection (B+):** 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 a maximum of 30 cm. Requirement for a perfect function of the amplifier is a qualitative high end fuse holder as well as a suitable cable cross section (AWG size 2 - 0). This fuse protects the amplifier and the vehicle against the possibility of a short circuit in the power cable.
- 4. REM connection by cable:** Connect the REM-terminal of the amplifier to the remote-output (automatic 12 V antenna-output) of the head unit. Therefore use a 0,5 - 1,5 mm power cable.
- 5. FUSE STATUS LED:** If the LED is shining the intern fuse is damaged.

⚠ ATTENTION ⚠

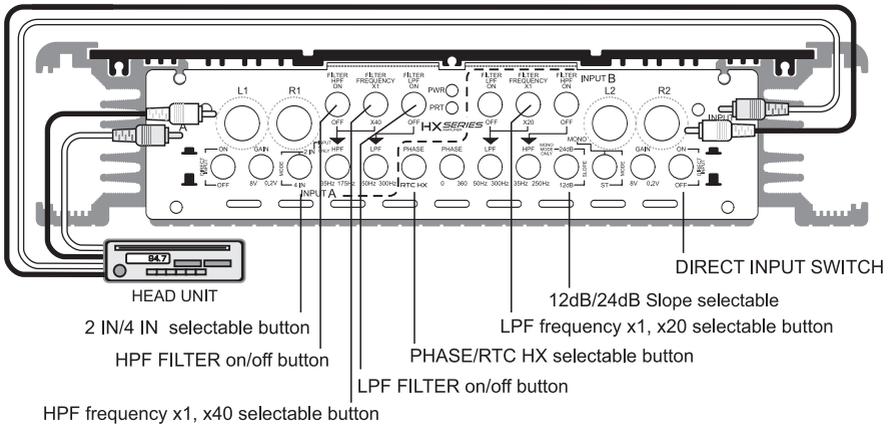
Please follow the instructions during the installation of your amplifier:

- a) Take care of a professional attachment. Pay attention, that no electrical cable, gas tank, hydraulic brakes or other components get damaged.
- b) There has to be enough cooling and air circulation. Avoid the installation in small closed boxes or close to heatening parts.
- c) Protect the amplifier from fluids, wetness, heat and foreign material as well as from other influences.
- d) The amplifier is only to be built into vehicles with a 12 V DC power supply.
- e) Never install the power supply cable with other original wires of the vehicle (gas cables), fan motors, brand control moduls etc.
- f) Install the signal cable (cinch cable) as well as the speaker cable far away of the power cables to avoid troubles with the music signal.
- g) The cables of your amplifier have to be installed, so that there is no danger of binding, squeezing or breaking.

HX-175.2 / HX-265.2



HX-85.4 / HX-175.4



The HX SERIES amplifiers have RCA inputs which are connected by cable with RCA preamp outputs of the controller. At the RCA outputs of the amplifier, it is possible, using a RCA cable, the signal forwarded from the control unit to a second amplifier (only for HX-175.2 and HX-265.2 possible).

Using the HPF (high pass filter), LPF (low pass filter), gain, phase shift and the slope, the output stage can be adapted to your speakers .

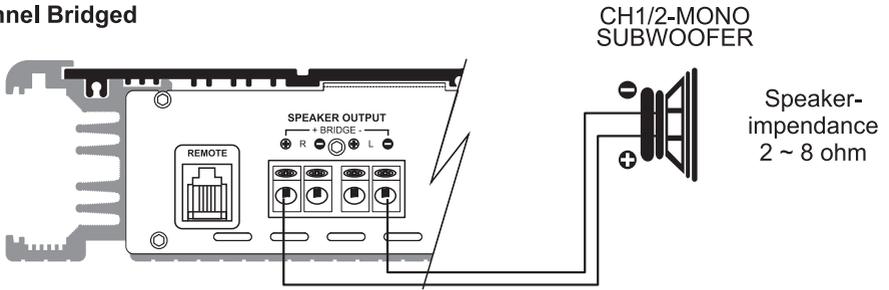
Once the DIRECT INPUT switch is pressed, no adjustments to the final stage possible (HPF, LPF, phase shift, gain). The phase / RTC HX switch allows you to select between the phase shift from 0-360 ° or the RTC HX Remote (optional). with the HX remote, the HX amplifier from the front of the car can be controlled. With the phase control the phase between the speakers can be adjusted.

With the HX-85.4 and HX-175.4 can be established via the HPF and LPF a fully active system. And HPF (x40) requires selection switch - the LPF (x20) For this purpose.

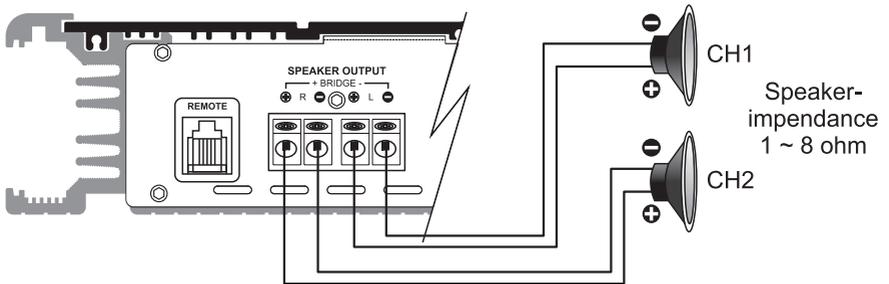
We, AUDIO SYSTEM GERMANY recommend this out with your amplifier to have a specialist company, retailer or a specialist to adjust to your needs.

HX-175.2 / HX-265.2

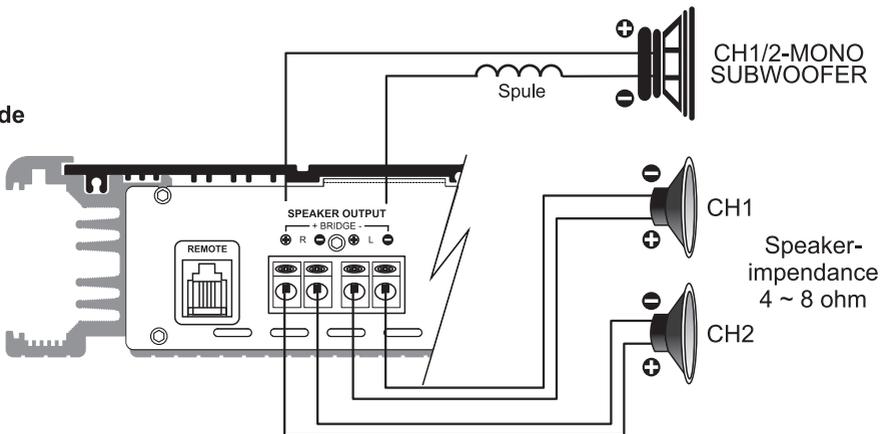
1-Channel Bridged



2-Channel Stereo

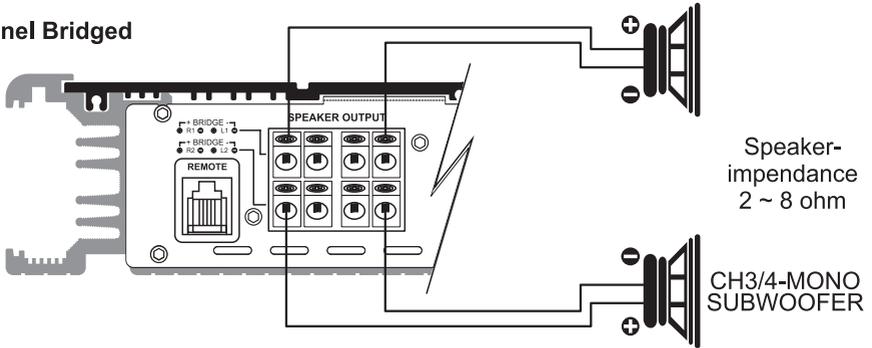


Tri-Mode

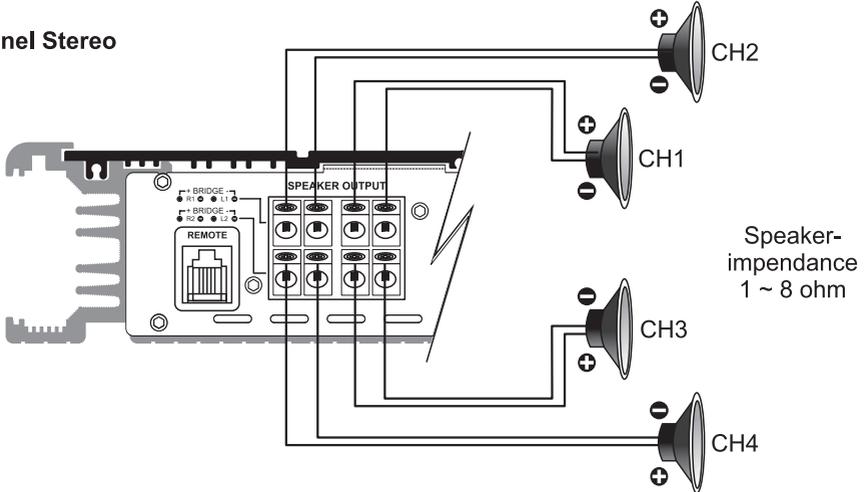


HX-85.4 / HX-175.4

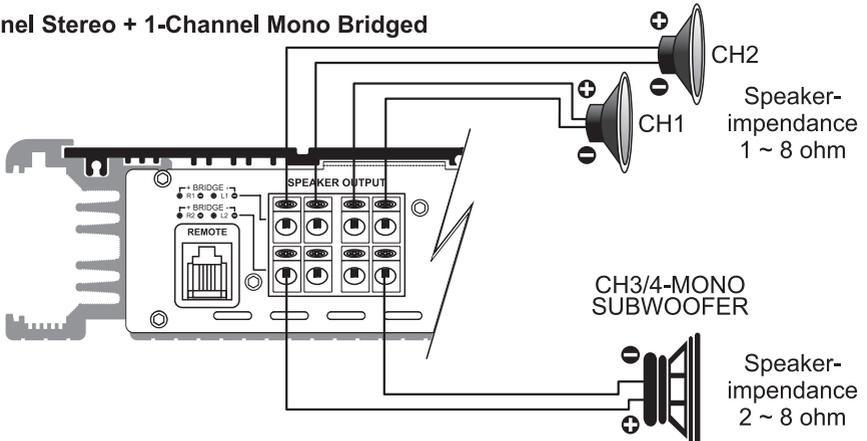
2-Channel Bridged



4-Channel Stereo



2-Channel Stereo + 1-Channel Mono Bridged



This power amplifier is featured with an efficient protection system to prevent any damages like over-heating, overvoltage, short-circuit and DC at the loudspeaker output. Occuring an error the protection-LED will light in red. In order to check the problem, first turn down all levels of the head unit, afterwards turn it off.

<p>AMPLIFIER IS NOT POWERED UP, NO LED IS LIGHTENING</p>	<ul style="list-style-type: none"> - ground connection professional connected? - +12V powercable professional connected? - remote cable professional connected? - fuses inserted and alright? - analyze voltage on the amplifier.
<p>PROTECTION LED ILLUMINATES GREEN WHILE AMPLIFIER IS SOUNDLESS</p>	<ul style="list-style-type: none"> - cinch cable alright and professional connected? - loudspeaker professional connected? - head unit alright?
<p>PROTECTION LED ILLUMINATES RED WHEN AMPLIFIER IS POWERED UP</p>	<ul style="list-style-type: none"> - amplifier too hot? - short-circuit at the loudspeaker output? - short-circuit caused by loudspeaker cable with vehicle chassi (ground)? - input voltage too high (e.g.faulty generator)?
<p>OVERHEATING (PROTECTION LED ILLUMINATES RED WHEN AMPLIFIER IS POWERED UP)</p>	<ul style="list-style-type: none"> - impedance alright? - loudspeaker error? - adequate airflow of the amplifier? <p style="text-align: center;">! CAUTION ! After cooling down, the amplifier turns on automatically.</p>
<p>ERROR IN AMPLIFIER FUSE</p>	<ul style="list-style-type: none"> - ground professional connected? - loudspeaker impedance alright? <p style="text-align: center;">! CAUTION !</p> <p style="text-align: center;">Make sure when changing fuses to use the same value.</p>
<p>SOUND TOO LOW OR LOW-DISTORTED SOUND</p>	<ul style="list-style-type: none"> - input level control "GAIN" is set to match the head unit? - output level control of the head unit alright? - loudspeaker error? - loudspeaker cable checked? - crossover frequencies has been properly set? (Check head unit, amplilfier, DSP, soundprozessor, equalizer,
<p>HIGH HISS-ENGINE NOISE IN SPEAKERS</p>	<ul style="list-style-type: none"> - ground connection professional connected? - short-circuit caused by loudspeaker cable with vehicle chassi (ground)? - cinchcable (RCA) and/or loudspeaker cabel installed too close to the power connection cable? - cinch ground (RCA) of the head unit alright?

⚠ ATTENTION ⚠

Please contact your specialized dealer if the amplifier is still not working after it has been checked with the error list!

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

Opening the power amplifier is leading to a lost of warranty in either case!

2-CHANNEL AMPLIFIER	HX-175.2	HX-265.2
Power Supply Voltage	10 -16 V	10 -16 V
Rated Power Output at 14,4 V		
-RMS power @ 4 ohm stereo	2x 175 W	2x 265 W
-RMS power @ 2 ohm stereo	2x 350 W	2x 520 W
-RMS power @ 2 ohm bridged	1x 1400 W	1x 2100 W
Signal to Noise Ratio	>90 dB	>90 dB
Low Pass Crossover	50 Hz ~ 300 Hz	50 Hz ~ 300 Hz
High Pass Crossover/Subsonic filter	25 Hz ~ 300 Hz	25 Hz ~ 300 Hz
Frequency Response	10 Hz ~ 100 KHz (+/-1dB)	10 Hz ~ 110 KHz (+/-1dB)
THD@RMS Watts	< 0.007%	< 0.007%
Channel Separation	75 dB	75 dB
Fuse Rating	100 A	200 A
Input Sensitivity	200 mV ~ 8V (+/- 5%)	200 mV ~ 8V (+/- 5%)
Dimensions	416(L)x 53(H)x 240(W)mm	596(L)x 53(H)x 240(W)mm

4-CHANNEL AMPLIFIER	HX-85.4	HX-175.4
Power Supply Voltage		
Rated Power Output at 14,4 V	10 -16 V	10 -16 V
-RMS power @ 4 ohm stereo	4x 85 W	4x 175 W
-RMS power @ 2 ohm stereo	4x 150 W	4x 255 W
-RMS power @ 2 ohm bridged	2x 500 W	2x 1000 W
Signal to Noise Ratio	>90 dB	>90 dB
Low Pass Crossover	50 Hz ~ 6000 Hz	50 Hz ~ 6000 Hz
High Pass Crossover/Subsonic filter	35 Hz ~ 7000 Hz	35 Hz ~ 7000 Hz
Frequency Response	10 Hz ~ 100 KHz (+/-1dB)	10 Hz ~ 110 KHz (+/-1dB)
THD@RMS Watts	< 0.007%	< 0.007%
Channel Separation	75 dB	75 dB
Fuse Rating	100 A	200 A
Input Sensitivity	200 mV ~ 8V (+/- 5%)	200 mV ~ 8V (+/- 5%)
Dimensions	416(L)x 53(H)x 240(W)mm	596(L)x 53(H)x 240(W)mm



AUDIO SYSTEM GERMANY
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DESIGNED AND ENGINEERED BY AUDIO SYSTEM GERMANY