

since 1988

**AUDIO**  
**SYSTEM**

*the sound*

# HIGH-PERFORMANCE CAR-AMPLIFIER

OWNER'S MANUAL

**C SERIES**  
BY AUDIO SYSTEM



CO-600.5

CE

## Congratulation on your purchase of your new C-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 SYSTEM GERMANY** 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.

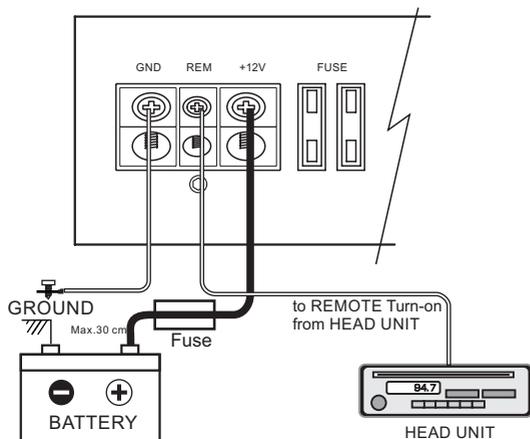
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### CO-600.5

- 5-Channel High Power Class-AB amplifier with SMD technology
- MOS-FET PWM Power Supply
- 6-Kanal-Eingang
- Input-Mode 2 or 4 or 5 channel
- Stabil into 2 ohm stereo per channel and 4 ohm in bridged mode (channel 1+2+3+4)
- Stabil from 4 ohm to 2 ohm mono (channel 5)
- Variable switchable Low / High Pass Filter from 50 to 4000 Hz (channel 1+2)
- Variable switchable Low / High / Band Pass Filter from 30 to 1500 Hz (channel 3+4)
- Variable switchable Low Pass Filter from 30 bis 200 Hz (Kanal 5)
- 3-Way Full Active Mode possible
- Input Sensitivity: variable 200 mV maximum to 8 v minimum
- Multi-Way Protection Circuitry: overheating, overcurrent, short circuitry and speaker DC protection
- Operating Voltage: DC 10 ~ 16 V power input
- Wired Remote Control **RTC** included
- High-Power-Input (normally original radio) with automatically „Turn-On“
- Adaptercable **HLAC** and **RCA HI** (optional)



## CO-600.5

**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**

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

**4. Remote connection**

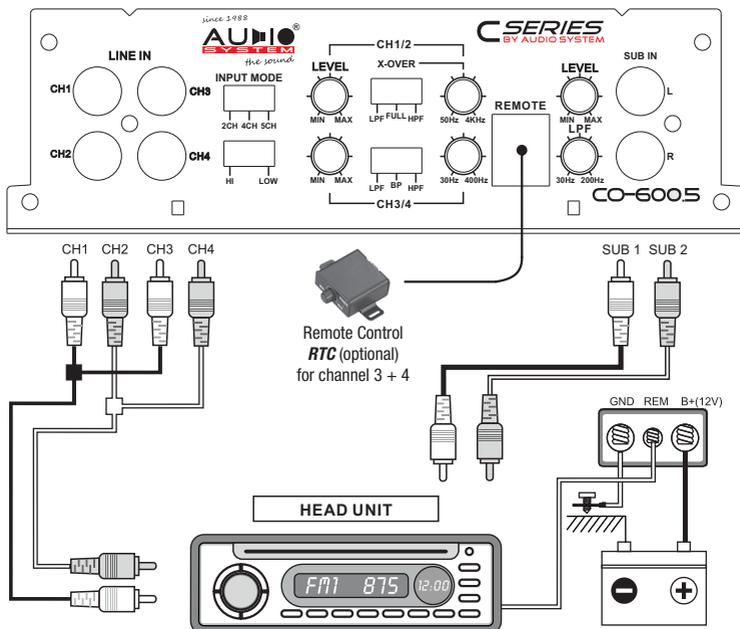
Connect the REM-terminal of the amplifier to the remote-output (automatic 12 V antenna-output) of the head unit. Therefore use a 0,5 - 1,5 mm (AWG size 20 - 16) power cable.

⚠ **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 heating 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.

**CO-600.5**



The **C SERIES** amplifier offers RCA-Inputs, which are connected through cinch cables with the preamplifier-outputs of the head unit. If the head unit (OEM-RADIO) has no RCA-Output, than it is possible to connect the speaker output direct to RCA/Cinch-Input of the amplifier.

The Input Mode has to be switched on "HI". **Important: the Gain-Controller has to be adjusted to minimum**, then carefully turn up the volume. If signal is presented, the amplifier automatically turns on. Adaptercable **HLAC** and **RCA HI** can be purchased at your specialized dealer.

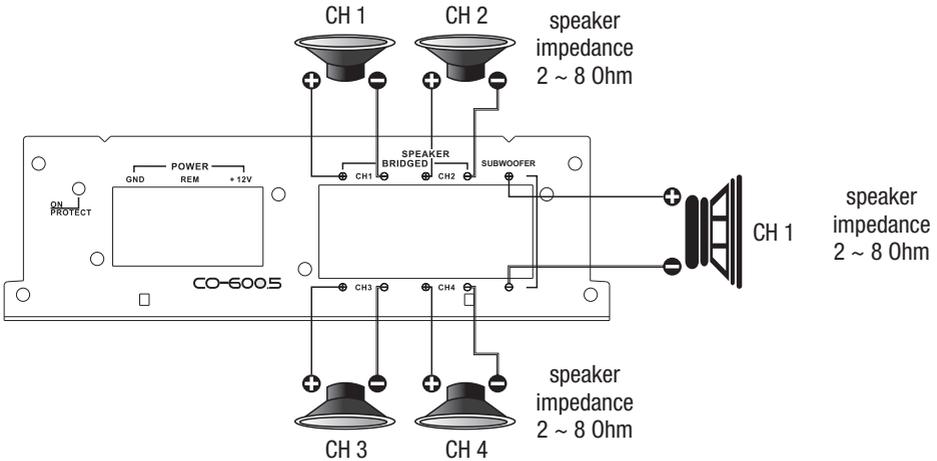
With the aid of the variable high- and lowpassfilter, phase shift-controller, the gain-controller and subsonicfilter you are able to adjust the amplifier on to your preferred taste of hearing, the circumstances of the vehicle and to the speakers.

Optional a wire remote controller **RTC** can be installed to adjust the output level.

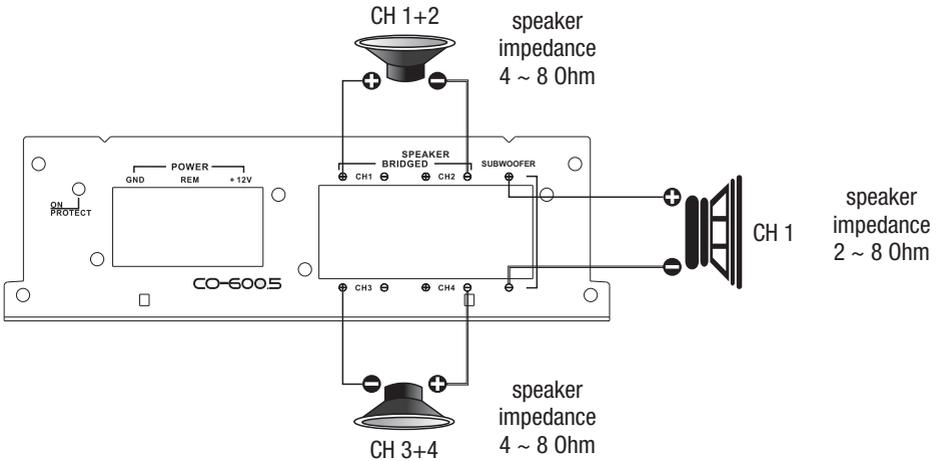
In this regard, **AUDIO SYSTEM GERMANY** recommends to adjust your amplifier through a specialized service center, dealer or a specialist.

## CO-600.5

### 5-Channel Stereo Mode channel 1 bis 4 + mono Channel 5



### 5-Channel Mono Mode channel 1 bis 4 + mono Channel 5



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

## ⚠ ATTENTION ⚠

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

For warranty adjustment / repairs the original invoice has to be attached!  
**Opening the power amplifier is leading to a lost of warranty in either case!**

**CO-600.5**



Power Supply Voltage	10 - 16 V
Rated Power Output at 14,4 V	
-RMS power @ 4 ohm stereo (channel 1 to 4)	4x 60 W
-RMS power @ 2 ohm stereo (channel 1 to 4)	4x 85 W
-RMS power @ 4 ohm mono (channel 1 to 4)	2x 170 W
-RMS power @ 4 ohm mono (channel 5)	1x 250 W
-RMS power @ 2 ohm mono (channel 5)	1x 350 W
Signal to Noise Ratio	>96 dB
High / Low Pass Crossover (channel 1 + 2)	50 ~ 4000 Hz
High / Low Pass Crossover (channel 3 + 4)	30 ~ 400 Hz
or Band Pass Crossover (channel 3 + 4)	30 ~ 400 Hz / fest 1500 Hz
Low Pass Crossover	30 ~ 200 Hz
Frequency Response	10 ~ 45 KHz (+/-1 dB)
THD@RMS Watts	< 0,048%
Channel Separation	75 dB
Fuse Rating	2x 25 A
Input Sensitivity	200 mV ~ 8 V (+/- 5%)
Dimensions	420(W) x 47(H) x 171(L) mm

