

since 1988

AUDIO
SYSTEM

the sound

HIGH-PERFORMANCE CAR-AMPLIFIER

OWNER'S MANUAL

H SERIES
BY AUDIO SYSTEM



H-5000.1 D



Congratulation on your purchase of your new H-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.

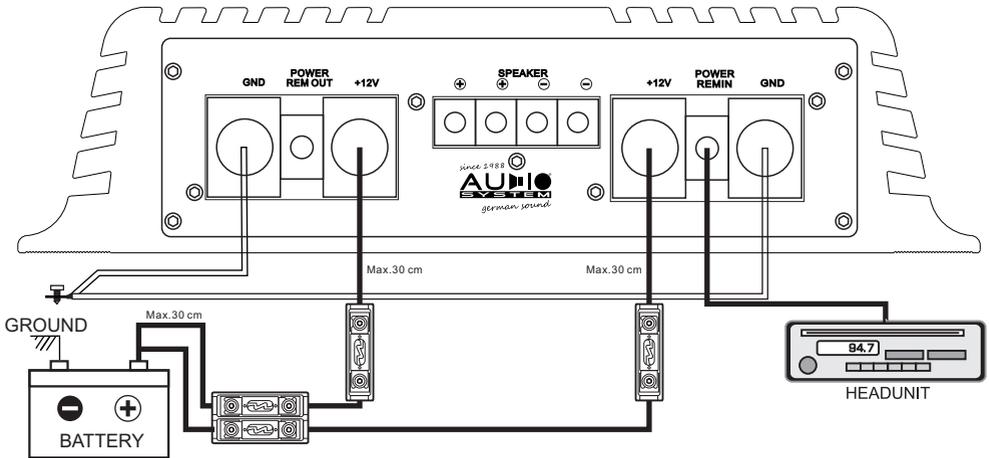
ATTENTION: **NO WARRANTY claims for operation in LINK-MODE possible!!!**

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.

H-5000.1 D

- 1-Channel High Power Class D amplifier
- Quad-MOS-FET PWM power supply, operating voltage from 10 to 16 V
- High efficiency up to 90%
- Stable into 1 Ohm (single mono operation)
- Variable Lowpass-Filter from 35 to 250 Hz
- Variable Subsonic-Highpass-Filter from 10 to 50 Hz
- Variable Phase from 0° to 180°
- Variable Bass-Boost from 0 to 9 dB
- Wide input sensitivity from 0,2 to 6 V
- Multi-Way-Protection-Circuitry: overheating, overcurrent, short circuit and speaker DC offset protection
- Clipping-Display and switchable limiter
- 2x 50mm² connection terminals each for battery and ground
- Wired remote **RTC PLUS** showing voltage, temperature, protection, clipping
- 2x **H-5000.1 D** linkable up to 10.000 Watt RMS - **NO WARRANTY CLAIMS POSSIBLE!**

H-5000.1 D



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) terminals of the amplifier with the car chassis. Keep this cable as short as possible (not longer than 50cm) and use a suitable cross section (35mm² - 50mm²). Make sure that the connection point with the chassis is free of paint, dirt and dust.
3. **+12 V Power connection:** Connect the +12 V terminals of the amplifier via fuses to the battery. Keep in mind, that the length of the cable from fuseholder to battery must not exceed 30cm in length. For the amplifier to work best, please use a high quality fuse holder and a suitable cable preferable 35mm² - 50mm². The fuses protect the amplifier and the vehicle against short circuits. Attention! The amplifier has no internal fuses so external fuses before amplifiers must also be installed!!
4. **Remote connection:** Connect the REM IN terminal of the amplifier to the remote output (or antenna output) of the head unit. Please use a 0.5mm² to 1.5mm² cable.

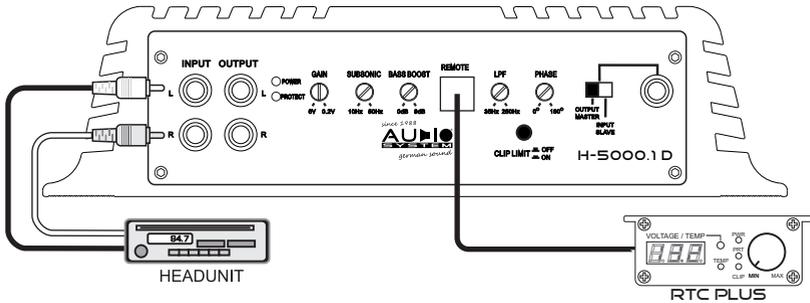
⚠ **ATTENTION** ⚠

Please follow the instructions during the installation of your amplifier:

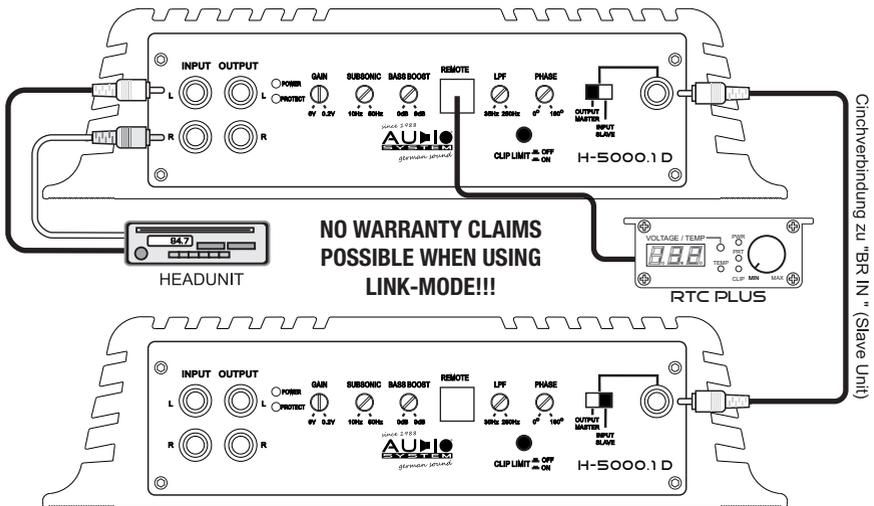
- a) Take care of a professional attachment. Pay attention, that no electrical cable, gas tank, hydraulic breakers or other components get damaged.
- b) There has to be enough cooling and air circulation. Avoid the installation in small closed boxes or close to heating parts.
- c) Protect the amplifier 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 from 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.

H-5000.1 D

1. RCA connection for operation of 1 amplifier



2. RCA connection for operation of 2 amplifiers in LINK-MODE



The H-5000.1 D amplifiers offers RCA-inputs, which are connected by RCA cinh-cables to the preamplifier outputs of the headunit.

Using the „Master/Slave“ connection (single RCA) it's possible to link a second H-5000.1 D with the LINK-MODE. For LINK-MODE switch second amplifier to „INPUT SLAVE“, then this amplifier is fully controlled by the first „Master“ amplifier.

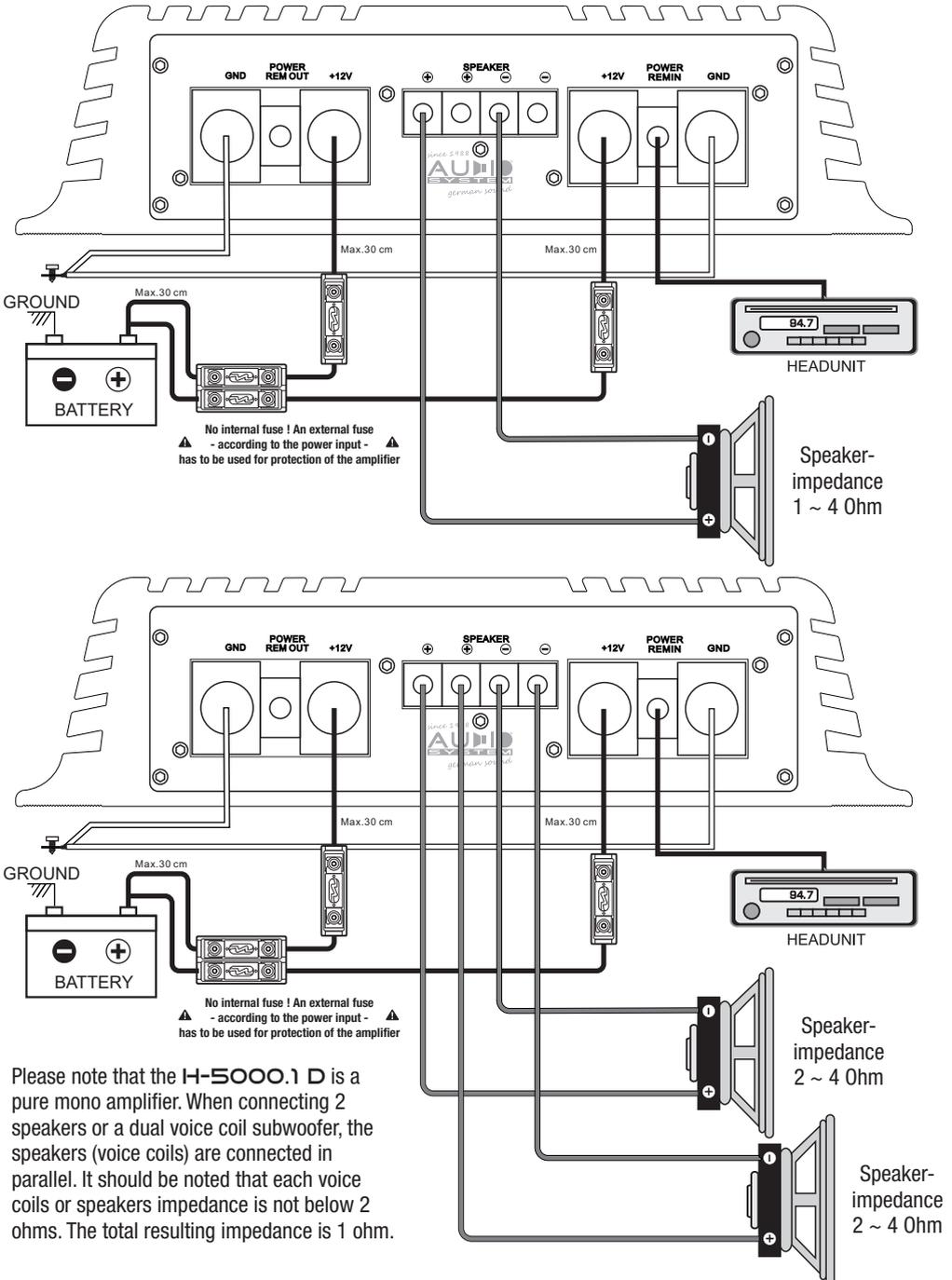
No warranty claims for operation in LINK-MODE possible!

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

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

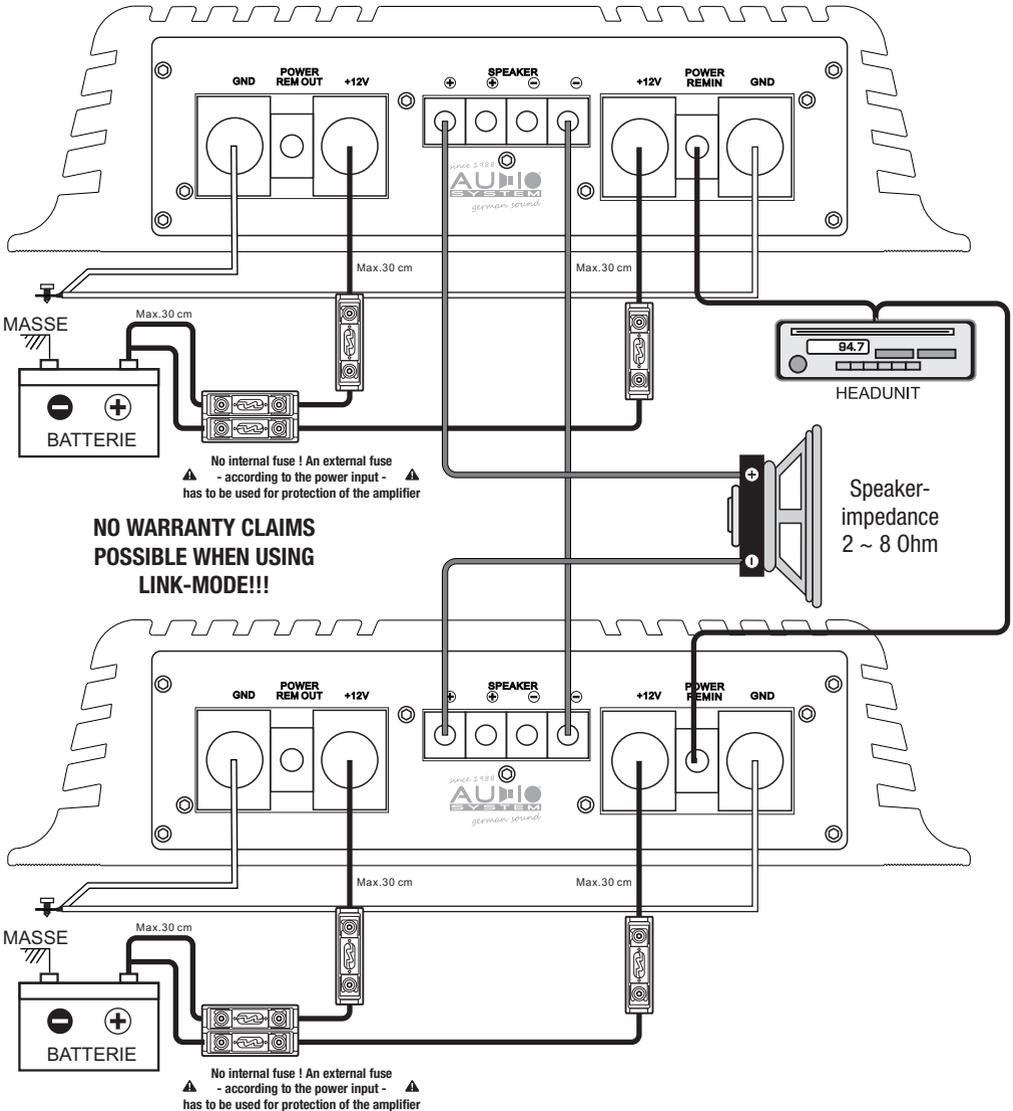
Optional a wired remote controller **RTC PLUS** can be installed. This controller can adjust the output level and show you amplifier datas for voltage, temperature, clipping, protect and on state.

1. Single amplifier operation



Please note that the H-5000.1 D is a pure mono amplifier. When connecting 2 speakers or a dual voice coil subwoofer, the speakers (voice coils) are connected in parallel. It should be noted that each voice coils or speakers impedance is not below 2 ohms. The total resulting impedance is 1 ohm.

1. Dual amplifier operation (LINK-MODE)



When linking 2x H-5000.1 D the „Master“ amplifier completely controls the „Slave“ amplifier. The positive (+) terminal of woofer has to be connected to the positive (+) speaker terminal of the „Master“ amplifier. The negative(-) terminal of woofer is connected to the positive(+) speaker terminal of the „Slave“ amplifier. Both negative(-) terminals of the amplifiers are connected together. Please use cables with sufficient cross section (10mm²), because in LINK-MODE the amplifiers produce immense power. Please make sure that the connected speakers are suitable for this power.

ATTENTION! The connected overall impedance of the speakers must not drop below 2 ohms in LINK-MODE. Otherwise the amplifier can take damage.

NO WARRANTY CLAIMS POSSIBLE WHEN USING LINK-MODE!!!

TROUBLE SHOOTING

CARBON SERIES
BY AUDIO SYSTEM

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 chassis (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 ! 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, amplifier, DSP, soundprozessor, equalizer, frequency bandpassfilter...)
<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 chassis (ground)? - cinchcable (RCA) and/or loudspeaker cable 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 adjustment / repairs the original invoice has to be attached!
Opening the power amplifier is leading to a lost of warranty in either case!

H-5000.1 D

Power Supply Voltage	10 - 16 V
Rated Power Output at 14,4 V	
-RMS power @ 2 Ohm LINK-MODE	1x 10.000 W
-RMS power @ 1 Ohm mono	1x 5000 W
-RMS power @ 2 Ohm mono	1x 3100W
-RMS power @ 4 Ohm mono	1x 1650W
Signal to Noise Ratio	> 95 dB
Low-Pass-Filter	35 - 250 Hz @ 24 dB
Subsonic Filter	10 - 50 Hz @ 24 dB
Bass Boost	0 - 9 dB @ 45 Hz
Phase-Shift-Control	0 - 180°
Frequency Response	15 - 270 Hz
THD at 4 Ohm	< 0,048%
Fuse Rating	external
Input Sensitivity	200 mV ~ 6 V (+/- 5%)
Dimensions	550(W) x 63(H) x 256(L) mm



AUDIO SYSTEM GERMANY
FALLTORSTRASSE 6 - 76707 HAMBRÜCKEN

DESIGNED AND ENGINEERED BY AUDIO SYSTEM GERMANY