

This power amplifier is featured with an efficient protection system to prevent any damages like overheating, overvoltage, short circuit and DC offset on speaker output.

In order to check any problem, first turn down all volume levels of the head unit, afterwards turn the headunit off.

Some errors can be checked in DSP Control App. These are errors where amplifier still turns on (blue LED on).

Amplifier doesn't turn on,
LED is not lightening

- ground connection properly connected?
- +12 V properly connected?
- remote wire properly connected?
- fuse(s) inserted and OK?
- voltage at amplifier OK? (multimeter)

Amplifier without output,
LED is turned on

- High-Level or Low-Level input properly connected?
- over- our undervoltage? (multimeter)
- output short circuited? (DSP Control App)
- proper source selected? (DSP Control App)
- source routing ok? (DSP Control App)

Amplifier gets quieter

- adequate airflow to the amplifier?
- impedance alright? (multimeter)

!Attention!

The amplifier slowly levels down the output power when getting too hot until temperature is cold enough again!

Amplifier fuse burned

- proper ground connection?
- proper speaker impedance?

!Attention!

When exchanging the fuse always use same fuse ratings as original!

Sound distorted

- input gain matched? (DSP Control)
- output gain set to loud? (DSP Control)
- speaker connectors alright?
- crossover frequencies matching speakers?

High-hiss engine noise from
speakers

- ground connected properly?
- RCA cables separated from power cables?
- headunit ok?

⚠ Attention ⚠

Please contact your specialized dealer if the amplifier is still not working after checking the troubleshooting guide!

For warranty adjustments / repairs always attach the original invoice!

Opening the amplifier will void warranty!

Congratulations on your purchase of your new **C-SERIES** amplifier.

IMPORTANT: Before installation of your 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 your 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.

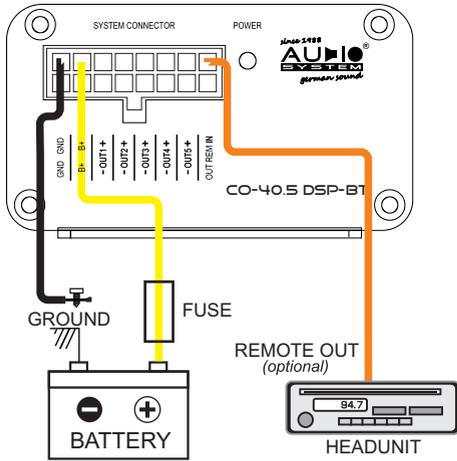
AUDIO SYSTEM GERMANY accepts no liability for hearing loss, bodily injury or property damage as a result of use or misuse of our products.

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

- 5-Channel Miniverstärker with 56-Bit SIGMA DSP from Analog Devices and App-Control
- Stable into 2 OHM per channel
- Extremely wide input sensitivity from 0,1 to 20 V
- Multi-Way-Protection-System: overheat, overload and short circuit protection
- High-Level input with automatic turn on or Low-Level input (RCA) with remote
- 2 AUX-inputs, 1x with signal detection, 1x with remote mit Remote
- Wireless firmware updates



Power supply voltage	8 - 16 V
Rated power output at 14,4 V	
- RMS power @ 4 Ohm (channel 1 - 5)	40 W
- RMS power @ 2 Ohm (channel 1 - 5)	60 W
Output voltage Pre-Out (channel 6 - 7)	1 V RMS
Signal to noise ratio ADC	100dB
Signal to noise ratio DAC	104dB
Frequency response	35 Hz ~ 20 kHz (+/- 1 dB)
THD (@ 4 Ohm, 1/2 P _{MAX})	< 0,03%
Channel separation	65dB
Input sensitivity	0,1 V ~ 20 V
DSP channels	7
Filters (per channel)	High Pass / Low Pass / Band Pass (6 / 12 dB)
EQ-bands	7
EQ-types	Parametrischer-EQ, High Shelf, Low Shelf, All Pass
Time delay	0 ~ 5,5 ms
Fuse rating	20A (externa)
Dimensions	123(L) x 45(H) x 80(W) mm



1. Disconnect battery

First disconnect the power supply of the vehicle. Best way is to remove ground connection of the battery.

2. Ground connection

Connect the GND (ground) connection of the amplifier with the car chassis. Keep this wire as short as possible (not longer than 100cm) and use a suitable cable cross section (AWG 13 - AWG 9). Please make sure that the connection point to chassis is clean, no paint on (sand if necessary) and dust free.

3. +12 V power supply

Connect the +12 V contact of the amplifier with a power cable via a fuse to battery directly.

Attention: The cable length between car battery and fuse holder must not exceed 30cm! Please also

use a suitable cable cross section and fuse.

4. Remote connection: If using the Low-Level (RCA) inputs of the amplifier you have to also connect the remote input to the amplifier turn on output or electrical antenna output of your headunit. Details can be found in your headunit's manual.

5. Signal input: You can use speaker outputs of headunit or RCA low-level outputs of headunit for this amplifier. Please note **not** to connect both inputs at the **same time**.

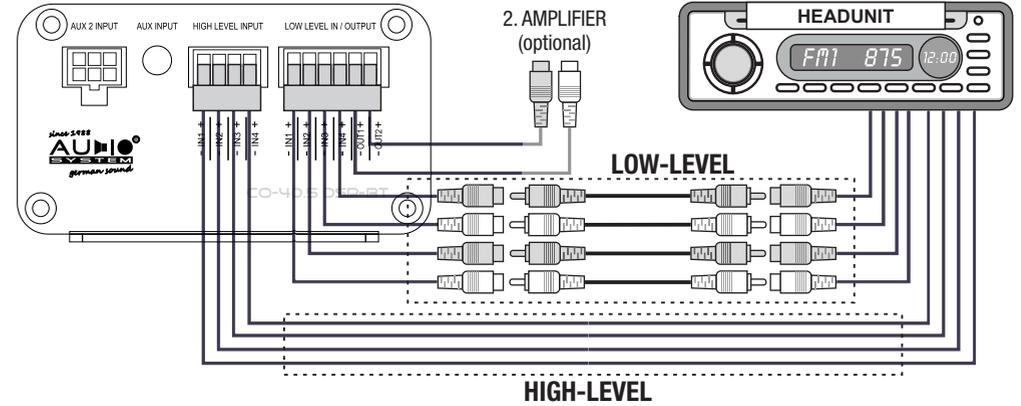
6. AUX-inputs: The amplifier has 2 different AUX inputs. AUX 1 use 3.5mm jack to connect to external sources. This input has an integrated signal detection to turn on amplifier. The AUX 2 input uses a 6 pin connection for specialized **AUDIO SYSTEM** accessories. Please contact your local dealer for more details.



Caution

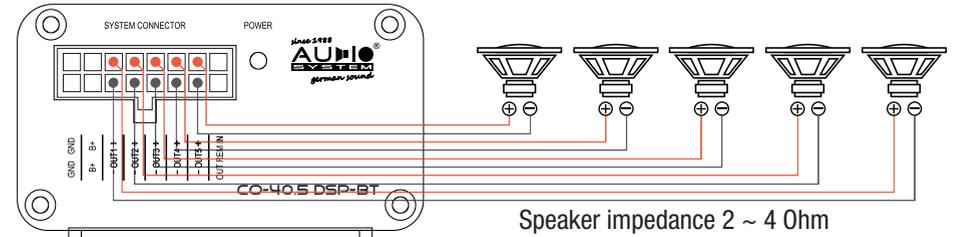
Please take the following precautions when installing your amplifier:

- 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 heat 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.



7. Pre-Out: The amplifier has a 2-channel pre-out to connect further amplifiers.

8. Speaker outputs: The CO-40.5 DSP-BT has 5 amplified speaker outputs. The speaker impedance of each speaker must not fall below 2 Ohm.



All settings of the amplifier can be accessed by the **AUDIO SYSTEM** DSP Control app. This software is under ongoing development and can be found at www.audio-system.de/dsp/

