

HOW TO CORNER YOURSELF WITH GREAT SOUND

User Manual
Cornered CA280DSP
Network amplifier

Introduction

Cornered Audio provide aesthetic sound to custom- and commercial installations where high-end performance and discreet, elegant design is needed. To get the best out of your Cornered amplifier and loudspeaker system, please study this manual carefully before installing.

Safety

- Read and keep these instructions
 - Do not use this apparatus near water
 - Clean only with a dry cloth
 - Do not block any ventilation openings
 - Do not install near any heat sources such as radiators or other heat producing products
 - Use with provided power cord or similar
 - Refer all service to qualified personnel
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1.0 Warnings

- To reduce risk of electric shock, do not expose this apparatus to rain or moisture
- Do not expose this system/apparatus to dripping or splashing are placed on the apparatus.
- This apparatus must be connected to a mains socket outlet with earthing connection.
- To prevent electric shock do not remove top or bottom covers.
- No serviceable parts inside.
- Check the voltage in your area and use the correct type of mains

1.1 Radio interference

This product has been tested and complies with the limits for the European Electro Magnetic Compatibility (EMC) directive. It also complies with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference from electrical equipment. This product uses radio frequency energy and, if not used or installed in accordance with these operating instructions, may cause interference to other equipment, such as radio receivers.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment causes harmful interference to radio or television reception, the user may be able to correct the interference by one or more of the following measures:

- Check if the affected unit complies with the EMC limits for immunity, (CE-labelled). If not, address the problem with the manufacturer or supplier.
- Consult the dealer or an experienced radio/TV technician for help.
- Reorient or relocate the antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet

2.0 Set-up

2.1 Remote control software

Go to: www.cornered.dk/amplifiers
to download control software for your CA280DSP.

2.2 Rack mounting

CA280DSP can be mounted into a rack by attaching two brackets, one short and one long (included) to the mounting holes in the side of the amplifier. Use a 4 mm diameter machine screw, ensuring that the length of the screw is suitable for the thickness of the rack shelf.

A dedicated rack mount designed to hold two CA280DSP's side by side is available as accessory.

2.3 Operating voltage

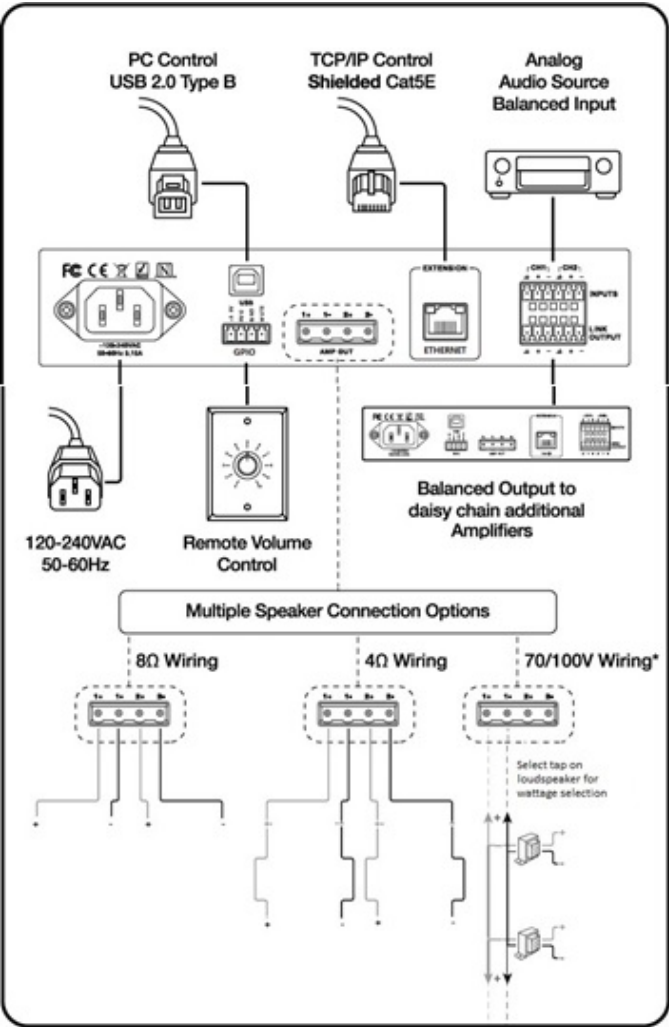
CA280DSP is stable with voltage from 85 to 265V, but perform to specifications from 110 to 240 Volt. Always use the provided power plug. Use balanced source cables to avoid hum and interference when cable runs over 5 meters are used.

2.4 Service

Spare parts for your CORNERED products are available through your local CORNERED distributor. In case you are not able to source spare parts locally, you can contact us directly at info@cornered.dk

4.0 Connections

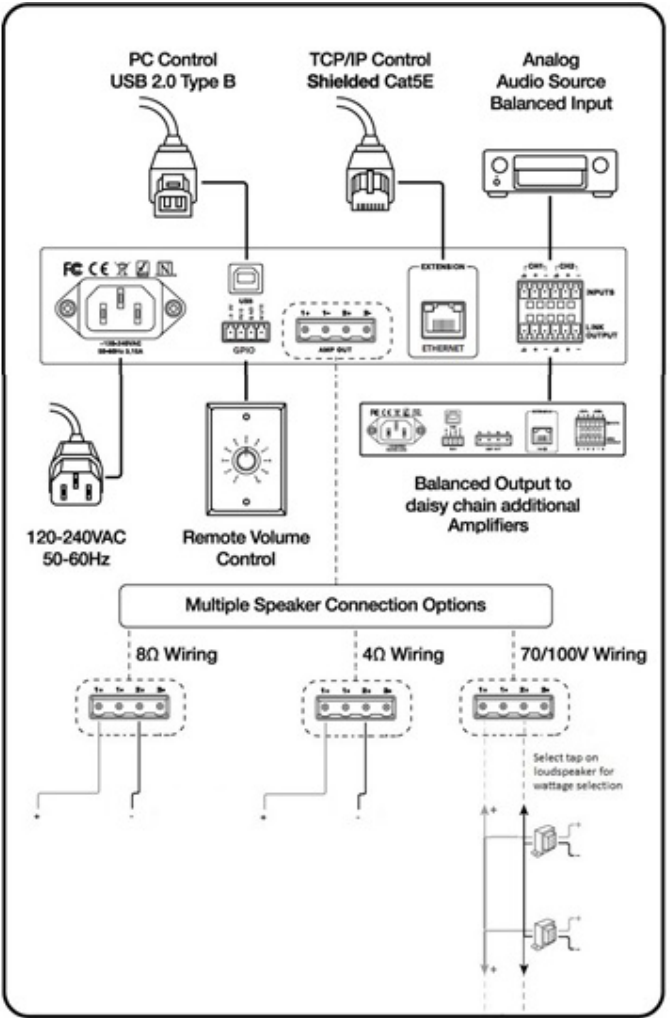
4.1.1 Wiring in 2-channel mode



* Use 1+ 1- for 70/100V direct drive. Select >16 ohm.

4.0 Connections

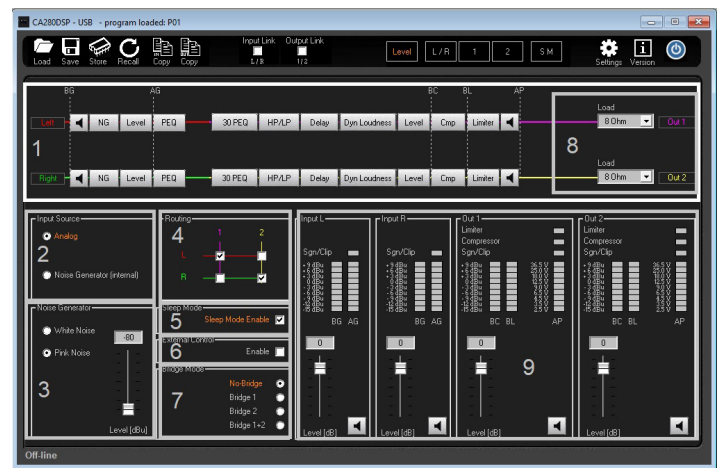
4.2 Wiring in bridge mode



* In bridge mode, use 1+ 2+ for 70/100V and 4/8ohm mode

7.0 Basic amplifier functions

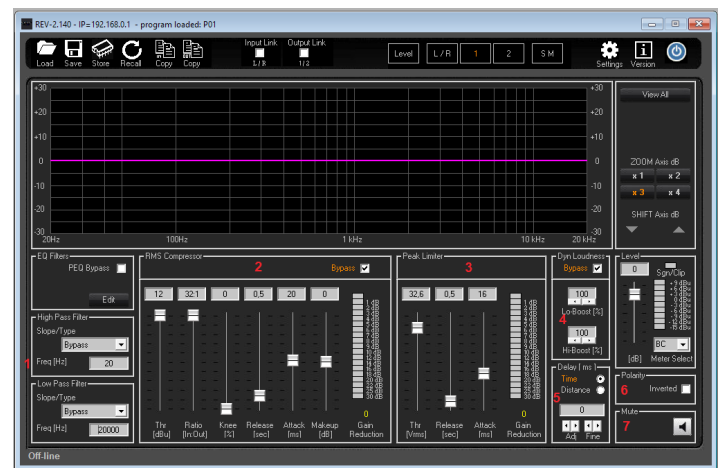
Click “Level” in the main navigation bar to access basic amplifier functions.



1. **Menu:** Quickly navigate to key functions
2. **Input:** Input can be switched from either analogue input or the internal noise generator.
3. **Noise generator:** Select white or pink noise and control gain
4. **Routing:** The matrix allows either input to be routed to either output.
5. **Auto-off/Auto-on:** When Sleep mode is enabled, the amplifier will be turned off after 1 hour of inactivity. It will automatically turn on immediately when input is detected.
Note: If the unit is manually powered off by the Power button on the front panel, it will not wake up by input signal presence, even if Sleep Mode is enabled.
6. **External control:** Allows volume/mute via the GPIO.
7. **Bridge mode:** When selecting “Bridge Mode”, the amplifier will deliver 280 watt on the 1+ 2+ output terminals.
Note: Bridge 1 will send the signal from channel 1 to the bridge output. Bridge 2 will send the signal from channel 2 to the bridge output and bridge 1+2 will send the summed signal to the bridge output.
8. **Load:** Select impedance for the speakers to allow the amplifier to optimize the output stage. Select >16 ohm for 100V mode.
9. **Gain:** Adjust input and output gain.

8.0 Advanced amplifier functions

By clicking on 1 or 2 in the main menu, you will access more settings for channel 1 or 2.

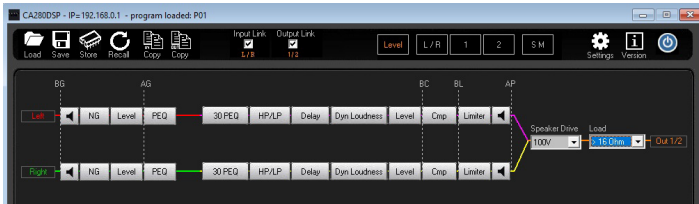


1. **High pass/Low pass filters** - choose between Bessel, Butterworth and LR, 6, 12, 18 and 24 dB filters.
2. **RMS Compressor** with custom settings
3. **Peak Limiter** – settings for all Cornered speakers are in the presets.
4. **Dynamic Loudness** – to boost bass and treble at low volume in retail outlets and like.
5. **Delay** in milli seconds or meters.
6. **Reverse polarity**
7. **Mute** channel

9.0 Bridge mode

When selecting "Bridge Mode", the "Speaker Drive" menu will appear.

- If you wish to run in 100V mode, select ">16ohm" in the "load" drop down menu and the amplifier will deliver 280 watt in 100V mode.
- If you wish to run in 8 ohm mode, select 8 ohm in the "load" drop down menu and the amplifier will deliver 280 watt in 8 ohm mode



10.0 Loading and saving settings

9.1 Loading from - and saving to PC

Click "Load" and "Save" in the menu bar in the upper left-hand side of the menu.

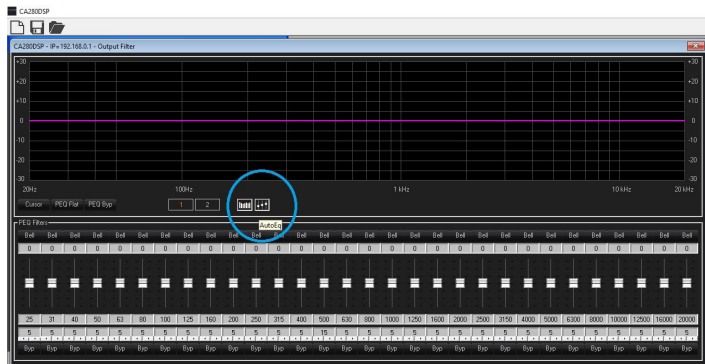
9.2 Loading from - and saving to the three pre-sets on amplifier front panel

Click “Store” and “Recall”

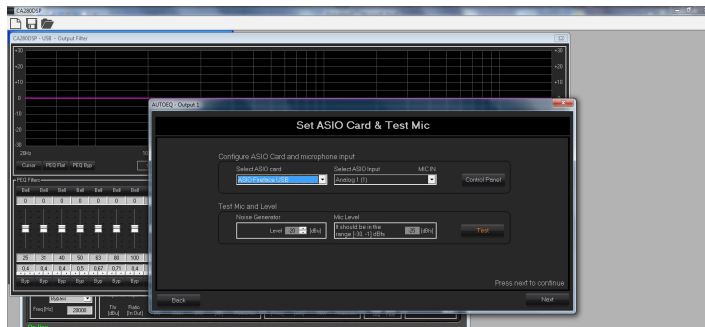
11.1 Auto EQ

With the PC's ASIO card and an external microphone, CA280DSP is capable of calculating and setting room EQ automatically. To enter the Auto EQ Wizard, do the following:

- A:** Click on the Auto EQ symbol marked below. The Auto EQ Wizzard will appear. Read on-screen instructions and click "next".



- B:** Select ASIO card and Microphone from the drop down menu. Click “test”.



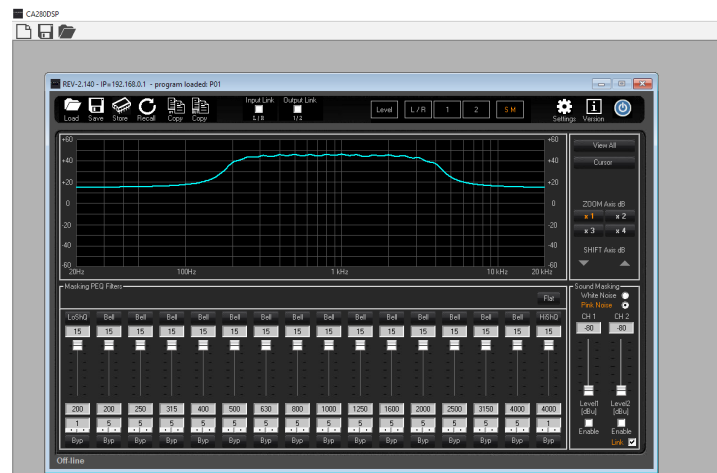
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- C:** Set Frequency range and PEQ filter gain (+ - 3 dB is recommended). Click "Start". The Auto EQ will sweep the room and calculate EQ settings with gain and Q. It will show the recommended EQ setting. Now check the settings by clicking on "verify". The RTA will then show an improved room response. If accepted, click "Apply"

12: SM - Sound Masking

The amplifier includes a fully customizable Sound Masking generator. To access Sound Masking features, click the SM button on the Navigation Bar.

A default sound masking setting will show. It can be customized as desired using 16 band Masking filters. The sound masking signal can be used on its own or blended into background audio or paging. When installing a sound masking system into a new space, gradually increase level over a week or more until you have reached the desired setting, where the sound masking signal blends into the background noise while suppressing normal conversation from a distance.



Declaration of conformity

Manufacturer:
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Denmark

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www.cornered.dk

We, CORNERED Audio ApS, declare under our responsibility that the following product(s):

Cornered CA280DSP
Type: Amplifier

...is in conformity with COUNCIL DIRECTIVE of 3 May 1989 on the approximation of the laws of the Member States relating to electromagnetic compatibility (89/336/EEC) and has been manufactured in conformity with the following national standards that implement a harmonized standard:

EN 55013

Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment.

Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment.


Hans V. Madsen / Founder
01.06.2019

