

TA-4.450

Product code: D4220

4-channel 450W amp with DSP

Preface

Thank you for purchasing this DAP product.

The purpose of this user manual is to provide instructions for the correct and safe use of this product.

Keep the user manual for future reference as it is an integral part of the product. The user manual shall be stored at an easily accessible location.

This user manual contains information concerning:

- Safety instructions
- Intended and non-intended use of the device
- Installation and operation of the device
- Maintenance procedures
- Troubleshooting
- Transport, storage and disposal of the device

Non-observance of the instructions in this user manual may result in serious injuries and damage of property.

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1. Introduction

1.1. Before Using the Product

**Important**

Read and follow the instructions in this user manual before installing, operating or servicing this product.

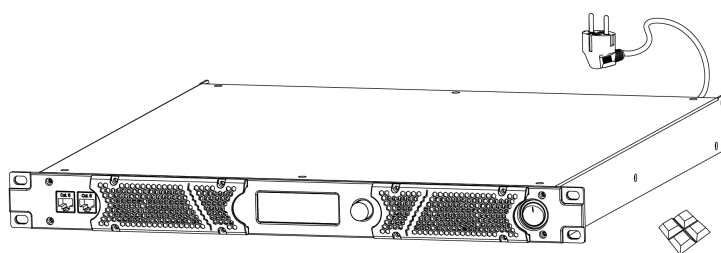
The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual.

After unpacking, check the contents of the box. If any parts are missing or damaged, contact your Highlite International dealer.

Your shipment includes:

- DAP TA-4.450
- User manual
- 4x adhesive rubber feet

Figure 1



1.2. Intended Use

This device is intended for professional use as an amplifier. It can be installed only indoors. This device is not suitable for households.

Any other use, not mentioned under intended use, is regarded as non-intended and incorrect use.

1.3. Text Conventions

Throughout the user manual the following text conventions are used:

- Buttons: All buttons are in bold lettering, for example "Press the **UP/DOWN** buttons"
- References: References to parts of the device are in bold lettering, for example: "turn the **adjustment handle (05)**". References to chapters are hyperlinked
- 0–255: Defines a range of values
- Notes: **Note:** (in bold lettering) is followed by useful information or tips

1.4. Symbols and Signal Words

Safety notes and warnings are indicated throughout the user manual by safety signs.

Always follow the instructions provided in this user manual.

**DANGER**

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**WARNING**

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION**

Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.

**Attention**

Indicates important information for the correct operation and use of the product.

**Important**

Read and observe the instructions in this document.

**Electrical hazard**

Provides important information about the disposal of this product.

1.5. Symbols on the Information Label

This product is provided with an information label. The information label is located on the side of the device.

The information label contains the following symbols:



This device is designed for indoor use.



This device shall not be treated as household waste.



This device falls under IEC protection class I.

2. Safety

**Important**

Read and follow the instructions in this user manual before installing, operating or servicing this product.

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual.

2.1. Warnings and Safety Instructions

**DANGER**

Danger for children

For adult use only. The device must be installed beyond the reach of children.

- Do not leave any parts of the packaging (plastic bags, polystyrene foam, nails, etc.) within the reach of children. Packaging material is a potential source of danger for children.

**DANGER**

Electric shock caused by dangerous voltage inside

There are areas inside the device where dangerous touch voltage may be present.

- Do not open the device or remove any covers.
- Do not operate the device if the covers or the housing are open. Before operation, check if the housing is firmly closed and all screws are tightly fastened.
- Disconnect the device from the electrical power supply before service and maintenance, and when the device is not in use.

**DANGER**

Electric shock caused by short-circuit

This device falls under IEC protection Class I.

- Make sure that the device is electrically connected to ground (earth). Connect the device only to a socket-outlet with a ground (earth) connection.
- Do not cover the ground (earth) connection.
- Do not bypass the thermostatic switch or fuses.
- Do not let the power cable come into contact with other cables. Handle the power cable and all connections with the mains with caution.
- Do not modify, bend, mechanically strain, put pressure on, pull or heat up the power cable.
- Make sure that the power cable is not crimped or damaged. Examine the power cable periodically for any defects.
- Do not immerse the device in water or other liquids. Do not install the device in a location where flooding may occur.
- Do not use the device during thunderstorms. Disconnect the device from the electrical power supply immediately.

**Attention
Power supply**

- Before connecting the device to the power supply, make sure that the current, voltage and frequency match the input voltage, current and frequency specified on the information label on the device.
- Make sure that the cross-sectional area of the extension cords and power cables is sufficient for the required power consumption of the device.

**Attention
General safety**

- Do not block the ventilation openings. Without proper heat dissipation and air circulation, the internal components may overheat. This can result in product damage.
- Do not shake the device. Avoid brute force when installing or operating the device.
- If the device is dropped or struck, disconnect the device from the electrical power supply immediately.
- If the device is exposed to extreme temperature variations (e.g. after transportation), do not switch it on immediately. Let the device reach room temperature before switching it on, otherwise it may be damaged by the formed condensation.
- If the device fails to work properly, discontinue use immediately.

**Attention
For professional use only
This device must be used only for the purposes it is designed for.**

This device is designed to be used as an amplifier. Any incorrect use may lead to hazardous situations and result in injuries and material damage.

- This device is not suitable for households.
- This device does not contain user-serviceable parts. Unauthorized modifications to the device will render the warranty void. Such modifications may result in injuries and material damage.

**Attention
Before each use, examine the device visually for any defects.**

Make sure that:

- All screws used for installing the device or parts of the device are tightly fastened and are not corroded.
- There are no deformations on housings, fixings and installation points.
- The power cables are not damaged and do not show any material fatigue.

**Attention
Do not expose the device to conditions that exceed the rated IP class conditions.**

This device is IP20 rated. IP (Ingress Protection) 20 class provides protection against solid objects greater than 12 mm, such as fingers, and no protection against harmful ingress of water.

2.2. Requirements for the User

This product may be used by ordinary persons. Maintenance may be carried out by ordinary persons. Installation and service shall be carried out only by instructed or skilled persons. Contact your Highlite International dealer for more information.

Instructed persons have been instructed and trained by a skilled person, or are supervised by a skilled person, for specific tasks and work activities associated with the installation, service and maintenance of this product, so that they can identify risks and take precautions to avoid them.

Skilled persons have training or experience, which enables them to recognize risks and avoid hazards associated with the installation, service and maintenance of this product.

Ordinary persons are all persons other than instructed persons and skilled persons. Ordinary persons include not only users of the product but also any other persons that may have access to the device or who may be in the vicinity of the device.

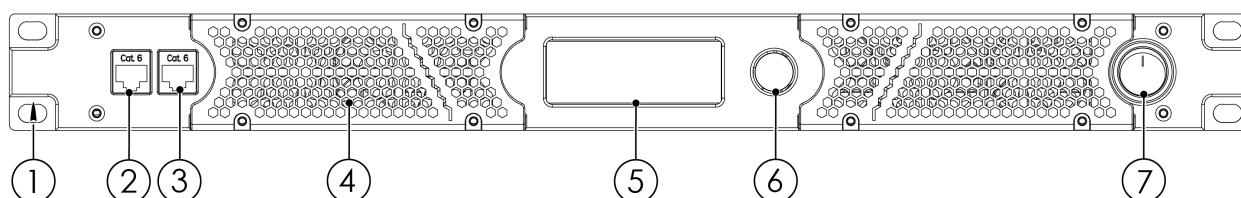
3. Description of the Device

The DAP TA-4.450 is a 4-channel DSP power amplifier for touring applications. It delivers 4x 450 W into 4 Ω . It is capable of driving 2 Ω loads and can be bridged for more power.

The DSP can be controlled via a network connection and PC software (Windows 10/11). It offers input delays of up to 100 ms, output delays of up to 20 ms, +/- 18 dB level matching, 4x4 audio route mixing, 8-band parametric input and output equalizers, high and low pass filters, FIR filters with up to 512 taps, peak and RMS limiters, phase control and more. The amplifier supports IP and output voltage/current, temperature and protection can be monitored over the network. The built-in switch allows the network to be daisy-chained to multiple amplifiers. The LCD screen shows status and settings, which can be adjusted using the rotary knob.

3.1. Front View

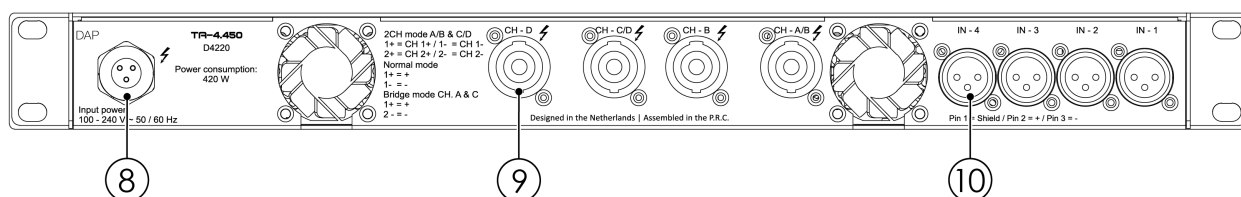
Figure 2



- 01) 4x mounting openings (for installation in a 19-inch rack)
- 02) Primary Ethernet RJ45 connector
- 03) Secondary Ethernet RJ45 connector
- 04) 2x cooling vent covers
- 05) Control panel: LCD display
- 06) Control knob
- 07) Power switch

3.2. Back View

Figure 3



- 08) Power input cable
- 09) 4x speaker connectors OUT
- 10) 4x 3-pin XLR connectors IN

3.3. Product Specifications

Model:	TA-4.450
--------	----------

Inputs:	
Mono inputs	4
Transformer	N/A V
Mono input connector	3-pin XLR
Mono input gain range	21 dB
Mono input impedance	20.000 Ω

Outputs:	
2 ohms stable	Yes
Output per channel into 8 ohms at 1 kHz	250 W
Output per channel into 4 ohms at 1 kHz	450 W
Output per channel into 2 ohms at 1 kHz	700 W
Bridge output into 8 ohms at 1 kHz	850 W
Bridge output into 4 ohms at 1 kHz	1450 W
Output channels	4
Output mode	4-channel / Bridge / Mono / Parallel / Stereo
Output connector	Speaker connector 4 pole

Audio specifications:	
THD level	< 0,05 %
Signal-to-noise ratio	> 100 dB
Slew rate	50 V/ μ s
Amp technology	Class D
Damping factor	1000 :1
Crosstalk	90 dBu
Frequency response minimum	20 Hz
Frequency response maximum	20.000 Hz

Software specifications:	
Supported operating systems	Windows 10 / Windows 11

Sound editing:	
Parametric input equalizer	8 bands
Parametric output equalizer	8 bands
Input equalizer types	High shelf / Low shelf
Crossover filter types	Bessel / Butterworth / Linkwitz Riley
Crossover slopes	6 / 12 / 24 / 48 dB
Dynamics processing	Limiter
Limiter attack time minimum	1 ms
Limiter attack time maximum	2000 ms
Limiter release time minimum	20 ms
Limiter release time maximum	1000 ms
Output delay (max.)	30 ms
Input delay (max.)	100 ms

Internal storage:

User presets	Yes
User presets capacity	40

Control and programming:

Control mode	PC software
Display	LCD
Display size	3"

Electrical specifications and connections:

Power supply	100–240 V AC 50/60 Hz
SMPS	Yes
Power consumption	420 W
Power connector in	Schuko plug
Data connector in	RJ45

Mechanical specifications:

Amplifier airflow	Front to back
Amplifier cooling	Axial fan
Height	45 mm
Width	483 mm
Depth	385 mm
Installation depth (excl. connector)	385 mm
Flightcase size	19"
Rack units	1 U
Housing	Steel
Color	Black
Finish	Powder coating
Weight	8 kg
IP rating	IP20 (indoor use only)

Product properties:

Handles	No
Electronic protection	Clip limiter / DC voltage / Overheat / Overload / Under voltage

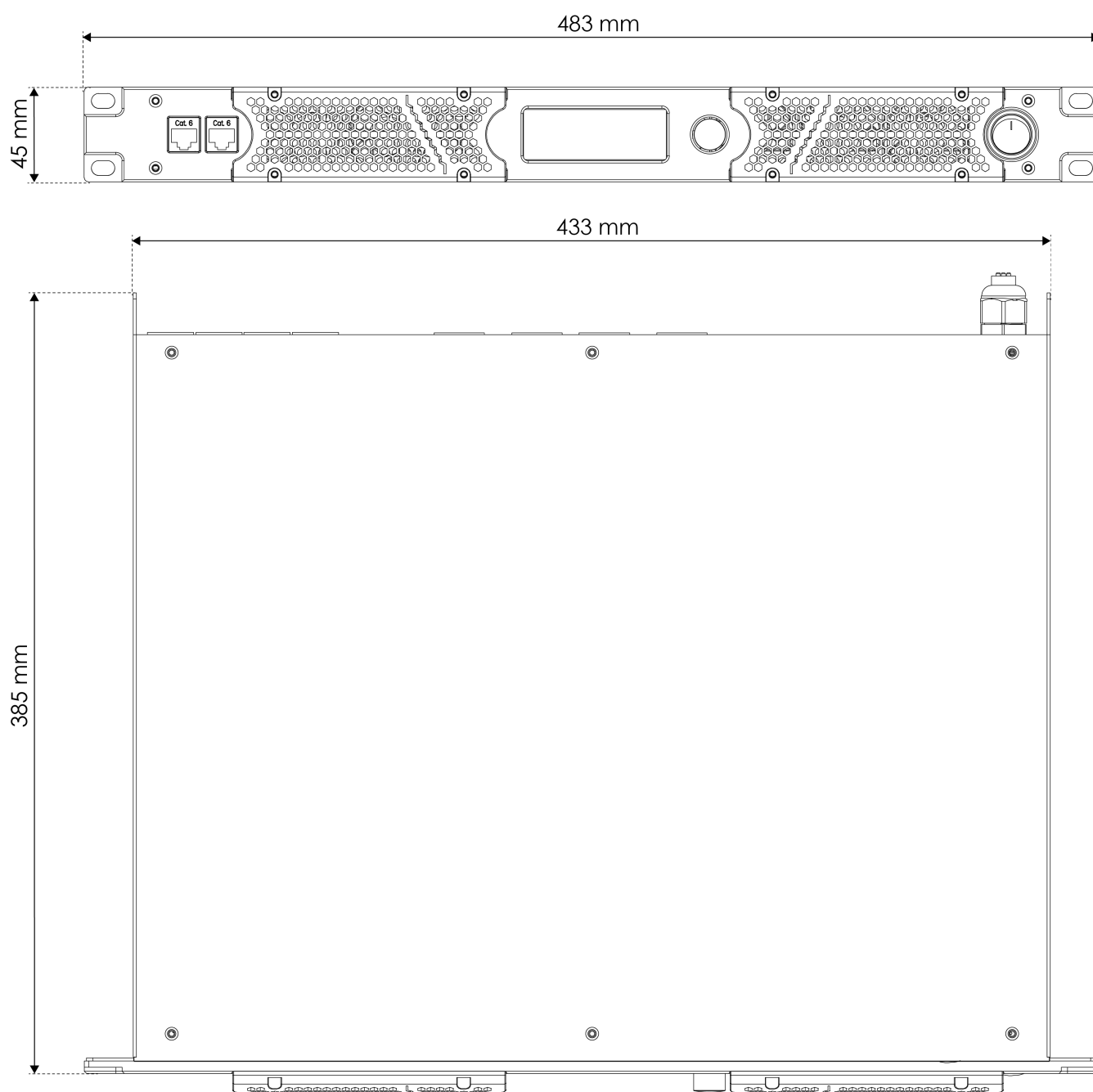
Thermal specifications:

Maximum ambient temperature	40 °C
Minimum ambient temperature	-15 °C
Maximum surface temperature	70 °C

Included items:

Included cables	Fixed cable
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3.4. Dimensions

Figure 4

3.5. Optional Accessories and Software

You can download the control software for the TA-4.450 from the Highlite International website:

- [D4220 Control software](#)

4. Installation

4.1. Safety Instructions for Installation

**Attention**

Make sure that there is enough space for ventilation around the device.

- Do not block the ventilation openings. Without proper heat dissipation and air circulation, the internal components may overheat. This can result in product damage.
- Do not install near equipment that produces heat, for example amplifiers.

4.2. Installation Site Requirements

- The device can be used only indoors.
- The minimum distance to other objects must be bigger than 0,5 m.
- The maximum ambient temperature $t_a = 40\text{ °C}$ must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 40 °C.

4.3. Rack Mounting

The device can be placed on a stable, flat surface using the adhesive feet, or mounted in a standard 19-inch rack. The device requires 1 rack unit (RU) of space.

Make sure that the rack is sufficiently secured to prevent it from becoming unstable or falling over.

To mount the device in a two-post rack, follow the steps below:

- 01) Insert 4 cage nuts in the openings on the rack posts where you want to mount the device.
- 02) Position the device in front of the rack posts so that the 4 **mounting openings (01)** on the flanges face the openings on the rack posts with cage nuts.
- 03) Use a screwdriver to mount the device to the rack posts with 4 screws.

4.4. Connecting to Power Supply

**DANGER**

Electric shock caused by short-circuit

The device accepts AC mains power at 100–240 V and 50/60 Hz. Do not supply power at any other voltage or frequency to the device.

This device falls under IEC protection class I. Make sure that the device is always electrically connected to the ground (earth).

Before connecting the device to the socket-outlet:

- Make sure that the power supply matches the input voltage specified on the information label on the device.
- Make sure that the socket-outlet has ground (earth) connection.

Connect the device to the socket-outlet with the power plug. Do not connect the device to a dimmer circuit, as this may damage the device.

5. Setup

The TA-4.450 can be set up in stereo mode or bridge mode to change how the inputs are connected to the outputs. The mode can be changed through the control panel (see [6.6.3. AMP Mode](#) on page 18) or the control software (see [6.7.5. Output Menu](#) on page 26).

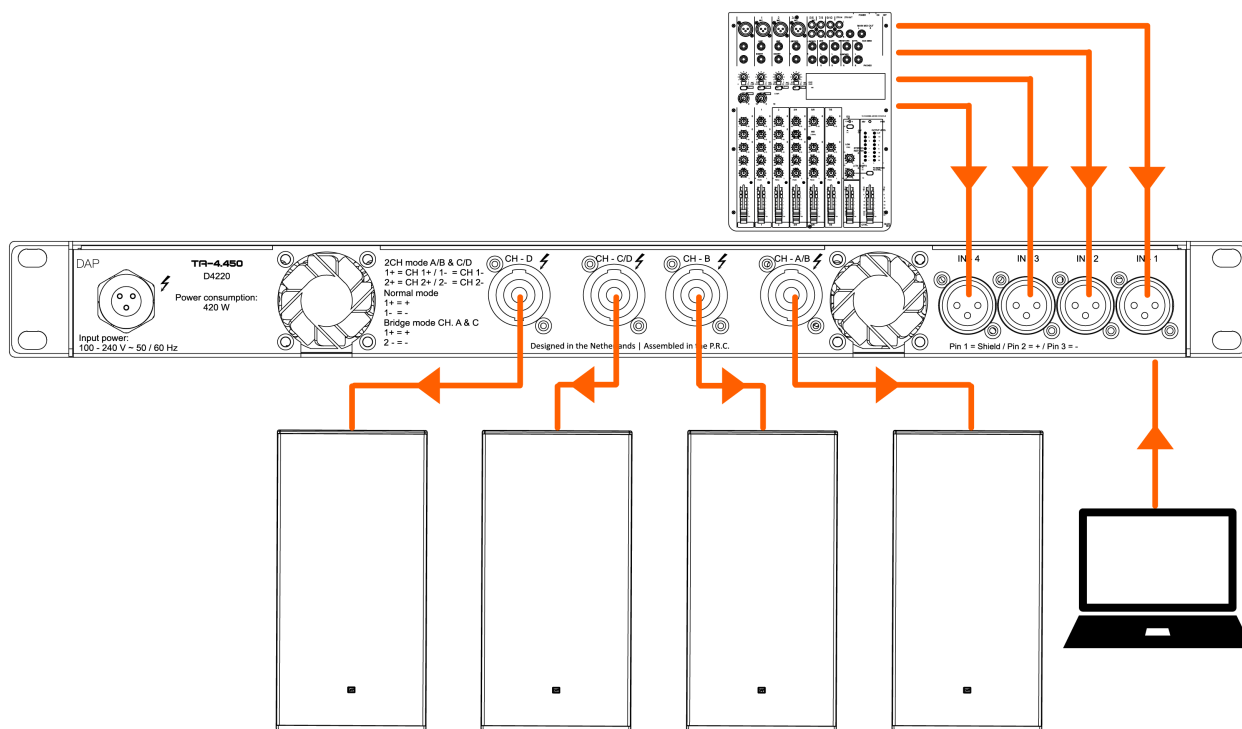
5.1. Setup in Stereo Mode

You can set up the TA-4.450 in stereo mode to connect 4 inputs to 4 outputs.

To complete the setup, follow the steps below:

- 01) Make sure that all devices are switched off.
- 02) Connect the PC to the **primary Ethernet RJ45 connector (02)**. Use an Ethernet cable (minimum CAT-5).
- 03) Connect the input devices to the **3-pin XLR connectors IN (10)**.
- 04) Connect the **speaker connectors OUT (09)** of to the speakers.
- 05) Switch on all devices.
- 06) Adjust the amplifier settings with the control software (see [6.7. Control Software](#) on page 20) or with the **control knob (06)** (see [6.6. Main Menu Options](#) on page 17).

Figure 5



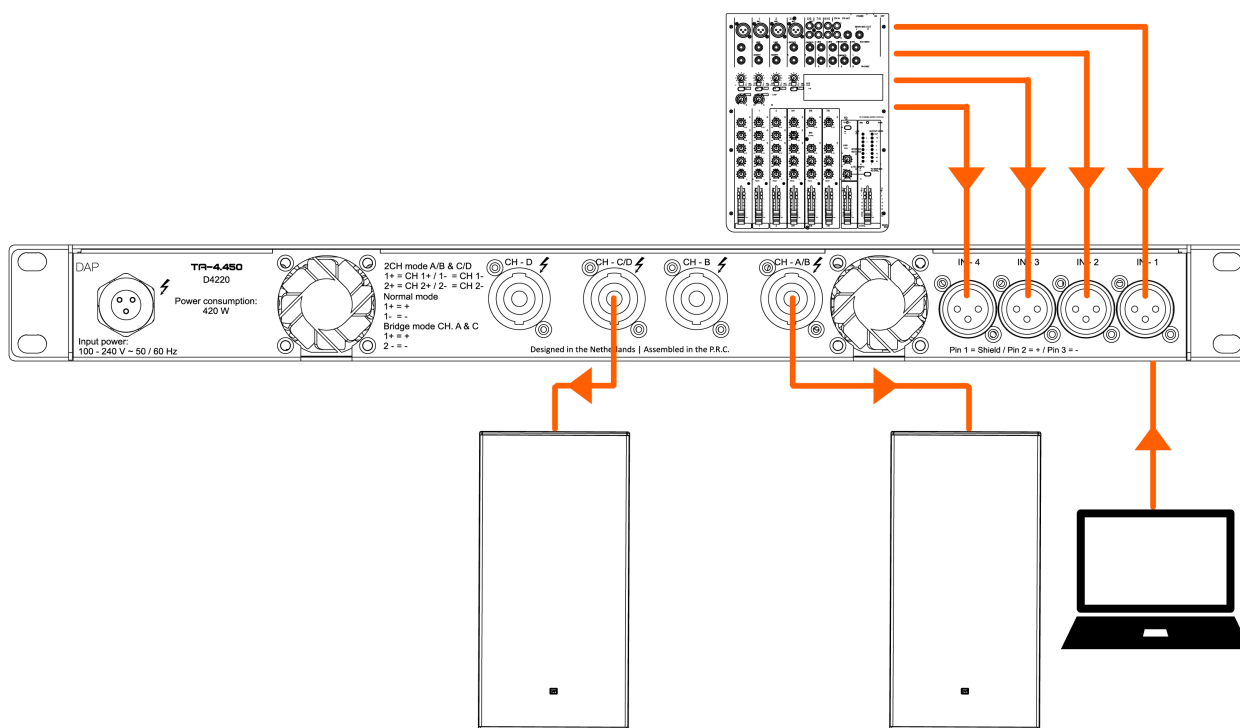
5.2. Setup in Bridge Mode

You can set up the TA-4.450 in bridge mode to connect 4 inputs to 2 outputs. You can bridge input 1 and 2 to output A and input 3 and 4 to output C.

To complete the setup, follow the steps below:

- 01) Make sure that all devices are switched off.
- 02) Connect the PC to the **primary Ethernet RJ45 connector (02)**. Use an Ethernet cable (minimum CAT-5).
- 03) Connect the input devices to any of the **3-pin XLR connectors IN (10)**.
- 04) Connect the A/B and C/D **speaker connectors OUT (09)** to the speakers.
- 05) Switch on all devices.
- 06) Adjust the amplifier settings with the control software (see [6.7. Control Software](#) on page 20) or with the **control knob (06)** (see [6.6. Main Menu Options](#) on page 17).

Figure 6



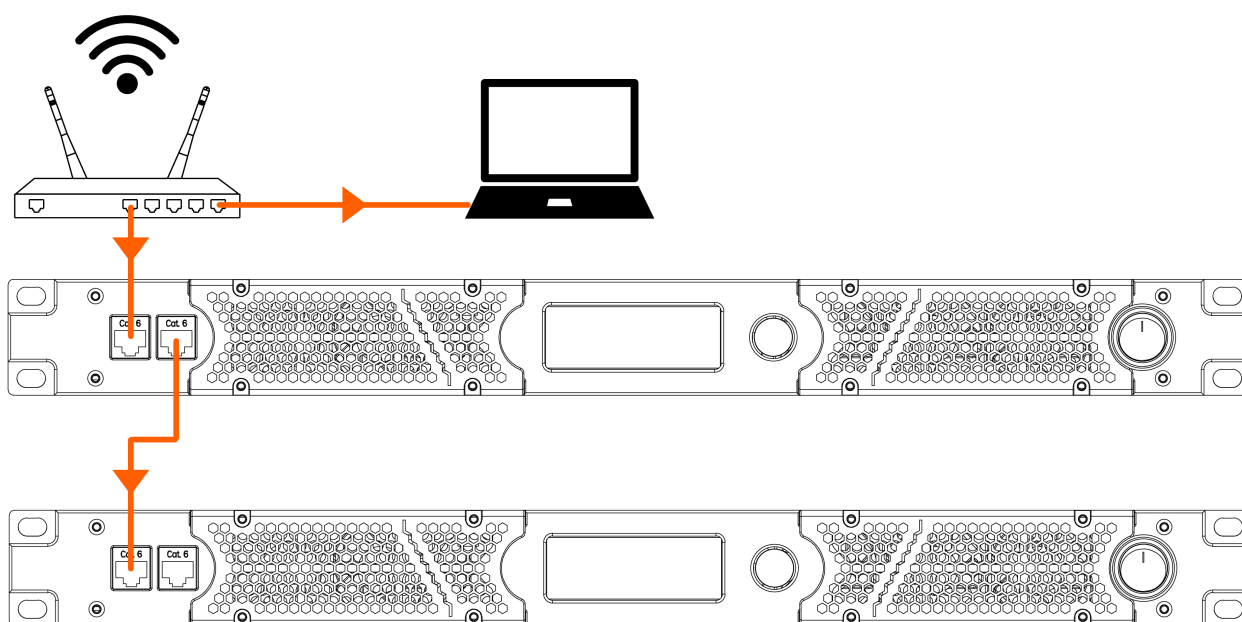
5.3. Connecting Multiple Devices

Multiple TA-4.450 devices can be operated with the same PC software. For this, a router must be used that automatically assigns IP addresses. Each TA-4.450 can be connected to the router directly, or the TA-4.450 devices can be connected in a daisy chain.

To connect multiple devices, follow the steps below:

- 01) Connect the PC to the router. Use an Ethernet cable.
- 02) Connect the router to the **primary ethernet RJ45 connector (02)** of the 1st device. Use an Ethernet cable (min. CAT-5).
- 03) Connect the **secondary Ethernet RJ45 connector (03)** of the 1st device to the **primary Ethernet RJ45 connector (02)** of the 2nd device. Use an Ethernet cable (min. CAT-5).
- 04) Repeat step 3 to connect all devices in a daisy chain.
- 05) Adjust the amplifier settings for every TA-4.450 individually from the Device list (see [6.7.1. Device List](#) on page 20) or create a group for all devices in the Groups menu (see [6.7.2. Groups Menu](#) on page 21).

Figure 7



Note:

For a stable connection, a cable connection is always recommended.

6. Operation

6.1. Safety Instructions for Operation

**Attention**

This device must be used only for the purposes it is designed for.

This device is intended for professional use as an amplifier. It can be used only indoors. This device is not suitable for households.

Any other use, not mentioned under intended use, is regarded as non-intended and incorrect use.

**Attention****Power supply**

Before connecting the device to the power supply, make sure that the current, voltage and frequency match the input voltage, current and frequency specified on the information label on the device.

6.2. Switching On and Off

The device has a power switch.

- To switch the device on, press the **power switch (06)** in ON position.
- To switch the device off, press the **power switch (06)** in OFF position.

6.3. Control Modes

The TA-4.450 can be operated with the PC software or with the **control panel (05)** and **control knob (06)**.

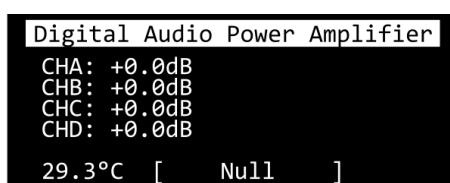
- To operate the device with the **control panel (05)** and **control knob (06)**, refer to Main Menu Options (see [6.6. Main Menu Options](#) on page 17).
- To operate the device with the PC software, refer to Control Software (see [6.7. Control Software](#) on page 20).

6.4. Start-up

Upon start-up the display shows a splash screen with DAP:



Immediately afterwards, the display shows the main screen. The main screen displays the volume/output level of each channel, the operating temperature, the current preset and the network connection status.



01) Turn the **control knob (06)** to adjust the output level for all channels.

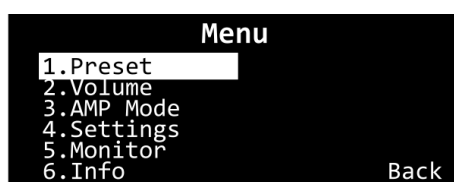
02) Press the **control knob (06)** to open the Main menu (see [6.6. Main Menu Options](#) on page 17).

6.5. Menu Overview

Level 1	Level 2	Level 3
1. Preset (see 6.6.1. Preset on page 18)	40 presets	
2. Volume (see 6.6.2. Volume on page 18)		
3. AMP Mode (see 6.6.3. AMP Mode on page 18)	OutA	1.Bridge 2.Low-Z
	OutB	1.Low-Z
	OutC	1.Bridge 2.Low-Z
	OutD	1.Low-Z
	Standby	Normal Standby
4. Settings (see 6.6.4. Settings on page 19)	Contrast	30–100
	Backlight	Always
		Saving
		OFF
	IP Mode	User-set Auto-DHCP
	Amp IP	IP Setting
5. Monitor (see 6.6.5. Monitor on page 19)	Factory Reset	NO
		YES
6. Info (see 6.6.6. Info on page 19)		

6.6. Main Menu Options

The main menu has the following options:



1. Preset
2. Volume
3. AMP Mode
4. Settings
5. Monitor
6. Info

01) Turn the **control knob (06)** to navigate through the menu.

02) Press the **control knob (06)** to open a submenu.

6.6.1. Preset

In this menu you can select one of the 40 programmable presets and view the currently active preset. The presets can be defined through the PC software (see [6.7.6. Preset Menu](#) on page 27).

```

Preset
Current: Null
01.Null
02.Null
03.Null
04.Null
05.Null
06.Null

```

- 01) Turn the **control knob (06)** to navigate through the presets.
- 02) Press the **control knob (06)** to select a preset.
- 03) Scroll to the end of the list of presets and select Back to go back to the main menu.

6.6.2. Volume

In this menu you can change the volume of each output channel, mute channels and activate a noise gate.

- 01) Turn the **control knob (06)** to select the following 3 options for each channel:

```

OUT  Volume  Mute  Noise_gate
A:   +0.0dB           ON
B:   +0.0dB           ON
C:   +0.0dB           ON
D:   +0.0dB           ON
                        Back

```

- Volume: Change the volume of the channel
- Mute: Mute the channel
- Noise_gate: Turn a noise gate on or off

- 02) Press the **control knob (06)** to select the setting.
- 03) Turn the **control knob (06)** to change the setting.
- 04) Press the **control knob (06)** to confirm the setting.

6.6.3. AMP Mode

In this menu you can bridge the output channels and change the amplifier mode for each output channel.

- 01) Turn the **control knob (06)** to go through the options:

```

AMP Mode
OutA: Low-Z
OutB: Low-Z
OutC: CD-Bridge
OutD:
Back

```

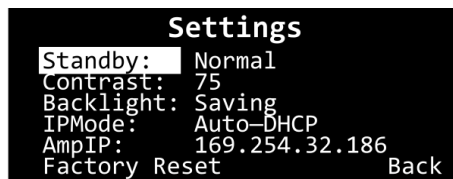
- Low-Z: Set the impedance to a lower range (all 4 channels)
- AB-Bridge: Bridge the output of channel A to channel B (channel A)
- CD-Bridge: Bridge the output of channel C to channel D (channel C)

- 02) Press the **control knob (06)** to select the setting.
- 03) Turn the **control knob (06)** to change the setting.
- 04) Press the **control knob (06)** to confirm the setting.

6.6.4. Settings

In this menu you can adjust general settings for the device.

01) Turn the **control knob (06)** to select one of the following 6 options:



- Standby: Put the amplifier in normal or standby mode
- Contrast: Adjust the contrast of the screen. The range is 30–100 and the default value is 75
- Backlight: The backlight of the screen can be set to Always, Saving (the backlight turns off after 2 minutes) or OFF
- IPMode: Set the IP mode to User-set to manually change the AmpIP. Set the IP mode to Auto-DHCP to automatically acquire an IP address
- AmpIP: Manually set the IP address if the IP mode is set to User-set
- Factory Reset: Reset the device to the default factory settings

02) Press the **control knob (06)** to select the setting.

03) Turn the **control knob (06)** to change the setting.

04) Press the **control knob (06)** to confirm the setting.

6.6.5. Monitor

In this menu you can view the output voltage, output current, operating temperature and protection state for each channel. You can also view the operating temperature for the power module of the device.

Monitor				
CH	V	I	TEMP	State
OutA:	0.0v	0.0A	35°C	
OutB:	0.0v	0.0A	35°C	
OutC:	0.0v	0.0A	35°C	
OutD:	0.0v	0.0A	35°C	
Power:			28°C	

01) Press the **control knob (06)** to go back to the main menu.

6.6.6. Info

In this menu you can view general info about the device. It shows the model name, the total working time, the communication interface type, the factory serial number and the firmware version number.

Manufacturing Info	
Model:	TA-4.450
Run time:	42.1hours
Communication:	100M Ethernet
MD:	1707011896
FW:	37404B14-005118-3523401024

01) Press the **control knob (06)** to go back to the main menu.

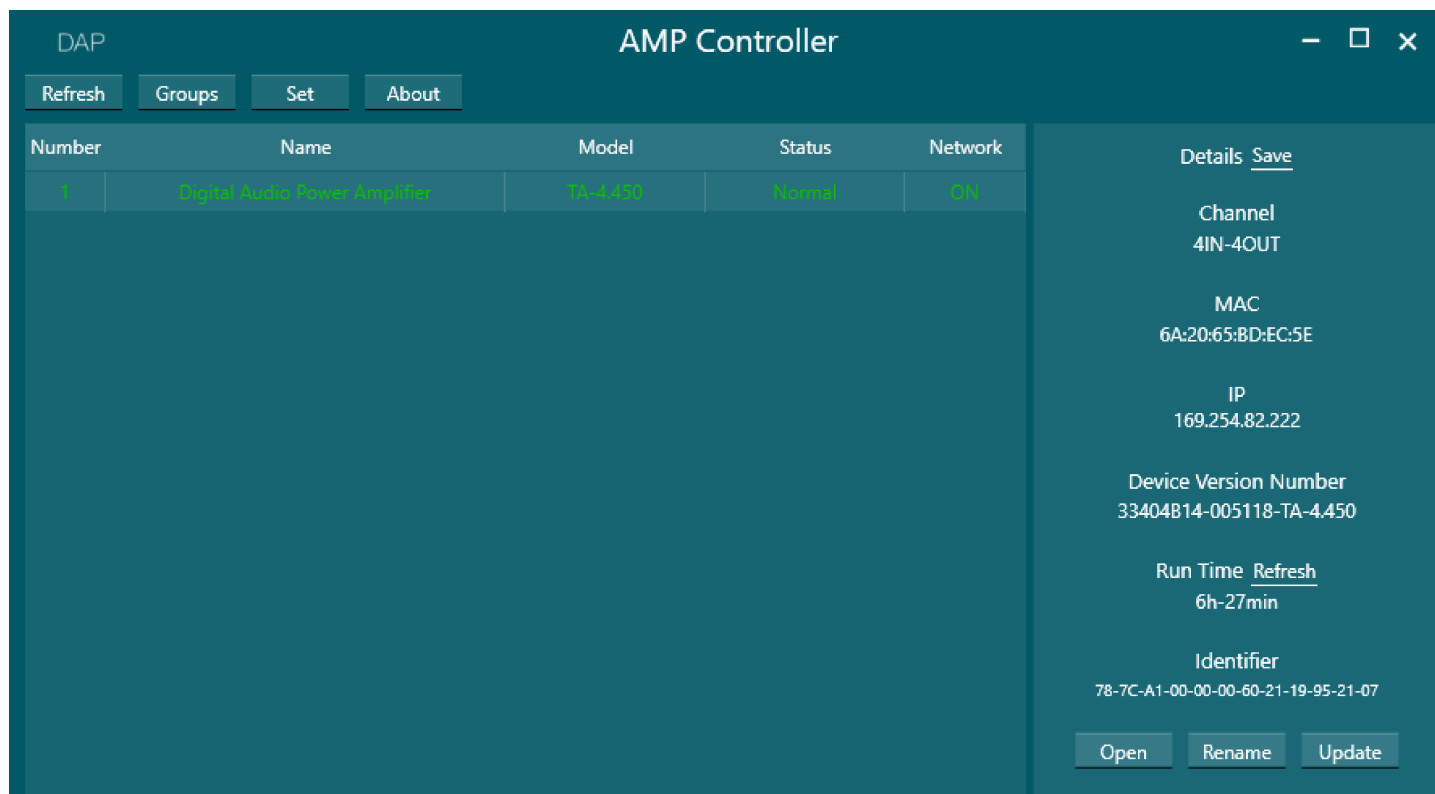
6.7. Control Software

The TA-4.450 can be controlled through the AMP Controller software (see [3.5. Optional Accessories and Software](#) on page 11).

- 01) Download and install the software.
- 02) Link one or more devices to your PC using an ethernet cable (minimum Cat. 5).
- 03) Open the software to control your linked devices.

6.7.1. Device List

Figure 8



This screen shows a list of connected amplifiers, with the assigned name, the model number, the operation status (Normal, Standby, Fault, Warning), and the network connection status (ON, OFF).

The buttons on the top ribbon have the following functions:

- Refresh: Refresh the list of amplifiers
- Groups: Open the Groups screen to configure and control input channel groups (see [6.7.2. Groups Menu](#) on page 21)
- Set: Change the permissions level, application language and layout theme for the software
- About: View the full name and version number of the software

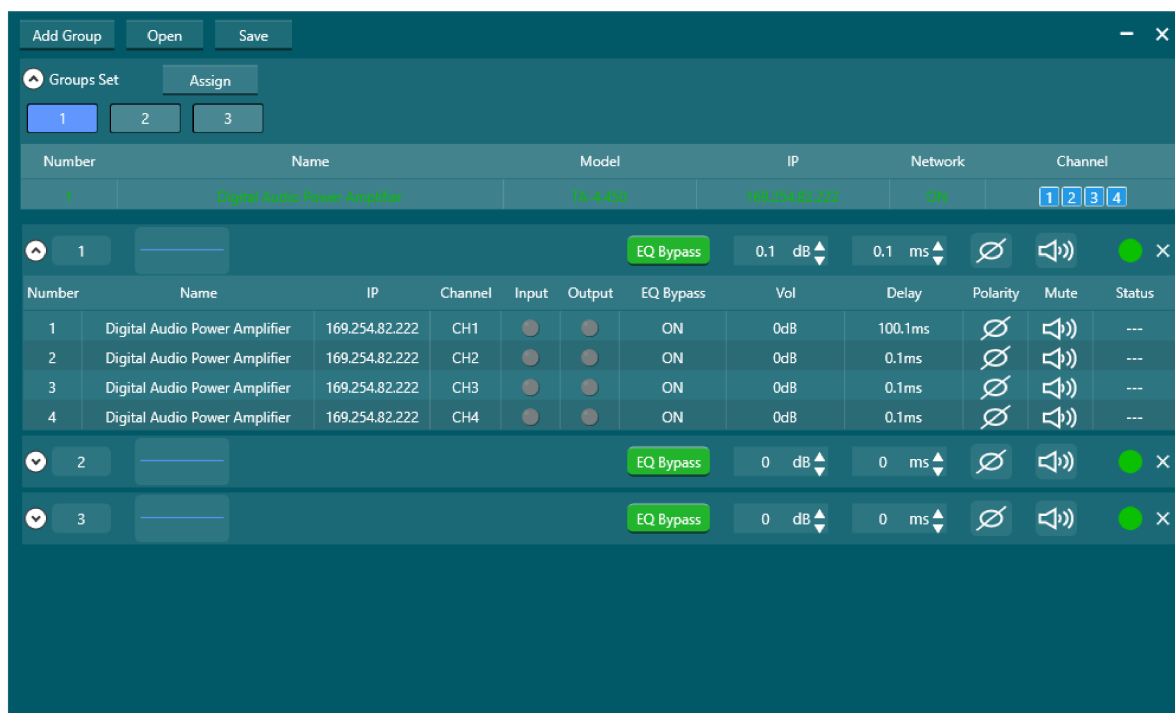
Select an amplifier in the list to view its details on the right. These details can be saved in a .txt file.

You can do the following for each amplifier in the list:

- Open: Open the main control interface (see [6.7.3. Main Control Interface](#) on page 22). Alternatively, double-click the amplifier in the list to open the main control interface
- Rename: Change the name of the amplifier in the device list
- Update: Update the firmware of the selected amplifier from a .bin file

6.7.2. Groups Menu

Figure 9



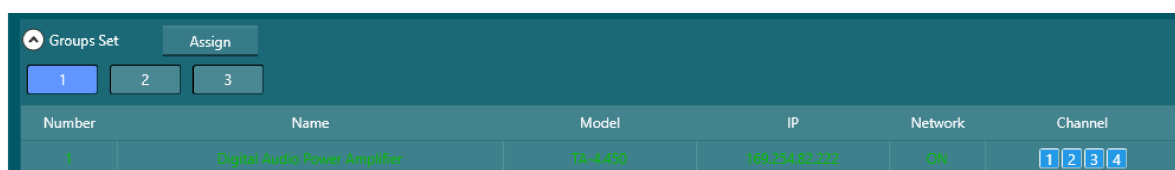
In the Groups menu, you can control input channels across multiple channels and amplifiers.

Click the Groups button on the Device List (see [6.7.1. Device List](#)) to open the Groups menu.

The Groups menu has the following options:

- Top ribbon: Click the Add Group button to create a new group, click the Open button to open a group configuration from your PC or click Save button to save your group configuration to your PC
- Groups Set: Assign amplifier channels to a specific group (see [6.7.2.1. Groups Set](#))
- Group settings: Change the amplifier settings for all channels in the group

6.7.2.1. Groups Set

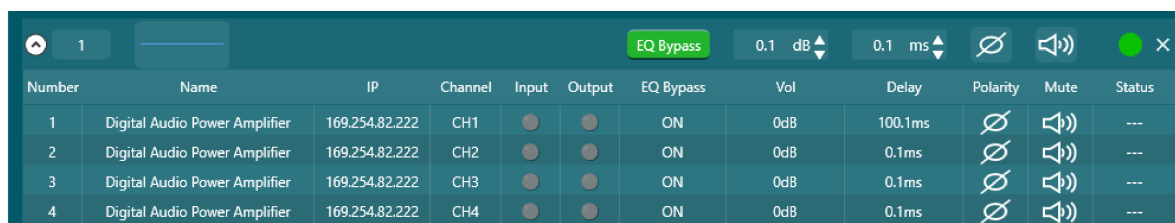


To assign channels to a group, follow the steps below:

- 01) Click the button for a group in the Groups Set bar.
- 02) Click the buttons for the channels of the available amplifiers, underneath the Channel label on the right.
- 03) Click Assign.

You can now adjust the settings for all the channels in a group (see [6.7.2.2. Group Settings](#)).

6.7.2.2. Group Settings



Number	Name	IP	Channel	Input	Output	EQ Bypass	Vol	Delay	Polarity	Mute	Status
1	Digital Audio Power Amplifier	169.254.82.222	CH1			ON	0dB	100.1ms			---
2	Digital Audio Power Amplifier	169.254.82.222	CH2			ON	0dB	0.1ms			---
3	Digital Audio Power Amplifier	169.254.82.222	CH3			ON	0dB	0.1ms			---
4	Digital Audio Power Amplifier	169.254.82.222	CH4			ON	0dB	0.1ms			---

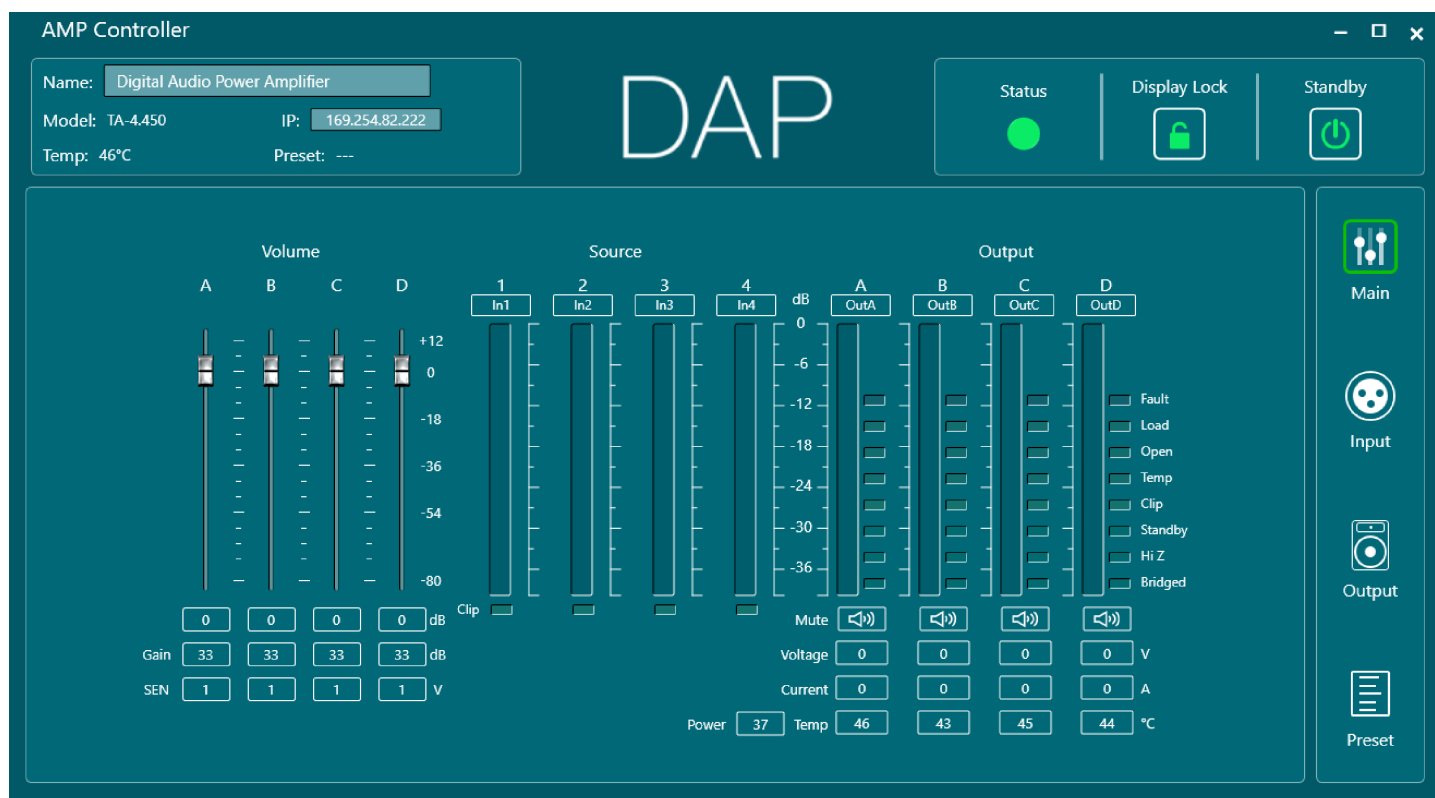
You can adjust the following settings for every group:

- Group name: Click the group name label to change the name of the group
- Input EQ: Click the blue Input EQ line to assign an 8-band parametric equalizer to the group
- EQ Bypass: Turn the EQ Bypass on or off for all channels in the group
- Vol: Change the output level (in dB) for all channels in the group
- Delay: Change the delay (0–100 ms) for all channels in the group
- Polarity: Switch the polarity for all channels in the group
- Mute: Mute and unmute all channels in the group
- Status: View the operating status of each channel in the group

Note: A TA-4.450 that is removed from the network remains in the groups view if it is still assigned to a group. To remove the TA-4.450 from the Groups Set section, delete the group and restart the software.

6.7.3. Main Control Interface

Figure 10



Open the Main Control Interface from the Device list (see [6.7.1. Device List](#) on page 20) or click the Main button on the right of each screen.

The Main Control Interface displays the following items:

- Volume: Set the volume, gain and sensitivity of each output channel (see [6.7.3.1. Volume](#))
- Source: View the signal level of each input channel and change the label of each input channel
- Output: Check the temperature, output voltage, output current and load status for each channel (see [6.7.3.2. Output](#)). Change the label of each output channel

In the main control interface, you can also change the amplifier name and IP address.

Name:	Digital Audio Power Amplifier		
Model:	TA-4.450	IP:	169.254.82.222
Temp:	55°C	Preset:	---

Additionally, you can view the amplifier status (Status), lock the display of the amplifier (Display Lock) and put the amplifier in standby mode (Standby).

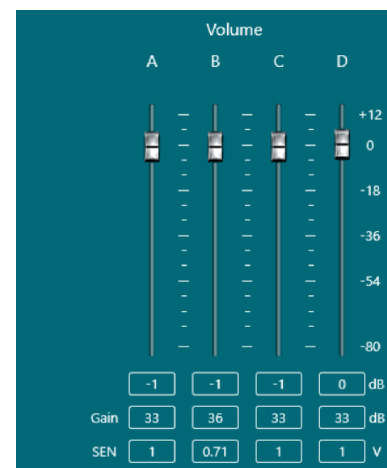
Status	Display Lock	Standby
		

6.7.3.1. Volume

In the Volume section of the main control interface, you can do the following:

- Use the faders or click the values directly below the faders to set the volume of each input channel (-80 to +12 dB)
- Click the gain values to set the gain in dB for each output channel
- Click the SEN values to change the sensitivity value in Volts for each output channel

Figure 11



6.7.3.2. Output

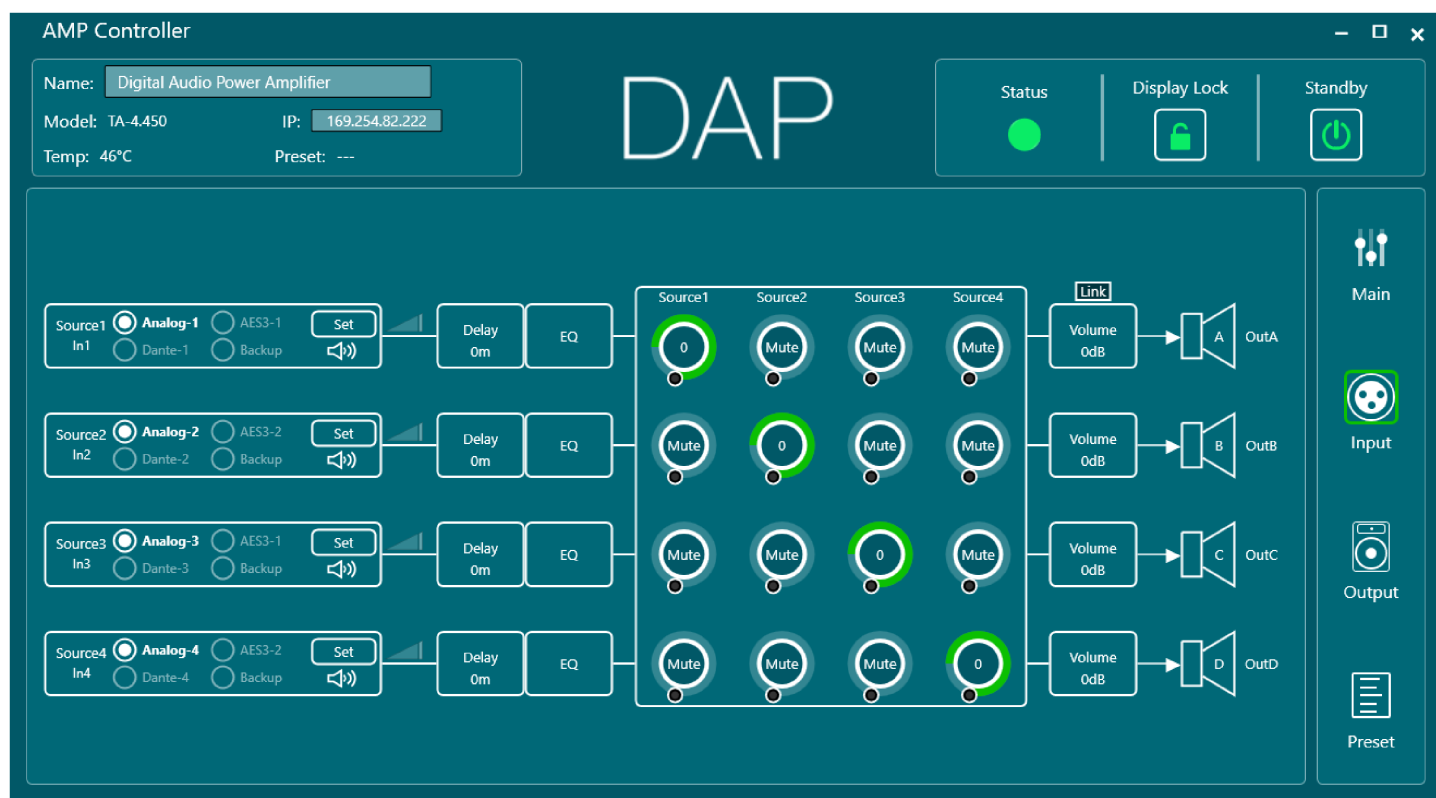
In the Output section of the main control interface, you can do the following:

- Change the label of each output channel
- Check the output level of each output channel
- Check the load status of each output channel
- Mute each output channel
- Check the output voltage of each output channel
- Check the output current of each output channel
- Check the power of the output channels
- Check the temperature of each output channel

An output channel can have the following load statuses: Fault, Load, Open, Temp, Clip, Standby, Hi Z, Bridge.

6.7.4. Input Menu

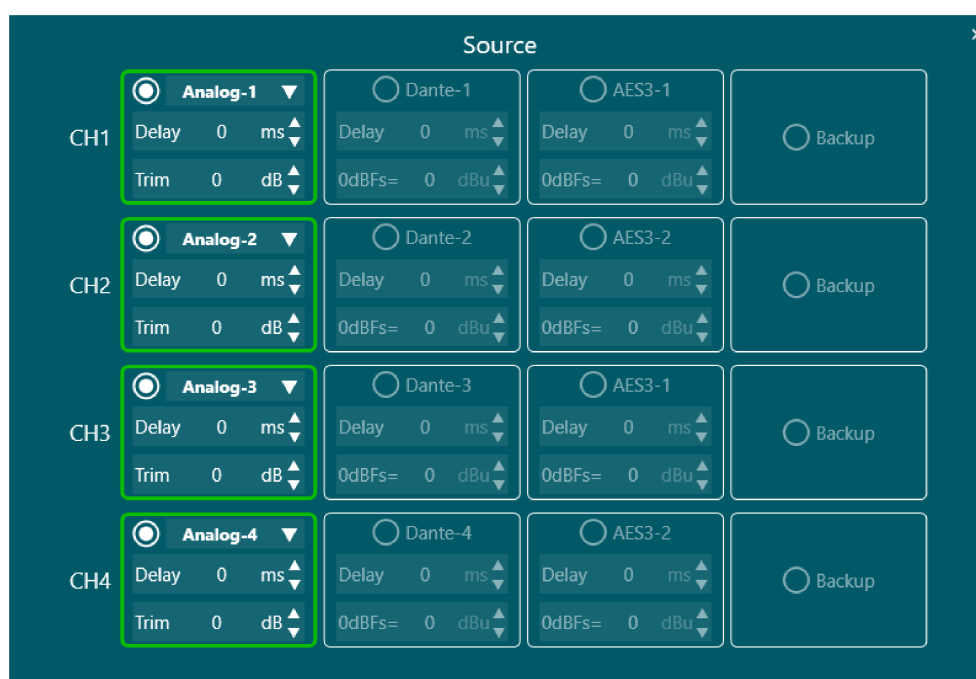
Figure 12



Click the Input button on the right of the Main Control Interface, Output Menu or Preset Menu to open the Input menu. In the Input menu, you can do the following:

- Delay match the sound source and mute the input (see [6.7.4.1. Source Screen](#))
- Set an input delay of up to 100 ms
- Set an equalizer for each input (see [6.7.4.2. Input Equalizer](#))
- Set the audio routing and mixing (see [6.7.4.3. Audio Routing and Mixing](#))
- Set the volume for each channel independently, or combined with the Link button

6.7.4.1. Source Screen

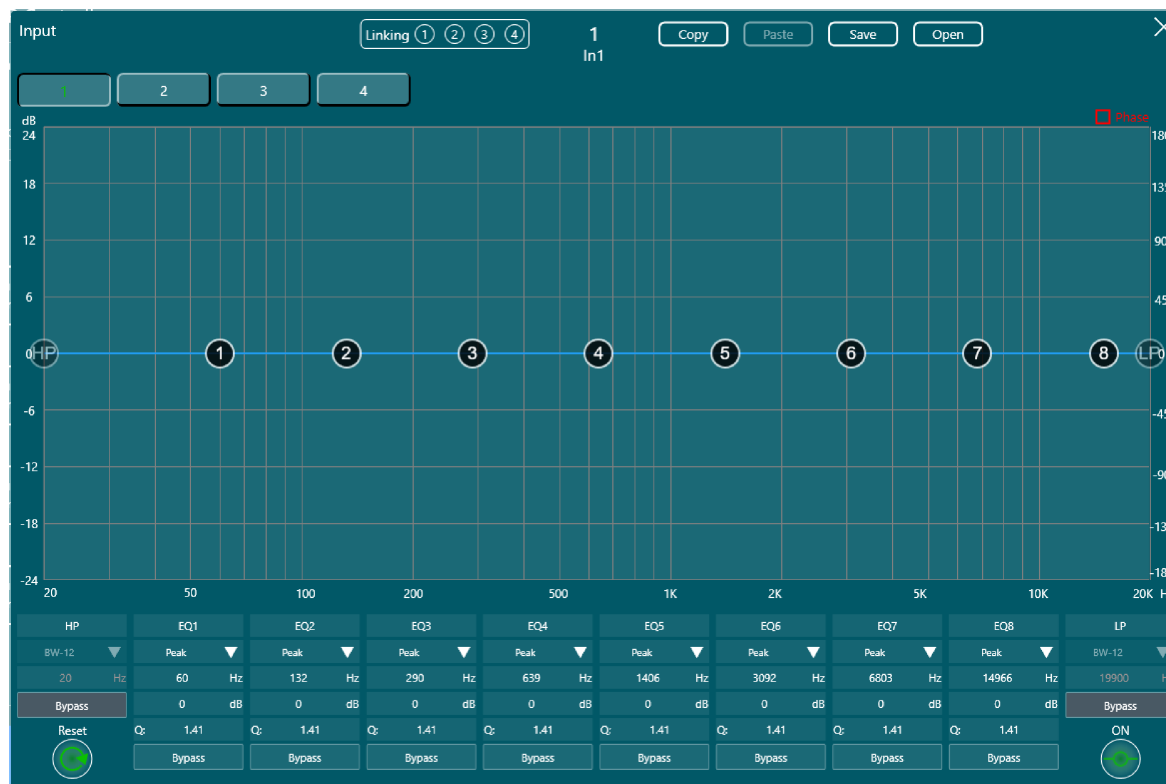


Click the Set button next to a channel on the Input Menu (see [6.7.4. Input Menu](#)) to open the Source screen. In this screen you can do the following for each source channel:

- Set the sound source delay in increments of 0,01 ms (0–10 ms)
- Trim the sound source (-18–+18 dB)

6.7.4.2. Input Equalizer

Figure 13



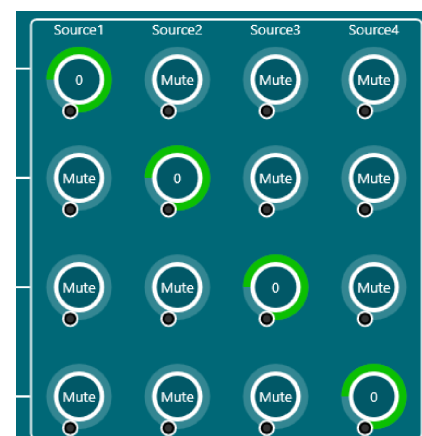
Click the EQ button next to a channel in the Input Menu (see [6.7.4. Input Menu](#)) to open the Input Equalizer. In this screen you can do the following:

- Adjust the 8-band parametric input equalizer for each channel
- Set a high and low pass filter for each channel
- Phase invert the output polarity with the Phase checkbox at the top right
- Bypass the settings for each band or filter, or bypass all the equalizer settings for the channel
- Link the equalizer settings for one or more channels with the Linking buttons at the top
- Copy and paste the equalizer settings from one channel to another
- Save the equalizer settings to your PC or open existing settings from your PC

6.7.4.3. Audio Routing and Mixing

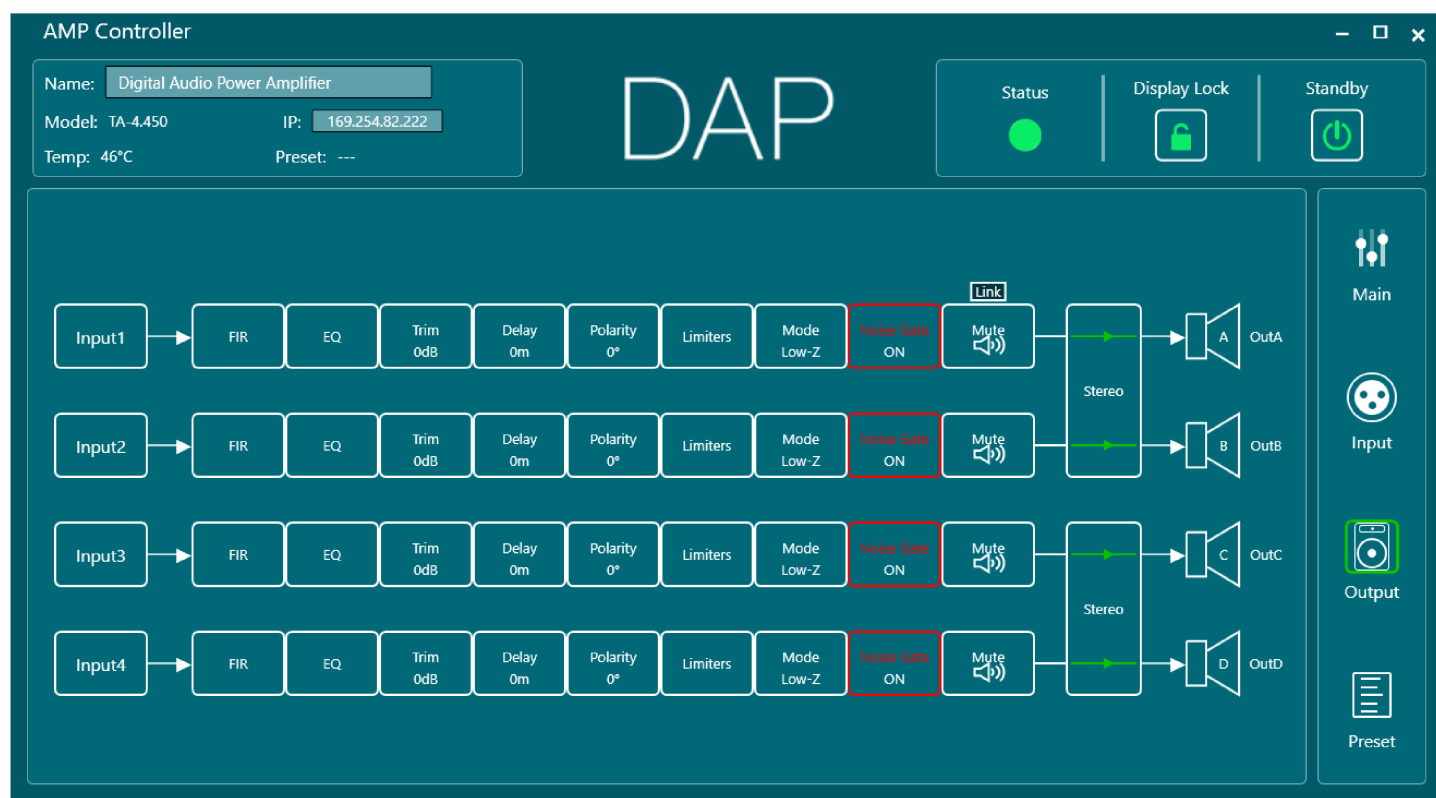
In this part of the Input Menu you can connect the source inputs to the desired output channels, mute sources and adjust the volume levels.

Figure 14



6.7.5. Output Menu

Figure 15



Click the Output button on the right of the Main Control Interface, Input Menu or Preset Menu to open the Output menu. In the Output menu, you can set the following for each channel:

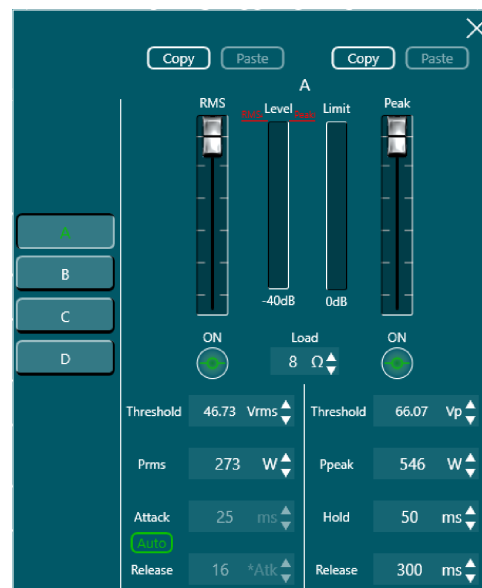
- FIR: Import and export FIR filters
- EQ: Set an output equalizer
- Trim: Trim the volume (-18+18 dB)
- Delay: Set an output delay up to 20 ms
- Polarity: Set a phase inversion
- Limiters: Set a voltage limiter (see [6.7.5.1. Voltage Limiter](#))
- Mode: Set the amplifier working mode (Low-Z)
- Noise Gate: Turn the noise gate on or off
- Mute: Mute the channel independently, or combined with the Link button
- Stereo/Bridge: Switch between Stereo and Bridge mode. In Bridge mode, 1 input can be linked to 2 outputs

6.7.5.1. Voltage Limiter

In this menu you can set a voltage limiter for each channel. It includes a calculator for the attack and release times.

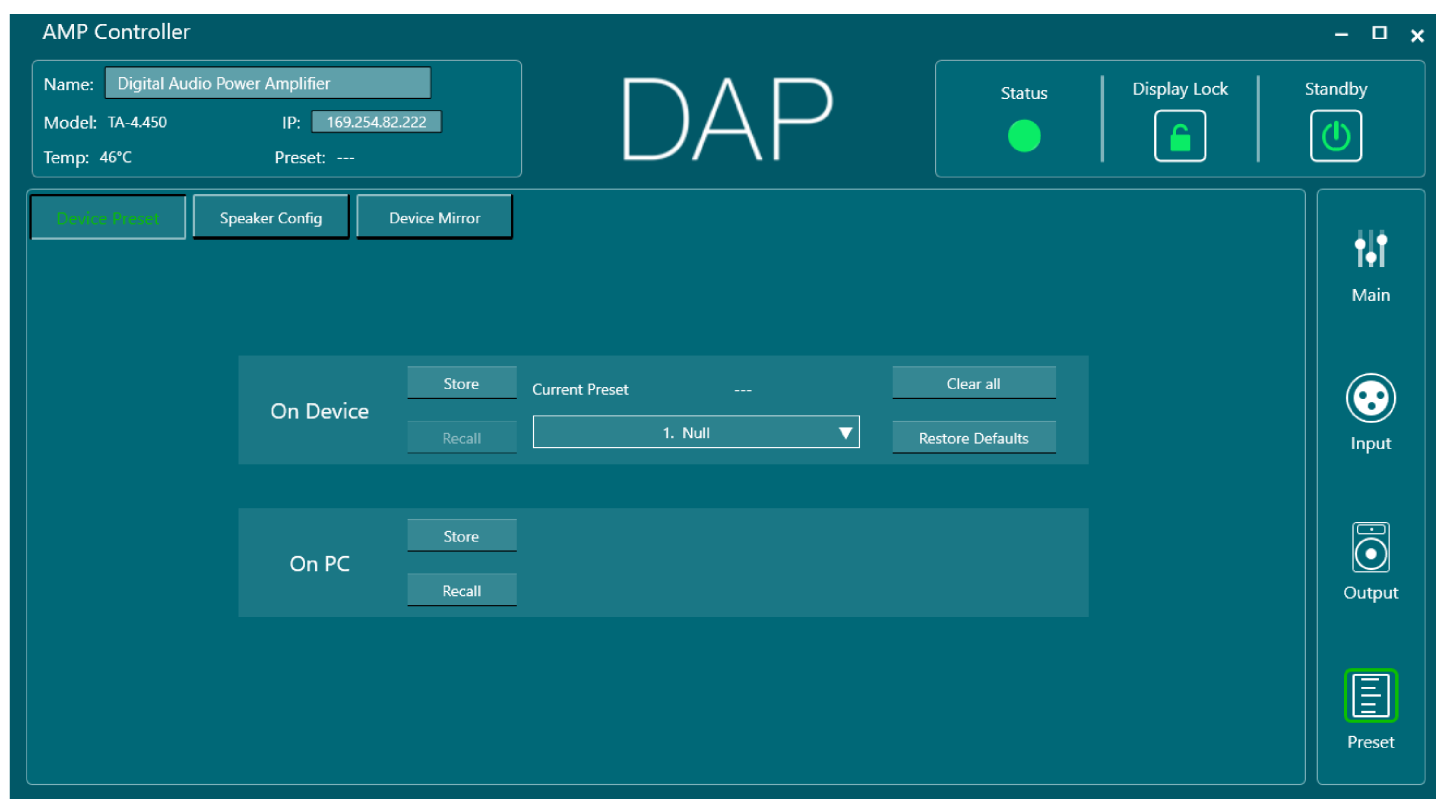
The Auto option calculates an automatic time constant value based on signal detection.

Figure 16



6.7.6. Preset Menu

Figure 17

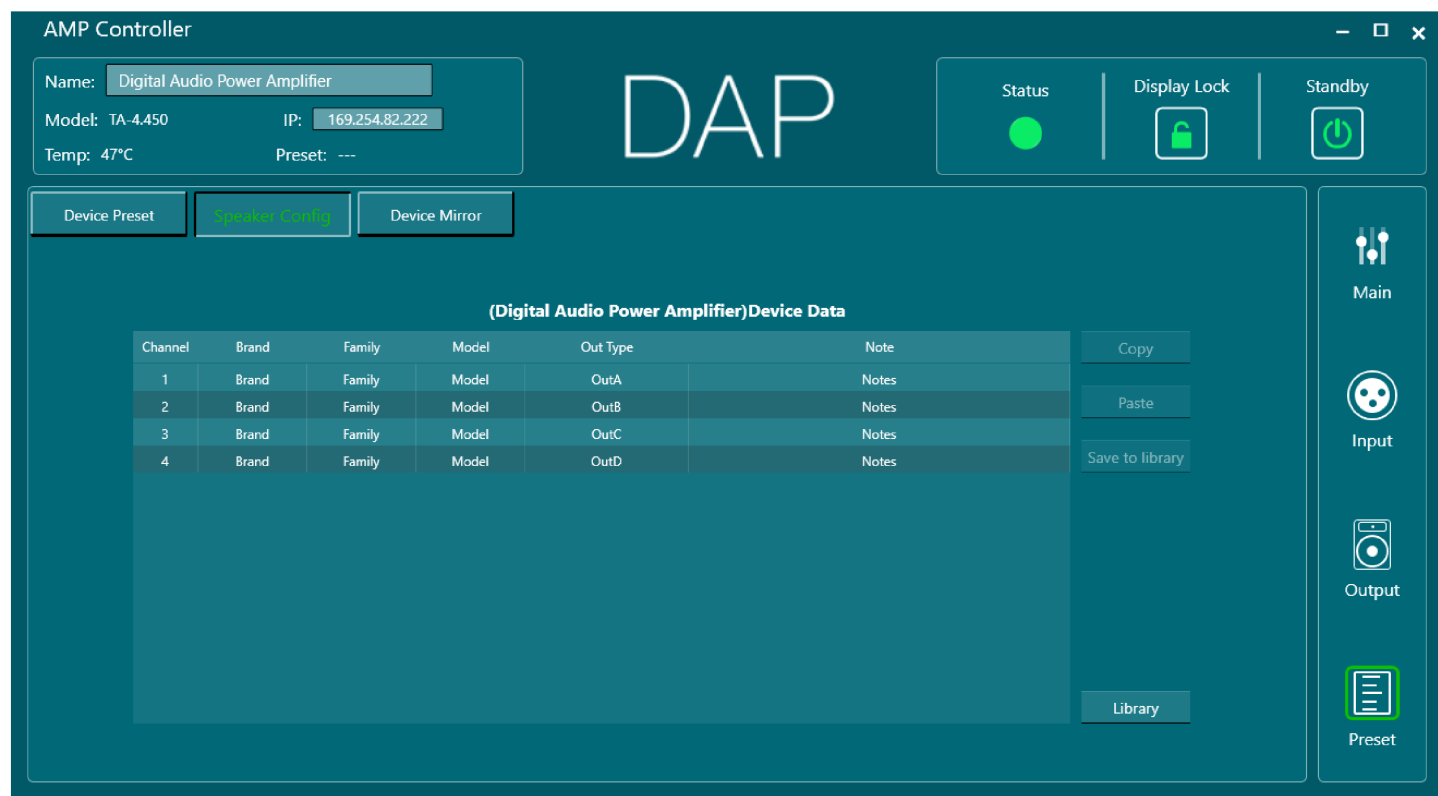


Click the Preset button on the right of the Main Control Interface, Input Menu or Output Menu to open the Preset Menu. In the Preset Menu, you can do the following:

- Store and recall 40 presets
- Store and recall the speaker configuration (see [6.7.6.1. Speaker Configuration Menu](#))
- Import or export the device image (see [6.7.6.2. Device Mirror Menu](#))

6.7.6.1. Speaker Configuration Menu

Figure 18



Click the Speaker Config button to open the speaker configuration menu. In this menu you can change the labels for the brand, family, model, output type and add any notes.

- Click any label to change its value.
- Click Save to library to save the speaker configuration to your library.
- Click Library to see, load or delete your saved configurations. You can also import existing configuration files from your PC.

Your saved configurations are stored on your PC. Open the library and click Open folder to see your stored configuration files.

6.7.6.2. Device Mirror Menu

Figure 19

Click the Device Mirror button to open the Device Mirror Menu. In this menu you can create an image of your device and store it to your PC. You can also load existing mirrors from your PC to your device.

7. Troubleshooting

This troubleshooting guide contains solutions to problems which can be carried out by an ordinary person. The device does not contain user-serviceable parts.

Unauthorized modifications to the device will render the warranty void. Such modifications may result in injuries and material damage.

Refer servicing to instructed or skilled persons. Contact your Highlite International dealer in case the solution is not described in the table.

Problem	Probable cause(s)	Solution
The device does not function at all	No power to the device	• Make sure that the device is connected to the power supply and switched on
	Internal fuse is blown	• Contact your Highlite International dealer
No sound	The volume is set to minimum	• Increase the volume
The device does not connect to the control software	Incorrect or broken ethernet cable	• Make sure that the device is connected to the PC with a functioning ethernet cable (minimum Cat. 5)

8. Maintenance

8.1. Safety Instructions for Maintenance



DANGER
Electric shock caused by dangerous voltage inside

Disconnect power supply before servicing or cleaning.

8.2. Preventive Maintenance



Attention
Before use, examine the device visually for any defects.

Make sure that:

- The housing is not damaged.
- The power cable is not damaged and does not show any material fatigue.

8.2.1. Basic Cleaning Instructions

To clean the device, follow the steps below:

- 01) Disconnect the device from the electrical power supply.
- 02) Allow the device to cool down for at least 5 minutes.
- 03) Clean the device with a soft, lint-free cloth.



Attention

- Do not immerse the device in liquid.
- Do not use alcohol or solvents.

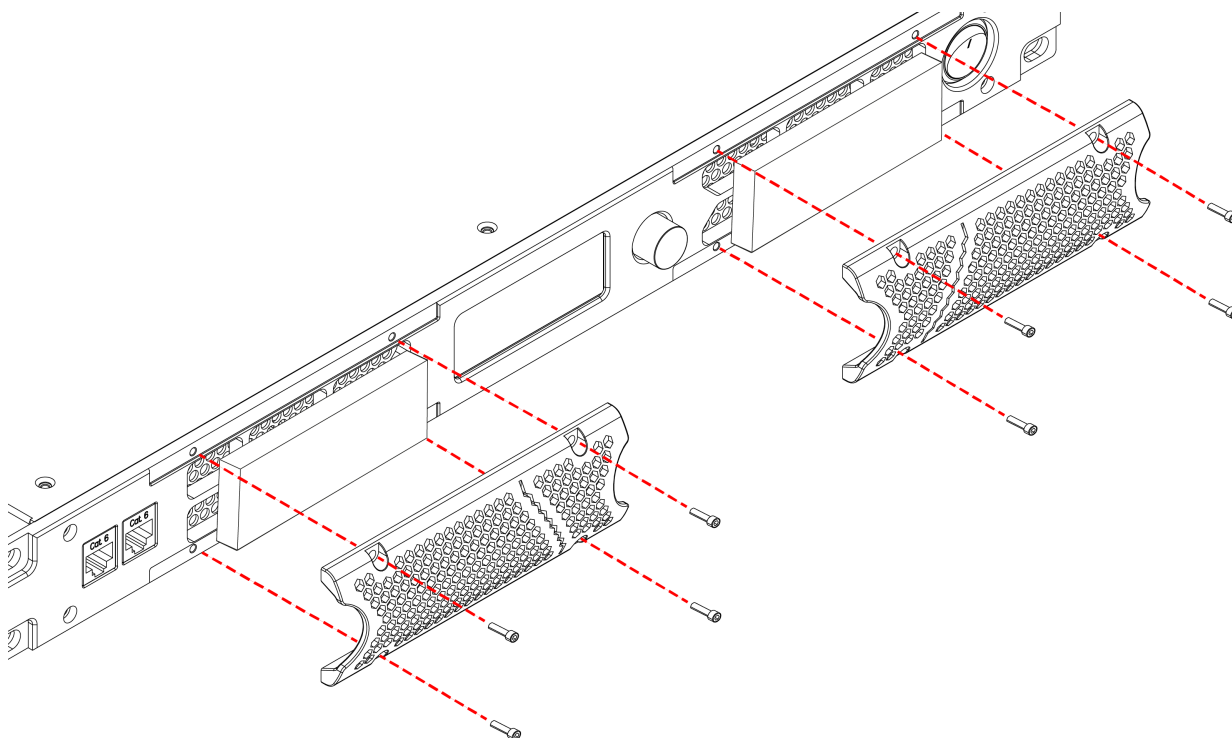
8.2.2. Cleaning the Cooling Vents

The device has two cooling vents on the front. These must be cleaned periodically to prevent the buildup of dust.

To clean the cooling vents, follow the steps below:

- 01) Disconnect the device from the electrical power supply.
- 02) Allow the device to cool down for at least 1 hour.
- 03) Use a hex key to remove the 4 2,5 mm hex screws from the 2 **cooling vent covers (04)**.
- 04) Remove the 2 **cooling vent covers (04)** and take out the 2 foam pads.
- 05) Clean the foam pads with dry compressed air.
- 06) Clean the vent openings on the device and the 2 **cooling vent covers (04)** with a soft, lint-free cloth.
- 07) Place back the foam pads.
- 08) Reinstall the 2 **cooling vent covers (04)** with the 4 2,5 mm hex screws.

Figure 20



8.3. Corrective Maintenance

The device does not contain user-serviceable parts. Do not open the device and do not modify the device.

Refer repairs and servicing to instructed or skilled persons. Contact your Highlite International dealer for more information.

9. Deinstallation, Transportation and Storage

9.1. Instructions for Deinstallation

**WARNING**

Incorrect deinstallation can cause serious injuries and damage of property.

- Let the device cool down before dismounting.
- Disconnect power supply before deinstallation.
- Always observe the national and site-specific regulations during deinstallation and derigging of the device.
- Wear personal protective equipment in compliance with the national and site-specific regulations.

9.2. Instructions for Transportation

- Use the original packaging to transport the device, if possible.
- Always observe the handling instructions printed on the outer carton box, for example: "Handle with care", "This side up", "Fragile".

9.3. Storage

- Clean the device before storing (see [8.2. Preventive Maintenance](#) on page 30).
- Store the device in the original packaging, if possible.

10. Disposal

Correct disposal of this product



Waste Electrical and Electronic Equipment

This symbol on the product, its packaging or documents indicates that the product shall not be treated as household waste. Dispose of this product by handing it to the respective collection point for recycling of electrical and electronic equipment. This is to avoid environmental damage or personal injury due to uncontrolled waste disposal. For more detailed information about recycling of this product contact the local authorities or the authorized dealer.

11. Approval



Check the respective product page on the website of Highlite International (www.highlite.com) for an available declaration of conformity.

DAP