

USER MANUAL

ENGLISH V1.0



TA-4.1100

Product code: D4222 4-channel 1100W 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-4.1100
- User manual
- 4x adhesive rubber feet



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.

Image: Ambig: Ambig:

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-4.1100 is a 4-channel DSP power amplifier for touring applications. It delivers 4x 1100 W into 4 Ω . It is capable of driving 2 Ω loads and can be used for 70 V systems and 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



- 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

08) Power input cable 09) 4x speaker connectors OUT

10) 4x 3-pin XLR connectors IN

Figure 3

3.3. Product Specifications

Model:	TA-4.1100					
· · · · · · · · · · · · · · · · · · ·						
Inputs:						
Mono inputs	4					
Transformer	70 V					
Mono input connector	3-pin XLR					
Mono input gain range	21 dB					
Mono input impedance	2000 Ω					
Outputs:						
2 ohms stable	Yes					
Output per channel into 8 ohms at 1 kHz	650 W					
Output per channel into 4 ohms at 1 kHz	1100 W					
Output per channel info 2 ohms at 1 kHz	1850 W					
Bridge output into 8 ohms at 1 kHz	2200 W					
Bridge output into 4 ohms at 1 kHz	3/00 W					
Output per channel at 70/100 V at 1 kHz	1100 W					
Output channels	4					
Output mode	4-channel / Bridge / Mono / Parallel / Stereo					
Output connector	Speaker connector 4 pole					
Audio specifications:						
	< 0.05 %					
Signal-to-noise ratio	> 105 dB					
	50 V/us					
Amp technology						
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					
Phase reverse	Yes					
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	1070 W				
Power connector in	Schuko plug				
Data connector in	RJ45				

Aechanical 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	10 kg			
IP rating	IP20 (indoor use only)			

Product properties:

Electronic protection

Clip limiter / DC voltage / Overheat / Overload / Under voltage

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

Included cables

Fixed cable

3.4. Dimensions

Figure 4



3.5. Optional Accessories and Software

You can download the control software for the TA-4.1100 from the Highlite International website:

D4222 Control software



4. Installation

4.1. Safety Instructions for Installation



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 $t_a = 40$ °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-4.1100 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 <u>6.6.3. AMP Mode</u> on page 18) or the control software (see <u>6.7.5. Output Menu</u> on page 26).

5.1. Setup in Stereo Mode

You can set up the TA-4.1100 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 <u>6.7. Control Software</u> on page 20) or with the **control knob (06)** (see <u>6.6. Main Menu Options</u> on page 17).





5.2. Setup in Bridge Mode

You can set up the TA-4.1100 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 <u>6.7. Control Software</u> on page 20) or with the **control knob (06)** (see <u>6.6. Main Menu Options</u> on page 17).

Figure 6



DAP

5.3. Connecting Multiple Devices

Multiple TA-4.1100 devices can be operated with the same PC software. For this, a router must be used that automatically assigns IP addresses. Each TA-4.1100 can be connected to the router directly, or the TA-4.1100 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-4.1100 individually from the Device list (see <u>6.7.1. Device List</u> on page 20) or create a group for all devices in the Groups menu (see <u>6.7.2. Groups Menu</u> on page 21).

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-4.1100 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 <u>6.6. Main Menu Options</u> on page 17).
- To operate the device with the PC software, refer to Control Software (see <u>6.7. Control Software</u> 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.

Digital Audio	Power	Amplifier
CHA: +0.0dB CHB: +0.0dB		
CHD: +0.0dB CHD: +0.0dB		
29.3°C [Null]

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 <u>6.6.1. Preset</u> on page 18)	40 presets	
2. Volume (see <u>6.6.2. Volume</u> on page 18)		
		1.Bridge
	OutA	2.Low-Z
		3.Hi-Z 70V
	OutB	1.Low-Z
2 AMP Mada (see ((2 AMP Mada an paga 19)		2.Hi-Z 70V
3. AME Mode (see <u>6.6.5. AME Mode</u> of page 16)		1.Bridge
	OutC	2.Low-Z
		3.Hi-Z 70V
	OutD	1.Low-Z
		2.Hi-Z 70V
	Standby	Normal
		Standby
	Contrast	30–100
		Always
	Backlight	Saving
4. Settings (see <u>6.6.4. Settings</u> on page 19)		OFF
		User-set
	IF MODE	Auto-DHCP
	Amp IP	IP Setting
	Easton / Doost	NO
	FUCTORY RESET	YES
5. Monitor (see <u>6.6.5. Monitor</u> on page 19)		
6. Info (see <u>6.6.6. Info</u> on page 19)		

6.6. Main Menu Options

The main menu has the following options:

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

- 01) Turn the control knob (06) to navigate through the menu.02) Press the control knob (06) to open a submenu.

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

DAP

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 <u>6.7.6. Preset Menu</u> on page 27).

Preset	
Cuppont Null	
<u>Current</u> :Null	
01 Null	
UI.NUII	
02.Null	
03 Nu11	
05.11011	
04.Null	
05.NUII	
06 Null	
00:110111	

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:



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

Noise_gate: Turn a noise gate on o
 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:



- Hi-Z 70 V: Set the impedance to a higher range for 70 V systems (all 4 channels)
 - 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 OutA: OutB: OutC: OutD: Power:	V 0.0v 0.0v 0.0v 0.0v	I 0.0A 0.0A 0.0A 0.0A	TEMP 5 35°C 35°C 35°C 35°C 28°C	State				

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-4.1100
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-4.1100 can be controlled through the AMP Controller software (see <u>3.5. Optional Accessories and</u> <u>Software</u> 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

DAP Refresh	Groups Set About	AMP (Controller		- 🗆 x
Number	Name	Model	Status	Network	Details Save
					Channel 4IN-4OUT MAC 6A:20:65:BD:EC:5E IP 169.254.82.222 Device Version Number 33404B14-005118-TA-4.450 Run Time <u>Refresh</u> 6h-27min Identifier 78-7C-A1-00-00-00-60-21-19-95-21-07

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 <u>6.7.2.</u> <u>Groups Menu</u> 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 <u>6.7.3. Main Control Interface</u> 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

Figure 8

Figure 9



6.7.2. Groups Menu

Add Group	Open Save										- ×
Groups S	et Assign 2 3										
Number	Na	ime			Model			Network		Chann	el
										123	4
1						EQ Bypass	0.1 dB 븆	0.1 ms 🔷	Ø	Ą»	×
Number	Name	IP	Channel	Input	Output	EQ Bypass	Vol	Delay	Polarity	Mute	Status
	Digital Audio Power Amplifier	169.254.82.222	CH1			ON	OdB	100.1ms	Ø	⊈ »)	
2	Digital Audio Power Amplifier	169.254.82.222	CH2			ON	OdB	0.1ms	Ø	\$ \$	
	Digital Audio Power Amplifier	169.254.82.222	CH3			ON	OdB	0.1ms	Ø	⊅ ≫	
4	Digital Audio Power Amplifier	169.254.82.222	CH4			ON	OdB	0.1ms	Ø	Ę\$))	
 ≥ 2 						EQ Bypass	0 dB 븆	0 ms 🔷	Ø	Ľ)	×
♥ 3						EQ Bypass	0 dB 븆	0 ms 🖨	Ø	\$ ₽	×

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

Click the Groups button on the Device List (see <u>6.7.1. Device List</u>) 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 <u>6.7.2.1. Groups Set</u>)
- Group settings: Change the amplifier settings for all channels in the group

6.7.2.1. Groups Set

Groups Set	Assign 3			
Number	Name	Model	Network	Channel
1				1234

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

■						EQ Bypass	0.1 dB 🖕	0.1 ms 🚔	Ø	⊅ »	×
Number	Name		Channel	Input	Output	EQ Bypass	Vol	Delay	Polarity	Mute	Status
	Digital Audio Power Amplifier	169.254.82.222	CH1			ON	OdB	100.1ms	Ø	⊈ »)	
	Digital Audio Power Amplifier	169.254.82.222	CH2			ON	OdB	0.1ms	Ø	⊈ ≫	
	Digital Audio Power Amplifier	169.254.82.222	СНЗ			ON	OdB	0.1ms	Ø	⊈ ≫	
	Digital Audio Power Amplifier	169.254.82.222	CH4			ON	OdB	0.1ms	Ø	⊈»)	

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-4.1100 that is removed from the network remains in the groups view if it is still assigned to a group. To remove the TA-4.1100 from the Groups Set section, delete the group and restart the software.

6.7.3. Main Control Interface



Open the Main Control Interface from the Device list (see <u>6.7.1. Device List</u> 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 <u>6.7.3.1. Volume</u>)
 - 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 <u>6.7.3.2. Output</u>). Change the label of each output channel

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



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



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.

Figure 11



6.7.4. Input Menu

Figure 12

AMP Controller		- 1	□ ×
Name: Digital Audio Power Amplifier Model: TA-4.450 IP: 169.254.82.222 Temp: 46°C Preset:	DAP	Status Display Lock Standby	
source1 Applie-1 AFS3-1 Set	Source1 Source2 Source3		ain
Source2 ◯ Analog-2 ◯ AES3-2 Set	elay EQ O Mute Mute elay EQ O Mute O Mute	Mute Volume A OutA Mute Volume B OutB Inp	Dut
Source3 Analog-3 AES3-1 Set In3 Dante-3 Backup	elay EQ Mute Out of the out of th		tput
Source4 O Analog-4 AES3-2 Set In4 Dante-4 Backup (1)	elay Dm EQ (Mute) (Mute)		eset

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 <u>6.7.4.1. Source Screen</u>)
- Set an input delay of up to 100 ms
- Set an equalizer for each input (see <u>6.7.4.2. Input Equalizer</u>)
- Set the audio routing and mixing (see <u>6.7.4.3. Audio Routing and Mixing</u>)
- Set the volume for each channel independently, or combined with the Link button

6.7.4.1. Source Screen

	Source									
	O Analog-1 ▼	O Dante-1	AES3-1							
CH1	Delay 0 ms 븆	Delay 0 ms 븆	Delay 0 ms 븆	O Backup						
	Trim 0 dB 븆	0dBFs= 0 dBu♥	0dBFs= 0 dBu 븆							
	O Analog-2 ▼	O Dante-2	AES3-2							
CH2	Delay 0 ms 븆	Delay 0 ms 🖨	Delay 0 ms 🖨	🔿 Backup						
	Trim 0 dB 븆	0dBFs= 0 dBu♥	0dBFs= 0 dBu♥							
	O Analog-3 ▼	O Dante-3	AES3-1							
CH3	Delay 0 ms 븆	Delay 0 ms 븆	Delay 0 ms 븆	O Backup						
	Trim 0 dB 🖕	0dBFs= 0 dBu♥	0dBFs= 0 dBu♥							
	O Analog-4 ▼	O Dante-4	AES3-2							
CH4	Delay 0 ms 븆	Delay 0 ms 븆	Delay 0 ms 븆	🔿 Backup						
	Trim 0 dB 븆	0dBFs= 0 dBu♥	0dBFs= 0 dBu♥							

DAP

Click the Set button next to a channel on the Input Menu (see <u>6.7.4. Input Menu</u>) 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



Click the EQ button next to a channel in the Input Menu (see <u>6.7.4. Input Menu</u>) 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.



6.7.5. Output Menu

me: Digital Audio F odel: TA-4.450 np: 46°C	Power Amj II Pr	plifier P: <u>169.254</u> eset:	1.82.222)A	γP		Status		Display Lock	Standby
												Main
Input1	fir	EQ	Trim OdB	Delay Om	Polarity 0°	Limiters	Mode Low-Z	Noise Gate ON	Mute	Stereo	A OutA	
Input2	FIR	EQ	Trim OdB	Delay 0m	Polarity 0°	Limiters	Mode Low-Z	Noise Gate ON	Mute C			Inpu
Input3	FIR	EQ	Trim OdB	Delay 0m	Polarity 0°	Limiters	Mode Low-Z	Noise Gate ON	Mute	Starao	- C Outc	Outp
Input4	FIR	EQ	Trim OdB	Delay 0m	Polarity 0°	Limiters	Mode Low-Z	Noise Gate ON	Mute			Ē

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 the volume (-18–+18 dB) Set an output delay up to 20 ms

Turn the noise gate on or off

Set a phase inversion

• Trim:

•

- Delay:
- Polarity:
- Limiters:
- Mode:
- Noise Gate:
- Mute:
- Mute the channel independently, or combined with the Link button

Set a voltage limiter (see 6.7.5.1. Voltage Limiter)

Set the amplifier working mode (Low-Z or 70 V)

Stereo/Bridge: Switch between Stereo and Bridge mode. In Bridge mode, 1 input can be linked to 2 outputs

Figure 15



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

Figure 17



6.7.6. Preset Menu

AMP Controller			- □ x
Name: Digital Audio Power Amplifier Model: TA-4.450 IP: 169.254.82.222 Temp: 46°C Preset:		DAP	Status Display Lock Standby
Device Preset	Speaker Config Device Mirr		Main
	On Device	Current Preset I 1. Null	Clear all Restore Defaults Input
	On PC		Output
			Preset

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

- Store and recall 40 presets
- Store and recall the speaker configuration (see <u>6.7.6.1. Speaker Configuration Menu</u>)
- Import or export the device image (see <u>6.7.6.2. Device Mirror Menu</u>)

6.7.6.1. Speaker Configuration Menu

Figure 18

AMP Co	ontroller							- 🗆 x
Name: Model: T/ Temp: 47	Digital Audio A-4.450 °C	o Power Ampl IP: Pres	ifier 169.254.82.2; set:	22	DA	AP	Status Display Lock	Standby
Device P	Preset	Speaker Cor	dīg Dev	vice Mirror	ital Audio Power Amplii	īer)Device Data		∳ ↓↑ Main
	Channel	Brand	Family	Model	Out Type	Note	Сору	
		Brand	Family	Model	OutA	Notes		
		Brand	Family	Model	OutB	Notes		
		Brand	Family	Model	OutC	Notes		Input
		Brand	Family	Model	OutD	Notes		
								Output
							Library	Preset

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

AMP Controlle	r						- 🗆 x
Name: Digital Au Model: TA-4.450 Temp: 47°C	udio Power Amplifier IP: 16 Preset: -	9.254.82.222	DAP		Status	Display Lock	Standby
Device Preset	Speaker Config	Device Mirror					∳ ∳† Main
		Mirror data to comp	uter	ОК			Input
		Mirror data to device	; Open	ОК			Output
							Preset

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	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.



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



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 <u>8.2. Preventive Maintenance</u> 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 (<u>www.highlite.com</u>) for an available declaration of conformity.





