REDBACK®

A 4226
150W PA AMPLIFIER

User Manual

Imported & Distributed by Altronic Distributors Pty Ltd.

Overview

This product is designed as a two-channel amplifier using class D amplifier technology. It can be used for powering low impedance (4Ω/8Ω) stereo systems with a maximum power of 2x 75 Watt, while bridging to a constant voltage (100V and 70V) is possible with a maximum output power of 150 Watt. It features Dante® 2CH digital inputs and outputs, and balanced or unbalanced line level analog inputs and outputs.

This amplifier can be controlled via RS-232, LAN and Web GUI. It also features built-in DSP, auto-standby and maximum durability. It is suitable for a vast range of AV installations.

Features

- Dante® 2CH digital audio, balanced or unbalanced line level analog inputs
- Dante® 2CH digital audio, balanced or unbalanced line level analog and AMP outputs
- Built-in audio DSP processor
- Switching between Lo-Z and Hi-Z can be achieved to adapt to various types of speaker installation.
- In Lo-Z output mode, bridge mode 150 Watt or two-channel 2x 75 Watt 4Ω/8Ω can be selected.
  In Hi-Z output mode, constant voltage 70V/100V can be selected.
- Independent input gain, output EQ and volume control
- 48KHz sampling rate, 24bit independent A/D and D/A converters
- 5-12V trigger input
- Auto standby
- Flexible control via RS-232, LAN and Web GUI
- Half rack design

Package Contents

- 1x 150W Class D Amplifier
- 3x 5pin-3.81mm Phoenix Connector (male)
- 2x 4pin-5.08mm Phoenix Connector (male)
- 6x Mounting Ear
- 24x Machine Screw
- 1x AC (100-240V) Power Cord (1.5 meters)
- 1x User Manual

Specifications

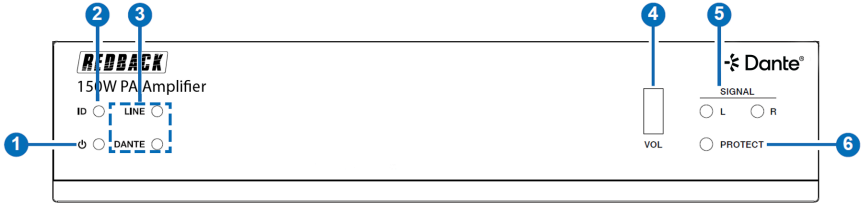
Technical	
Input	2x Dante® Network audio input 2x LINE balanced/unbalanced stereo 2Vrms input
Output	2x Dante® Network audio output 1x Constant voltage 70V/100V speaker output 2x LINE balanced/unbalanced stereo output
Input Sensitivity	2Vrms
Output Power	DC power supply: 2x 75W@4Ω/8Ω; 1x 150W@8Ω/16Ω; 1x 150W@70V/100V
Maximum Voltage Gain	27 - 30dB SE/39 - 42dB BTL
Amplifier Type	Class D
Frequency Response	20Hz - 20kHz @ ±1dB
Signal to Noise Ratio	87dB, 20Hz - 10kHz
THD+N	THD+N (1KHz@1W) 0.04%
Control	RS-232, Web GUI
Audio Formats	LINE IN [Analog audio, Balanced/unbalanced 2CH, Max input level 2Vrms] LINE OUT [Analog audio, Balanced/unbalanced 2CH, Max output level 2Vrms] Dante® [Digital audio 2x2 in/out, PCM 2CH 44.1K-96KHz 16/24Bit] AMP OUT [Analog audio, Balanced 2CH, Max output level 24.5Vrms] 70V/100V AMP OUT [Analog audio, Max output level 70V/100Vrms]
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) , ±4kV (Contact discharge)

Connection
1x DANTE [RJ45 connector, 2CH Dante® input/output] 1x LINE IN [5pin-3.81mm phoenix connector, balanced/unbalanced 2CH] 1x LINE OUT [5pin-3.81mm phoenix connector, balanced/unbalanced 2CH] 1x 4/8Ω AMP OUT [MSTB 2.5-GF-5.08, 4pin-5.08mm locking phoenix, 2CH amplifier output] 1x 70V/100V AMP OUT [MSTB 2.5-GF-5.08, 4pin-5.08mm locking phoenix, constant voltage speaker output] 1x RS-232/TRG [5pin-3.81mm phoenix connector][TRG: 5-12V trigger input to turn on/off the amplifier] 1x LAN [RJ45 connector]

Specifications (Continued)

Mechanical	
Housing	Front panel: Aluminum; Rear case: Metal Enclosure
Color	Black
Dimensions	240mm [W]×210mm [D]×44mm [H]
Weight	1.88Kg
Power Supply	DC Input: AC100 - 240V 50/60Hz
Power Consumption	70W
Operating Temperature	0°C ~ 40°C
Storage Temperature	-20°C ~ 60°C
Operating Humidity	20% ~ 80% RH (relative humidity, non-condensing)
Storage Humidity	10% ~ 90% RH (relative humidity, non-condensing)

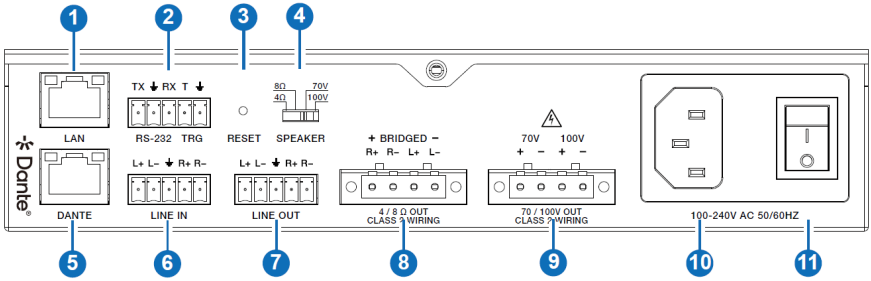
Operation Controls and Functions



No	Name	Function
1	Power LED	• Steady on: The unit is working normally. • Slow flash at 4Hz: The Web GUI operation is in standby mode. • Fast flash at 1Hz: There is no signal input, and the unit will enter the standby mode within the set duration.
2	ID LED (show me)	This LED indicates the presence of the product. It can be controlled through Web GUI or API command. For example, when selecting the "On" option for "DANTE Identification" on the System page of the Web GUI, the ID (show me) LED on the front panel will flash, so that you can find the corresponding machine in the system.
3	LINE/DANTE LED	Input signal source indicators. When the DANTE or LINE IN port detects signal input, the corresponding green DANTE/LINE LED will be on.
4	VOL LED	The VOL LED displays the real-time audio output level of the amplifier.
5	SIGNAL L/R LEDs	The corresponding L/R channel signal LED will be on when the left/right channel of the speaker output port outputs signals.

6	PROTECT LED	When the speaker output port outputs audio signals normally, if the left and right channels of the output are short-circuited, then the PROTECT LED will blink, and the product will enter the protected mode. In other cases, the LED is off.

Rear Panel



No	Name	Function
1	LAN port	Connect to a PC for Web access. The default IP address is 192.168.0.200.
2	RS-232/TRG port	RS-232: Serial control port, used for RS-232 signal pass-through or controlling this product via API commands.
		TRG: Trigger signal input port, effective at rising edge voltage and falling edge voltage. When the input trigger is detected, the amplifier will enter the protected mode (mute the audio). For details, please refer to the input trigger settings on the System page of DSP Web GUI.
3	RESET button	Press and hold this button for 5 seconds to restore to factory default settings.
4	SPEAKER switch	Speaker type switch, used to switch among Lo-Z (4Ω/8Ω), Hi-Z 70V and Hi-Z 100V.
5	DANTE port	Dante® audio input and output port, using dynamic IP by default.
6	LINE IN port	2CH balanced/unbalanced stereo audio input port, with a maximum input level of 2Vrms.
7	LINE OUT port	2CH balanced/unbalanced stereo audio output port, with a maximum output level of 2Vrms.

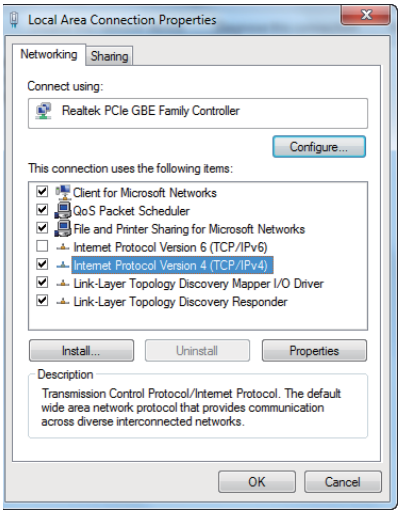
8	4/8Ω OUT port	4/8Ω speaker output port. When this port is connected to a 4/8Ω speaker and the SPEAKER switch is set to 4/8Ω, the audio will be output from this port normally. There are two connection methods for this port, as shown below. **Bridge mode:** Connect the BRIDGED "+" and "-" pins to a speaker with a maximum output power of 150W. **Two-channel mode:** Respectively connect the "R+" and "L+" pins or "R-" and "L-" pins to two speakers with a maximum output power of 2x 75W.
9	70/100V OUT port	70/100V speaker output port. When this port is connected to a 70/ 100V speaker and the SPEAKER set is dialed to 70/100V, the audio will be output from this port normally.
10	Power port	100-240V AC 50/60Hz power input port.
11	Power switch	Press the power switch to turn on/off the power supply.

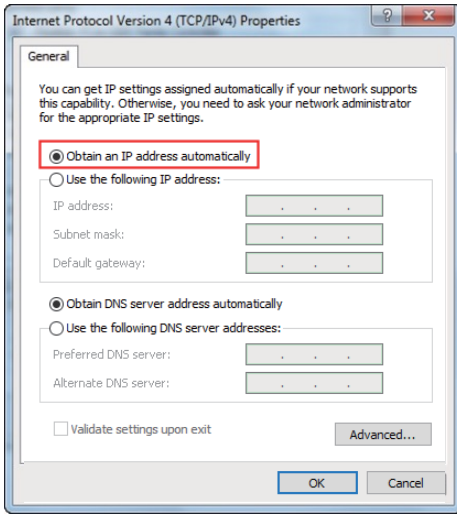
Dante® Web GUI User Guide

There is a built-in DSP Web GUI for the amplifier. The operation method is shown as below:

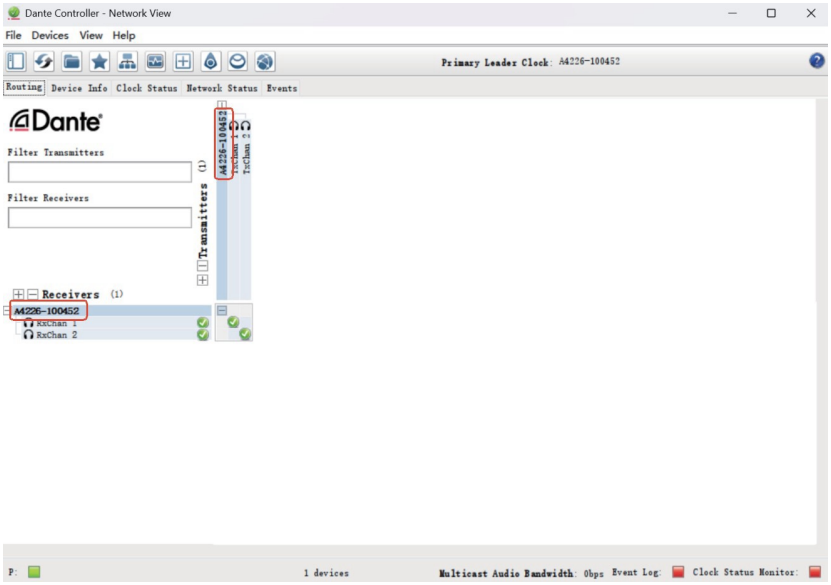
Step 1: Connect the DANTE port of the amplifier to the Ethernet Switch.

Step 2: Connect the PC to the same Ethernet Switch, and set the Network connection setting of PC to be "Obtain an IP address Automatically".



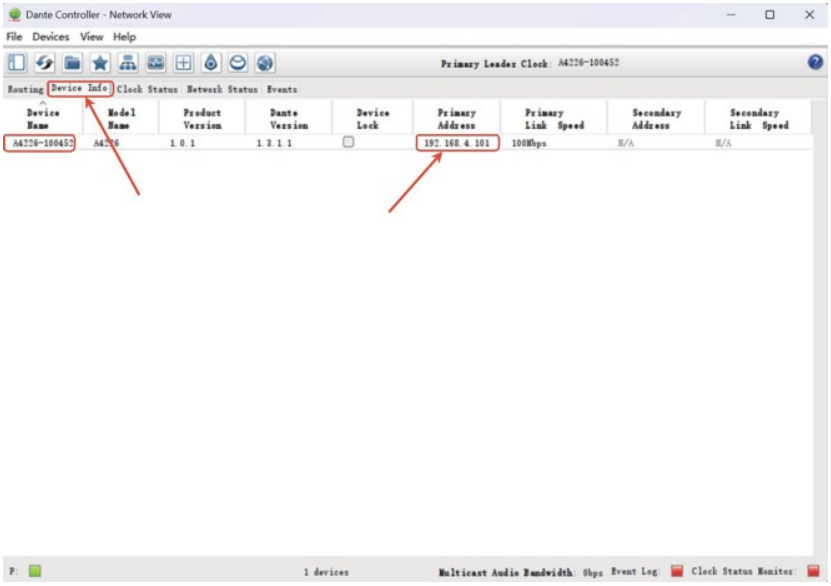


Step 3: Open the Dante® Controller software on the PC, and find the Dante® device on the Routing page, as shown in the figure below

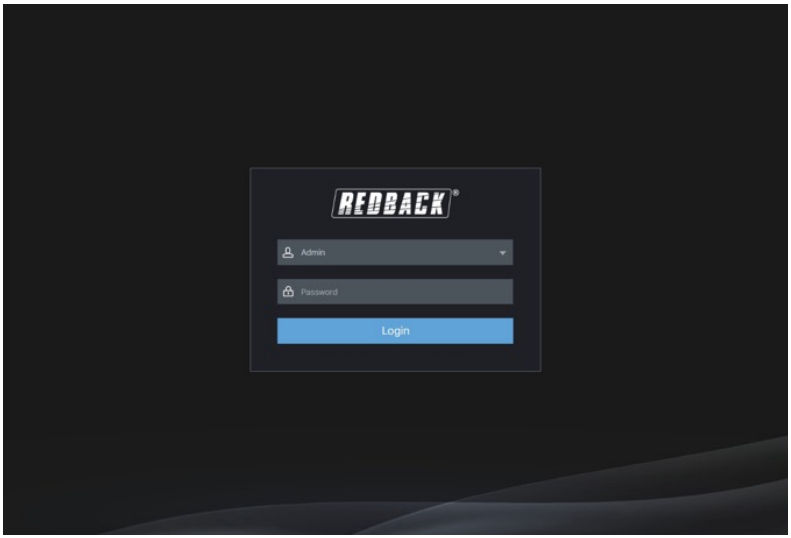


Step 4: Click the Device Info tab to check the IP address of the Dante® device.

Note: The default IP address of the amplifier is 192.168.0.200, but the amplifier is set to DHCP mode by default, so you need to check the current device IP address through the Dante® Controller.



Step 5: Input the IP address of Dante® device into your browser on the PC to enter the login interface of the Dante® Web GUI.

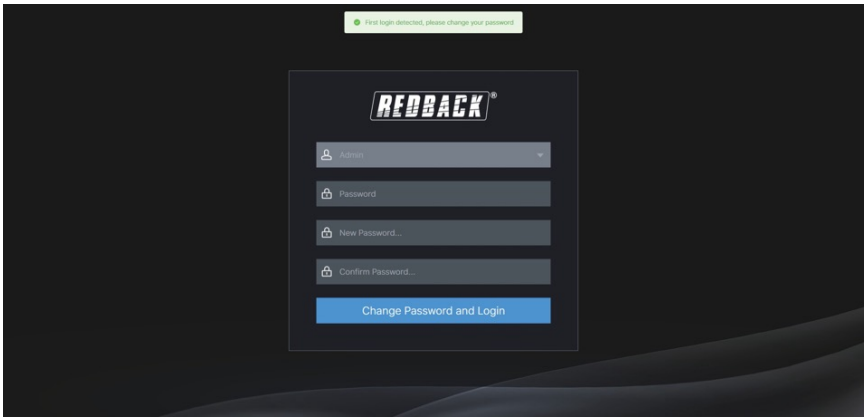


The default usernames and passwords are as below:

Username	Password
Admin	1234
User	1234

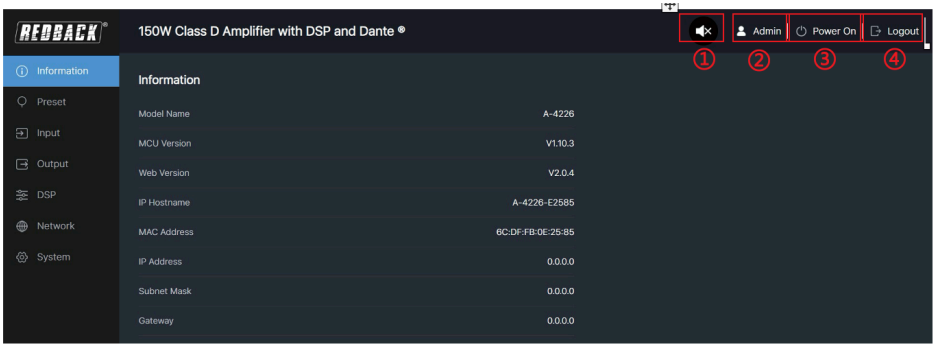
For first login, you need to change the password (more than 8 characters, including both uppercase and lowercase letters, numbers, and special symbols).

Step 6: Select the default username "Admin" and input the password "1234", then click the "Login" button to enter the password change interface



Step 7: Input the New Password and Confirm Password, then click "Change Password and Login" to enter the Information page of the Admin interface.

Information Page

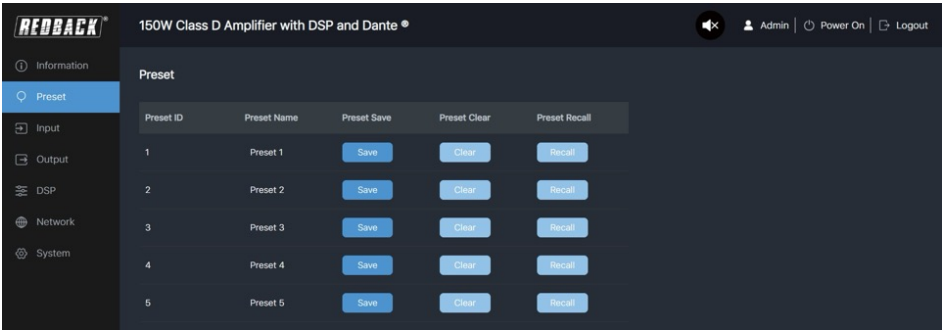


The Information page provides basic information, including Model Name, MCU Version, Web Version, IP Hostname and Network configuration information.

In addition, you can do the following operations in the upper right corner of each page.

1. Click the mute icon to mute/unmute all audio outputs. Setting the volume of a channel in the Output page will unmute that channel.
2. Display the current username (User or Admin).
3. Click the power icon to power on the amplifier or set it in standby mode.
4. Click the logout icon to logout and return to the login interface.

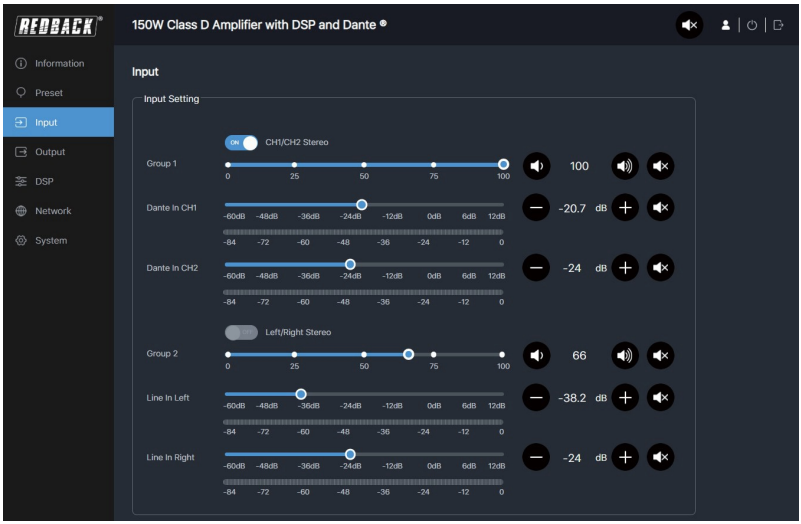
Preset Page



You can set up to 5 preset scenes on the Preset page.

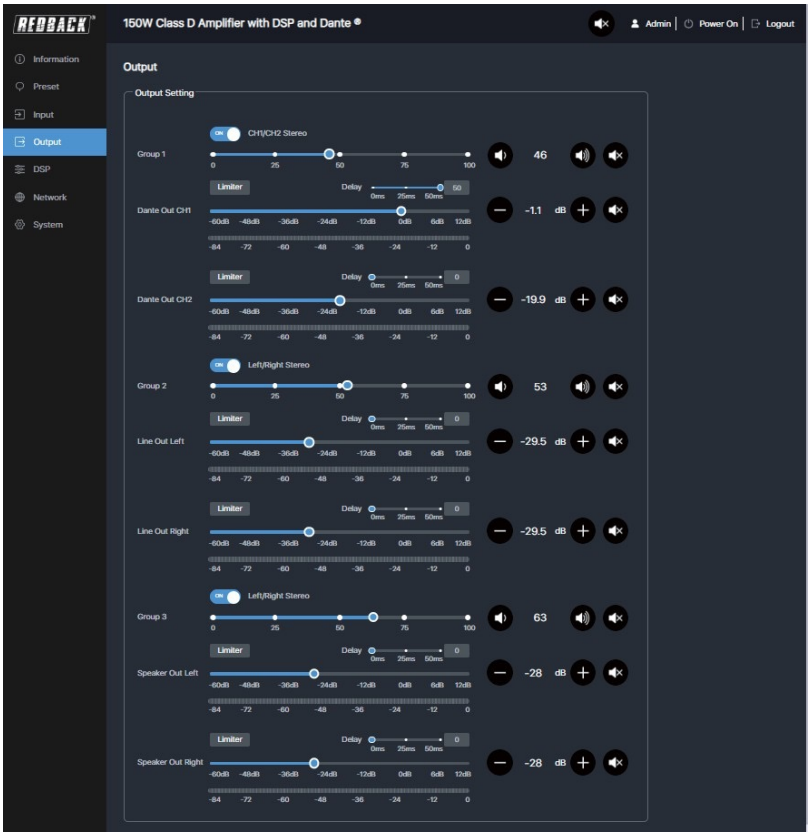
1. **Preset Name:** You can name the preset scene. (16 characters max)
2. **Preset Save:** Click the Save button to save the scene.
3. **Preset Clear**: Click the Clear button to clear the saved scene.
4. **Preset Recall:** Click the Recall button to recall the saved scene.

Input Page



1. **Group 1:** The group input audio of Dante In CH1 and Dante In CH2. When the CH1/CH2 Stereo switch is turned on, you can directly drag the slider of Group 1 to set the volume, or click the mute icon to mute/unmute the input audio for both Dante In CH1 and Dante In CH2.
2. **Dante In CH1/Dante In CH2:** When the CH1/CH2 Stereo switch is turned off, you can respectively drag the slider to set the volume, or click the mute icon to mute/unmute the input audio for Dante In CH1/Dante In CH2.
3. **Group 2:** The group input audio of Line In Left and Line In Right. When the Left/Right Stereo switch is turned on, you can directly drag the slider of Group 2 to set the volume, or click the mute icon to mute/unmute the input audio for both Line In Left and Line In Right.
4. **Line In Left/Line In Right:** When the Left/Right Stereo switch is turned off, you can respectively drag the slider to set the volume, or click the mute icon to mute/unmute the input audio for Line In Left/Line In Right.
5. **VU Meter:** The VU meter displays the real-time audio input level of each audio input channel.

Output Page

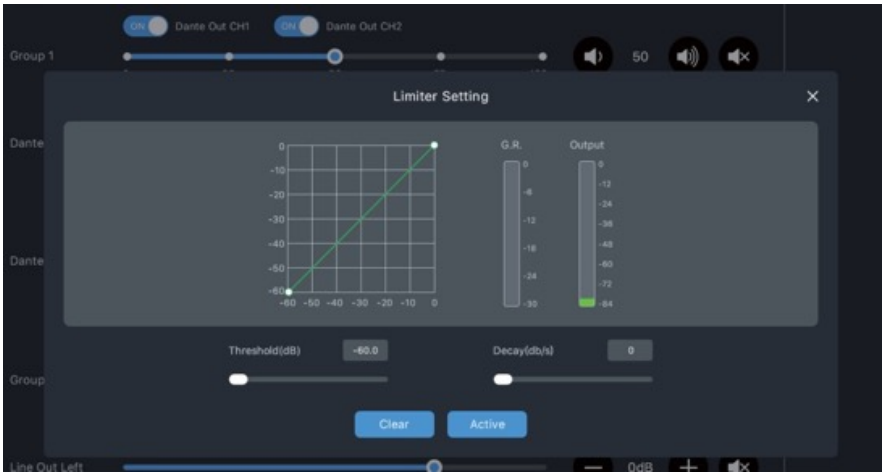


Output Setting

1. **Group 1:** The group output audio of Dante Out CH1 and Dante Out CH2. When the CH1/ CH2 Stereo switch is turned on, you can directly drag the slider of Group 1 to set the volume, or click the mute icon to mute/unmute the input audio for both Dante Out CH1 and Dante Out CH2.
   Note: When the stereo mode is turned on, the CH1 and CH2 channels will not delay synchronously.
2. **Dante Out CH1/Dante Out CH2:** When the CH1/CH2 Stereo switch is turned off, you can respectively drag the slider to set the volume and the delay time, or click the mute icon to mute/unmute the output audio for Dante Out CH1/ Dante Out CH2.
3. **Group 2/3**: The group output audio of Line Out Left/Speaker Out Left and Line Out Right/ Speaker Out Right. When the Left/Right Stereo switch is turned on, you can directly drag the slider of Group 2/3 to set the volume, or click the mute icon to mute/unmute the input audio for both Line Out Left/Speaker Out

Left and Line Out Right/Speaker Out Right.
Note: When the stereo mode is turned on, the Left and Right channels will not delay synchronously.

4. **Line Out Left/Line Out Right/Speaker Out Left/Speaker Out Right:** When the Left/Right Stereo switch is turned off, you can respectively drag the slider to set the volume and the delay time, or click the mute icon to mute/unmute the output audio for Line Out Left/Line Out Right/Speaker Out Left/Speaker Out Right.
5. **VU Meter:** The meter displays the real-time audio output level of each audio output channel.
6. **Limiter:** Left click the Limiter button to turn on the limiter setting mode, right click to adjust the Limiter Setting interface, as shown in the following figure. You can respectively drag the slider to set the threshold value and decay value, then click the Active button to take effect, or click the Clear button to clear the settings.

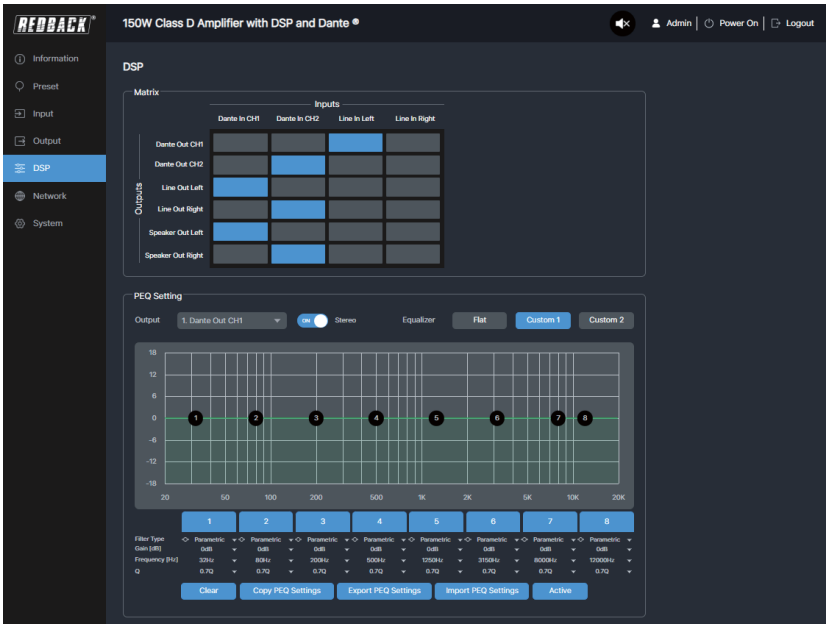


DSP Page

Audio Matrix

1. **Inputs:** The product features four audio input channels (Dante In CH1/Dante In CH2/Line In Left/Line In Right), which are four audio signal sources for audio output channels (Dante Out CH1/Dante Out CH2/Line Out Left/Line Out Right/ Speaker Out Left/Speaker Out Right). One audio source can be selected by one or multiple output channels clicking the corresponding grids.
2. **Outputs:** The product features six audio output channels (Dante Out CH1/ Dante Out CH2/ Line Out Left/Line Out Right/Speaker Out Left/Speaker Out Right). Only one audio source can be selected for each audio output channel to perform one-to-one switching.

3. **Legend:** The blue grid indicates that the corresponding input/output channel is selected; The grey grid indicates that the corresponding input/output channel is not selected.

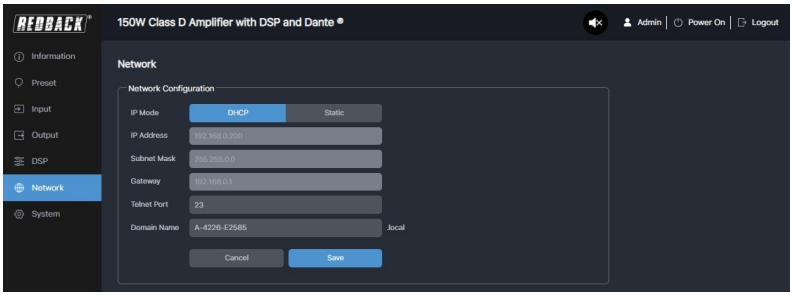


PEQ Setting

1. **Output:** Click the drop-down list to select the output channel.
2. **Stereo:** Click the switch to turn on/off the stereo mode.
3. **Equalizer:** Click the buttons to set the equalizer.
   Flat: Set all EQ to 0db.
   Custom1: Set EQ for custom 1. Custom2: Set EQ for custom 2.
4. **Frequency point (1~8):** Eight frequency points support drag control.
5. **1/2/3/4/5/6/7/8:** 8 band buttons of PEQ. Blue grid indicates that the corresponding band is selected, and then you can set the parameters for it as following.
   Filter Type: Click the drop-down icon, then select the filter type (Parametric/ Lowpass/ Highpass/Low Shelf/High Shelf).
   Gain [dB]: Click the drop-down icon, then drag the slider to set the gain value. Frequency [Hz]: Click the drop-down icon, then drag the slider to set the frequency. Q: Click the drop-down icon, then drag the slider to set the Q value.
6. **Clear:** Click the button to clear the settings.
7. **Copy PEQ Settings:** Click the button to copy PEQ settings to XLR IN 1/2/3/4/5/6/7/8 or XLR OUT 1/2/3/4/5/6/7/8.

8. **Export PEQ Settings:** Click the button to export PEQ settings.
9. **Import PEQ Settings:** Click the button to import PEQ settings.
10. **Active:** Click the button to activate the above settings.

Network Page



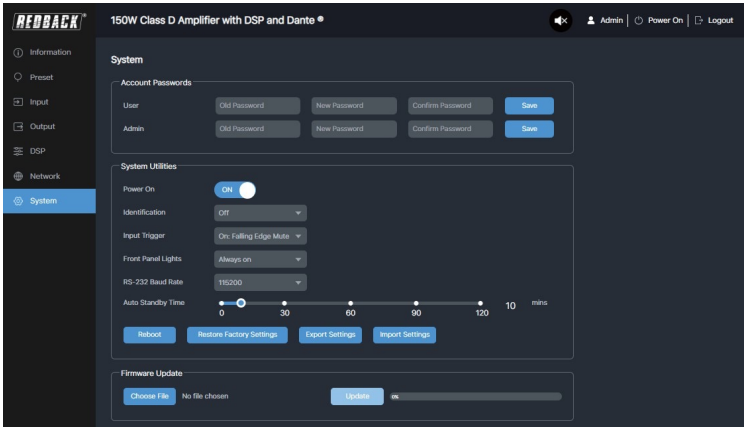
Network Configuration: Select to set the IP Mode (DHCP/Static). When Static is selected, you can manually set the IP Address, Subnet Mask and Gateway as required, then click "Save" to take effect. When DHCP is selected, the system will search and fill the IP Address with the one assigned by the router automatically.

In addition, you can set the Telnet Port and Domain Name.

Note: The Domain Name displayed as the IP Hostname (for example: "A-4226-E2585.local") can be used to log in to the Dante® Web GUI. The Domain Name "A-4226-XXXXX.local" is variable for different machines, and can be modified (32 characters max).

After setting up, click "Save" to take effect, or you can click "Cancel" to cancel the setting.

System Page



System Utilities

1. **Power On:** Click "ON/OFF" to power on/off the amplifier.
2. **Identification:** Click the drop-down list to set the display status of the ID LED on the front panel of the amplifier.
3. **Input Trigger:** Click the drop-down list to set the input trigger mode.
4. **Front Panel Lights:** Click the drop-down list to set the display status of the VOL, LINE and DANTE LEDs on the front panel of the amplifier.
5. **RS-232 Baud Rate:** Click the drop-down list to set the RS-232 baud rate.
6. **Auto Standby Time:** Drag the slider to set the auto standby time.
   Note: When the standby time is set to "0", the auto standby function is turned off.
7. **Reboot: C**lick this button to reboot the device.
8. **Restore Factory Settings: C**lick this button to restore the amplifier to factory settings.
9. **Export Settings:** Click this button to export configuration files.
10. **Import Settings:** Click this button to import configuration files.

Firmware Update: You can update the firmware. Click "Choose File" to select the update file, then click "Update" to start update. When the progress bar reaches 100%, the update is complete.

In the Login interface, select the username "User" and input the password "1234", then click the "LOGIN" button to enter the Control page of the User interface.

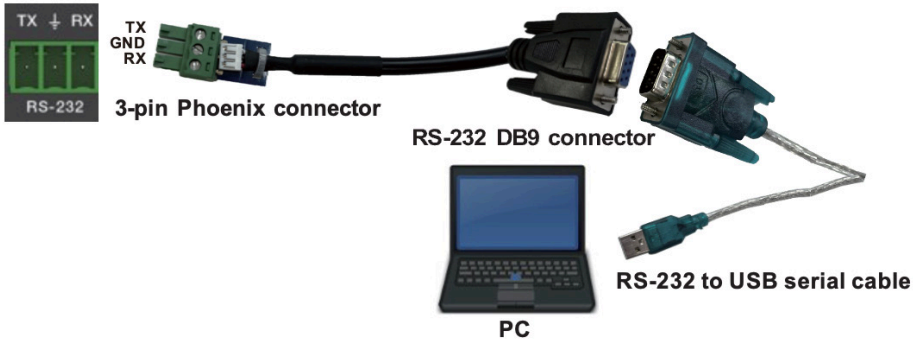
Control Page

You can do the following operations on the Control page:

1. **Preset:** Recall the preset application scenes.
2. **Matrix:** Set the audio matrix in the same way as the audio page of Admin account.
3. **Output Setting:** Set the output audio for Group 3/Speaker Out Left/Speaker Out Right in the same way as the Output page of Admin account.

API Control Commands

The product also supports API commands control. Connect the RS-232 port of the product to a PC with a 3-pin phoenix connector cable and an RS-232 to USB cable. The connection method is as follows.



Then open a Serial Command tool on PC to send ASCII commands to control the product. The ASCII command list about the product is shown as below

ASCII Command				
Serial port protocol: Baud rate: 115200 (default), Data bits: 8bit, Stop bits:1, Parity bit: none TCP/IP protocol port: 8000				
x - Parameter 1, y - Parameter 2				
Command	**Function**	**Example**	**Feedback**	**Default**
System Settings				
?	List all commands	?	List all API commands	
help	List all commands	help	List all API commands	
r type	Get device model	r type	A4226	
r status	Get device current status	r status	Please refer to the note at the end of the list.	

Command	Function	Example	Feedback	Default
r fw version	Get Firmware version	r fw version	MCU 1.00.6 Web 2.0.4	
s power on	Power on the device	s power on	Power on System Initializing... Initialization Finished! MCU 1.00.6 Web 2.0.4	
s power off	Power off the device	s power off	Power off	
r power	Get current power state	r power	power on / power off	
s reboot	Reboot the device	s reboot	Reboot… System Initializing... Initialization Finished! MCU 1.00.6 Web 2.0.4	
s reset	Reset system settings to default (Should type “Yes” to confirm, “No” to discard)	s reset	Sure to Reset System Settings To Default? Type “Yes” after next prompt to confirm…	
s reset all	Reset system and network settings to default (Should type “Yes” to confirm, “No” to discard)	s reset all	Sure to Reset System and Network Settings To Default? Type “Yes” after next prompt to confirm…	
s auto stb x	Set system auto standby time x=0: auto standby off x=[1-120]: auto standby time (mins)	s auto stb 10	Auto standby time: 10mins	10
r auto stb	Get system auto standby time	r auto stb	Auto standby time: 10mins	

Command	Function	Example	Feedback	Default
s lcd on/ off/15/30/ 60	Set volume LCD always on or auto turn off in power on state or turn on 15s/30s/60s	s lcd on s lcd off s lcd on 15	Set LCD light always on Set LCD light always off Set LCD light on 15s	on
r lcd	Get volume LCD on/off status	r lcd	LCD light always on	
s idled on/ off/15/ 30/60	Set ID LED on or auto turn off in power on state or turn on 15s/ 30s/60s	s idled on s idled on 15	Set ID LED light always on Set ID LED light on 15s	off
r idled	Get id LED on/off status	r idled	ID LCD light always on	
s trigger on/off x	Set trigger on/off with trigger level:x x=0: Falling Edge (0V) Mute Output x=1: High Level (5-12V) Mute Output	s trigger on 1 s trigger off	Set trigger on with high level Set trigger off	off
r trigger	Get trigger on/off status	r trigger	Trigger on with high level	
s rsb x	Set serial port baud rate to xbps x=(115200, 57600, 38400, 19200, 9600, 4800)	s rsb 115200	Set baud rate to 115200	115200
r rsb	Get serial port baud rate	r rsb	Baud rate 115200	
s fan x on/off	Set fan:x auto turn on or always off x=[0-2] 0:All, 1:Fan1, 2:Fan2	s fan 0 on	Set fan 1 on Set fan 2 on	auto
r fan	Get fan status	r fan	Fan 1 on Fan 2 on	
Input Settings				
s input x stereo on/off	Set input:x stereo mode on/off x=[0-2] 0:All, 1:Dante In, 2:Line In	s input 1 stereo on	Set dante in stereo mode on	on

Command	Function	Example	Feedback	Default
r input x stereo	Get input:x stereo mode on/off status x=[0-2] 0:All, 1:Dante In, 2:Line In	r input 1 stereo	Dante in stereo mode on	
s input x gain y	Set input:x gain to y x=[0-4] 0:All, 1:Dante In CH1, 2:Dante In CH2, 3:Line In Left, 4:Line In Right y=[-60.0~12.0]dB Input gain value, Step=0.1dB	s input 1 gain 10.0	Set dante in ch1 gain: 10.0dB	0.0dB
r input x gain	Get input:x gain value x=[0-4] 0:All, 1:Dante In CH1, 2:Dante In CH2, 3:Line In Left, 4:Line In Right	r input 1 gain	Dante in ch1 gain: 10.0dB	
s input x gain+ s input x gain+y	Increase input:x gain by y x=[0-4] 0:All, 1:Dante In CH1, 2:Dante In CH2, 3:Line In Left, 4:Line In Right y=[0.1-72.0]:Steps, y can be empty (Step=1dB)	s input 1 gain+ s input 1 gain+5	Increase dante in ch1 gain: 0.0dB Increase dante in ch1 gain: 5.0dB	
s input x gain- s input x gain-y	Decrease input:x gain by y x=[0-4] 0:All, 1:Dante In CH1, 2:Dante In CH2, 3:Line In Left, 4:Line In Right y=[0.1-72.0]:Steps, y can be empty (Step=1dB)	s input 1 gain- s input 1 gain-5	Decrease dante in ch1 gain: 0.0dB Decrease dante in ch1 gain: -5.0dB	
s input group x vol y	Set input group:x volume to y x=[0-2] 0:All, 1:Dante In, 2:Line In y=[0-100] group volume value	s input group 1 vol 100	Set dante in group volume: 100	100
r input group x vol	Get input group:x volume value x=[0-2] 0:All, 1:Dante In, 2:Line In	r input group 1 vol	Dante in group volume:	

Command	Function	Example	Feedback	Default
s input group x mute on/off	Set input group:x mute on/off x=[0-2] 0:All, 1:Dante In, 2:Line In	s input group 1 mute on	Set dante in group mute: on	off
r input group x mute	Get input group:x mute on/off status x=[0-2] 0:All, 1:Dante In, 2:Line In	r input group 1 mute	Dante in group mute on	
s input x mute on/off	Set input:x mute on/off x=[0-4] 0:All, 1:Dante In CH1, 2:Dante In CH2, 3:Line In Left, 4:Line In Right	s input 1 mute on	Set dante in ch1 mute on	off
r input x mute	Get input:x mute on/off x=[0-4] 0:All, 1:Dante In CH1, 2:Dante In CH2, 3:Line In Left, 4:Line In Right	r input 1 mute	Dante in ch1 mute on	
s master mute on/off s mute on/off	Set master output mute on/off	s master mute on s mute on	Set master mute on	off
r master mute r mute	Get master output mute on/off status	r master mute r mute	Mute on	
Output Settings				
s output x stereo on/off	Set output:x stereo mode on/off x=[0-3] 0:All, 1:Dante Out, 2:Line Out, 3:Speaker Out	s input 1 stereo on	Set dante in stereo mode on	on
Set dante in stereo mode on	Get output:x stereo mode on/off status x=[0-3] 0:All, 1:Dante Out, 2:Line Out, 3:Speaker Out	r output 3 stereo	Speaker out stereo mode on	

Command	Function	Example	Feedback	Default
s output x gain y	Set output:x gain to y x=[0-6] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right y=[-60.0~12.0] dB gain value, format: s output x gain y	s output 5 gain 0.0	Set speaker out left gain: 0.0dB	0.0dB
r output x gain	Get output:x gain value x=[0-6] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right	r input 5 gain	Speaker out left gain: 0.0dB	
s output x gain+ s output x gain+y	Increase output:x gain by y x=[0-6] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right y=[0.1-72.0] dB step, y can be empty (Step=0.1dB)	s output 5 gain+ s output 5 gain+10	Increase speaker out left gain: 0.0dB Increase speaker out left gain: 10.0dB	
s output x gain- s output x gain-y	Decrease output:x gain by y x=[0-6] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right y=[0.1-72.0] dB step, y can be empty (Step=0.1dB)	s output 5 gain- s output 5 gain-10	Decrease speaker out left gain: 0.0dB Decrease speaker out left gain: -10.0dB	

Command	Function	Example	Feedback	Default
s output x mute on/off	Set output:x mute on/off x=[0-6] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right	s output 5 mute on	Set speaker out left mute on	off
r output x mute	Get output:x mute on/off status x=[0-6] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right	r output 5 mute	Speaker out left mute on	
s output group x vol y	Set output group:x volume to y x=[0-3] 0:All, 1:Dante Out, 2:Line Out, 3:Speaker Out y=[0-100] group volume value	s output group 1 vol 100	Set dante out group volume: 100	100
r output group x vol	Get output group:x volume value x=[0-3] 0:All, 1:Dante Out, 2:Line Out, 3:Speaker Out	r output group 1 vol	Dante out group volume: 100	
s output group x mute on/off	Set output group:x mute on/off x=[0-3] 0:All, 1:Dante Out, 2:Line Out, 3:Speaker Out	s output group 1 mute on	Set dante out group mute: on	Off
r output group x mute	Get output group:x mute on/off status x=[0-3] 0:All, 1:Dante Out, 2:Line Out, 3:Speaker Out	r output group 1 mute	Dante out group mute on	

Command	Function	Example	Feedback	Default
s output x limiter thr y dec z	Set output:x limiter threshold y and decay z x=[1-6] 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right y=[-60.0~0.0]dB: threshold value z=[5-20]: decay value	s output 5 limiter thr -10 dec 10	Set speaker out left limiter threshold: -10, decay: 10	thr=-60, dec=5
s output x limiter on/off	Set output:x limiter on/off x=[1-6] limiter channel (1:Dante1, 2:Dante2, 3:LineL, 4:LineR, 5:SpkL, 6:SpkR)	s output 5 limiter on	Set speaker out left limiter: on	Off
r output x limiter	Get output:x limiter data/status x=[0-6] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right	r output 5 limiter	Speaker out left limiter threshold: 300, decay: 10, status: on	
s output x limiter clear	Clear output:x limiter settings x=[1-6] limiter channel (1:Dante1, 2:Dante2, 3:LineL, 4:LineR, 5:SpkL, 6:SpkR)	s output 5 limiter clear	Clear speaker out left limiter	
s output x delay y	Set output:x delay:y x=[0-6] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right y=[0-50]: Delay Time, Millisecond	s output 5 delay 50	Set speaker out left delay: 50ms	0

Command	Function	Example	Feedback	Default
r output x delay	Get output:x delay value x=[0-6] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right	r output 5 delay	Speaker out left delay: 50ms	
s output x eq stereo on/off	Set output:x EQ stereo mode (same EQ settings) on/off x=[0-3] 0:All, 1:Dante Out, 2:Line Out, 3:Speaker Out	s output 3 eq stereo on/off	Set speaker out left mute on	On
r output x eq stereo	Get output:x EQ stereo mode (same EQ settings) on/off status x=[0-3] 0:All, 1:Dante Out, 2:Line Out, 3:Speaker Out	r output 3 eq stereo	Speaker out EQ stereo mode on	
r output x mute	Get output: x mute on/off status x=[0-6] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right	r output 5 mute	Speaker out left mute on	
s output x delay y	Set output: x delay: y x=[0-6] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right y=[0-50]: Delay Time, Millisecond	s output 5 delay 50	Set speaker out left delay: 50ms	0

Command	Function	Example	Feedback	Default
r output x delay	Get output: x delay value x=[0-6] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right	r output 5 delay	Speaker out left delay: 50ms	
s output x eq stereo on/off	Set output: x GEQ stereo mode (same GEQ settings) on/off x=[0-3] 0:All, 1:Dante Out, 2:Line Out, 3:Spkr Out	s output 3 eq stereo on	Set speaker out GEQ stereo mode on	On
r output x eq stereo	Get output:x EQ stereo mode (same EQ settings) on/off status x=[0-3] 0:All, 1:Dante Out, 2:Line Out, 3:Speaker Out	r output 3 eq stereo	Speaker out EQ stereo mode on	
s output x eq y typ t frq z val aa q bb	Set output:x EQ index:y type t to frequency z gain aa Q bb x=[0-7] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right, 7:All Outputs y=[0-8]: EQ index 0:All t=[1-5]: 1:Parametric, 2:High Shelf, 3:Low Shelf, 4:Lowpass, 5:Highpass z=[20-20000]: Frequency value (Step=1Hz) aa=[-15~15]: Gain value (Step=0.1dB) bb=[0.02~16]: Q value (Step=0.01)	s output 5 eq 1 typ 1 frq 1000 val 3.0 q 1.00	Output : speaker out left Band : 1 Type : parametric Freq : 1000Hz Gain : 3.0dB Q : 1.00	

Command	Function	Example	Feedback	Default
s output x eq y active on/off	Set output:x EQ index:y active on or off x=[0-7] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right, 7:All Outputs y=[0-8]: EQ index 0:All	s output 5 eq 1 active on	Speaker out left EQ 1 active on	
r output x eq	Get output:x EQ value x=[0-7] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right, 7:All Outputs	r output 1 eq	Dante Out CH1 EQ: Band TypeFreq Gain Q OnOff 1 Parametric 32Hz 0.0dB 5.00 off 2 Parametric 32Hz 0.0dB 5.00 off 3 Parametric 32Hz 0.0dB 5.00 off 4 Parametric 32Hz 0.0dB 5.00 off 5 Parametric 32Hz 0.0dB 5.00 off 6 Parametric 32Hz 0.0dB 5.00 off 7 Parametric 32Hz 0.0dB 5.00 off 8 Parametric 32Hz 0.0dB 5.00 off	
s output x eq preset y	Set output:x EQ to preset:y x=[0-7] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right, 7:All Outputs y=[1-3] 1:Flat, 2:Custom1, 3:Custom2	s output 5 eq preset 1	Set speaker out left EQ: Flat	Flat

Command	Function	Example	Feedback	Default
r output x eq preset	Get output:x EQ preset x=[0-7] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right, 7:All Outputs	r output 5 eq preset	Speaker out left EQ: Flat	
s output x eq clear	Set output:x EQ clear x=[0-7] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right, 7:All Outputs	s output 5 eq clear	Clear speaker out left EQ	
Matrix Setting				
s output x from y	Set output:x from y x=[0-6] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right y=[0-4] 0:None, 1:Dante In CH1, 2:Dante In CH2, 3:Line In Left, 4:Line In Right	s output 5 from 1	Set speaker out left from: dante in ch1	
r output x from	Get output:x source from x=[0-6] 0:All, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out Left, 4:Line Out Right, 5:Speaker Out Left, 6:Speaker Out Right	r output 5 from	Speaker out left from: dante in ch1	

Command	Function	Example	Feedback	Default
Preset Setting				
s preset save x	Save the current unit's settings to the specified preset:x All settings except network setting. x=[1-5]: Preset 1 - Preset 5	s preset save 1	Save to preset 1	
s preset recall x	Recall a specified preset:x into unit All settings except network setting. x=[1-5]: Preset 1 - Preset 5	s preset recall 1	Recall preset 1	
s preset clear x	Clear a specified preset:x All settings except network setting. x=[1-5]: Preset 1 - Preset 5	s preset clear 1	Clear preset 1	
s preset x name y	Set preset:x name to y x=[1-5]: Preset 1 - Preset 5 y: Preset name, max 16 characters	s preset 1 name Meeting Room 1	Set preset 1 name: MeetingRoom 1	
r preset x name	Get preset: x name x=[1-5]: Preset 1 - Preset 5	r preset 1 name	Preset 1 name: MeetingRoom 1	
Network Setting				
r ipconfig	Get the Current IP Configuration	r ipconfig	IP Mode: DHCP IP: 192.168.62.106 Subnet Mask: 255.255.255.0 Gateway: 192.168.62.1 TCP/IP port: 8000 MAC:6C:DF:FB :0C:B3:8E (Static: 169.2 54.100.200 255.255.0.0 169.254.100.1)	
r mac addr	Get network MAC address	r mac addr	MAC: 6C:DF:FB :0C:B3:8E	

Command	Function	Example	Feedback	Default
s ip mode x	Set network IP mode to static IP or DHCP x=[0-1] 0.Static, 1.DHCP	s ip mode 0	IP mode: Static (Please use "s net reboot!" command or repower device to apply new config!)	1
r ip mode	Get network IP mode	r ip mode	IP mode: DHCP	
s ip addr xxx.xxx.xxx.xxx	Set network IP address	s ip addr 192.168.1.100	IP address: 192.168.0.100 (Please use "s net reboot!" command or repower device to apply new config!) DHCP on, Device can't config static address, set DHCP off first.	192.168.0.200
r ip addr	Get network IP address	r ip addr	IP: 192.168.0.100	
s subnet xxx.xxx.xxx.xxx	Set network subnet mask	s subnet 255.255.255.0	Subnet Mask: 255.255.255.0 (Please use "s net reboot!" command or repower device to apply new config!) DHCP on, Device can't config subnet mask, set DHCP off first.	255.255.0.0
r subnet	Get network subnet mask	r subnet	Subnet Mask: 255.255.255.0	

Command	Function	Example	Feedback	Default
s gateway xxx. xxx.xxx.xxx	Set network gateway	s gateway 192.168. 1.1	Gateway: 192.168.1.1 (Please use "s net reboot!" command or repower device to apply new config!) DHCP on, Device can't config gateway, set DHCP off first.	192.168.0.1
r gateway	Get network gateway	r gateway	Gateway: 192.168.1.1	
s tcp/ip port x	Set network TCP/IP port (x=1~65535)	s tcp/ip port 8000	TCP/IP port: 8000	8000
r tcp/ip port	Get network TCP/IP port	r tcp/ip port	TCP/IP port: 8000	
s telnet port x	Set network telnet port (x=1~65535)	s telnet port 23	Telnet port: 23	23
r telnet port	Get network telnet port	r telnet port	Telnet port: 23	
s net reboot	Reboot network modules	s net reboot	Search for IP, Please wait ...! IP Mode: DHCP IP: 192.168.62.106 Subnet Mask: 255.255.255.0 Gateway: 192.168.62.1 TCP/IP port: 8000 MAC: 6C:DF:FB :0C:B3:8E (Static: 169.254 .100.200 255.255.0.0 169.254.100.1)	

Command	Function	Example	Feedback	Default
Password Setting				
s admin password x	Set admin login password (x=[16 characters max])	s admin password 1234	admin password: 1234	1234
r admin password	Get admin login password	r admin password	admin password: 1234	
s user password x	Set user login password (x=[16 characters max])	s user password 1234	user password: 1234	1234
r user password	Get user login password	r user password	user password: 1234	

Note: The feedback of the command of "r status" is as following.

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Status Info 150W Class D Amplifier MCU v1.10.3 Web v1.1.0

Power	Volume_LCD	ID_LED	Trigger	Fan_1	Fan_2	Speaker	Baud
On	Always On	Off	off	auto	auto	4Ω	115200

Input	Name	Stereo	Gain(dB)	Mute
01	Dante_In_CH1	On	24.0	Off
02	Dante_In_CH2	On	24.0	Off
03	Line_In_Left	On	24.0	Off
04	Line_In_Right	On	24.0	Off

Output	Name	FromIn	Stereo	Volume	Mute	Delay(ms)
01	Dante_Out_CH1	05	On	50	Off	0
02	Dante_Out_CH2	06	On	50	Off	0
03	Line_Out_Left	01	On	50	Off	0
04	Line_Out_Right	02	On	50	Off	0
05	Speaker_Out_Left	01	Off	50	Off	0
06	Speaker_Out_Right	03	Off	50	Off	0

TCP/IP	Telnet	MAC
8000	0023	00.00.00.00.00.00

DHCP	IP	Gateway	SubnetMask
On	xxx.xxx.xxx.xxx	xxx.xxx.xxx.xxx	xxx.xxx.xxx.xxx
(Static:	192.168.000.100	192.168.000.001	255.255.000.000)

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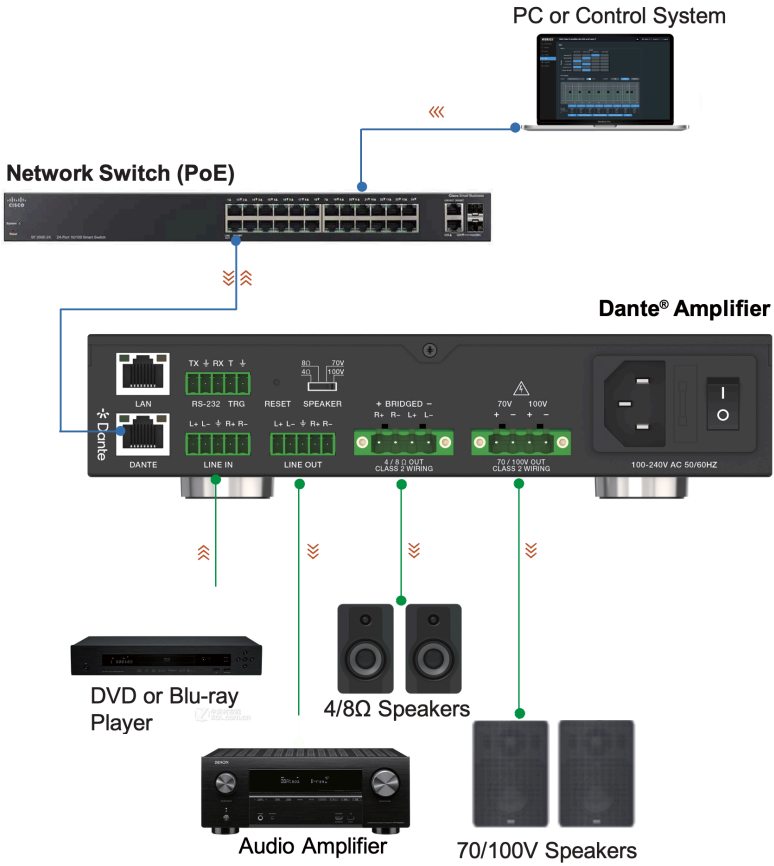
Connection Diagram



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Warranty Statement

Altronic Distributors warrants this product for one year from date of purchase from Altronics or its resellers to the consumer. If this item is part of an installation or another product, please contact the installer or supplier for your warranty.

During the warranty period, we undertake to repair or replace your product at no charge if found to be defective due to a manufacturing fault. The warranty excludes damage by misuse or incorrect installation (i.e. failure to install and operate device according to specifications in the supplied instruction manual), neglect, shipping accident, or no fault found, nor by use in a way or manner not intended by the supplier.

For repair or service please contact your **PLACE OF PURCHASE.**

If this item was purchased directly from Altronics please make a warranty claim by:

FOR MAIL ORDER CUSTOMERS (includes school and trade orders),

a. Ringing us on 08 9428 2122 and quoting your tax invoice number.

b. Upon contacting Altronics, we will issue an R.A. (Return Authorisation). As Altronics have a number of service agents throughout Australia, a copy of the R.A. will be emailed, faxed or mailed to you with full instructions of how and where to send the goods. The freight for shipping goods back to Altronics for all repairs is at the customers expense.

c. A copy of the R.A. form, (or at the very minimum, the R.A. number) must accompany the goods to effect the repair.

d. Altronics will pay the return freight to the customer where the warranty claim has been accepted.

e. Please quote the R.A. number in any correspondence to us.

FOR OVER THE COUNTER PURCHASES to make a warranty claim, please return the goods to us in any of our stores, with a copy of your proof of purchase (tax invoice).

a. Upon leaving the goods at one of our stores, an R.A. number will be issued to you.

b. Once repaired, you will be contacted, advising that the goods are ready to be collected from the store.

It is at Altronics discretion as to whether the goods will be repaired or replaced (whilst under warranty); and as to whether identical goods will be used to replace the item due to changes of models / products.

Note: Under no circumstances should you attempt to repair the device yourself or via a non-authorised Altronics service centre, as this will invalidate the warranty!

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

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