



NDS4831A

User Manual



DIGITAL SOUND AMPLIFIER

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YOUR DSP

Thank you for your purchase and welcome to the world of Nakamichi! Please keep your original proof of purchase or invoice in a safe place in case of any warranty claims. Do also mail or register your warranty with the official Nakamichi service centers and/or agents to ensure that you are provided with the relevant technical support if required.

Notice

1. To prevent short circuit, please keep the device away from water or wet places.
2. If water or any other liquid soak into the device, cut off the power immediately, and call our service engineer of inspection, in case of emergency.
3. Users are not allowed to dismount the device, please contact our service engineers when it's necessary.

Troubleshooting

Check all the cables and ports all perfectly safe before you switch on the power. Common troubleshooting procedure:



Troubleshooting method:

No.	Malfunction	Reason and Solution
1	No Power	<ul style="list-style-type: none">• Check the power connection.• Check the ACC connection.
2	No Sound	<ul style="list-style-type: none">• Is it in mute mode.• Have you choose the right input signal channel.
3	Unable to connect USB	<ul style="list-style-type: none">• Check the USB connection.• Check if the driver "HID-compliant device" has been installed in your PC.

Whats' in the Box

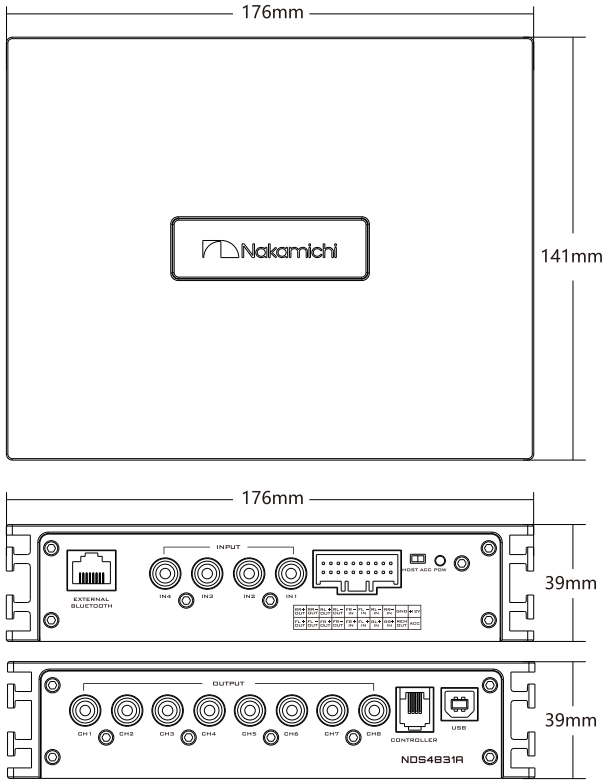
NDS4831A	1pc
User Manual	2pcs (1 Chinese, 1 English)
USB2.0 Cable(1.5m)	1pc
Installation Bracket	4pcs
Self-Tapping Oval Head Screws(4x20mm)	4pcs
Cross Head Mechanical Screws(3x6mm)	8pcs
Velcro	2prs

PRODUCT TECHNICAL DATA

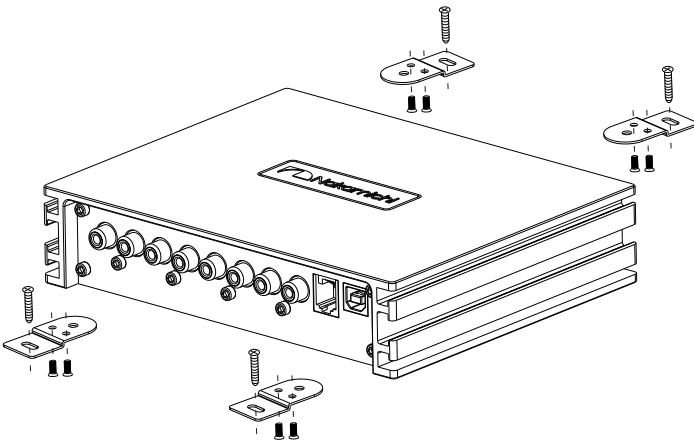
Product Data	
Dynamic Range(RCA Input)	≥100dB
S/N (RCA Input)	≥90dB
THD	≤0.05%
Frequency Response	20Hz ~ 20KHz
Input Impedance	Low level :20KΩ; High level :240Ω
Low Level Output Impedance	51Ω
Signal Input Range	RCA:5.7Vpp; High level:26Vpp
Signal Output Range	RCA:5.7Vpp; Amplifier Maximum Power:4x50W@4Ω
Working Temperature	-20 ~ 70°C
Power	DC 9V ~ 16V
REM Input	High level input signal:FL+/FL- or ACC control cable
REM Output	+12V Start up voltage output
Standby Power	≤0.1W
Gross Weight	Approx. 1.1kg
Product Dimension	176(L) x 141(W) x 39(H)mm

Technical Sheet	
Input Type	4 Channels high level, 4 Channels low level,supports internal Bluetooth and external Bluetooth
Output Type	8 Channels low level,4 Channels 50W power
Output Gain	Gain range: Mute, -59dB ~ 6dB
Output Signal EQ	Sound field 31-band equalizer engine 1. Frequency range: 20Hz ~ 20KHz, 1Hz Accuracuy 2. Q value (slope): 0.404 ~ 28.85 3. Gain: -12.0dB ~ +12.0dB, 0.1dB Accuracuy
Output Signal Crossover	Each output is equipped with multi-order high and low pass independent filters. 1. Professional filtering types: Link-Ril, Butter-W, Bessel 2. Filtering frequency division point: 20Hz ~ 20KHz. Resolution 1Hz 3. Filter slope (slope)setting: 6dB/Oct to 48dB/Oct
Output Phase and Time Alignment	Each output channel can be adjusted for phase and delay, parameter range: Phase: in-phase or reverse-phase (0 ° / 180 °) Delay: 0.000 to 20.000 ms , 0 to 692 cm, 0 to 273 inch
Presets	Save 6 presets into the device

PRODUCT DIMENSION:

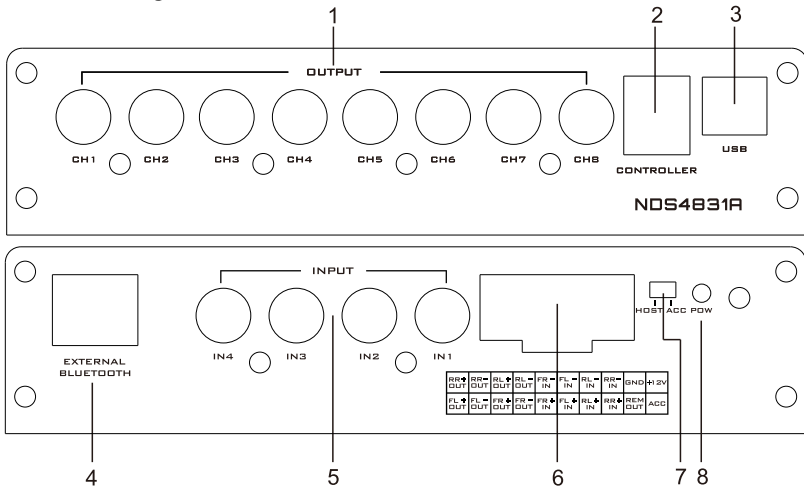


INSTALLATION INSTRUCTION:



INTRODUCTION

The interface diagram is as follows :



1. Low Level output port

Connect up to 8channels low level output.

2. The controller port

Data call and total volume adjustment can be performed by the line controller.

3. USB2.0 Port, Connect to the computer tuning software

No need to download the driver installation, connected to the computer sound software installed automatically.

4. External Digital Bluetooth Input

Connect the external Bluetooth, the LED indicator will flash, the indicator will stop flash and will be always on once you have connected your Mobile phone to the device, then you can play music in your phone, and the device will change the high level input to Bluetooth input.

Notes: Android Phone, APP function only can be used when on Bluetooth Mode.

5. Low Level input port

Connect up to 4 channels low level input.

6. High level input and output port

RR+	RR-	RL+	RL-	FR-	FL-	RL-	RR-	GND	+12V
OUT	OUT	OUT	OUT	IN	IN	IN	IN	ACC	
FL+	FL-	FR+	FR-	FR+	FL+	RL+	RR+	REM	ACC
OUT	OUT	OUT	OUT	IN	IN	IN	IN	OUT	

a. "+" is positive or positive; "-" is negative or inverted (ground).

b. Only the special wire for the original car is selected, or the user can define the external wiring material by himself.

c. Before connecting the power supply, you must confirm that the power supply meets the designed power requirements and connect in strict accordance with the equipment instructions. Otherwise, the equipment may be damaged and may cause accidents such as fire, electric shock, etc.

7. Machine start mode switch

When the switch is turned to the "ACC" terminal, the machine is started by ACC, and when it is turned to the "HOST" terminal, the machine is started by the high level FL+/FL- input signal.

8. Power indicator light

SOFTWARE INTRODUCTION

PC Software Operation Introduction

(PC can be downloaded from the official website (<http://www.nakamichicarudio.com>), CONTACT, Downloads))

Computer Configuration Requirements: Screen resolution higher than 1280 x 768, otherwise the software UI is incomplete, only suitable for windows operation system laptop, desktop and pads.

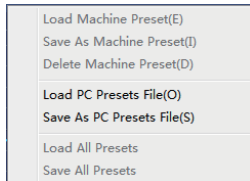


1. Menu editing area

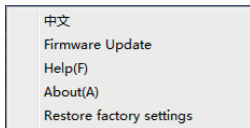


Main functions: memory, options, mixer, machine connection, mode switching and input source selection operation.

- a. Click the "Memory" pop-up window, and select Load Machine Preset Scene, Save As Machine Preset Scene, Delete Machine Preset Scene, Load Computer Scene, Save As Computer Scene, Load Whole Machine Scene, or Save Whole Machine Scene.

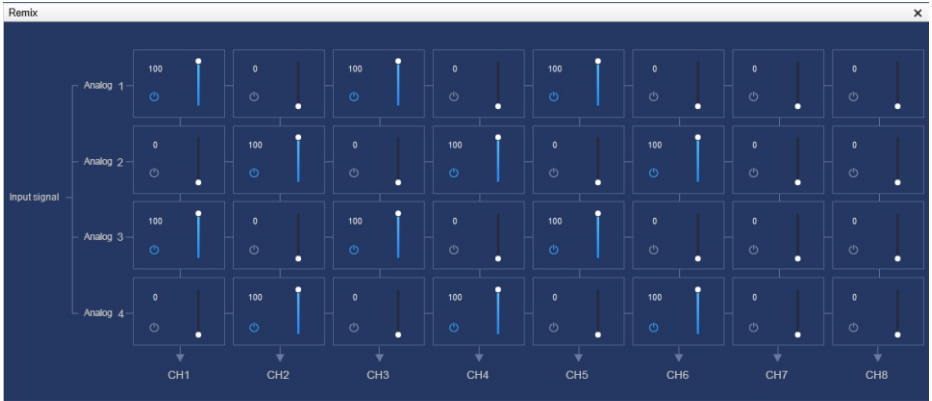


- b. Click on "Options" to select Chinese and English switching, firmware update, help, about and Restore factory settings.



- c. Click "Mixer" to enter the mixing interface, select the input audio source to enter the "Analog" or "Bluetooth" mixing interface. The analog interface is shown below.

SOFTWARE INTRODUCTION



d. Click the "Not Connected" button to connect the host with a PC.



- e. Click "Amp + Processor" to switch to "Processor" mode.
- f. The input sound source has analog and Phone options.

2. Main volume and software connection editing area



Main volume adjustment range: off, -59dB ~ 6dB. Click the speaker button to mute the main volume.

3. Output channel editing area



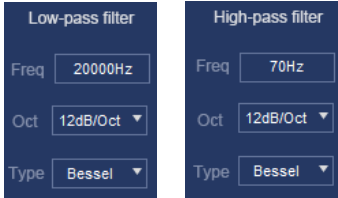
Main function: Main functions: output channel type selection and lock, channel delay, volume and forward and reverse adjustment.

- a. Channel type: Click the output channel type edit box to configure the channel type.
- b. Reset channel type: Click the "Reset Output" button, click "Clear" in the pop-up dialog to make the channel type empty, and click "Default" to Return the output channel to the factory setting state.
- c. Channel lock: Click the "Output Lock" button to lock the currently set channel type is not select able. Click "Locked Output" to unlock.
- d. Link: Click the Link to set the Link synchronization mode: copy from left to right or copy from right to left.
- e. Delay: set the delay value by scrolling the mouse wheel in the delay input box, or enter the value to set the delay value, Delay range: 0.000 ~ 20.000 milliseconds, 0 ~ 692 cm, 0-273 inches.
- f. Delay Unit button: Click the drop-down list to select milliseconds, centimeters, and inches.

SOFTWARE INTRODUCTION

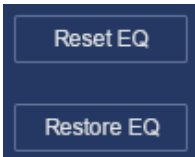
- g. Volume adjustment: Push the fader up or down to adjust the sound, or enter a value or roll the mouse wheel in the volume input box to adjust the sound. Click the horn button for silent switching.
- h. Positive phase adjustment: Click [0°] or [180°] to switch between positive phase and reverse phase.

4. Channel divider editing area



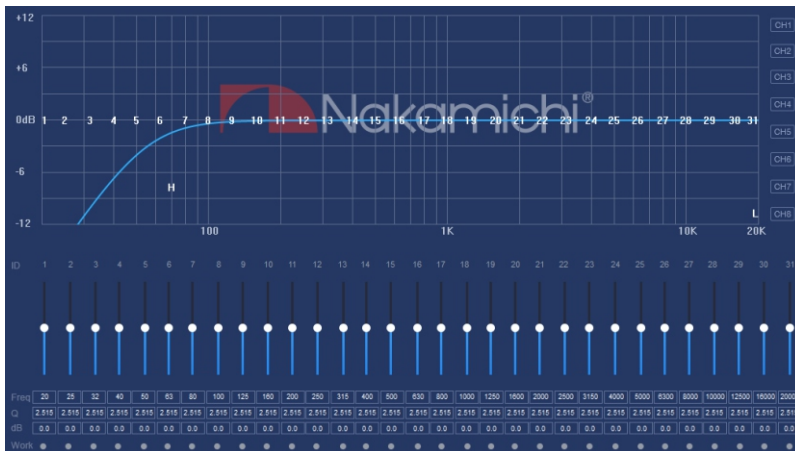
Main Function Setup: Channel High & Low Pass Filter Setup.
Adjustable: Filter Type, Frequency point and Q Value (Gradient or Slope).

5. Equalizer editing area



- a. Reset EQ: It is used to restore the parameters of the 31-band equalizer to the original pass-through mode (the frequency of the equalizer, the Q value and the gain are restored to the initial value).
- b. Restore EQ: Switch between the currently designed equalizer state parameters and the pass-through mode (the gain of all equalization points is restored to 0 dB, the frequency and value are unchanged).

6. Channel EQ area



Main function configuration: Equilibrium design of current output channel, 31-band equalization adjustable: frequency, Q value (response bandwidth) and gain (increasing or decreasing the frequency response amplitude near the frequency point).

SOFTWARE INTRODUCTION

Smart-phone Software Operation Instruction

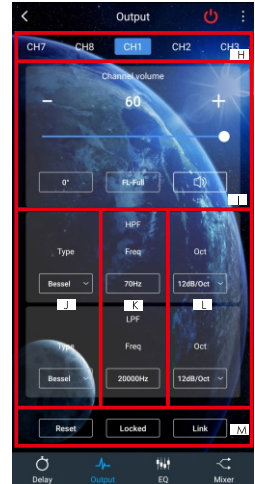
(APP can be downloaded from the official website (<http://www.nakamichicaraudio.com>, CONTACT, Downloads))



Home



Delay



Output

1. Home interface

It can restore factory settings, share sound effects, save sound effects, turn on local sound effects, select amplifier and processor modes, view the model and version number of this unit, and exit software operations; volume, sound source, mode settings; storage and recall of 6 sets of preset scenes

A. Connection Status:

Red means not connected, green means connected.

B. Menu:

You can restore factory settings, share sound effects, save sound effects, turn on local sound effects, check the model, select amplifier and processor modes and version number of this unit, and exit the software operation.

C. Volume adjustment:

Press and hold the volume scale clockwise or counterclockwise to adjust the volume. The main volume range is 0~66. The subwoofer range: 0~60. The medium, high and low volume range -12dB ~ +12dB. Tap the speaker button to mute the master volume. Sound source: Analog and Bluetooth to choose from.

D. Advanced settings:

Click [Advanced Settings] to enter the settings of the delay interface, channel interface, EQ interface and mixing interface.

E. Scene preset:

There are 1~6 presets to choose from.

2. Delay interface

Sound field positioning output delay adjustment.

F. Delay setting:

Click the speaker of the corresponding channel to enter the delay setting window of the corresponding channel. Slide the dots left and right to set the delay value. Delay settings can be made for CH1 to CH8 speakers.

millisecond range: 0.000~20.000; cm range: 0~692; inch range: 0~273.

G. Unit switching:

Switch between milliseconds, centimeters, and inches.

3. Channel interface

Channel high-low-pass crossover setting with high-low-pass independent filtering. Adjustable: Filter type, frequency and Q value (slope or slope).

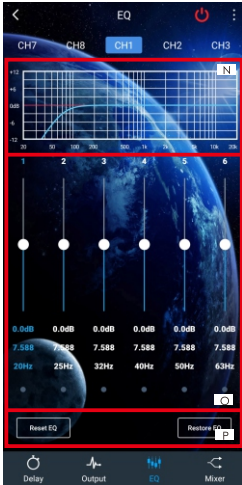
H. Output channel selection:

Eight channels are available.

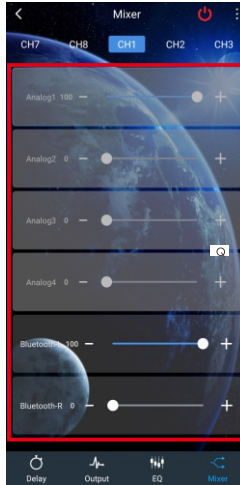
I. Output channel volume setting:

You can adjust the volume by sliding left and right. The volume range is 0~60. Click the speaker button to mute.

SOFTWARE INTRODUCTION



EQ



Mixer

J. Channel type:

Choose from Link-Ril, Butter-W and Bessel.

K. Frequency Range:20Hz~20KHz.

L. Slope selection:

6dB/Oct, 12dB/Oct, 18dB/Oct, 24dB/Oct, 30dB/Oct, 36dB/Oct, 42dB/Oct, 48dB/Oct can be selected.

M. Joint tuning and channel type settings:

Click the joint tuning button to bring up the joint tuning window and select the joint tuning method.

Click the lock button to lock the current channel, which cannot be customized.

Click Reset to reset the output channel type and make the output type customizable.

4. EQ interface

Corresponding to the adjustment of the output channel EQ curve (gain, Q value and frequency); reset equalization, pass-through equalization or parametric equalization operation settings.

N. EQ display:

Edit the display area.

O. Output EQ gain, Q value and frequency settings:

Output EQ gain setting: A total of 31 EQ, left and right sliding screen can select EQ, you can drag the slider up and down. Select the

first line value, and drag the slider bar left and right in the pop-up dialog box to adjust the adjustment range: -12dB~+12dB. Q value: Click the second line value, and drag the slider bar left and right in the pop-up dialog box to adjust, the adjustment range is 0.404~28.852. Frequency setting: Click the third line value, and drag the slider bar left and right in the pop-up dialog box to adjust it. The adjustment range is 20Hz~20KHz.

P. Reset equalization, restore equalization, pass-through equalization settings:

Click [Reset EQ] to restore the parameters of the 31-band equalizer to the original pass-through mode (the equalizer frequency, Q value and gain are restored to their initial values).

When there is channel adjustment, display [straight-through equalization], click [straight-through equalization], click [OK], all values (frequency, Q value and gain) will return to the initial value. At this time, the [straight-through equalization] button will become [recovery equalization]. Press the button and click [Resume Equilibrium], all values (frequency, Q value and gain) will be restored to the value before the pass-through.

5. Mixing interface

6 Analog, Bluetooth left and Bluetooth right mixing selection and adjustment can be performed. The adjusting range is 0~100.

CONTACT WITH US

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 [nakamichi.caraudio](https://www.instagram.com/nakamichi.caraudio)

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