Nakamichi NDSD200 DSD Player with DSP User Manual

NDSD200
User Manual

Contents

NDSD200 DSD Player with DSP

DSD PLAYER WITH DSP

INTRODUCTION AND TROUBLESHOOTING

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 damp places.
2. If water or any other liquid enters the device, cut off the power immediately, and inform the nearest Nakamichi Service Center or Agent to inspect the product.
3. Users are not recommended to disassemble the device as there are no user-serviceable parts inside, please contact the nearest Nakamichi Service Center if necessary.

TROUBLESHOOTING

Ensure all cables and parts are securely connected before turning on the power. Shown below is the basic troubleshooting procedure that you should follow.

When a failure occurs:
Before sending the unit for repair, please refer to the table for common troubleshooting solutions.

→

When it is still not repairable after inspection:
Please return the unit to factory settings

→

Still unable to repair:
Please consult the nearest service center or authorized agent for further aptions

Troubleshooting method:

No.	Malfunction	Reason and Solution
1	No Power	• Check the power connection and make sure it's secure. • Check the ACC connection and make sure it's secure.
2	No Sound	• Double-check if the unit is in MUTE mode. • Check if you have chosen the correct input channel.
3	Unable to connect through USB	• Check the USB connection and make sure it's secure. • Check if the driver " HID-compliant device " has been properly installed in your PC.

WHAT'S IN THE BOX

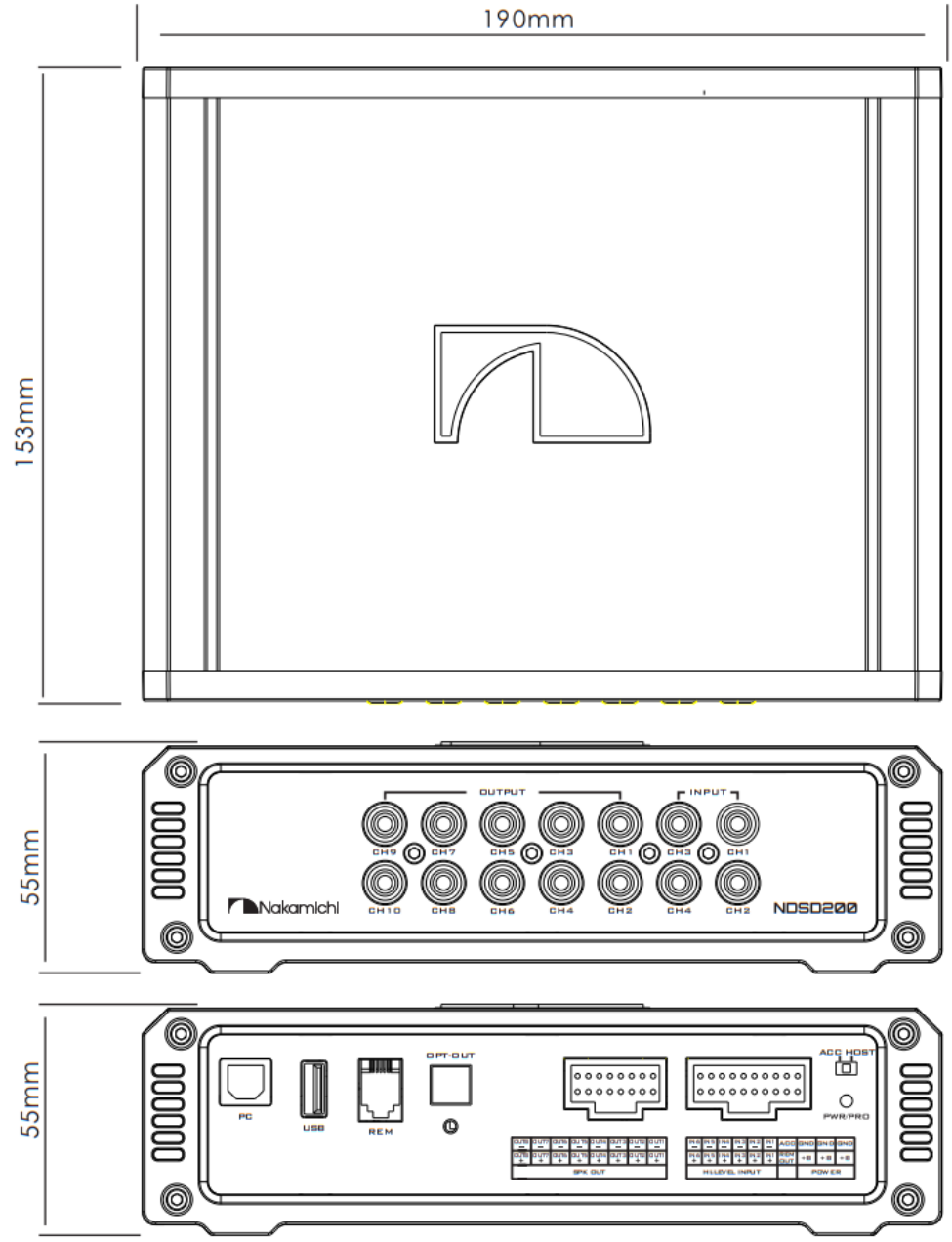
NDSD200	1Pc
User Manual	2Pcs (1Chinese,1English)
USB2.0 Cable(1.5m)	1Pc
Mechanical flat head screws(PM3x6mm)	8pc
Self-Tapping Oval Head Screws(PA4x2Omm)	4Pc
Mounting brackets	4Pcs
Velcro(160x2Omm)	2Prs
20P high level input and power cable(18cnn)	1 Pc
16p Speaker cable(l8cm)	1 PC
20A FUSE	1 PC

PRODUCT TECHNICAL DATA

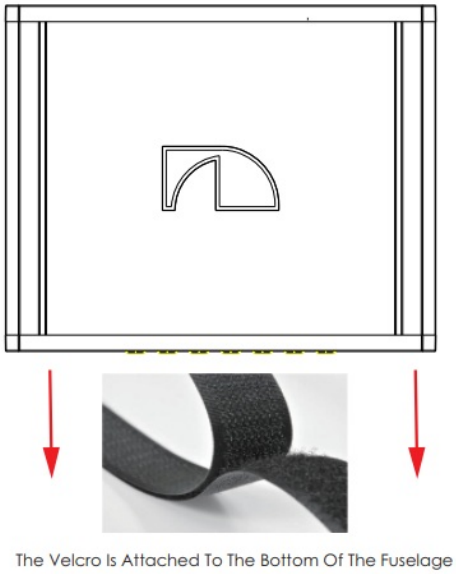
Product Data	
Dynamic Range(RCA Input)	≥100dB
S/N(RCA Input	>55dB
THD	<0.5%
Frequency Response	20Hz-40KHz
Input Impedance	High Level: 510
Low Level Output Impedance	510
Signal Input Range	RCA: 7.5Vpp; High Level: 26Vpp
Signal Output Range	RCA: 7.5Vpp; Max Power: 8CHx5OW
Working Temperature	-20 – 70°C
Supported Audio Formats	DSD64/DSD128/DSD256/Mp3/WMA/WAV/APE/FLAC DSD file format: “ .dff” , “.dsf”
Support hard disk capacity	2T
Power	DC 9V-15V
REM Input	High Level Input Signal: Hl +/H1- or ACC control cable
REM Output	+12V Startup Voltage Output(250mA)
Standby Power	0.1W
Net Weight	Approx.1.2kg
Product Dimension	190(L)xl 53(W)x55(H)mm

Technical Sheet	
Input Type	6 CH High Level, 4 CH Low Level, Built-in Bluetooth, U disk music
Output Type	10 Channels Low Level, Optical, Max Power: 8CHx5OW
Output Gain	Gain Range: Mute,-59.9dB-6dB
Output Signal EQ	31 Band Equalizer Engine: 1. Frequency range: 20Hz-20KHz, 1 Hz Accuracy 2.Q value (slope): 0.404-28.852 3.Gain: -20.0dB- +20.0dB, 0.1dB Accuracy
Output Signal Crossover	Each output is equipped with multi-order high and low pass independent filters. 1.Filtering types: Link-Ril, Butter-W, Bessel 2. Filtering frequency division point: 20HZ-20KHz. Resolution 1 Hz 3.Filter slope (slope) setting: 6dB/ Oct to 48dB /Oct and OFF
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 20.000ms. 0 to 692 cm, 0 to 273 inch
Presets	6 Presets into the device

PRODUCT DIMENSIONS

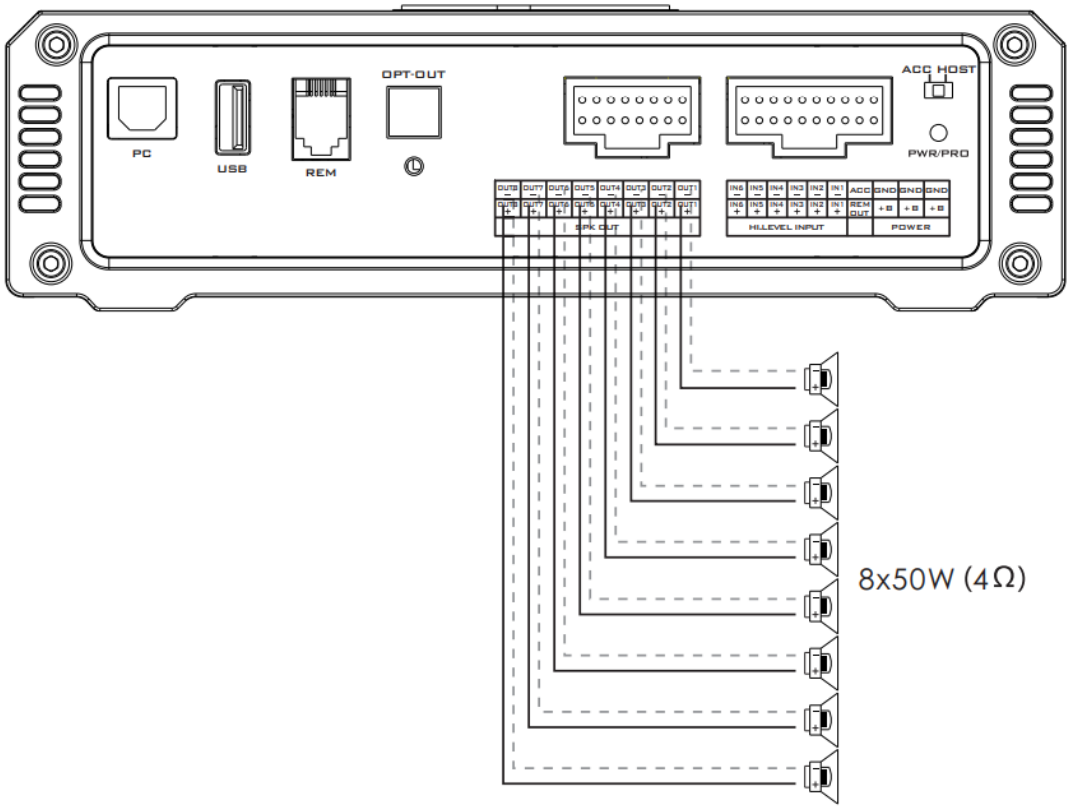


INSTALLATION INSTRUCTIONS



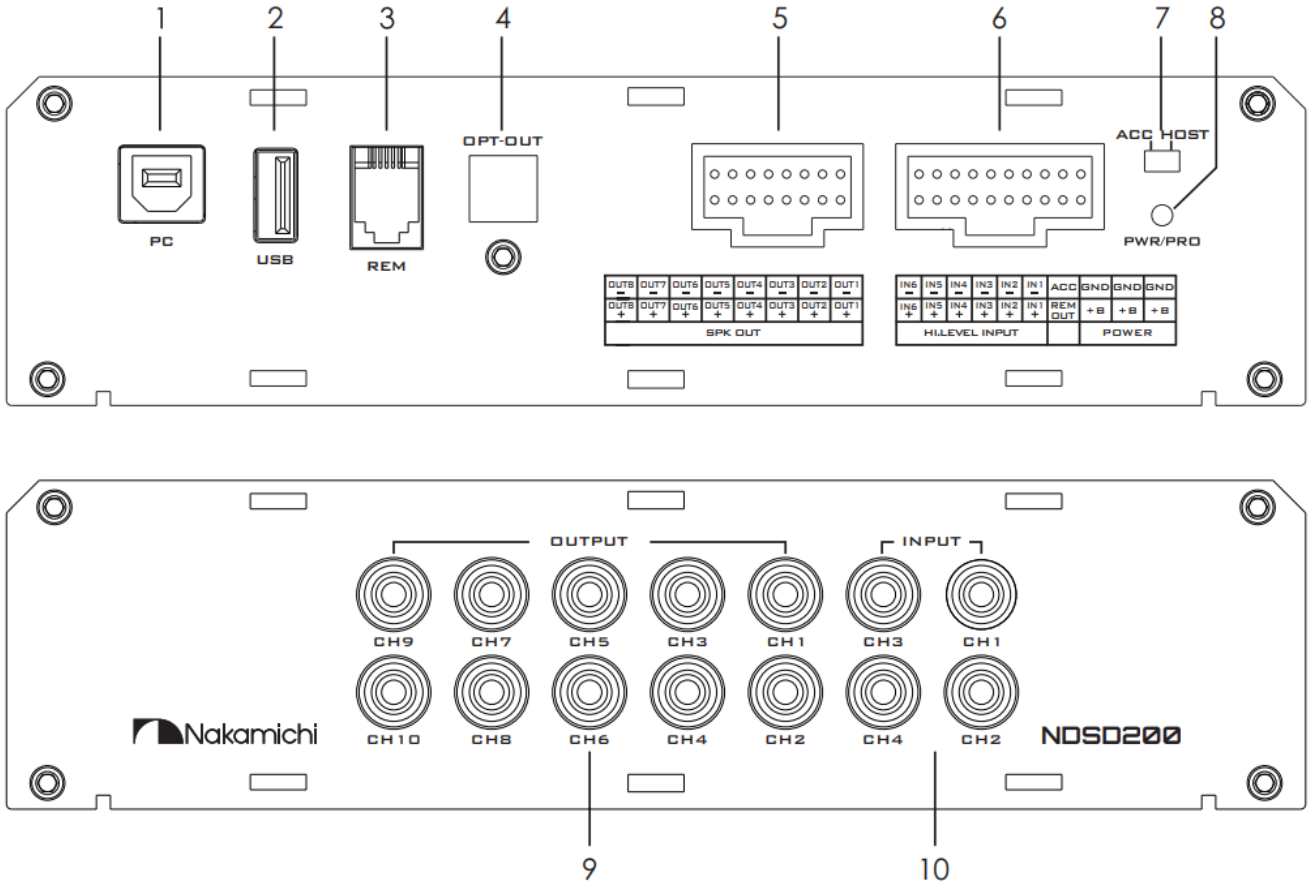
The Velcro Is Attached To The Bottom Of The Fuselage

THE SPEAKER WIRING IN NORMAL MODE



INTRODUCTION

The machine interface diagram is as follows:



1. **USB2.0 Port, Connect to the computer tuning software**

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

2. **USB port**

   Insert the USB flash drive and play the song in the USB flash drive under the player audio source.

   SUPPORTED AUDIO PLAYBACK LIST

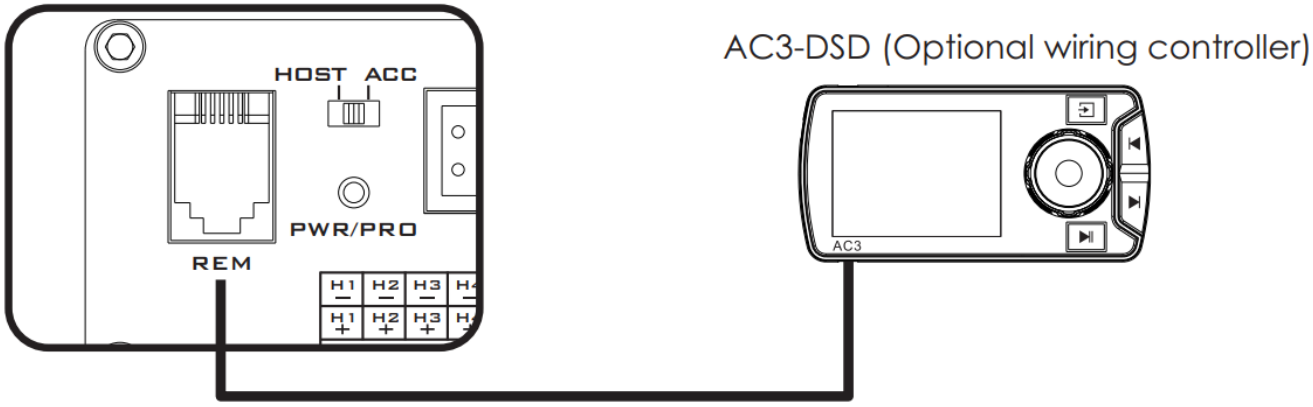
Audio	Stream	Sampling Rate	Remark
MP3	32kbps-384kbps	8/11.025/12/16/22.05 24/32/44.1/ 48KHz	MP EG1/2/2.5 layer 118(111
WMA	Okbps-320kbps	8/11.025/12/16/22.05 24/32/44.1/ 48KHz	WMA standard 4/4/1/7/8/9.1
WAV	32kbps-384kbps	8/11.025/12/16/22. 5/ 24/32/44.1/ 48KHz	4bit ADPCM only
		8/16/22.05/24/32/	PCM Bit width
APE	all bitrates allowed	44.1/48KHz	8/12/16/24bits
		8/16/22.05/24/32/	PCM Bit width
FLAC	all bitrates allowed	44.1/48KHz	8/12/16bits
DSD64	all bitrates allowed	2.8224MHz	dsf dff
DSD128	all bitrates allowed	2.8224MHz	dsf dff
DSD256	all bitrates allowed	2.8224MHz	dsf dff

   SUPPORTED DEVICES

Audio	Maximum capacity	Device format
USB	256GB	FAT32/NTFS
Micro SD/TF	256GB	FAT32/NTFS
SSD/HDD	2T	FAT32/NTFS

3. **The controller port**

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



4. **Optical input port**

   Connect on-board or other audio equipment and switch the sound source of the machine to digital output.

5. **High level output port**

OUT8 −	OUT7 −	OUT6 −	OUT5 −	OUT4 −	OUT3 −	OUT2 −	OUT1 −
OUT8 +	OUT7 +	OUT6 +	OUT5 +	OUT4 +	OUT3 +	OUT2 +	OUT1 +
SPK OUT							

6. **High level input and power port**

   1~6 High level input.

IN6 −	IN5 −	IN4 −	IN3 −	IN2 −	IN1 −	ACC	GND	GND	GND
IN6 +	IN5 +	IN4 +	IN3 +	IN2 +	IN1 +	REM OUT	+ B	+ B	+ B
HI.LEVEL INPUT							POWER		

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 H1+/H1- input signal.

8. **Power indicator light/Protection indicator light**

   Low level output port

   Connect up to 10 channels of low-level output.

9. **Low level input port**

   Connect up to 4 channels low level intput.

SOFTWARE INTRODUCTION

PC Software Operation Introduction

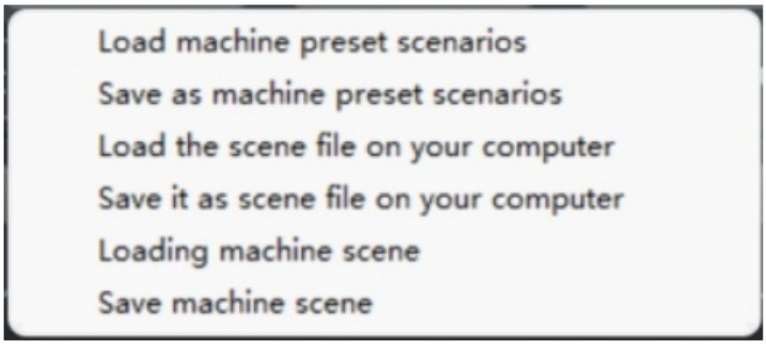
(PC can be downloaded from the official website (http://www.nakamichicaraudio.com, CONTACT, downloads)) Computer Configuration Requirements: Screen resolution higher than1280 x 768, otherwise the software UI is

incomplete and only suitable for windows operation system laptops, desktops,s, and pads.

1. **Menu editing area**

Main functions: File, options operation.

a. Click the “File” pop-up window, and select to load the scene on your computer, save it as scene on your computer, load the whole machine scene or save the whole machine scene.



Note: If you need to share tuning parameters, please connect the machine, and “save machine scene” to the personal computer to share this ” machine scene”.

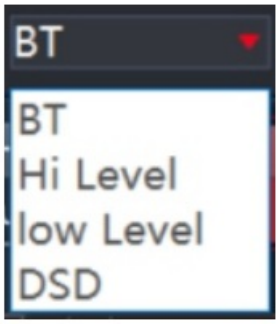
b. Click on “Option” to select Chinese and English switching, Noise Gate, RESET, InPutVOL, and About(A)

2. **Function editing area**

Main functions: scene, master source, mixer source, channel type, link, mixer, and mode settings.

a. Scene: 6 sets of scene data can be recalled or stored.

b. Master source: Click the input audio source drop-down list to select the input audio source. BT, Hi-Level, Low Level, and DSD.



c. Reset: Click Reset to clear the channel type or restore the default channel type.

d. Link: Click the Link to set the Link synchronization mode: copy from left to right or copy from right to left.

e. Click “Mixer” to enter the mixing interface, the interface is as shown below.

f. Click “Audio” to switch to Sound mode.

3. **Main volume and software connection editing area**

Main functions: master volume and computer software connection settings.

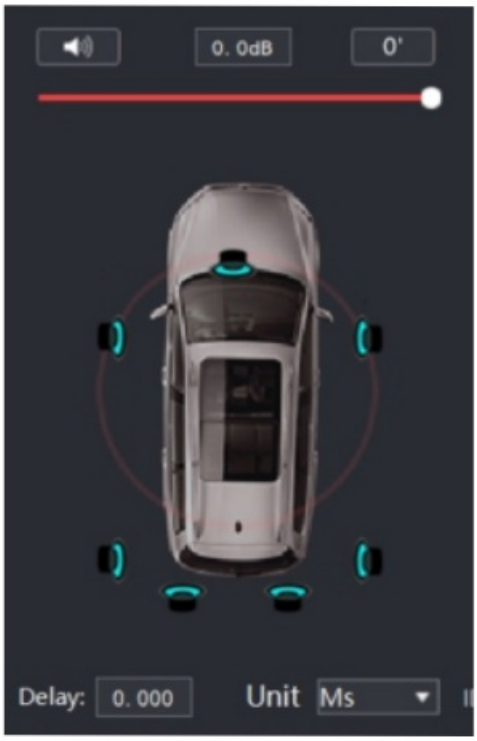
a. Main volume adjustment range: off, -59.9~6dB. Click the speaker button to mute the main volume.

b. Click the “Not Connected” button to connect the host with a PC.

4. **Output channel type editing area**

Main function: configure the type of output channel.

5. **Channel delay, volume, phase editing area**



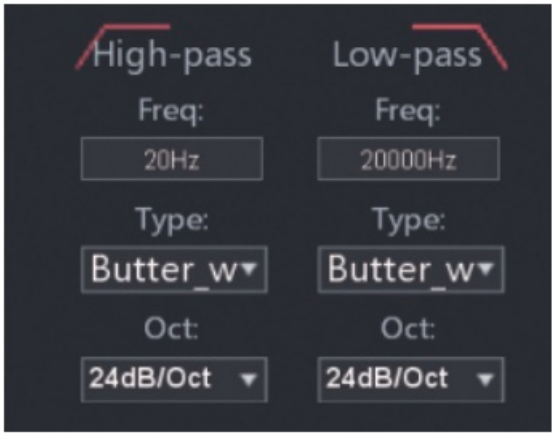
a. Push the fader left or right to adjust the sound size, or enter a value or roll the mouse wheel in the volume input box to adjust the sound size. Click the speaker button to switch mute.

b. Positive phase adjustment: Click 0° or 180° to switch between the positive phase and reverse phase.

c. \Delay: set the delay value by scrolling the mouse wheel in the delay input box, or enter the value to set the delay value.

d. Delay Unit button: Click the drop-down list to select milliseconds, centimeters, and inches.

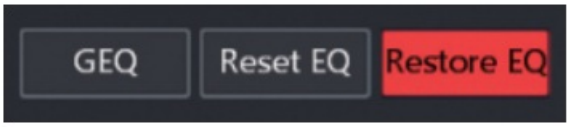
6. Channel divider editing area



Main Function Setup: Channel High & Low Pass Filter Setup.

Adjustable: Filter Type, Frequency point, and Q Value (Gradient or Slope).

6. **Equalizer editing area**

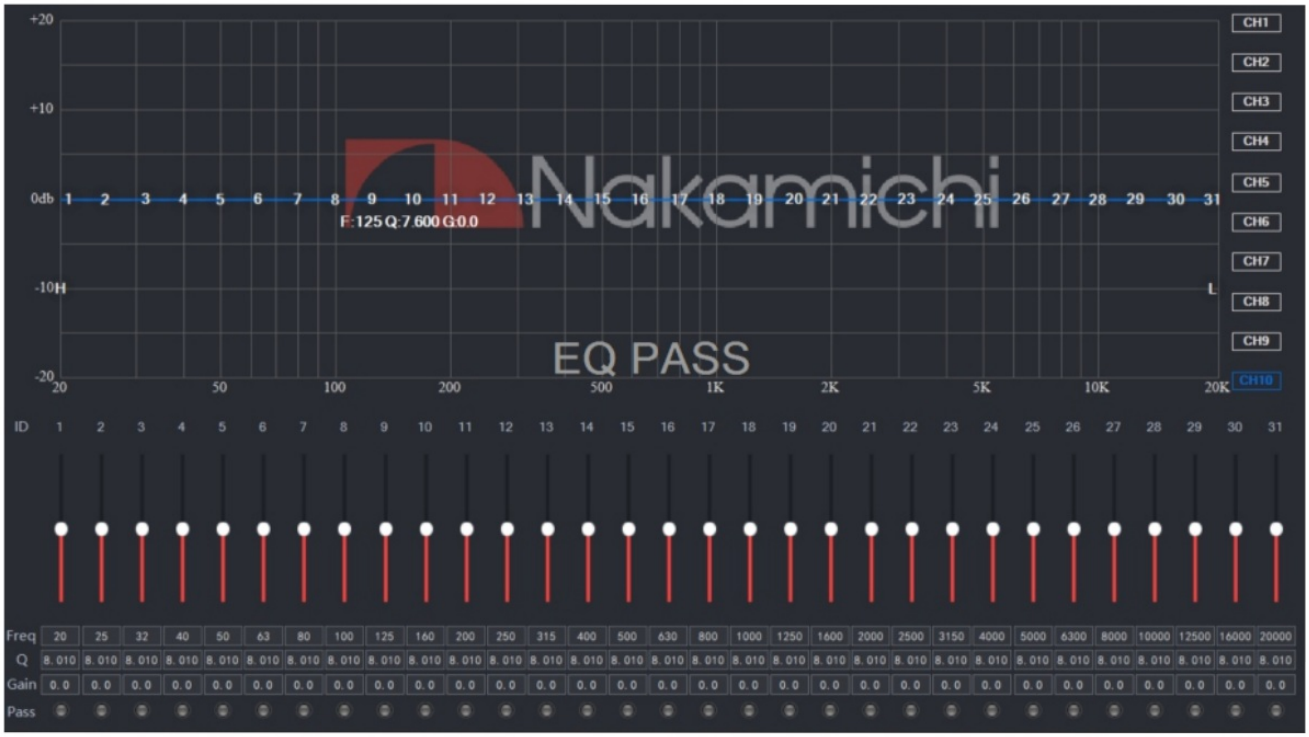


a. Reset EQ: It is used to restore the parameters of all equalizers to the original pass-through mode (the frequency of the equalizer, the Q value, and the gain are restored to the initial value).

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, and the frequency and value are unchanged).

c. Click PEQ Mode to switch to GEQ Mode. The Q value and frequency cannot be adjusted in the PEQ Mode interface.

7. **Channel EQ editing 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(SMARTPHONE)

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, check the model and version number of the unit, and exit the software

   operation; volume, master source, storage, and recall of 6 sets of preset scenes.

   A. Connection Status:

   Red means not connected, and green means connected.

   B. Menu:

   You can restore factory settings, share sound effects, save sound effects, turn on local sound effects view the model and the version number of the machine, and exit

   the software operation.

   C. Master source:

   Master source: Bluetooth / Hi.level /Low level / DSD.

   D. 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 is 0~60.

   E. Scene preset:

   There are 1~6 presets to choose from.

   F. Advanced settings:

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

2. **Delay interface**

   Sound field positioning output delay adjustment.

   G. Unit switching:

   Switch between milliseconds, centimeters, and inches.

   H. Delay setting:

Click the setting window of the corresponding channel. Slide the dots left and right to set the delay value. Delay settings can be made for CH1~ CH10 speakers.

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

3. **Channel interface**

Channel high-low-pass crossover setting with high-low-pass independent filtering.

EQ

Mixer

Adjustable: Filter type, frequency, and Q value (slope or slope).

I. Output channel selection:

Ten channels are available.

J. 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. Configurable output channel type, forward and reverse

switching.

K. Channel divider selection:

Channel type: Choose from Link-Rill,

Butter-W and Bessel.

Frequency Range: 20HZ~20KHz.

Slope selection:

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

L. Joint tuning settings:

Click[link] on the joint debugging window that will pop up, and select the joint debugging method.

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.

M. EQ display:

Edit the display area.

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

Output EQ gain setting: A total of 31 EQ. left and right sliding screens 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: -20dB ~ +20dB.

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.

O. 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] the 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. Click [P.EQ Mode], click [OK] to switch to Graphic Equalization, click [G.EQ Mode], click [OK] to switch to Parametric Equalization.

5. Mixing interface

Four sound source modes can be selected. It includes the mixing selection and adjustment of 6 groups of high-level, Bluetooth left and right channels, DSD left and right channels, and aux left and right channels. The adjustment range is 0-100.

CONNECT WITH US ONLINE TO EXPLORE NAKAMICHI'S COMPLETE RANGE,
INSTRUCTIONS & SOFTWARE DOWNLOADS, AND WARRANTY REGISTRATION.

http://www.nakamichicaraudio.com
WWW.NAKAMICHICARAUDIO.COM

nakamichi.global

nakamichi.caraudio

Nakamichi Corp, Japan
Made in China

Documents / Resources

	Nakamichi NDSD200 DSD Player with DSP [pdf] User Manual NDSD200 DSD Player with DSP, NDSD200, DSD Player with DSP, Player with DSP, DSD with DSP

References

- Nakamichi Mobile Audio Systems – Nakamichi Car Audio