



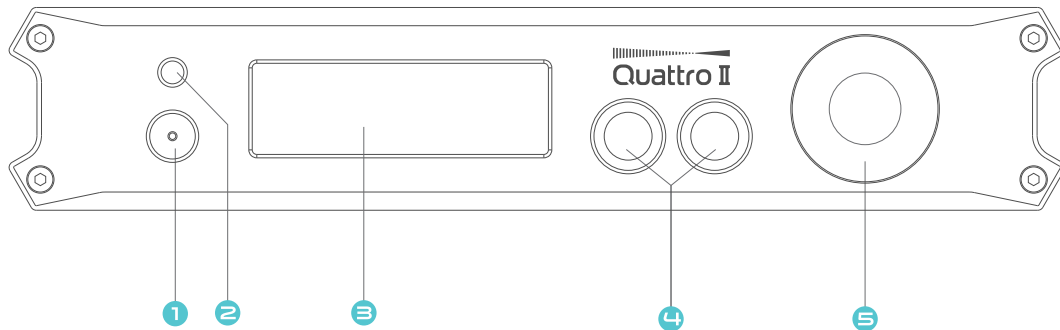
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# Manual

## Overview

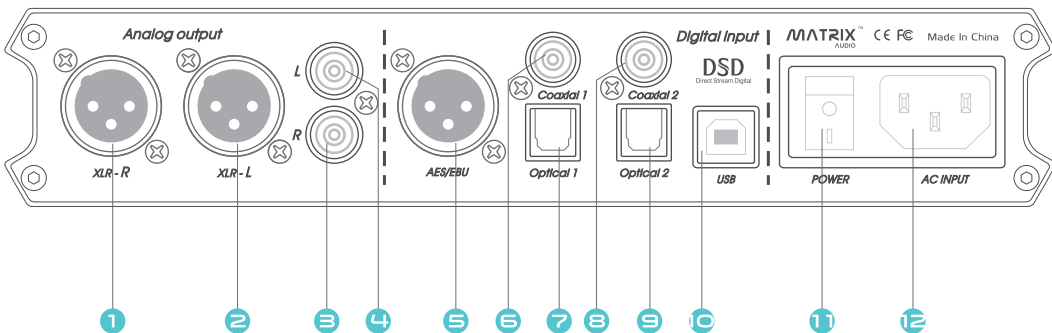
- All new designed appearance
- ESS ES9018S top-level D/A chip
- XMOS U-series asynchronous USB interface chip
- LME49720 analog channel ultra-low distortion op-amp
- LME49600 low impedance, low distortion headphone amplifier, dual headphone output
- NORATEL audio transformer, 12 groups LDO, 2 groups are ultra-low-noise analog power LDO
- Two optical inputs, two coaxial inputs, up to 6 digital inputs channels total
- FPGA independent DSD decoding algorithm supports multiple encoding
- The newly designed display interface, split-screen display to show the different status information, clear and intuitive
- The sample rate support up to 32 bit/384kHz PCM signal and 1bit/DSD256 DSD signal playback
- All digital input ports support DSD decoding, support DoP, ASIO Native, and dCS method DSD encoding
- XMOS, MCU, and FPGA firmware can be updated via USB port by client-side

## Front Panel



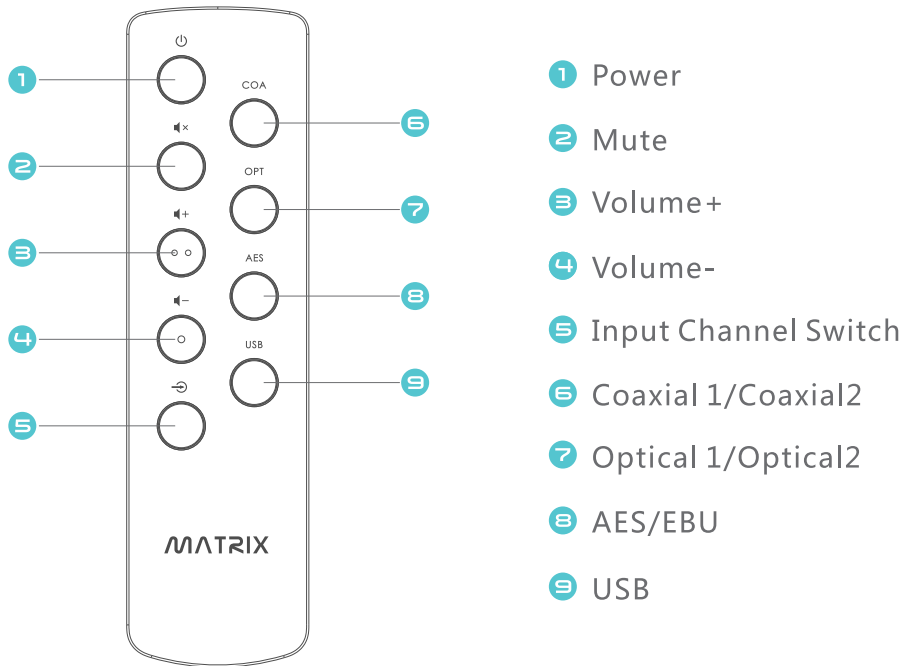
- 1 Standby switch and LED indicator
- 2 Infrared receiver
- 3 Display screen
- 4 Headphone jack
- 5 Control knob

## Rear Panel



- |                                   |                   |
|-----------------------------------|-------------------|
| 1 Right channel analog XLR output | 8 Coaxial input 2 |
| 2 Left channel analog XLR output  | 9 Optical input 2 |
| 3 Right channel analog RCA output | 10 USB input      |
| 4 Left channel analog RCA output  | 11 Power switch   |
| 5 AES input                       | 12 AC Power Input |
| 6 Coaxial input 1                 |                   |
| 7 Optical input 1                 |                   |

## RM2 Remote Control



RM2 remote control uses a CR2032 button battery, battery life is about 1 year, please replace the battery if you found that remote distance becomes noticeably shorter.

QUATTRO II compatible with AC100-120V and AC220V-240V two power specifications, please set the voltage switch according to your local voltage environment before using.

The voltage switch is on the left side, the two sections of the voltage switch are 115V and 230V, the following is the voltage range:

115V position is fit for AC100V-120V 50/60Hz

230V position is fit for AC220V-240V 50/60Hz

Please ensure the input voltage is in the right range before using, the incorrect voltage input can damage your device.

The fuse of QUATTRO II on the left side, press down and turn the fuse plug can take out the fuse.

For reducing the noises and get the best playback quality, please use the three-phase source wires which include the ground terminal, and ensure the ground is reliable connection.

## Settings and Usage

- Power On/Off

Connected the power plug to the QUATTRO , turn on the power switch,QUATTRO II displayed the boot screen and loading user settings, it will work into normal state when completed.

Press the standby button for about 2 seconds at the power on state, and QUATTRO II will enter standby mode, press again the standby button to restart.

There is still a small amount of power consumption at standby state, when not in use for a long time, turn off the power switch for reducing the power consumption.

- Switching Input Channels

Auto Scan Mode:

At no signal state, turn the knob to select AUTO and press the knob for confirming, the screen displays “Scanning” , as shown below:



At this case, it will automatically scan 6 input channels; the signal of the first connection channel will be locked immediately, it will continue to scan the other channels when the current channel signal is lost.

## Settings and Usage

- Manual Selection Mode :

At the no-signal state, turn the knob to switching between the six input channels, select the desired channel by pressing knob; at the signal state, you must first press the knob to activate the input selection interface, and then rotate the knob to switch the input channel. The triangle icon will be appeared after the current channel is selected, it means the current channel is selected. As shown below:



- Signal Lock

The following screen will be displayed when the currently selected channel is no signal:





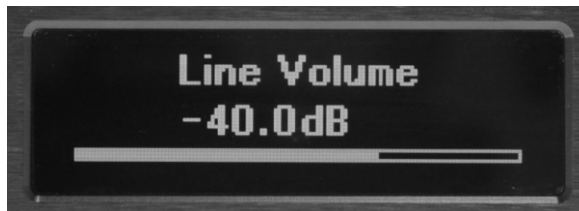
## Settings and Usage

The following screen will be displayed when the currently selected channel signal is locked:



- Volume Control

QUATTRO II both with a line output and headphone output two independent volume values, rotate volume knob at the signal locked state can adjust the current output volume; volume control interface will display the decibel of current volume and which channel you have controlled, as shown below:



## Settings and Usage

- Mute Control

Mute state can be activated in two ways by remote control mute button and standby button, when mute is activated, the screen will display a flashing "MUTE" character.



At the signal locked state, short press the standby button to enter the mute state, press again or adjust the volume could exit the mute state.

At the signal locked state, short press the mute button on the remote control to enter the muted, press again or adjust the volume could exit the mute state.

- Headphone Output

QUATTRO II with two standard of 1/4 "headphone jack, can connect two headphones at the same time, the line output will automatically muted when inserted the headphone plug at the preamp mode.

The 1/4"headphone jack is a stereo jack, please do not connect in a mono plug, otherwise, it has the risk to damage your device.

## Settings and Usage

- Setup Menu

Press the volume knob at the standby or power-off state, turn on the power switch or press the standby switch to enter the setup menu. In the setup menu, turn the knob to switch configuration item, press the knob to convert the items of current configuration options. A total of 13 configuration items, as follow:

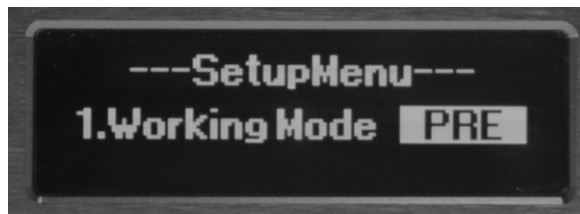
1. Working Mode

Pre-mode:

Under the pre-mode, it can adjust line output gain, and have the headphone output, but when the headphone is plugged into that the line output will be automatically muted.

DAC mode:

The line output gain will be fixed at the standard level, headphone output off.



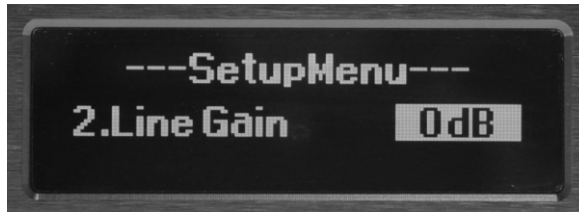
## Settings and Usage

### 2.Line Output Gain

Setting the line output gain at PRE mode, the default is 0db, it can be set to + 10db when needed.

0db: The maximum of line output is 0db (default)

+10db: The maximum of line output is +10db

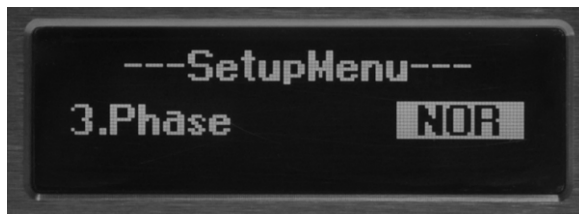


### 3.Phase

Setting the phase of output analog signal, it can be set to the same phase or reverse phase.

NOR: output the same phase signal (default)

REV: output the reverse phase signal



### 4.PCM Filter

Setting the working mode of PCM digital filter, the default is the fast roll-off mode, it will join the high-frequency jitter when at the slow roll-off mode.

Fast: Fast roll-off (default)

Slow: Slow roll-off



### 5.DSD Filter

Setting the cut-off frequency of DSD digital filter, the default is 47kHz.



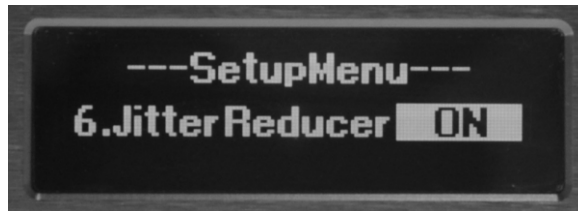
## Settings and Usage

### 6. Jitter Reducer

Setting the internal time-base jitter elimination circuit on or off.

ON: Turn on the jitter reducer

OFF: Turn off the jitter reducer



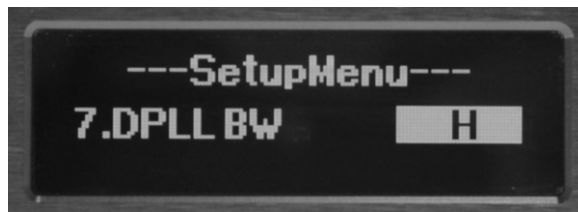
### 7. DPLL BW

Setting bandwidth of internal digital PLL.

H: Maximum bandwidth

M: Middle bandwidth

L: Minimum bandwidth



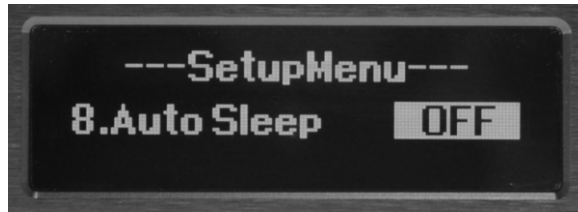
### 8.Auto Sleep

Setting no signal automatic standby function is enabled and the activation time.

OFF : Turn off the no signal automatic standby function

2min : Automatic into standby when no signal over 2 minutes

5min : Automatic into standby when no signal over 5 minutes

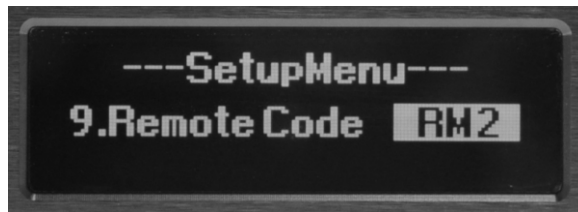


### 9.Remote Code

Setting IR remote control codes.

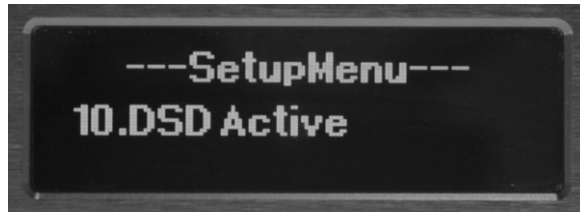
RM2 : MATRIX RM-2 remote control code

APL : APPLE MC377 remote control code



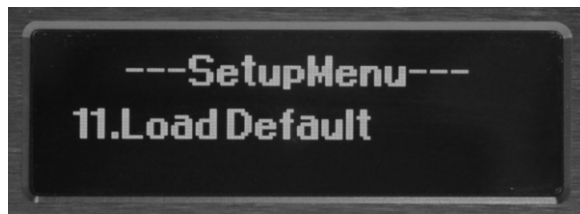
### 10. Activate the DSD Playback Function

Press the knob in this option, it will display "Activation" if the DSD playback function is activated, it will display 48 activation ID if the DSD playback functions is not activated, press the knob again to enter the activation code. To purchase DSD playback functions please email to support@ matrix-digi.com for consulting.



### 11. Load Default

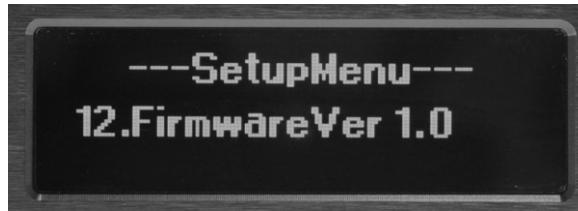
Press the knob in this option, the memory of user settings, boot default channel and the boot volume value will be cleared; all the settings are restored to the default values.





### 12.Firmware Version

Displays the current firmware version.



### 13.Exit

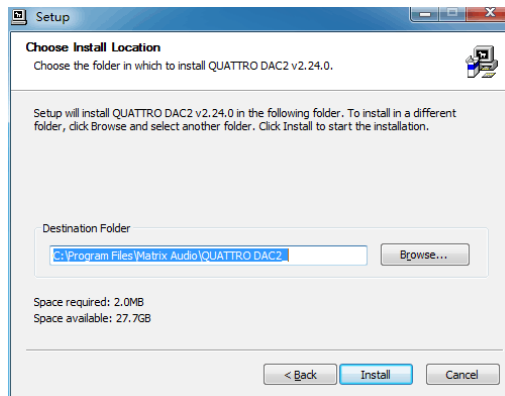
Save above setting and exit the setup menu.In this option press the knob, all of these settings saved to memory, and automatic restart.



# Driver installation and software configuration

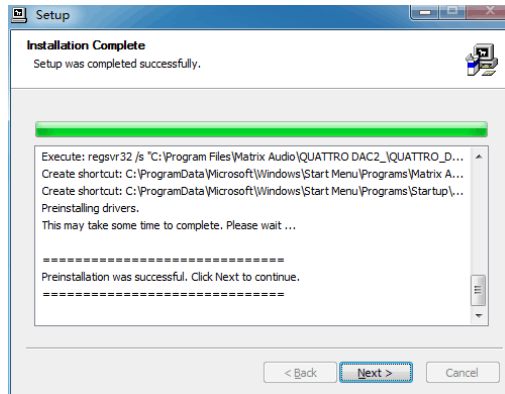
## 1. QUATTRO II installation of Windows driver

Double-click the driver installation file, and select "Next"



## Driver installation and software configuration

Installation is completed, select "Next"

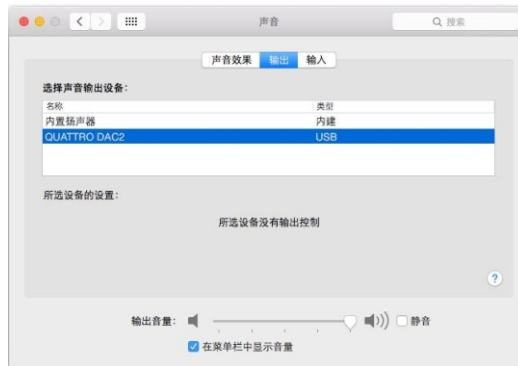


Select "Finish", the driver installation is completed



## Driver installation and software configuration

2. Mac OS X 10.6.4 and above version without having to install drivers. Please select the audio device directly to "QUATTRO DAC 2" in System Preferences for using.



## Technical Specifications

### Digital input

AES:	PCM	16-24bit/44.1kHz,48kHz,88.2kHz,96kHz,176.4kHz,192kHz
	DSD	DSD64(DoP,dCS)
COAXIAL:	PCM	16-24bit/44.1kHz,48kHz,88.2kHz,96kHz,176.4kHz,192kHz
	DSD	DSD64(DoP,dCS)
OPTICAL:	PCM	16-24bit/44.1kHz,48kHz,88.2kHz,96kHz
	DSD	DSD64(DoP,dCS)
USB:	PCM	16-32bit/44.1kHz,48kHz,88.2kHz,96kHz,176.4kHz,192kHz,352.8kHz,384kHz
	DSD	DSD64/DSD128(DoP,dCS)
		DSD64/DSD128/DSD256(ASIO Native)

### System Support

Windows 7/8/8.1/10 systems need to install the supplied drivers.

Mac OS X10.6.4 and above version without installing drivers.

Most Android devices can be used with the Quattro via OTG cable.

The iOS devices can be used with the Quattro via the Lightning to USB Camera Adapter.

## Technical Specifications

### Analog output

SNR :	122dB A-Weighting
THD+N :	<0.0003% at 1kHz A-Weighting
Frequency Response :	20Hz-20kHz (+0.01dB/-0.02dB)
Crosstalk :	> -120dB at 1kHz
DAC MODE	
XLR output :	4vrms Fixed at 0 dBFS
RCA output :	2vrms Fixed at 0 dBFS
PRE MODE 0 dB	
XLR output :	0-4vrms Adjustable at 0 dBFS
RCA output :	0-2vrms Adjustable at 0 dBFS
PRE MODE +10 dB	
XLR output :	0-12vrms Adjustable at 0 dBFS
RCA output :	0-6vrms Adjustable at 0 dBFS
Headphone Output Impedance :	0.3ohms
Headphone Output power :	1000mW at 33ohms at THD+N=0.01% 140mW at 300ohms at THD+N=0.01% 80mW at 600ohms at THD+N=0.01%

## Technical Specifications

### Power Specifications:

Power Voltage: 230V position is fit for AC220V-240V 50/60Hz

115V position is fit for AC100V-120V 50/60Hz

Power Consumption: <25W

Fuse Specification: AC250V/500mA 5x20mm

### Other Specifications:

Dimension: 205x232x49(LxWxH,including the projecting parts)

Weight: 1.83 kg



Ver.201508v1.0

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