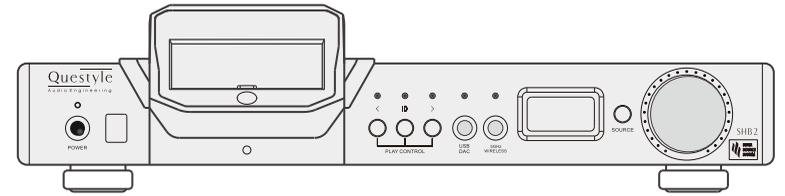
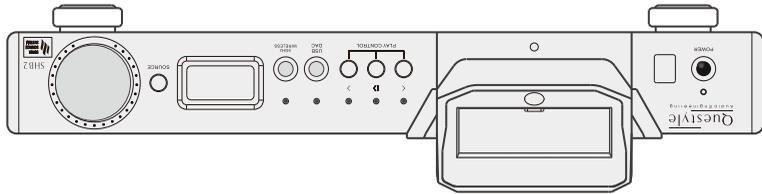


USER'S MANUAL

Super Hub SHB2
Master



Super Hub SHB2
Super Hub SHB2 Master

用户手册

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About Super Hub SHB2

Congratulations to you for being the owner of Questyle Audio Super Hub SHB2.

Super Hub SHB2 together with Questyle Audio Digital Audio Player OP2R or update Digital Audio Players will build a Super Source System, resulting in Questyle taking a huge leap towards defining the future. You will enjoy high-quality music in a simple and easy way by virtue of Questyle's state-of -the-art technologies.

The more complicated the world is, the more concise we are. Simply plug in the Super Source System and press the play button, then beautiful music will flow around you.

Super Hub SHB2 has a full range of input and output interfaces, supporting USB, Optical, S/PDIF and AES digital signals, as well as RCA analog input, balanced and unbalanced analog outputs. In addition, it supports professional interfaces of AES and XLR that are used in recording studios. It is user switchable between Studio and Standard mode. In the Studio mode, the power level will change from 14dBu up to 20dBu instantly, matching it with studio-level professional equipment.

Super Hub SHB2 is easy to use. It can match with various audio equipment and bring you an exceptional listening experience. With connecting the SHB2 to your PC via a USB cable, switch the player to Memory mode and it will download the recording files automatically and sync to the player, which makes it convenient for you to take the recordings along and listen to them at any time. When streaming Tidal, QuBuzz or Spotify, your only need is to connect the SHB2 to your PC or a server via USB, Optical or S/PDIF, switch it to the DAC mode and it will work as a DAC, then you will get much better sound quality from your PC or the server

The design style of Super Hub SHB2 originates from Questyle's iF Design Award winner, which is impressive for its firm structure, smooth faces and unbroken lines flowing around the perimeter. Along with Foxconn's high precision machining technique (0.02mm), the whole system exudes its charm of Quest and Style.

Mechanical vibration will affect audio signal processing and sound listening. But Super Hub SHB2 will avoid resonance by its special structure and material. The player docking of the SHB2 is made of special silicone and pure aluminum, plus the stable feet, helping to reduce resonance to a lowest level.

Super Hub SHB2 adopts Questyle's core patented technologies of Current Mode Amplification and True DSD. As the "engine" of an audio system, the Current Mode Amplifier is designed with an all discrete circuit and pure Class A operation that allows the SHB2 to have outstanding performance and provide users with an experience of being there listening to the original sound. With the True DSD technology and the DAC chip AK4490, the SHB2 processes DSD signals without any PCM converting, providing the original DSD signal processing.

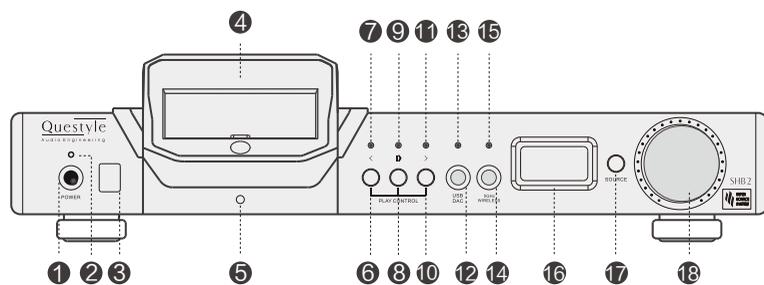
The pre-amplifier of Super Hub SHB2 has excellent performance because of the customized Current Mode Amplification modules CC630 and CA630. The SHB2's analog output can be set to Fixed or Adjustable. It's very easy for you to build a lossless audio system since the SHB2 has a full range of input and output interfaces, plus a remote control. It is user-friendly to match with Hi-Fi amplifiers or active speakers.

There are two versions of Super Hub SHB2, the first is SHB2 (standard version), the other being SHB2 Master. The SHB2 Master has a "MASTER" laser marking, and it features the ROGERS Ceramic PCB and selected components to ensure the ultimate performance on sound quality and specifications.

In the Box

Super Hub SHB2	1pc
Power Cord	1pc
Super Hub SHB2 Driver CD	1pc
Super Hub SHB2 User Manual	1pc
Remote Control	1pc

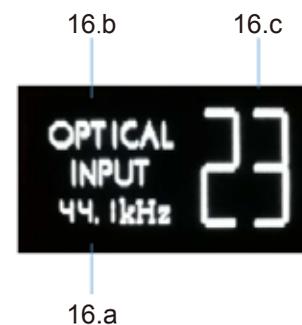
Front View



- ① Power switch
- ② Power indicator: it flashes quickly with orange light to show the system is starting and stays the orange light on to show the system has successfully started. If the indicator flashes quickly with red light, it means the system is in malfunction and you need to power off the Super Hub SHB2 and restart it. If the problem is not solved, you have to contact your dealer or the After-Sales Support
- ③ Remote Control signal receiving zone
- ④ Docking: it is used for connecting the SHB2 to the Questyle's player or other docking devices
- ⑤ Docking indicator: it flashes with red light to show that the SHB2 is charging for the player, and it stays red light on to show the player is fully charged. It stays orange light on to show the player is playing music files, and when you give it a pause, the orange light is off
- ⑥ Previous/Fast backward button: it is available only for the player
- ⑦ Previous/Fast backward indicator: it flashes to confirm the operation
- ⑧ Pause/Play button: it is available only for the player
- ⑨ Pause/Play indicator: it stays light on to show the player is playing music files and it is off when there is a pause
- ⑩ Next/Fast forward button: it is available only for the player
- ⑪ Next/Fast forward indicator: it flashes to confirm the operation

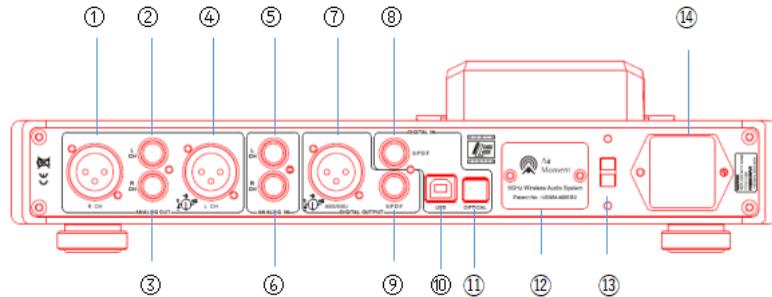
- ⑫ USB/DAC switch: switch it to have the SHB2 work as a DAC and the DAC mode indicator is on, then the SHB2 will play music files in your PC via USB. When the DAC mode indicator is off, your PC will connect to the player, recognize the player as a USB flash disk and import music files from your PC
- ⑬ DAC mode indicator
- ⑭ 5G Wireless mode switch: it is used to turn on/off the 5G Wireless Transmission
- ⑮ 5G Wireless mode indicator: it flashes slowly to show that the SHB2 hasn't paired with a receiver yet, it flashes quickly to show that the SHB2 is pairing, and it stays light on to show that the pairing is done and the 5G Wireless Transmission is working. When the indicator is red, it indicates signals of high sample rate (>96kHz), and when it is orange, it indicates signals of general sample rate
- ⑯ OLED display: it is used to show volume, sample rate and input mode information (as shown blow)
- ⑰ Input mode button: it is used to select the source.
- ⑱ Volume control: it is used to adjust the system volume.

OLED display



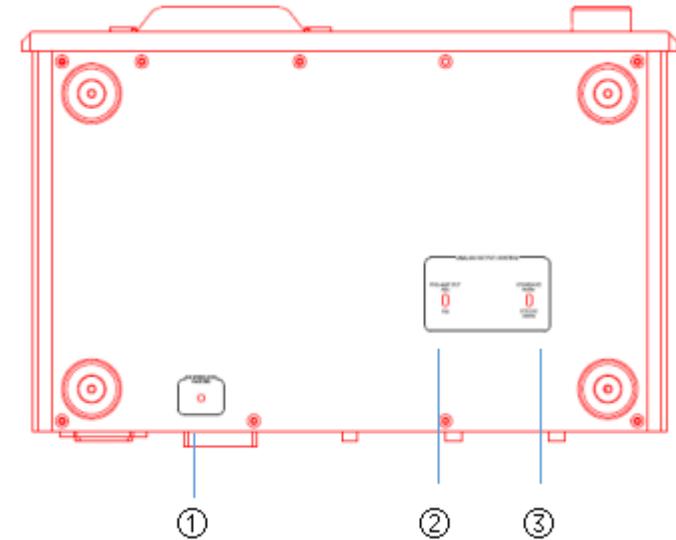
- 16.a) Source sample rate display
- 16.b) Input mode display
- 16.c) Volume display, from "0" to "60"

Rear View



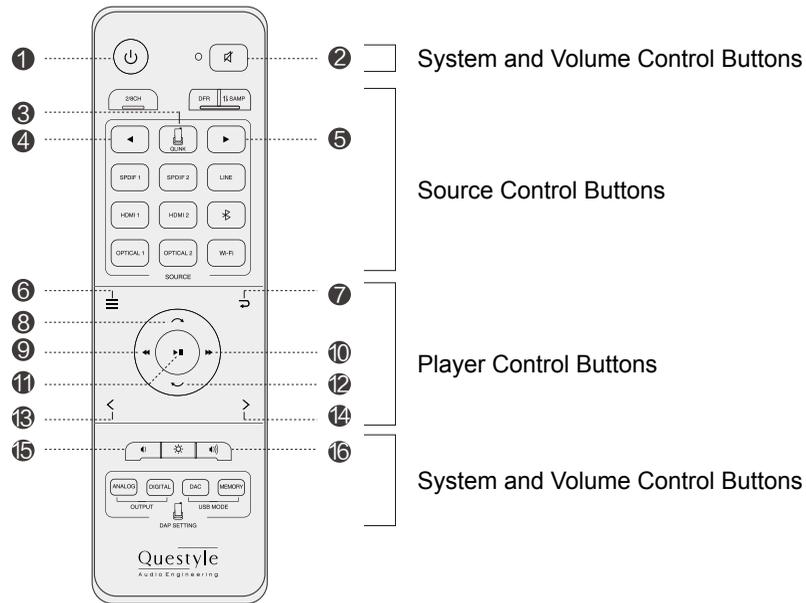
- ① Pre-amp right channel balanced output
- ② Pre-amp left channel unbalanced output
- ③ Pre-amp right channel unbalanced output
- ④ Pre-amp left channel balanced output
- ⑤ Left channel unbalanced input
- ⑥ Right channel unbalanced input
- ⑦ AES/EBU output
- ⑧ S/PDIF input
- ⑨ S/PDIF output
- ⑩ USB input
- ⑪ Optical input
- ⑫ Antenna housing for 5G Wireless part. In order to get clear signals, please DO NOT use metal or other shielding materials to cover this part
- ⑬ 220V/110V voltage switch (Please make sure the indicated voltage is in accordance with the local voltage.)
- ⑭ AC power supply

Bottom View



- ① 5G Wireless Pairing button: it is used to pair the SHB2 with a Questyle 5G wireless receiver. Go to page n to see “5G Wireless Pairing”
- ② Pre-amp output volume switch between ADJ (Adjustable) and FIX (Fixed). When you switch it to ADJ, you can adjust the volume via the SHB2 volume control, which is for connecting the SHB2 to active speakers or power amplifiers without volume control function. When you switch it to FIX, the output will be at max level and the volume is unadjustable via the SHB2 volume control, which is for connecting the SHB2 to amplifiers or Pre-amps with volume control function
- ③ Pre-amp output switch between Studio and Standard mode. When you switch it to Standard mode, the max output level will be 14dBu, which is for connecting the SHB2 to ordinary active speakers. When you switch it to Studio mode, the max output level will be 20dBu, which is for connecting the SHB2 to the professional active speakers in studios

Remote Control



- ① Standby
- ② Mute
- ③ SHB2+Player Connection
- ④ Source Selection Backward
- ⑤ Source Selection Forward
- ⑥ Menu
- ⑦ Back
- ⑧ Up

- ⑨ Previous/Fast Backward
- ⑩ Next/Fast Forward
- ⑪ Play/Pause/OK
- ⑫ Down
- ⑬ Previous
- ⑭ Next
- ⑮ Volume Down
- ⑯ Volume Up

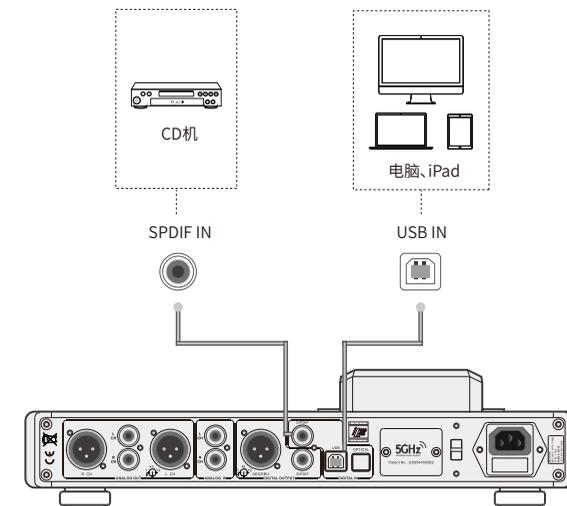
Note:

Player Control Buttons are only available for Questyle Digital Audio Players and perform the same function of the buttons on the player. Source Control Buttons and System and Volume Control Buttons are available for the whole system. Other buttons are inactive for Super Hub SHB2.

How to Match with Super Hub SHB2

1. Digital Input

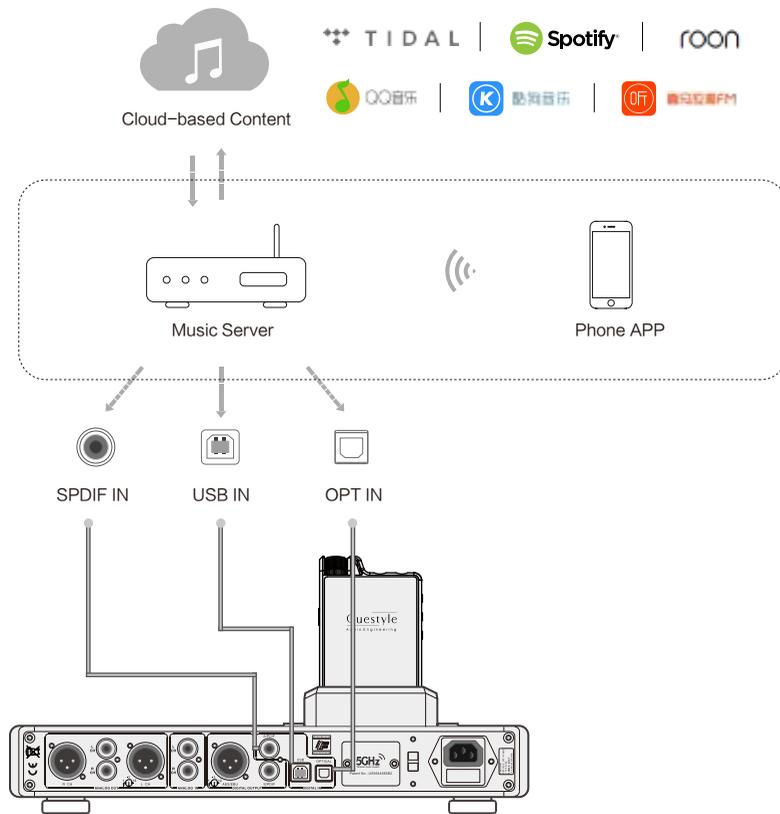
Super Hub SHB2 has OPT, S/PDIF, AES/EBU and USB inputs. Digital audio signals from your PC, music server, CD or Blu-ray can be sent to the SHB2 via those interfaces. The core patented technologies of Current Mode Amplification, True DSD and 3X Clock Asynchronous Transmission allow the SHB2 to have outstanding performance from its DAC and pre-amplifier.



Note: you don't have to install a USB driver if your music server is Linux system supporting UAC 2.0.

2. Used as a DAC for Streaming

Super Hub SHB2 supports Linux system and Windows USB Audio Class 2.0 standard driver, it can be connected to music servers and used as a DAC.

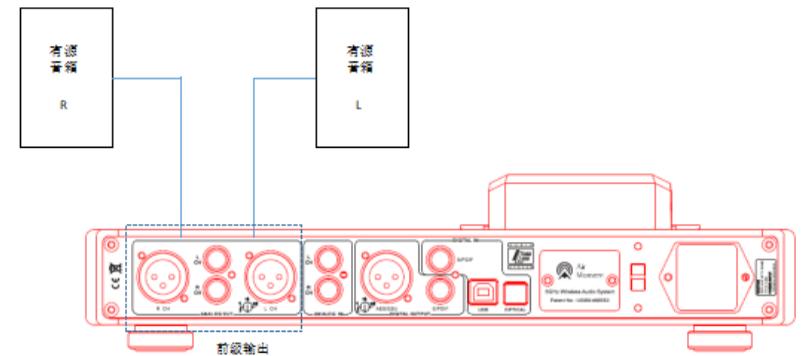


Note: you don't have to install a USB driver if your music player is Linux system supporting UAC 2.0.

3. Used as a DAC/Pre-amplifier

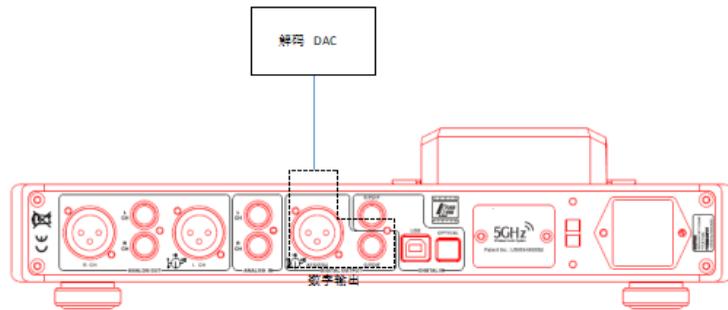
Super Hub SHB2 can be used as a DAC/Pre-amplifier to drive various active speakers or match with power amplifiers.

- Connect the Pre-amp output of the SHB2 to the input of active speakers or power amplifiers.
- Set the Pre-amp output of the SHB2. When you connect the SHB2 to ordinary active speakers or power amplifiers, please switch the Pre-amp output to Standard mode. When you connect the SHB2 to studio-level speakers, please switch it to Studio mode.
- Set the Pre-amp output volume. At the bottom of SHB2, you can find the Pre-amp output volume switch between FIX (Fixed) and ADJ (Adjustable). When you switch it to ADJ, you can adjust the volume via the SHB2 volume control. When you switch it to FIX, the output will be at max level and the volume is unadjustable via the SHB2 volume control.



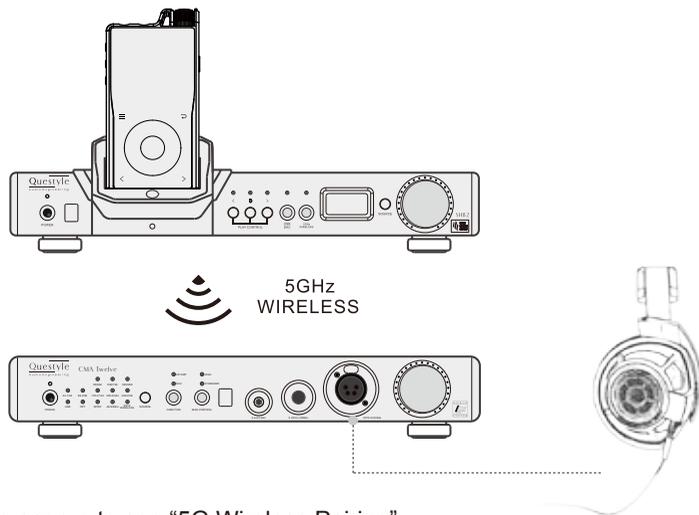
4. Digital Output

Super Hub SHB2 can output digital signals. Just connect the digital output of SHB2 to the input of a DAC and it will work.



5. 5GHz Wireless Transmission

Super Hub SHB2 can pair with Questyle's 5G wireless receivers (CMA Twelve). They will communicate with each other via 5G Wireless Transmission and bring you a wonderful music listening experience.



· Go to page n to see "5G Wireless Pairing".

Getting System Started

When you power on the Super Hub SHB2, it starts with the Power indicator flashing quickly and the OLED display showing a startup picture. It completes the startup and starts to work when the Power indicator stays light on and the OLED display shows the volume, sample rate and input mode.

5G Wireless Pairing

Before using the 5GHz Wireless Transmission, you need to pair Super Hub SHB2 with the 5G wireless receiver.

How to pair Super Hub SHB2 with 5G wireless receiver

First, power on Super Hub SHB2 and the 5G wireless receiver (CMA Twelve), make sure both of their 5G Wireless mode switches are on, otherwise they can't be paired.

Second, press the 5G Wireless Pairing button on the SHB2 and the receiver, then the 5G Wireless mode indicator will flash quickly to show that the SHB2 is pairing, and it will stay light on to show that the SHB2 and the receiver are successfully paired. If the pairing isn't done within 30 seconds, the SHB2 will exit the pairing and the 5G Wireless mode indicator will flash slowly.

If the 5G Wireless Pairing fails, please repeat the pairing steps above. If the SHB2 can't pair with the receiver, you have to contact your dealer or the After-Sales Support.

PC System Requirements

1) Operation System

Super Hub SHB2's driver and hardware support Win XP / Vista / Win7 / Win8 / Win8.1/ Win10. For Apple Mac OS, later versions than the 10.5.7 are well matched without installing any driver.

2) Media Player

Super Hub SHB2 is not limited to any special media player. Any PC compatible player (including video players) is well matched.

3) File Format

File format is up to the media player on your PC. Super Hub SHB2 can decode any file format that the media player supports.

4) Requirements for PC Configuration

At least one USB port is required. An acceptable USB2.0 high-speed cable of type A-to-B plug. We suggest using the high-quality USB cable to ensure the stability and reliability of data transmission and guarantee the best performance of Super Hub SHB2.

Install Super Hub SHB2 Driver on Windows OS

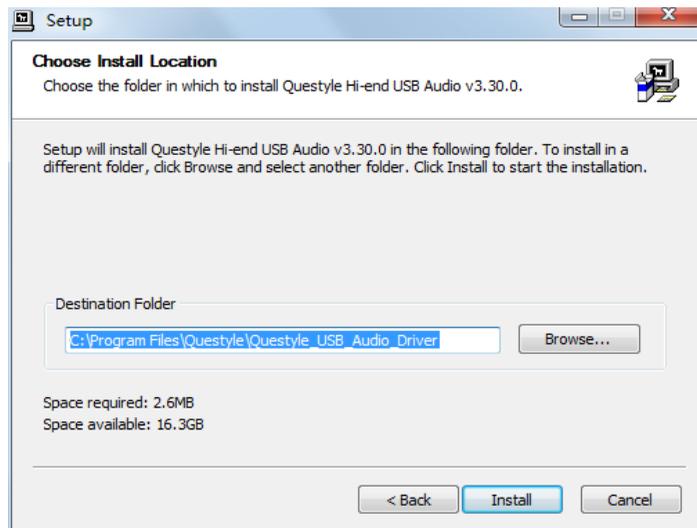
Your Super Hub SHB2 can be recognized by PC after installing the Super Hub SHB2 Driver on Windows OS. We take Win7 64bit OS for an example to show the Driver installation.

- 1) Connect your Super Hub SHB2 to its power supply and switch it on;
- 2) Connect your Super Hub SHB2 to PC with a USB cable;
- 3) Put the provided Super Hub SHB2 Driver disc into your PC and open the folder labeled "Super Hub SHB2 Driver/For Windows 7, 8, 8.1 and 10/" and then

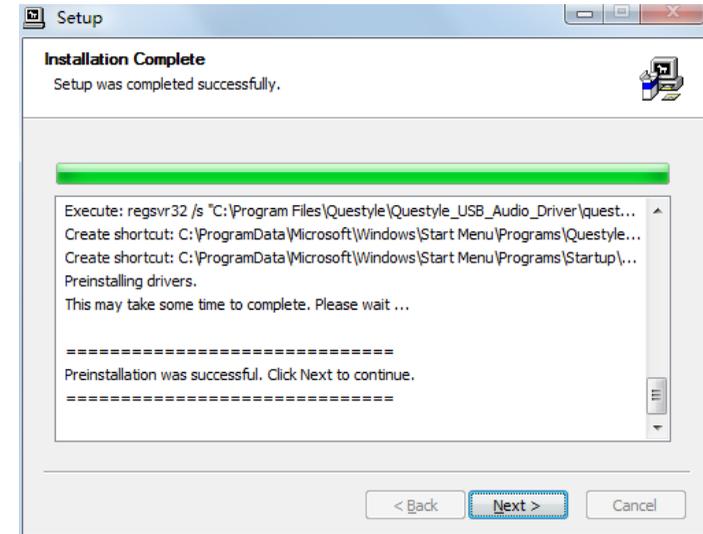
double click "Setup.exe".



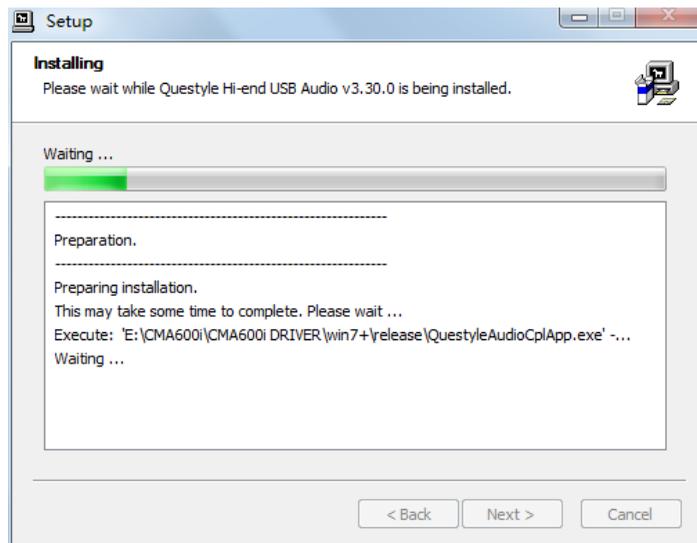
Click "Install" (Default install location is C drive)



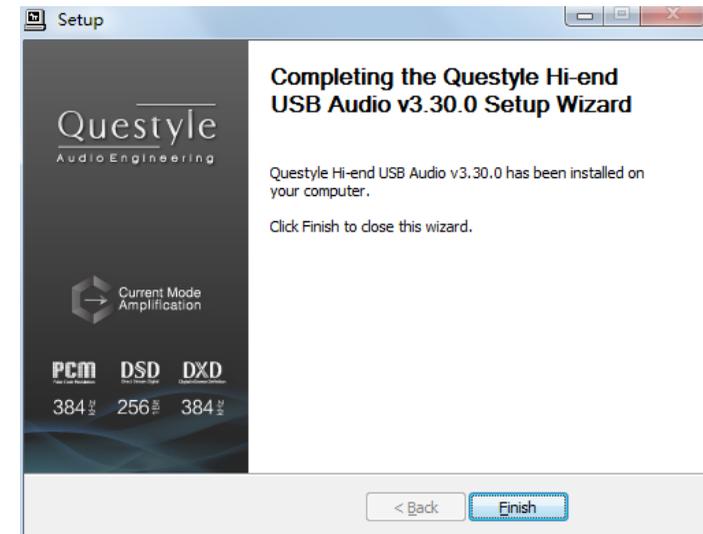
Installation is completed, click "Next"



Installation will take 3 or 5 minutes



Click "Finish" to exit the installation



- 5) Restart your PC and the CMA Twelve Driver is finished installation;
- 6) Installation on Win XP, Vista is similar to the above.

Core Audio Stream Introduction

Core Audio Stream has formats of ASIO, KS and WASAPI, all of which can be supported perfectly by CMA Twelve. Besides, Super Hub SHB2 supports DSD format.

According to general audio processing procedures of PC, all the sound from applications and systems is processed by SRC, going through the lengthy system processing and hardware layer transmission, and then output to the external device. The output data are totally different after all those procedures. To output the pure, original and “bit-perfect” data, we must open a high-speed and dedicated channel for audio device, which is the core audio stream technology.

Super Hub SHB2 supports ASIO and KS on Win XP systems, and supports ASIO and WASAPI on Vista, Win7, Win8, Win10 systems. For example, when you enable WASAPI + Exclusive Mode between CMA Twelve and player software (like JRiver), you can't control the volume through system controller, the sound from the system or any other application will not be heard at the Super Hub SHB2 output, which is because the system has opened the Core Audio Stream channel for CMA Twelve and the audio data directly get to the DAC of Super Hub SHB2 with high-speed.

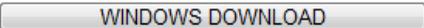
Setup Core Audio Stream on JRiver Media Center

We recommend using Jriver Media Center 20 for getting the best performance.

JRiver Media Center is a fully functional media management and playback software. It can manage your music in groups and can stream music from the Internet. It also can be used for MP3 or DVD burning. JRiver can support kinds of audio files including MP3, MusicEx, WAV, OGG, RealAudio, RealVideo, AVI, Quick-Time etc.

Let's take JRiver Media Center player 20 on Win7 32bit OS for an example to explain how to setup WASAPI.

I Download and Install

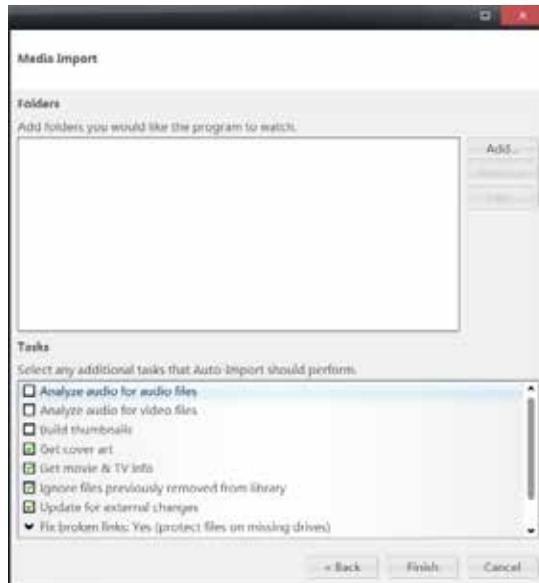
- 1) Go to JRiver website (<http://www.jriver.com/download.html>), and click  to download JRiver Media Center 20.0.131;
- 2) Install JRiver Media Center 20.

II Import Songs

- 1) Open “JRiver Media Center”, click “Tools”-“Import” and select “Configure Auto Import”, and then click “Next”;



2) Click “Add”-“Browse”, select the folder that contains songs, and then click “OK”-“Finish”.

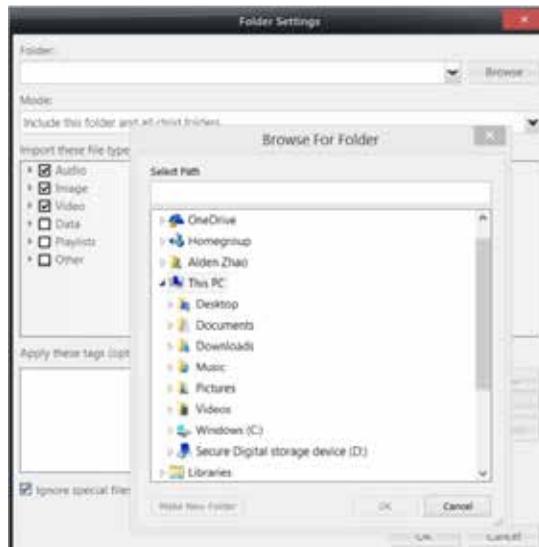


III JRiver Output Setup

1) Click “Tools” and select “Options”;



2) Select “Audio Device” under “Options”, and click “Questyle ASIO Driver[ASIO]” and select “Default Audio Device”, and then click “OK”.

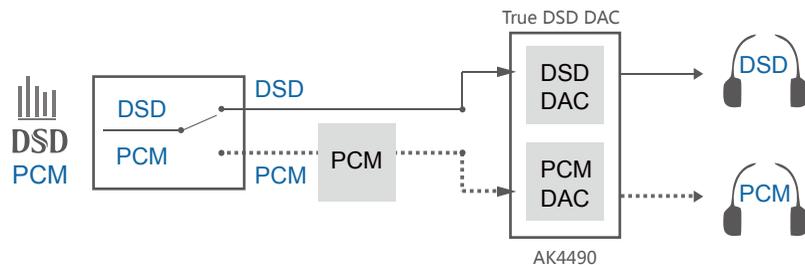


True DSD (Direct Stream Digital) Technology

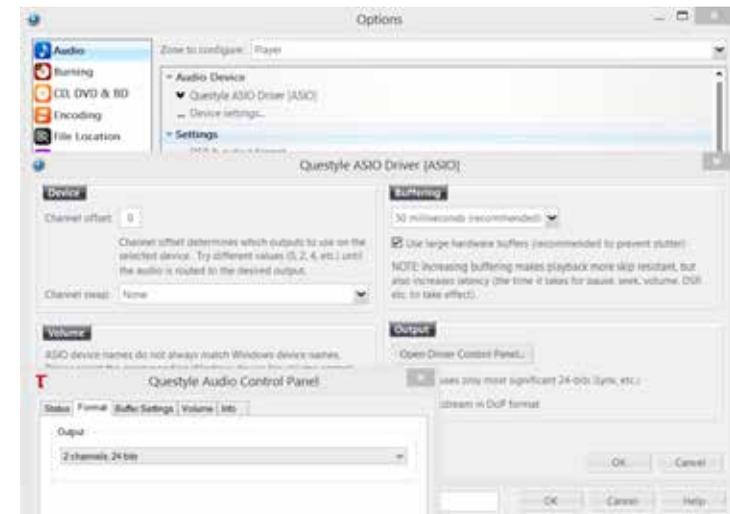
(China Intellectual Property Office Patent No. 201520211945.X)

Nothing is better than the true. The True DSD technology is one of the core patented technologies of Questyle Audio. It processes DSD signals without any PCM converting and provides True DSD, which is fundamentally different from DoP and Native DSD.

When the system processes DSD signals, hardware mode switches to the True DSD channel. In this case, options for digital filter and digital volume control fail, strictly following the process of SACD playback.



5) Select "Device Settings" under "Audio Device" and click "Open Driver Control Panel" under the ASIO, then select "Format"->"2Channels,24Bits"; select "Buffer Settings"->"Safe","Auto"; then close and click "OK" .

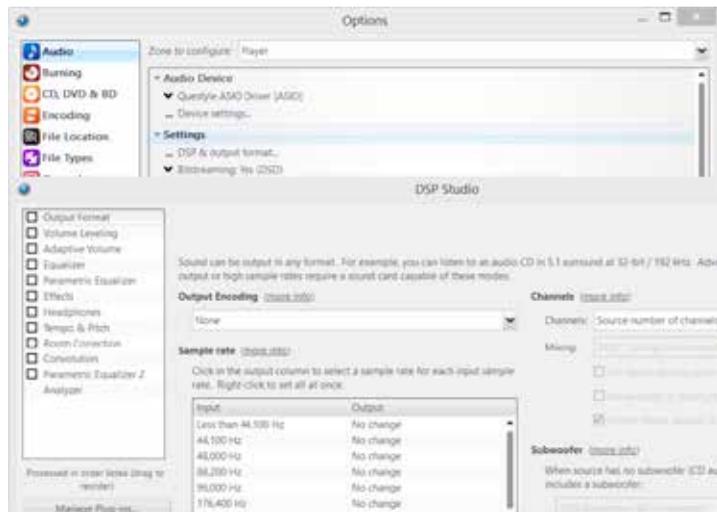


Setup DSD on JRiver Media Center

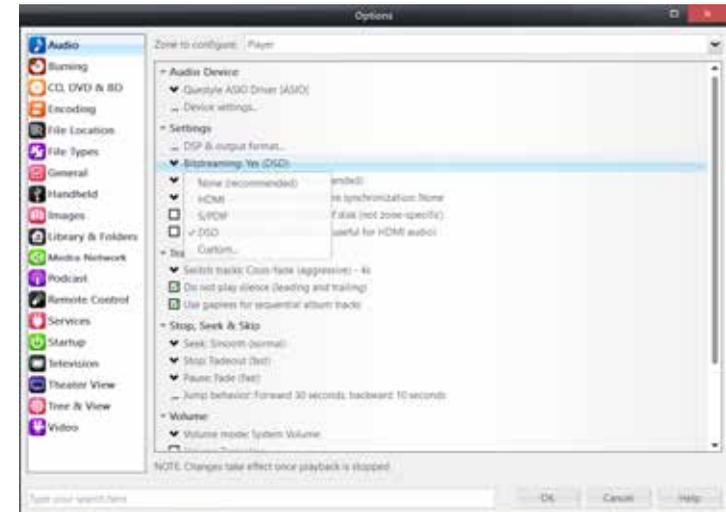
- 1) Connect your Super Hub SHB2 to its power supply and switch it on;
- 2) Connect your Super Hub SHB2 to PC with a USB cable;
- 3) Open JRiver Media Center, click "Tools" and then select "Options";
- 4) Select "Questyle ASIO Driver[ASIO]" under "Audio Device";



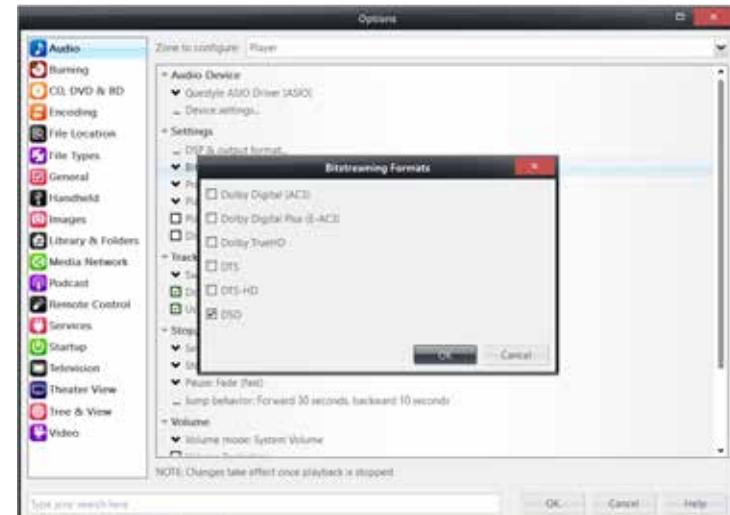
6) Click “DSP & output format” under “Settings”. Make sure nothing on the left is ticked. (To wit: without any processing to DSD data, ensuring original sound.)



7) Select “Custom” under “Bitstreaming: Yes(DSD)”

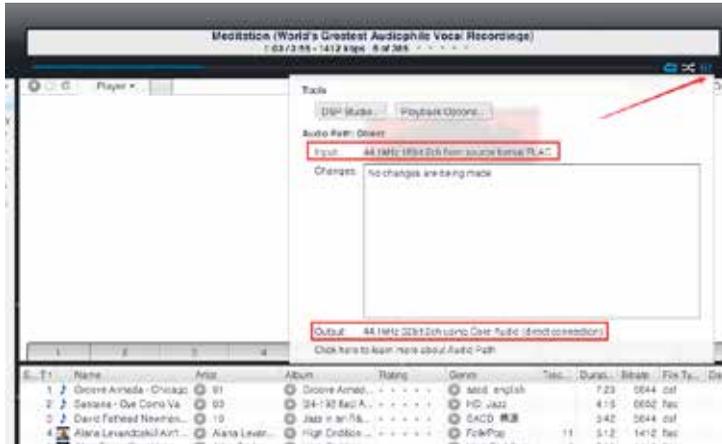


8) Tick “DSD” and then click “OK”.

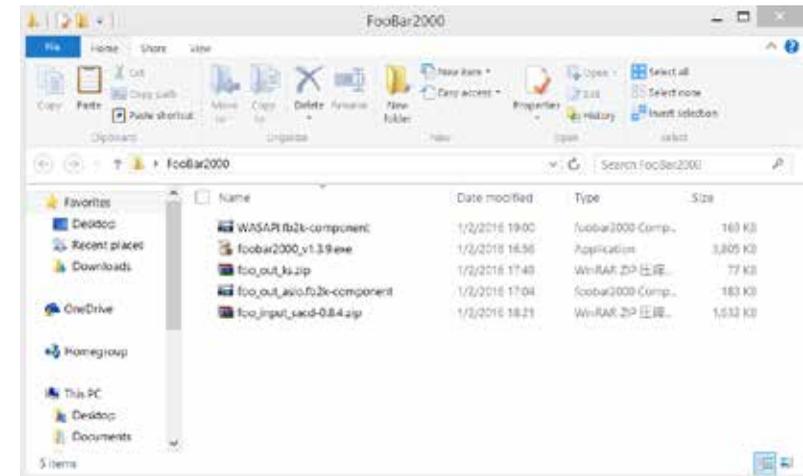


Save and exit. The setup is completed.

9) With a song playing, put the mouse pointer at where the arrow is pointing to view current input and output.



You will get 5 files after the above download (as shown below):



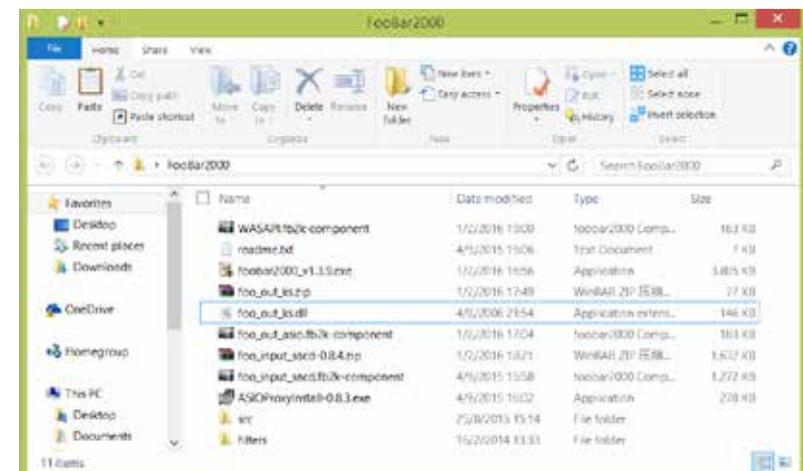
Install Foobar2000

Foobar2000 is a free and multifunctional audio player as well as a powerful tool for audio processing.

I Download the Following Software and Plugins

1. Take Foobar2000 V1.3.9 for an example
<http://www.foobar2000.org/download>
2. ASIO channel plugin
http://www.foobar2000.org/components/view/foo_out_asio
3. WASAPI channel plugin (no need for higher versions than WIN7)
http://www.foobar2000.org/components/view/foo_out_wasapi
4. Core Audio Stream channel plugin (no need for WINDOWS XP)
http://www.foobar2000.org/components/view/foo_out_ks
5. ASIO driver (take ASIOProxyInstall-0.8.4 for an example)
http://sourceforge.net/projects/sacddecoder/files/foo_input_sacd/

After the unzipping, you will see the following:



II Install Foobar2000 V1.3.9

1. Double click  foobar2000_v1.3.9.exe to install Foobar2000, and then click “Next”.

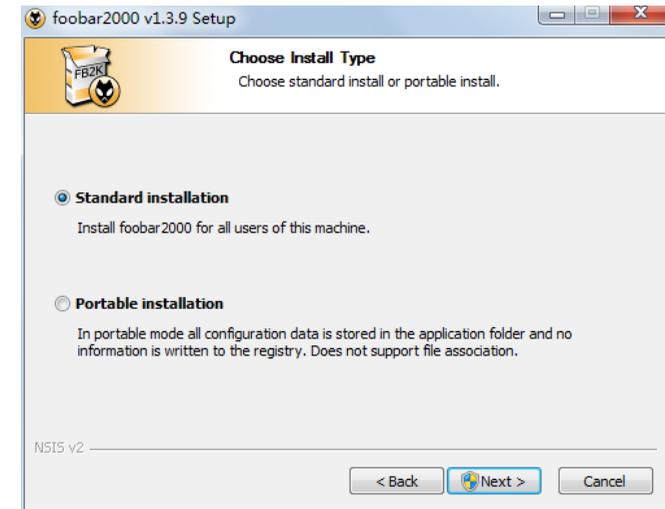


2. Click “I Agree”.

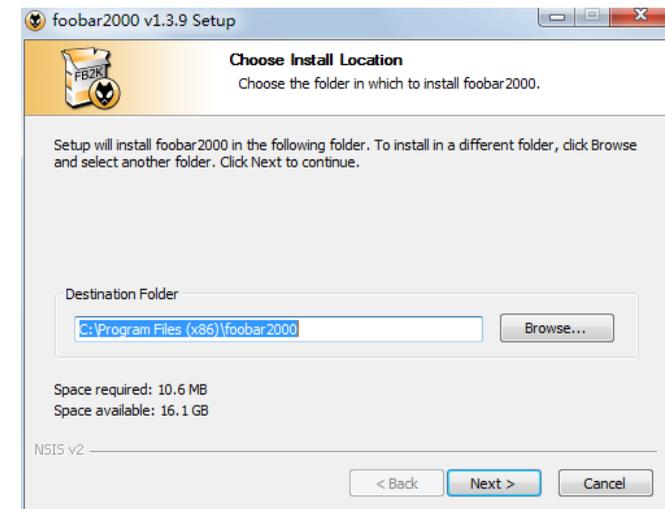


3. Select “Standard installation”.

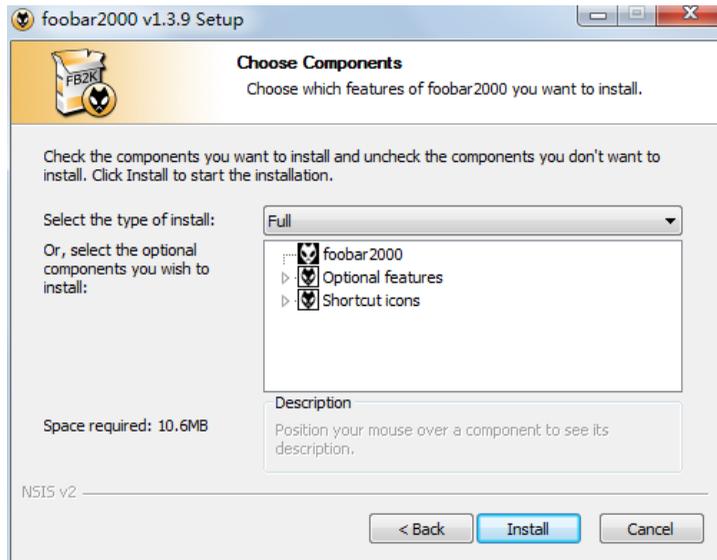
4. Click “Next” to choose Foobar2000 install location. (Default install location is C drive)



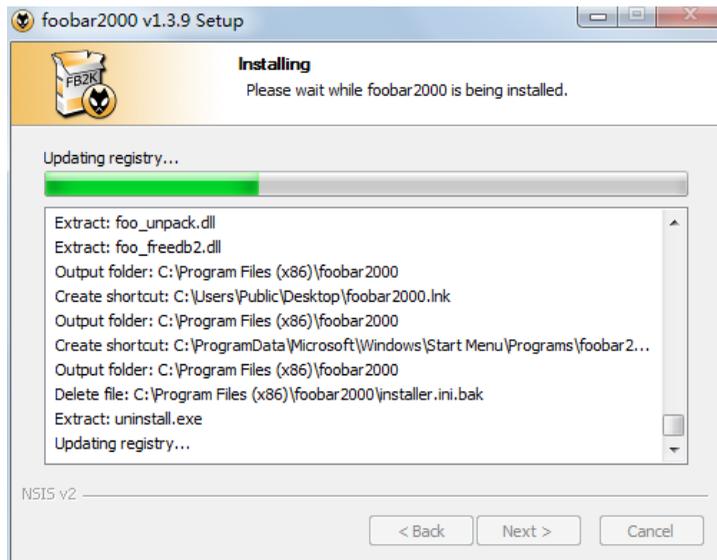
5. Click “Next”.



6. Click "Install". (Default installation of all the components)

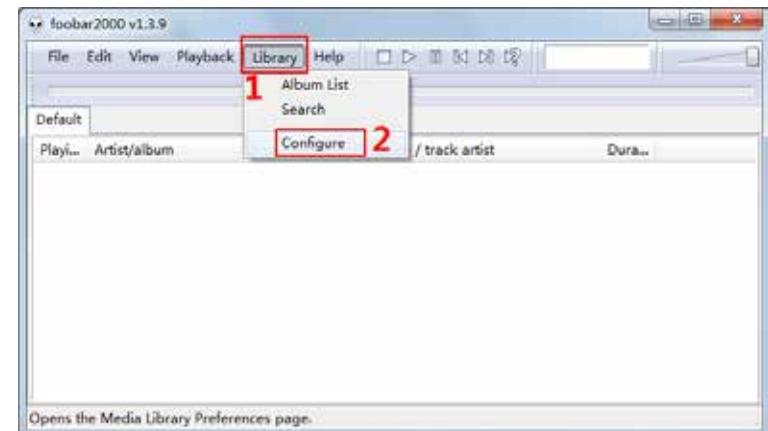


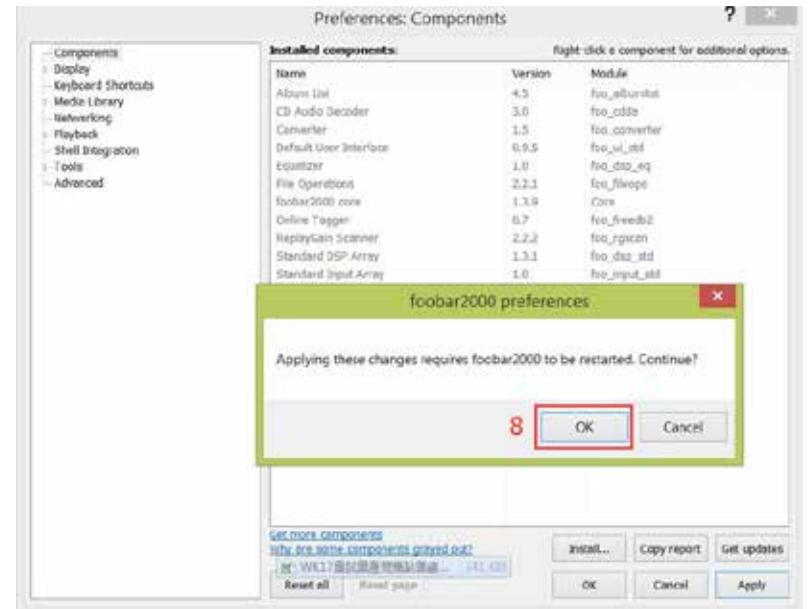
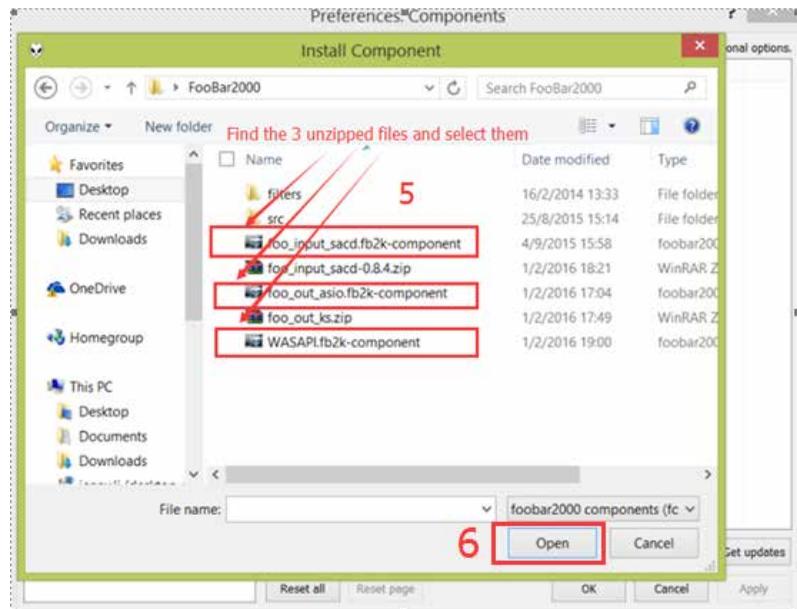
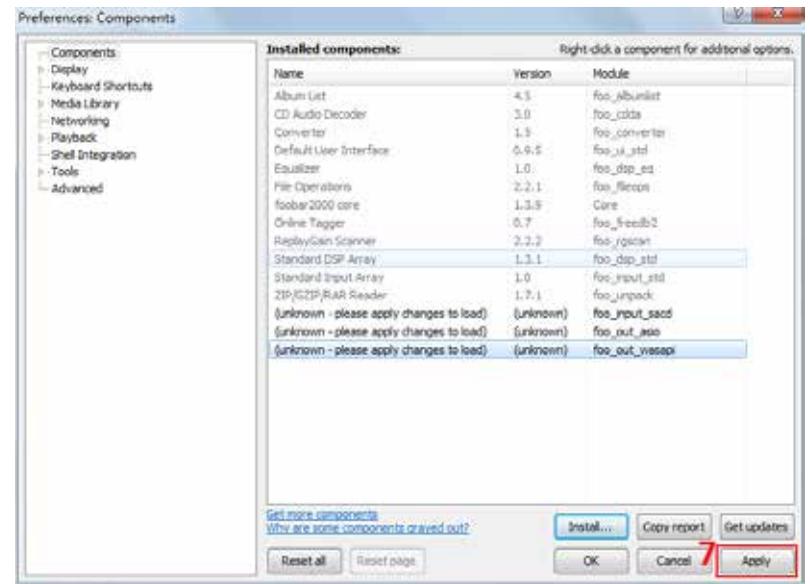
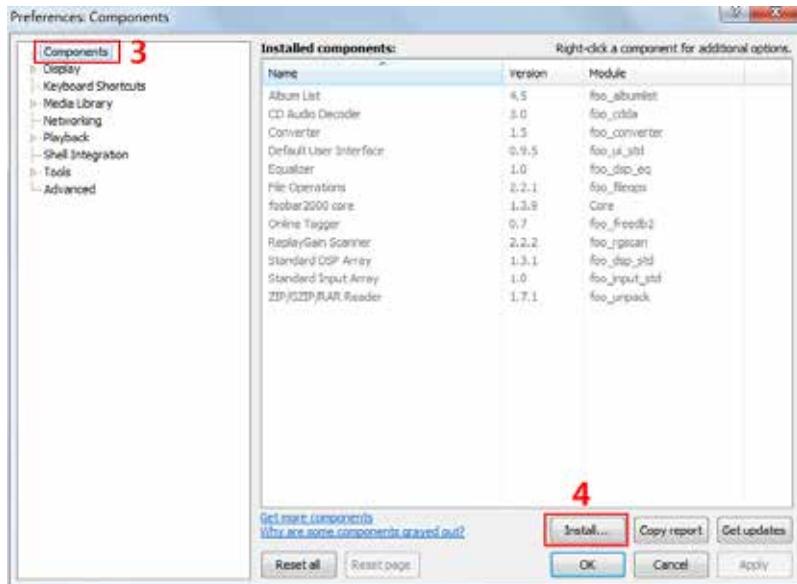
7. Click "Finish" and run Foobar2000.



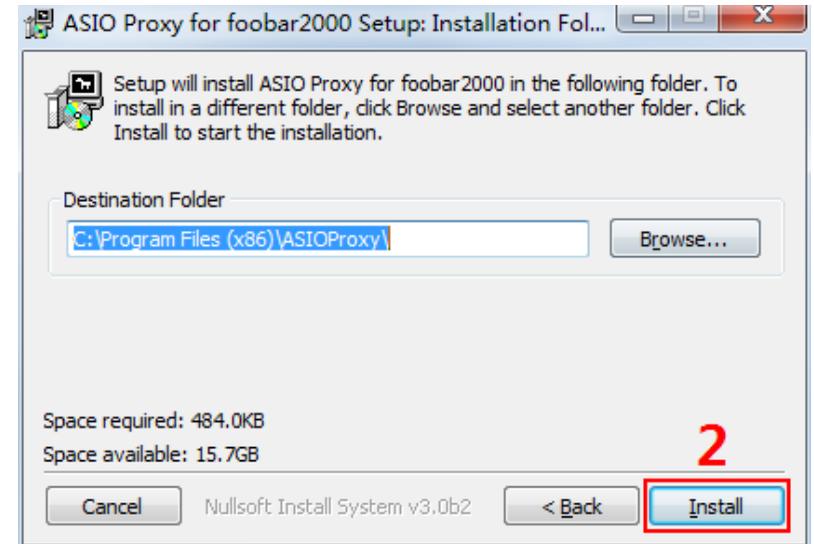
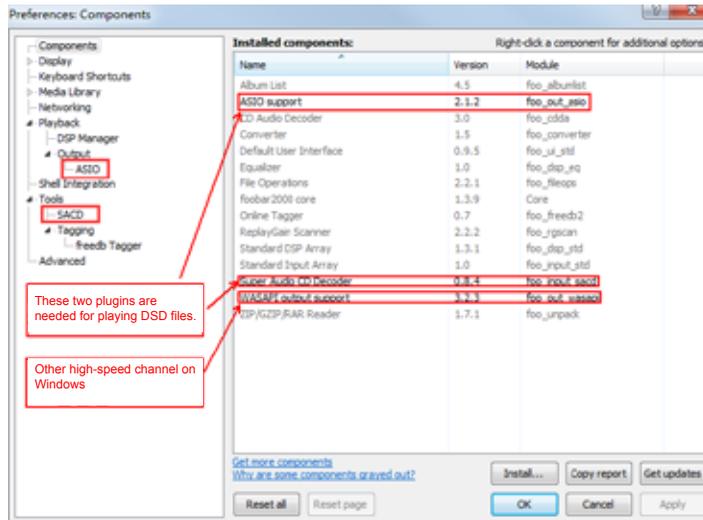
III Install Plugins

1. Install plugins according to the following steps highlighted from 1 to 8.



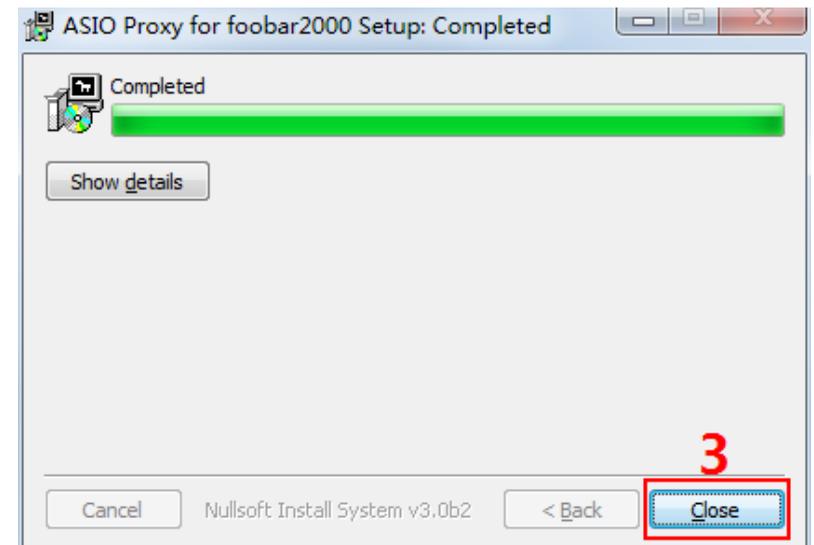
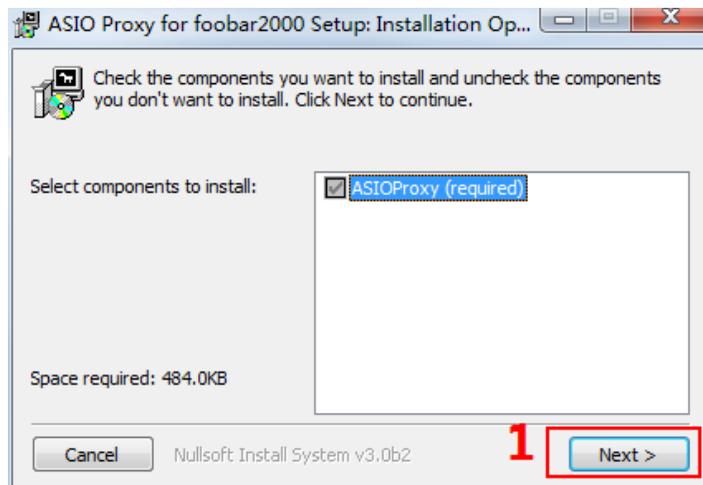


2. Restart Foobar2000 and go to the install location to confirm that the three plugins highlighted in the following figure are installed successfully. If so, you will see two more options on the left of the interface. (as shown in the figure below)



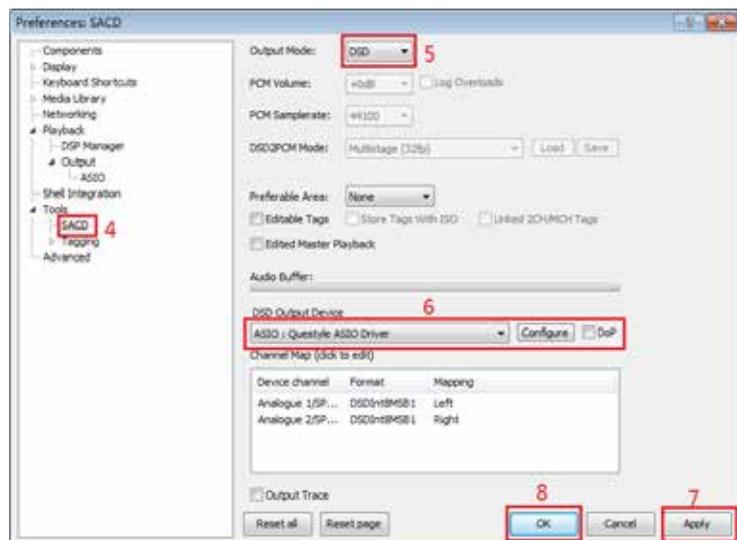
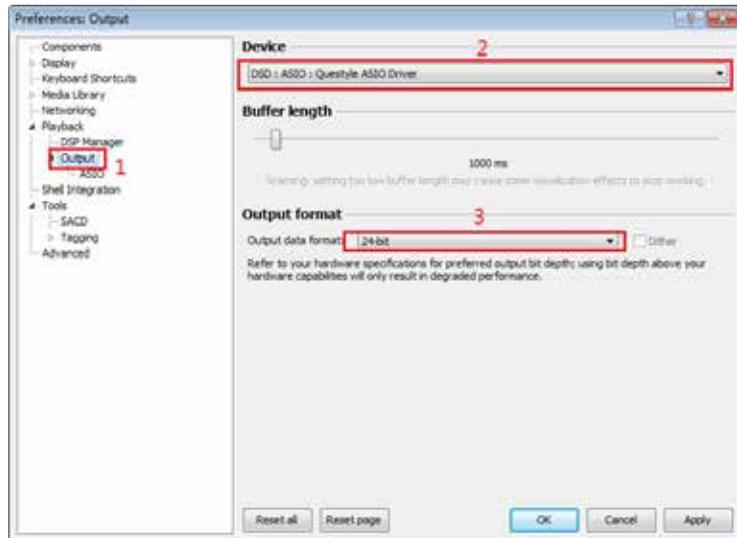
If you come to this step, you have completed all the preparations.

3. Install ASIO driver: double click ASIOProxyInstall-0.8.3.exe in the unzipped folder and then install the three components one by one.



IV Setup the Software

1. Connect your CMA Twelve to a PC with a USB cable and finish the software setup according to the following steps highlighted from 1 to 9. Close and restart the software, then Foobar2000 is ready for playing PCM and DSD files.



2. In addition, installing plugins for Core Audio Stream channel requires copying the "foo_out_ks.dll" (highlighted in the figure below) to "components" under installation directory. Then restart the software and it is ready for playing files.



If the DSD files fail to play, please try the following:

1. Exit the antivirus software and reinstall the CMA Twelve Driver. Maybe the Super Hub SHB2 program is mistakenly deleted by the antivirus software.
2. Every time you finish setting Foobar2000, please restart the Foobar2000 software.

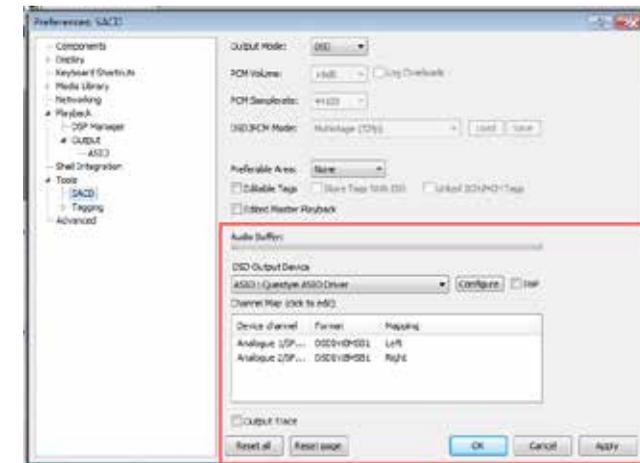


Fig. 1

3. Foobar plugins have different versions and their compatibility is different with different PC operation system. When the DSD files fail to play, please download another version of the plugin on Foobar website, then repeat the above installation steps. The installation succeeds until you see the window options in Fig.1.

Setup on Mac OSX

For Mac OSX, no special drivers are needed for later versions than OS 10.5.7. The performance of CMA Twelve remains the same on Mac OS with the standard asynchronous transmission via USB.

Make sure your CMA Twelve is selected as the default output device in the system preferences. When you see the following interface after going to “System Preferences”-“Sound”(as shown below), your Super Hub SHB2 is ready to work.



Specifications

Digital Section	
USB Type B Input	Support 44.1kHz-384kHz/16Bit-32Bit PCM and DSD Native DSD64, DSD128, DSD256, as well as DSD64, DSD128, DSD256 of DoP format.
Digital Input & Output	SPDIF input and output, Optical input, AES/EBU output. Support 44.1kHz-384kHz/16Bit-32Bit PCM.
SHB2+Questyle Digital Audio Player QP2R or Update Digital Audio Players	Support 44.1kHz-384kHz/16Bit-32Bit PCM and DSD Native DSD64, DSD128.
Analog Input	RCA x1 pair
Digital Source+5GHz Wireless Transmission Mode	With USB, S/PDIF, Optical or Analog signals input, or in Hub mode, it supports communicating with Questyle's 5G Wireless receivers via 5G Wireless Transmission.
DAC+Pre-Amp Section	
Analog Output	Balanced XLR x1 pair, unbalanced RCA x1 pair
Max Analog Output Amplitude	STANDARD 14 dBu: XLR: 4.343V RCA: 2.160V STUDIO 20 dBu: XLR: 8.121V RCA: 4.038V
THD+N	THD+N@STUDIO 20 dBu: RCA: minimum at 0.00065% XLR: minimum at 0.00055%
SNR	RCA> 102dB XLR>114dB (non-weighting)
Frequency Response	DC-20kHz(+0, -0.3dB)@0dBFS, 24Bit 48kHz (Note: FIX/ADJ: Fixed Pre-amp Output Mode or Adjustable Pre-amp Output Mode.)

Note: Data listed above are collected from Audio Precision AP2722 testing.

FCC STATEMENT

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, Human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation