

S.M.S.L

## Safety Notes

- Install this unit in a well ventilated, cool, dry, clean place-away from direct sunlight, heat sources, vibration, dust, moisture, or cold..
- Use the voltage specified on this unit Only. Using this unit with a higher voltage than specified is dangerous and may cause fire , damage to this unit, or personal injury. Our company will not be held responsible for any damage resulting from the use of this unit with a voltage other than that specified.
- Do not attempt to modify or fix this unit by yourself. Contact alesperson or customer service when any service is needed. The cabinet should never be opened for any reason.
- When not planning to use this unit for long periods of time (i.e. when going on vacation), disconnect the power cable from the AC wall outlet.

### **Important note:**

The product specifications and information mentioned in this manual are for reference only. The content of this manual is subject to change without notice.

## Warranty Terms

### 1.The Term of Service

Foshan Shuangmusanlin Technology Co., Ltd promises to offer good-quality products. If the product is broken in 7 days after purchasing when you use it normally, you can choose to send it back for return, replacement or repairing (only the product does not affect the second sales can be returned ). Repairing for free in one year if you use it normally.

2.Date of purchase is in accordance with the date on invoice or receipt used by seller, and if you buy it on line, you can show the screenshot of trade.

3.If an inappropriate usage causes the unit damaged, the warranty will be void. As below.

- All damages by inappropriate use, including using it under non-normal working environment or without following the instructions.
- Dismantling, refitting, repairing by user in private.
- Causing damage by using some fittings instead of the designative or accredited ones.
- Cannot provide credible proof of purchase.

4.Sending it back to our company for repairing.

5.Contact your S.M.S.L Audio reseller for a return or replacement.

## Features

- All format playback, support MQA, DSD, WAV, APE, FLAC, AIFF, MP3, etc.;
- All digital interface: USB, optical, coaxial, I2S, AES/EBU, Bluetooth;
- Support streaming media playback, including DLNA and AirPlay;
- Support USB HDD, up to 4TB capacity, and support NTFS/FAT32 file system;
- Support Hiby link, you can use Hiby mobile app to control it;
- Support wired or WIFI connection, support 2.4GHz and 5GHz WIFI;
- Bluetooth supports transmitting and receiving functions;
- USB DAC receiver, can connect to computer to play music;
- USB DAC transmitter, can connect to USB DAC (like SU-9) to play music;
- USB DAC/I2S output support up to PCM32bit/384kHz and DSD256;
- I2S LVDS level output via HDMI physical interface;
- SPDIF interfaces supports DOP and D2P output;
- The newly designed UI makes the operation easier;
- Built-in high efficiency, low noise switching power supply;
- Tempered glass top cover, nice and timeless!

## Note

**Firmware and driver download:** <https://www.smsl-audio.com/>

## Specifications

### INPUTS:

USB(type A) x2, USB(type B), micro SD, Bluetooth

### OUTPUTS:

Optical, Coaxial, AES/EBU, Bluetooth, I2S(HDMI), USB(type A)

### AUDIO SECTION

USB Audio

PCM

44.1kHz ~ 384kHz

DSD

DSD64~DSD256

USB System

windows 7/8/8.1/10/11, Mac OS X, Linux

DSD to PCM(D2P)

Convert to PCM 88.2kHz

DSD over PCM(DoP)

DoP64, DoP128

SPDIF DoP

DoP64

### USB SECTION

Version

USB2.0 high speed

USB Maximum current

2A (2 USB total)

USB (type B)

DAC/copy music

File system

FAT/FAT32/NTFS

Micro SD Capacity

up to 256 GB

Hard disk driver

up to 4 TB

## Specifications

### BLUETOOTH SECTION

Bluetooth version	4.0
HiBy Link	Supported
Format	
Output support	SBC /AAC /APT-X/LDAC /UAT
Input support	SBC /AAC/LDAC /UAT
Input preference order	UAT → LDAC → AAC → SBC
Output preference order	UAT → LDAC → APT-X → AAC → SBC

### NETWORK SECTION

WIFI	2.4GHz/5GHz(shared antenna)
Ethernet	100Mb/s

### GENERAL

Language	Chinese, English
Software update	Micro SD
Power consumption	20W
Standby Power	<0.5W
Size	187.5 x 154 x 40(mm)
Weight	760g / 1.67 lbs

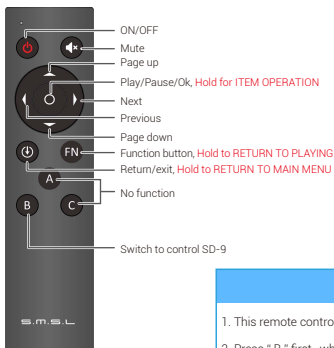
## Formats

Format	Support	Level	Sampling rate(Hz)		Bit width	CUE	Remarks
			Min	Max			
APE	support	Fast	8K	384K	16-24bit	support	
	support	Normal	8K	384K	16-24bit	support	
	support	High	8K	384K	16-24bit		
	support	Extra high	8K	96K	16-24bit		176/192K not support
	not support	Insane	8K				
WAV	support		8K	384K	16-32bit	support	DTS not support
WMA	support		8K	96K	16-24bit		
WMALOSSLESS	support		8K	96K	16-24bit		
Flac	support		8K	384K	16-24bit	support	
DSF	support		2.8M	11.2M	1bit		
DFF	support		2.8M	11.2M	1bit		
ISO DSD	support		2.8M	2.8M			
ISO DST	not support						
AIFF	support		8K	384K	16-32bit		
M4A	support		8K	384K	16-24bit		
MP2	support		8K	48K	16bit		
MP3	support		8K	48K	16bit	support	
AAC	support		8K	48K	16bit		
OGG	support		8K	48K	16bit		

### Note:

1. The mark here is the rate of sampling is not a file rate.
2. Ape : 32-192kHz's Insane file does not support.  
176.4kHz, 192kHz's Extra high file does not support.
3. ISO8 files do not support.
4. ALL 64k files do not support.

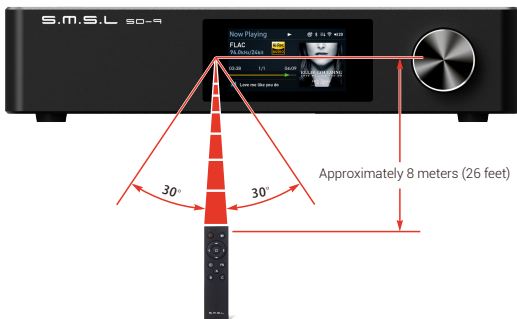
## Remote control



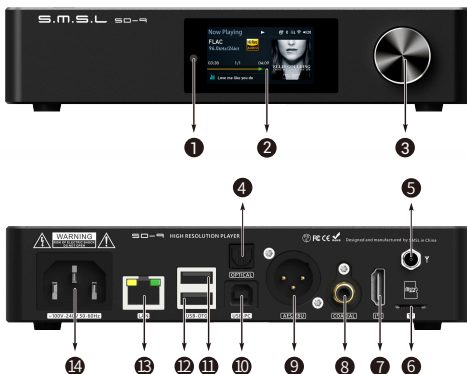
### Note

1. This remote controller use 2 x R03/AAA batteries.
2. Press " B " first , when using SD-9 for the first time!

When the playing time of the current song exceeds 10 seconds, press the "left" button on the remote control to start playing the current song from the beginning. If it does not exceed 10 seconds, the previous song will be played.



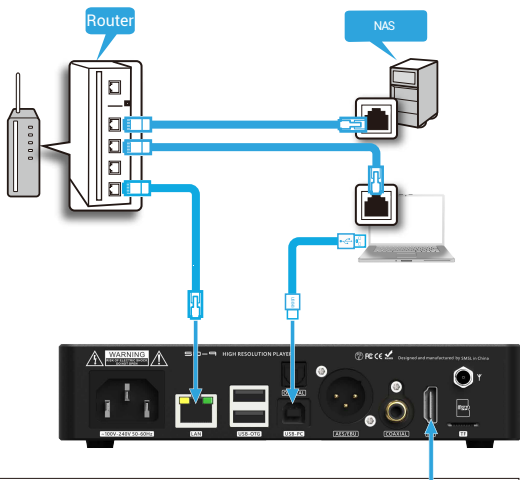
## Parts names and functions



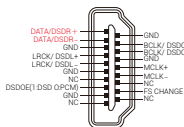
- |  |  |
|--|--|
| <b>1</b> Remote window                     | <b>8</b> Coaxial output                |
| <b>2</b> Display screen                    | <b>9</b> AES output                    |
| <b>3</b> Knob                              | <b>10</b> USB (B type) input           |
| <b>4</b> Optical output                    | <b>11</b> OTG_ONE                      |
| <b>5</b> 2.4G/5G dual frequency antenna    | <b>12</b> OTG_TWO                      |
| <b>6</b> Micro SD card slot                | <b>13</b> LAN interface                |
| <b>7</b> I <sup>2</sup> S output interface | <b>14</b> Power AC input<br>(100-240V) |



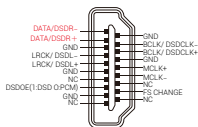
## Connecting your equipment



### I2S Pins Functions

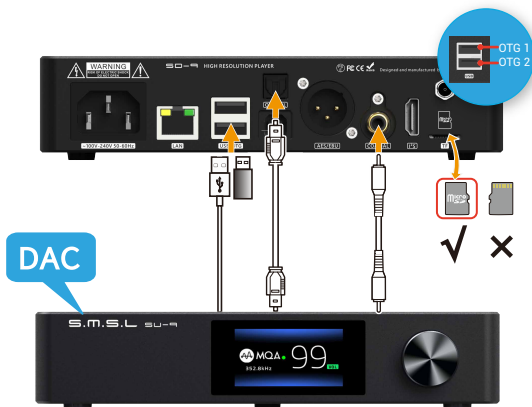


I2S NORMAL



I2S INVERTED

## Connecting your equipment



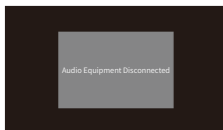
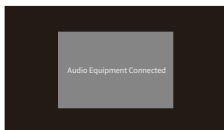
### Instructions for the two USB A ports:

1. When used as a USB hard disk input, the upper interface is OTG\_1 and the lower interface is OTG\_2.

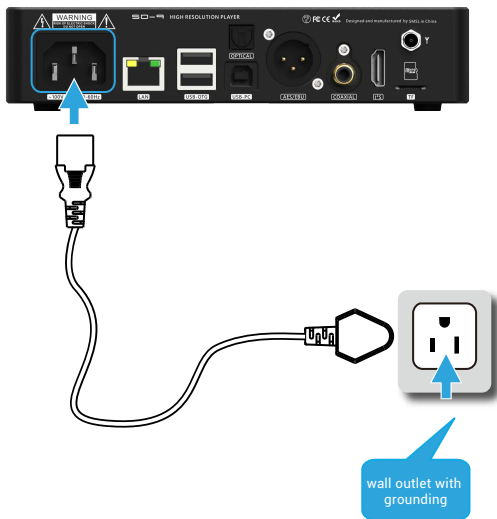
**Note:** The sum of the two USB output currents does not exceed 2A.

2. One of them is used as a USB output. When the USB DAC is connected, the "Audio Device Connection" is displayed, and at the same time, the digital signal is output from this USB interface, and the other output of the SD-9 are silent. When unplugged, "Audio Device Disconnect" is displayed, and the original output is restored.

**Note:** The USB DAC cannot be successfully connected due to USB matching problems

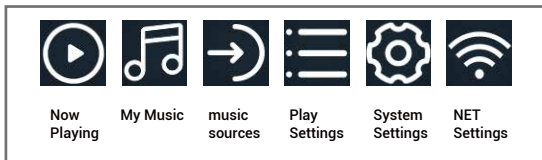
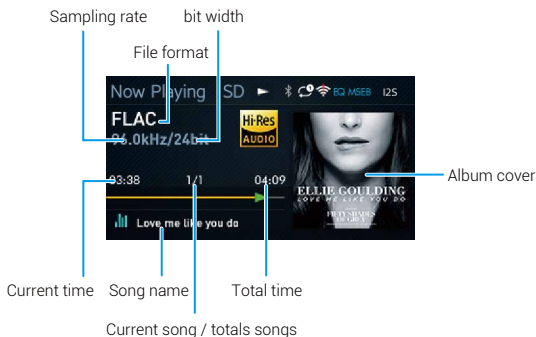
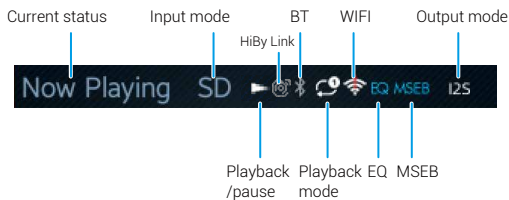


## Connecting your equipment



**Note:** Please use a power outlet with a good grounding wire to ensure safety and avoid noise.

## Operation introduction



## Operation introduction

### When using for the first time, please note:

1. Press the "B" button before using the remote controller for the first time, because SMSL has the concept of unified remote control, user can use one remote control to control a whole set of SMSL equipment!

They are:

- A: power amplifier
- B: player / Headphone Amplifier
- C: DAC

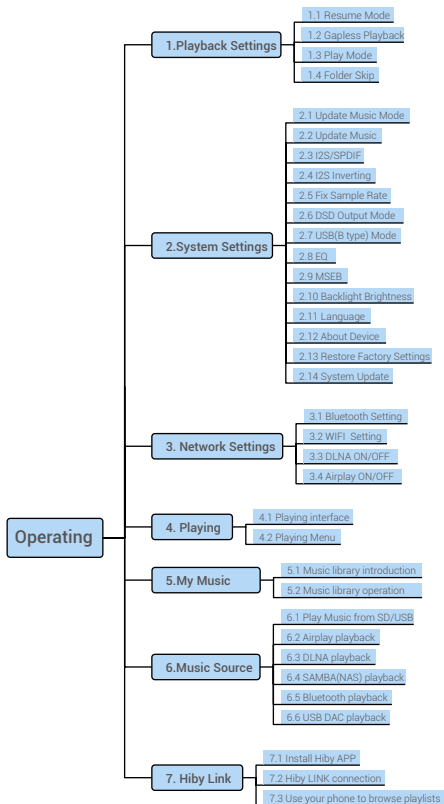
2. The power state of SD-9 has memory

- Without use the button to shut down, directly unplug the power cord, the next plug will directly boot;
- Hold the knob/remote control power off, the next plug-in will not directly start.

## Knob functions

<b>Click</b>	In the playback state: play/pause
	In other states: confirm/enter
<b>Double-click</b>	Return/exit
<b>Long press</b>	Power on and off
<b>Rotate right</b>	Down
<b>Rotate left</b>	Up

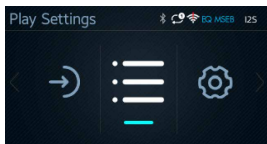
## Operation introduction



## Play settings

When using it for the first time, please set up the playback first to suit your personal usage habits.

Turn the knob to "Play Settings", click to enter, and set "Breakpoint Memory Play", "Seamless Play", "Play Mode", "Folder Skip" and so on. After setting, double-click to return to the home page.

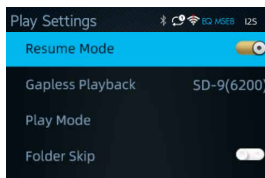


### 1.1 Breakpoint memory playback:

"Turn off" the next time you turn it on, the tracks before the last turn off will not be played.

"Tracks" will automatically display the tracks before the last shutdown the next time the computer is turned on.

"Position" will automatically jump to the track playing position before the last shutdown.



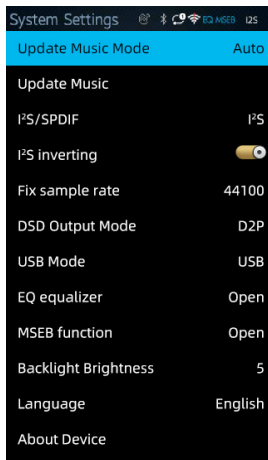
**1.2 Seamless playback:** There is no pause when switching songs with the same sampling rate.

**1.3 Play mode:** 1. List play 2. Single loop 3. Random play 4. List loop.

**1.4 Folder skip:** Switching songs can jump to songs in different files.

## System Settings

For the first use, please set up the system first to suit your personal usage habits.



### 2.1 Update music library mode:

Click to select manual or automatic. (Note: This function is only valid for micro SD card.)

### 2.2 Update music library:

Scan the music of SD card, OTG USB device connected to the player list.

### 2.3 I2S/SPDIF:

Choose I2S or SPDIF (optical, coaxial, AES)

### 2.4 I2S inverting:

I2S mode selection, ON is Inverting mode!

### 2.5 Fixed sampling rate output:

The output digital audio is fixed at the set sampling frequency, This setting helps some older DACs work normally with hi-res music.

### 2.6 DSD output mode:

**2.6.1 D2P (DSD to PCM):** Converts DSD signal to PCM output. When the connected DAC does not support DSD, the system converts to 88.2khz sampling rate by default.

**2.6.2 DoP (DSD over PCM):** Package DSD signal into PCM to achieve the purpose of using optical, coaxial, AES / EBU to send DSD audio, up to dop64.

**2.6.3 DSD Native:** Direct DSD data transmission, This setting only supports I2S and USB audio output interface.



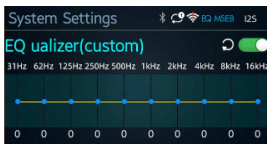
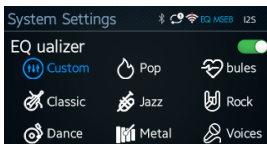
## System Settings

### 2.7 USB B port mode:

- This setting is only for type B USB input.
- DAC mode, it is USB DAC;
- USB mode, used to connect the computer to transfer music.

### 2.8 EQ MODE: Open or close.

- EQ is only valid when the sampling rate is 44.1kHz and 48kHz.
- There are 8 preset EQ and 1 custom EQ;
- Custom, a total of 10 EQ (31Hz, 62Hz, 125Hz, 250Hz, 500Hz, 1kHz, 2kHz, 4kHz, 8kHz, 16kHz), the adjustment range is + / - 12dB.



### 2.9 MSEB(Magic Sound 8-ball):

MSEB innovatively uses DSP to quantify the components of audio, and then adjusts the audio effect from the perspective of listening!

- The effective range of MSEB is 96kHz and below.
- There are 10 sound effects settings, which are:

Overall temperature, Bass extension, bass elasticity, Bass texture, Note Thickness, Vocals, Female overtones, Sibillance LF, Sibillance HF, Impulse response, air.

## System Settings

### 2.10 Backlight brightness:

There are 5 levels of brightness.

### 2.11 Language:

Simplified Chinese, Traditional Chinese, English.

### 2.12 About Device:

Model, TF card capacity, Remaining capacity, Bluetooth MAC, Firmware version

### 2.13 Restore Factory Settings:

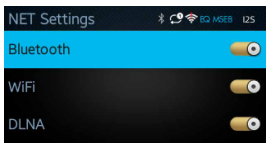
Reset all options of the niut and restore to factory settings.

### 2.14 System Update:

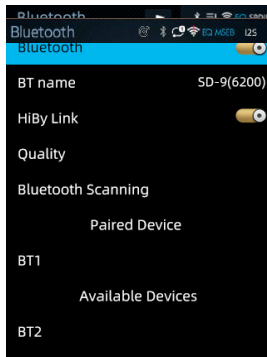
Download the upgrade firmware to the TF card, insert it into the unit and click system update.

## Network Settings

Click to enter the setting interface.



### 3.1 BLUETOOTH



#### 3.1.1 Bluetooth ON/OFF;

**3.1.2 Bluetooth name:**SD-9(xxxx), the "xxxx" is used to identify individual units. When you have multiple SD-9's in it, it's used to identify them.

The Bluetooth reception of SD-9 is always on. You can use your mobile phone to search and connect the device, and use your mobile phone to control or transmit audio to SD-9.

**3.1.3 HiBy Link ON/OFF,**when switched ON, the INPUT function of SD-9 is CONTROL,NOT audio.

- SD-9 can connect with HiBy app, and the mobile phone with HiBy app can operate SD-9's play list.
- If you want to use Bluetooth to input audio, be sure to turn off the HiBy link function of SD-9.

#### 3.1.4 Quality:

Here you can choose the Bluetooth communication format, SD-9 supports:

Input: UAT / LDAC / AAC / SBC

Output :UAT / LDAC / aptX/ AAC / SBC

The priority is also in this order. For example, the UAT format is selected. If the device at the other end does not support this format, the system will automatically switch to the format supported by the other end, such as LDAC, and so on.

## Network Settings

**3.1.5 Bluetooth Scanning:** It is used for Bluetooth output. The Scanning is similar to the Bluetooth Scanning of mobile phones. It is used to connect other Bluetooth devices and output the audio played by SD-9 to Bluetooth headset or Bluetooth speaker through Bluetooth.

- Please make sure that your Bluetooth headset or speaker is in pairing state, and then click OK to enter the Scanning. After the Scanning, you can find your Bluetooth headset or speaker in the follow menu, and then click the device you want to connect.
- After Bluetooth connection, audio can be output from Bluetooth, and the digital output interface still has sound output.

## 3.2 WIFI



### 3.2.1 WIFI ON / OFF;

### 3.2.2 Searching WiFi:

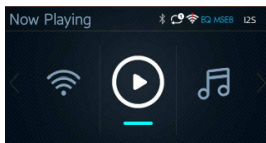
Click to search. After the search, the WiFi nearby will appear in the menu below. Select the name to connect and use the remote control to enter the password.

- Note: please don't use letters or symbols which are not supported by local keyboard to avoid connection failure.



- Note that this unit supports 2.4GHz and 5GHz WiFi. If you want to use Bluetooth at the same time, please try to use 5GHz WiFi, because Bluetooth also uses 2.4GHz communication frequency band, which will cause certain interference with 2.4GHz WiFi and affect the communication quality.

## NOW PLAYING



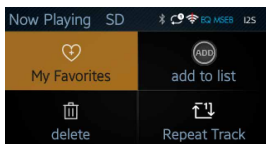
### 4.1

When SD-9 is not playing music, click play and the system will automatically switch to music library.

### 4.2

when SD-9 is playing the music page, long press the middle key of the remote control to perform four operations:

1. Add to my favorite,
2. Add to playlist,
3. Delete the song,
4. Play mode(Shuffle, Repeat ALL, Repeat Track, List Play)



## Music library

### 5.1 Music library introduction

Music library is actually a classified list of songs. When a new storage device is inserted, you can click "update music" in the settings. At this time, the system will update all the music in the storage device to the play list here.

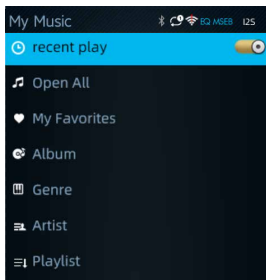
Please note: the maximum number of SD-9 songs scanned is 30,000 and the excess will be ignored.

- Recently played
- Open all
- My favorites
- Album
- Genre
- Artist
- Playlist

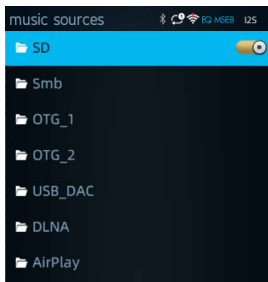
### 5.2 Music library operation

Enter the song list, locate the song, and hold the middle key of the remote control to open the operation menu:

1. Add to my favorite;
2. Add to the play list



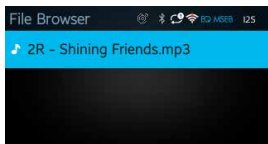
## Music source



Eight input sources

- SD card
- LAN
- OTG\_one
- OTG\_two
- USB\_DAC
- DLNA
- AirPlay
- Bluetooth

### 6.1 SD card



**6.1** Play the music in SD card or USB memory. USB(type A) interfaces which is displayed as OTG\_1, OTG\_2 in the "music sources", They can be connected to U disk or mobile hard disk, and the maximum capacity is 4TB.

There are 2 ways:

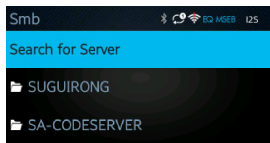
1. Select "Music Source", select SD / OTG, browse the folder directly and select audio files to play. After playing a folder, it will automatically play the audio files in the next folder.

2. Select "System Settings" - > "Update Music"

After updating the music library, select Open all in "My Music"  
And then enjoy the music.

## Music source

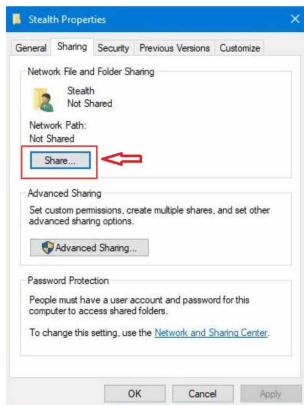
### 6.2 SAMBA(NAS)



In the "music source" menu, click to enter the "SMB", select your PC or NAS, find the folder and songs to play. This function can read all the shared music in the current network environment, including NAS or PC.

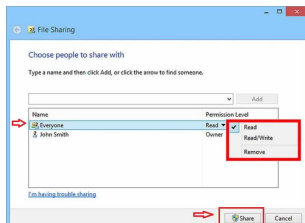
Note: If SD-9 prompts you to enter the user name and password, the shared file is not set correctly.

Here is an example of windows 10 shared file:





## Music source



## Music source

### 6.3 USB DAC:

SD-9 supports USB DAC function and uses USB (type b) interface to input.

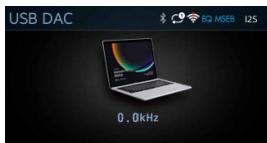
- Please confirm that this function is ON before use:

System Settings > USB mode, select DAC

Note: if USB is selected here, then USB interface is used to connect with computer and transfer music files to SD card or U disk

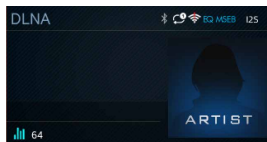
- If you use a Windows computer to connect, please install windows driver, the download address is:

<https://www.smsl-audio.com/portal/product/downloadlist/id/11.html>



### 6.4 DLNA

SD-9 supports DLNA protocol playback and is compatible with most DLNA protocol devices.



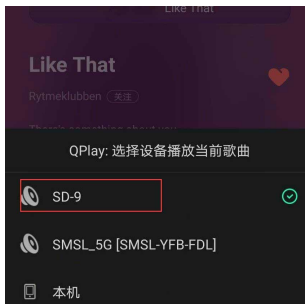
## Music source

SD-9 supports DLNA protocol playback and is compatible with most DLNA protocol devices. Take "mconnect" as an example to demonstrate how to play:

1. Install mconnect on mobile phone and download music and set to playing;
2. Check DLNA of SD-9 are turned on;

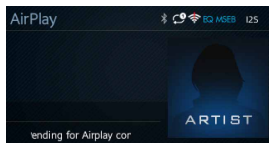


3. Make sure the mobile phone and SD-9 are in the same network;
4. Select "Play to" and then select SD-9 in the menu.



## Music source


### 6.5 Apple AirPlay

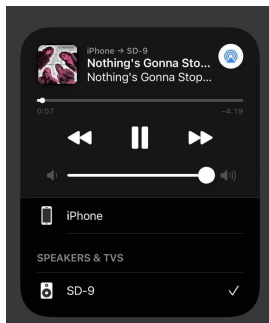


SD-9 supports Apple's AirPlay function. Take iPhone as an example to demonstrate how to play:

1. Check whether the SD-9's AirPlay function is turned on, "Network Settings > AirPlay";

2. Make sure the mobile phone and SD-9 are in the same network;

3. In the control center of iPhone, click the logo  and select SD-9 in the pop-up menu, as shown in the figure left.



### 6.6 Bluetooth input

The Bluetooth of SD-9 has input and output functions. The output function was introduced above, and the input function is introduced here.

Connect SD-9 with mobile phone

1. The Bluetooth function must be turned on;
2. If you want to use Bluetooth to input audio, HiBy Link must be closed;
3. Search for SD-9 on your mobile phone and connect it, you can play music after the connection is successful.


## HiBy Link

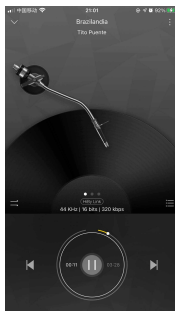
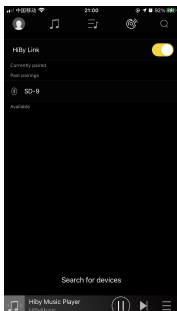
SD-9 supports Hiby link, which is the control function in the "HiBy music" player. You can connect SD-9 with your mobile phone through Bluetooth to control SD-9's playlist. It's very easy to use!

Connect Steps:

1. Please make sure that the Hiby link function of SD-9 is turned on, and "network settings" -> "Hiby link" is turned on
2. Download "HiBy music" from mobile phones. iPhone users can go to the Appstore to download it. Android users can scan the QR code below or download it from Hiby official website



3. Open "HiBy music", select the  icon, you can find SD-9 below, click and connect, after connecting, you can use "HiBy music" to browse SD-9 card, USB music and play.



## About MQA

MQA (Master Quality Authenticated) is an award-winning British technology that delivers the sound of the original master recording. The master MQA file is fully authenticated and is small enough to stream or download. The SD-9 includes MQA technology, which enables you to playback MQA audio files and streams, delivering the sound of the original master recording.

Visit How it works <https://www.mqa.co.uk/how-it-works> for more information.

## MQA files playback

- Only the USB interface of SD-9 supports MQA decoding, other interfaces do not!
- SD-9 MQA playback does not require the use of special playback software, such as foobar2000, Audirvanaplus only needs to support ASIO or WASAPI audio output, and when playing MQA audio, it is best to adjust the computer's volume to the maximum to make the computer The audio output is the best.
- The indicator light next to the MQA trademark is green or blue, indicating that the device is decoding and playing MQA audio or files, and to ensure that the output sound quality is consistent with the source material. It lights up blue to indicate that it is playing an MQA Studio file, which has been authorized by the artist/producer or copyright owner.
- When playing an MQA file, the sampling rate displayed on the display screen is the original sampling rate of the audio.



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