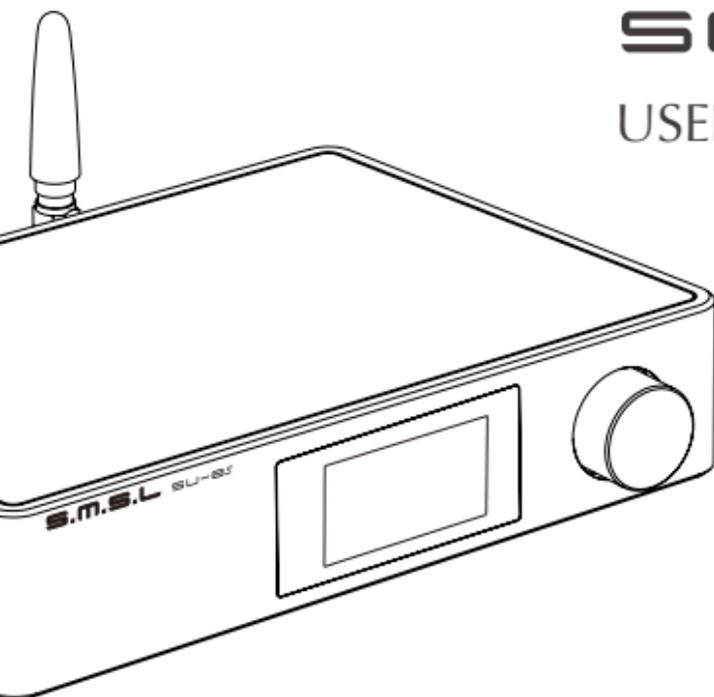


S.M.S.L



SU-8S

USER MANUAL

The contents of this manual may be changed with the edition,
and are subject to change without notice.

Ver 1.0

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

- Supports MQA decoding;
- The top performance D/A chip ES9068AS from ESS Technology;
- 5 high-end dual op-amps OPA1612 and a lot of audio grade components are used;
- XMOS XU-216, true 32bit audio processing, supports DoP and Native DSD, and reaches 32bit/768kHz and DSD512;
- Ultra-low phase noise and optimized clock processing circuit are used to achieve ultra-low clock jitter;
- All interfaces support MQA decoding function!
- All inputs support DSD streaming, including coaxial and optical (DoP64);
- Use tempered glass display panel for higher light transmission and longer service life;
- Built-in shielded, low noise power supply processing, while improving power efficiency, lower power consumption;
- Specially designed discrete component linear regulated power supply and multiple low noise regulated power supplies to provide low noise power for analog circuits.
- Qualcomm's latest Bluetooth chip supports APTX/HD, SBC, AAC;
- High quality gold-plated input and output jacks;
- 1.9 inch TFT LCD display;
- JAS Hi-Res certification;
- Equipped with remote control and full-function remote control.

Specifications

Input	USB / Optical / Coaxial / Bluetooth		
Output	RCA /XLR		
THD+N	0.00009%(-121dB)		
Dynamic range	XLR	126dB	
	RCA	125dB	
SNR	126dB		
Output impedance	<10Ω		
USB transmission	Asynchronization		
USB compatibility	Windows 7 / 8 / 8.1 / 10, Mac OSX, Linux		
Bit depth	USB	1bit, 16 ~ 32bit	
	Optical / Coaxial	1bit, 16 ~ 24bit	
Sampling rate	USB	PCM	44.1 ~ 768kHz
		DSD	2.8224 ~ 22.5792MHz
	Optical / Coaxial	PCM	44.1 ~ 192kHz
		DSD	DSD64(DoP)
Bluetooth specification.....	BT 5.0(support SBC,AAC,APTX,APTX HD)		
Power Consumption5W		
Standby power	<0.5W		
Size	187.5X40X154mm (WxHxD)		
Weight	0.77kg		

Specifications are subject to change without notice.

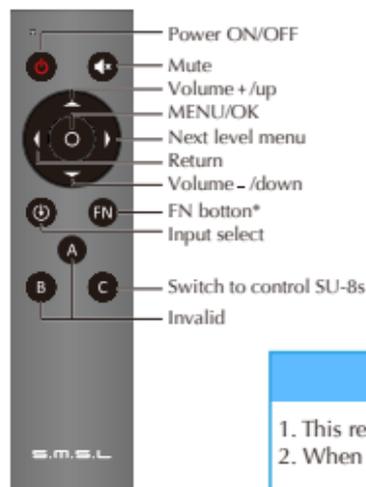
Note

Firmware and driver download:
<http://www.smsl-audio.com/cn/download.asp>

Remote control

- Install 2 x AAA batteries as instructions.
- When using the remote control, point it toward the remote control signal receiver on the main unit from a distance of 5 m (16 ft) or less. Do not place obstructions between the main unit and the remote control.
- The remote control might not work if the remote control signal receiver on the unit is exposed to direct sunlight or bright light. If this occurs, try moving the unit. Beware that use of this remote control could cause the unintentional operation of other devices that can be controlled by infra.

Operating the remote control

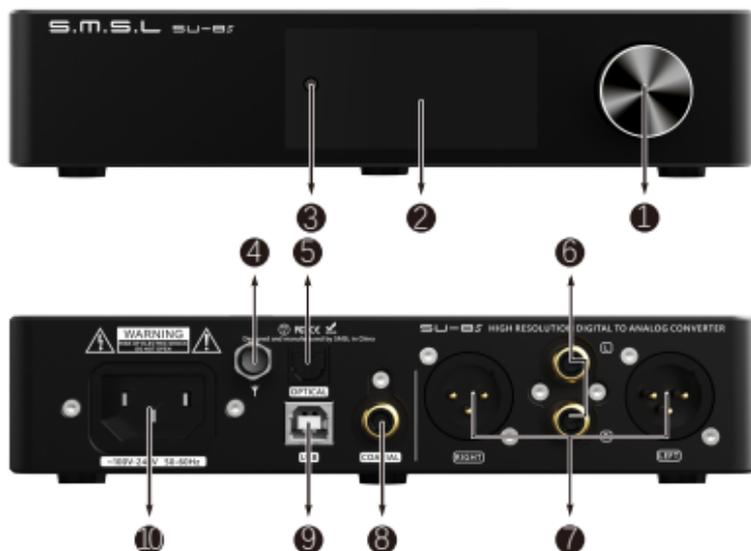


Note

1. This remote controller use 2 x R03/AAA batteries.
2. When you first operate SU-8s, press the C key first.

***FN button function:** The function of this button can be selected in the menu output selection and Bluetooth input.

Display Interface and Instructions



- | | | |
|-----------------------|-----------------|-----------------|
| 1 Knob* | 2 Display | 3 Remote window |
| 4 Bluetooth antenna** | 5 Optical input | 6 RCA output |
| 7 Balanced output | 8 Coaxial input | 9 USB input |
| 10 AC IN | | |

Note: Knob*

- Knob: Volume/Menu up or down
- Button: Press to Menu/Enter
Hold to Return or Power ON/OFF

Bluetooth operating instructions**

Connection:

- Step 1: Switch the input source in the SETTING MENU or press the Bluetooth button of the remote;
- Step 2: Turn on the Bluetooth function of the mobile phone, search for "SMSL BT5.0", and tap to pairing. When the mobile phone displays "connected", it has been successfully connected.

Re-connection:

When you had lost the connection with the SU-8s, for example, going out, and back home, some phones will not re-connect the SU-8s if the SU-8s has not been re-boot, so you can press the Bluetooth button on the remote to Re-connect.

Clear pairing: Long press the "Bluetooth" button on the remote control. After clearing the pairing, some phones may no longer be able to search for "SMSL BT5.0". In this case, you need to delete the Bluetooth device "SMSL BT5.0" which saved in the phone, and then search and pairing again.

Note***

- When using this product, please use RCA wire with shield.

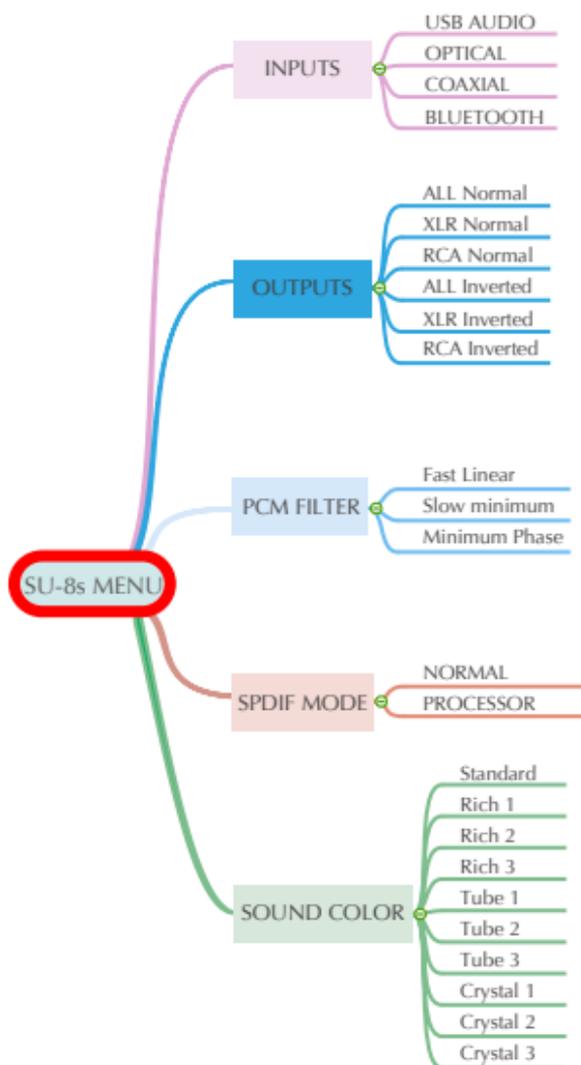
User interface

1. Main



- 1、 Audio format
- 2、 Output interface, when blank, two interfaces output at the same time.
- 3、 Output phase mark,  Normal phase,  Inverted.
- 4、 Volume Level
- 5、 Sampling rate, When Bluetooth input, display the decoding format (SBC, AAC, APTX, APTX HD)

MENU TREE



MENU TREE



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 SU-8s 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

- SU-8s has only USB and optical and coaxial interfaces, supports MQA decoding.
- SU-8s's MQA playback does not require additional software. You can use foobar2000 or Audirvana for MQA playback as it supports ASIO or WASAPI audio output. When playing MQA audio, it is suggested to adjust the volume of the computer to the maximum for the best audio output.
- The SU-8s LED next to MQA logo glows green or blue to indicate that the unit is decoding and playing an MQA stream or file, and denotes provenance to ensure that the sound is identical to that of the source material. It glows blue to indicate it is playing an MQA Studio file, which has either been approved in the studio by the artist/producer or has been verified by the copyright owner.
- When playing an MQA file, the sampling rate of the original master recording is displayed.

Instructions

■ INPUTS

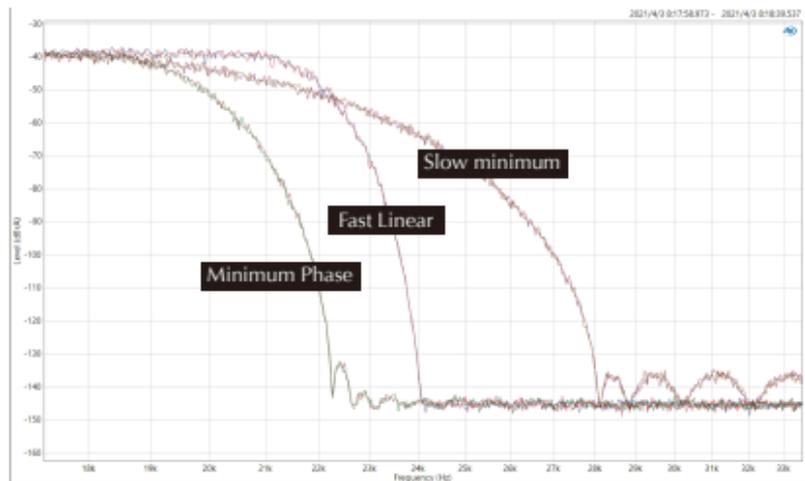
- USB
- OPTICAL
- COAXIAL
- BLUETOOTH

■ OUTPUTS

- ALL Normal
- XLR Normal
- RCA Normal
- ALL Inverted
- XLR Inverted
- RCA Inverted

■ PCM FILTER

- Fast Linear
- Slow minimum
- Minimum Phase



■ SPDIF MODE

This setting is only valid for optical/coaxial interfaces which using SPDIF protocol;

- **NORMAL MODE**

NORMAL mode, only use the digital receiver chip (DIR) to process the SPDIF signal, used in most occasions, in this mode supports MQA renderer and DoP playback, but at this time due to the limitation of the ES9068AS chip, it cannot display that the current playing is DoP, and only 176.4kHz input can be displayed. This is normal, and the internal will still decode DoP and output normal audio.

- **PROCESSOR MODE**

PROCESSOR mode, in this mode SU-8s will use the XMOS processor to process the optical/coaxial signal, so that it can have more powerful computing power and can handle various complex tasks including MQA, DoP, in this mode, Play DoP audio, the DSD icon will be displayed correctly on the display.

Note: do not switch this mode frequently, try to restart the machine after switching this mode, otherwise it may cause output noise.

■ SOUND COLOR

There are 9 sound color settings in SU-8s.

- Rich1、 Rich2、 Rich3
- Tube1、 Tube2、 Tube3
- Crystal1、 Crystal2、 Crystal3

This setting is using the DSP of ES9068AS, to make some different sound color, all of these settings will not change the frequency response curve. When set to "Standard", this setting will be bypassed.

■ PRE MODE

Volume control enable or disable.

- Vol Fixed : In this mode, volume is fixed on max output level, and the SU-8s will ignore the volume operations.
- Vol Variable: In this mode, volume can be adjust, and make SU-8s a pre-amplifier.

■ FN KEY FOR

- Switch XLR/RCA
- ALL Outputs
- Bluetooth

■ DPLL

- MIN ~ MAX

(A total of 15 kinds, the default is 5 kinds. The larger the number is, the stronger the range to adapt to jitter, and the smaller the number, the better the performance against clock jitter.)

This DPLL setting is a special function of ESS series products. It can adjust the internal DPLL digital phase locked loop circuit Bandwidth, so that the chip achieves a balance between anti clock jitter and input tolerance.

Its function:

- When the clock stability of the input signal is good, this value can be reduced, so that the clock performance of the system is better;
- When the clock stability of the input signal is not good, the sound may be interrupted. Increase this value can avoid the sound interruption! Especially when using TV as signal source!

■ DIMMER

- 5second ~ 60 second

(The range is 5 seconds-60 seconds. After setting, the screen will automatically go off within this time, and the screen will re-light up if you operate the remote control or the knob at any time.)

■ BRIGHTNESS

- LEVEL 1 ~ LEVEL 6

■ RESET

- During Bluetooth input, long press the middle button of the knob, the system will only reset the Bluetooth pairing status;
- During other input, long press the middle button of the knob, the system will clear all settings, including Bluetooth.

