Professional Digital Sound Card

User Guide

One-stop Mixer Console

For Streaming and Podcast On Computer & Mobile Devices

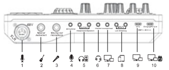
Product Overview

The SX91 mixer is a multi-channel beginner audio mixer, provides an onboard, easy-to-use, all-in-one audio solution for online live streaming, podcast, gaming... It is an entertainment sound mixer, so its audio quality is not as professional as professionnal audio mixer, audio interface, or dj mixer.

It features a compact structure, built-in LED screen, 2 large rotary adjustment knobs with RGB lighting effect, 8 conventional rotary adjustment knobs, and 29 keys. Easy to adjust, customize, and control your audio, such as 3-band EQ, reverbs, and more. It streamline the control over your audio mixing, no fiddly software, no complex and cumbersome process, no need long time learning curve, and hard-ware-controlled adjustment to all of audio and effects effortless.

The SX91 features 11 audio jacks, provides enough channels to accommodate your most home devices. Built-in a XLR(3-pin), a 1/4", a 1/8", etc, microphone jacks, allows you use your different type microphone, and a 3.5mm TRRS jack for headphone microphone input and real-time monitoring. Moreover, Built-in one USB-C jack and two 3.5mm TRRS jacks to output your computers, tablets, smartphones and more, it is compatible with iOS, Android, Windows, etc system, no need worring about the compatibility.

Rear Panel



1. 48V XLR Mic:
48V condenser microphone input port; *48V phantom power for condenser mic through the 48V key.* **the input volume is controlled by " Total Mic Volume" knob.**

2. Musical instrument:
6.35mm port. Connect 6.35mm musical instrument devices. **Controlled by " Musical instrument" knob.**
Tips: The 6.35mm dynamic mic can input audio through this port, but effects such as reverb, EQ, voice changing, etc, can not have an effect on this channel.

NOTE: 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

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

3. Moving coil microphone:
6.35mm dynamic mic input port. controlled by "Total Mic Volume" knob.

4. Microphone:
3.5mm TRS mic port. Connect a (XLR to 3.5mm) condenser microphone; **Controlled by " Total Mic Volume" knob.**

5. Headhones/speakers:
Two 3.5mm ports; used for monitoring all sound resources of the mixer in real time. Supports TRS/TRRS headphone. **Controlled by " Monitoring" knob.**

6. Headset:
3.5mm TRRS port. Connect a headphone mic. used for vocals input via headset, and also can real-time monitor all sound sources simultaneously. **The monitoring volume is controlled by " Monitoring" knob; The input volume is controlled by " Total Mic Volume" knob.**

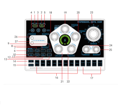
7. Accompaniment:
3.5mm music resources input port; Connect an external audio source or devices to the mixer via a 3.5mm audio cable, to playback the background music during streaming or recording. Can be connected to the smartphone 3.5mm jack, PC earphone jack. **the input volume is controlled by " Accompaniment " knob.**

8. Live Streaming:
Two 3.5mm TRRS analog output ports; By the port, the mixed audio can be output to the smartphone, tablet or other devices through a 3.5mm TRRS cable. Can live stream to multiple devices at the same time. Mainly use to live streaming podcast, or recording on smartphone or tablet.
When you chat with followers, fans and other streamers, the voice of other party can be input through this port. However, the volume of other party depends on the output volume of the other party, the mixer can not control / record the audio.

9. OTG:
USB-C port; Data interface port, can be used for audio data communications with computer and mobile devices, for audio signal line out/in, can be connected to PC /mobile devices for recording/live streaming/podcast.
The input volume is controlled by " Accompaniment " knob. The output volume is controlled by " Recording" knob.
Tips: Adjusting accompaniment volume inputted through the USB-C port (from mobile phones and PC) requires enabling Loopback function(Power key).

10. Charging/PC Live:
Data interface & charging port, can be used for audio data communications with computer and mobile devices for audio signal line out/in.
The input volume is controlled by " Accompaniment " knob. The output volume is controlled by " Recording" knob.

Top Panel



1. On/off:
Press and hold this button to realize the power on/off function; when the device is powered on, the red light is always on

2. 48V button:
48V Phantom Power switch. Power supply for 48V XLR microphone jack. Enable 48V power supply function, the button light will blink, 48V indicator will turn red, The indicator light of 48V is at the 13th mark.

3. Bluetooth switch and Bluetooth control button(BT ID: SX91)
3.1—Bluetooth is enabled by default. turn on/off Bluetooth function by press and hold the ⏯ button.
3.2—when playing accompaniment via Bluetooth, short press the ⏯ button to play/pause the BT accompaniment.
Tips: Bluetooth control button is only for Bluetooth wireless accompaniment.

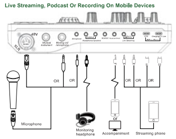
4. Previous song: Short press this button when playing accompaniment to switch to the previous accompaniment music.
5. Next song: Short press this button when playing accompaniment to switch to the next accompaniment music.
6. Original sound mode: highlights the human voice, suitable for interactive chatting and dialogue with the audience during live broadcast;

7. Calling to mic mode: The human voice is full and magnetic, suitable for calling to mic (MC) scene;
8. KTV mode: long reverberation time, suitable for singing scenes;
9. Professional mode: short reverberation time, suitable for singing scenes;
10. Lead singing/accompanying singing/silencing original sound: This key sets three modes of leading singing/accompanying singing/silencing original sound:
a. Lead singer: You can hear the original singer, accompaniment music and microphone sound in the monitoring headphones for the first 60 seconds. After 60 seconds, only the accompaniment music and microphone sound are heard in the monitoring headphones;
b. Sing along: There is the original singer in the monitoring headphones, but there is no original singer in the recording or live broadcast room, only accompaniment music and microphone sound.
c. Sound cancellation: When the sound cancellation is turned on, the vocal part in the two-channel stereo accompaniment can be eliminated.
Note: Some of the accompaniments are different from the song tracks, so the original vocals may not be cleanly removed.
11. Electronic music mode: The sound output changes to electronic sound effect. When switching to electronic music mode, this key can be used to switch the electronic music tone, which is suitable for singing scenes;
12. Voice changing mode: The default sound output is the female sound effect. You can switch between different sound effects such as male voice, magic sound, baby sound, etc. with a single press of the button. It is suitable for special live recording scenarios.
13.Loopback Button
Press and hold for 3s to turn on/off the mixer. Short press to turn on/off the Loopback feature after power on.
The Loopback feature is enabled-- the button light is always on; the audio sent to the mixer via USB-C will be sent back to the USB connected device, the audio resources inside PC(music, video, game, web,ect audio) can be heard by streaming audience or recorded by recording device.
The Loopback feature is disabled-- the button light flashes: the audio sent to the mixer can be heard through the monitoring headphones, but will not be recorded, or heard by audience. Turning off this feature can avoid unwanted echos.
14. Dodge function switch: The duck function is turned off by default. Supports "turning on/off" the ducking function as needed in any sound effect mode through this switch. When the ducking function is on, the indicator light flashes. When there is audio input from the microphone, the accompaniment sound will fade out; when there is no audio input from the microphone, the accompaniment sound will fade in and return to normal. Suitable for chatting, hosting and other scenarios

15. Noise reduction switch: The noise reduction switch is on by default, and the indicator light flashes, which can appropriately reduce the noise caused by the internal or microphone.
16. Warm-up special effects: a total of 8 built-in warm-up special effects;
17. Custom special effects: There are 4 custom special effects keys. You can record your favorite special effects sounds through the accompaniment port, microphone port, Bluetooth accompaniment, and OTG interface. Press and hold this button to record, and each button can record for 10 seconds. You can replace the set special effects and record again in the same way.
18-20 - Microphone high, medium and bass adjustment: Rotate to the right "+" direction to enhance the microphone input. Turning to the left "-" weakens the microphone input.
21. Microphone total volume adjustment: Rotate to the right "+" direction to increase the microphone input volume, and rotate to the left "-" direction to decrease the microphone input volume. (The minimum volume can be adjusted to mute the microphone)
22. Reverberation volume adjustment: Rotate to the right "+" direction to increase the reverberation intensity, and rotate to the left "-" direction to weaken the reverberation intensity (reverberation disappears)
23. Monitoring volume adjustment: Rotate in the "large" direction to the right to increase the monitoring output volume, and rotate in the "small" direction to the left to decrease the monitoring output volume (the minimum volume can be adjusted to monitor mute).
24. Recording volume control: Rotate to the right "+" direction to increase the recording output volume, and rotate to the left "-" direction to decrease the recording output volume.
25. Accompaniment volume adjustment: Rotate to the right "+" direction to increase the accompaniment music volume input, and rotate to the left "-" direction to decrease the accompaniment music volume input (the minimum volume can turn off the accompaniment input).
26. Instrument volume adjustment: Rotate to the right "+" direction to increase the instrument volume input, and rotate to the left "-" direction to decrease the instrument volume input. (The minimum volume can turn off the accompaniment input)
27. Special effects volume: Rotate to the right "+" direction to increase the special effects sound volume input, and rotate to the left "-" direction to decrease the special effects sound volume input; (the minimum value can turn off the special effects sound input)
28. Battery/charging indicator light: The green light is on, indicating that there is power to work, and the red light flashing indicates low battery and needs to be charged. The green light is on when fully charged and off when fully charged.
There are 29 and 10 potentiometer volume adjustments, all of which can display a total of 16 levels of volume from 0-9、A、B、C、D、E、F、H on the central LED screen.

Connection Guide

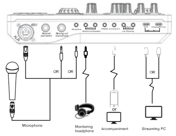
Live Streaming, Podcast Or Recording On Mobile Devices



1. Connect the live streaming mobile phone, accompaniment mobile phone, monitoring headphone and microphone to the mixer as shown in the above.
2. Open on the live steaming app on smartphone.
3. Power on the mixer and set the voice FX needed, then test the live streaming effect.
4. Open the accompaniment app on the accompaniment phone and start live streaming.

TIPS:
- If your phone does not have a 3.5mm port, please use the USB-C to USB-C cable, USB-C to 3.5mm adapter, or lightning to 3.5mm adapter from your phone manufacturer.
- The smartphone or tablets also can input the background music via USB-C ports. But it can not support live streaming & input audio simultaneously via USB-C port with your smartphone or table.
- USB-C to Lightning cable maybe can not be used to recording on iPhone via USB-C ports.
- If use the USB-C to USB-C cable + USB-C to Lightning adapter, to connect the iPhone for streaming or recording via USB-C port, this will cause delays in audio transmission.
- *You can stream/record to 3 different phones if you utilize both USB-C port and two Live Streaming ports.*

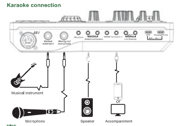
Live Streaming, Podcast Or Recording On Computer



1. Connect the streaming/recording computer, accompaniment device, monitoring headphone and microphone to the sound mixer, as shown in the above figure.
2. Power on the mixer, put on monitoring headphone, and adjust the voice effects needed.
3. Use the USB-C data cable to connect the computer and the mixer. The computer will automatically recognize the device, Enter the sound setting panel of computer, and set the " **SX91** " as the system default **input** and **output** device, or **Playback** and **Recording** device in "Playback" and "Recording", as shown in the down figure.
4. Open the *streaming or recording or accompaniment software* on your computer, and confirm " **SX91** " is set as default audio input/output, recording and playback device. then test the live streaming /recording effect, then start live streaming.
5. *When only using one PC for live streaming/recording and want to simultaneously input the PC system audio, you need turn on **"Loopback"** function.*
6. ***Not supported for the connecting two devices(mobile devices or computers) simultaneously through two USB-C ports.***

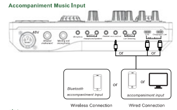
TIPS:
1. It is not recommended using the Live streaming ports to connect PC for live streaming.
2. Support streaming/recording/podcast on computer and smartphone simultaneously.
3. Support two 3.5mm headphone monitoring simultaneously.

Karaoke connection



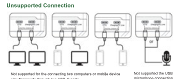
TIPS
- It is not recommended to use a condenser microphone when connecting the speaker. Because condenser microphones can easily cause howling
- Please pay attention to the distance and orientation between the speaker

Accompaniment Music Input



TIPS
- BT connection is limited by distance(10 meter), please do not place the too far away from the mixer.
- Be far away from strong signal interference place.
- BT feature is only for accompaniment music playback

Unsupported Connection



Not supported for the connecting two computers or mobile device simultaneously through two USB-C ports

Not supported the USB microphone connection via USB-C port

Troubleshooting(FQA)

Q: The device does not work, or there is no sound suddenly.
Possible solutions: The battery is dead, please connect to USB cable to charge before use.

Q: There is a lot of noise during the live streaming.
Possible solutions:
1. Check whether the battery is close to a dead state, please charge it in time;
2. Whether the earphone is plugged into the corresponding identification position;
3. Appropriately lower the microphone input volume, and turn on noise reduction function;
4. Check whether the headset is inserted in place, and then plug in the headset again;
5. If the PC is live streaming, and some laptops have interfering the mixer, try to unplug the computer's charging cable;

Q: The microphone has no sound.
Possible solutions:
1. Check the insertion position of the mic cable and make sure that the logo is face to you, or replacing the microphone cable to check if the microphone cable is faulty;
2. Increase gradually the microphone input volume and Monitoring volume ;

Q: The live streaming sound is small or silent.
Possible solutions:
1. Check whether the cable connection is plugged into the live streaming port;
2. Replace audio cable or USB cable to check if whether the cable is faulty;
3. Check whether the Recording knob is turned on to the maximum;

Question: The audience can't hear the music when live streaming, and it has no effect
Possible solutions:
1. Check whether the USB cable is plugged into the USB-C OTG port.
2. Check whether the "LOOPBACK" function is enabled when streaming or recording on computers.

Q: The sound is not normal.
Possible solutions:
1. This device build in a variety of preseted voice modes, please switch to original sound mode
2. Check whether the headphone is incorrectly inserted in the mark position

Q: Voice Changer effect can not be adjusted
Possible solutions:
It is recommended to adjust the effect such as Reverb, Mic EQ, etc. in the sound change mode through knobs

Q: Can not be used with guitar
Possible solutions:
It should be inserted into the 6.35mm "Musical instrument" jack, and the input volume of guitar only can be adjusted by the Musical instrument knob.

Q: Auto Ducking function not working
Possible solutions: It doesn't work on a voice call, it works on podcast or live streaming with music.

Product Specification

Specifications

Name	SX91
Computer Recognition Name	SX91
Dimension	L225*W145*H45mm
Environment	Temperature 0℃ ~ 45℃/0℉-113℉
Battery	Lithium ion 3000mAh/3.7V
Charging	DC+5V ⎓, 1A MAX
Power Consumption	500mAh; 5~6 hours working
Dynamic range	108dB(D/A); 102dB(A/D)
Sampling Rate	48000Hz/16Bit
BT Version/Name	V5.0, Compatible with Bluetooth 4.2BR1 SX91
BT Receive	<10 m（No obstacle）
S/N Ratio	108dB(D/A); 102dB(A/D)
THD	-92dB(D/A); -90dB(A/D)

Interfaces Parameter

USB-C port	Type-C USB	Microphone port	3.5mm TRS port
Live Streaming port	3.5mm TRRS port	Moving coil microphone port	6.35mm TRS & TS port
Accompaniment port	3.5mm TRRS & TRS port		
Headset port	3.5mm TRRS port	Musical instrument port	6.35mm TRS & TS port
Headphones port	3.5mm TRS port	48V Mic port	XLR(3-pin) port

Warm Tips

- Please do not charge the audio console during live streaming.
- Please charge the audio console before using for the first time.
- If not used for a long period, please charge the audio console every 3 months.
- Charging is also possible when the power is off. Do not charge for a long time.
- Please stop charging when the battery is fully charged to avoid over -charging.
- BT connection is limited by distance, Please do not place the too far to avoid interference.
- BT feature is only for accompaniment music playback.
- During using desk computer or laptop live streaming or accompaniment, you must turn on the "Loop back" function. Only in this way can the viewers hear the sound from the PC.
- The mixer is a entertainment audio interface with mixer and sound card, designed for live streaming, podcast, and other content creations, its audio quality is not as professional as professional mixer.