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NUX

B-8
Wireless System



WARNING

To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

FCC Warning

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.

Any 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.

TX FCC RF exposure statement:

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

RX FCC RF exposure statement:

The equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance between 20cm the radiator your body.

Overview

Thanks for choosing the NUX B-8 wireless transmitting system!

NUX B-8 is a wireless system with automatic setup, 2.4GHz interference-free broadcasting frequency, and 24-bit 48 kHz high-quality audio. The signal transmitting latency is as low as 2.5ms at peak performance. The operation range is up to 60 meters (200-feet). It fits all types of electric guitar, electric-acoustic guitar, bass guitar, and various instruments with electric pickups.

The new B-8 V2.0 firmware optimizes the system program and improves transmission stability. To enhance the guitarist's experience of matching different pedalboards, we have designed a new "Vertical" display mode for B-8, which aligns with the placement on various pedalboards. Meanwhile, we have also designed a new customizable display mode for the tuner of B-8. You can download the application "NUX GIF Customizer" for your PC and mobile phone on the NUX website to easily set up a unique startup screen and tuner display for your B-8.

The user-friendly matching system makes it easy to use, just turn on the TX & RX and it will be paired within a couple of seconds. Each wireless set has a unique pairing algorithm, it automatically detects each other and configures their own lds.

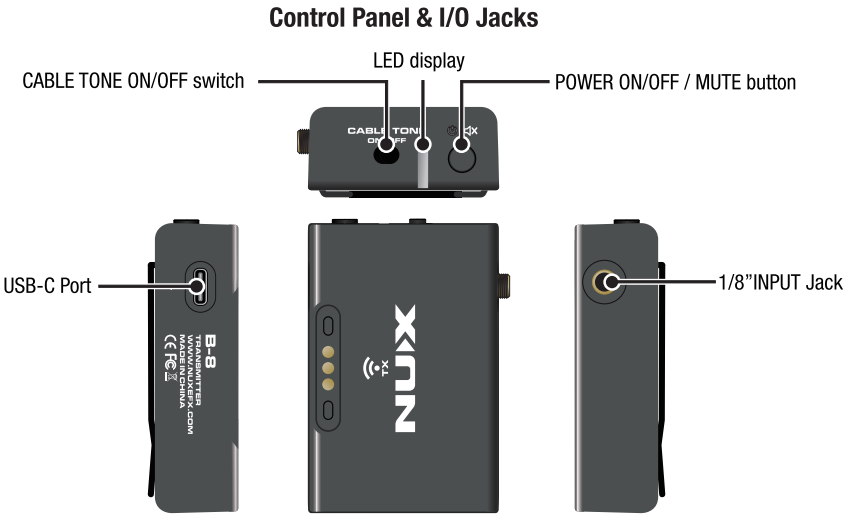
It also comes with a build-in booster and well-designed digital tuner with Chromatic, Guitar Standard, Guitar Compensated, Bass tuning modes, which are very useful for musicians to perform with on stage.

Features

- Operating Frequency Band: 2400-2483.5MHz
- Audio Quality: 24bit / 48kHz
- Operation range:
 - Indoors: Up to 30 m (100 ft) typical
Up to 60 m (200 ft) maximum
 - Outdoors: Up to 20 m (65 ft) typical
Up to 50 m (165 ft) maximum
- Frequency Response: 20Hz-20kHz
- Latency: ≥2.5ms
- THD+Noise: Less than 0.01%@1kHz
- TX battery: Up to 6.5 hours lifetime
- Tuing accuracy: ±1cent
- Tuning range: F#0 to C8
- Tuning mode: Chromatic, Guitar standard, Guitar compensated, Bass
- Boost level: 0dB-12dB

Control Panel & IOs

TX (Transmitter)



POWER ON/OFF/MUTE button


Hold this button to power on or power off the TX. When the TX is powered on and paired with the RX, you can press this button to mute the audio output.

CABLE TONE ON/OFF switch

The TX features a cable tone simulation which is normally used for some guitar players to get a warmer sound. If you want it, you can pull the switch and turn it on.

LED display

Green




When you power on the the TX, the LED display:
Green: battery level >75%.

When the TX is in process of pairing with the RX, the LED blinks in Green.

When the TX pairs with the RX, the LED lights in Green.


Orange



When you power on the the TX, the LED display :
Orange: 75%> battery level >50%

When the TX is in charging, the LED lights in Red.

Red




When you power on the the TX, the LED display:
Red: 50%≥battery level>15%
Red blinking: 15%≥battery level>0% (the TX will be off soon).

When the TX fails pairing with the RX, the LED blinks in Red.

When the TX is in MUTE, the LED lights in Red.

1/8"INPUT jack



Connect your guitar or any instrument with a 1/4"audio output to the INPUT jack.
*Please rotate the nut to lock the cable to the INPUT jack.

USB-C Port

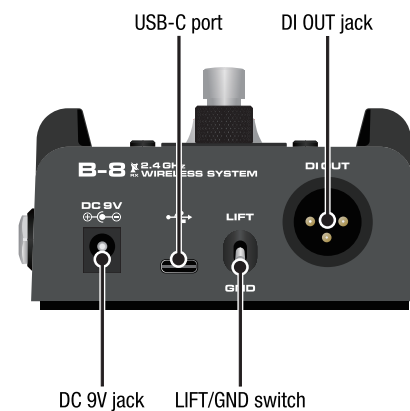
This USB-C port is used to charge the TX. Please connect it with a 5V/500mA(or more) adapter to charge the TX.

■ RX (Receiver)

Control Panel



I/O Jacks



LCD display

High-definition color LCD display.

HOME button

Press it to return to the home screen.

SELECT/PARA knob

Press it to enter to the setting or confirm a setting. Rotate it to select an item or adjust parameters.

BACK TO button

Press it to return to the settings.

FOOT SWITCH

Press it to turn on/off the TUNER(default) or BOOSTER.

DC 9V jack

Connect the included adapter (ACD-006A) to this jack to power on the RX.

USB-C port

Connect the RX to your computer with a USB cable to update the firmware.

DI OUT jack

This is for balanced output signal. With the DI OUT jack, you can connect the RX to an amplifier, a mixer or an audio interface with a balanced cable.

LIFT/GND switch

Switch between lifted and grounded for the DI output.

1/4"OUTPUT/SEND jack

Connect the RX to an amplifier with this jack.
You can loop your effect pedals to RX with this jack for SEND (send the signal to your effect pedals).

1/4"RETURN jack

You can loop your effect pedals to RX with this jack for RETURN(return the signal to from your effect pedals to the RX).

1/4"RETURN OUTPUT

When using SEND/RETURN to loop your effect pedals to the RX, please connect the RX to an amplifier with this jack.

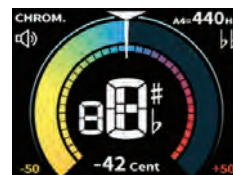
1/4"INPUT jack

When the TX is powered off, you can connect your guitar or instrument to the INPUT jack.

When you plug in a 1/4" cable to this jack, the RX will detect it and switch to "CABLE IN" mode. In this mode, you can only access the TUNER, DISPLAY setting and TUNER setting.



Cable in mode



Tuner

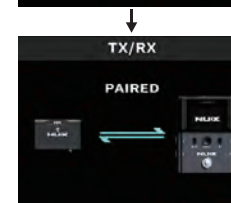


Display setting

How to operate

Matching the B-8 is very easy as it is pre-paired from the factory. Just turn on the transmitter and the receiver; they should detect each other rapidly and automatically choose the best channel to establish a stable connection.

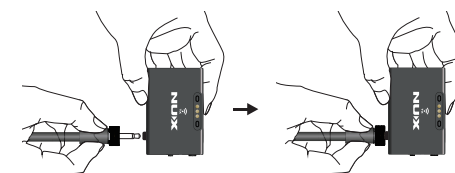
1. Push and hold the power button to turn on the transmitter and power on the receiver, then the TX & RX will be automatically paired with each other.



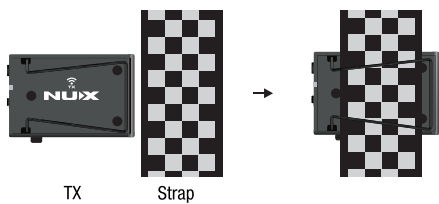
2. The RX will show input level, signal transmitting level and TX's battery level on the screen.



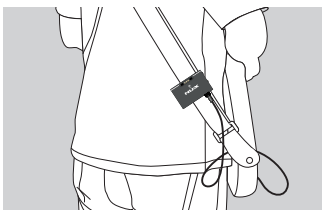
3. Plug the cable to the TX's 1/8" input jack and rotate the nut to tighten it to the TX.



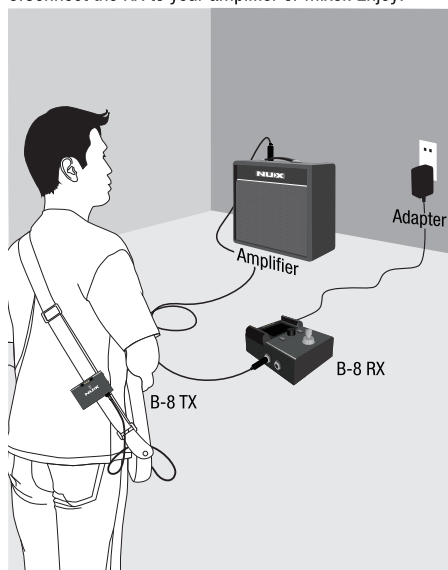
4. Fix the TX on your strap.



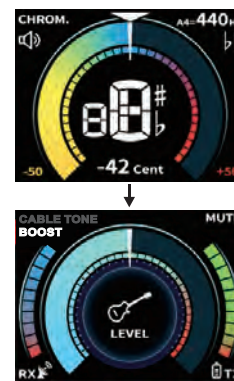
5. To achieve the best performance of transmitting, please fix the TX on your strap and use it as below. In this way the TX will have a distance from your body, which is good for transmitting.



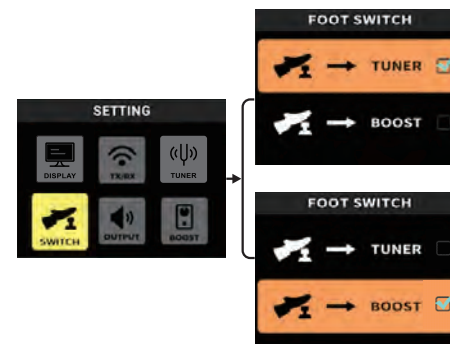
6. Connect the RX to your amplifier or mixer. Enjoy!



7. You can press the foot switch to turn on/off the TUNER or BOOSTER.



*You can switch between TUNER and BOOSTER for the foot switch in system setting as below.



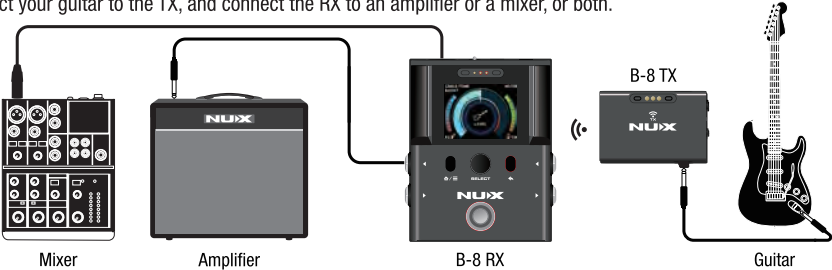
*When you choose → TUNER, you can hold the foot switch to turn on/off the TUNER.

*When you choose → BOOST, you can hold the foot switch to turn on/off the BOOSTER (a BOOST icon will be shown on the screen).

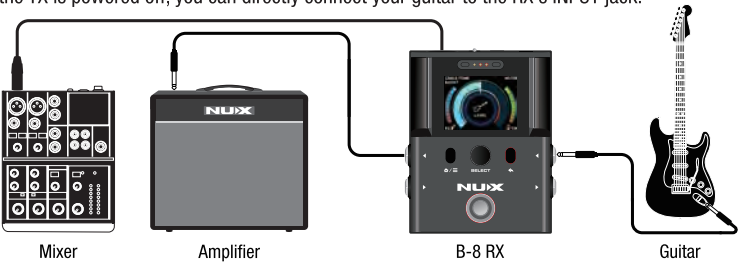
Connections

Application 1

Connect your guitar to the TX, and connect the RX to an amplifier or a mixer, or both.

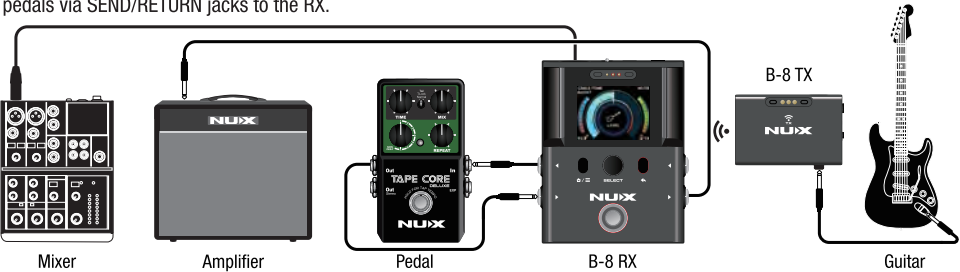


When the TX is powered off, you can directly connect your guitar to the RX's INPUT jack.

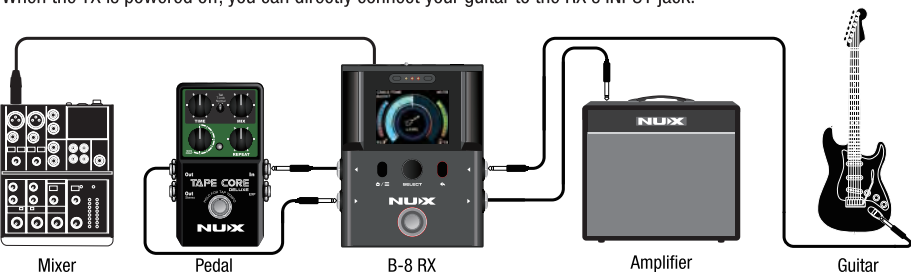


Application 2

Connect your guitar to the TX, and connect the RX to an amplifier or a mixer, or both. You can loop your favorite effect pedals via SEND/RETURN jacks to the RX.



When the TX is powered off, you can directly connect your guitar to the RX's INPUT jack.



Recharging the TX

There are two ways to recharge the TX.

1.Recharge the TX by RX.

Power on the RX and put the TX in charging position on the RX. The TX's LED will be lit when it starts to charge the battery.



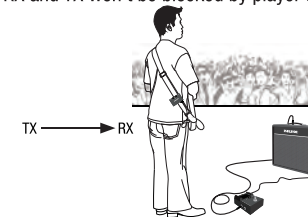
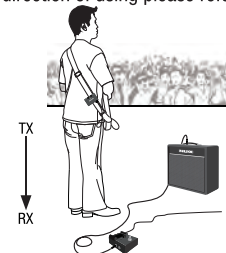
2.Recharge the TX with a 5V/500mA adapter via the USB-C port.



Tips and Methods to Improve Wireless System Performance

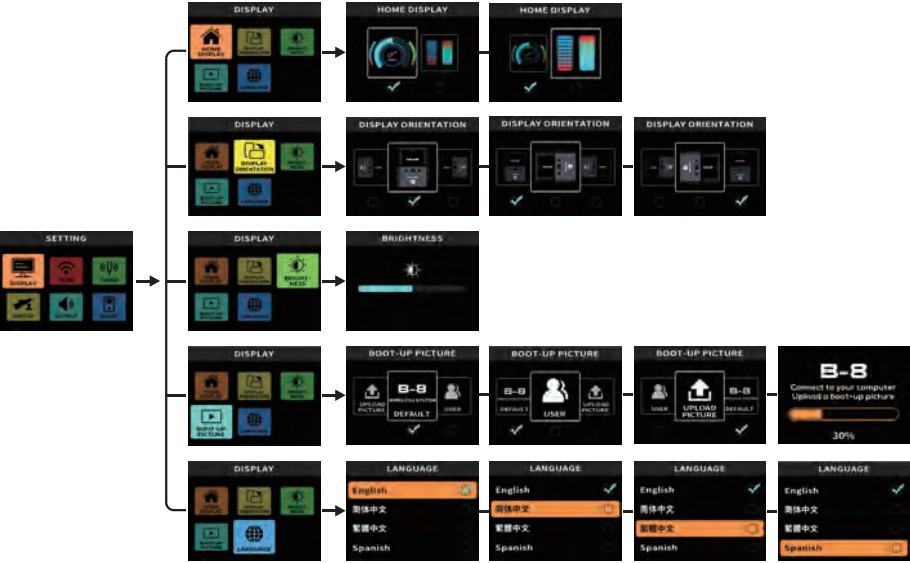
If you encounter interference or dropouts while using the B-8 wireless system, try the following suggestions:

- To get the best performance, please check if there is any Wi-Fi devices around and set the B-8's TRANSMITTING at the best position between low latency and stable.
- Make sure the TX is well charged and powered on.
- Make sure there's no large physical objects in the line of sight between TX and RX.
- Reduce the distance between TX and RX. For example, when using B-8 wireless system on stage, the RX can be placed closer to the TX on the stage and connected to the mixer or amplifier via a long cable.
- When using 2 sets or more B-8 wireless system, please keep each of TX and RX more than 1 meter (3 feet) apart.
- Move receiver further away from Wi-Fi access points, computers, Bluetooth devices, or other active 2.4 GHz sources.
- Disable non-critical Wi-Fi on computers, cell phones, and other portable devices.
- Avoid heavy Wi-Fi traffic activities such as downloading large files or viewing a movie.
- Avoid placing transmitter and receiver where metal or other dense materials may be present.
- During sound check, mark trouble spots and ask presenters or performers to avoid those areas.
- The best distance of using is 10m~35m.
- The best direction of using please refer to the picture below. The RX and TX won't be blocked by player's body.



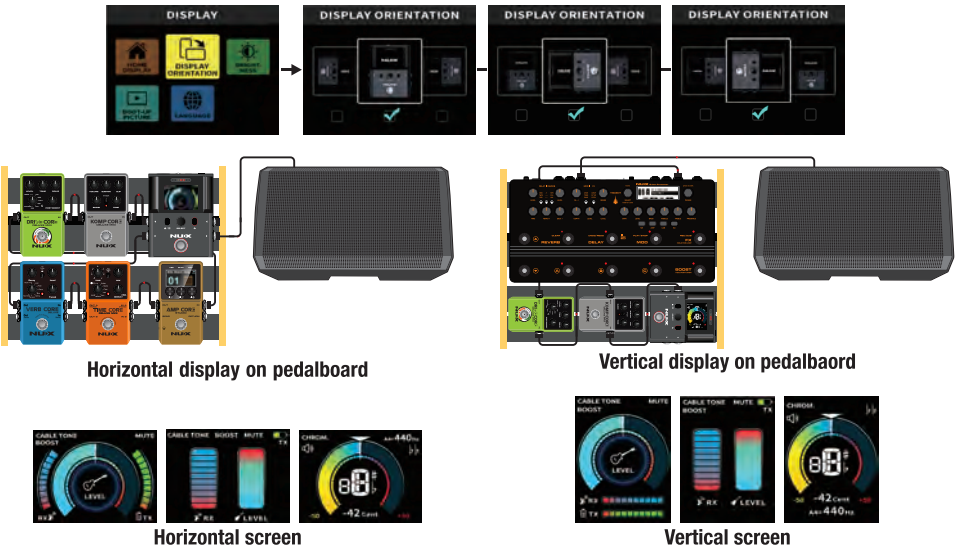
System setting

DISPLAY Setting



DISPLAY Orientation

You can choose to go with horizontal or vertical display to perfectly fit your pedalboard.



⚠ **Reminder:** You need to setup the startup screen and tuner display with the application NUX GIF Customizer .

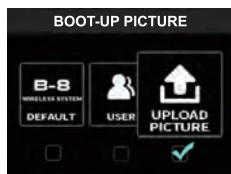
Customize your own Boot-up Picture

You can upload a GIF picture and set it as the Boot-up Picture following below steps.

1. Download the "NUX GIF Customizer" application for PC & mobile phone on www.nuxaudio.com.



2. Select the "UPLOAD PICTURE" and confirm, and then connect the B-8 to your computer via the USB-C port.



3. Upload JPEG, GIF or PNG pictures to the app and edit them.



4. Preview and load the GIF to B-8.



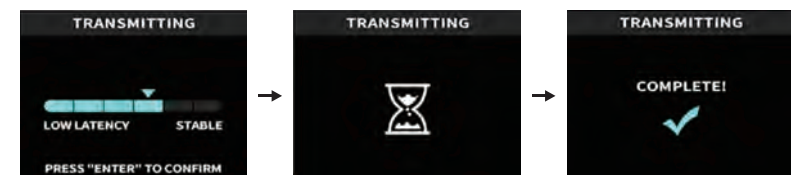
Transmitting setting

You can adjust the transmitting parameter between LOW LATENCY and STABLE.

*When you set it at the far-left position, the transmitting latency will be the lowest (approximate 2.5ms).

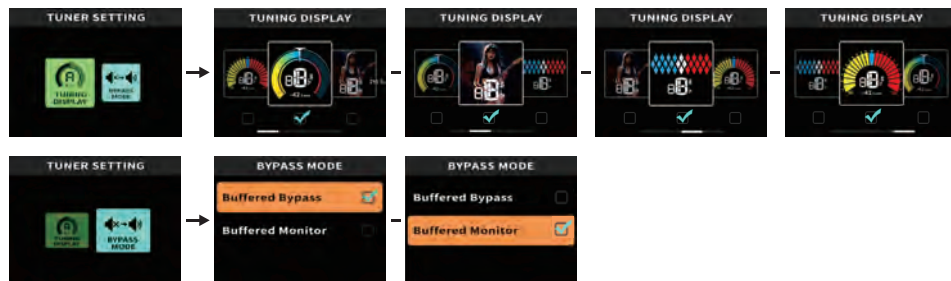
*When you set it at the far-right position, the transmitting will be set for anti-interference. This is for users who want more stability in various settings where nearby WI-FI devices can cause interference to the wireless transmission. In this setting, the transmitting latency will be a little bit higher (approximate 8.7ms).

*To get the best performance, please check if there are any WI-FI devices around and set the B-8's transmitting at the best position between low latency and stable.



Tuner setting

1. Choose your favorite tuning display.
2. Choose your favorite bypass mode when you're tuning your guitar.

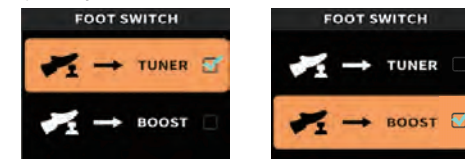


3. You can setup your favorite picture for the tuner display with the "NUX GIF Customizer".




Foot switch setting

Choose the priority function for pressing the foot switch.



*When you choose , you can hold the foot switch to turn on/off the TUNER.

*When you choose , you can hold the foot switch to turn on/off the BOOSTER (a BOOST icon will be shown on the screen).

Output level setting

Setup the output volume.



Boost setting

Setup the boost level for the BOOSTER.



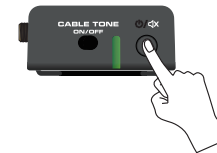
Re-Match ID & Pairing Manually

The IDs of the transmitter and the receiver of each B-8 set are pre-matched in the factory. For any reason you want to re-match IDs or pair a receiver with a transmitter from different sets, follow below steps:

- Turn off the TX (transmitter). Power on the RX(receiver) and it shows SCANNING... on the screen. Then, press and hold the foot switch for 2 seconds, it will show "PAIRING..." as below on the screen.



- Press and hold the TX(transmitter)'s ON/OFF button for 4 seconds, the TX's LED light will blink in GREEN, and then the TX and RX will start to pair with each other.



- When the pairing succeeds, it will show "PAIRED" on the screen.



- When you have 2 sets or more B-8 wireless and want to re-pair them, please turn off all units and re-pair them one after another.

Specifications

- Operating Frequency Band: 2400-2483.5MHz
- Audio Quality: 24bit/48kHz
- Frequency Response: 20Hz-20kHz
- Latency: 2.5ms(best performance setting) - 8.7ms(safety mode)
- Input Impedance: 1MΩ
- Maximum Input Level: 1kHz at 1% THD +6.2dBV (5.78 Vp-p)
- THD+N: 0.01% 1kHz, typical
- Dynamic Range: 122dB, A-weighted(OUTPUT/SEND)
- Output level Adjustment Range: Mute -64dB~0dB
- Auto-sleep Mode: N/A
- Built-in Battery Capacity: 3.7V/500mAh Rechargeable Li-polymer (Transmitter)
- TX Battery: Up to 6 hours lifetime
- Power Requirements: 7V to 12V DC, 500mA min, negative tip power supplies(Receiver)
- Operation Range:
 - Indoors: Up to 30 m (100 ft) typical
Up to 60 m (200 ft) maximum
 - Outdoors: Up to 20 m (65 ft) typical
Up to 50 m (165 ft) maximum
- TX Dimensions: 72.5mm(L) x 49.3mm(W) x 23mm(H)
- TX Weight: 63g
- RX Dimensions: 122mm(L) x 95mm(W) x 60mm(H)
- RX Weight: 500g

* Specification may change without notice.

Accessories

- 6.35mm to 3.5mm audio cable
- USB-C cable
- Adapter
- Manual
- NUX Sticker