NUX B-7 PRO Wireless in Ear Monitor System Owner's Manual

Contents

NUX B-7 PRO Wireless in Ear Monitor System

Overview

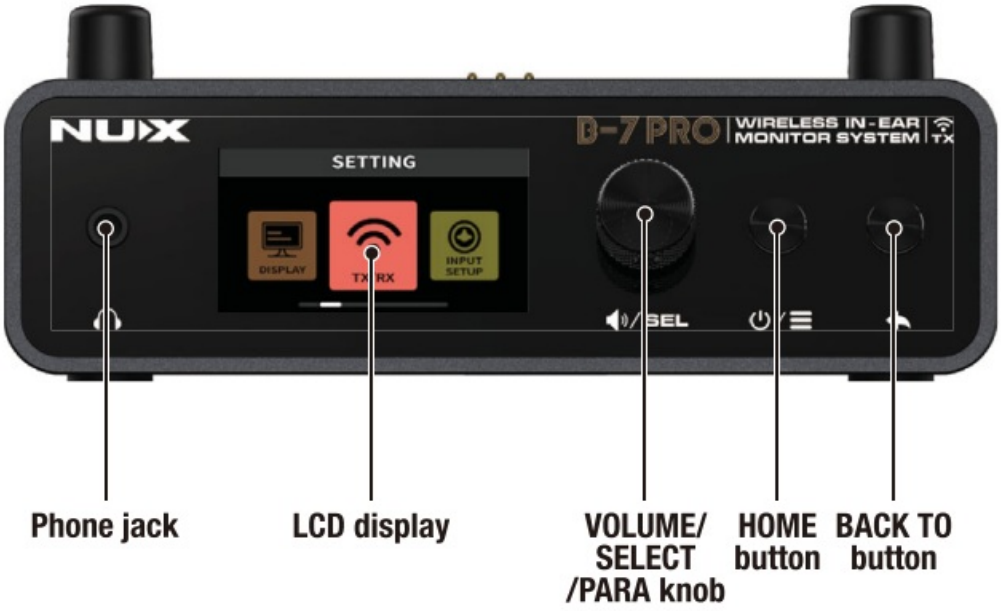
- Thanks for choosing the NUX B-7 PRO wireless in-ear monitor system!
- The NUX B-7 PRO is a personal wireless in-ear monitor system with automatic setup, 2.4 GHz interference-free broadcasting frequency, and 24-bit 48 kHz high-quality stereo audio. The signal transmitting latency is as low as 7.3ms at peak performance. The operation range is up to 50 meters (160 feet). The TX features 2pcs XLR & 1/4″ combo jack for stereo or mono signal input. The RX's clip design can easily fit to your shirt, belt, or guitar strap. With our newest automatic frequency hopping technology, the B-7 PRO is reliable and stable while you perform on stage.
- The user-friendly matching system makes it easy to use, just turn on the Transmitter (TX) & the Receiver (RX), it will be paired within seconds. Each wireless set has a unique pairing algorithm, it automatically detects each other and configures their own IDs.

Features

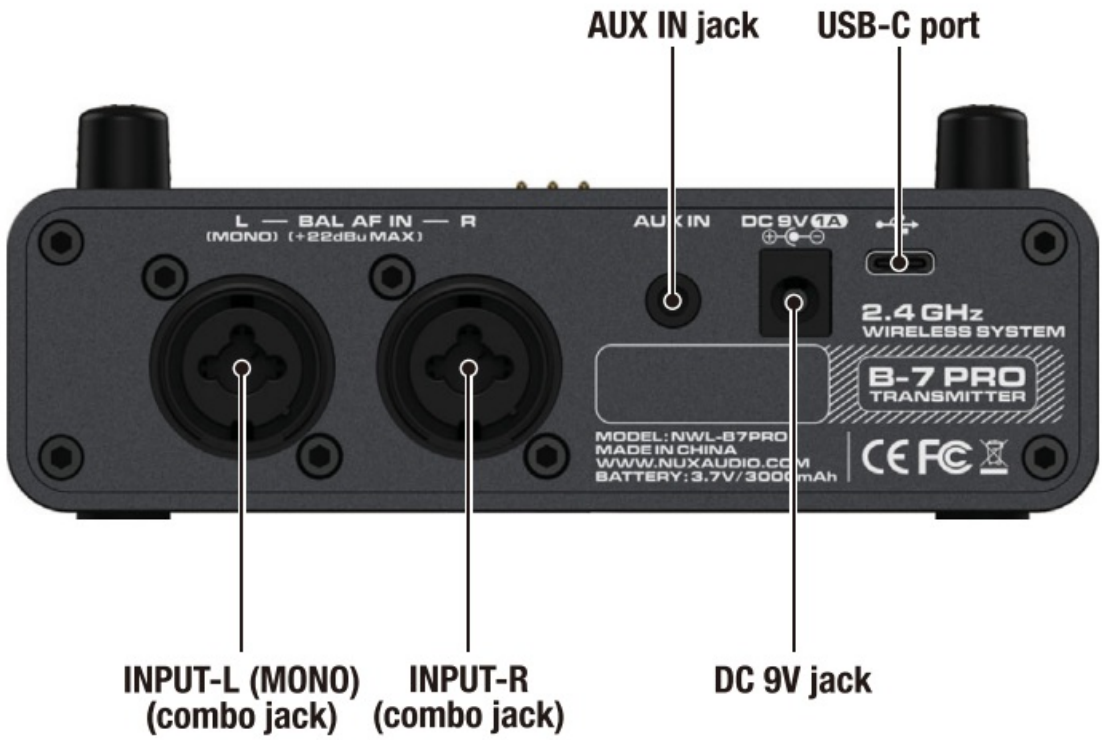
Operating Frequency Band	2400-2483.5MHz
Audio Quality	24bit/48kHz
Operation range	Up to 50 meters (165 feet)
Frequency Response	20Hz-20kHz
Latency	7.33ms (low latency setting)-10.85ms (default)-14.33ms (safe setting)
THD+N	<0.01% typical
TX battery lifetime	Up to 6 hours
RX battery lifetime	Up to 6 hours

Control Panel & 1/0

TX (Transmitter)



PHONE jack	Connect your headphones to the TX with this jack for monitoring.
LCD display	High-definition color LCD display.
VOLUME/SELECT/PARA knob	Rotate it to adjust the output volume. Press it to enter the setting or confirm a setting. Rotate it to select an item or adjust parameters.
HOME button	Press it to return to the home screen.
BACK TO button	Press it to return to the settings.



INPUT-L (MONO) (combo jack)	With this jack, you can connect the TX to a mixer or an audio interface with an XL R cable for balanced signal, or a 1/4″ cable for unbalanced signal. **NOTE:** This jack is designed to be connected with mixer for audio signal. The maximum signal level is up to +22dBu. If the input signal is low, such like signal fro m a cellphone or CD/MP3 player, you can adjust the output volume for the best m onitoring volume.

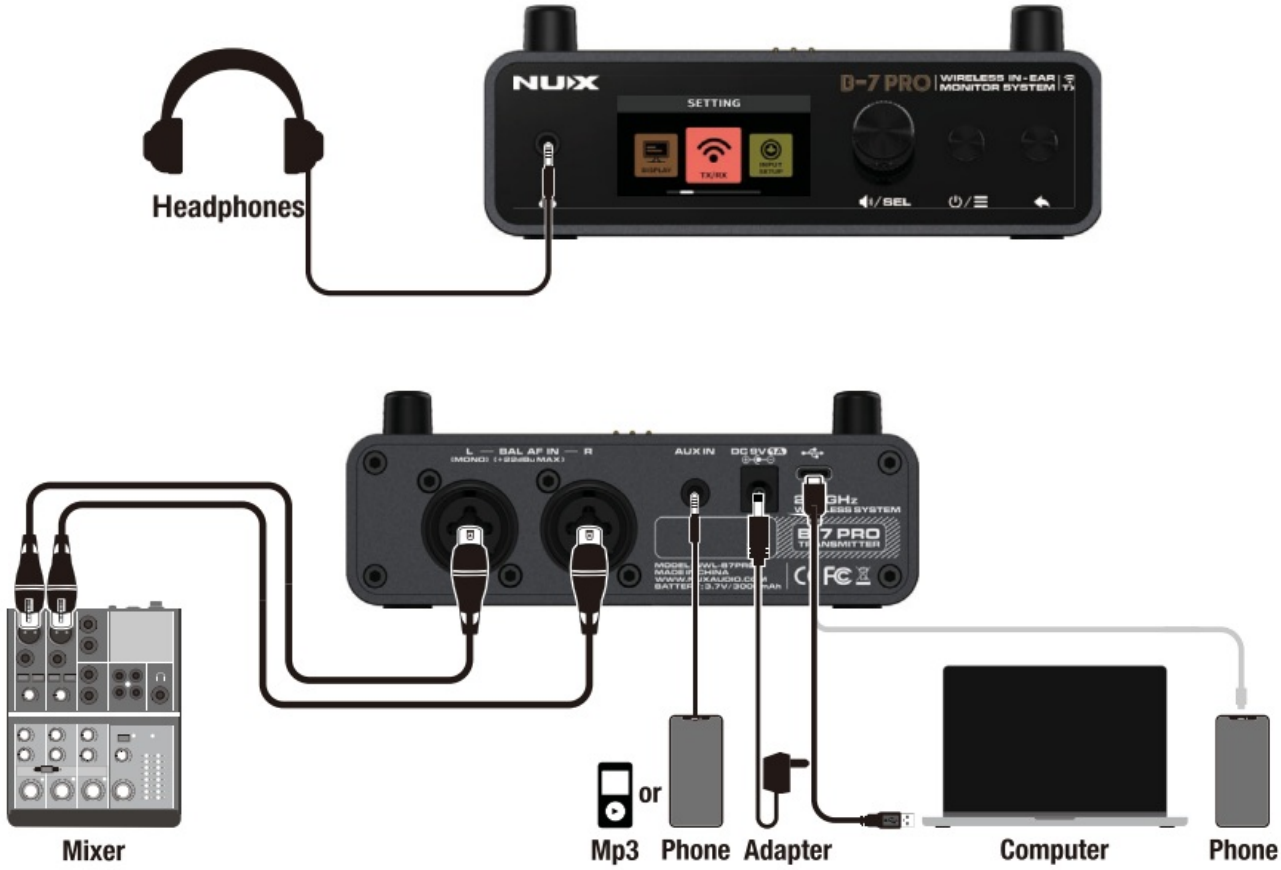
INPUT-A (combo jack)	With this jack, you can connect the TX to a mixer or an audio interface with an XL R cable for balanced signal, or a 1/4″ cable for unbalanced signal. These jacks are designed to be connected to a mixer for audio signal. The maxim um signal level is up to +22dBu. If the input signal is low, you can adjust the output volume for the best monitoring volume .
AUX IN jack	Connect the TX with your smartphone or audio device to this jack for audio input.
DC 9V jack	Connect the included power adapter to this jack to power on the TX. Please use the original power adapter that comes with the B-7 PRO. The TX migh t be harmed by an uncertified adapter.
USB-C port	Connect the TX to your computer with a USB cable to update the firmware or reco rding. You can also connect the TX to your smartphone for audio stream.
1/4″ screw nut	B-7 PRO features a 1/4″ screw nut on the bottom of the TX and comes with a “1/4″ connector” for you to affix the TX to a GO Pro style clamp. With the special design, you can clamp the TX on anywhere of your desk or rack.  You can affix the TX with the 1 / 4″ screw nut to a holder used with smartphones a nd cameras. It will be useful when you need to adjust the position of the TX to avoi d interference from other devices. 

PHONE jack	Connect your headphones or in-ear monitors to the RX for monitoring.
POWER ON/OFF/MUTE b utton	Hold this button to power on or power off the RX. When the RX is powered on and paired with the TX, you can press and hold this b utton for 1 second to mute the audio output.
VOLUME +/- buttons	
Press the + /- button to increase or decrease the output volume.	
USB-Cjack Recharge the RX with a 5V/O.5A adapter via the USB-C port.	

Transmitting LED display	Green: Paired with TX Green blinks: Pairing with the TX Red: Mute Red blinks: Un-paired with the TX  Green Paired with TX Green blinks Pairing with the TX Red Mute Red blinks Un-paired with the TX
Battery Level LED display	Green: Full charged (70%~100%) Orange: Medium charge (40%~70%) Red: Low battery (15%~40%) Red blinking: Supper low battery (10%~15%) Auto off: <10%  Green(70%~100%) Orange(40%~70%) Red(15%~40%) Red blinking (10%~15%)

Connections

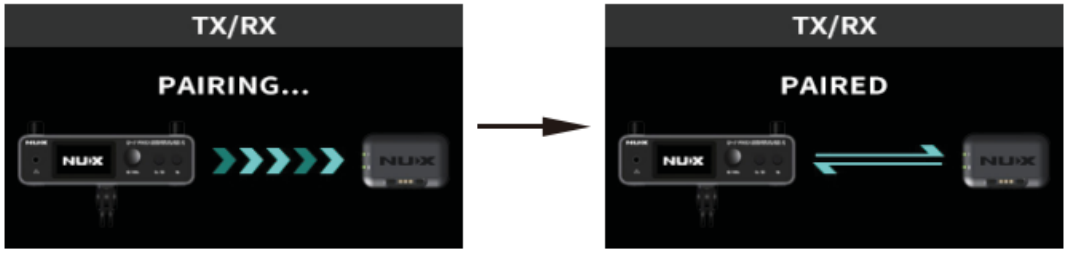
Here we listed devices you may connect to the B-7 PRO wireless system.



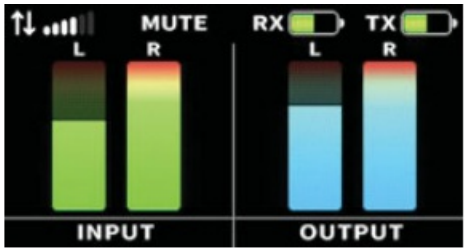
How to operate

The B-7 PRO is very easy to start using as it is pre-paired from the factory. Just turn on the transmitter and the receiver. They should immediately detect each other and automatically choose the best channel to establish a stable connection.That's it.

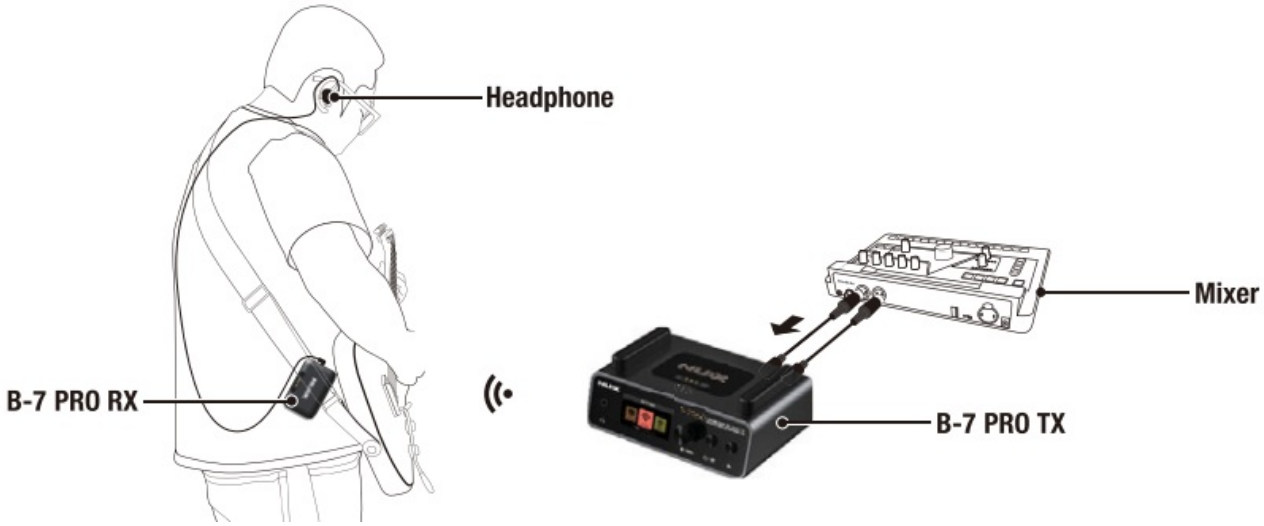
1. Push and hold the power button to turn on the TX (transmitter) and RX (receiver), then the TX & RX will be automatically paired with each other.



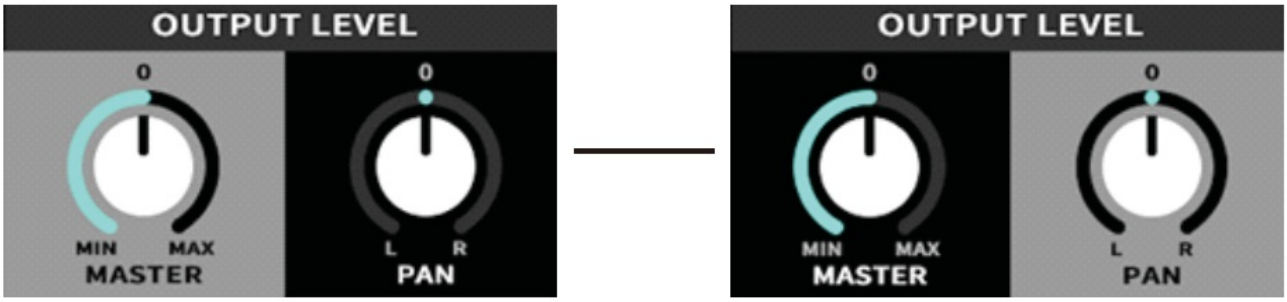
2. The TX will show input/output level, signal transmitting level, and TX/RX's battery level on the screen.



3. Connect the TX to your mixer. Connect your earphones to the RX, and fix it to your shirt, belt, or guitar strap. Then you are ready to go.



4. You can rotate the knob on TX's panel to adjust the output volume, and press the knob to adjust the Pan of output UR.



5. When you're done with the B-7 PRO, just press and hold the power button to turn off the TX & RX.
6. The setup is done. Enjoy wireless stereo monitoring with the B-7 PRO!

Tips and Methods to Improve Wireless System Performance
If you encounter interference or dropouts while using the B-7 PRO wireless in-ear monitor system, try the following suggestions:

- To get the best performance, first move receiver further away from Wi-Fi access points, computers, Bluetooth devices, or other active 2.4 GHz sources.
- Set the B-7 PRO's Transmitting parameter to the best position between low latency and stability.
- 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-7 PRO wireless in-ear monitor 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 or more sets of the B-7 PRO or any other wireless system, please keep each of TX and RX more than 1 meter (3 feet) apart.
- Disable non-critical Wi-Fi on computers, smart phones, and other portable devices.
- Avoid heavy Wi-Fi traffic activities such as downloading large files or viewing a movie.
- Avoid placing the 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 1 Om-35m.

Recharging the TX
The B-7 PRO comes with a DC 9V 1.2A adapter. Plug the adapter to the DC jack to charge the TX.

Caution!
Please only use the original DC 9V 1.2A adapter to charge the B-7 PRO's TX. If you use an uncertified adapter to charge the TX, it might cause damages to the circuit of the product.

Caution!
The USB-C port is not for charging!

Recharging the RX
There are two ways to recharge the RX.

1. **Recharge the RX by the TX.**

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

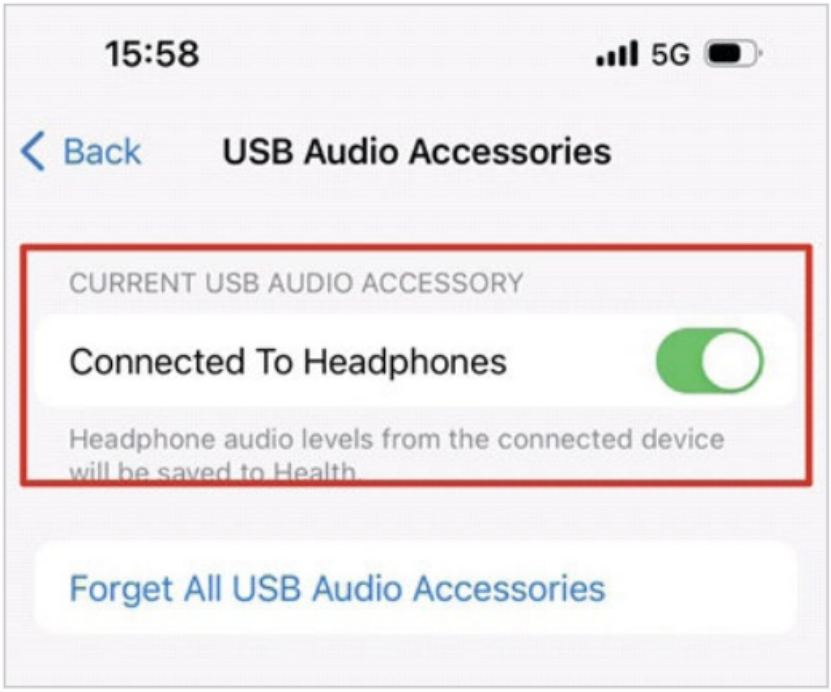
2. Recharge the RX with a 5V/O.5A adapter via the USB-C port.

USB AUDIO & RECORDING

Connect the B-7 PRO's TX to your smartphone or computer, you can use the B-7 PRO as a USB interface for recording.

1. Connect the TX to your smartphone with a USB cable, and setup your phone as shown below as a USB Audio Accessory. Then you can start to record.

When connecting your smartphone to B-7 PRO for the first time, it may show two options on the phone's screen for you to choose. Please select the "USB headphones device". Or, you can check and setup "Connected To Headphones"as below.

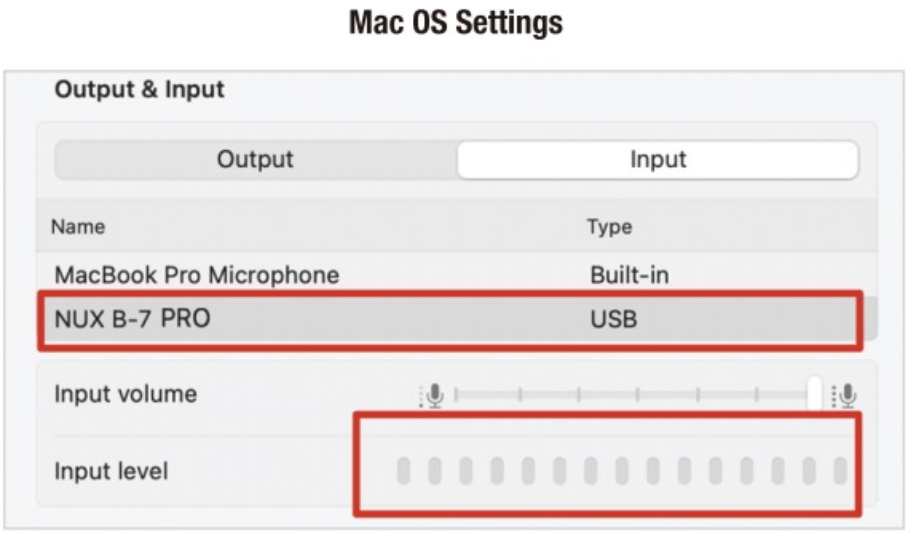


*It is recommended to connect this product to a mobile device with a USB-C with a USB cable that fully supports data transfer.

2. **ForMac OS**

Connect the TX to your Mac with a USB cable, and setup the B-7 PRO as the USB Input & Output in your

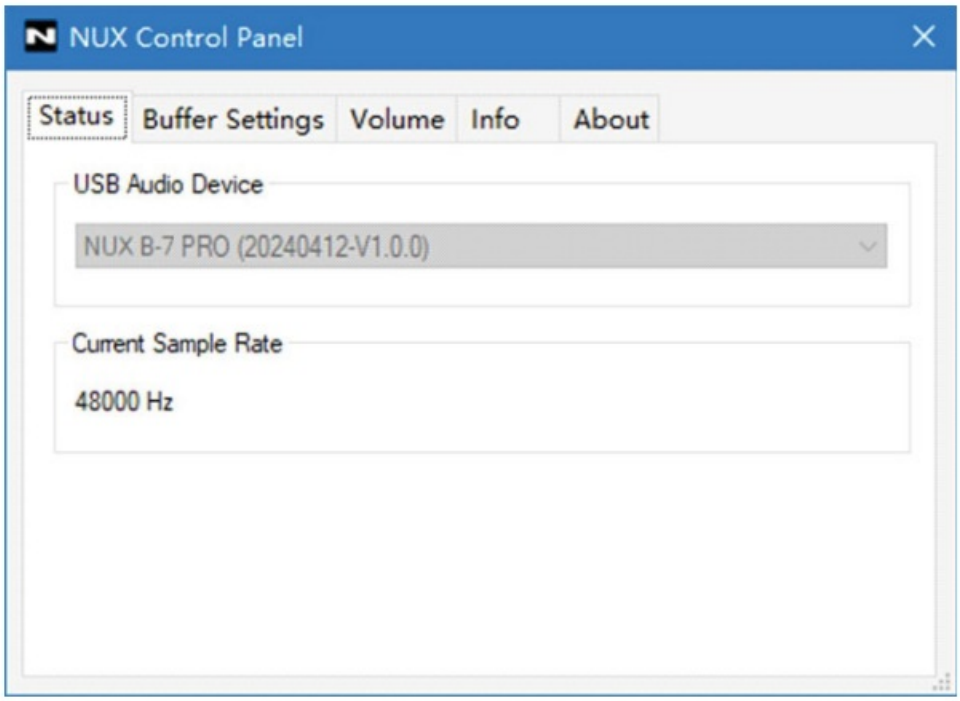
computer. Then you can start to record.



3. **For Windows**

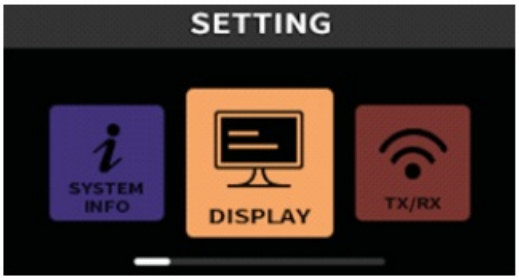
   You will need to install the “NUX ASIO Driver” to your computer. Please go to www.nuxaudio.com and download the application.

After you install the NUX ASIO Driver to you computer, you can connect the TX of B-7 PRO to your computer with a USB cable, you will find it as a USB audio device as below. Then you can start to record.



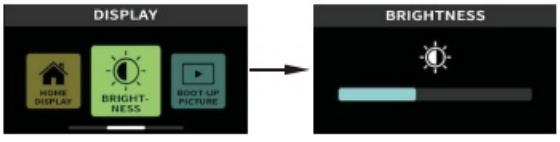
SYSTEM SETTINGS

DISPLAY SETTING

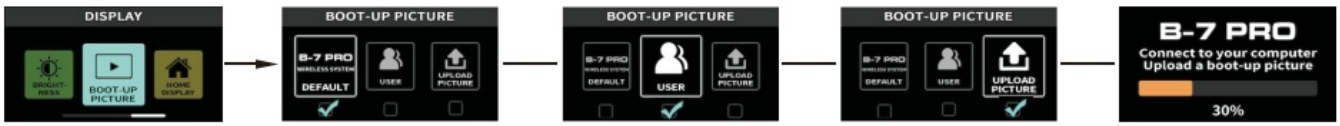


Choose your favorite home display.

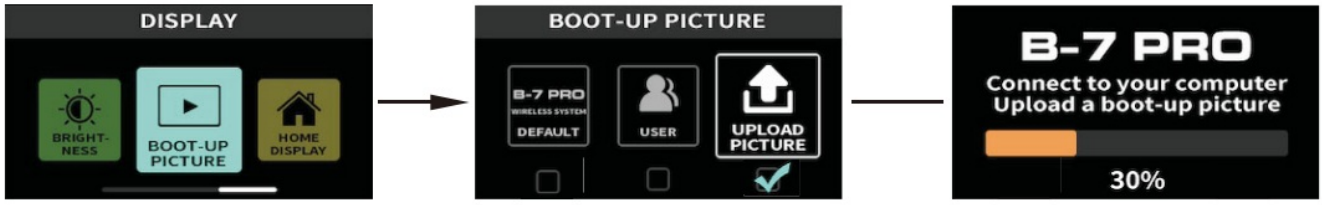
Adjust display brightness.



Adjust display brightness.



- You can upload a GIF and set it as the Boot-Up Picture following the steps below.
  - Download the Boot-up picture app from www.nuxaudio.com.
  - Select the “UPLOAD PICTURE” and confirm. Then connect the B-7 PRO to your computer via the USB-C port.
  - Upload a GIF picture with the app.

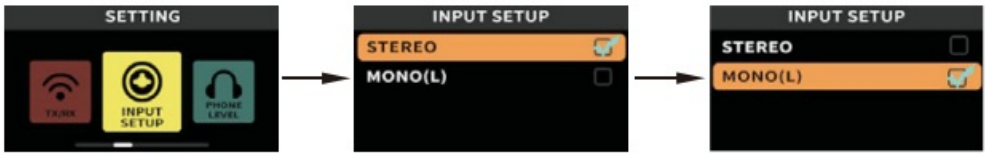


TRANSMITTING SETTING
You can adjust the transmitting parameter between LOW LATENCY and STABLE.

*When you set it at the far-left position, the transmitting latency will be the lowest (approximate 7.33 ms).

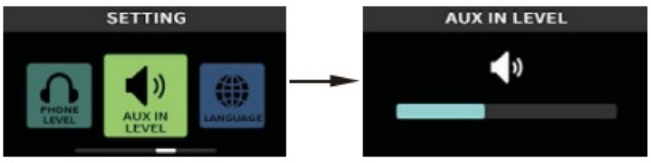
- When you set it at the far-right position, the transmitting will be set for anti-interference. This is for users who want more stability in various settings where nearby WI-FI devices can cause interference to the wireless transmission. In this setting, the transmitting latency will be a little bit higher (approximate 14.33ms).
- To get the best performance, please check if there are any WI-FI devices around and set the B-7 PRO’s transmitting at the best position between low latency and stable.

INPUT SETTING
You can choose STEREO or MONO(L) input to B-7 PRO.
If your mixer has STEREO outputs, please choose STEREO. If your mixer has a MONO output, please choose MONO(L). In this case, the B-7 PRO copies the signal from L channel to R channel.

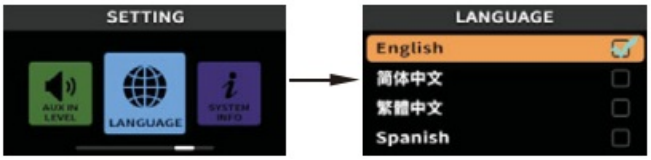


PHONES LEVEL
You can adjust the output level of your headphones which are connected to the TX.

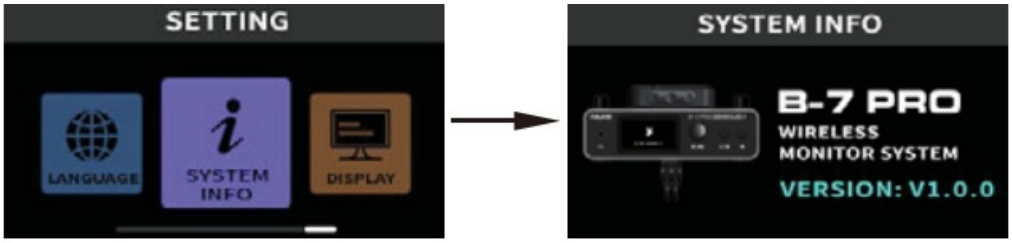
AUX IN LEVEL
You can adjust the aux in level.



LANGUAGE SETTING
Use this to select your preferred language for the system.



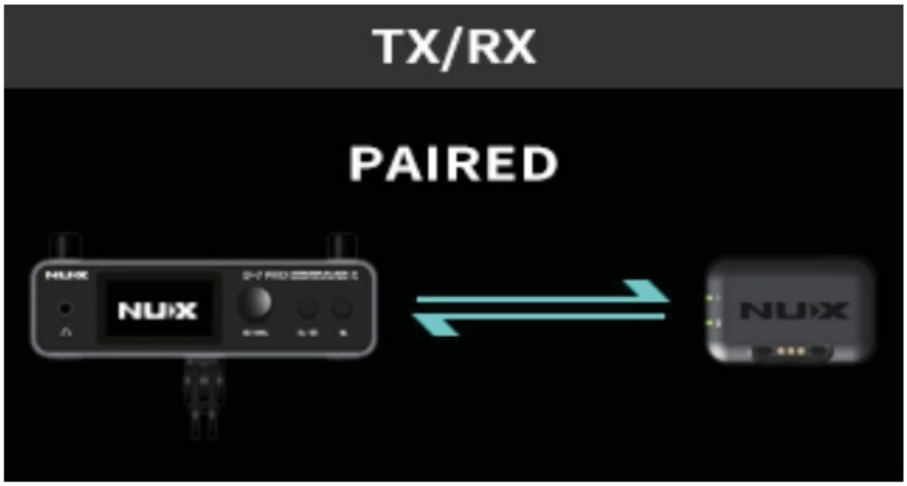
SYSTEM INFO
This displays the B-7 PRO's system information.



Re-Match ID & Pairing Manually
The IDs of the transmitter and the receiver of each B-7 PRO 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 the below steps:

- Turn on the TX (transmitter), then press and hold the "Back to" button, then it will show "PAIRING … "as below on the screen.

- Turn on the RX (Receiver), and press the power button. The TX and RX will start to pair with each other.
- If the pairing succeeds, it will show "PAIRED" on the screen.



Specifications

Operating Frequency Band	2400-2483.5MHz
Transmit Mode	Frequency Hopping
RF Output Power	10 mW E.I.R.P. max
Audio Quality	24biV48kHz
Frequency Response	20Hz-20kHz
Latency	7.33ms(low-latency setting)-10.85ms(default-)14.33ms(safe setting)
Unbalanced Input Impedance	10kQ
Balanced Input Impedance	20kQ
AUX Input Level	2.1 Vrms (8.7 dBu) max
Balanced Input Level	9.8 Vrms (22 dBu) max
Headphone output impedance	Minimum 13Q
Headphone Maximum output power per channel	57mW (THD<0.1% RLOAD=16 Q,1kHz)
Channel separation	-105dB
THD+N	< 0.01% typical
Dynamic Range	11OdB A-weighted
Output level Adjustment Range	Mute -86dB~+12dB
Auto-Off	It automatically turns off after 1 minutes of no connection or if the connection is lost
Built-in Battery Capacity	Rechargeable Li-polymer (Transmitter 3.7V/3000mAh, receiver 3.7V/400mAh)
Battery Lifetime	TX: Up to 6 hours RX: Up to 6 hours
Power Requirements(TX)	DC 9V, 1A min, negative tip power supplies
Operation Range	Up to 50 m (165 feet) maximum
Dimensions	TX: 140(L) x 97(W) x 53(H)mm RX: 47(L) x 71(W) x 22(H)mm
Weight	TX:525g RX:51g

*Specifications and features are subject to change without notice.

Accessories

- DC 9V 1.2A power adapter
- USB-C cable
- USB-C to USB-A adapter
- 1/4″ nut connector (for GO Pro clamp)
- Manual
- Warranty card
- NUX logo sticker

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 radionic technician for help.

RX 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.

TX 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 20cm between the radiator and your body.

Documents / Resources

	NUX B-7 PRO Wireless in Ear Monitor System [pdf] Owner's Manual B-7PROTX, 2BCVT-B-7PROTX, 2BCVTB7PROTX, B-7 PRO Wireless in Ear Monitor System, B-7 PRO, Wireless in Ear Monitor System, in Ear Monitor System, Monitor System, System

References

- User Manual