Contents [hide]

NUX Audio

NUX Audio 2BCVT-B-6PROTX Wireless System For Wind

Specifications

- **Operating Frequency** Band: 2400-2483.5MHz
- **Operation Range:** Up to 50 m (165 ft) maximum
- **Latency:** Greater than 3.6ms
- **Audio Quality:** 24bit/48kHz
- **Frequency Response:** 20Hz-20kHz
- **THD+Noise:** Less than 0.01% @1kHz
- **OUTPUT Dynamic Range:** 112dBA
- **TX (Transmitter) Battery Life:** Up to approximately 7 hours
- **RX (Receiver) Battery Life:** Up to approximately 11 hours

Product Usage Instructions

TX (Transmitter) Installation:

1. Insert the gooseneck microphone’s USB-C plug into the USB-C port on the TX (transmitter) until you hear a click, indicating it is securely connected.
2. Press the ears on both sides of the transmitter to open the rubber clip, then attach it to the edge of the saxophone mouthpiece.
3. Adjust the gooseneck microphone so that the microphone head points towards the saxophone bell at an optimal distance.

RX (Receiver) Installation:
Details about installing the RX (receiver) including connecting ports, buttons, and power functions.

Overview

Thank you for choosing the NUX B-6 PRO wireless system for your wind instrument! The B-6 PRO is a premium wireless transmission system engineered specifically for wind instruments. Operating on the globally available 2.4GHz frequency band, it features automatic pairing and channel detection for effortless setup—simply power on the transmitter and receiver, and they pair in seconds.

Delivering 24-bit/48kHz audio with an advanced algorithm, the B-6 PRO ensures stable, high-quality sound with ultra-low latency, as low as 3.6ms, and a transmission range of up to 50 meters (165 feet). Tailored frequency response curves are included to suit various wind instruments, enhancing tonal accuracy and performance.

Lightweight and easy to install, the B-6 PRO is designed primarily for soprano, alto, and tenor instruments but is also compatible with trumpets and other wind instruments. Its secure clip-on design ensures it attaches comfortably to the instrument without interfering with playability, solving common sound-capture challenges. For added convenience, the transmitter (TX) can be docked on the receiver (RX) for charging when not in use, making it an ideal solution for both practice and performance.

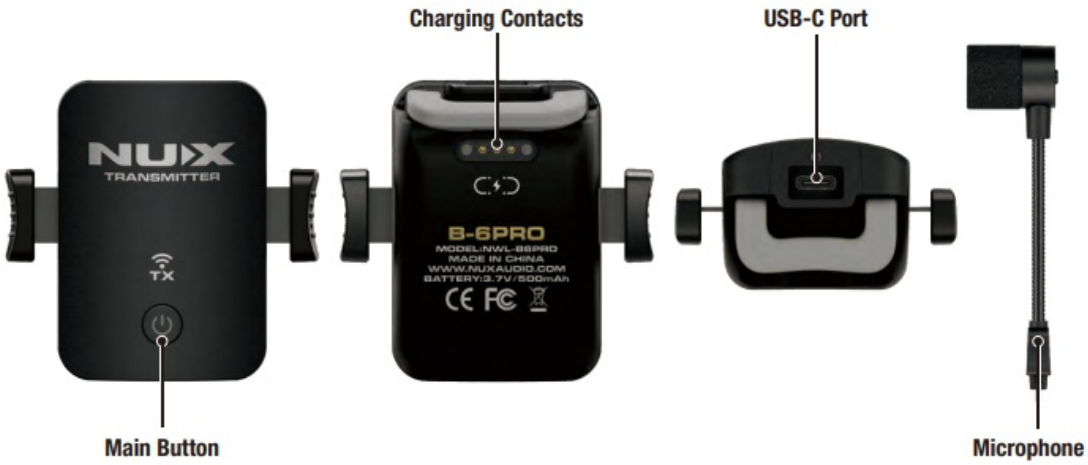
Features

Operating Frequency Band:	2400-2483.5MHz
Operation range:	Up to 50 m (165 ft) maximum
Latency:	>3.6ms
Audio Quality:	24bit/48kHz

Frequency Response:	20Hz-20kHz
THD+Noise:	Less than 0.01%@1kHz
OUTPUT Dynamic Range:	112dBA
TX (Transmitter) Battery Life:	Up to approximately 7 hours
RX (Receiver) Battery Life:	Up to approximately 11 hours
Booster (0dB-12dB)	
Send/Return circuit Digital tuner for wind instrument 13 preset equalization curves for wind instruments	

Control Panel & I/O

TX (Transmitter)



Main Button	A button with indicator light. Press this button to switch the “FAVORIT E EQ” equalization curves (see below for introduction). Press and hol d the button to turn on/off the TX(transmitter). When the TX(transmitter) is paired with the RX(receiver), press and hold the but ton for 1 .5 second to mute the TX(transmitter), and hold it again to re sume normal operation. Charging Contacts: Used for connecting to th e RX (receiver) for charging.
Charging Co ntacts	Used for connecting to the RX (receiver) for charging.
USB-C Port	The USB-C port serves dual purposes: connecting the microphone fo r audio transmission and providing emergency charging for the trans mitter.

Main Button Indicator Light Status

Battery Level	
Green:	Battery > 75%
Orange:	75% ≥ Battery > 50%
Red:	50% ≥ Battery > 15%
Flashing Red:	15% ≥ Battery > 0%

Pairing Status	
Green:	Paired successfully with RX (receiver)
Flashing Green:	Pairing with RX (receiver) in progress
Flashing Red:	Not paired with RX (receiver)
Red:	Muted

Installation

Step 1

Insert the gooseneck microphone’s USB-C plug into the USB-C port on the TX (transmitter) until you hear a “click,” indicating it is securely connected.

Step 2

Press the “ears” on both sides of the transmitter to open the rubber clip, then attach it to the edge of the saxophone mouthpiece.

Step 3

Adjust the gooseneck microphone so that the microphone head points towards the saxophone bell at an optimal distance.

RX (receiver)

Power Button	Press and hold this button to power on/off. After powering on, pressing this button at any time will switch to the HOME/SETTING interface. (Press and hold for 15 seconds, then release to force the device to reset.)
EQ Button	Press this button to switch the “FAVORITE EQ” equalization curves (see below for introduction).
Back Button	Press this button to return to the previous menu page.
LCD Screen	High-definition color LCD display.
Charging Contacts	Used for magnetic connection to the TX (transmitter) for charging.

6.35mm Output /Send Port	This port allows for direct connection to speakers and can also connect to effects loops, sending the RX (receiver) signal into your effects chain.
6.35mm Return Port	This port transmits the signal from the effects loop back to the RX (receiver).
6.35mm Return Output Port	This port allows for direct connection to speakers. If an effects loop is connected, please use this port to connect to the speakers.
Footswitch Encoder	Rotate to select menus and adjust parameters; press down to confirm selections and toggle some functions.
DC 9V Port	Used to power the device (9V 1A).
USB-C Port	Connect with a USB cable to your computer for firmware updates and to use the NUX GIF Customizer to customize the boot-up display. When connected to your phone or computer, it can also transmit audio streams.
Ground Switch	Use this switch to select whether the DI output is floating or grounded.
DI Port	Connect with an XLR cable for transmitting balanced signals to devices such as mixing consoles.

Operating Instructions

Automatic Pairing

Each B-6 PRO set is preset with a pairing ID from the factory. Once the receiver and transmitter are turned on, they will quickly pair within seconds and automatically establish a stable connection on the best transmission channel.

1. Turn on the power switches for the TX (transmitter) and RX (receiver). They will automatically recognize each other and complete the pairing process within a few seconds.

2. The RX (receiver) screen will display information such as the signal input level, the quality of the wireless connection, and the battery status of both the TX (transmitter) and RX (receiver).

3. Secure the TX (transmitter) to the mouthpiece using its rubber clip (for details, please refer back to the TX introduction). At this point, you can begin using the device.
4. You can also use the footswitch to control the tuner or toggle the boost effect, among other functions, which can be customized in the menu.

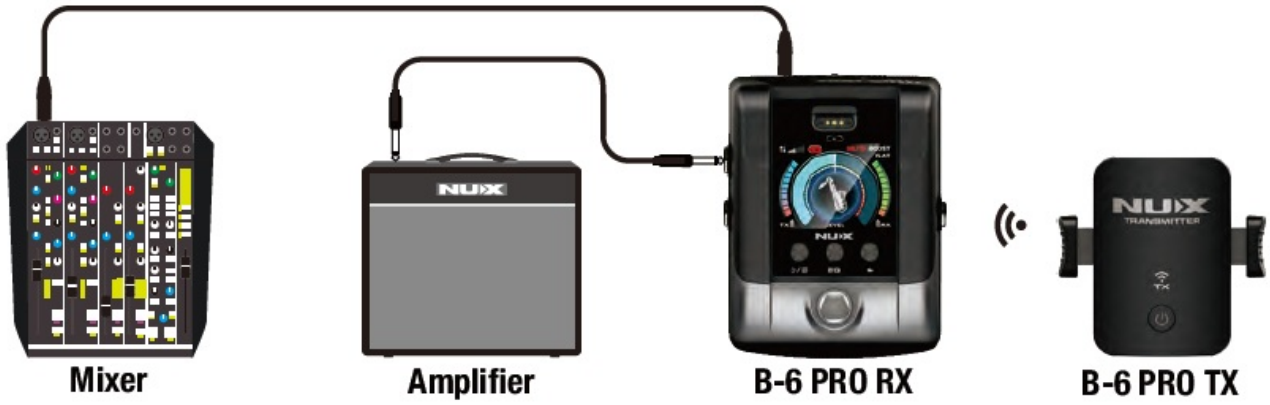
Manual Re-Pairing of ID

Each B-6 PRO set is preset with a pairing ID from the factory. If you need to re-pair the ID or pair the RX (receiver) with another B-6 PRO TX (transmitter), please follow these steps:

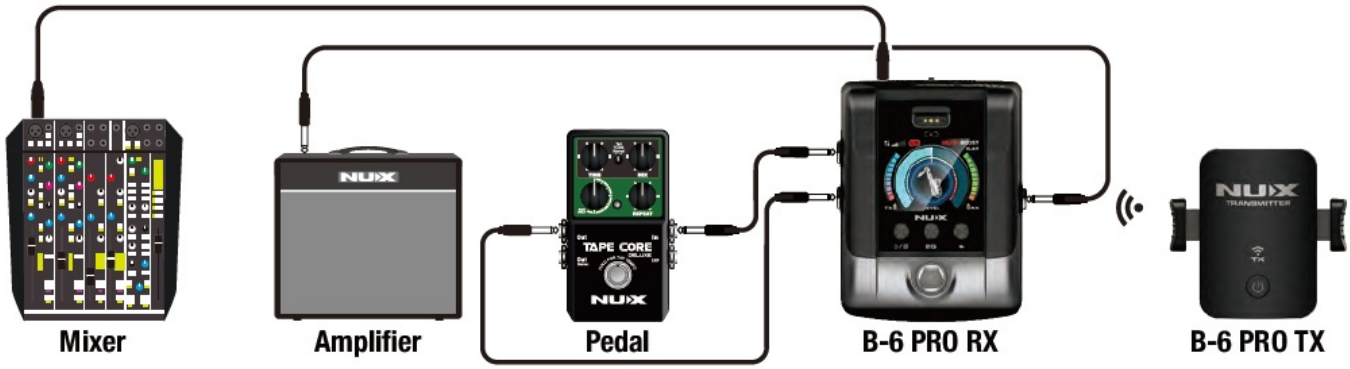
1. Turn on the power for the RX (receiver); the screen will display “Scanning.” Press and hold the “Back” button, and the screen will show “Pairing.”
2. Turn on the power for the TX (transmitter), then press the “Main Button.” The TX (transmitter) and RX (receiver) will begin to pair with each other.
3. Once the pairing is successful, the screen will display “PAIRED”.

Connection Scenarios

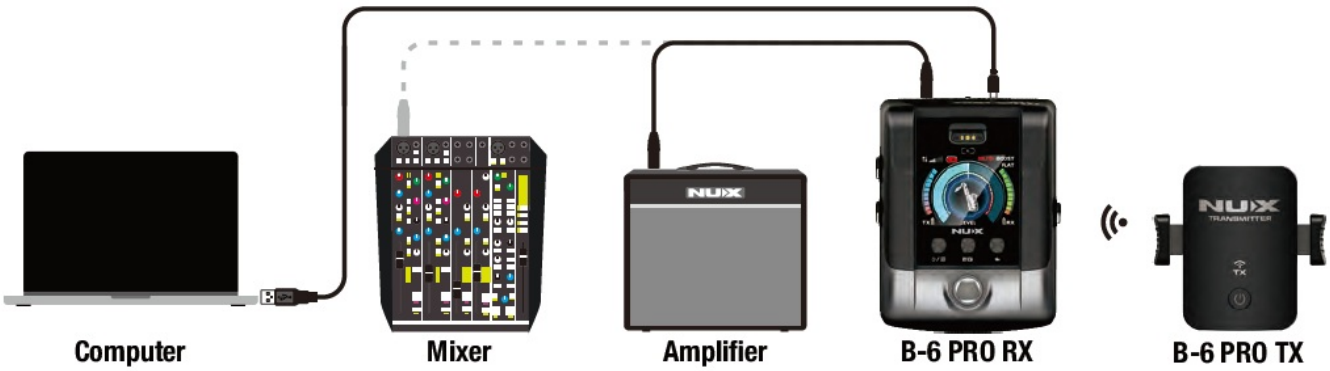
1. Connect the RX (receiver) to an amplifier or mixing console.



2. Connect the RX (receiver) to an amplifier or mixing console. You can also integrate your effects loop into the RX (receiver) by using the send/return ports.



TIPS If noise occurs when connecting the RX to a computer with a USB cable and a speaker via the 1/4 inch OUTPUT jack, in this case, please try to connect to the speaker via the “DI OUT” to avoid the noise issue.

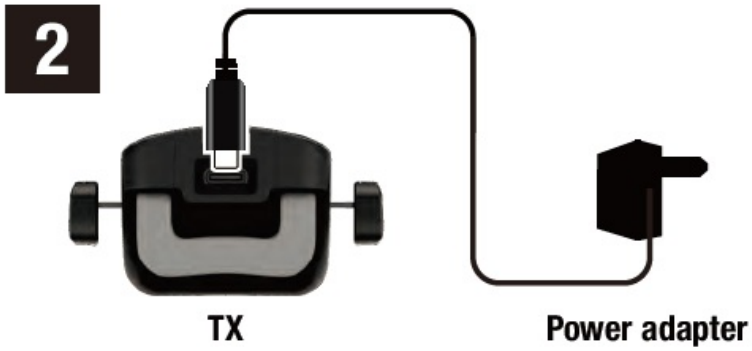


Charging the TX (Transmitter)

There are two ways to charge the transmitter:

1. Charge the TX (transmitter) using the RX (receiver). Turn on the RX (receiver) and place the TX (transmitter) in the magnetic charging position. The TX (transmitter)’s LED indicator will glow red while charging.

2. Charge the TX (transmitter) with a 5V/500mA adapter using the USB-C port.



Charging the RX (receiver)

The B-6 PRO comes with a DC 9V 1.2A power adapter. Plug it into the RX (receiver)'s DC port to charge the device.

CAUTION

Please only use the original DC 9V 1.2A adapter to charge the B-6 Pro's RX. If you use an uncertified adapter to charge the RX, it might cause damages to the circuit of the product.

CAUTION

The USB-C port is not for charging!

Tips and Methods to Improve Wireless System Performance

If you experience interference or disconnection issues while using the B-6 PRO, try the following methods:

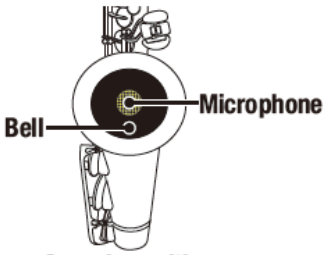
For optimal transmission performance, check for nearby Wi-Fi devices and set the B-6 PRO to the best position between “Low Latency” and “Stable” modes.
Ensure the RX (receiver) is fully charged and powered on.
Make sure there are no large objects obstructing the signal transmission between the TX (transmitter) and RX (receiver).
Reduce the distance between the TX (transmitter) and RX (receiver). For example, on stage, you can place the RX (receiver) close to the TX (transmitter) and use a long ca ble to connect to the mixing console or speaker.
When using two or more sets of wireless systems, ensure that there is at least 1 mete r of separation between each TX (transmitter) and RX (receiver) pair.
Keep the RX (receiver) away from Wi-Fi access points, computers, Bluetooth devices, or other 2.4 GHz signal sources.
Turn off unnecessary Wi-Fi on computers, phones, and other portable devices.
Avoid high Wi-Fi traffic activities, such as downloading large files or watching movies.
Avoid placing the TX (transmitter) and RX (receiver) near metal surfaces or other high -density materials.
During sound checks, mark “blind spots” where the signal is weak, and try to avoid th ese areas during performances.
The optimal operating distance is 10m(33 feet) to 35m(115 feet).

“FAVORITE EQ” equalization curves introduction

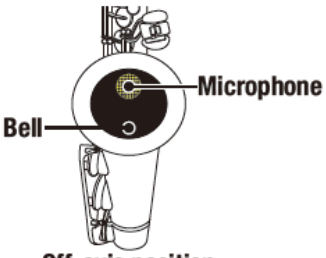
Type	**Function**

Soprano Saxophone 1	Tailored for soprano saxophone, delivering a rich, brilliant tone with excellent penetration. Recommended microphone position: on-axis with the bell.
Soprano Saxophone 2	Tailored for soprano saxophone, reducing high-frequency emphasis caused by direct bell pickup. The tone is natural and smooth, offering a listening experience closer to reality. Recommended microphone position: on-axis with the bell.
Alto Saxophone 1	Tailored for alto saxophone, offering a clear and full sound with added texture and airiness. Recommended microphone position: off-axis from the bell.
Alto Saxophone 2	Tailored for alto saxophone, providing a warm, smooth, and reserved tone with added width and depth. Recommended microphone position: off-axis from the bell.
Tenor Saxophone 1	Tailored for tenor saxophone, enhancing a heavy and magnetic tone. Recommended microphone position: on-axis with the bell.
Tenor Saxophone 2	Tailored for tenor saxophone, delivering a natural, smooth, and full-bodied sound. Recommended microphone position: on-axis with the bell.
Trumpet 1	Tailored for trumpet, offering a neutral tone reminiscent of a large-diaphragm microphone.
Trumpet 2	Tailored for trumpet, emulating the tone of small wireless microphones commonly used in live concerts, with a stronger sense of presence.
Trumpet mute	Tailored for muted trumpet setups. When using a mute, position the microphone slightly farther away for easier operation(as shown in the diagram).

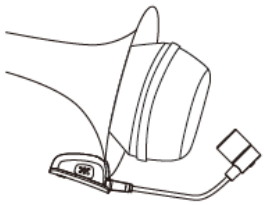
General EQ	Suitable for various wind instruments, delivering a natural and smooth tone.
Flat	An unadjusted frequency response curve.
EQ1	Custom equalizer based on the flat curve.
EQ2	Custom equalizer based on the flat curve.



On-axis position



Off-axis position

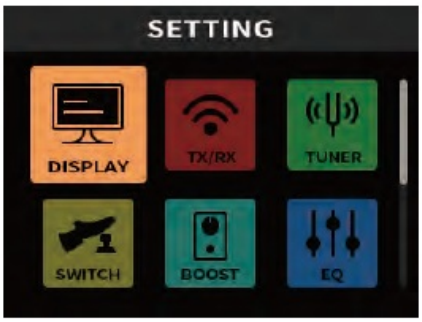

Microphone Placement Diagram for Trumpet mute

NOTE

Adjusting the microphone position will result in tonal variations. You can adjust the microphone position between on-axis and off-axis with the bell according to your preference (as shown in the diagram).

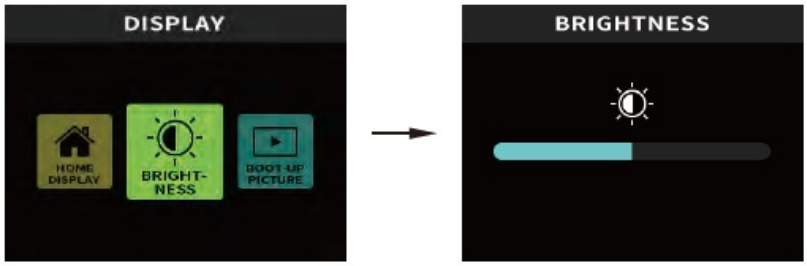
SYSTEM SETTING

DISPLAY SETTING



Choose your favorite HOME display.

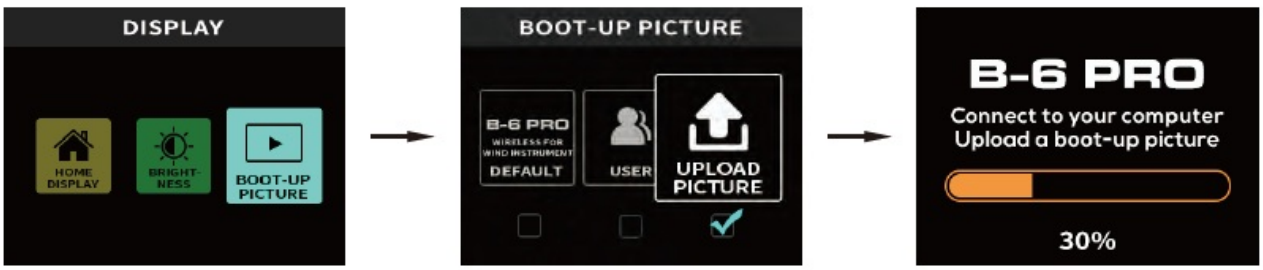
Adjust display brightness.



Setting the Boot-Up picture with a GIF Image

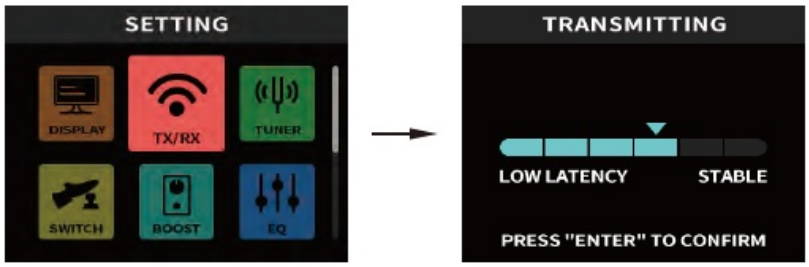
Follow these steps to upload a GIF image to set as the Boot-Up picture:

1. Please visit www.nuxaudio.com on your computer and download the “GIF Customizer” app.
2. On the RX (receiver) screen, select “UPLOAD PICTURE” and confirm, then connect the B-6 PRO to your computer via the USB-C port.
3. Finally, use the “GIF Customizer” app on your computer to select the desired GIF image and upload it to the B-6 PRO.



WIRELESS SETTINGS

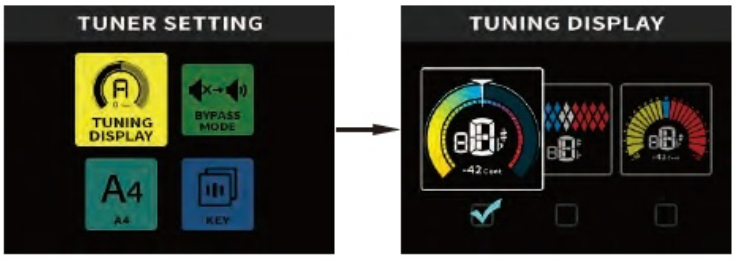
You can adjust the transmission settings between “LOW LATENCY” and “STABLE”.



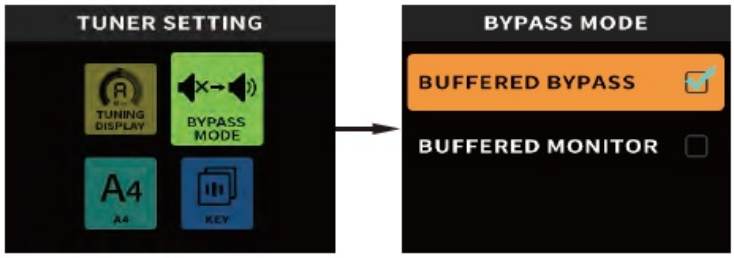
- When set to the far-left “LOW LATENCY” position, the transmission latency will be minimized (around 3.6 ms).
- When set to the far-right “STABLE” position, this mode provides greater transmission stability, though with slightly higher latency (around 9.9 ms).
- For optimal transmission performance, check for nearby Wi-Fi devices before use, then set the TX (transmitter) wireless setting to the best position between “LOW LATENCY” and “STABLE” based on your needs.

Tuner Settings

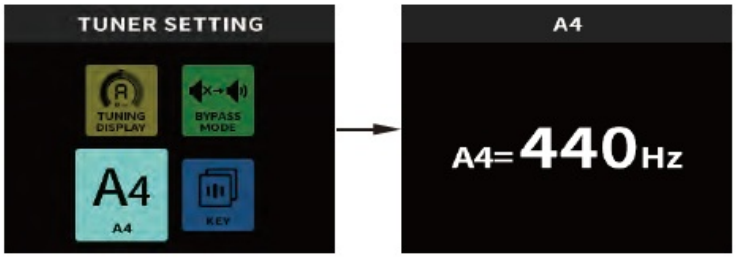
1. Select your preferred tuner display mode.



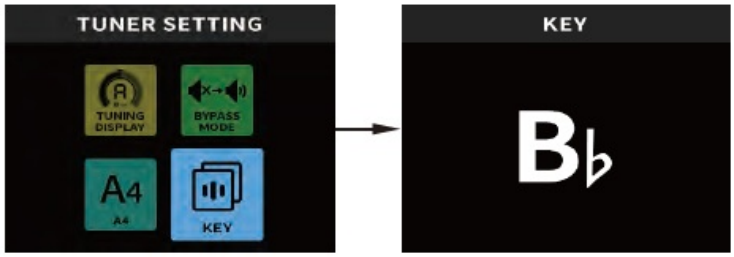
2. Choose the tuner bypass mode.



3. Adjust the tuner frequency for A4.



4. Adjust the pitch displayed by the tuner.



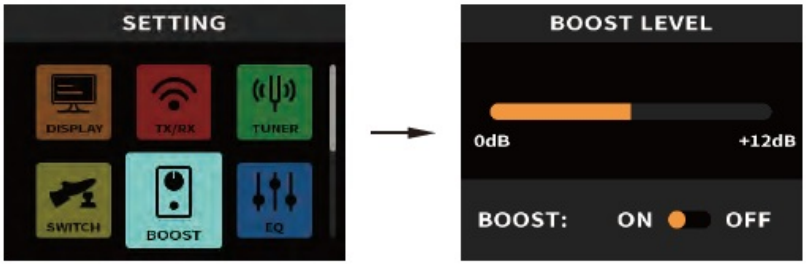
FOOTSWITCH SETTINGS

You can set the specific functions for footswitch control.

When you selected the “S/R” , it controls whether the signal passes through Send/Return.

BOOST SETTINGS

You can adjust the value of the boost effect.

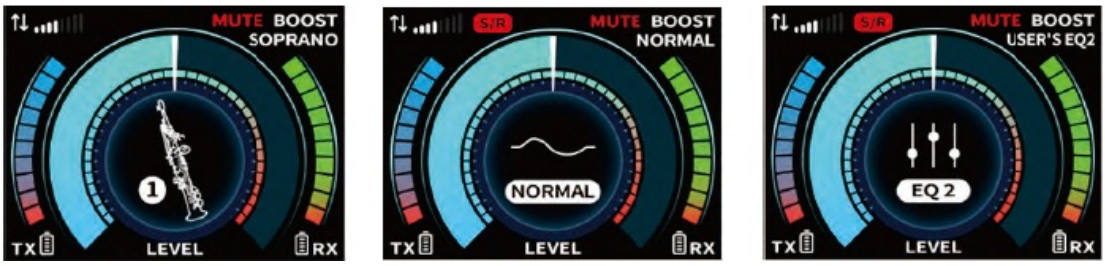


EQ Settings

- **FAVORITE EQ:** Select the desired equalization curves.

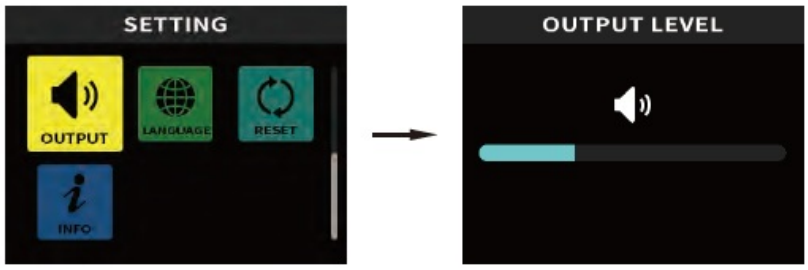
- **USER'S EQ:** Adjust custom equalizer.

TIPS: The main page displays the current equalization curves.



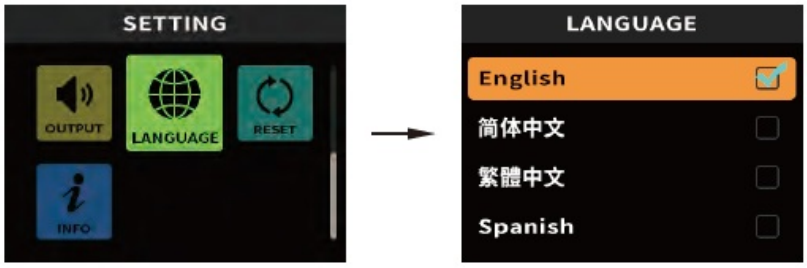
Output Settings

Adjust the output level.



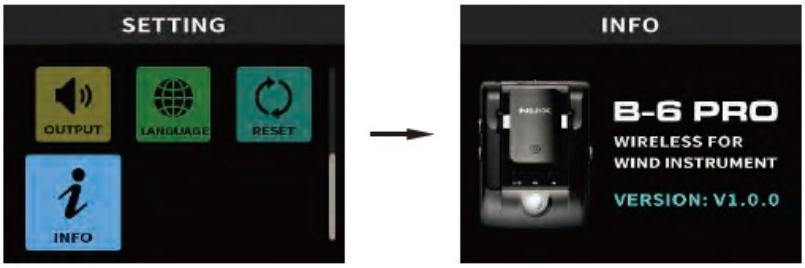
Language Settings

You can set the system language.



INFO

Displays the system version information of the B-6 PRO.



Specifications

Microphone	
Microphone Type:	Unidirectional Electret
Microphone Sensitivity:	-51dB

TX (Transmitter) / RX (Receiver)	
Operating Frequency Band:	2400-2483.5MHz
Transmission Distance:	Up to approximately 50 meters(165 feet)
Latency:	3.6ms (Low Latency), 6.1ms (Default), 9.9ms (Stable)
Sampling Depth / Sampling Rate:	24bit / 48kHz
Frequency Response Range:	20Hz – 20kHz
Maximum Audio Signal Output:	6.4 dBV (SEND/OUTPUT)
THD+N:	<0.01% (Typical)
Dynamic Range:	112dBA (SEND/OUTPUT)

Battery Capacity:	TX (transmitter) 3.7V/500mAh, RX (receiver) 3.7V/3000mAh
Battery Life:	TX (transmitter) Approximately 7hours, RX (receiver) Approximately 11 hours
Power:	DC 9V, 1A min, negative tip power supplies (Receiver)
Auto Power Off	Automatic power off after 10 minutes of no wireless connection
TX (Transmitter) Dimensions:	61mm (L) x 60mm (W) x 30mm (H)
TX (Transmitter) Weight:	Approximately 60g
RX (Receiver) Dimensions:	93mm (L) x 120mm (W) x 60mm (H)
RX (Receiver) Weight:	Approximately 420g

*Specification may change without notice.

Accessories

- DC 9V 1.2A power adapter USB-C cable
- USB-C to USB-A adapter
- Windshield
- 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 radio/TV 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 device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

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Frequently Asked Questions

Q: How do I pair the transmitter with the receiver?
A: Ensure both devices are powered on, then follow the pairing instructions provided in the user manual. The transmitter and receiver should be within the specified operating range for successful pairing.

Q: What is the battery life of the transmitter and receiver?
A: The transmitter has a battery life of up to approximately 7 hours, while the receiver can last up to approximately 11 hours on a full charge.

Documents / Resources

	NUX Audio 2BCVT-B-6PROTX Wireless System For Wind Instrument [pdf] User Manual 2BCVT-B-6PROTX, 2BCVT-B-6PRORX, 2BCVT-B-6PROTX Wireless System For Wind Instrument, 2BCVT-B-6PROTX, Wireless System For Wind Instrument, Wind Instrument, Instrument

References

- User Manual

NUX Audio

2BCVT-B-6PRORX, 2BCVT-B-6PROTX, 2BCVT-B-6PROTX Wireless System For Wind Instrument, Instrument, NUX Audio, Wind Instrument, Wireless System For Wind Instrument

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