

BOYA

4-Channel Mini Wireless Microphone Series

四通道迷你麦克风系列

BY-V4U

User Manual
用户手册

Statement

Please read this manual carefully before using, and strictly operate and store it in accordance with the instructions. Please save the manual for future reference. If you need further assistance than the user manual, please consult your retailer for help or email us at: sales@boya-mic.com

Cautions

1. Non-professional teardown is strictly prohibited.
2. Please keep it away from heat sources such as radiators or spotlights.
3. Do not remove the battery without professionals' help.
4. Please clean the device with only a soft, dry cloth.
5. When using and storing, please keep away from the dust and moisture.
6. For the best pick-up pattern, do not hold your hand against the microphone capsule cover.

General Introduction

The BY-V4U, four-channel wireless microphone series, have four sound sources miked up simultaneously with ease. The kits can record multiple sound sources for 4-person performances, conferences, speeches, podcasts, vlogging, mobile journalism, and more.

The BY-V4U features a USB-C digital audio output for USB-C smartphones, tablets, computers, and other mobile devices. In the BY-V4U package, you can enable your mobile device's speaker without unplugging the receiver.

Built-in omnidirectional microphone, each transmitter of the BY-V4U features 360-degree sound pickup. It also boasts

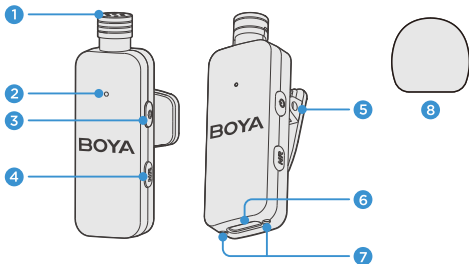
high-performance noise cancellation, which is available for improving the recording effect in a noisy environment.

Features

- Up to 200 meters of wireless transmission without obstacles
- High-performance noise cancellation algorithms - 48kHz HD audio format retained
- Wide-range 20-20,000Hz frequency response - deliver exceptional high-quality sound
- Up to 6 hours of operating time for a transmitter
- USB-C digital output – universal compatibility with cameras, smartphones and computers
- Enable the device's speaker without unplugging the receiver
- 360° rotating back clip on transmitter
- Charging case included - make the kit easy to carry on

Product Structure

Wireless Transmitter (BY-V4-TX)



❶ Built-in Microphone

❷ Indicator

Status	Indicator
Unpaired	Blinking blue and red alternately
Pairing	Blinking blue rapidly
Paired successfully	Static blue
Microphone Muted	Blinking blue slowly
Noise cancellation enabled	Static green
Low battery	Blinking red
Charging (in shutdown mode)	Static red

Note:

- If charging the unit when it is ON, the indicator will display the current working status instead of charging status.
- Please charge the transmitter when the indicator indicates low battery status, or it will automatically shut off within 10 minutes.
- The noise cancellation feature cannot be enabled or disabled when the microphone is muted.

③ Power Button

- Press and hold for 2 seconds to power on or off.
- Press to mute or unmute the microphone.
- Press and hold for 5 seconds to enter pairing status in shutdown mode.

④ NR Button

Press to enable or disable the noise cancellation.

⑤ Belt Clip

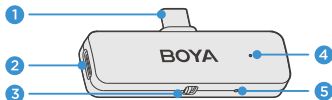
It can rotate 360 degrees.

⑥ USB-C Charging Port

For charging the transmitter.

⑦ Charging Contacts**⑧ Foam Windscreen**

USB-C Receiver (BY-V4-RXU)



❶ USB-C Connector

It can be connected to a smartphone, tablet, computer, or other mobile device featuring a USB-C port.

❷ USB-C Charging Port

When the receiver is plugged into an external device, the external device can be powered via this charging port.

❸ Speaker Switch

Toggle to enable or disable the phone's speaker.

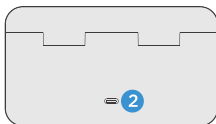
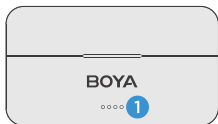
❹ Status Indicator

Status	Indicator
Unpaired	Blinking blue slowly
Pairing	Blinking blue rapidly
Paired successfully	Static blue

❺ Pair Pinhole

Insert the included pairing pin into the hole and press to enter the pairing status.

Charging Case (BY-V4-CC)



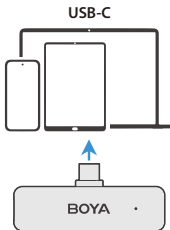
❶ Charging Indicator

Status	Battery level	Indicator
Low battery	<10%	(10s)
Charging	≤25%	
	26%~50%	
	51%~75%	
	76%~99%	
Fully charged	100%	

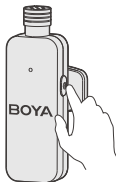
❷ USB-C Charging Port

How to Use

1. Connect the USB-C receiver to a smartphone, tablet, or computer that features a USB-C port.



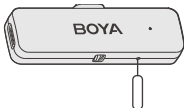
2. Press and hold the power buttons for 2 seconds to turn on the transmitter(s).



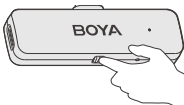
3. Pairing

The transmitter(s) and receiver are paired by default. If they are disconnected, please follow the below steps:

- ① To make the transmitter(s) enter the pairing state, press and hold its power button for 5 seconds in shutdown mode until its status indicator blinks blue rapidly.
- ② Then, insert the included pairing pin into the small pinhole on the USB-C receiver and press once. The receiver will enter pairing mode and its indicator will blink blue quickly.
- ③ Transmitter(s) and receiver will be successfully paired within 10 seconds. Their status indicators glow static blue.



4. Launch a video or audio recording app. Then, select the external microphone, if applicable (app dependent).
5. It is recommended to record a sample and play it back to check if the audio level is acceptable before recording.
6. To improve the recording effect in a noisy environment, it is recommended that you press the NR button on the transmitter(s) to enable noise cancellation.
7. Slide  toward  on the receiver to enable the phone's speaker. Sound can be played directly without unplugging the receiver.



NOTE:

- If you use the receiver with more than one transmitter, you will need to set up the receiver first and then pair the transmitters with it in turn.
- Due to 2.4 GHz wireless frequency, signal can be easily attenuated. Please try to avoid obstacles, such as walls and buildings, and avoid close proximity to devices with 2.4 GHz signal, such as high-power Wi-Fi antennas, radios, etc.

Troubleshooting

If you encounter problems when using the unit, please refer to the following checklist before contacting technical support. If the problem cannot be solved, please contact the dealer's after-sales service department.

No sound

- ① Make sure the transmitter and receiver are paired, and the receiver light glows static blue.
- ② Make sure the microphone is not currently muted. If the transmitter's indicator blinks blue slowly, press its power button to unmute the microphone.

Operating range is limited, sound changes, or noise appears

- ① Make sure there is no interference from high-power wireless routers or devices in your recording environment. If the recording environment can't be changed, you need to find the best distance and angle to record.
- ② Due to 2.4 GHz wireless frequency, signal can be easily attenuated. Please try to avoid obstacles, such as walls and buildings, and avoid close proximity to devices with 2.4 GHz signal, such as high-power Wi-Fi antennas, radios, etc.
- ③ Make sure the receiver is well connected to your device properly.

A unit doesn't power on

If the battery is completely depleted due to the unit has not been used for a long time, charge the unit.

The units automatically shut down

Both the transmitter and receiver will automatically power down after 10 minutes if they aren't paired.

The transmitter doesn't enter the pairing state

Turn off the transmitter, press and hold its power button for 5 seconds until its status indicator blinks blue rapidly to pair again.

Can't pair when four transmitters need to be paired with a receiver

- ① Make sure that the transmitters are paired with the receiver one by one, not at the same time. Only when a transmitter is paired with the receiver, can the second transmitter be paired with it.
- ② If a transmitter fails to be paired with a receiver, turn the transmitter off and press and hold its power button for 5 seconds to pair again.

Charging case can't charge the transmitter(s) or receiver

- ① If the remaining charge of the charging case is too low, please recharge the case. Try again.
- ② Wipe the charging contacts on the transmitter(s), receiver, and charging pins in the case with a clean cloth. Make sure there is no dirt covering them.
- ③ If the touch points are not firmly connected due to a lack of magnetic force, please contact BOYA after-sales support.

The indicator doesn't display charge status

Only if the transmitter and receiver are turned off, do their indicators display the charge status while charging.

Specifications

BY-V4-TX Transmitter

Transmission Type	2.4 GHz
Modulation	GFSK
Polar Pattern	Omnidirectional
Antenna	Ceramic antenna
Operating Range	200 m (without obstacles)
Distortion	≤0.1%
Frequency Response	20 Hz-20 kHz
Sensitivity	-42 dB
Sampling Rate	48 kHz
Reference Audio Input Level	-20~-42 dBu (MIC input, 0 dB Gain)
Signal-to-Noise Ratio	85 dB
Audio Input	Built-in capsule
Battery Voltage/ Capacity	3.7V / 95 mAh
Power Supply	Built-in Li-ion battery
Battery Life	Approx. 6 hours
Charging Time	Approx. 2 hours
Weight	Approx. 11 g
Dimensions	53.1 × 18.3 × 10.2 mm
Operating Temperature	0°C to +45°C
Storage Temperature	-20°C to +55°C

BY-V4-RXU

Transmission Type	2.4 GHz
Modulation	GFSK
Polar Pattern	Omnidirectional
Antenna	Ceramic antenna
Operating Range	200 m (without obstacles)
Signal-to-Noise Ratio	85 dB
Distortion	≤ 0.1%
Frequency Response	20 Hz - 20 kHz
Power Supply	Powered by an external device
Audio Output	USB-C
Weight	Approx.9 g
Dimensions	62.5 x 18.3 x 10.2 mm
Operating Temperature	0°C to +45°C
Storage Temperature	-20°C to +55°C

BY-V4-CC Charging Case

Battery Type	Built-in Li-ion battery
Battery Capacity	3.7 V / 1500 mAh
Charging Time	Approx. 2 hours
Power Supply	USB-C (DC 5 V / 2 A)
Charge Cycle Times	2 times (4*TX)
Weight	Approx. 160 g
Dimensions	143.6 x 35.5 x 80.5 mm
Operating Temperature	0°C to +45°C
Storage Temperature	-20°C to +55°C

In the Box

BY-V4U

BY-V4-TX Transmitter × 4

BY-V4-RXU USB-C Receiver × 1

Charging Case × 1

USB-A to USB-C Data Cable × 1

Pairing Pin × 1

Sticker Sheet × 1

FCC Caution:

Any 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.

IMPORTANT NOTE:

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.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

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