BOYA

Four-Channel Wireless Microphone System

2.4GHz四通道无线麦克风系统

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 your future reference. If you need further assistance than the user manual, please consult your retailer for help or email us: **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-V4/ BY-V4U kit, a four-channel wireless microphone system, has 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.

Built-in omnidirectional microphone, the transmitter features 360-degrees of sound pickup. It also boasts high-performance noise cancellation, which is available for improving the recording effect in a noisy environment. The BY-V4 kit features 3.5mm TRS analog audio output for cameras, mixers, etc. The BY-V4U kit features USB-C digital audio output for smartphones, tablets, computers, and other mobile devices. In addition, the receivers have USB-C charging ports, which support charging and powering of devices while in use.

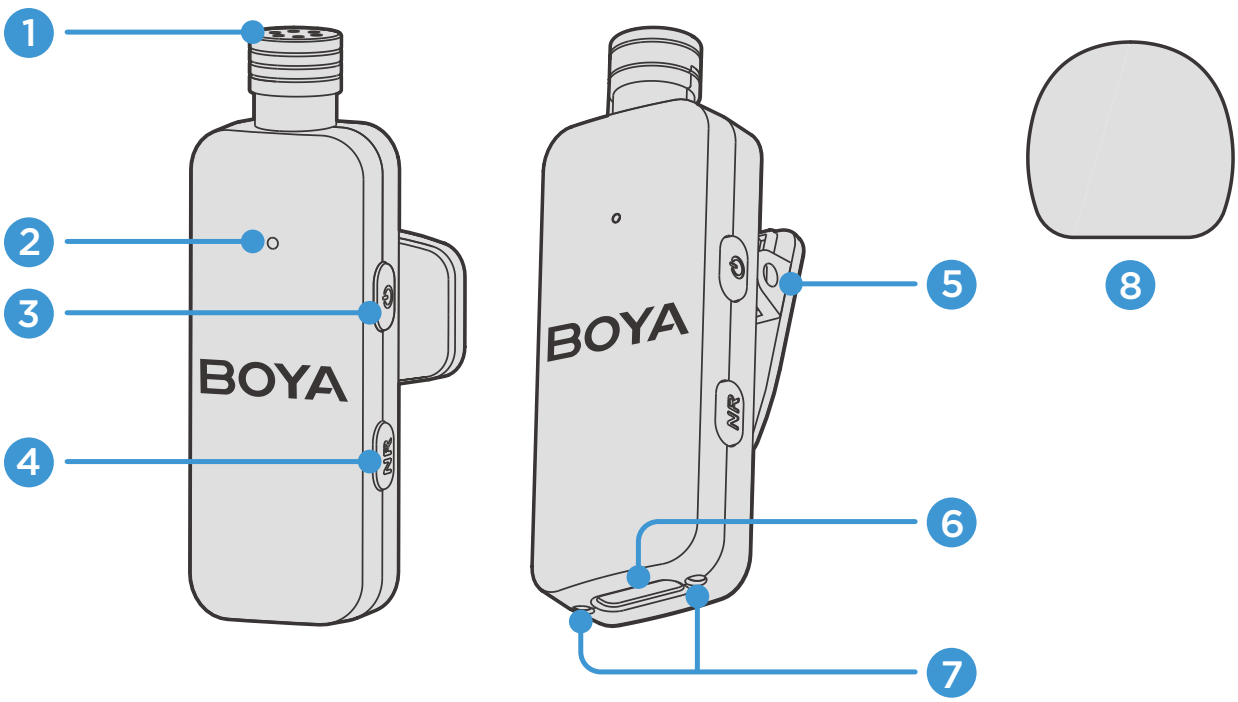
* The BY-V4/ BY-V4U operates on the 2.4GHz spectrum and automatically hops to free channels to avoid static noise and audio dropouts.

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
- 3.5mm TRS analog output, USB-C and 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)



① **Built-in Microphone**

② **Status 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
Maximum/ Minimum gain	Blinking blue 3 times rapidly
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 TX 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.

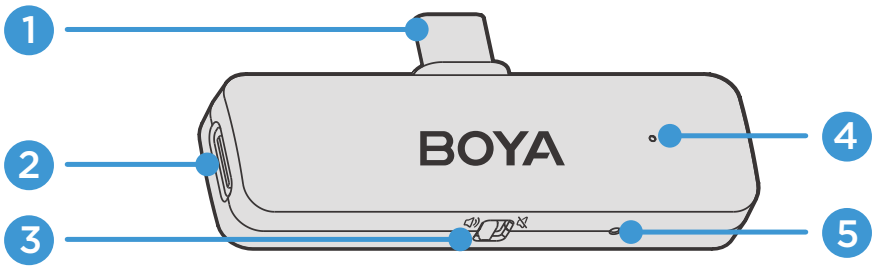
⑥ **USB-C Charging Port**

For charging the transmitter.

⑦ **Charging Contacts**

⑧ **Foam Windscreen**

3.5mm TRS Receiver (BY-V4-RX35)



① USB-C Connector

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

② USB-C Charging Port

When the BY-V4-RXU receiver is plugged into an external device, the external device can be powered via this charging port.

NOTE: Most mobile devices featuring a USB-C port can be powered and charged through this port while in use.

③ Speaker Switch

Toggle to enable or disable the phone's speaker.

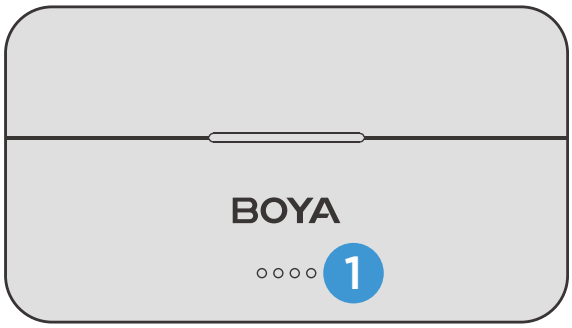
④ Status Indicator

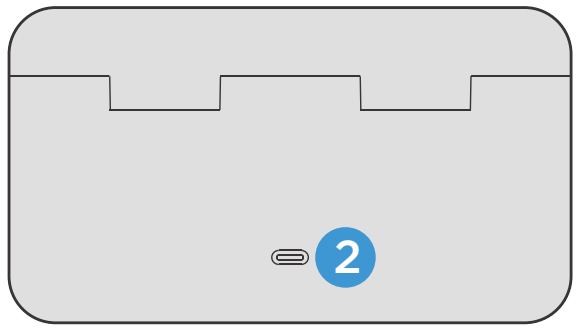
Status	Indicator
Unpaired	Blinking blue slowly
Pairing	Blinking blue rapidly
Paired Successfully	Static blue

⑤ Pair Pinhole

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

Charging Case (BY-V4-CC)





① Charging Indicator

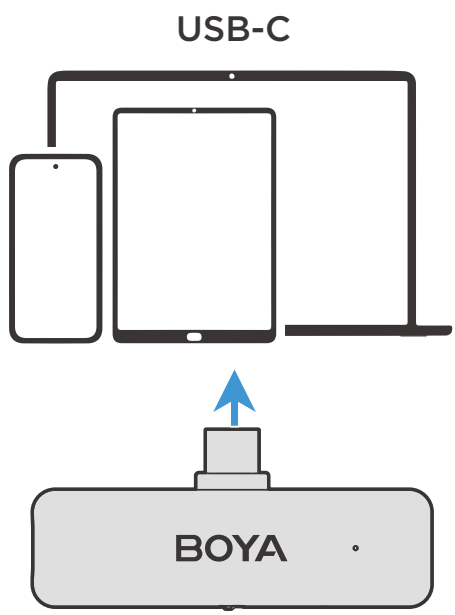
Status	Battery Level	Indicator
Low battery	＜10%	☼ ● ● ● (☼ 10s)
Charging	⩽25%	☼ ● ● ●
	26%~50%	● ☼ ● ●
	51%~75%	● ● ☼ ●
	76%~99%	● ● ● ☼
Fully charged	100%	● ● ● ●

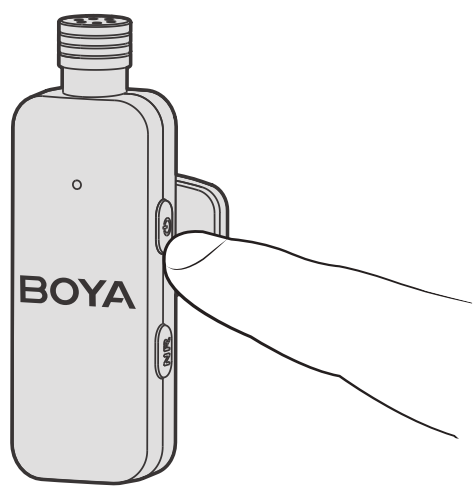
② USB-C Charging Port

How to Use

For the kit of BY-V4U

1. Connect the receiver to the USB-C port of a mobile device such as a smartphone, tablet, or computer.
2. Press and hold the power buttons for 2 seconds to turn on the transmitter(s).





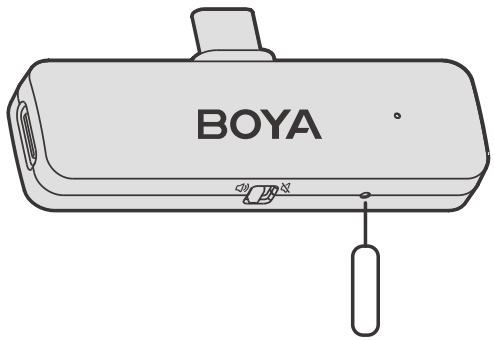
3. Pairing

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

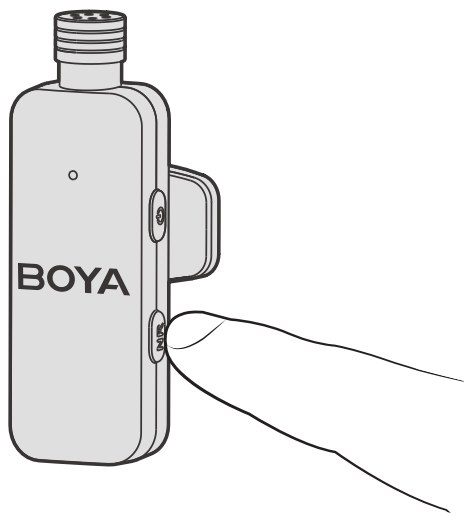
①To make the transmitter(s) enter the pairing state, press and hold its power button for 5 seconds in shutdown mode until its status indicator blinks blue rapidly.

②Then, insert the included pairing pin into the small pinhole on the receiver and press once. The receiver enters the pairing mode and its indicator will blink blue quickly.

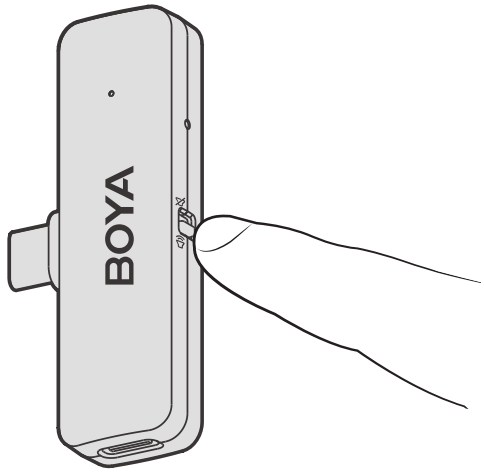
③Transmitter(s) and receiver will be successfully paired within 10 seconds. Their status indicators glow static blue.



4. Launch a video or audio recording app. Then, select 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 press the 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 2.4GHz wireless frequency, signal can be easily attenuated. Please try to avoid obstacles, such as walls and buildings, and avoid close proximity to devices with 2.4GHz 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 2.4GHz wireless frequency, signal can be easily attenuated. Please try to avoid obstacles, such as walls and buildings, and avoid close proximity to devices with 2.4GHz 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 3.5mm TRS 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 3.5mm TRS receiver are turned off, do their indicators display the charge status while charging.

Specifications

BY-V4-TX Transmitter

Transmission Type	2.4GHz digital frequency
Modulation	GFSK
Polar Pattern	Omnidirectional
Antenna	Built-in PIFA antenna
Operating Range	Up to 200m (Measured in open environment without obstacles and interference.)
RF Output Power	＜10dBm
Distortion	⩽0.1%
Frequency Response	20Hz-20kHz
Sensitivity	-42±2dB
Reference Audio Input Level	-20~-42dBu (MIC input, 0dB Gain)
Signal-to-Noise Ratio	> 80dB
Audio Input	Built-in Capsule
Battery Voltage/ Capacity	3.7V/ 95mAh
Power Requirements	Built-in Li-ion Battery or Charging Contact or USB Type-C DC 5V
Battery Life	Approx. 6 hours
Charging Time	Approx. 2 hours
Weight	Approx. 10.5g
Dimensions	62.6mm×18.3mm×10.2mm
Operating Temperature	0°C ~ +50°C
Storage Temperature	-20°C ~+ 55°C

BY-V4-RXU Receiver

Transmission Type	2.4GHz digital frequency
Modulation	GFSK
Antenna	Built-in PIFA antenna
Operating Range	Up to 200m (Measured in open environment without obstacles and interference.)
RF Output Power	＜10dBm
Frequency Response	20Hz-20kHz
Signal-to-Noise Ratio	> 80dB
Audio Output	USB Type-C Connector
Power Requirements	Powered by the external devices
Weight	Approx. 9g
Dimensions	62.5mm×18.3mm×10.2mm
Operating Temperature	0°C ~ +50°C
Storage Temperature	-20°C ~+ 55°C

BY-V4-CC Charging Case

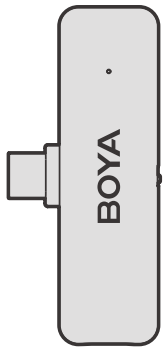
Battery Type	Built-in lithium-ion battery
Battery Voltage/ Capacity	3.7V/ 1500mAh
Charging Time	Approx. 2 hours
Power Requirements	USB-C (DC 5V/ 2A)
Charge Cycle Times	1 times (4*TX+1*RX35) 2 times (4*TX)
Weight	Approx. 160g
Dimensions	143.6mm×80.5mm×35.5mm
Operating Temperature	0°C ~ +50°C
Storage Temperature	-20°C ~+ 55°C

In the Box

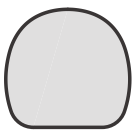
BY-V4



BY-V4-TX
Transmitter ×4



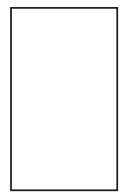
BY-V4-RXU
Receiver ×1



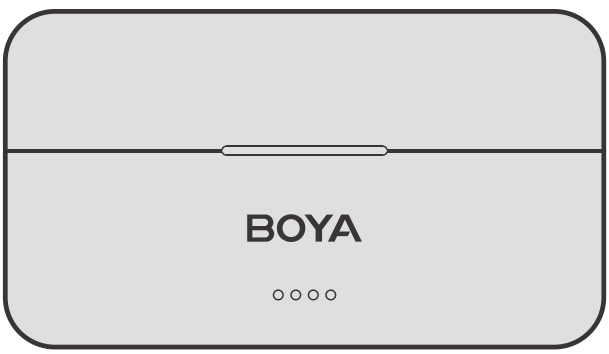
Foam
Windscreen ×4



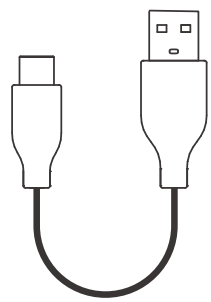
Pairing Pin
×1



Sticker Sheet
×1



BY-V4-Case Charging Case ×1



USB-A to USB-C Cable ×1

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