

BOYA

2.4 GHz Wireless Microphone System

2.4 GHz无线麦克风系统

BY-V

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

BY-V, a lightweight and easy-to-use 2.4 G wireless microphone system, renders ease of operation and remarkable flexibility for high-quality recording. The microphone system supports connecting a receiver with 2 transmitters for 2-person recording, ideal for content creation, live streaming, vlogging, mobile journalism, and more.

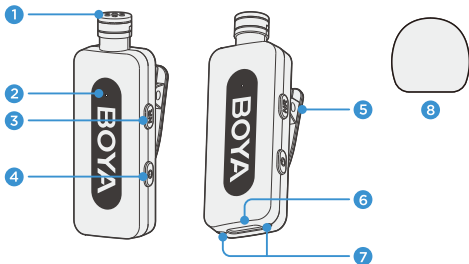
The transmitter features an in-built microphone, and a belt clip that pivots 360 degrees for flexible positioning of the transmitter on clothes. The transmitter features an in-built microphone, and a belt clip that pivots 360 degrees for flexible positioning of the transmitter on clothes. The receiver's USB-C port can be plugged into a charging cable to charge your mobile phone when the receiver is connected to a smartphone. Furthermore, users can enable their mobile device's speaker without unplugging the receiver. Each transmitter delivers 9 hours of recording time on a single charge. Additionally, the charging case allows you to charge transmitters while on the go.

Features

- TX weighs 10.5 g only
- Transmission range up to 100 m
- 36 h battery life powered by charging case
- Rotatable clip and omnidirectional polar pattern
- Noise cancellation with foam cover and algorithm

Product Structure

BY-V-TX Transmitter



1 Built-in Microphone

2 Indicator

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

Note:

- Please charge the transmitter when the indicator indicates low battery status, or it will automatically shut off within 10 minutes.

③ NR Button

Press to enable or disable the noise reduction.

- The noise reduction feature cannot be enabled or disabled when the microphone is muted.
- Noise reduction cannot be activated when the transmitter is unpaired with the receiver.

④ Power Button

- Press and hold for 2 seconds to power on or off.
- Press to mute or unmute the microphone.

Note:

- When not paired, the transmitter will automatically shut down after 10 minutes.
- The mute feature is unavailable when the transmitter and receiver are unpaired.

⑤ Belt Clip

It can rotate 360 degrees.

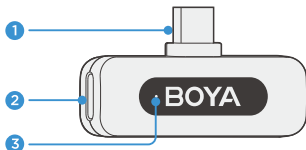
⑥ USB-C Charging Port

For charging the transmitter.

⑦ Charging Contacts

⑧ Foam Windscreen

BY-V-RXU Receiver



❶ USB-C Connector

It can be connected to a device featuring a USB-C port.

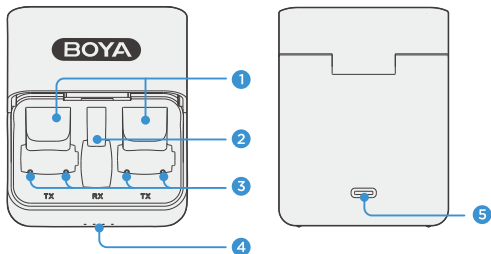
❷ USB-C Port

It can be connected to a charging cable to charge your smartphone when the receiver is connected to the phone.

❸ Indicator

Status	Indicator
Unpaired	Blinks blue
Paired successfully	Static blue

BY-V-CC Charging Case



❶ Slot for Transmitters

❷ Slot for Receiver

❸ Charging Contacts

For charging transmitters.

❹ Indicators

- When the charging case is connected to power, these indicators display as follows:

Battery level (case)	Indicator
25% or lower	● ● ● ●
26% - 50%	● ● ● ●
51%~75%	● ● ● ●
76%~99%	● ● ● ●
100%	● ● ● ●

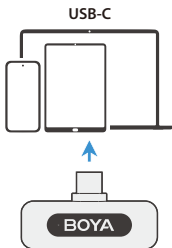
- When the charging case is not connected to power and the transmitter(s) is placed into it, these four indicators will display the case's current battery level. Four indicators can show the case's battery level with 4 scales, 25%, 50%, 75%, 100%. Each indicator represents 25%.

⑤ USB-C Charging Port

For charging the case.

How to Use

1. The transmitter(s) will power on automatically once removed from the charging case. The transmitter(s) can be attached to clothes through its belt clip.
2. Plug the BY-V-RXU receiver into a USB-C device



3. The transmitter(s) and receiver are pre-paired before leaving the factory. Therefore, they will be paired once the transmitter(s) are powered on and the receiver are plugged into your device. Their indicators will glow static blue if paired successfully.
4. Launch a video or audio recording app on your device.

5. Some phones may default to using its built-in microphone, so you need to switch to the external microphone (BY-V).
6. You are ready to record.

Tips:

1. It is recommended to record a sample and play it back to check if the audio level is acceptable before recording.
2. To improve the recording effect in a noisy environment, it is recommended to press the NR button on the transmitter(s) to enable noise reduction.

Note: Due to the 2.4 GHz wireless frequency, signals can be easily attenuated. Please try to avoid obstacles, such as walls and buildings, and avoid close proximity to devices with 2.4 GHz signals, such as high-power Wi-Fi antennas, radios, etc.

Troubleshooting

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

The unit fails to pair

Make sure to pair the transmitter(s) with one receiver. If paired with more than one receiver, which receiver will be paired with the transmitter(s) cannot be specified.

No sound from the unit or no sound when connected to an external device

- Make sure the connector on the receiver is well connected to your device.
- Make sure the transmitter(s) is not muted. If its indicator blinks blue slowly, users need to press the power button once to unmute the transmitter(s).

The operation range of the unit is limited and the sound is frequently intermittent

Make sure there is no interference between the transmitter(s) and receiver. If the intermittent sound still occurs frequently, please contact our customer service.

The unit shuts off automatically

When not paired, the transmitter(s) will automatically shut down after 10 minutes.

The unit fails to be powered on

Make sure the unit has enough battery to be powered on. Try plugging in a charging cable to activate the circuit.

The charging case fails to charge the transmitter(s)

- Make sure the charging case's battery is not depleted. Try charging the case.
- Wipe the charging contacts of the transmitter(s) and charging pins of the charging case with a clean cloth and to make sure no dust is covering them.
- Try to push down the transmitter(s) placed in the charging case until the charging contacts are fully connected . After that, if the transmitter(s) still fails to be charged, the magnetic force may be aging. Please contact our customer service.

Specifications

BY-V-TX Transmitter

Transmission Type	2.4 GHz
Modulation	GFSK
Polar Pattern	Omnidirectional
Antenna	PCB antenna
Frequency Range	2402-2480MHz
Operating Range	100 m (without obstacles)
Distortion	≤0.1%
Frequency Response	20 Hz - 16 kHz
Sensitivity	-42 dB
Sampling Rate	48 kHz
Signal-to-Noise Ratio	80 dB
Audio Input	Built-in capsule
Battery Voltage/ Capacity	3.7 V / 95 mAh
Power Supply	Built-in Li-ion battery
Battery Life	Approx. 9 hours
Charging Time	Approx. 2 hours
Weight	Approx. 10.5 g
Dimensions	53.1 × 18.3 × 10.2 mm
Operating Temperature	0°C to +45°C
Storage Temperature	-20°C to +55°C

BY-V-RXU Receiver

Transmission Type	2.4 GHz
Modulation	GFSK
Polar Pattern	Omnidirectional
Antenna	PCB antenna
Frequency Range	2402-2480MHz
Operating Range	100 m (without obstacles)
Signal-to-Noise Ratio	80 dB
Distortion	≤ 0.1%
Frequency Response	20 Hz - 16 kHz
Power Supply	Powered by an external device
Audio Output	USB-C
Weight	Approx.5.5 g
Dimensions	43.9 x 15.5 x 10 mm
Operating Temperature	0°C to +45°C
Storage Temperature	-20°C to +55°C

BY-V-CC Charging Case

Battery Type	Built-in Li-ion battery
Battery Capacity	3.7 V / 400 mAh
Charging Time	Approx. 2 hours
Power Supply	USB-C (DC 5 V / 1 A)
Charge Cycle Times	Approx. once (2*TX)
Weight	Approx. 86.5 g
Dimensions	62 × 38.5 × 79.8 mm
Operating Temperature	0°C to +45°C
Storage Temperature	-20°C to +55°C

Packing List

BY-V30 (USB-C)

Transmitter × 2
RXU Receiver × 1
CC Charging Case × 1
Foam Windscreen × 2
USB-A to USB-C Charging Cable × 1
Carrying Bag × 1

BY-V20 (USB-C)

Transmitter × 2
RXU Receiver × 1
Foam Windscreen × 2
USB-A to USB-C Charging Cable × 2
Carrying Bag × 1

BY-V10 (USB-C)

Transmitter × 1

RXU Receiver × 1

Foam Windscreen × 1

USB-A to USB-C Charging Cable × 1

Carrying Bag × 1

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.

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.

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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