

**BOYA**

Dual-Channel Digital Wireless Microphone

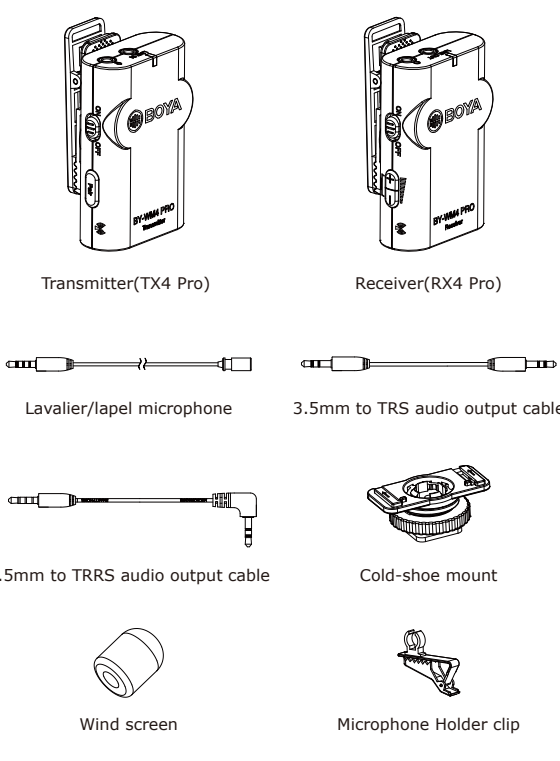
**Instruction Manual**

Thank you for purchasing BOYA BY-WM4 PRO system! Designed for videographers on a limited budget and video hobbyists, BY-WM4 PRO is a new generation 2.4GHz wireless microphone system, dual-channel for capturing audio with dual subjects to your smartphones, tablets, DSLR cameras, consumer camcorders, PCs etc.

The BY-WM4 PRO system is suitable for a wide range of wireless applications such as interviews, mobile journalism, reporting, vloggings, podcasts and more.

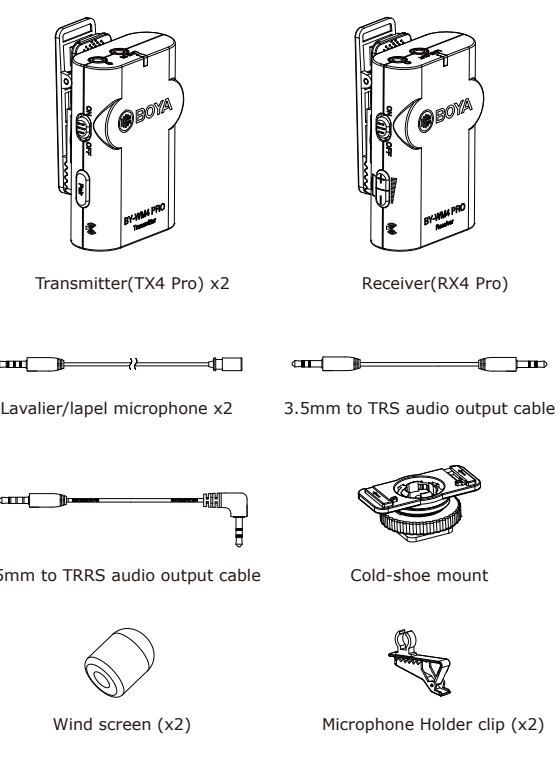
The BY-WM4 PRO system is an expandable evolution system that allows the user to mix and match different kinds of receivers while using with the TX4 Pro transmitter.

**BY-WM4 Pro consists of one body-pack transmitter (TX4 Pro), a portable receiver (RX4 Pro), and their accessories as following:**



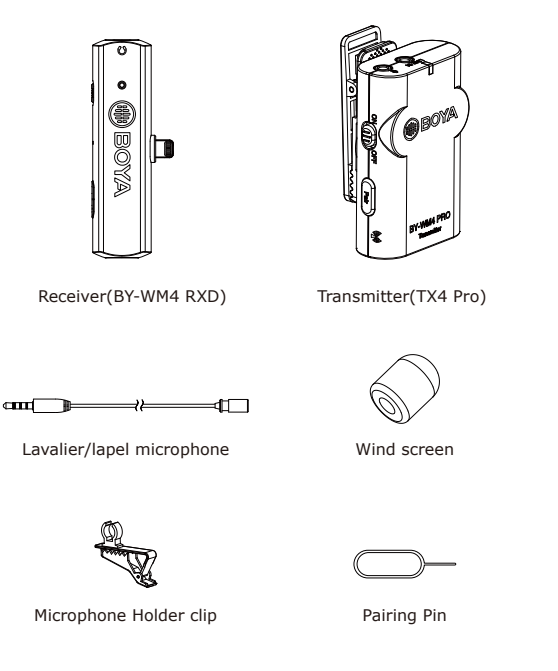
Transmitter (TX4 Pro) x2, Receiver (RX4 Pro) x2, Lavalier/lapel microphone x2, 3.5mm to TRS audio output cable x2, 3.5mm to TRRS audio output cable, Cold-shoe mount, Wind screen, Microphone holder clip.

**BY-WM4 Pro-K2 consists of two body-pack transmitters (TX4 Pro), a portable receiver (RX4 Pro), and their accessories as following:**



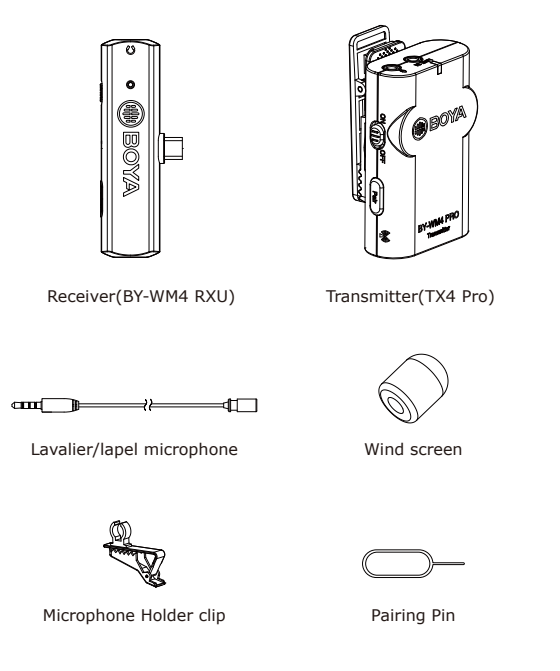
Transmitter (TX4 Pro) x2, Receiver (RX4 Pro), Lavalier/lapel microphone x2, 3.5mm to TRS audio output cable, 3.5mm to TRRS audio output cable, Cold-shoe mount, Wind screen (x2), Microphone holder clip (x2).

**BY-WM4 Pro-K3 is specially designed for Lightning iOS Devices. It consists of one body-pack transmitter (TX4 Pro), wireless receiver with a Lightning connector (BY-WM4 RXD), and their accessories as following:**



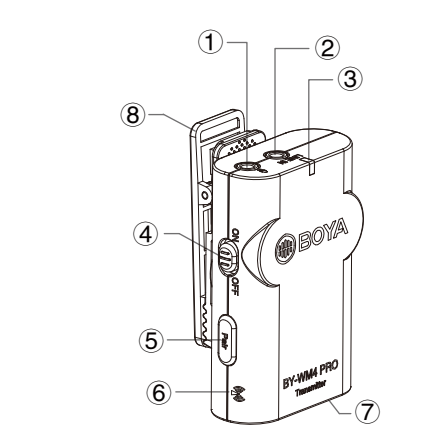
Receiver (BY-WM4 RXD), Transmitter (TX4 Pro), Lavalier/lapel microphone, Wind screen, Microphone holder clip, Pairing Pin.

**BY-WM4 Pro-K5 is specially designed for Android and other Type-C devices. It consists of one body-pack transmitter (TX4 Pro), wireless receiver with a USB Type-C connector (BY-WM4 RXU), and their accessories as following:**



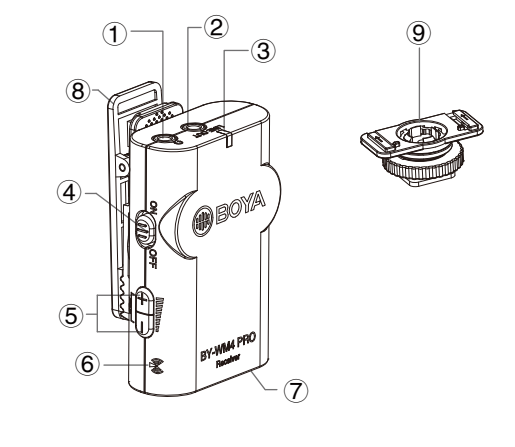
Receiver (BY-WM4 RXU), Transmitter (TX4 Pro), Lavalier/lapel microphone, Wind screen, Microphone holder clip, Pairing Pin.

**Transmitter (TX4 Pro)**



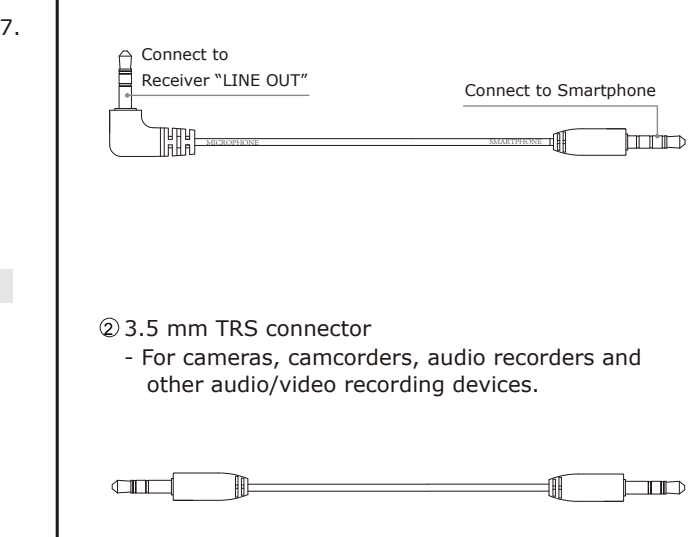
- Microphone input
- Power LED
- Pair
- Antenna
- Battery compartment
- Clip

**Receiver (RX4 Pro)**



- Earphone Jack
- LINE OUT (audio output) Jack

**What's difference?**



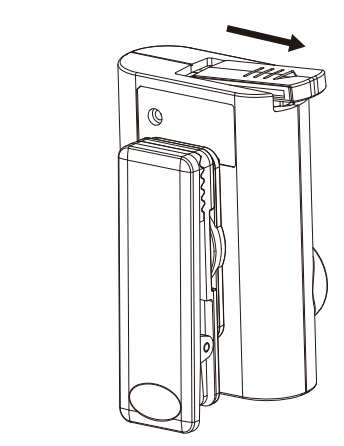
1. 3.5mm TRRS connector (Smartphone, tablet, Mac or laptop with combo headphone/Mic Jack)

2. 3.5mm TRS connector (Cameras, camcorders, audio recorders and other audio/video recording devices)

**How to use it**

**Installing batteries**

- Both transmitter and receiver requires two AAA size batteries.
- Slide and remove the transmitter's battery compartment cover.
- Insert two pieces of batteries.
- Close the battery compartment cover.
- Do the same ways as step 2 to 4 to insert battery into receiver.



**Connecting the transmitter and receiver**

1. Mount receiver to Smartphone, tablet, Mac or laptop.

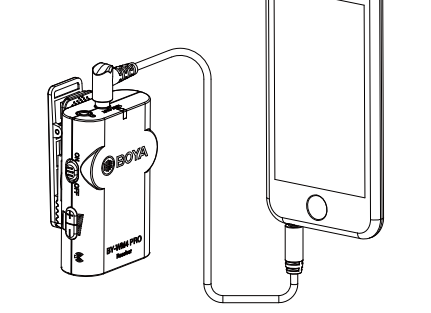
2. Using TRRS cable, plug the 3.5mm connector (straight plug) into the audio jack of your smartphone.

3. Insert the 90° plug of the connecting cable into the receiver "LINE OUT" jack.

4. Insert earphone into receiver "Pair" for monitoring Sound if you need.

5. Slider the power ON/OFF switch to ON position (the LED indicator will light in blue)

Caution: Please do not mix up plug, for details, please refer to "What's difference" on page 8.



**How to connect transmitter and receiver?**

Before leaving factory, the connection of transmitters and receiver will be established.

If transmitters and receiver disconnect, please follow below steps:

- Turn on the receiver and the transmitters.
- Press the button "+" and "-" for 3 seconds for receiver and press "Pair" of one transmitter for 3 seconds at the same time.
- When transmitter and receiver connects, the light of receiver will stay blue, the light of transmitters will flash every 2.5 seconds.
- Repeat step 2 for the other transmitter.

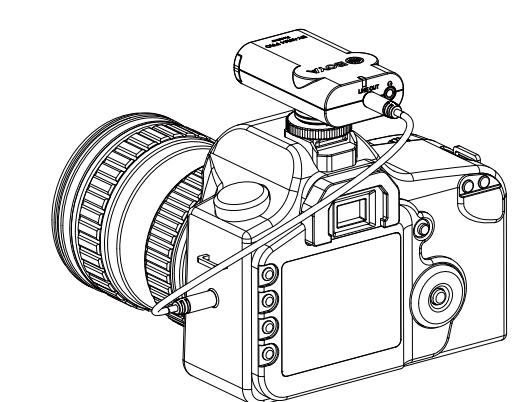
Otherwise, the light for receiver and transmitters will flash continually every 1 second, then try 1-4 steps again.

**Using the microphone with cameras, camcorders, audio recorders and other audio/video recording devices.**

**Receiver**

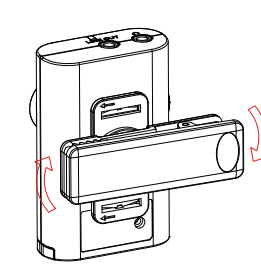
- Mount receiver to cameras, camcorders, audio recorders and other audio/video recording devices.
- Using TRS cable, plug the 3.5mm connector into the audio jack of your camera.
- Insert the other end of the connecting cable into the receiver "LINE OUT" jack.
- Insert earphone into receiver "Pair" for monitoring Sound if you need.
- Slider the power ON/OFF switch to ON position (the LED indicator will light in blue)

Caution: Please do not mix up audio cable, for details, please refer to "What's difference on page 8".



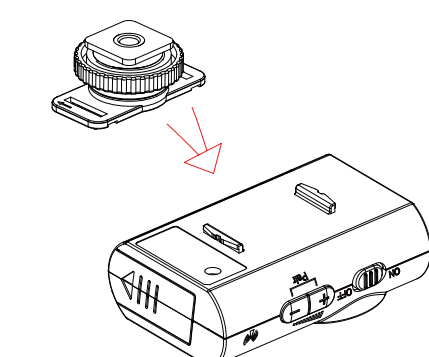
**Installing or uninstalling clip**

- Clip is mounted on the microphone before leaving factory.
- Both transmitter and receiver include clip, that means you can mount them in any place you want.
- Adjust the direction of the microphone to your mouth by rotating the Microphone.




If receiver need to be mounted onto camera hot/cold shoe, please follow below steps:

- Push the clip to right side.

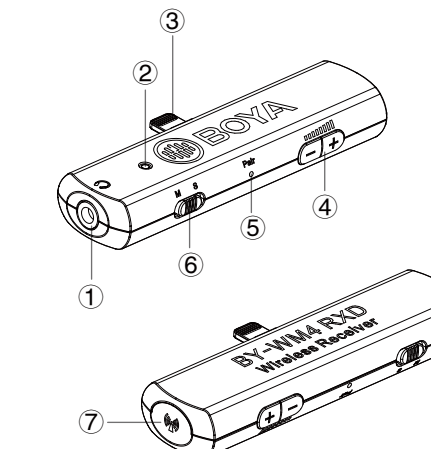


**BY-WM4 RXD**

2.4GHz Wireless Receiver For iOS devices



**Receiver (BY-WM4 RXD)**



- Headphone Jack

**NOTE:** Do not connect headphones with a monaural mini jack. This may lead to short-circuiting of the headphone output, resulting in distorted sound output.

**2. Power LED**

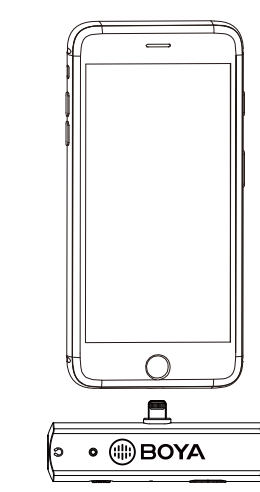
For more details about LED indicator, please refer to as following:

Status	Receiver	Transmitter
The transmitter and the receiver connects.	Stays blue	Flashes continually every 2.5 seconds.
The transmitter and the receiver disconnects.	Flashes continually every 1 second.	Flashes continually every 1 second.
Receiver unit is turned OFF/Transmitter is still ON.	OFF	Flashes in blue
Transmitter unit is turned OFF/Receiver is still ON.	Flashes in blue	OFF
Low power	Flashes in red	Flashes in red

The transmitter and the receiver waits for pairing Flashes quickly in blue light.

**Set Up Guide**

- Plug the BY-WM4 RXD directly into the lightning port of smartphone.
- Open the audio/video app on mobile device, then the indicator of receiver should be light up.
- The Power LED flashes slowly waiting for connecting with the transmitter.



**Connecting the transmitter and the Receiver**

Before leaving factory, the connection of transmitters and receiver will be established.

If transmitters and receiver disconnect, please follow below steps:


- Turn on the transmitter and plug the receiver into smartphone.
- Long press the pair bottom of receiver with pair pin, the indicator of receiver will flash quickly when entering pairing mode.
- Long press the pair button on the side of the transmitter entering the pairing mode.
- When the transmitter and receiver connected, the light of receiver stays blue, and transmitter flashes every 2.5 seconds.

Otherwise, the light of receiver and transmitter will flash continually every 1 second, then try 1-3 steps again.

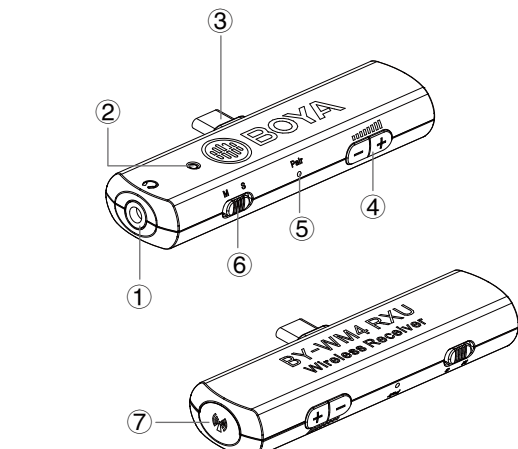
**NOTE:** Please adjust the monitoring audio volume of RXD before recording.

**BY-WM4 RXU**

2.4GHz Wireless Receiver For Android and other Type-C devices



**Receiver (BY-WM4 RXU)**



- Headphone Jack

**NOTE:** Do not connect headphones with a monaural mini jack. This may lead to short-circuiting of the headphone output, resulting in distorted sound output.

**2. Power LED**

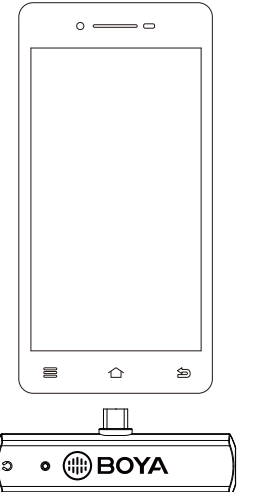
For more details about LED indicator, please refer to as following:

Status	Receiver	Transmitter
The transmitter and the receiver connects.	Stays blue	Flashes continually every 2.5 seconds.
The transmitter and the receiver disconnects.	Flashes continually every 1 second.	Flashes continually every 1 second.
Receiver unit is turned OFF/Transmitter is still ON.	OFF	Flashes in blue
Transmitter unit is turned OFF/Receiver is still ON.	Flashes in blue	OFF
Low power	Flashes in red	Flashes in red

The transmitter and the receiver waits for pairing Flashes quickly in blue light.

**Set Up Guide**

- Plug the BY-WM4 RXU directly into the lightning port of smartphone.
- The Power LED flashes slowly waiting for connecting with the transmitter.



**Connecting the transmitter and the Receiver**

Before leaving factory, the connection of transmitters and receiver will be established.

If transmitters and receiver disconnect, please follow below steps:

- Turn on the transmitter and plug the receiver into smartphone.
- Long press the pair bottom of receiver with pair pin, the indicator of receiver will flash quickly when entering pairing mode.
- Long press the pair button on the side of the transmitter entering the pairing mode.
- When the transmitter and receiver connected, the light of receiver stays blue, and transmitter flashes every 2.5 seconds.

Otherwise, the light of receiver and transmitter will flash continually every 1 second, then try 1-3 steps again.

**NOTE:** Please adjust the monitoring audio volume of RXU before recording.

**Troubleshooting**

If you have any problem using the BY-WM4 Pro components, use the following checklist. If any problem persists, please consult our local dealer, if any problem directly.

Status	Cause	Measure
No much volume or being picked up.	When using an omnidirectional microphone the line cable included with this system, the microphone may be picking up too much ambient.	Make sure the microphone is close as to the subject as possible.
The audio is noisy or distorted. This includes popping, white noise, buzzing, paper and clicks.	RF interference	There can be a lot of RF interference in our lives. RF emitting sources, when there is less RF interference. Turn off all nearby computers and mobile phones.
The audio is not being recorded.	RF signal is weak.	Make sure there is an unobstructed line of sight between the transmitter and the receiver. Keep in mind that your body, coffee, and anything else you have between you and the transmitter will weaken the signal. If there are any obstructions, you may need to move closer.
The battery become drained quickly.	The BY-WM4 Pro components is being used under extremely hot conditions.	The batteries drain quickly under extremely hot conditions.
There is no sound.	The transmitter and receiver are not in pairing mode.	Please refer to the Connecting the transmitter and the Receiver.
There is no sound.	There do not have a good connection with the transmitter.	Please try to reconnect it again.
There is distortion.	The input level of the receiver is low.	The input level of the receiver is low. Adjust the audio input level as high as possible without distortion to reach best sound and noise ratio.
There is distortion.	Headphones with a monaural mini jack is used.	Use the headphones with a stereo mini jack.

**Feature:**

**BY-WM4 Pro System**

- Ideal for YouTube, vloggings, facebooks, podcasts, mobile journalism and more
- Digital 2.4 GHz frequency band
- Dual-Channel wireless receiver
- Ultra-compact and miniature-size for receiver
- Super-clear recording sound
- Up to 60m (197ft) operation range (without obstacle)
- Monitoring sound by 3.5mm headphone output
- Master volume control
- Selectable stereo and mono mode (For BY-WM4 RXD/RXU only)
- Omnidirectional lavalier microphone
- Standard camera shoe mount and clip included (For BY-WM4 PRO/BY-WM4 PRO-K2 only)
- Hard case included
- Compatible with smartphones, DSLR cameras, consumer camcorders, PCs etc (For BY-WM4 PRO/BY-WM4 PRO-K2 only)
- Compatible with smartphones, tablets, laptops (For BY-WM4 PRO-K3/K5 only)

**Specifications:**

**BY-WM4 Pro System**

RF Modulation:	GFSK (Gauss Frequency Shift Keying)
Frequency band:	2.4 GHz (2405-2479MHz)
Frequency response:	35Hz-16kHz±3dB
Signal/Noise:	84dB or more
Distortion:	<0.05% @ 1kHz (20dB, 1kHz, 50mW output)
RF output level:	3mW
Earphone output level:	32Ω/16Ω/8Ω
Reception sensitivity:	-90dBm @ 30Hz-100Hz, 1kHz
Auto input connector:	3.5mm mini jack
Operation range:	60m (197ft) (without obstacle)
Power requirements:	TX4 Pro/RX4 Pro: 3V DC (Two AAA size batteries) BY-WM4 RXD: Supplied by iOS device BY-WM4 RXU: Supplied by USB Type-C device
Plug:	BY-WM4 RXD: Apple MFi Certified Lightning Connector BY-WM4 RXU: USB Type-C Connector
Consumption power:	Receiver: 30/70mA Transmitter: 30/70mA
Dimensions:	TX4 Pro/RX4 Pro: 45x70x35mm (1.8x2.8x1.4") BY-WM4 RXD: 23x16x42mm (0.9x0.6x1.7") BY-WM4 RXU: 82x30.7x12mm (3.2x1.2x0.5")
Weight:	TX4 Pro/RX4 Pro: 47g (1.7 oz) BY-WM4 RXD: 13g (0.46 oz) BY-WM4 RXU: 9.5g (0.34 oz)

**CAUTION**

Please use our original audio signal cable which is equipped, it's more compatible with the wireless microphone, and make the sound better.

The figure given is only the approximate value that applies when there are no obstructions between the transmitter and receiver. This distance will vary depending on metal objects, people and other obstructions and on the signal strength.

Battery life may vary depending on the type of battery used.

**IMPORTANT**

If you do not intend to use the wireless microphone for a long period time, please remove the batteries from both the transmitter and receiver.

- Do not touch the lavalier/lapel microphone, transmitter and receiver while recording, as this will cause noise to be recorded.
- Do not let the transmitter close to high-voltage equipment or to devices that emit strong electromagnetic fields, otherwise, it may cause the noise to be recorded.
- Do not use or leave the transmitter and receiver in hot, humid places.
- Do not leave the receiver attached to the camera when storing the camera in a case.
- Do not mix up to use the transmitter and receiver.

**WARNING**

- Keep the wireless microphone out of the reach of children.
- Never use leaking batteries and never expose batteries to excessive heat or fire.

**MAINTENANCE**

- Do not operate the device with wet hands or feet.
- Clean the equipment only in the way described in the instructions for use.
- Take care to prevent the equipment from dropping down. Make sure that the device is properly fastened and reliably mounted. If the device has dropped down before you switch it on again.
- Should the equipment be damaged or defective, or if you notice a scorching smell: Interrupt the electric power supply immediately by removing the batteries. Do not operate the device with a damaged housing, do not repair the device yourself. Have the device only repaired by a skilled electrician.
- Always keep your device in good condition, as specified in these instructions for use.
- Do not open the device.

**WARNING**

**FCC STATEMENT :** 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.

(1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

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.

**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.

Radiation Exposure Statement

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

ISED Statement

English: This device complies with Industry Canada license-exempt RSS standard(s).

Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference received, including interference that may cause undesired operation of the device. The digital apparatus complies with Canadian CAN ICES-3 (B)/NMB-3(B).

French: Le présent appareil est conforme aux CNR de l'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation de cet appareil est soumise aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage; et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique susceptible d'en compromettre le fonctionnement.

This radio transmitter has been approved by Industry Canada to operate with the antenna types listed with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio a été approuvé par l'Industrie Canada pour fonctionner avec les types d'antennes énumérés ci-dessous avec un gain admissible maximal. Les types d'antennes non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

SHENZHEN JIAYI PHOTO INDUSTRIAL, LTD.  
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CPIR Model No. BY-WM4 PRO  
TEL: 400 6132096  
Email: sales@boya-mic.com  
www.boya-mic.com / www.jiayi.com

技术要求:

- 表面无色差
- 无正负公差
- 尺寸为内尺寸

受控文件  
 2020-4-20  
 长丰影像