WM2

**User Manual** 

# Thank you for purchasing an AODELAN product.

AODELAN WM2 is a compact and versatile wireless microphone system. The transmitter acts as both a clip-on mic directly or beltpack for a lavalier microphone, sending crystal clear broadcast-grade audio via 2.4GHz digital to the receiver.

With dual-channel, WM2 can be used for collecting sound from dual subjects to your smartphones, tablets, cameras, camcorders, PCs and other recording devices. WM2 provides wireless sound collection with high sound quality and high reliability for a wide range of wireless applications, such as live streaming, Vlogging, blogging, interviews, mobile journalism and etc.

Please read this user manual as well as the user manual provided with your camera or smartphone which works with WM2 before use.

# For your safety

Before using your product, please read the following safety precautions carefully to ensure correct and safe use.

- Do not disassemble or attempt to repair it.
- Do not use the product in the presence of flammable or explosive gas.
- The product is not waterproof. Please keep away from rain, snow and high humidity conditions.
- To store this unit, avoid any locations subject to extremely high/low temperatures, high humidity, or direct sunlight.
- Do not clean the product with organic solvent or alcohol-based liquid.
- A thorough explanation of how to use the product by an adult is required when the product is used by children. Supervise children while they are using the product.
- Do not use this unit while driving a vehicle. While driving a vehicle, such as a car or a
  motorcycle, do not use headphone, earphones, or the like, nor do you perform fine operations
  to avoid a traffic accident.
  - In addition, when you use this unit while walking, always pay attention to the surrounding traffic and the road surface conditions to avoid an accident.
- Do not hold the camera only by the receiver. The receiver may be damaged or the camera may fall.

# Caution



Observe the following cautions, as there may be a risk of heat generation, fire or explosion.

- \* Lithium-ion battery is built into the product.
  - Charge the product by the designated charging method.
  - Do not place the product in or near fire, or put the product in a microwave.
  - Do not leave the product in a car in hot weather.
  - Do not store or use the product in a hot and humid place such as in a sauna bath.
  - Do not disassemble, crush or pierce the product.
  - Do not expose the product to excessive shock such as dropping from a high place.
  - Do not expose the product to high temperatures above 60°C (140°F).
  - Keep the product dry.

- Dispose of the product appropriately.
- Do not expose the extremely low temperatures of -20°C (-4°F) or lower or extremely low pressures of 11.6 kPa or lower.

### **Declaration of Conformity USA**

Product name: Wireless Microphone

Trade name: AODELAN

Model number: WM2-T, WM2-R

FCC ID: 2AEJW-WM2

Manufacturer: Shenzhen Aodelan Technology Co., Ltd.

#### **FCC Statement**

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.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this 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.

#### **RF Exposure Information**

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

RED 2014/53/EU

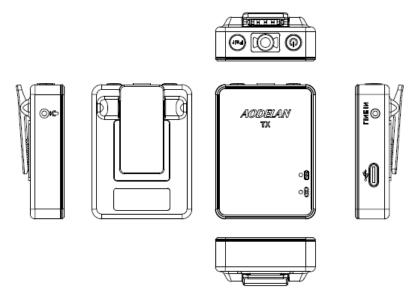
# **Declaration of Conformity EC**

Hereby, **Shenzhen Aodelan Technology Co., Ltd.** declares that this product is in compliance with essential requirements and other relevant provisions of Directive 2014/53/EU. This product can be used across EU member states. A copy of the Declaration of conformity can be found at www.aodelan.net.



### **Parts and Functions**

### Transmitter (TX)



#### 1. Power button

Press and hold the power button (for at least 2 seconds) to turn on or turn off the transmitter. While the transmitter is turned on, press the button to detect the battery level state.

### 2. Internal microphone

### 3. Pair button

Press and hold the pair button (for at least 2 seconds) to make the transmitter enter the pairing state, which is used to pair the transmitter and receiver.

# 4. State lamp (Blue)



Indicates the connection state between the transmitter and the receiver.

# 5. Battery level lamp



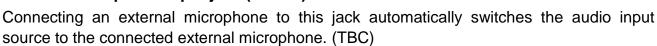
Indicates the battery charge state or the battery level status of the transmitter.

The red slow blinking (once per two seconds) battery level lamp indicates that battery charging is needed. (TBC)

#### 6. Clip

Use this clip for attaching the microphone to your clothing.

# 7. External microphone input jack (3.5mm)



### 8. LINE IN (Audio input) jack (3.5mm)

Connect LINE IN type audio input, such as electric guitar, etc.

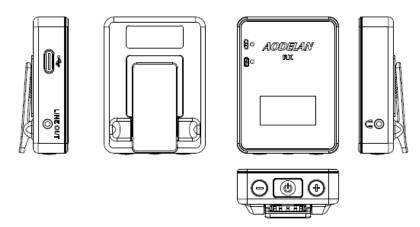
The audio input source automatically switches to the connected audio device after

connection.

#### 9. USB-C terminal

Connect the supplied USB-C cable to supply power to the transmitter or charge the battery.

## Receiver (RX)



#### 1. Power button

Press and hold the power button (for at least 2 seconds) to turn on or turn off the receiver.

#### 2. Volume buttons

To turn up (+) / turn down (-) the input volume.

Keep holding down the button "+" or "-" to quickly adjust the volume. (TBC)

Press and hold "+" and "-" buttons (for at least 2 seconds) simultaneously to make the receiver enter the pairing state, which is used to pair the transmitter and receiver.

# 3. State lamp (Blue)



Indicates the connection state between the receiver and the transmitter.

# 4. Charge lamp

While the receiver is turned off, connecting the receiver to a computer with the supplied USB-C cable starts charging the receiver's built-in battery and turns on the charge lamp in green.

### 5. Clip

Use this clip for attaching the receiver to the proper place.

The clip can be directly inserted into the hot shoe on the top of the camera or the cold shoe of the smartphone clamp.

# 6. Earphone jack ?

3.5mm stereo mini jack. Connect earphone to monitor the receiver output audio Do not connect monaural earphones. This may lead to short-circuiting of the earphone output, resulting in distorted sound output.

### 7. LINE OUT (Audio output) jack (3.5mm)

You can record audio by connecting the receiver to a camera, smartphone or other device with the supplied audio cables.

### 8. USB-C terminal

Connect the supplied USB-C cable to supply power to the receiver or charge the battery.

#### 9. LCD screen

Pairing status & signal strength indicator



Receiver battery status

Audio output level (TBD)

Audio input level (TBD)

### **Accessories**

### 1. 3.5mm TRS audio cable

For camera, camcorders, audio recorders and other audio/video recording devices.



### 2. 3.5mm TRRS audio cable

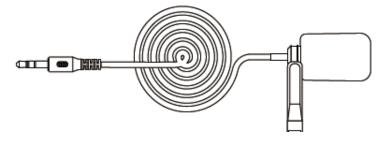
For smartphone, tablet, Mac or laptop with combo headphone/Mic jack.



## 3. USB-C cable (Type-C to USB-A)



### **4.** Lavalier microphone (equipped with clip and foam windshield)



### 5. Fur wind screen

Attach the fur wind screen to the transmitter to reduce pop noise caused by breath or strong wind.

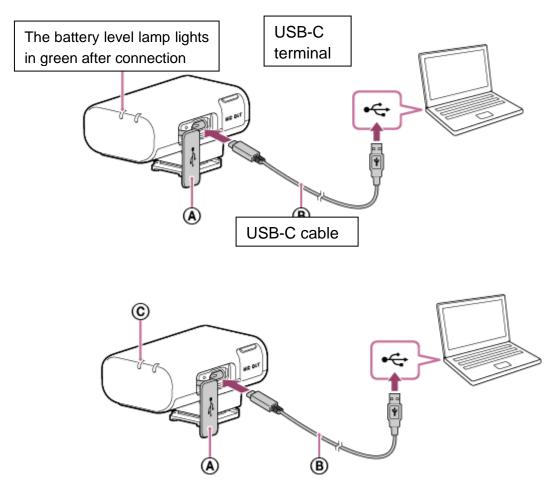


# **Preparations**

## Charging the transmitter and receiver

Connect the transmitter/receiver to a computer to charge the transmitter/receiver's built-in battery.

1. Connect the transmitter/receiver to an activated computer with the supplied USB-C cable.



- 2. When charging is finished, disconnect the USB-C cable between the transmitter/receiver and the computer.
  - Wait until the battery level lamp on the transmitter goes out to indicate that charging is finished (the battery is fully charged).
  - Wait until the battery icon on the receiver's LCD screen to display full power to indicate that charging is finished (the battery is fully charged).

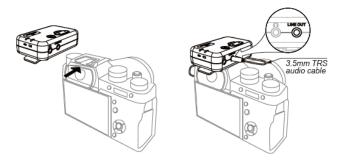
#### Precautions for Use

- While charging the battery, keep the transmitter/receiver turned off. Turning on the transmitter/receiver while charging makes the transmitter/receiver ready for power supply and stops charging. (TBD)
- Do not apply force to the transmitter/receiver when you connect the transmitter/receiver to a computer. This may cause damage to the transmitter/receiver or the computer.
- When you connect the transmitter/receiver to a notebook computer that is not connected to an AC power source, the battery of the notebook computer may be depleted rapidly. Do not leave the transmitter/receiver connected to the computer for a long time.
- Charging the battery or the connection with customized or hand-built computers is not guaranteed. Depending on the type of USB device used, charging may not function properly.
- Operation with all computers is not assured.

## Connecting the receiver to a camera

Via 3.5mm TRS audio cable

- 1. Turn off the receiver and camera.
- 2. Insert the clip on the back of the receiver into the hot shoe on the top of the camera.
- 3. Insert one end of the TRS audio cable into the external microphone jack of the camera (usually marked as MIC).
- 4. Insert the other end of the TRS audio cable into the "LINE OUT" jack of the receiver.
- 5. Connect the monitor earphone to the earphone jack of receiver if real-time monitoring is required.



### Precautions for Use

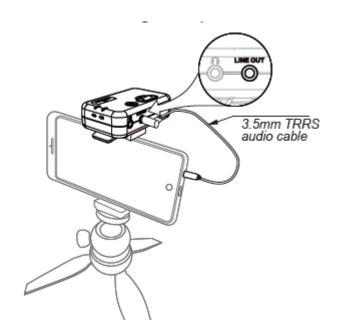
- Do not mix the audio cables. Refer to the difference of audio cables in [Parts and Functions] \_ [Accessories].
- The receiver and the camera are connected and communicated through the audio cable. If a speedlite needs to be attached on the hot shoe of the camera, you can remove the receiver from the hot shoe of the camera and install it in another proper position, keeping the audio cable connected.
- If you are using a camcorder, audio recorder or other audio/video recording device, connect the device to the receiver through the 3.5mm TRS audio cable in the same way.

# Connecting the receiver to a smartphone

Via 3.5mm TRRS audio cable

The receiver can also be connected to a smartphone to provide audio signal input for the smartphone.

- 1. Turn off the receiver.
- 2. Insert the straight plug of the 3.5mm TRRS audio cable into the earphone jack of the smartphone.
- 3. Insert the 90° plug of the 3.5mm TRRS audio cable into the "LINE OUT" jack of the receiver.
- 4. Connect the monitor earphone to the earphone jack of receiver if real-time monitoring is required.



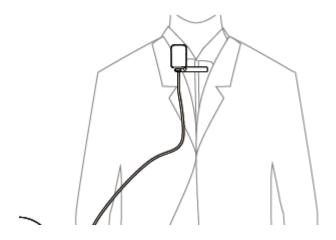
### Precautions for Use

- Do not mix the audio cables. Refer to the difference of audio cables in [Parts and Functions] \_ [Accessories].
- The specifications of the plugs at two ends of the 3.5mm TRRS audio cable are different, please connect correctly.
- When recording videos, not all Android devices support external microphones. You may need to download a third-party APP and set the sound source to external microphone.
- If you are using a tablet, Mac or laptop with an earphone/microphone jack, connect the device to the receiver through the 3.5mm TRRS audio cable in the same way.

# Attaching the microphone to clothing

Attach the transmitter to your clothing.

- 1. Attach the transmitter to your desired location on the clothing, such as the collar, a breast pocket, etc., with the clip.
  - Be sure to attach it to the location best-suited for the recording or sound conditions.



#### Precautions for Use

 Before attaching the transmitter to your clothing, charge the transmitter's built-in battery sufficiently enough.  If you use a medical electrical device such as a pacemaker, do not attach the transmitter to your clothes, such as the breast pocket or inner pocket. Using the microphone near a medical device may adversely affect it.

## Pairing the transmitter and receiver

The transmitter(s) and receiver are factory-set to communicate with each other. Therefore, pairing operation is not necessary, they can be used directly.

If the communication is disconnected or two transmitters are required to communicate with one receiver simultaneously, please follow the steps below.

- 1. Turn on the transmitter and receiver.
- 2. Press and hold the volume buttons "+" and "-" on the receiver for 2 seconds simultaneously, the receiver enters into the pairing state and the state lamp blinks in blue quickly (twice per second).
  - The receiver will automatically exit the pairing state in 10 seconds.
- 3. While the state lamp on the receiver is blinking quickly, press and hold the "Pair" button on the transmitter for 2 seconds, the transmitter enters into the pairing state and pairs with the receiver.
  - When the transmitter is in the pairing state, its state lamp blinks in blue quickly (twice per second).
- 4. When the pairing is complete, the state lamp on the receiver stays lit in blue, and the state lamp on the transmitter blinks in blue slowly (once per 2 seconds); it indicates that the pairing is successful and the communication connection between the transmitter and the receiver has been established.

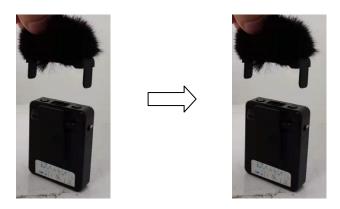
#### Precautions for Use

- If pairing fails, the state lamp blinks once per second. If this happens, redo the procedure from the beginning.
- One receiver can only communicate with one or two transmitters simultaneously.

# Attaching the fur wind screen

Attach the fur wind screen to the transmitter to reduce pop noise caused by breath or strong wind.

- 1. Place the notched side of the fur wind screen chassis towards the back of the transmitter, and then attach it down to the top of the transmitter.
- 2. After attaching, you will hear a click. At this time, the two protrusions on the inner wall of the chassis of the fur wind screen fit into the jacks on both sides of the transmitter.



### Precautions for Use

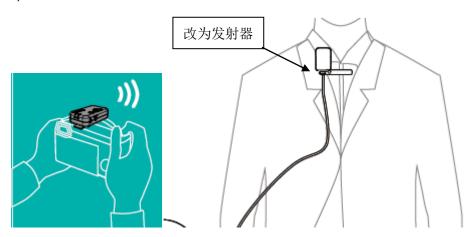
- If the fur wind screen is wet, remove it from the transmitter and let it dry in the shade.
- When attaching or removing the fur wind screen, be sure to hold its chassis.

# Recording

## **Recording with the Transmitter (TX)**

Use the receiver connected to a camera (or a smartphone) and the transmitter attached to the subject's clothing for recording sound.

- 1. Turn on the power of the transmitter, receiver and the connected device.
  - After both the transmitter and receiver are turned on, the state lamp on the receiver stays lit in blue, indicating that a communication connection has been established between the devices and clear audio recording is available.
  - If no connection is established the state lamp on the receiver blinks once per second, bring the transmitter and the receiver closer to each other for another attempt. The devices may be under influence of environmental or other factors.
- 2. Ensure that the state lamp on the receiver is lit, and press the record start button on the camera (or smartphone).



### Precautions for Use

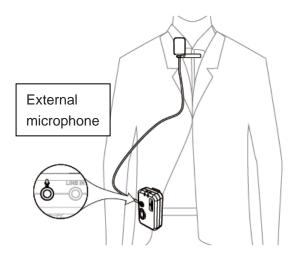
- Do not touch the transmitter while recording, as this will cause the noise generated when touching to be recorded.
- If the transmitter is placed near speakers/headphones, a high pitched noise may be heard (howling effect). This is caused by the transmitter catching sound from the speakers/headphones repeatedly. In this case, place the transmitter as far as possible from the speakers/headphones.

- If the transmitter is placed in close proximity to the camera (or smartphone), noise may also be recorded due to RF interference. Keep the transmitter at least 1m (3 ft.) from the camera (or smartphone) during use.
- If there is noise or there is no sound because of deteriorating communication, the state lamp
  - on the receiver blinks once per second. Ensure that the distance between the devices is not too far, and no obstacles are between them. Continue use when the state lamp on the receiver is constantly lit in blue.
- When the recording is finished or you do not intend to use WM2, turn off the transmitter and receiver to conserve the battery power.

## Recording with an external microphone

Connect the supplied lavalier microphone to the transmitter for recording.

- 1. Make sure that the transmitter is turned off, and then connect the lavalier microphone to the external microphone input jack on the transmitter.
  - The internal microphone of transmitter automatically turns off and the sound picked up by the external microphone is recorded.
- 2. Attach the transmitter to a proper location, such as a belt, with the clip.
- 3. Clip the lavalier microphone to your desired location on the clothing, such as the collar, a breast pocket, etc.



### Precautions for Use

- When the fur wind screen is attached to the transmitter, remove it from the transmitter.
- Use an external microphone compatible with the plug-in power. The external microphone is powered by the transmitter.
- Do not touch the external microphone while recording, as this will cause the noise generated when touching to be recorded.
- If the external microphone is placed near speakers/headphones, a high pitched noise may be heard (howling effect). This is caused by the external microphone catching sound from the speakers/headphones repeatedly. In this case, place the microphone as far as possible from the speakers/headphones.
- If you are using other types of audio input, such as an electric guitar, connect the device to the "LINE IN" jack on the transmitter with a matching cable (not supplied).

# **Lamp indications**

The lamp lights, blinks or goes out according to the status of the devices and communication as follows.

# State lamp (Blue)



State	Transmitter (TX)	Recevier (RX)	
Connection is established and	Blinks slowly	Keeps light up	
sound can be recorded clearly.	(once per 2 seconds)		
Pairing.	Blinks quickly	Blinks quickly	
	(Twice per second)	(Twice per second)	
Audio is interrupted due to bad	Blinks	Blinks	
communication conditions.	(Once per second)	(Once per second)	
The transmitter is turned off.	Goes out	Blinks	
(The receiver is turned on.)		(Once per second)	
The receiver is turned off.	Blinks	Goes out	
(The transmitter is turned on.)	(Once per second)		

# Transmitter (TX) - Battery level lamp

- Connecting the transmitter to an activated computer with the supplied USB-C cable starts supplying power to the transmitter and charging the transmitter's built-in battery, the battery level lamp lights up in green.
- When the charging is finished, the battery level lamp goes out. (TBD)
- Disconnecting the USB-C cable between the transmitter and the computer, the battery level lamp goes out.
- When the transmitter is turned on, press the power button once and the battery level lamp blinks guickly in red several times to feedback the battery status as shown in the following table:

The number of	4	3	2	1
battery level lamp				
blinks				
Battery level (%)	100-80	79-60	59-40	39-20
(approx.)				

When the battery power is low, the battery level lamp continues to blink slowly (once per 2 seconds), please charge the transmitter in time.

# Receiver (RX) - Charge lamp

- Connecting the receiver to an activated computer with the supplied USB-C cable starts supplying power to the receiver and charging the receiver's built-in battery, the charge lamp lights up in green.
- When the charging is finished, the charge lamp goes out. (TBD)
- Disconnecting the USB-C cable between the receiver and the computer, the charge lamp goes out.