SONY
Help Guide

Wireless Microphone
ECM-W2BT

Use this Help Guide when you have issues or questions on how to use your wireless microphone.

Compatible cameras

The Wireless Microphone ECM-W2BT (referred to below as “this unit”) is compatible with a camera that has a Multi Interface Shoe such as a Sony Interchangeable Lens Digital Camera (referred to below as “camera”).
- Even if your camera has a Multi Interface Shoe, you may be unable to use it with this unit or some functions may not work.
- The receiver and the microphone are factory-set to communicate with each other. Therefore, operations usually needed for Bluetooth devices such as pairing and passkey input are not necessary. Communication is not possible with a receiver and microphone not sold as a pair, multiple microphones, or any other Bluetooth device such as a smartphone, computer, etc.

For camera models compatible with this unit, view here. (Another window will open.)

Locating parts and controls

Preparations

Unpacking

Charging the receiver

Charging the microphone

Attaching the receiver to a camera

Attaching the microphone to clothing

Attaching the wind screen

Storing the receiver and the microphone all together

Recording

About the mode switch

Recording

Recording with an external microphone

Lamp indications

About this unit

Notes on use

Bluetooth® Wireless Communication Technology

Specifications

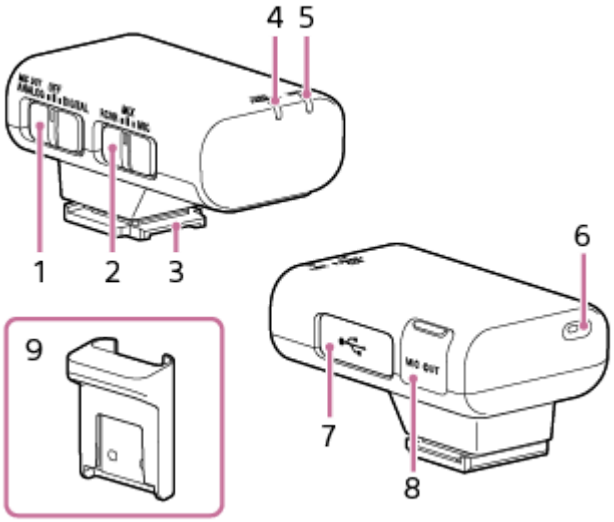
Trademarks

5-026-023-12(1) Copyright 2021 Sony Corporation

Wireless Microphone
ECM-W2BT

Locating parts and controls

Receiver



1. Slide switch (MIC OUT ANALOG/Power OFF/DIGITAL)
   Select “MIC OUT ANALOG” (analog audio output), “OFF” (power off), or “DIGITAL” (digital audio output).
   If your camera is compatible with the digital audio interface of the Multi Interface Shoe, set the switch to “DIGITAL.” This allows the receiver to pass the received audio to the camera with digital signals and provides audio recording with minimum noise insertion.
   When you do not intend to use the receiver, select “OFF” with this switch to conserve the battery power.

2. Mode switch (RCVR/MIX/MIC)
   Before you start recording with the camera, select a receiver mode with this switch to specify the microphone to use for recording.

3. Multi Interface foot

4. Power lamp (Green: Powered, Orange: Charging the battery)
   Indicates the power state of the receiver or the battery charge state.

   - While the receiver is turned off, connecting the receiver to a computer with the supplied micro USB cable starts charging the receiver's built-in battery and turns on the power lamp in orange.
   - The orange blinking power lamp indicates that battery charging is needed.

5. LINK lamp
   Indicates the connection state between the receiver and the microphone.

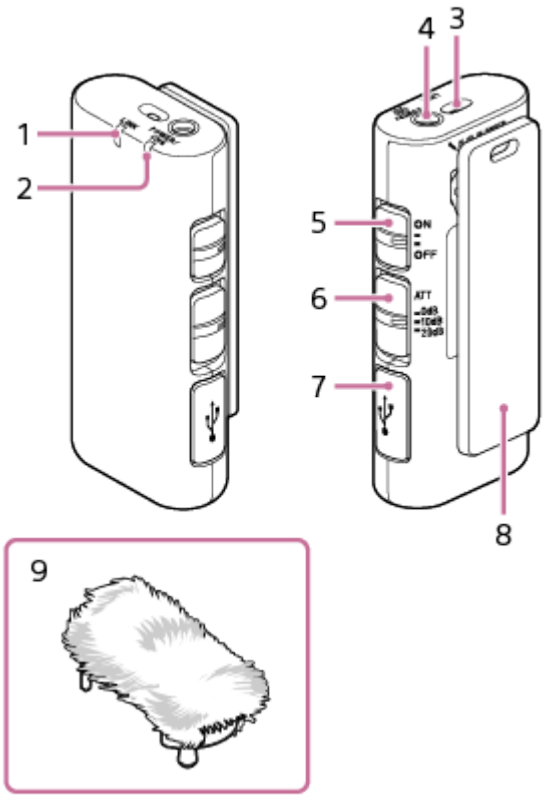
6. Internal microphone

7. Micro USB terminal
   Connect the supplied micro USB cable to supply power to the receiver or charge the battery.

8. Microphone out jack
   You can record audio by connecting the receiver to a camera with the supplied recording cable.
   To use this jack, be sure to select “MIC OUT ANALOG” with the slide switch.

9. Connector protect holder

Microphone



1. LINK lamp
   Indicates the connection state between the receiver and the microphone.

2. Power lamp (Green: Powered, Orange: Charging the battery)
   Indicates the power state of the microphone or the battery charge state.

   - While the microphone is turned off, connecting the microphone to a computer with the supplied micro USB cable starts charging the microphone's built-in battery and turns on the power lamp in orange.
   - The orange blinking power lamp indicates that battery charging is needed.

3. Internal microphone

4. External microphone input jack
   Connecting an external microphone (not supplied) to this jack automatically switches the audio input source to the connected external microphone.

5. Power switch
   When you do not intend to use the microphone, select “OFF” with this switch to conserve the battery power.

6. ATT switch
   Select the option suitable for the audio recording volume. To record loud sounds while minimizing distortion, select “20dB.” To record quiet sounds while amplifying the sounds, select “0dB.” “10dB” is the recommended volume level for recording human voices. It is advised that you determine and specify the level while monitoring the volume level meter on the camera.

7. Micro USB terminal
   Connect the supplied micro USB cable to supply power to the microphone or charge the battery.

8. Clip
   Use this clip for attaching the microphone to your clothing.

9. Wind screen
   Attach the wind screen to the microphone to reduce pop noise caused by breath or strong wind.

Related Topic

- Charging the receiver
- Charging the microphone
- Attaching the wind screen
- Storing the receiver and the microphone all together
- About the mode switch
- Recording
- Lamp indications

5-026-023-12(1) Copyright 2021 Sony Corporation

Wireless Microphone
ECM-W2BT

Unpacking

If you find anything missing, please contact your dealer.
The number in the parentheses indicates the quantity.

- Receiver (ECM-W2BT(R)) (1)
- Microphone (transmitter) (ECM-W2BT(T)) (1)
- Wind screen (1)
- Pouch (1)
- Recording cable (1)
- Micro USB cable (1)
- Connector protect holder (1)
- Set of printed documentation

5-026-023-12(1) Copyright 2021 Sony Corporation

Wireless Microphone
ECM-W2BT

Charging the receiver

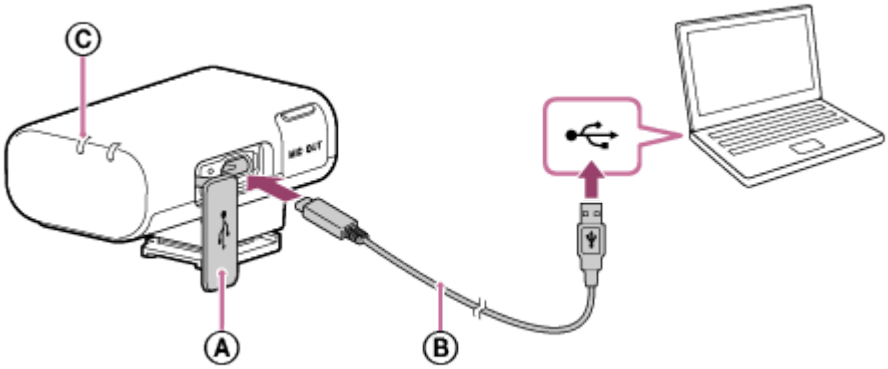
Connect the receiver to a computer to charge the receiver's built-in battery.

1. **Turn off the receiver.**

   Charging is not possible when the receiver is turned on.

2. **Open the connector cover, connect the receiver to an activated computer with the supplied micro USB cable.**

   The power lamp lights in orange.



Ⓐ Connector cover
Ⓑ Micro USB cable
Ⓒ Power lamp

3. **When charging is finished, disconnect the micro USB cable between the receiver and the computer.**

   Wait until the power lamp goes out to indicate that charging is finished (the battery is fully charged).

Note

- While charging the battery, keep the receiver turned off. Turning on the receiver while charging makes the receiver ready for power supply and stops charging.
- Do not apply force to the receiver when you connect the receiver to a computer. This may cause damage to the receiver or the computer.
- When you connect the 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 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.

Related Topic

- Lamp indications

5-026-023-12(1) Copyright 2021 Sony Corporation

Wireless Microphone
ECM-W2BT

Charging the microphone

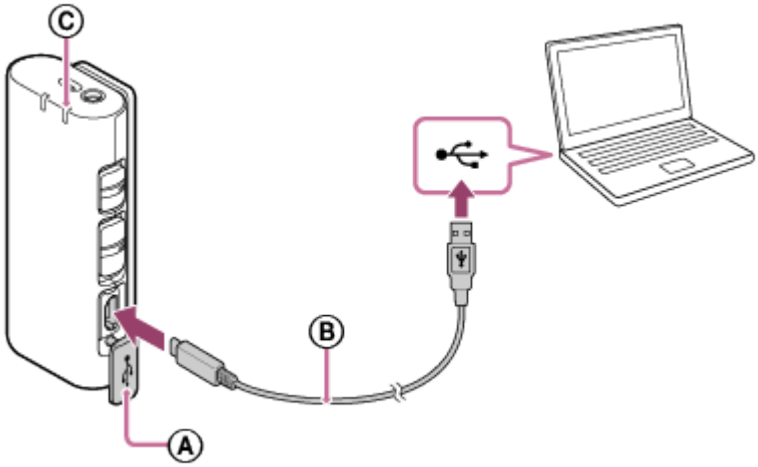
Connect the microphone to a computer to charge the microphone's built-in battery.

1. **Turn off the microphone.**

   Charging is not possible when the microphone is turned on.

2. **Open the connector cover, connect the microphone to an activated computer with the supplied micro USB cable.**

   The power lamp lights in orange.



Ⓐ Connector cover
Ⓑ Micro USB cable
Ⓒ Power lamp

3. **When charging is finished, disconnect the micro USB cable between the microphone and the computer.**

   Wait until the power lamp goes out to indicate that charging is finished (the battery is fully charged).

Note

- While charging the battery, keep the microphone turned off. Turning on the microphone while charging makes the microphone ready for power supply and stops charging.
- Do not apply force to the microphone when you connect the microphone to a computer. This may cause damage to the microphone or the computer.
- When you connect the microphone 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 microphone 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.

Related Topic

- Lamp indications

5-026-023-12(1) Copyright 2021 Sony Corporation

Wireless Microphone
ECM-W2BT

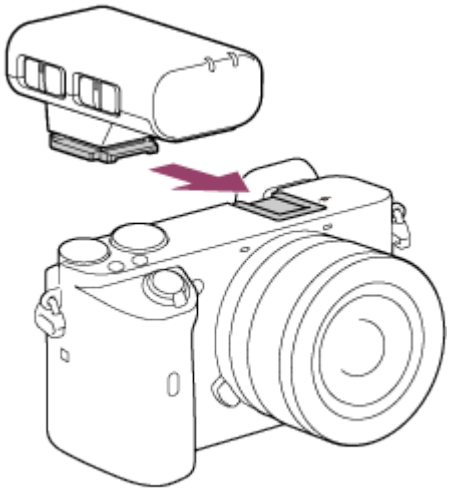
Attaching the receiver to a camera

Attach the receiver to a camera.

Note

- Before attaching the receiver to the camera, charge the receiver's built-in battery sufficiently enough.
- Before attaching/removing the receiver to/from the camera, be sure to turn off the receiver and the camera.

1 Align the Multi Interface foot of the receiver with the Multi Interface Shoe on the camera and attach the receiver.



Note

- Firmly insert the receiver all the way into the Multi Interface Shoe of the camera.
- If the built-in flash on the camera is popped up, put it down.

To remove the receiver

Slide the receiver in the opposite direction to when attaching.

Related Topic

- Charging the receiver

5-026-023-12(1) Copyright 2021 Sony Corporation

Wireless Microphone
ECM-W2BT

Attaching the microphone to clothing

Attach the microphone to your clothing.

Note

- Before attaching the microphone to your clothing, charge the microphone's built-in battery sufficiently enough.

1 **Attach the microphone to your desired location on the clothing, such as a breast pocket, with the clip.**

Be sure to attach it to the location best-suited for the recording or sound conditions.

Note

- If you use a medical electrical device such as a pacemaker, do not attach the microphone to your clothes, such as the breast pocket or inner pocket. Using the microphone near a medical device may adversely affect it.

Related Topic

- Charging the microphone

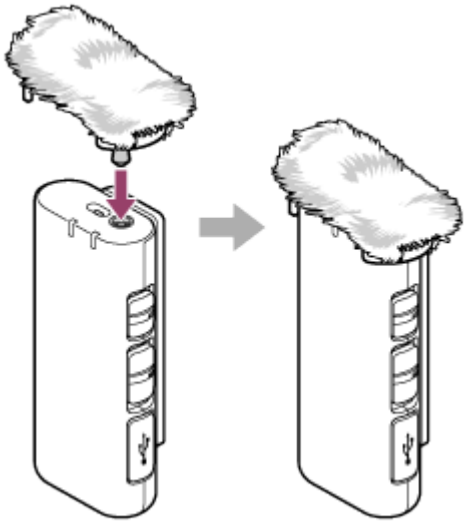
5-026-023-12(1) Copyright 2021 Sony Corporation

Wireless Microphone
ECM-W2BT

Attaching the wind screen

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

1 **Fit the projected portion of the wind screen into the external microphone input jack on the microphone.**



Note

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

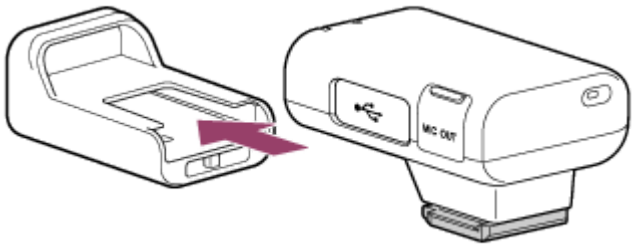
5-026-023-12(1) Copyright 2021 Sony Corporation

Wireless Microphone
ECM-W2BT

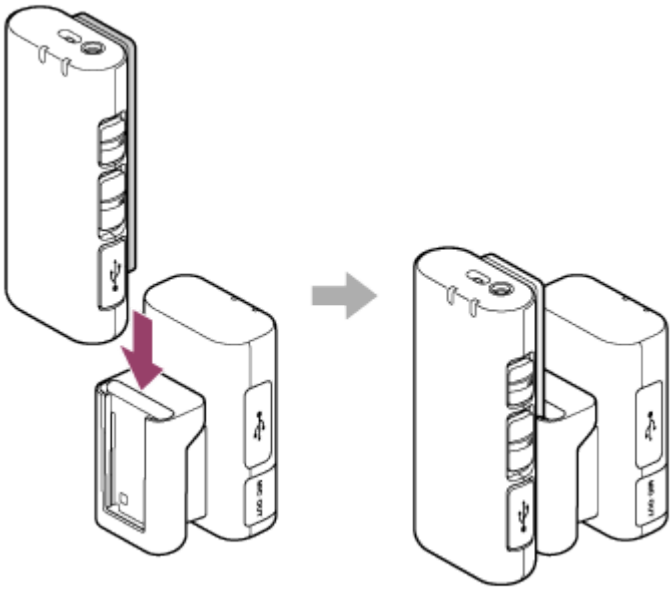
Storing the receiver and the microphone all together

Using the supplied connector protect holder, you can store the receiver and the microphone all together.

1. **Slide the Multi Interface foot of the receiver into the connector protect holder.**



2. **Attach the microphone to the connector protect holder by hooking the clip of the microphone onto the other side of the holder from above.**



5-026-023-12(1) Copyright 2021 Sony Corporation

Wireless Microphone
ECM-W2BT

About the mode switch

Before you start recording with the camera, select a receiver mode with the mode switch.

- MIC mode
  Only the sound picked up by the microphone is recorded.
  Both the surrounding sound of the microphone and the voice of the subject wearing the microphone are clearly recorded when the camera is located apart from the microphone.

- MIX mode
  Both the sound picked up by the microphone and the surrounding sound of the camera picked up by the receiver's internal microphone are recorded while mixed.

- RCVR mode
  Only the surrounding sound of the camera picked up by the receiver's internal microphone is recorded.

Note

- While the receiver is in RCVR mode, the auto power-off function is disabled.
- When you are finished with using the receiver, be sure to turn it off.

Related Topic

- Recording
- Recording with an external microphone
- Lamp indications

5-026-023-12(1) Copyright 2021 Sony Corporation

Wireless Microphone
ECM-W2BT

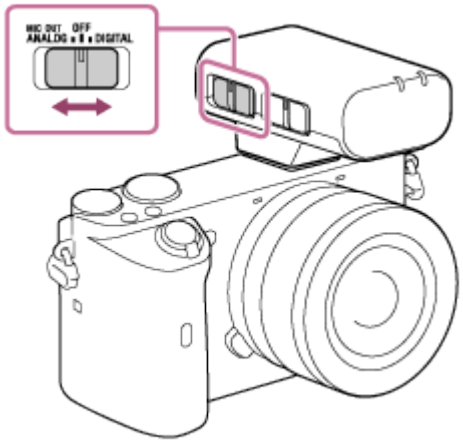
Recording

Use the receiver attached to a camera and the microphone attached to the subject's clothing for recording sound.

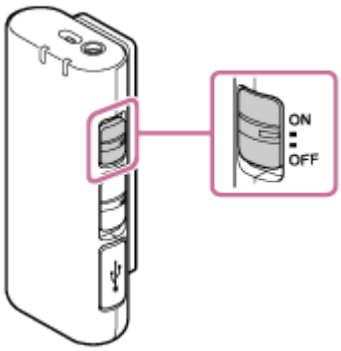
1. **Turn on the power of the camera and set it in standby mode.**

2. **Turn on the receiver and the microphone.**

- Select your desired audio output with the slide switch (MIC OUT ANALOG/Power OFF/DIGITAL) on the receiver.



- Select “ON” with the power switch on the microphone.



Immediately after both the receiver and the microphone are turned on, the LINK lamps on both devices start blinking slowly in blue. This indicates that each of the devices is making a series of attempts to detect, connect to, and authenticate the other device. When a communication connection is established between the devices and clear audio recording is available, the LINK lamps on both devices stop blinking and stay lit in blue.
If no connection is established, bring the microphone and the receiver closer to each other for another attempt. The devices may be under influence of environmental or other factors.

3. **Ensure that the LINK lamp on the receiver is lit, and press the record start button on the camera.**

Note

- Depending on your camera, the “DIGITAL” audio output may not be supported. For the camera models that support the “DIGITAL” audio output, visit our website at:
https://www.sony.net/dics/w2bt/

- When the audio output that is not supported by your camera is selected by the slide switch on the receiver, a cautionary message may appear on the camera's finder screen. In such a case, select the supported audio output.
- While recording is in progress, changing the receiver mode with the mode switch may cause a failure in switching the receiver mode, a failure in audio recording due to disconnected communication, or noise in a recording. Before selecting a receiver mode with the mode switch, be sure to stop the recording.
- While recording is in progress, changing the audio recording volume with the ATT switch may cause operation sounds of the switch to be recorded. Before selecting an audio recording volume with the ATT switch, be sure to stop the recording.
- To avoid the possibility of the confirmation beep (Audio signals) at the start of a recording being picked up by this unit, it is recommended that you set [Audio signals] to [Off] on your camera. For further details, refer to the operating instructions of your camera.
- When using this unit in the MIX mode, if the receiver and microphone pick up the same sound, it causes an echo or clipping noise. Place the microphone farther away from the receiver not to pick up the same sound.
- When using this unit in the MIX mode, if the power of the microphone turns off or the receiver and microphone are not connected when you start recording, noise or no sound may be recorded. Ensure that the LINK lamps of the receiver and microphone are lit in blue and connection is established, and then start recording.
- The receiver receives power supply from the camera as well. Depending on your camera, however, it may not be capable of supplying power. For the camera models that support power supply to the receiver, visit our website at: https://www.sony.net/dics/w2bt/

Related Topic

- About the mode switch
- Lamp indications

5-026-023-12(1) Copyright 2021 Sony Corporation

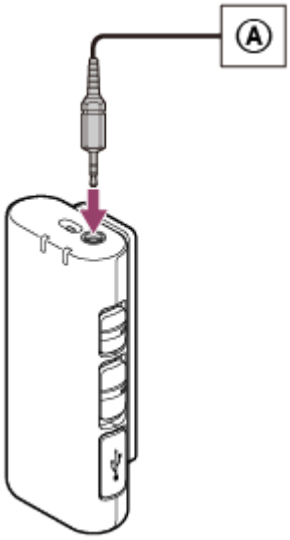
Wireless Microphone
ECM-W2BT

Recording with an external microphone

Connect an external microphone (not supplied) to the microphone for recording.

1 **Make sure that the microphone is turned off, and then connect the external microphone to the external microphone input jack on the microphone.**

The internal microphone automatically turns off and the sound picked up by the external microphone is recorded.



Ⓐ External microphone

Note

- When the wind screen is attached to the microphone, remove it from the microphone.
- Use an external microphone compatible with the plug-in power. The external microphone is powered by the microphone.

Related Topic

- About the mode switch

5-026-023-12(1) Copyright 2021 Sony Corporation

Wireless Microphone
ECM-W2BT

Lamp indications

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

Power lamp

State	Receiver	Microphone
The power has just been turned on.	Lights up in green	Lights up in green
Connection is established and sound can be recorded clearly.	Lights up in green	Lights up in green
The receiver is turned off.	Goes out	Lights up in green
The microphone is turned off.	Lights up in green	Goes out
Audio is interrupted due to bad communication conditions.	Lights up in green	Lights up in green
The built-in battery is running out of power.	Blinks in orange	Blinks in orange
Battery charging is in progress while the power is turned off.	Lights up in orange	Lights up in orange

LINK lamp

State	Receiver	Microphone
The power has just been turned on.	Blinks in blue slowly (standby mode)*1 *2	Blinks in blue slowly (standby mode)*1 *2
Connection is established and sound can be recorded clearly.	Lights up in blue	Lights up in blue
The receiver is turned off.	Goes out	Blinks in blue slowly (standby mode)*1
The microphone is turned off.	Blinks in blue slowly (standby mode)*1 *2	Goes out
Audio is interrupted due to bad communication conditions.	Blinks in blue quickly	Blinks in blue quickly
Battery charging is in progress while the power is turned off.	Goes out	Goes out

*1 When this state continues for 5 minutes, the auto power-off function is activated. Turn off the power, and then turn it back on.
*2 While the receiver is in RCVR mode, the auto power-off function is disabled.

Related Topic

- Locating parts and controls

5-026-023-12(1) Copyright 2021 Sony Corporation

Wireless Microphone
ECM-W2BT

Notes on use

In addition to this Help Guide, please read “Notes on use” in the Startup Guide (supplied).

- To use the built-in flash of the camera, remove the receiver of this unit from the camera.
- While recording is in progress, operation and handling noises of a camera or a lens may be recorded. Touching this unit while recording is in progress causes a noise to be included in the recording.
- If the earphone is placed near the microphone (sound pickup unit) during recording, a howling effect (acoustic feedback) may occur. If this happens, place the earphone farther away from the microphone, or lower the volume of the earphone.
- Do not hold the camera only by the receiver. The receiver may be damaged or the camera may fall.
- Before you carry around the receiver, be sure to remove the receiver from the camera, attach it to the supplied connector protect holder, and store them together in the supplied pouch to protect the connector of the Multi Interface foot against damage.
- When you do not intend to use the receiver, slide the connector of the Multi Interface foot into the connector protect holder for damage protection.
- When using the microphone at low temperature, the battery performance drops compared to when it is used at a normal temperature (25 °C (77 °F)) so the operating time becomes shorter.
- In the event of radio interference to another device while using the receiver, stop using the wireless function. Radio interference may cause a malfunction of the device, resulting in an accident.

5-026-023-12(1) Copyright 2021 Sony Corporation

Bluetooth® Wireless Communication Technology

- Bluetooth wireless communication technology allows communication between various Bluetooth devices without using cables. Devices that can use this technology include computers, computer peripheral devices and smartphones.
- The receiver and the microphone are factory-set to communicate with each other. Therefore, operations usually needed for Bluetooth devices such as pairing and passkey input are not necessary. Communication is not possible with a receiver and microphone not sold as a pair, multiple microphones, or any other Bluetooth device such as a smartphone, computer, etc.

Note

- This wireless microphone may be affected under the following conditions.
  - When there are obstacles such as people, metallic objects, walls, or reflective surfaces between the front of the receiver and the microphone.
  - When used in a wireless LAN system environment, near multiple Bluetooth devices that are operating, near a working microwave oven, or where there are electromagnetic waves.
- If the microphone is placed in close proximity to the camera, noise may also be recorded due to RF interference. Keep the microphone at least 1 m (3 ft.) from the camera during use.
- If there is noise or there is no sound because of deteriorating communication, the LINK lamp on the receiver blinks in blue quickly. Ensure that the distance between the devices is not too far, and no obstacles are between them. Continue use when the LINK lamp is constantly lit in blue.

5-026-023-12(1) Copyright 2021 Sony Corporation

Wireless Microphone
ECM-W2BT

Specifications

Wireless communication

Communication system	Bluetooth specification Ver. 5.0
Output	Bluetooth specification Power Class 1
Main compatible Bluetooth Profile	Advanced Audio Distribution Profile
Working range*	Up to 200 m (600 ft.)

* This is the approximate communication distance when the microphone is upright and directly facing the receiver. Depending on recording location, such as if obstacles or reflective surfaces are between Bluetooth devices, radio wave conditions, etc.

Eco and energy saving

Power consumption (Off mode)	Not available
Power consumption (Standby mode/Low power mode)	0.5 W
Low power mode activated	Within 20 minutes (default)

Receiver

Microphone system	Monaural, non-directional
Frequency response	20 Hz - 20,000 Hz
Power requirements	Built-in lithium-ion battery (approx. 3.7 V) / Power supply via the Multi Interface Shoe
Power consumption	Approx. 0.3 W
Continuous operating time	Approx. 3 hours (with the fully charged built-in battery and with the analog audio output selected) (approx. 18 hours with power supply via the Multi Interface Shoe)
Charging time	Approx. 1 hour and 30 minutes (via a computer)
Operating temperature	0 °C to 40 °C (32 °F to 104 °F)
Storage temperature	-20 °C to +45 °C (-4 °F to +113 °F)
Dimensions (Approx.)	34 mm × 28.7 mm × 53 mm (1 3/8 in. × 1 3/16 in. × 2 1/8 in.) (W/H/D)
Mass (Approx.)	28 g (1.0 oz.)

Microphone (transmitter)

Microphone system	Monaural, non-directional
External microphone input jack	Ø3.5 mm Stereo mini jack
Frequency response	20 Hz - 20,000 Hz
Power requirements	Built-in lithium-ion battery (approx. 3.7 V)
Power consumption	Approx. 0.2 W
Continuous operating time	Approx. 9 hours (with the fully charged built-in battery)
Charging time	Approx. 3 hours (via a computer)
Operating temperature	0 °C to 40 °C (32 °F to 104 °F)
Storage temperature	-20 °C to +45 °C (-4 °F to +113 °F)
Dimensions (Approx.)	30.6 mm × 67.6 mm × 19 mm (1 1/4 in. × 2 3/4 in. × 3/4 in.) (W/H/D)
Mass (Approx.)	27 g (1.0 oz.)

Recommended USB AC adaptor

Input	100-240 V ~, 50/60 Hz
Output	5 V ⎓, 1.5 A or more

Design and specifications are subject to change without notice.

5-026-023-12(1) Copyright 2021 Sony Corporation

Wireless Microphone
ECM-W2BT

Trademarks

- The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by Sony Corporation is under license.
- “Multi Interface Shoe” is a trademark of Sony Corporation.
- Qualcomm aptX is a product of Qualcomm Technologies, Inc. and/or its subsidiaries.
  Qualcomm is a trademark of Qualcomm Incorporated, registered in the United States and other countries.
  aptX is a trademark of Qualcomm Technologies International, Ltd., registered in the United States and other countries.

5-026-023-12(1) Copyright 2021 Sony Corporation