Wireless Microphone
ECM-W3 / ECM-W3S

Use this Help Guide when you have issues or questions on how to use your wireless microphone.
This Help Guide is provided commonly for two models: ECM-W3 and ECM-W3S. For illustrations applied to the descriptions common to both models, those of ECM-W3 are used.

Compatible cameras

This unit is compatible with a camera that has a Multi Interface Shoe such as a Sony Interchangeable Lens Digital 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 of this unit are factory-set to communicate with each other. Therefore, operations usually needed for Bluetooth devices such as pairing and passkey entry are not necessary. With any Bluetooth device other than the receiver and the microphone of this unit, on the other hand, communication is not possible.

For camera models compatible with this unit, view the following. (Another window will open.)
- Compatible models with ECM-W3
- Compatible models with ECM-W3S

> **When the message "This accessory is not supported by the device and cannot be used." is displayed on the camera:**
>
> View here.

Wireless Microphone
ECM-W3 / ECM-W3S

Locating parts and controls

Receiver

ECM-W3

ECM-W3S

1. Slide switch (ANALOG/OFF/DIGITAL)
   Select "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."
     Digital signal transmission from the receiver to the camera has the following merits over analog signal transmission that is enabled by the switch being set to "ANALOG."

     - Audio recording with less noises

     - Less audio delay during recording

     - Recording with 24-bit audio (only available in combination with the compatible camera)

     Note

- Movies recorded with 24-bit audio may not be played back normally on devices or software incompatible with 24-bit audio, resulting in unexpectedly loud volumes or no sound.

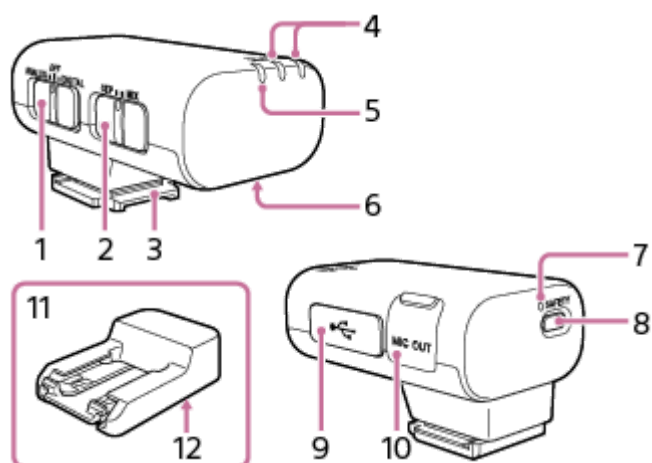- If your camera is not compatible with the digital audio interface of the Multi Interface Shoe, set the switch to "ANALOG."
  When the message "This accessory is not supported by the device and cannot be used." is displayed on the camera, set the switch to "ANALOG."
  If this does not help, see here.

- When a TRS audio cable with the 3.5 mm diameter plug (commercially available) is connected, the receiver outputs analog signals via the cable.

- When a device with a USB audio input capability is connected, the receiver outputs digital signals.

- When you do not intend to use the receiver, set the switch to "OFF" to conserve the battery power.

2. Mode switch (SEP/MIX) (ECM-W3)
   By selecting a receiver mode with this switch before you start video recording with the camera, you can make recordings with audio from either of the two microphones individually as the left or right channel audio; or recordings with mixed audio from the two microphones.

3. Multi Interface foot

4. LINK (LINK1/LINK2) lamp (ECM-W3)
   LINK lamp (ECM-W3S)
   Indicates the connection state between the receiver and the microphone.

   Hint

   - On the nameplate under the clip of the microphone, you will find either the number "1" or "2" indicated for microphone identification. The number "1" indicates the microphone No. 1; and the number "2" indicates the microphone No. 2. To identify which microphone connection is active with the receiver, check the state of the LINK1 lamp for the microphone No. 1 and the LINK2 lamp for the microphone No. 2 on the receiver. (Applicable to ECM-W3)

5. Power lamp (Green: Powered, Orange: Charging the battery)
   Indicates the power state of the receiver or the battery charge state.
   When the power lamp stays blinking in orange, battery charging is needed.

6. Charging connector
   Supplies power to the receiver for battery charging via the charging case.

7. SAFETY lamp
   Lights in yellow when the receiver goes into SAFETY mode and goes out when the receiver comes out of the mode.

8. SAFETY button
   Pressing and holding the SAFETY button for about 2 seconds places the receiver into SAFETY mode.
   For details, see About the SAFETY button.

9. USB Type-C® port
   Connect to a power source with a USB Type-C cable (commercially available) for charging the built-in battery of the receiver and/or for supplying power to the receiver.
   This port can be connected to a device with a USB audio input capability, such as a computer or a smartphone, for audio recording as well.
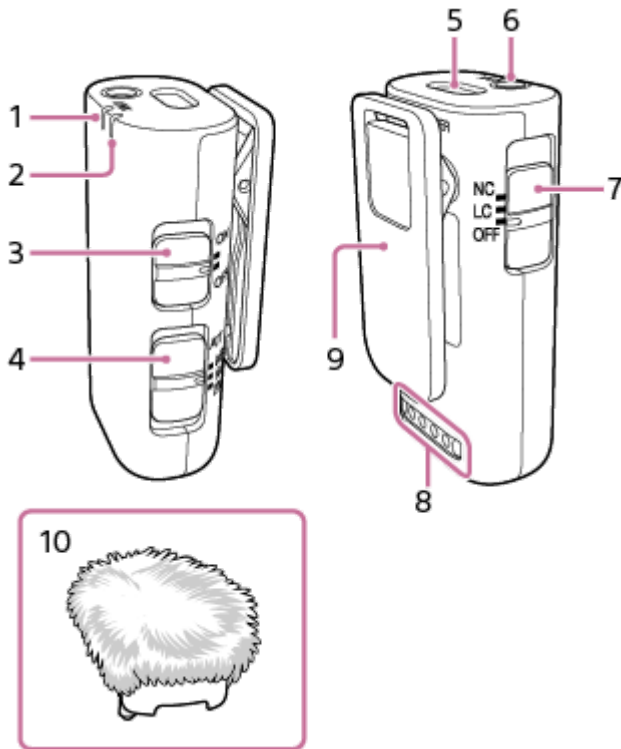
10. Microphone out jack
    Connect to the microphone in jack on the camera with a TRS audio cable with the 3.5 mm diameter plug (commercially available) for audio recording.

11. Connector Protect Holder/Stand
    Attached to the receiver at the time of purchase.

12. Screw hole for tripod attachment (1/4 in. in diameter)

Microphone

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

> **Hint**
>
> - On the nameplate under the clip of the microphone, you will find either the number "1" or "2" indicated for microphone identification. The number "1" indicates the microphone No. 1; and the number "2" indicates the microphone No. 2. To identify which microphone connection is active with the receiver, check the state of the LINK1 lamp for the microphone No. 1 and the LINK2 lamp for the microphone No. 2 on the receiver. (Applicable to ECM-W3)

2. Power lamp (Green: Powered, Orange: Charging the battery)
Indicates the power state of the microphone or the battery charge state.
When the power lamp stays blinking in orange, battery charging is needed.

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

4. ATT switch
Select the option suitable for the audio recording volume. To record loud sounds while minimizing distortion, select "20dB." To record quiet sounds, select "0dB." "10dB" is the recommended volume level for recording human voices. It is recommended that you select an option while monitoring the volume level meter on the camera or the audio recording volume with headphones.

5. Internal microphone

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

7. Filter switch (NC/LC/OFF)
NC: Select this option to use the noise cut filter function. Unpleasant noises are effectively eliminated by digital signal processing. If the sound quality does not seem appropriate, select "OFF."

LC: Select this option to use the low cut filter function. Unwanted noises, such as wind noises, air-conditioning noises, and vibration noises, are minimized.

OFF: Select this option to disable either of the filter functions.

8. Charging connector
Supplies power to the microphone for battery charging via the charging case.
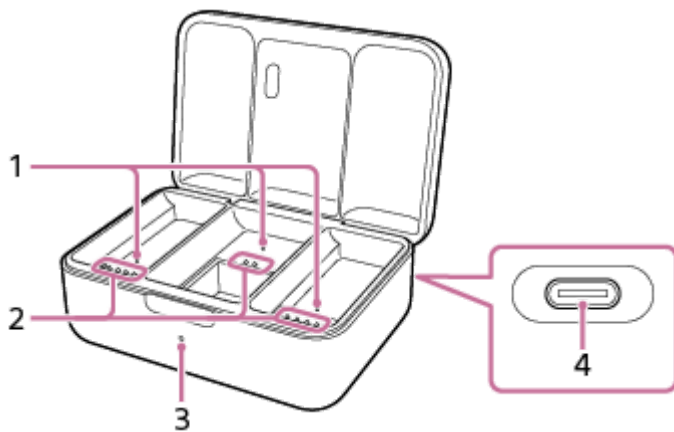
9. Clip
Use this clip for attaching the microphone to your clothing.
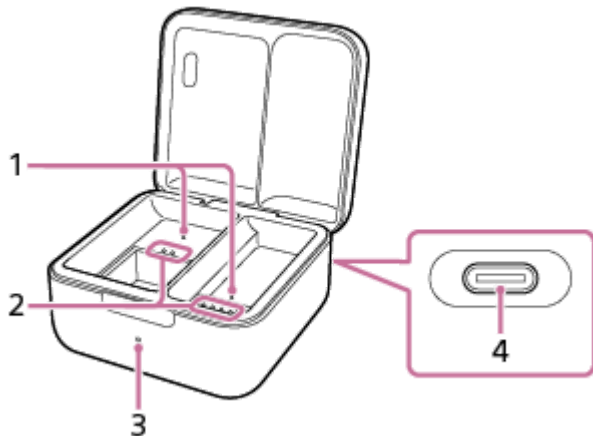
10. Wind screen
Attach the wind screen to the microphone to reduce noises caused by breath or strong wind.

Charging case

ECM-W3

ECM-W3S

1. Detection pin
Detects when the receiver and the microphone are both housed in the charging case.

2. Charging connector

3. Charging lamp
Indicates the battery charging state of the charging case.

4. USB Type-C® port
Connect to a power source with a USB Type-C cable (commercially available) for charging the built-in batteries of the charging case as well as of the receiver and the microphone housed in the case.

Note

- To prevent a malfunction, do not deliberately push in the detection pin and/or any of the charging connectors unless you intend to place the receiver and the microphone in the charging case.

Related Topic

- Charging the built-in batteries
- Attaching the wind screen
- Attaching the connector protect holder/stand
- About the mode switch (ECM-W3)
- About the SAFETY button
- Recording
- Lamp indications

Wireless Microphone
ECM-W3 / ECM-W3S

Unpacking

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

ECM-W3

- Receiver (1)
  Connector Protect Holder/Stand (attached) (1)

- Microphone (2)

- Charging case (1)

- Wind screen (2)

- Pouch (1)

- Set of printed documentation

ECM-W3S

- Receiver (1)
  Connector Protect Holder/Stand (attached) (1)

- Microphone (1)

- Charging case (1)

- Wind screen (1)

- Pouch (1)

- Set of printed documentation

Wireless Microphone
ECM-W3 / ECM-W3S

Charging the built-in batteries

Each of the receiver, the microphone, and the charging case contains a built-in lithium-ion rechargeable battery. Connect the charging case and a power source with a USB Type-C cable (commercially available) for battery charging.

> **Note**
>
> - Before charging the built-in batteries, be sure to turn off the receiver and the microphone.
>   Battery charging can go on while the receiver and the microphone are turned on. However, placing the receiver and the microphone in the charging case automatically turns them off. This means that the next time you use the receiver and the microphone, you must select "OFF" once with the slide switch on the receiver and with the power switch on the microphone, and then turn them back on.
>
> - In the event that the receiver and the microphone are removed from the charging case after battery charging is conducted while the receiver and the microphone are turned on, placing them back in the charging case without changing the switch selection does not start battery charging.

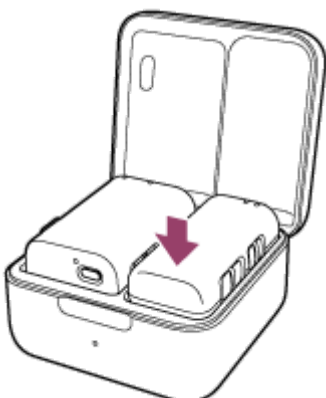**1** **Place the receiver and the microphone in the charging case.**

> **Note**
>
> - Be sure to push in the microphone until it clicks into place. When the microphone is properly seated, its power lamp lights in orange, indicating that the battery charging has started.
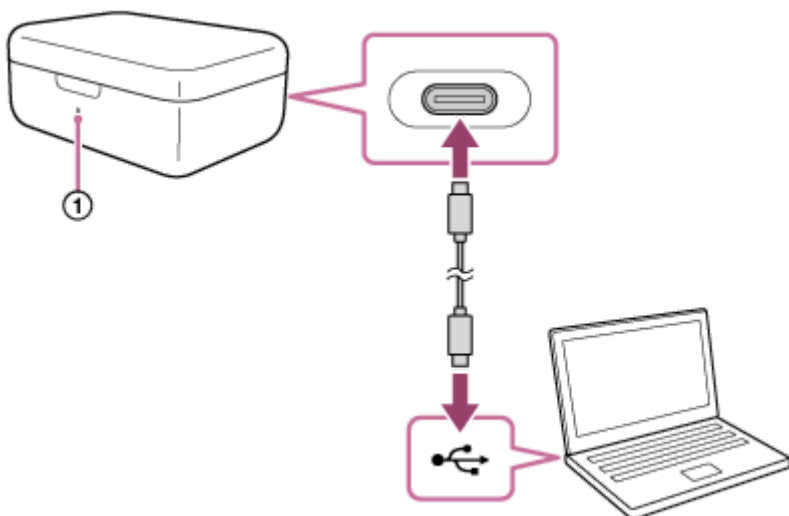
ECM-W3
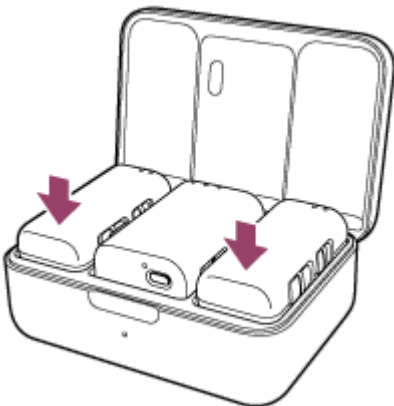
ECM-W3S

When the receiver and the microphone are properly housed in the charging case, close the lid of the case.

2 **Connect the USB Type-C port on the back of the charging case and a power source with a USB Type-C cable for battery charging.**

The charging lamp (①) on the charging case lights in orange, indicating that battery charging has started. When the built-in battery of the charging case is fully charged, the charging lamp on the charging case goes out regardless of the battery charging states of the receiver and the microphone housed in the charging case. When the USB Type-C cable is disconnected at this point, battery charging for the receiver and the microphone continues with the battery power of the charging case.

About the battery charging time

In the event of charging the built-in batteries while the receiver and the microphone are housed in the charging case, the built-in batteries of the receiver, the microphone, and the charging case are simultaneously charged via the USB connection.
About 10 minutes of battery charging enables about 30 minutes of use of the receiver and the microphone.

- Time period required to fully charge the built-in batteries of the receiver and the microphone: about 2 hours[*]

- Time period required to fully charge the built-in battery of the charging case: about 2 hours and 30 minutes[*]

[*] Time period required for charging the empty rechargeable batteries via the USB charging port (CDP - Charging Downstream Port) on the computer to full capacity. It may vary depending on the using condition.

Charging the built-in batteries of the receiver and the microphone while on the go

The charging case contains a rechargeable battery. By having it charged in advance, you can charge the batteries of the receiver and the microphone when you have no access to a power source, for example, while you are on the go.

- ECM-W3
  The fully charged battery power of the charging case is sufficient for about 1 time charging for all the built-in batteries of the receiver, the microphone No. 1, and the microphone No. 2 from the empty state to the fully charged state.

- ECM-W3S
  The fully charged battery power of the charging case is sufficient for about 2 times charging for the built-in batteries of the receiver and the microphone from the empty state to the fully charged state.

Notes on charging the built-in batteries of the receiver and the microphone while on the go

In the event that the charging lamp on the charging case is blinking in orange when the receiver and the microphone are removed from the charging case, the rechargeable battery of the charging case is running out of power. Charge the battery of the charging case.

To charge the built-in battery of the receiver with the USB Type-C cable

You can alternatively charge the built-in battery of the receiver without using the charging case as described below.

1. Open the lid of the USB Type-C port and connect a USB Type-C cable to the port.

2. Connect the cable to a power source, such as a computer that is up and running, for battery charging.
   The power lamp on the receiver lights in orange.

3. When battery charging is finished, disconnect the USB Type-C cable from the receiver.
   Wait until the power lamp goes out to indicate that charging is finished (the battery is fully charged).

Note

- Do not apply excessive force to the receiver when you connect the receiver to a computer. This may cause damage to the receiver or the computer.

- Connecting the receiver to a laptop computer that is not connected to an AC power source may deplete the battery power of the computer. Do not leave the receiver connected to the computer for an extended period of time.

- Use of any customized or hand-built computer is not guaranteed for battery charging or for connection with the receiver. Depending on the type of USB device used in combination with the receiver, the receiver may fail to operate.

- Not all the computers are guaranteed for operation with the receiver.

- Battery charging via the USB connection may not be possible when the connected computer goes into standby (sleep) or hibernate mode. If this is the case, change the computer settings and then charge the battery all over again.

- In the event that this unit is kept unused for an extended period of time, the amount of power that each rechargeable battery can charge may be reduced. To make the battery capable of charging sufficient power, let the battery charge and discharge the power repeatedly for a few times. In the event that you store this unit for an extended period of time, charge the batteries once every 6 months to protect them against over-discharging.

- In the event that this unit is kept unused for an extended period of time, it may take longer to charge the built-in batteries.

- In the event that any of the rechargeable batteries of this unit fails and the failure is detected while battery charging is in progress, the charging lamp on the charging case stays blinking in orange.
  It is recommended that the battery be charged when the ambient temperature is in the range of 15 °C to 35 °C (59 °F to 95 °F). Efficient battery charging may not be possible when the temperature is outside this range.
  If the failure persists, consult your nearest Sony dealer.

- In the event of charging the built-in batteries after this unit is kept unused for an extended period of time, the power lamp or the charging lamp may not immediately light in orange. Wait for a while until the power lamp or the charging lamp lights in orange.

- A significantly short battery life indicates that the rechargeable battery should be replaced with a new one. Consult your nearest Sony dealer.

- Keep this unit against exposure to extreme temperature changes, direct sunlight, moisture, sand, dust, and electrical shocks. Never leave this unit in a parked vehicle.

- When connecting the receiver or the charging case to a computer, be sure to use only the USB Type-C cable and connect them directly. Indirect connection, for example, via a USB hub fails to charge the built-in battery.

Related Topic

- Lamp indications

Wireless Microphone
ECM-W3 / ECM-W3S

## Attaching the receiver to a camera

Attach the receiver to a camera.

> **Note**
>
> - Before attaching the receiver to the camera, charge the built-in battery of the receiver sufficiently enough.
>
> - Before attaching/removing the receiver to/from the camera, be sure to turn off the receiver and the camera.

1 **Remove the connector protect holder/stand from the receiver.**

Slightly push down and hold the retention latch (①) on the connector protect holder/stand, and then pull out the receiver.
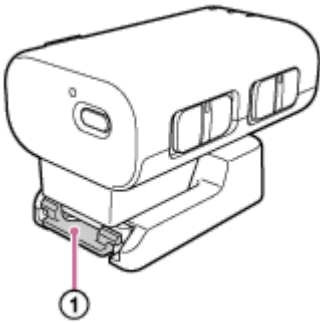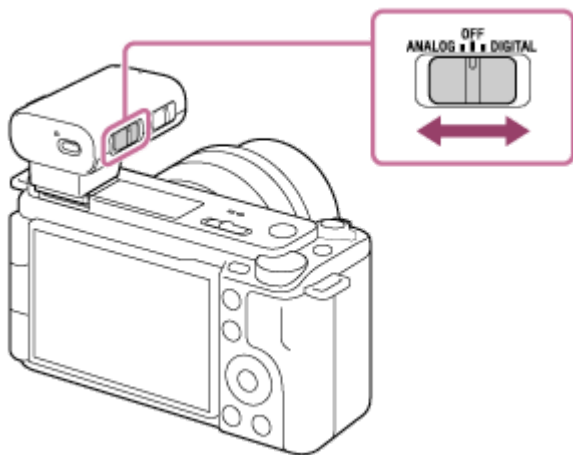
2 **Align the Multi Interface foot of the receiver with the Multi Interface Shoe on the camera and attach the receiver.**
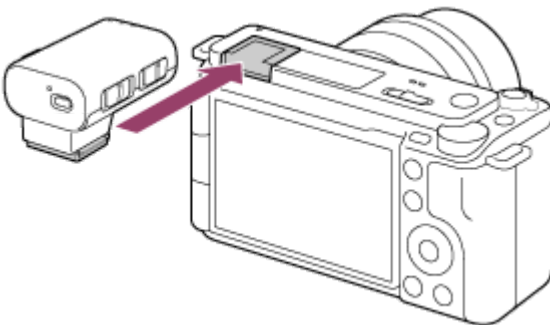
> **Note**
>
> - Firmly insert the receiver all the way into the Multi Interface Shoe of the camera.
>
> - If the built-in flash on the camera is popped up, put it down.

3 **Check the position of the slide switch on the receiver.**

If your camera is compatible with the digital audio interface of the Multi Interface Shoe, make sure that the switch is set to "DIGITAL." If not, set the switch to "ANALOG."
If the switch is not set correctly, a compatibility message will be displayed on the camera. For camera models compatible with the digital audio interface of the Multi Interface Shoe, visit the website at:

- ECM-W3
  https://www.sony.net/dics/ecmw3/

- ECM-W3S
  https://www.sony.net/dics/ecmw3s/

To remove the receiver

Slide the receiver in the direction opposite to the one for attachment.

Related Topic

- Charging the built-in batteries

Wireless Microphone
ECM-W3 / ECM-W3S

Connecting the receiver to a computer or a smartphone

Connect the receiver to a computer or a smartphone.

Note

- For operations on the computer or smartphone, refer to the operating instructions of your device.

- For audio recording with the receiver and the connected computer or smartphone, your device must be compatible with USB Audio Class 1.0.

- When connecting the receiver to the computer or smartphone, be sure to check the port type on your device and use a compatible cable or an appropriate adaptor.

- Before attaching the receiver to the computer or smartphone, charge the built-in battery of the receiver sufficiently enough.

- Before attaching/removing the receiver to/from the computer or smartphone, be sure to turn off the receiver.

1 Connect the receiver and the computer or smartphone with a USB Type-C cable (commercially available).
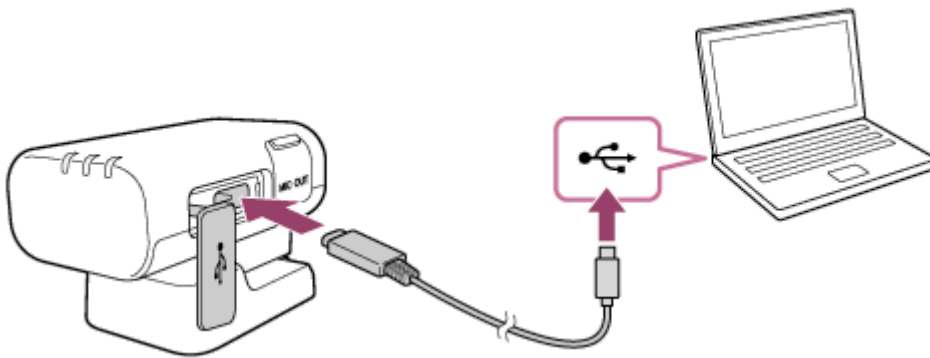
2 Select "ANALOG" or "DIGITAL" with the slide switch (ANALOG/OFF/DIGITAL) on the receiver.

When the receiver and the computer or smartphone are connected via the USB connection, the receiver outputs digital signals regardless of the switch selection: "ANALOG" or "DIGITAL."

Related Topic

- Charging the built-in batteries

Wireless Microphone
ECM-W3 / ECM-W3S

Attaching the microphone to clothing

Attach the microphone to your clothing.

> **Note**
> • Before attaching the microphone to your clothing, charge the built-in battery of the microphone 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.
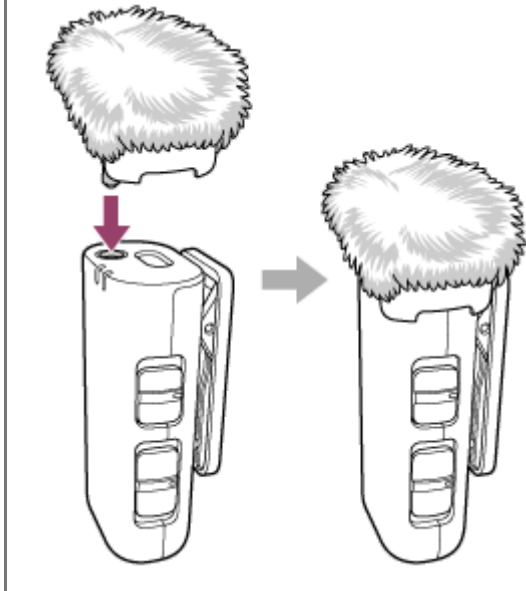
Related Topic
• Charging the built-in batteries

Wireless Microphone

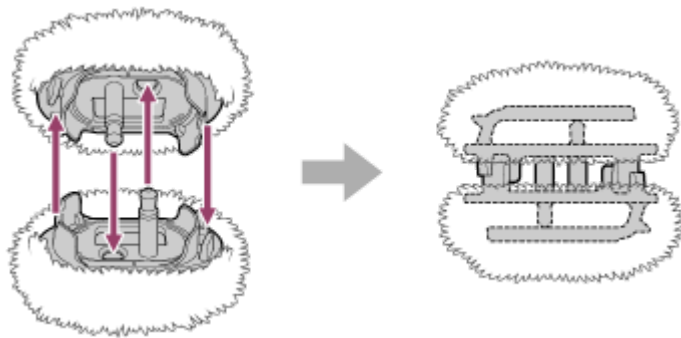ECM-W3 / ECM-W3S

Attaching the wind screen

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

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

When carrying around the wind screen (ECM-W3)

As illustrated below, you can couple two wind screens together for carrying around.

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.

Wireless Microphone
ECM-W3 / ECM-W3S

Attaching the connector protect holder/stand

Before carrying around the receiver, attach the connector protect holder/stand (supplied) to the receiver.

1 **Slide the Multi Interface foot of the receiver into the connector protect holder/stand until it clicks into place.**

Slightly push down and hold the retention latch (①) on the connector protect holder/stand, and then slide the receiver into the connector protect holder/stand.
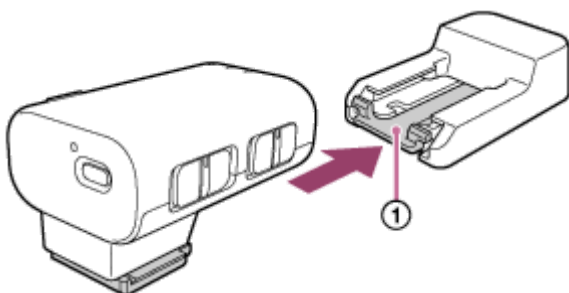
To remove the connector protect holder/stand

Slightly push down and hold the retention latch (①) on the connector protect holder/stand, and then pull out the receiver.
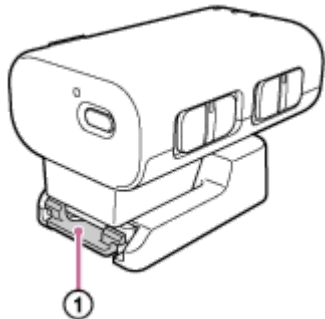
Hint

- When placing the receiver away from a camera, attach the connector protect holder/stand to the receiver. Then you can place and use the receiver on a flat surface.

- The connector protect holder/stand can be screwed to a tripod through the screw hole for tripod attachment (1/4 in. in diameter) on the connector protect holder/stand as well.
  To screw the connector protect holder/stand to the tripod, use a tripod with the screw that is shorter than 5.5 mm (7/32 in.) in length. To a tripod with the longer screw, the connector protect holder/stand cannot be secured firmly and may be damaged by the screw.

Note

- When you do not intend to use the receiver, attach the connector protect holder/stand to the Multi Interface foot for connector protection.

Wireless Microphone
ECM-W3 / ECM-W3S

About the mode switch (ECM-W3)

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

- SEP mode
  Makes recordings with audio from either of the two microphones individually as the left or right channel audio.
 The audio from the microphone No. 1 is output to the left channel; and the audio from the microphone No. 2 is output to the right channel.
  When a single microphone is used for sound pickup, the audio is output as follows:

  - When only the microphone No. 1 is in use: The audio is output only to the left channel; and no audio is output to the right channel.

  - When only the microphone No. 2 is in use: The audio is output only to the right channel; and no audio is output to the left channel.

  Hint

  - On the nameplate under the clip of the microphone, you will find either the number "1" or "2" indicated for microphone identification. The number "1" indicates the microphone No. 1; and the number "2" indicates the microphone No. 2. Use this number to distinguish the microphone No. 1 and the microphone No. 2.
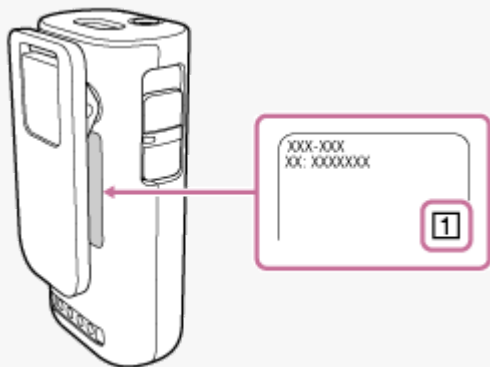
- MIX mode
  Makes recordings with mixed audio from the two microphones.

Related Topic

- Recording
- Recording with an external microphone
- Lamp indications

Wireless Microphone
ECM-W3 / ECM-W3S

About the SAFETY button

Pressing and holding the SAFETY button for about 2 seconds lights the SAFETY lamp in yellow to indicate that the receiver is in SAFETY mode.
While the receiver is in SAFETY mode, audio recordings are made with the 20 dB reduced channel gain to suppress audio distortion at loud volume levels.

On ECM-W3

While the receiver is in SAFETY mode, the channel gain may be reduced depending on the number of microphones in use or the mode switch setting.

- When two microphones are in use:

  - Mode switch setting: MIX
    Audio recordings are made with mixed audio from the two microphones while the right channel gain is reduced by 20 dB and the left channel gain is kept unchanged.

  - Mode switch setting: SEP
    SAFETY mode is disabled.

    Hint

    - While MIX is selected by the mode switch and the receiver is in SAFETY mode, selecting SEP with the mode switch causes the SAFETY lamp to blink in yellow and then go out, and the receiver automatically comes out of SAFETY mode.

- When one microphone is in use:

  - Mode switch setting: MIX
    Regardless of whether the microphone No. 1 or No. 2 is in use, the right channel gain is reduced by 20 dB and the left channel gain is kept unchanged for audio recording.

  - Mode switch setting: SEP
    When the microphone No. 1 is in use, the right channel gain is reduced by 20 dB and the left channel gain is kept unchanged for audio recording.
    When the microphone No. 2 is in use, the right channel gain is kept unchanged and the left channel gain is reduced by 20 dB for audio recording.

    Hint

    - While a single microphone is in use, SEP is selected by the mode switch, and the receiver is in SAFETY mode, connecting another microphone to the receiver causes the SAFETY lamp to blink in yellow, and the receiver automatically comes out of SAFETY mode.

Hint

- Information about whether or not the receiver is in SAFETY mode is stored when the receiver is turned off. The next time the receiver is turned on, the previous SAFETY mode state of the receiver is retained.

Wireless Microphone
ECM-W3 / ECM-W3S

Recording

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

1 **Turn on the camera and place the camera on standby.**
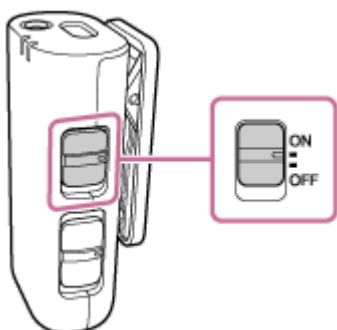
2 **Turn on the receiver and the microphone.**

● Select your desired audio output with the slide switch (ANALOG/OFF/DIGITAL) on the receiver.
If your camera is compatible with the digital audio interface of the Multi Interface Shoe, make sure that the switch is set to "DIGITAL." If not, set the switch to "ANALOG."
If the switch is not set correctly, a compatibility message will be displayed on the camera. For camera models compatible with the digital audio interface of the Multi Interface Shoe, visit the website at:

─ ECM-W3
https://www.sony.net/dics/ecmw3/

─ ECM-W3S
https://www.sony.net/dics/ecmw3s/
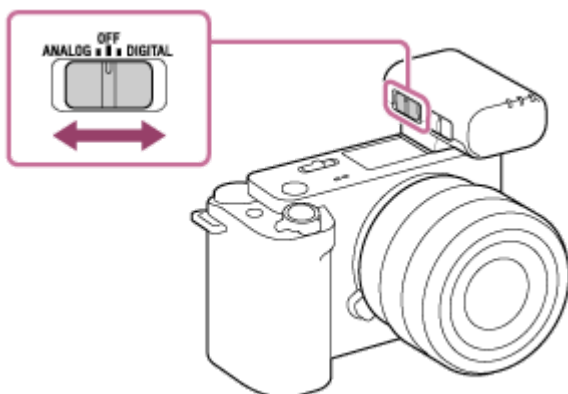
● Select "ON" with the power switch on the microphone.

Immediately after the receiver and the microphone are turned on, the LINK lamp on the microphone starts 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 connection is established between the devices and clear audio recording is possible, the LINK lamps on both devices 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   **Make sure that the LINK lamp on the receiver is lit in blue, and then start video recording with the camera.**

To make audio recordings with the connected computer or smartphone

You can connect the receiver to a computer or a smartphone for audio recording as well.
For details about connecting the devices, see Connecting the receiver to a computer or a smartphone.

Note

- When you are finished with using the receiver and the microphone, be sure to turn them off.

- Depending on the using condition, an analog connection with this unit may cause noises to be included in audio recordings.

- To use a camera compatible with the digital audio interface of the Multi Interface Shoe or a device with a USB audio input capability, make a digital connection with the receiver and the microphone. When a radio device is nearby, keep them sufficiently away from the device.

- While video 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 noises in the recording. Before selecting a receiver mode with the mode switch, be sure to stop the recording. (ECM-W3)

- While video recording is in progress, operating the ATT switch or the filter switch on the microphone may cause operation sounds to be included in the recording. Before changing the switch setting, be sure to stop the recording.

- When a video recording is made with the receiver and the microphone, an operation sound (an electronic sound) may be included at the beginning of the recording. It is recommended that you disable the operation sound settings on your camera before making video recordings. For details, refer to the operating instructions of your camera.

- The receiver receives power supply from the camera as well. (The built-in battery of the receiver, however, is not charged with the supplied power.) 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:

  – ECM-W3
    https://www.sony.net/dics/ecmw3/
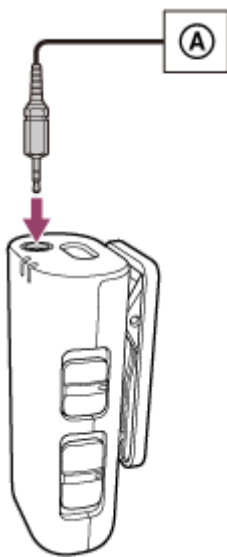
  – ECM-W3S
    https://www.sony.net/dics/ecmw3s/

Related Topic

- About the mode switch (ECM-W3)
- Lamp indications

Wireless Microphone
ECM-W3 / ECM-W3S

Recording with an external microphone

Connect an external microphone (not supplied) to the microphone for audio recording. Audio is recorded in monaural.

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.

- While an external stereo microphone is connected, only the left channel audio is recorded in monaural.

- The external microphone input jack on the microphone is compatible with the plug-in power microphone.

Related Topic
- About the mode switch (ECM-W3)

SONY

Wireless Microphone
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Lamp indications

The lamp lights, blinks or goes out according to the state of the devices and communication as follows.
🟢: Lit in green / 🟠: Lit in orange / 🔵: Lit in blue / 🟡: Lit in yellow / -: Unlit

Power lamp

- The power has just been turned on.
    (Lit in green)*

- The receiver is turned off.

    - Receiver
      - (Unlit)

    - Microphone
        (Lit in green)*

- The microphone is turned off.

    - Receiver
        (Lit in green)*

    - Microphone
      - (Unlit)

- The built-in battery is running out of power.
    (Blinks twice in orange, and then stays lit in green.)

- The built-in battery is almost worn out.
    (Stays blinking in orange)

- The built-in battery is charging.
    (Lit in orange)

* While the USB Type-C port is used, the power lamp stays lit in orange.

LINK lamp

- The power has just been turned on.

    - Receiver
      - (Unlit (on standby))*1 *2

    - Microphone
        - (Blinking slowly in blue (on standby))*1

- A connection is established and clear audio recording is possible.
    (Lit in blue)

- The receiver is turned off.

- Receiver
  - (Unlit)

- Microphone
  - ●-●-●-●-●(Blinking slowly in blue (on standby))[1]

- The microphone is turned off.

  - Receiver
    - (Unlit (on standby))[1] [2]

  - Microphone
    - (Unlit)

- Audio is interrupted due to bad communication conditions.
  - ● ● ● ● ●(Blinking in blue (The faster the blinking speed, the worse the communication conditions.))[3]

- The built-in battery is charging.
  - (Unlit)

[1]   When the lamp stays in this state for 5 minutes, the auto power-off function is activated on the receiver/microphone. To resume using the receiver/microphone, turn it off once, and then turn it back on.
[2]   While the USB Type-C port is used, the auto power-off function of the receiver is disabled.
[3]   Check the LINK lamps on the receiver and the microphone for the communication state.
Due to some surrounding factors, including poor radio conditions and a high number of obstacles between the receiver and the microphone, the communication state between the two devices may deteriorate, causing audio interruptions or noises. If this is the case, the LINK lamps blink in blue. Make sure that the two devices are located appropriately apart from each other, there are no obstacles between them, and the LINK lamps are steadily lit in blue before you use the receiver and the microphone.

Charging lamp (Charging case)

- The built-in battery is charging.
  - (Lit in orange)

- A battery charging failure (an abnormal temperature of the built-in battery, etc.) is detected.
  - ● ● ● ● ●(Stays blinking in orange)

- When the receiver and the microphone are placed/removed in/from the charging case or the USB Type-C cable is disconnected from the charging case;

  - The remaining power of the charging case is sufficient.
    - - - -(Stays lit in orange for 3 seconds, and then stays unlit.)

  - The remaining power of the charging case is almost half consumed.
    - ● ●- - -(Blinks twice in orange, and then stays unlit.)

  - The remaining power of the charging case is almost worn out.
    - ● ● ● ● ●- - -(Blinks 5 times in orange, and then stays unlit.)

- The built-in battery is not charging (or fully charged).
  - (Unlit)

SAFETY lamp (Receiver)

- The receiver is in SAFETY mode.
  - (Lit in yellow)

- The receiver is not in SAFETY mode.
  - (Unlit)

- The receiver automatically comes out of SAFETY mode.

🟡 🟡 🟡 - - - (Blinks 3 times in yellow, and then stays unlit.)
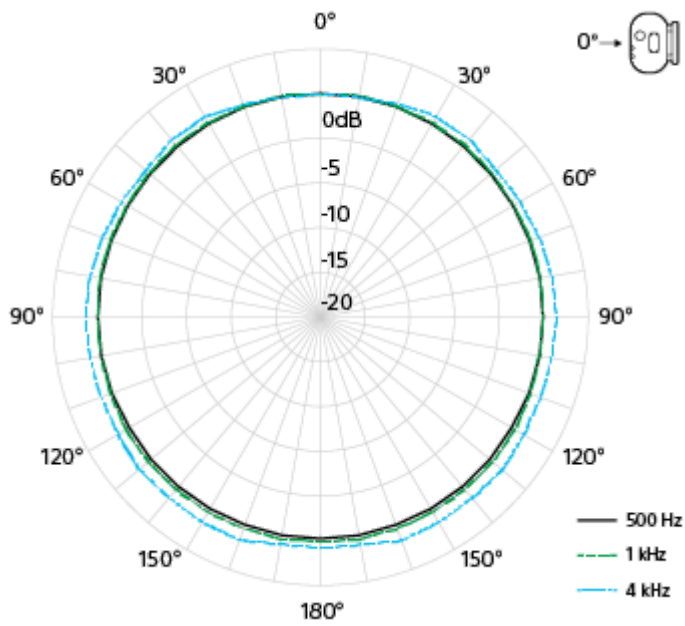
Related Topic

- Locating parts and controls

Wireless Microphone
ECM-W3 / ECM-W3S

About the pickup pattern and the frequency response

Monaural, Omni-directional

- **Pickup pattern**

- **Frequency response**

Wireless Microphone
ECM-W3 / ECM-W3S
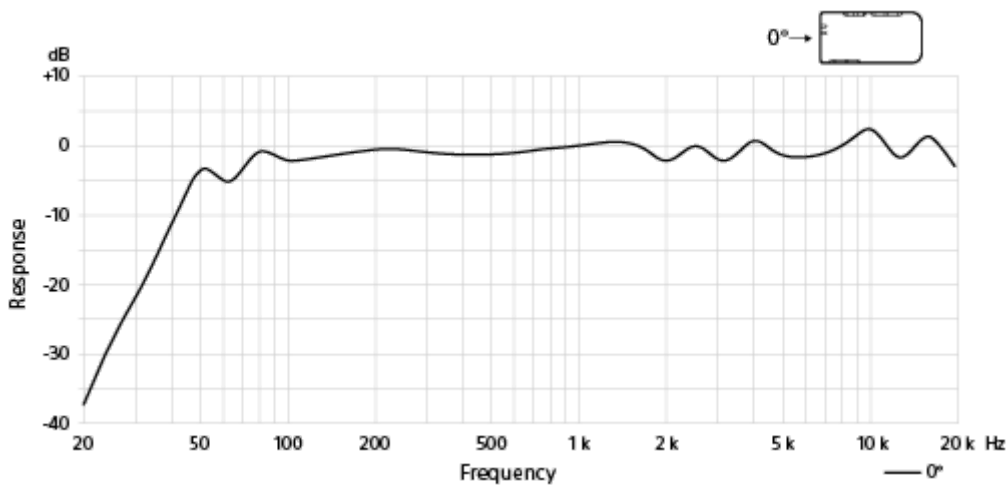
Notes on use

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

- While audio recording is in progress, touching the receiver, the microphone, or the connected TRS audio cable with the 3.5 mm diameter plug (commercially available) may cause noises to be included in the recording.
- Depending on the using condition, an analog connection with this unit may cause noises to be included in audio recordings.
- To use a camera compatible with the digital audio interface of the Multi Interface Shoe or a device with a USB audio input capability, make a digital connection with the receiver and the microphone. When a radio device is nearby, keep them sufficiently away from the device.
- The charging case contains magnetic components. Make sure that no metal chips (such as cutter blades, staples, etc.) are stuck to it.
  Items that adhere to the charging case could cause injuries.
- The charging case contains magnetic components which may interfere with pacemakers, programmable shunt valves for hydrocephalus treatment, or other medical devices. Do not place the charging case close to persons who use such medical devices. Consult your doctor before using the charging case if you use any such medical device.
- Keep any magnetic card away from the charging case.
  The charging case contains magnetic components. Bringing a magnetic card close to the case may alter the magnetic field of the card, resulting in an unusable card.
- 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.
- To protect the connectors against damage, be sure to remove the receiver from the camera, attach the connector protect holder/stand (supplied) to the receiver, and place it in a pouch; or place the receiver in the charging case before you carry around the receiver.
- Before changing the lens, make sure that no wind screen fibers are present on the surface of the lens and the camera body. If present, clean them off with a blower etc. and then change the lens.
- If dust or water droplets are present on the surface of the microphone, a successful audio recording may not be possible. Be sure to clean the microphone surface before using this unit.
- When you do not intend to use the receiver, slide the connector of the Multi Interface foot into the connector protect holder/stand for connector protection.
- When the microphone is used at low temperatures, the battery performance drops compared to when it is used at the normal temperature (25 °C (77 °F)), which makes the operating time shorter.
- In the event of radio interference to another device while using this unit, stop using the wireless function.
  Radio interference may cause a malfunction of the device, resulting in an accident.

Wireless Microphone
ECM-W3 / ECM-W3S

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 of this unit are factory-set to communicate with each other. Therefore, operations usually needed for Bluetooth devices such as pairing and passkey entry are not necessary. With any Bluetooth device other than the receiver and the microphone of this unit, on the other hand, communication is not possible.

Note

- The communication sensitivity of this unit may be affected by 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, noises may also be included in the audio of video recordings due to RF interference. Keep the microphone at least 1 m (3 ft.) from the camera during use.

- Check the LINK lamps on the receiver and the microphone for the communication state.
  Due to some surrounding factors, including poor radio conditions and a high number of obstacles between the receiver and the microphone, the communication state between the two devices may deteriorate, causing audio interruptions or noises. If this is the case, the LINK lamps blink in blue. Make sure that the two devices are located appropriately apart from each other, there are no obstacles between them, and the LINK lamps are steadily lit in blue before you use the receiver and the microphone.

Wireless Microphone
ECM-W3 / ECM-W3S

Specifications

Wireless communication

Communication system	Bluetooth specification Ver. 5.3
Output	Bluetooth specification Power Class 1
Main compatible Bluetooth Profile	Generic Attribute Profile
Codec	LC3plus[*1]
Working range[*2]	Up to 150 m (450 ft.)

*1 LC3plus is the supported audio format in ECM-W3 and ECM-W3S.
*2 This is the approximate communication distance when the microphone is upright and directly facing the receiver. It varies depending on the surrounding conditions, such as the presence or absence of reflective surfaces or obstacles like metallic objects or human bodies, as well as the radio wave conditions.

Receiver

Microphone out jack	Ø3.5 mm mini jack (stereo)
USB port	USB Type-C port
Power requirements	Built-in lithium-ion battery (approx. 3.7 V) / Power supply via the Multi Interface Shoe
Rated Voltage	5 V
Power consumption (Approx.)	0.18 W
Continuous operating time (Approx.)	● 3 hours (with the fully charged built-in battery and with the analog audio output selected) ● 18 hours (with power supply via the Multi Interface Shoe)
Charging time (Approx.)	2 hours[*] (via the charging case)
Dimensions (Approx.)	32 mm × 29 mm × 50 mm (1 5/16 in. × 1 3/16 in. × 2 in.) (W/H/D)
Mass (Approx.)	25 g (0.9 oz.)

* Time period required for charging the empty rechargeable batteries via the USB charging port (CDP - Charging Downstream Port) on the computer to full capacity. It may vary depending on the using condition.

Microphone

Sampling frequency/the number of quantization bits	48 kHz/16 bit, 48 kHz/24 bit[*1]

Frequency response	20 Hz - 20 000 Hz
Pickup pattern	Monaural, Omni-directional
Front sensitivity[*2]	–20 dBFS (0.1 Pa, 1 kHz)
Intrinsic noise[*2][*3]	16 dB SPL or less (0 dB = $2{\times}10^{-5}$ Pa)
Wind noise[*2][*4]	49 dB SPL or less (without the wind screen attached) 28 dB SPL or less (with the wind screen attached)
Maximum input sound pressure level	120 dB SPL[*2][*5]
Dynamic range[*3]	104 dB or more
External microphone input jack	Ø3.5 mm mini jack (monaural)
Power requirements	Built-in lithium-ion battery (approx. 3.7 V)
Rated Voltage	5 V ▬▬ ▬ ▬
Power consumption (Approx.)	0.09 W
Continuous operating time (Approx.)	6 hours (with the fully charged built-in battery)
Charging time (Approx.)	2 hours[*6] (via the charging case)
Dimensions (Approx.)	25 mm × 52.5 mm × 20.5 mm (1 in. × 2 1/8 in. × 13/16 in.) (W/H/D)
Mass (Approx.)	17 g (0.6 oz.)

*1   Videos recorded with 24-bit audio may not be played back normally on devices or software incompatible with 24-bit audio, resulting in unexpectedly loud volumes or no sound.
*2   Acquired while "10dB" is selected by the ATT switch.
*3   Acquired while "DIGITAL" is selected by the slide switch.
*4   Equivalent sound pressure level value converted from the average value of the noise that is output from the microphone when an air stream with a wind velocity of 2 m/sec. is applied to the microphone from every direction. (0 dB = $2{\times}10^{-5}$ Pa)
*5   Equivalent sound pressure level value converted from the input level value that is acquired when 1% waveform distortion is produced by 1 kHz output signals from the microphone. (0 dB = $2{\times}10^{-5}$ Pa)
*6   Time period required for charging the empty rechargeable batteries via the USB charging port (CDP - Charging Downstream Port) on the computer to full capacity. It may vary depending on the using condition.

Charging case (ECM-W3)

Rated Voltage	5 V ▬▬ ▬ ▬
Power consumption (Approx.)	5.9 W
Charging time (Approx.)	2 hours and 30 minutes[*]
Dimensions (Approx.)	92.5 mm × 41.5 mm × 65.5 mm (3 3/4 in. × 1 11/16 in. × 2 5/8 in.) (W/H/D)
Mass (Approx.)	110 g (3.9 oz.)

*   Time period required for charging the empty rechargeable batteries via the USB charging port (CDP - Charging Downstream Port) on the computer to full capacity. It may vary depending on the using condition.

Charging case (ECM-W3S)

Rated Voltage	5 V $\overline{\cdots}$
Power consumption (Approx.)	5.4 W
Charging time (Approx.)	2 hours and 30 minutes[*]
Dimensions (Approx.)	68.5 mm × 41.5 mm × 65.5 mm (2 3/4 in. × 1 11/16 in. × 2 5/8 in.) (W/H/D)
Mass (Approx.)	90 g (3.2 oz.)

[*] Time period required for charging the empty rechargeable batteries via the USB charging port (CDP - Charging Downstream Port) on the computer to full capacity. It may vary depending on the using condition.

Others

Operating temperature	0 °C to 40 °C (32 °F to 104 °F)
Storage temperature	−10 °C to +55 °C (14 °F to 131 °F)

Design and specifications are subject to change without notice.

Wireless Microphone
ECM-W3 / ECM-W3S

Trademarks

- The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by Sony Group Corporation is under license.

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Wireless Microphone
ECM-W3 / ECM-W3S

When the message "This accessory is not supported by the device and cannot be used." is displayed on the camera:

Do the following in the listed order.

**1** **Make sure that your camera is compatible with this unit.**

For camera models compatible with this unit, visit the website at:

- ECM-W3
  https://www.sony.net/dics/ecmw3/

- ECM-W3S
  https://www.sony.net/dics/ecmw3s/

> **Note**
>
> - In combination with any camera model that is not listed on the above website, the unit does not work.

2 **To use a camera that is not compatible with the digital audio interface in combination with this unit, set the slide switch on the receiver to "ANALOG."**
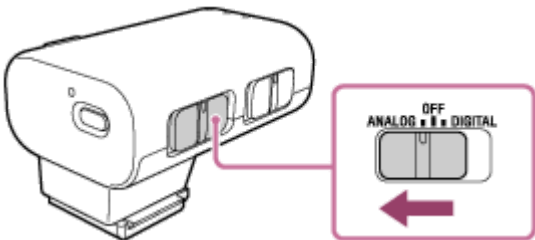
3 **Clean the contacts on the receiver and the camera. When either or both of the contacts are soiled with dust or the like, the camera may fail to detect that the receiver is attached. To clean the contacts, use a cotton swab or a dry, soft cloth (e.g., a cleaning cloth). Do not use water or chemicals for cleaning.**

> **Note**
>
> - Make sure that the slide switch is located exactly at the "ANALOG," "OFF," or "DIGITAL" position. If the switch is located in between, the receiver may not work properly.

Wireless Microphone
ECM-W3 / ECM-W3S

When the receiver and/or the microphone does not start working or cannot be charged

- The receiver and/or the microphone is automatically turned off by the auto power-off function.
Select "OFF" with the slide switch on the receiver and/or with the power switch on the microphone. Then, select "ANALOG" or "DIGITAL" on the receiver and/or "ON" on the microphone to turn on the power and make sure that the power lamp(s) is lit in green.

- In the event that the receiver and/or the microphone is removed from the charging case after battery charging is conducted while the receiver and/or the microphone is turned on, placing it back in the charging case without changing the switch selection does not start battery charging. To start battery charging, select "OFF" with the slide switch on the receiver and/or with the power switch on the microphone. While battery charging is in progress, make sure that the power lamp(s) is lit in orange.