



Please be sure to read the "Safety Precautions" section for correct use. After reading this Installation Guide, keep it in a readily accessible location for future reference. This camera is for indoor use only.

\* Some cameras are not sold in some regions.

**WARNING** To reduce a risk of fire or electric shock, do not expose this product to rain or moisture.

**Caution** Request a professional installer for all camera installation work. Never try to install the camera yourself. Doing so may result in unforeseen accidents such as dropping the camera or electric shock.

**Check Included Items**

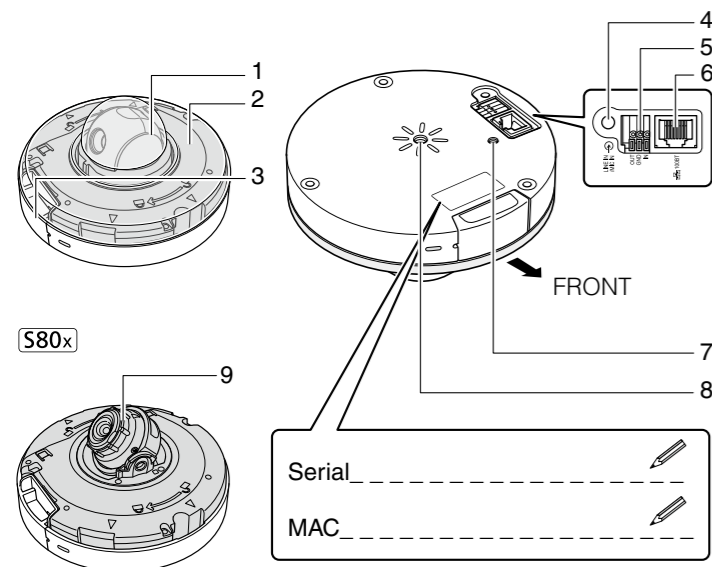
- |  |                                    |
|--|------------------------------------|
| Camera (VB-S30D/VB-S31D/<br>VB-S800D/VB-S805D) | Template                           |
| Setup CD-ROM                                   | Installation Guide (This document) |
| Safety Wire                                    | Warranty Card                      |
|  | Notice                             |

**Symbols Indicating Camera Model**

Camera specific functions will be listed using the icons below.

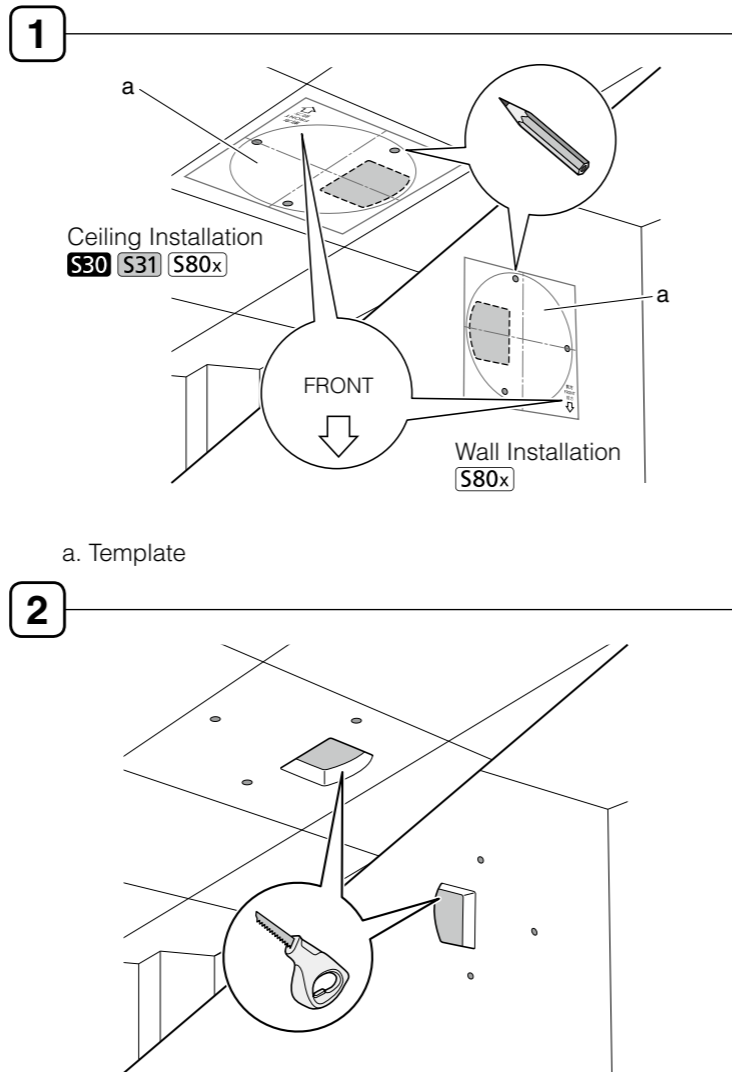
**S30** : VB-S30D   **S31** : VB-S31D   **S80x** : VB-S800D/VB-S805D

**Part Names**

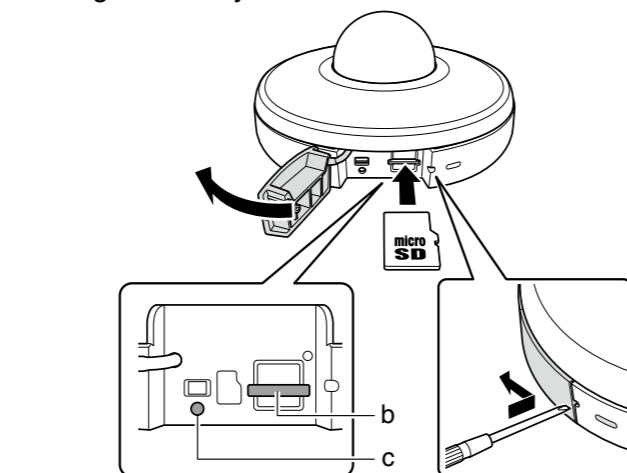


1. Camera Head / 2. Top Cover / 3. Memory Card Slot Cover /
4. Audio Input Terminal / 5. External Device I/O Terminal /
6. 100Base-TX LAN Connector / 7. Safety Wire Attachment /
8. Tripod Mounting Screw Hole (a 1/4-20 UNC tripod mounting screw less than 5.5 mm (0.22 in.) in length will fit the screw hole) /
9. Rotation Dial **S80x**

**Installing the Camera**



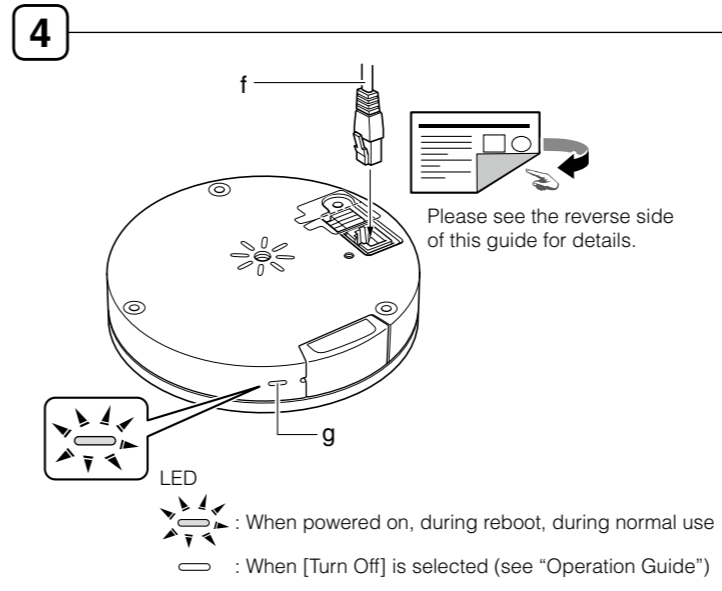
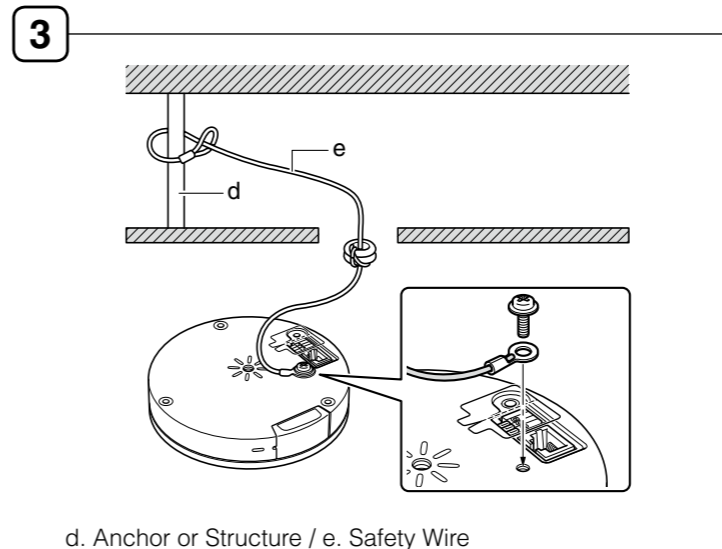
**If Using a Memory Card**



- b. Memory Card Slot
  - c. Reset Switch (see "Operation Guide")
- To remove the memory card, push it in and release it so it pops out slightly. Grasp the card and remove it.

**Important**

- Insert a memory card before installing the camera.
- When using a memory card with the camera for the first time, it is recommended to format the card after inserting it into the camera (see "Operation Guide").

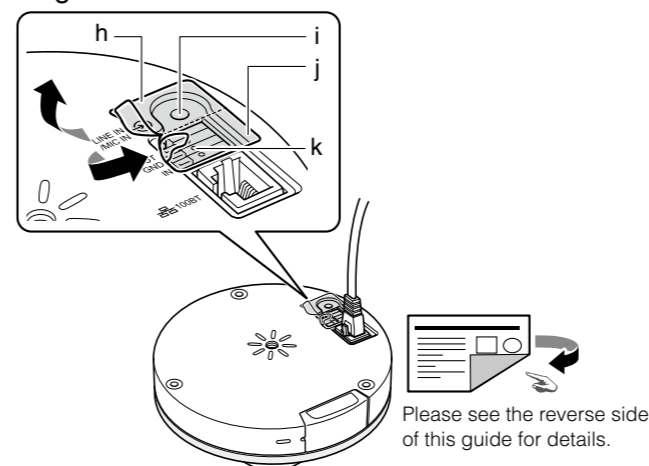


f. LAN cable / g. LED

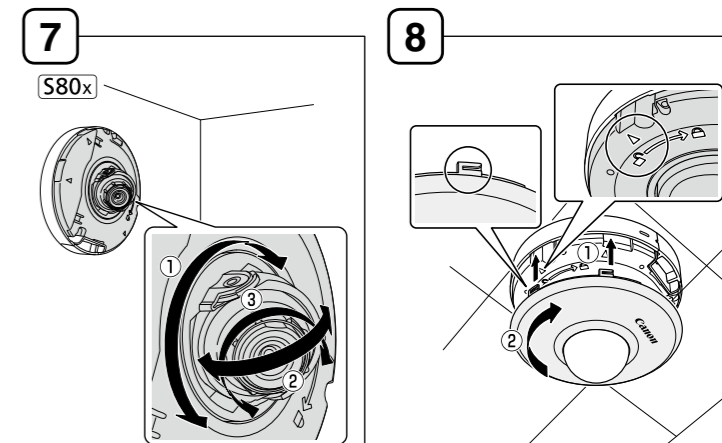
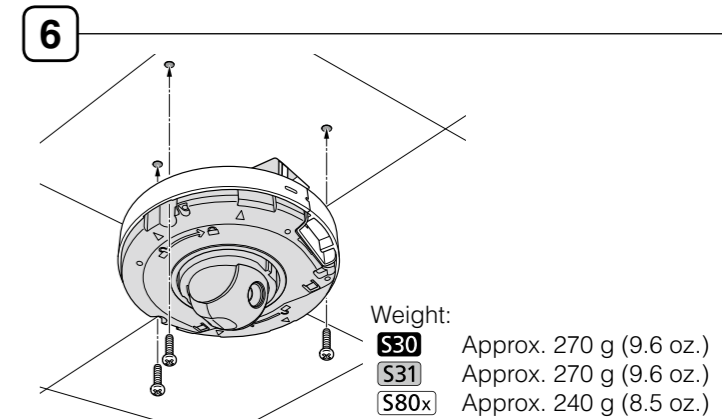
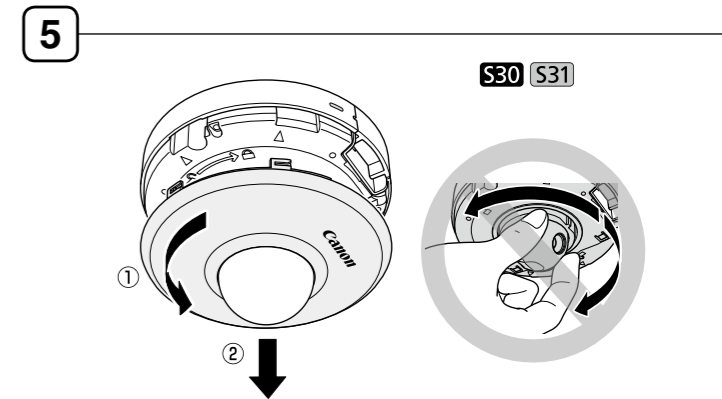
**Important S30 S31**

- The camera head will move and make noise when the power is turned on.
- Do not touch the camera head.
  - After the head stops moving, mount the camera.

**If Using the External Device Terminal or Audio Terminal**



- h. Protective Cover for Audio Input Terminal
- i. Audio Input Terminal
- j. Protective Cover for External Device I/O Terminal
- k. External Device I/O Terminal



**9** Perform camera settings by using the software found on the Setup CD-ROM (see "Operation Guide").

**Accessories**

The following accessories can be purchased separately as necessary. Some accessories are not sold in some regions.

**Pendant Mounting Kit PC30-VB**

This is an attachment for large stores with high ceilings used to install the camera at the end of a pipe stretching down from the ceiling.

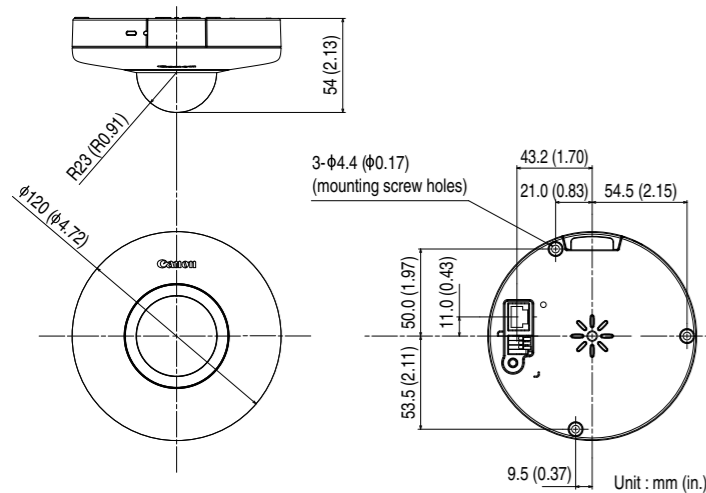
**Surface Mounting Spacer SS30-VB**

This is an attachment used to install a camera without having to drill any holes in the wall or ceiling for cables.

**Junction Box Mounting Kit PS30-VB**

This is an attachment used to install a camera using an electrical junction box.

## External Dimensions



## Connecting the Camera

### Power Supply

See “Specifications” > “Others” > “Power Supply”.

#### Important

- Check with your dealer for more information about PoE devices.
- Some PoE devices allow current limits for each port, but applying limits may interfere with performance. If using this type of PoE device, do not limit the operating current.
- Some PoE devices have total consumption current limits for ports, which can interfere with performance when multiple ports are in use. For more information, check the instruction guide for your PoE device.

### External Device I/O Terminals

#### External Device Input Terminals (IN)

The external device input terminal consists of a positive terminal (IN) and negative terminal (GND). Connecting cables to the positive and negative terminals and opening or closing the circuit notifies the Viewer.

#### Important

When connecting sensors and switches, use those that have terminals which are isolated from internal power and GND.

#### External Device Output Terminals (OUT)

The external device output terminal consists of an OUT terminal and a GND terminal. Controls from the viewer can be used to open and close the circuit between the terminals. A MOSFET device is used for the output terminal.

Rating range for load connected to output terminals.

Rating between output terminals:

- Maximum voltage 50 V DC
- Continuous load current at or below 100 mA
- On resistance: Below 1  $\Omega$

Adaptive wiring for external device cables

Rating Range: (same for contact input and output)

Conductor Size:  $\phi 0.42$  –  $\phi 0.80$  mm ( $\phi 0.017$  –  $\phi 0.031$  in.) dia.  
(AWG: No. 26 – 20)

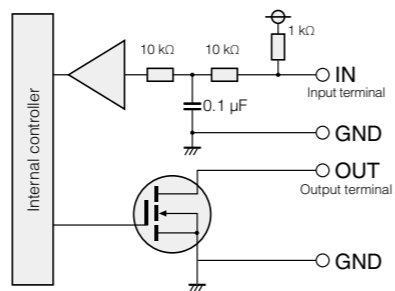
Stripped cable length should be approximately 11 – 13 mm (0.43 – 0.51 in.)

#### Note

- The External Device I/O Terminal consists of three terminals (IN, OUT, and GND). The GND terminal serves as both the external device input GND and the external device output GND.
- The GND terminal is connected to the camera interior GND.

- When using the external device input and output at the same time, couple the GND wire from the input cable with the GND wire from the output cable, conforming to the rating range, and connect it to the GND terminal.
- Do not push the external device I/O terminal button with too much force. Doing so may cause the button to remain pushed-in.

#### Internal Connection Diagram



### Audio Input Terminals

Camera has single audio input system supporting two types of microphone input: LINE IN and MIC IN. Before use, change [Audio Input] on the Setting Page (see “Operation Guide”). LINE IN is selected by default.

- Dynamic MIC IN  
Input impedance: 20 k $\Omega$  – 40 k $\Omega$
- Condenser MIC IN  
Input impedance (microphone bias resistance): 2.2 k $\Omega$   $\pm$ 20%  
Microphone power supply: plug-in power (voltage: 2.3 V)  
\* Supported microphones: Condenser microphones with plug-in power support
- LINE IN  
Input level: up to 1 Vp-p  
\* Use a microphone with an amplifier.

## Specifications

Please refer to the installation procedures or “Operation Guide” for specifications not listed below.

#### Camera

Lens	<b>S30</b> 3.5x optical (4x digital zoom) zoom lens with auto focus
Viewing Angle	<b>S31</b> <b>S80x</b> Fixed focal length lens (4x digital zoom)
	<b>S30</b> For 16:9 aspect ratios Horizontal: 77.7° (W) – 20.7° (T) Vertical: 40.4° (W) – 11.6° (T)
	For 4:3 aspect ratios Horizontal: 55.3° (W) – 15.5° (T) Vertical: 40.4° (W) – 11.6° (T)
	<b>S31</b> <b>S80x</b> For 16:9 aspect ratios Horizontal: 95.0°, Vertical: 60.0° For 4:3 aspect ratios Horizontal: 76.0°, Vertical: 60.0°

Pan Angle Range	350° ( $\pm$ 175°)
Tilt Angle Range	90° (ceiling-mounted position: -90° – 0°) When the horizontal direction of the camera is 0°
Rotation Angle Range	<b>S80x</b> 180° ( $\pm$ 90°)

#### Interface

Network Terminal*	LAN x 1 (RJ45, 100Base-TX (auto/full-duplex/half-duplex)) * LAN cables are category 5 or higher, with length 100 m (328 ft.) or shorter.
Audio Input Terminal (common for LINE IN & MIC IN)	$\phi 3.5$ mm ( $\phi 0.14$ in.) mini-jack connector (monaural)
External Device I/O Terminal	LINE IN x 1 or MIC IN x 1
Memory Card	Input x 1, Output x 1 microSD Memory Card, microSDHC Memory Card, microSDXC Memory Card compatible.

#### Others

Operating Environment	Temperature: -10°C – +50°C (+14°F – +122°F) Humidity: 5% – 85% (without condensation)
Storage Environment	Temperature: -30°C – +60°C (-22°F – +140°F) Humidity: 5% – 90% (without condensation)
Installation Angle	<b>S30</b> <b>S31</b> $\pm$ 5° (camera) in relation to a horizontal plane
Power Supply	PoE: PoE power supply via LAN cable (IEEE802.3af compliant)
Power Consumption	<b>S30</b> Max. 7.8 W – Class 0 power sourcing equipment (requests 15.4 W)
	<b>S31</b> Max. 7.6 W – Class 0 power sourcing equipment (requests 15.4 W)
	<b>S80x</b> Max. 4.1 W – Class 2 power sourcing equipment (requests 7.0 W)

## Symbols Indicating Safety Precautions

This Installation Guide uses the following marks to indicate important information the user should know in order to use the product safely. In this section, explanations are provided for each mark so that readers will understand the level of importance for each. Be sure to observe these items.

<b>Warning</b>	Failure to follow the instructions accompanied by this symbol may result in death or serious injury.
<b>Caution</b>	Failure to follow the instructions accompanied by this symbol may result in injury.
<b>Caution</b>	Failure to follow the instructions accompanied by this symbol may result in property damage.
<b>Important</b>	This symbol indicates important or restricted items.
<b>Note</b>	Contains reference information for operation or additional explanations.

## Safety Precautions

### Installation Precautions

#### Warning

Do not install in the following places:

- Places in strong direct sunlight, near heat-generating objects, or subject to high temperatures
  - Places near fire sources or flammable solvents (alcohol, thinner, fuel, etc.)
  - Humid or dusty places
  - Places subject to oily smoke or steam
  - Places subject to sea air
  - Confined or enclosed places
- Fire or electric shock may result.

Precautions for the LAN (power) cable:

- Do not set any heavy objects on the LAN cable.
  - Do not pull, forcibly bend, scratch, or modify the LAN cable.
- Fire or electric shock may result.

#### Caution

For installation or inspection of this camera, consult the dealer where you purchased the product.

- This installation should be made by a qualified service person and should conform to all local codes.
- When installing on a ceiling, make sure the surface is capable of withstanding the total weight of the camera, and is sufficiently reinforced if necessary.
- Be sure to use installation screws designed for the type of ceiling the camera is to be installed.
- Periodically check the parts and screws for rust and to see if they have loosened, in order to prevent injuries and equipment damage due to falling items.

- Do not install in unstable places, places subject to significant vibration or impact, or places subject to salt damage or corrosive gas.
  - Be sure to attach the safety wire when installing the camera.
- Failure to do so may result in the camera falling or other accidents.

- Do not touch the edges of metal parts with bare hands.
  - Be careful not to trap your fingers during installation of the camera.
- Injury may result.

### Caution

- S30** **S31** Do not turn the camera rotator by hand.
  - S30** **S31** Do not install on an unstable surface. Also, make sure the camera is installed  $\pm 5^\circ$  off horizontal.
  - After turning off the power, do not turn the power on again for at least 5 seconds.
  - Take measures to remove static electricity before performing any procedures.
  - If there is condensation, please wait to power on, until the condensation dissipates.
- Malfunction may result.

- Take care not to damage wiring or pipes in the room.
- Damage to peripheral items may result.

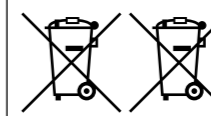
### Precautions for Use

#### Warning

- If you discover defective conditions such as smoke, strange sounds, heat or strange odors, immediately stop using the camera and contact your nearest dealer.
- Fire or electric shock may result from continued use of the product.

- If thunder starts, stop installation or inspection etc. and do not touch the camera or continue connecting the cable.
  - Do not disassemble or modify the camera.
  - Do not damage the connecting cable.
  - Do not spill water or other liquid inside the camera, spray the camera with water, or otherwise make it wet.
  - Do not insert foreign objects into the camera.
  - Do not use flammable sprays near the camera.
  - Do not leave LAN cables connected when the camera is not in use for long periods.
  - Do not use flammable solvents such as alcohol, paint thinner or benzene when cleaning the camera.
- Fire or electric shock may result.

### Only for European Union and EEA (Norway, Iceland and Liechtenstein)



These symbols indicate that this product is not to be disposed of with your household waste, according to the WEEE Directive (2012/19/EU), the Battery Directive (2006/66/EC) and/or national legislation implementing those Directives.

If a chemical symbol is printed beneath the symbol shown above, in accordance with the Battery Directive, this indicates that a heavy metal (Hg = Mercury, Cd = Cadmium, Pb = Lead) is present in this battery or accumulator at a concentration above an applicable threshold specified in the Battery Directive.

This product should be handed over to a designated collection point, e.g., on an authorized one-for-one basis when you buy a new similar product or to an authorized collection site for recycling waste electrical and electronic equipment (EEE) and batteries and accumulators. Improper handling of this type of waste could have a possible impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. Your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources.

For more information about the recycling of this product, please contact your local city office, waste authority, approved scheme or your household waste disposal service or visit [www.canon-europe.com/weee](http://www.canon-europe.com/weee), or [www.canon-europe.com/battery](http://www.canon-europe.com/battery).

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