SONY

4-547-916-**11**(1)

Digital HD Video Camera Recorder

Operating Guide

This manual describes the basic operation that can be performed with HDR-AZ1 only.
To use the camera in a variety of ways, you need a smartphone or tablet supporting a dedicated application, PlayMemories Mobile, or a separately sold Live-View Remote.
For details, refer to "Read this first" on this manual.

You can download the movie editing PC software "Action Cam Movie Creator," limited to this device, from the following URL.
http://www.sony.net/actioncam/support/
See how to use the camera and software at this URL.

• Use an SDXC card faster than Class10 when recording movies in XAVC S.

XAVC **S**   LITHIUM ION   MEMORY STICK   microSDXC   N

HDR-AZ1

English

Owner's Record
The model and serial numbers are located on the side. Record the serial number in the space provided below. Refer to these numbers whenever you call your Sony dealer regarding this product.

Model No. HDR-AZ1
Serial No.

Read this first

This manual describes the basic operation that can be performed with HDR-AZ1 only. To use the camera in a variety of ways, you need a smartphone or tablet supporting a dedicated application, PlayMemories Mobile, or a separately sold Live-View Remote.

• **Installing/how to use PlayMemories Mobile**
  See the following URL.
  http://www.sony.net/pmm/
  See also "Connecting to the smartphone" on this manual.

• **How to use Live-View Remote RM-LVR1 (sold separately)**
  See the instruction manual supplied with RM-LVR1 or the handbook (PDF).
  The instruction manual is released also on the website.
  ① Access the Sony support page.
    http://www.sony.net/SonyInfo/Support/
  ② Select your country or region.
  ③ Search and download [RM-LVR1] on Sony eSupport.

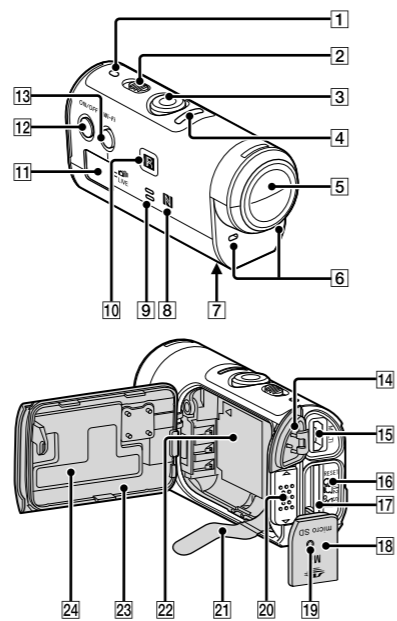© 2014 Sony Corporation Printed in China
http://www.sony.net/

4547916110

Checking the bundled items

Camera (1)
Micro USB cable (1)
Rechargeable battery pack (NP-BY1) (1)
Waterproof Case (SPK-AZ1) (1)
Attachment Buckle (1)
Flat Adhesive Mount (1)
Curved Adhesive Mount (1)
Tripod Adaptor (1)
Set of printed documentation

Parts and controls

1 POWER lamp/CHG (Charge) lamp
2 REC HOLD switch
3 REC (Movie/Photo) button
4 REC lamp/LIVE lamp
5 Lens
6 Microphones
7 Tripod adaptor attachment hole
8 N (N mark)
  NFC: Near Field Communication
9 Speaker
10 IR remote receiver
11 Display panel
12 ON/OFF button
13 Wi-Fi button
14 Connector cover (USB)
15 Multi/Micro USB terminal
  Supports Micro USB compatible devices.
16 RESET button
17 Memory card insertion slot
18 Memory card cover
19 REC/Access lamp
20 Battery cover lock lever
21 Battery ejection sheet
22 Battery storage area
23 Battery pack cover
24 SSID label

Getting Started
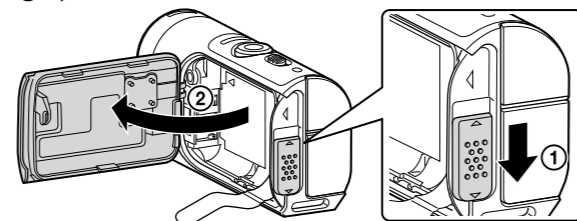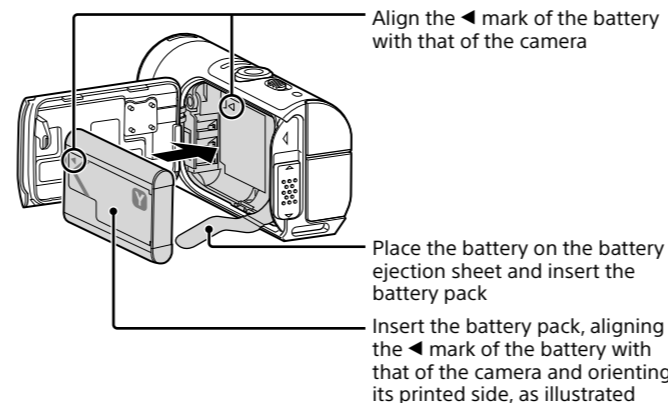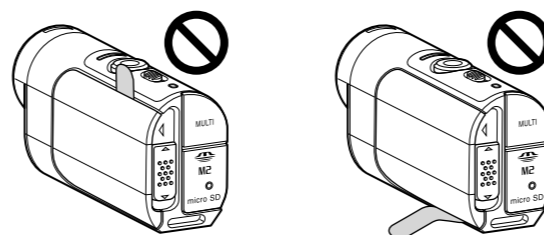
Charging the battery pack

1 Open the cover.
  ① Slide the lock lever to the OPEN side.
  ② Open the cover from ◄.

2 Insert the battery pack.

Align the ◄ mark of the battery with that of the camera

Place the battery on the battery ejection sheet and insert the battery pack

Insert the battery pack, aligning the ◄ mark of the battery with that of the camera and orienting its printed side, as illustrated

Securely close the cover and slide the lock lever to the LOCK position. Make sure that the yellow mark on the lock lever is not visible and the cover is securely closed. Double check that the battery ejection sheet is not pinched in the cover or sticking out of the cover. If any foreign matter such as sand gets inside the cover, the sealing gasket may be scratched, and may result in water entering the inside of the camera.
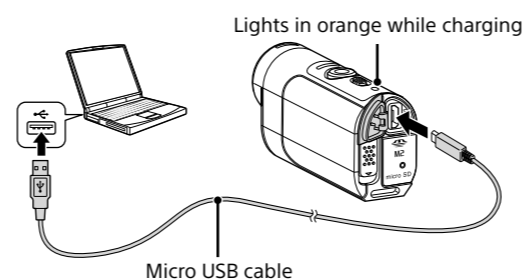
To close the cover, perform the operations in step 1 in opposite order. To eject the battery, pull the battery ejection sheet. There are chances that the battery may not be ejected if the battery ejection sheet is stored under the battery. Additionally, this may cause water leakage.
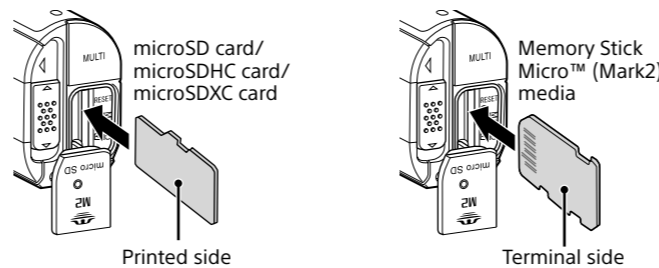
3 Check that the power of the camera is OFF.

To turn off the camera, press the ON/OFF button until the POWER lamp turns off.

4 Connect the camera to an activated computer with the micro USB cable (supplied).

Lights in orange while charging

Micro USB cable

Inserting a memory card

microSD card/
microSDHC card/
microSDXC card

Printed side

Memory Stick Micro™ (Mark2) media

Terminal side

Insert the memory card properly, confirming each side is facing the correct direction.
* Use an SDXC card faster than Class10 when recording movies in XAVC S.

Ⓧ Notes
• Make sure that the connector cover (USB), the memory card cover and the battery pack cover are securely closed and any foreign matters are not stuck in the cover before use. Otherwise, this may cause water leakage.

Recording

Attach accessories to the camera, as required.
For details on the bundled accessories, refer to the following.
http://rd1.sony.net/help/cam/1415/h_zz/

1 Press the ON/OFF button to power on.

2 Slide the REC HOLD switch and release REC HOLD.

If REC HOLD is released, proceed to step 3.

3 Press the REC button to start recording.
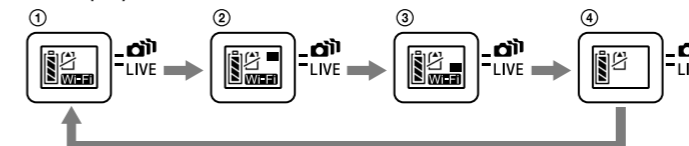
To stop recording
Press the REC button again.

Ⓧ Notes
• Images cannot be played on the camera. To play back images, you need a smartphone or tablet supporting a dedicated application, PlayMemories Mobile.
• The camera cannot play back audio.
• During periods of extended shooting, camera temperature may rise to a point where shooting stops automatically.
• The shooting mode setting is set to the Movie mode by default. Change the shooting settings by using the followings for PHOTO/INTVL recording. For more information about the operation, refer to the instruction manual on the website.
  – A separately sold Live-View Remote RM-LVR1 (Software version 2.00 or later)
  – A smartphone with PlayMemories Mobile installed

Wi-Fi setting

Press the Wi-Fi button to switch the Wi-Fi settings of the camera when connecting to a separately sold Live-View Remote or a smartphone.
• Press the Wi-Fi button of the camera to switch the screen indicator of the display panel as described below. Icons of available functions will be displayed.

① ② ③ ④

① Switch on the Wi-Fi (Single connection: default)
② Connect to multiple cameras (Multi connection)
③ Perform Live streaming (Live connection)
④ Switch off the Wi-Fi (OFF)

Connecting to a separately sold Live-View Remote

Refer to the operating guide of Live-View Remote as well.

Connecting Live-View Remote to the camera (Single connection)

1 Turn on the power of the camera to set the Wi-Fi settings to the single connection (default).

2 Turn on the power of Live-View Remote to set the network settings (connection mode) of the remote control to the single connection.

3 Select the SSID of the camera using Live-View Remote.

For details on operation, refer to the operating guide of Live-View Remote.

4 Press and hold the Wi-Fi button of the camera after you hear the camera beep.

After you hear the camera beep again. The camera images will be displayed in the LCD screen of Live-View Remote, the REC lamp of Live-View Remote lights up in blue.

Ⓧ Notes:
• A text string, with [DIRECT-] abbreviated from the SSID of the camera, will be displayed on the LCD screen of Live-View Remote.
• Check that the Wi-Fi setting has been set to the single connection when the SSID is not displayed.

Connecting Live-View Remote to multiple cameras (up to 5 cameras) (Multi connection)

1 Turn on the power of the cameras to set the Wi-Fi setting to the multi connection.

2 Turn on the power of Live-View Remote.

3 Set the network settings (connection mode) of Live-View Remote to the multi connection.

4 Display the camera registration screen on the LCD screen of Live-View Remote and shift to the registration standby mode.

For details on operation, refer to the operating guide of Live-View Remote.

5 Press and hold the Wi-Fi button of the camera.

After you hear the camera beep, the camera images will be displayed in the LCD screen of the remote control, and the REC lamp of Live-View Remote lights up in blue.
Repeat steps 3 to 5 to connect to the cameras continuously.

Ⓧ Notes:
• Register cameras before connection standby mode of the Live-View Remote is cancelled.
• The WPS method is used for connecting the Live-View Remote to multiple cameras. If there is another device using the WPS method in the vicinity of the cameras, the registration may fail. If the registration fails, reconnect by performing each step again.

Connecting to the smartphone

Installing PlayMemories Mobile™ on your smartphone

PlayMemories Mobile

Android OS
Search for PlayMemories Mobile on Google Play, then install it.

Google play

• When using One-touch functions (NFC), Android 4.0 or later is required.

iOS
Search for PlayMemories Mobile on App Store, then install it.

App Store

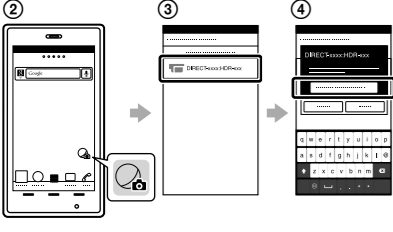• When using iOS, One-touch functions (NFC) are not available.

Ⓧ Notes
• Update PlayMemories Mobile to the latest version if you have already installed it on your smartphone.
• The Wi-Fi function described in this Operating Guide is not guaranteed to work with all smartphones and tablets.

- The operation methods and display screens for the application are subject to change without notice by future upgrades.
- For more information about PlayMemories Mobile, refer to the following website.
  (http://www.sony.net/pmm/)

Connecting

Android
① Turn on the power of this camera to set the Wi-Fi setting to the single connection (default).
② Start PlayMemories Mobile on the smartphone.
③ Select the SSID, as printed on the sticker attached to the back side of the battery pack cover.
④ Input the password on the same sticker (First time only).

②　　　③　　　④

Android (Supporting NFC)
Touch the 🅽 (N mark) of the smartphone against the 🅽 (N mark) of the camera.
When PlayMemories Mobile starts, settings are automatically applied to establish Wi-Fi connection.

iPhone
① Turn on the power of this camera to set the Wi-Fi setting to the single connection (default).
② Open [Settings] on the smartphone.
③ Select [Wi-Fi] on the smartphone.
④ Select the SSID, as printed on the sticker attached to the back side of the battery pack cover.
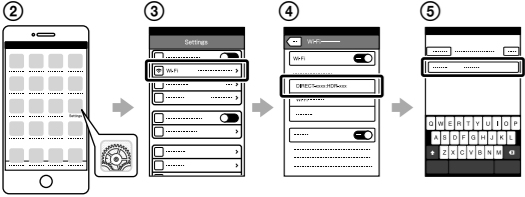⑤ Input the password on the same sticker (First time only).
⑥ Confirm that the SSID of the camera is displayed on the smartphone.
⑦ Return to the Home screen, then start PlayMemories Mobile.

②　　　③　　　④　　　⑤

Checking without a sticker
If the sticker is peeled off or becomes difficult to be read, you can recall your user ID and password by the following procedure.
① Insert a charged battery pack into the camera.
② Connect the camera to a computer with the micro USB cable (supplied).
③ Press the ON/OFF button to turn on the power.
④ Display [Computer] → [PMHOME] → [INFO] → [WIFI_INF.TXT] on your computer, then confirm your ID and password.

Live streaming
You can perform the live distribution of movies to an online video sharing site such as USTREAM by using a smartphone that can tether to a camera or a Wi-Fi router in the live connection.
For details on operation, refer to "Live streaming with the camera" in the instruction manual on the website.
http://rd1.sony.net/help/cam/1410/h_zz/

Note on using

Wi-Fi function
- Use the camera in accordance with the regulations of the area of use.
- You cannot use the Wi-Fi function of the camera underwater.

On operating temperatures
The camera is designed for use in temperatures between -5°C and 40°C (23°F and 104°F). Shooting in extremely cold or hot places that exceed this range is not recommended.

Notes on long-time recording
- Camera body and battery may get warm with use – this is normal.
- Avoid using the camera for a long time when holding the camera in your hand or when it is directly touching your skin. It is recommended that you use the supplied adhesive mounts or waterproof case, or optional mount accessories.
- Under high ambient temperatures, the temperature of the camera rises quickly.
- Leave the camera alone for 10 minutes or longer to allow the temperature inside the camera to decrease to a safe level.
- When the temperature of the camera rises, the image quality may deteriorate. It is recommended that you wait until the temperature of the camera drops before continuing to shoot images.

On the overheat protection
Depending on the camera and battery temperature, you may be unable to record movies or the power may turn off automatically to protect the camera. A message will be displayed on the screen of Live-View Remote before the power turns off or you can no longer record movies. In this case, leave the power off and wait until the camera and battery temperature goes down. If you turn on the power without letting the camera and battery cool enough, the power may turn off again or you may be unable to record movies.

About dust-proof and waterproof performance
- The camera is dust-proof and waterproof (Depth of water 5 m (16 feet), 30 minutes continuously).
  For the notes on use of the waterproof case, refer to the instruction manual on the web.

Note on optional accessories
Genuine Sony accessories may not be available in some countries/regions.

Security in the use of wireless LAN devices
- To avoid hacking, access by malicious third parties, and other vulnerabilities, confirm that the wireless LAN is always secure.
- It is very important to set up security on a wireless LAN.
- If a problem occurs due to inadequate security measures or due to foreseeable circumstances, Sony Corporation is not responsible for any resulting damage.

Note on wireless network function
- We assume no responsibility whatsoever for any damage caused by unauthorized access to, or unauthorized use of, destinations loaded on the camera, resulting from loss or theft.

Specifications
Signal format: HDTV
Power requirements: Rechargeable battery pack: 3.7 V (NP-BY1)
Multi/Micro USB terminal: 5.0 V
USB charging: DC 5.0 V, 500 mA
Rechargeable battery pack NP-BY1:
Maximum charge voltage: DC 4.2 V
Maximum charge current: 975 mA
Splash-proof: IPX4 (based on our tests)
Operating temperature: -5 °C to +40 °C (23 °F to 104 °F)
Storage temperature: -20 °C to +60 °C (-4 °F to +140 °F)
Dimensions (Approx.):
24.2 mm × 36.0 mm × 74.0 mm (31/32 in. × 1 7/16 in. × 3 in.) (W/H/D, excluding protrusions and excluding the supplied waterproof case)
Mass: Approx. 48 g (1.7 oz) (main body only)
Total weight in use: Approx. 63 g (2.2 oz) (including the battery pack, excluding the supplied waterproof case)

- This camera is splash-proof.
  The camera body has IPX4 splash-proof performance (based on our tests).
- Design and specifications are subject to change without notice for future upgrades.

On trademarks
- Memory Stick and ⛿ are trademarks or registered trademarks of Sony Corporation.
- Mac is a registered trademark of Apple Inc. in the United States and other countries.
- iOS is a registered trademark or trademark of Cisco Systems, Inc.
- Android and Google Play are trademarks of Google Inc.
- iPhone is a trademark or a registered trademark of Apple Inc.
- Wi-Fi, the Wi-Fi logo, Wi-Fi PROTECTED SET-UP are registered trademarks of the Wi-Fi Alliance.
- The N Mark is a trademark or registered trademark of NFC Forum, Inc. in the United States and in other countries.
- Adobe, the Adobe logo, and Adobe Acrobat are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.
- microSDXC logo is a trademark of SD-3C, LLC.

In addition, system and product names used in this manual are, in general, trademarks or registered trademarks of their respective developers or manufacturers. However, the ™ or ® marks may not be described in this manual.

WARNING

To reduce the risk of fire or electric shock,
1) do not expose the unit to rain or moisture.
2) do not place objects filled with liquids, such as vases, on the apparatus.

Do not expose the batteries to excessive heat such as sunshine, fire or the like.

CAUTION

Battery pack
If the battery pack is mishandled, the battery pack can burst, cause a fire or even chemical burns. Observe the following cautions.
- Do not disassemble.
- Do not crush and do not expose the battery pack to any shock or force such as hammering, dropping or stepping on it.
- Do not short circuit and do not allow metal objects to come into contact with the battery terminals.
- Do not expose to high temperature above 60°C (140°F) such as in direct sunlight or in a car parked in the sun.
- Do not incinerate or dispose of in fire.
- Do not handle damaged or leaking lithium ion batteries.
- Be sure to charge the battery pack using a genuine Sony battery charger or a device that can charge the battery pack.
- Keep the battery pack out of the reach of small children.
- Keep the battery pack dry.
- Replace only with the same or equivalent type recommended by Sony.
- Dispose of used battery packs promptly as described in the instructions.

AC Adaptor
Use the nearby wall outlet (wall socket) when using the AC Adaptor. Disconnect the AC Adaptor from the wall outlet (wall socket) immediately if any malfunction occurs while using the apparatus.

Battery charger
Even when the CHARGE lamp of this battery charger is off, the power is not disconnected. If any trouble occurs while this unit is in use, unplug it from the wall outlet (wall socket) to disconnect the power.

Even if your camera is turned off, AC power source (mains) is still supplied to it while connected to the wall outlet (wall socket) via the AC Adaptor.

For customers in the U.S.A. and CANADA

RECYCLING LITHIUM-ION BATTERIES

Lithium-Ion batteries are recyclable.
You can help preserve our environment by returning your used rechargeable batteries to the collection and recycling location nearest you.

For more information regarding recycling of rechargeable batteries, call toll free
1-800-822- 8837, or visit http://www.call2recycle.org/

Caution: Do not handle damaged or leaking Lithium-Ion batteries.

Battery pack
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAN ICES-3 B/NMB-3 B

This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the IC radio frequency (RF) Exposure rules.
This equipment has very low levels of RF energy that are deemed to comply without testing of specific absorption ratio (SAR).

For Customers in the USA

If you have any questions about this product, you may call:
Sony Customer Information Center
1-800-222-SONY (7669)
The number below is for the FCC related matters only.

Regulatory Information

Declaration of Conformity
Trade Name: SONY
Model No.: HDR-AZ1
Responsible Party: Sony Electronics Inc.
Address: 16530 Via Esprillo, San Diego, CA 92127 U.S.A.
Telephone No.: 858-942-2230

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment must not be co-located or operated in conjunction with any other antenna or transmitter.

CAUTION
You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Note
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

The supplied interface cable must be used with the equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

For Customers in Canada

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

For Customers in Europe

Notice for the customers in the countries applying EU Directives
Manufacturer: Sony Corporation, 1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan
For EU product compliance: Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany

CE

Hereby, Sony Corporation, declares that this equipment is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. For details, please access the following URL:
http://www.compliance.sony.de/

Notice
If static electricity or electromagnetism causes data transfer to discontinue midway (fail), restart the application or disconnect and connect the communication cable (USB, etc.) again.

This product has been tested and found compliant with the limits set out in the EMC regulation for using connection cables shorter than 3 meters (9.8 feet).

The electromagnetic fields at the specific frequencies may influence the picture and sound of this unit.

Disposal of waste batteries and electrical and electronic equipment(applicable in the European Union and other European countries with separate collection systems)
This symbol on the product, the battery or on the packaging indicates that the product and the battery shall not be treated as household waste. On certain batteries this symbol might be used in combination with a chemical symbol.
The chemical symbols for mercury (Hg) or lead (Pb) are added if the battery contains more than 0.0005% mercury or 0.004% lead. By ensuring these products and batteries are disposed of correctly, you will help prevent potentially negative consequences for the environment and human health which could otherwise be caused by inappropriate waste handling. The recycling of the materials will help to conserve natural resources.
In case of products that for safety, performance or data integrity reasons require a permanent connection with an incorporated battery, this battery should be replaced by qualified service staff only. To ensure that the battery and the electrical and electronic equipment will be treated properly, hand over these products at end-of-life to the applicable collection point for the recycling of electrical and electronic equipment. For all other batteries, please view the section on how to remove the battery from the product safely. Hand the battery over to the applicable collection point for the recycling of waste batteries. For more detailed information about recycling of this product or battery, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product or battery.

For Customers in Singapore

Complies with
IDA Standards
DB00353