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Digital Still Camera / Instruction Manual

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數位照相機 / 使用說明書

CT

## Cyber-shot



LITHIUM ION  TYPE



AVCHD

HDMI™  
HIGH DEFINITION MULTIMEDIA INTERFACE

### Learning more about the camera (“Cyber-shot User Guide”)



“Cyber-shot User Guide” is an on-line manual. Refer to it for in-depth instructions on the many functions of the camera.

- ① Access the Sony support page.  
<http://www.sony.net/SonyInfo/Support/>
- ② Select your country or region.
- ③ Search for the model name of your camera within the support page.
  - Check the model name on the bottom of your camera.

### Checking the supplied items

The number in parentheses indicates the number of pieces.

- Camera (1)
- Rechargeable battery pack NP-BN (1)  
(This rechargeable battery pack cannot be used with Cyber-shot that are supplied with the NP-BN1 battery pack.)
- Paint pen (1)
- Multi-use terminal USB cable (1)
- AC Adaptor AC-UB10/UB10B (1)
- Power cord (mains lead) (not supplied in the USA and Canada) (1)
- Wrist strap (1)
- Instruction Manual (this manual) (1)
- Notes on the water-proofing (1)

## Owner's Record

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

Model No. DSC-TX20

Serial No. \_\_\_\_\_

Model No. AC-UB10/AC-UB10B

Serial No. \_\_\_\_\_

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## WARNING

**To reduce fire or shock hazard, do not expose the unit to rain or moisture.**

# IMPORTANT SAFETY INSTRUCTIONS -SAVE THESE INSTRUCTIONS DANGER TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, CAREFULLY FOLLOW THESE INSTRUCTIONS

If the shape of the plug does not fit the power outlet, use an attachment plug adaptor of the proper configuration for the power outlet.

## 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

Connect the AC Adaptor to the nearest wall outlet (wall socket).

If some trouble occurs while using the AC Adaptor, immediately shut off the power by disconnecting the plug from the wall outlet (wall socket).

The power cord (mains lead), if supplied, is designed specifically for use with this camera only, and should not be used with other electrical equipment.

## 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.rbc.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.

This Class B digital apparatus complies with Canadian ICES-003.

## For Customers in the U.S.A.

UL is an internationally recognized safety organization.  
The UL Mark on the product means it has been UL Listed.

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.

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### Regulatory Information

#### Declaration of Conformity

Trade Name: SONY  
Model No.: DSC-TX20  
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.

### 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.

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## For Customers in Europe

### Notice for the customers in the countries applying EU Directives

The manufacturer of this product is Sony Corporation, 1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan. The Authorized Representative for EMC and product safety is Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany. For any service or guarantee matters please refer to the addresses given in separate service or guarantee documents.

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

### Attention

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

### 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.

### Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)



This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product,

please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

## **Disposal of waste batteries (applicable in the European Union and other European countries with separate collection systems)**



This symbol on the battery or on the packaging indicates that the battery provided with this product 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 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 of the battery. 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 will be treated properly, hand over the product 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.

## **Notice for customers in the United Kingdom**

A moulded plug complying with BS 1363 is fitted to this equipment for your safety and convenience.

Should the fuse in the plug supplied need to be replaced, a fuse of the same rating as the supplied one and approved by ASTA or BSI to BS 1362, (i.e., marked with an  or  mark) must be used.

If the plug supplied with this equipment has a detachable fuse cover, be sure to attach the fuse cover after you change the fuse. Never use the plug without the fuse cover. If you should lose the fuse cover, please contact your nearest Sony service station.

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## About water-proof, dust-proof, and shock-proof performance of the camera

This camera is equipped to be water-proof, dust-proof and shock-proof.

Damage caused from misuse, abuse or failure to properly maintain the camera is not covered by the limited warranty.

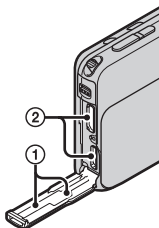
- This camera is water-proof/dust-proof equivalent to IEC60529 IP58. The camera is operable up to a water depth of 5 m for 60 minutes.
- Do not subject the camera to pressurized water, such as from a tap.
- Do not use in hot springs.
- Use the camera in the recommended operating water temperature range of  $-10^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$  ( $14^{\circ}\text{F}$  to  $104^{\circ}\text{F}$ ).
- Conforming to MIL-STD 810F Method 516.5-Shock standards, this product has passed testing when dropped from a height of 1.5 m above a 5-cm thick plywood board\*.

\* Depending on use conditions and circumstances, no guarantee is made regarding damage to, malfunction of, or the water-proof performance of this camera.

- As for dust-proof/shock-proof performance, there is no guarantee that the camera will not become scratched or dented.
- Sometimes water-proof performance is lost if the camera is subjected to a strong shock such as from being dropped. We recommend the camera be inspected at an authorized repair shop for a fee.
- Accessories supplied do not meet water-proof, dust-proof, and shock-proof specifications.

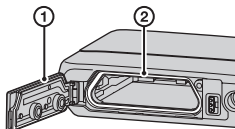
### Notes before using the camera under/near water

- Make sure that no foreign matter such as sand, hair, or dirt gets inside the battery/memory card cover or multi-connector cover. Even a small amount of foreign matter may lead to water entering the camera.






- Confirm that the sealing gasket and its mating surfaces have not become scratched. Even a small scratch may lead to water entering the camera. If the sealing gasket or its mating surfaces become scratched, take the camera to an authorized repair shop to have the sealing gasket replaced for a fee.
- If dirt or sand gets on the sealing gasket or its mating surfaces, wipe the area clean with a soft cloth that will not leave behind any fibers. Prevent the sealing gasket from becoming scratched by touching it while charging a battery or using a cable.
- Do not open/close the battery/memory card cover or multi-connector cover with wet or sandy hands or near water. There is a risk this will lead to sand or water getting inside. Before opening the cover, perform the procedure described in “Cleaning after using the camera under/near water”.
- Open the battery/memory card cover and multi-connector cover with the camera completely dry.
- Always confirm that the battery/memory card cover and multi-connector cover have been securely locked.



- ① Sealing gasket
- ② Surface contacting the sealing gasket

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### Notes on using the camera under/near water

- The touch panel may be activated by water splashes on the screen icons. When using the camera under/near water, it is recommended that you hide the icons by touching **DISP OFF** on the right side of the screen. Touch **DISP ON** for a few seconds to display the icons again.
- The touch panel cannot be operated underwater. Use the buttons of the camera to perform shooting operations.
- Do not subject the camera to shock such as from jumping into water.
- Do not open and close the battery/memory card cover or multi-connector cover while under/near water.
- Use a separately available housing (Marine Pack) if going more than 5 meters under water.
- This camera sinks in water. Place your hand through the wrist strap to prevent the camera from sinking.
- Faint, white, circular spots may appear in under-water flash photos due to reflections off of floating objects. This is not a malfunction.
- Select  (Underwater) in Scene Selection to shoot underwater with less distortion.
- If water drops or other foreign matter is present on the lens, you will be unable to record clear images.

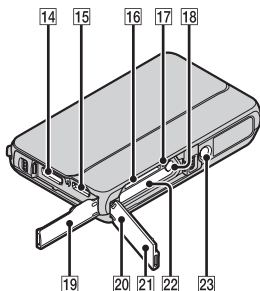
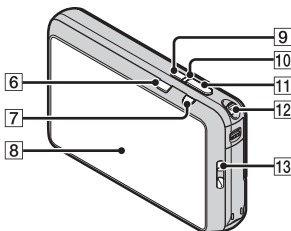
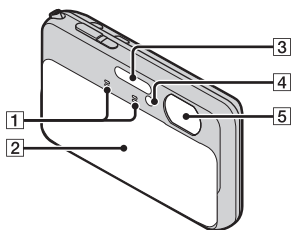
- Do not open the lens cover where the sand is whirling.

### **Cleaning after using the camera under/near water**

- Always clean the camera with water after use within 60 minutes, and do not open the battery/memory card cover or multi-connector cover before cleaning is finished. Sand or water may get inside places where it cannot be seen. If not rinsed, water-proof performance will be degraded.
- Allow the camera to sit in pure water poured into a cleaning bowl for about 5 minutes. Then, gently shake the camera, press each button, slide the zoom lever or the lens cover inside the water, to clean away any salt, sand or other matter lodged around the buttons or the lens cover.
- After rinsing, wipe away water drops with a soft cloth. Allow the camera to dry completely in a shady location with good ventilation. Do not blow dry with a hair dryer as there is a risk of deformation and/or degraded water-proof performance.
- Wipe away water drops or dust on the memory card/battery cover or terminal cover with a soft dry cloth.
- This camera is constructed to drain water. Water will drain from openings around the ON/OFF (Power) button, zoom lever, and other controls. After removing from water, place the camera on a dry cloth for a while to allow water to drain.
- Bubbles may appear when the camera is placed under water. This is not a malfunction.
- The camera body may become discolored if it comes in contact with sunscreen or suntan oil. If the camera does come in contact with sunscreen or suntan oil, quickly wipe it clean.
- Do not allow the camera to sit with salt water inside or on the surface. This may lead to corrosion or discoloration, and degradation of water-proof performance.
- To maintain the water-proof performance, we recommend that once a year you take the camera to your dealer, or to an authorized repair shop, to have the sealing gasket of the battery/memory card cover, or of the multi-connector cover replaced for a fee.



## Identifying parts



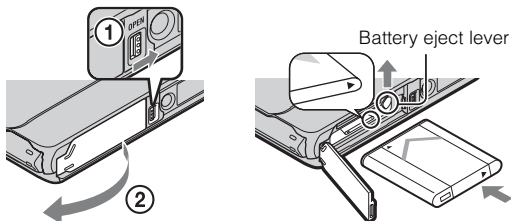
- 1 Microphone
- 2 Lens cover
- 3 Flash
- 4 Self-timer lamp/Smile Shutter lamp/AF illuminator
- 5 Lens

- 6 (Playback) button
- 7 MOVIE (Movie) button
- 8 LCD screen/Touch panel
- 9 ON/OFF (Power) button
- 10 Power/Charge lamp
- 11 Shutter button
- 12 W/T (Zoom) lever
- 13 Hook for wrist strap
- 14 HDMI mini jack
- 15 Multi connector (Type3b)
- 16 Memory card slot
- 17 Access lamp
- 18 Battery eject lever
- 19 Connector cover
- 20 Battery/memory card cover
- 21 (TransferJet™) mark
- 22 Battery insertion slot
- 23 Tripod receptacle

- Use a tripod with a screw less than 5.5 mm (7/32 inches) long. Otherwise, you cannot firmly secure the camera, and damage to the camera may occur.

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## Inserting the battery pack



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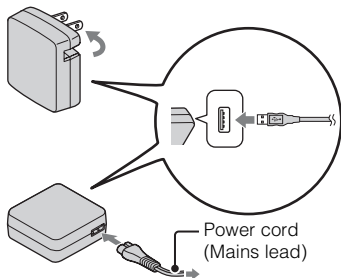
**1** Open the cover.

**2** Insert the battery pack.

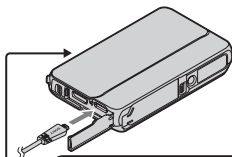
- Align the battery pack with the guide inside the battery insertion slot. Insert the battery pack until the battery eject lever locks into place.
  - Securely close the battery cover until you hear the slide lock on the cover catch in place and so that the yellow mark under the slide lock can no longer be seen.
  - Closing the cover with the battery inserted incorrectly may damage the camera.
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## Charging the battery pack

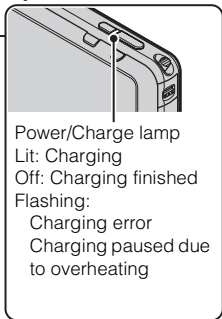
**For customers in the USA,  
Canada**



**For customers in countries/regions  
other than the USA and Canada**



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- 1 Open the connector cover and connect the camera and the AC Adaptor (supplied), using the multi-use terminal USB cable (supplied).
- 2 Connect the AC Adaptor to the wall outlet (wall socket).  
The Power/Charge lamp lights orange, and charging starts.
  - Turn off the camera while charging the battery.
  - You can charge the battery pack even when it is partially charged.
  - When the Power/Charge lamp flashes and charging is not finished, remove and re-insert the battery pack.

## Notes

- If the Power/Charge lamp on the camera flashes when the AC Adaptor is connected to the wall outlet (wall socket), this indicates that charging is temporarily stopped because the temperature is outside the recommended range. When the temperature gets back within the appropriate range, the charging resumes. We recommend charging the battery pack in an ambient temperature of between 10°C to 30°C (50°F to 86°F).
- The battery pack may not be effectively charged if the terminal section of the battery is dirty. In this case, wipe any dust off lightly using a soft cloth or a cotton swab to clean the terminal section of the battery.
- Connect the AC Adaptor (supplied) to the nearest wall outlet (wall socket). If malfunctions occur while using the AC Adaptor, disconnect the plug from the wall outlet (wall socket) immediately to disconnect from the power source.
- When charging is finished, disconnect the AC Adaptor from the wall outlet (wall socket).
- Be sure to use only genuine Sony brand battery packs, multi-use terminal USB cable (supplied) and AC Adaptor (supplied).
- BC-TRN2 battery charger (sold separately) is able to quick-charge the NP-BN rechargeable battery pack supplied with this model. BC-TRN battery charger (sold separately) is not able to quick-charge the NP-BN rechargeable battery pack supplied with this model.

## ■ Charging time (Full charge)

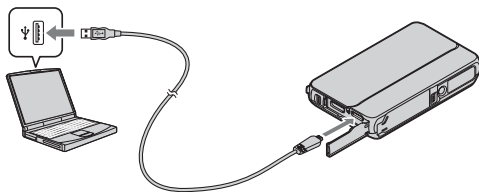
The charging time is approximately 115 min. using the AC Adaptor (supplied).

## Note

- The above charging time applies when charging a fully depleted battery pack at a temperature of 25°C (77°F). Charging may take longer depending on conditions of use and circumstances.

## ■ Charging by connecting to a computer

The battery pack can be charged by connecting the camera to a computer using a multi-use terminal USB cable.



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### Note

- Note the following points when charging via a computer:
  - If the camera is connected to a laptop computer that is not connected to a power source, the laptop battery level decreases. Do not charge for an extended period of time.
  - Do not turn on/off or restart the computer, or wake the computer to resume from sleep mode when a USB connection has been established between the computer and the camera. The camera may cause a malfunction. Before turning on/off, or restarting the computer or waking the computer from sleep mode, disconnect the camera and the computer.
  - No guarantees are made for charging using a custom-built computer or a modified computer.

## ■ Battery life and number of images that can be recorded and played back

	Battery life	Number of images
Shooting (still images)	Approx. 125 min.	Approx. 250 images
Viewing (still images)	Approx. 190 min.	Approx. 3800 images
Shooting (movies)	Approx. 60 min.	—

### Notes

- The above number of images applies when the battery pack is fully charged. The number of images may decrease depending on the conditions of use.
- The number of images that can be recorded is for shooting under the following conditions:
  - Using Sony “Memory Stick PRO Duo” (Mark2) media (sold separately)
  - The battery pack is used at an ambient temperature of 25°C (77°F).
- The number for “Shooting (still images)” is based on the CIPA standard, and is for shooting under the following conditions:  
(CIPA: Camera & Imaging Products Association)
  - [Panel Brightness] is set to [3(Normal)].
  - Shooting once every 30 seconds.
  - The zoom is switched alternately between the W and T ends.
  - The flash strobes once every two times.
  - The power turns on and off once every ten times.
- The battery life for movies applies shooting under the following conditions:
  - Movie quality: AVC HD HQ
  - When continuous shooting ends because of set limits (page 29), press the MOVIE (Movie) button again and continue shooting. Shooting functions such as the zoom do not operate.



## ■ Supplying power


The camera can be supplied with power from the wall outlet (wall socket) by connecting to the AC Adaptor, using the multi-use terminal USB cable (supplied).

You can import images to a computer without worrying about draining the battery pack by connecting the camera to a computer using the multi-use terminal USB cable.

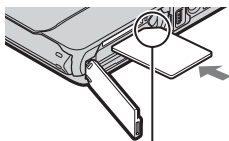
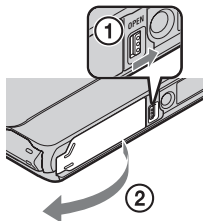
In addition, you can use the AC Adaptor AC-UD10 (sold separately) for shooting to supply power when shooting.

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### Notes

- Power cannot be supplied when the battery pack is not inserted in the camera.
- When the camera is connected directly to a computer or to a power outlet using the supplied AC Adaptor AC-UB10/UB10B, power supply is available only in playback mode. If the camera is in shooting mode or while you are changing the settings of the camera, power is not supplied even if you make a USB connection using the multi-use terminal USB cable.
- If you connect the camera and a computer using the multi-use terminal USB cable while the camera is in playback mode, the display on the camera will change from the playback screen to the USB connection screen. Press  (Playback) button to switch to the playback screen.

## Inserting a memory card (sold separately)



Note the notched corner faces correctly.

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**1** Open the cover.

**2** Insert the memory card (sold separately).

- With the notched corner facing as illustrated, insert the memory card until it clicks into place.

**3** Close the cover.

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## Memory cards that can be used

	Memory card	For still images	For movies
<b>A</b>	Memory Stick PRO Duo	○	○ (Mark2 only)
	Memory Stick PRO-HG Duo	○	○
	Memory Stick Duo	○	—
<b>B</b>	Memory Stick Micro (M2)	○	○ (Mark2 only)
<b>C</b>	SD memory card	○	○ (Class 4 or faster)
	SDHC memory card	○	○ (Class 4 or faster)
	SDXC memory card	○	○ (Class 4 or faster)
<b>D</b>	microSD memory card	○	○ (Class 4 or faster)
	microSDHC memory card	○	○ (Class 4 or faster)

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- In this manual, the products in the table are collectively referred to as follows:  
 A: “Memory Stick Duo” media  
 B: “Memory Stick Micro” media  
 C: SD card  
 D: microSD memory card

### Note

- When using “Memory Stick Micro” media or microSD memory cards with this camera, make sure to use with the appropriate adaptor.

## To remove the memory card/battery pack

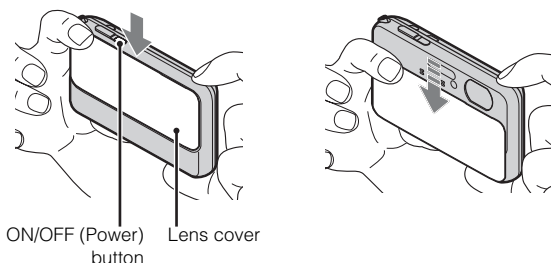
Memory card: Push the memory card in once to eject the memory card.

Battery pack: Slide the battery eject lever. Be sure not to drop the battery pack.

### Note

- Never remove the memory card/battery pack when the access lamp (page 11) is lit. This may cause damage to data in the memory card/internal memory.

## Setting the clock



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### 1 Lower the lens cover.

The camera is turned on. The power lamp lights up green only when the camera starts up.

Date & Time setting is displayed when you turn on the camera for the first time.

- You can also turn on the camera by pressing the ON/OFF (Power) button.
- It may take time for the power to turn on and allow operation.

### 2 Select a desired language.

### 3 Select a desired geographic location by following the on-screen instructions, then touch [Next].

### 4 Set [Daylight Savings] or [Summer Time], [Date & Time Format] and [Date & Time], then touch [Next].

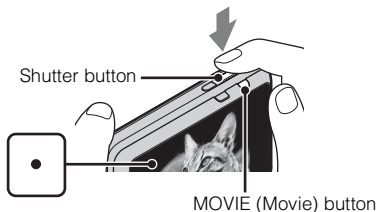
- Midnight is indicated as 12:00 AM, and noon as 12:00 PM.

### 5 Touch [OK].

### 6 Follow the instructions on the screen.

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## Shooting still images/movies



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### Shooting still images

- 1 Press the shutter button halfway down to focus.  
When the image is in focus, a beep sounds and the ● indicator lights.
- 2 Press the shutter button fully down to shoot an image.

### Shooting movies

- 1 Press the MOVIE (Movie) button to start recording.
  - Use the W/T (zoom) lever to change the zoom scale.
- 2 Press the MOVIE button again to stop recording.

#### Notes

- The sound of the lever operating will be recorded when the zoom function operates while shooting a movie. The sound of the MOVIE button operating may also be recorded when movie recording is finished.
- Continuous shooting is possible for approximately 29 minutes at one time at the camera's default settings and when the temperature is approximately 25°C (77°F). When movie recording is finished, you can restart recording by pressing the MOVIE button again. Recording may stop to protect the camera depending on the ambient temperature.

## Viewing images



▶ (Playback)



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### 1 Press the ▶ (Playback) button.

- When images on a memory card recorded with other cameras are played back on this camera, the registration screen for the data file appears.

### ■ Selecting next/previous image

Touch ▶| (Next)/|◀ (Previous) on the screen.

- To play back movies, touch ◀▶ (Playback) in the center of the screen.
- To zoom in, move the W/T (zoom) lever to the T side.

### ■ Deleting an image

Touch 🗑️ (Delete) → [This Image].

### ■ Returning to shooting images

Touch 📷 on the screen.

- You can also return to shooting mode by pressing the shutter button halfway down.

## In-Camera Guide

This camera is equipped with a built-in instruction guide. This allows you to search the camera's functions according to your needs.



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### 1 Touch ? (In-Camera Guide).

- The ? mark will appear on the bottom left of the screen while viewing.

### 2 Select a search method from [In-Camera Guide].

Shoot/ playback guide: Search for various operation functions in shooting/viewing mode.

Icon guide: Search the function and meaning of displayed icons.

Troubleshooting: Search common problems and their solution.

Operation Guide: Search functions according to your needs.

Keyword: Search functions by keywords.

History: View the last 10 items displayed in [In-Camera Guide].

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## Introduction of other functions

Other functions used when shooting or playing back can be operated touching the MENU on the screen. This camera is equipped with a Function Guide that allows you to easily select from the functions. While displaying the guide, you can use various functions.



## Menu Items

### Shooting

Movie shooting scene	Select movie recording mode.
Easy Mode	Shoot still images using minimal functions.
Flash	Sets the flash settings.
Self-Timer	Sets the self-timer settings.
Defocus Effect	Set the level of background defocus effect when shooting in Background Defocus mode.
Still Image Size(Dual Rec)	Set the still image size shot while recording a movie.
Still Image Size/ Panorama Image Size/Movie Size/ Movie Quality	Select the image size and the quality for still images, panoramic images or movie files.
Cont. Shooting Settings	Sets the burst shooting settings.
Macro	Shoots beautiful close-up images of small subjects.
HDR Painting effect	When [HDR Painting] is selected in Picture Effect, sets the effect level.
Area of emphasis	When [Miniature] is selected in Picture Effect, sets the part to focus on.









Color hue	When [Toy camera] is selected in Picture Effect, sets the color hue.
Extracted Color	When [Partial Color] is selected in Picture Effect, selects the color to extract.
EV	Adjust the exposure manually.
ISO	Adjust the luminous sensitivity.
White Balance	Adjust color tones of an image.
Underwater White Balance	Adjust color tones when shooting underwater.
Focus	Select the focus method.
Metering Mode	Select the metering mode that sets which part of the subject to measure to determine the exposure.
Scene Recognition	Set to automatically detect shooting conditions.
Soft Skin Effect	Set the Soft Skin Effect and the effect level.
Smile Shutter	Set to automatically release the shutter when a smile is detected.
Smile Detection Sensitivity	Set the Smile Shutter function sensitivity for detecting smiles.
Face Detection	Select to detect faces and adjust various settings automatically.
Anti Blink	Set to automatically shoot two images and select image in which the eyes are not blinking.
Movie SteadyShot	Set the strength of SteadyShot in movie mode. If you change this setting, the angle of view will change.
In-Camera Guide	Search the camera's functions according to your needs.


## Viewing

Easy Mode	Increase the text size on the screen for ease of use.
Date Select	Selects the desired image to view by date.
Calendar	Selects the date to be played back on Calendar.
Image Index	Displays multiple images at the same time.
Slideshow	Select a method of continuous playback.
Delete	Delete an image.
Send by TransferJet	Transfer data by closely aligning two products equipped with TransferJet.
Paint	Paints on a still image and saves it as a new file.
Retouch	Retouch an image using various effects.
3D Viewing	Set to play back images shot in 3D mode on a 3D TV.
View Mode	Select the display format for images.
Display Cont. Shooting Group	Select to display burst images in groups or display all images during playback.
Protect	Protect the images.
Print (DPOF)	Add a print order mark to a still image.
Rotate	Rotate a still image to the left.
Volume	Adjusts the volume.
Exposure data	Sets whether or not to display the shooting data (Exif data) of the currently displayed file on the screen.
Number of images in index	Sets the number of images displayed in the index screen.
In-Camera Guide	Search the camera's functions according to your needs.

## Setting items

If you touch the MENU while shooting or during playback,  (Settings) is provided as a final selection. You can change the default settings on the  (Settings) screen.

 Shooting Settings	Movie format/AF Illuminator/Grid Line/Clear Image Zoom/Digital Zoom/Wind Noise Reduct./Scene Recog. Guide/Red Eye Reduction/Blink Alert/Write Date
 Main Settings	Beep/Panel Brightness/Language Setting/Display color/Demo Mode/Initialize/CTRL FOR HDMI/Housing/USB Connect Setting/USB Power Supply/LUN Setting/Download Music/Empty Music/TransferJet/Eye-Fi/Power Save/Version
 Memory Card Tool*	Format/Create REC.Folder/Change REC.Folder/Delete REC.Folder/Copy/File Number
 Clock Settings	Area Setting/Date & Time Setting

\* If a memory card is not inserted,  (Internal Memory Tool) will be displayed and only [Format] can be selected.

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## Install PC application (Windows)

The built-in software “PlayMemories Home” allows you to import still images and movies to your computer and use them.

You can shoot or play back images on this camera even if you do not install “PlayMemories Home”, however, “PlayMemories Home” is required to import AVCHD movies to your computer.

- 
- 1 Connect the camera to a computer.
  - 2 Windows 7: [Computer] → camera icon → media icon → Double-click [PMHOME.EXE]  
Windows XP/Vista: [Computer] (in Windows XP, [My Computer]) → [PMHOME] → Double-click [PMHOME.EXE]
  - 3 Follow the instructions on the screen to complete the installation.
- 

### Note

- “PlayMemories Home” is not compatible to Mac OS. If you play back images on a Mac, use the applications that are installed on your Mac.  
For details, see <http://www.sony.co.jp/imsoft/Mac/>

## ■ Features of “PlayMemories Home”

Below are examples of the functions available when you use “PlayMemories Home”. To take advantage of the various “PlayMemories Home” functions, connect to the Internet and install the “Expanded Feature”.

- You can import images shot with the camera to a computer and display them.
- You can display images stored on a computer by shooting date in a calendar display.
- You can correct (Red Eye Correction, etc.) still images, print the images, send images by e-mail, and change the shooting date and time.
- You can save and print images with the date.
- You can create a disc from AVCHD movies imported to a computer.  
(Expanded Feature)

## Number of still images and recordable time of movies

The number of still images and recordable time may vary depending on the shooting conditions and the memory card.

### Still images

(Units: Images) GB

Size \ Capacity	Internal memory	Memory card
	Approx. 19 MB	2 GB
16M	3	335
VGA	98	9600
16:9(12M)	3	355

### Movies

The table below shows the approximate maximum recording times. These are the total times for all movie files. Continuous shooting is possible for approximately 29 minutes. The maximum size of an MP4-format movie file is up to approximately 2 GB.

(h (hour), m (minute))

Size \ Capacity	Internal memory	Memory card
	Approx. 19 MB	2 GB
AVC HD 24M (FX)	—	10 m (10 m)
AVC HD 9M (HQ)	—	25 m (15 m)
MP4 12M	—	15 m
MP4 3M	—	1 h 10 m

The number in ( ) is the minimum recordable time.


- The recordable time of movies varies because the camera is equipped with VBR (Variable Bit Rate), which automatically adjusts image quality depending on the shooting scene. When you record a fast-moving subject, the image is clearer but the recordable time is shorter because more memory is required for recording. The recordable time also varies depending on the shooting conditions, the subject or the image quality/size settings.

## Notes on using the camera

### Functions built into this camera

- This manual describes each of the functions of TransferJet compatible/incompatible devices, 1080 60i-compatible devices and 1080 50i-compatible devices.

To check if your camera supports the TransferJet function, and whether it is a 1080 60i-compatible device or 1080 50i-compatible device, check for the following marks on the bottom of the camera.

TransferJet-compatible device:  (TransferJet)

1080 60i-compatible device: 60i

1080 50i-compatible device: 50i

- Do not watch 3D images shot with this camera for extended periods of time on 3D-compatible monitors.
- When you view 3D images shot with this camera on a 3D-compatible monitors, you may experience discomfort in the form of eye strain, fatigue, or nausea. To prevent these symptoms, we recommend that you take regular breaks. However, you need to determine for yourself the length and frequency of breaks you require, as they vary according to the individual. If you experience any type of discomfort, stop viewing the 3D images until you feel better, and consult a physician as necessary. Also refer to the operating instructions supplied with the device or software you have connected or are using with this camera. Note that a child's eyesight is still at the development stage (particularly children below the age of 6). Consult a pediatrician or ophthalmologist before letting your child view 3D images, and make sure he/she observes the above precautions when viewing such images.

### On use and care

Avoid rough handling, disassembling, modifying, physical shock, or impact such as hammering, dropping, or stepping on the product. Be particularly careful of the lens.

### Notes on recording/playback

- Before you start recording, make a trial recording to make sure that the camera is working correctly.
- Do not aim the camera at the sun or other bright light. It may cause the malfunction of the camera.
- If moisture condensation occurs, remove it before using the camera.
- Do not shake or strike the camera. It may cause a malfunction and you may not be able to record images. Furthermore, the recording media may become unusable or image data may be damaged.

## **Do not use/store the camera in the following places**

- In an extremely hot, cold or humid place  
In places such as in a car parked in the sun, the camera body may become deformed and this may cause a malfunction.
- Under direct sunlight or near a heater  
The camera body may become discolored or deformed, and this may cause a malfunction.
- In a location subject to rocking vibration
- Near a location that generates strong radio waves, emits radiation or is strongly magnetic place. Otherwise, the camera may not properly record or play back images.

## **On carrying**

Do not sit down in a chair or other place with the camera in the back pocket of your trousers or skirt, as this may cause malfunction or damage the camera.

## **Carl Zeiss lens**

The camera is equipped with a Carl Zeiss lens which is capable of reproducing sharp images with excellent contrast. The lens for the camera has been produced under a quality assurance system certified by Carl Zeiss in accordance with the quality standards of Carl Zeiss in Germany.

## **Notes on the screen**

The screen is manufactured using extremely high-precision technology so over 99.99% of the pixels are operational for effective use. However, some tiny black and/or bright dots (white, red, blue or green) may appear on the screen. These dots are a normal result of the manufacturing process, and do not affect the recording.

## **On camera's temperature**

Your camera and battery may get hot due to continuous use, but it is not a malfunction.

## **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 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.

## **On charging the battery**

If you charge a battery that has not been used for a long time, you may be unable to charge it to the proper capacity.

This is due to the battery characteristics, and is not a malfunction. Charge the battery again.

### **Warning on copyright**

Television programs, films, videotapes, and other materials may be copyrighted. Unauthorized recording of such materials may be contrary to the provisions of the copyright laws.

### **No compensation for damaged content or recording failure**

Sony cannot compensate for failure to record or loss or damage of recorded content due to a malfunction of the camera or recording media, etc.

### **Cleaning the camera surface**

Clean the camera surface with a soft cloth slightly moistened with water, then wipe the surface with a dry cloth. To prevent damage to the finish or casing:

- Do not expose the camera to chemical products such as thinner, benzine, alcohol, disposable cloths, insect repellent, sunscreen or insecticide.



# Specifications

## Camera

### [System]

Image device: 7.77 mm (1/2.3 type)

Exmor R CMOS sensor

Total pixel number of camera:

Approx. 16.8 Megapixels

Effective pixel number of camera:

Approx. 16.2 Megapixels

Lens: Carl Zeiss Vario-Tessar 4× zoom lens

f = 4.43 mm – 17.7 mm (25 mm – 100 mm (35 mm film equivalent))

F3.5 (W) – F4.6 (T)

While shooting movies (16:9):

27 mm – 108 mm\*

While shooting movies (4:3):

33 mm – 132 mm\*

\* When [Movie SteadyShot] is set to [Standard]

SteadyShot: Optical

Exposure control: Automatic exposure, Scene Selection (16 modes)

White balance: Automatic, Daylight, Cloudy, Fluorescent 1/2/3, Incandescent, Flash, One Push, Underwater 1/2

Signal format:

For 1080 50i: PAL color, CCIR standards HDTV 1080/50i specification

For 1080 60i: NTSC color, EIA standards HDTV 1080/60i specification

File format:

Still images: JPEG (DCF, Exif, MPF Baseline) compliant, DPOF compatible

3D still images: MPO (MPF Extended (Disparity Image)) compliant

Movies (AVCHD format): AVCHD format Ver. 2.0 compatible

Video: MPEG-4 AVC/H.264

Audio: Dolby Digital 2ch, equipped with Dolby Digital Stereo Creator

- Manufactured under license from Dolby Laboratories.

Movies (MP4 format):

Video: MPEG-4 AVC/H.264

Audio: MPEG-4 AAC-LC 2ch

Recording media: Internal Memory (Approx. 19 MB), “Memory Stick Duo” media, “Memory Stick Micro” media, SD cards, microSD memory cards

Flash: Flash range (ISO sensitivity (Recommended Exposure Index) set to Auto):

Approx. 0.08 m to 3.7 m

(3 1/4 inches to 12 feet 1 3/4 inches) (W)

Approx. 0.5 m to 2.7 m (1 foot 7 3/4 inches to 8 feet 10 3/8 inches) (T)

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### **[Input and Output connectors]**

HDMI connector: HDMI mini jack

Multi connector: Type3b

(AV-out/USB/DC-in)

Video output

Audio output

USB communication

USB communication:

Hi-Speed USB (USB 2.0)

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### **[Screen]**

LCD screen:

Wide (16:9), 7.5 cm (3.0 type) TFT  
drive

Total number of dots: 921 600 dots

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### **[Power, general]**

Power: Rechargeable battery pack

NP-BN, 3.6 V

AC Adaptor AC-UB10/UB10B,  
5 V

Power consumption (during shooting):

1.0 W

Operating temperature:

-10 °C to +40 °C (14 °F to 104 °F)

Storage temperature: -20 °C to +60 °C

(-4 °F to +140 °F)

Dimensions (CIPA compliant):

95.9 mm × 56.2 mm × 17.9 mm

(3 7/8 inches × 2 1/4 inches ×

23/32 inches) (W/H/D)

Mass (CIPA compliant) (including NP-

BN battery pack, "Memory Stick  
Duo" media):

Approx. 133 g (4.7 oz)

Microphone: Stereo

Speaker: Monaural

Exif Print: Compatible

PRINT Image Matching III:

Compatible

Water-proof/dust-proof performance:

Equivalent to IEC60529 IP58 (The  
camera is operable up to a water  
depth of 5 m for 60 minutes.)

Shock-proof performance:

Conforming to MIL-STD 810F

Method 516.5-Shock standards,

this product has passed testing

when dropped from a height of

1.5 m above a 5-cm thick plywood  
board.

Water-proof, dust-proof, and shock-

proof performance is based on standard  
testing by Sony.

### **AC Adaptor AC-UB10/UB10B**

Power requirements: AC 100 V to

240 V, 50 Hz/60 Hz, 70 mA

Output voltage: DC 5 V, 0.5 A

Operating temperature: 0 °C to 40 °C

(32 °F to 104 °F)

Storage temperature: -20 °C to +60 °C

(-4 °F to +140 °F)

Dimensions:

Approx. 50 mm × 22 mm × 54 mm

(2 inches × 7/8 inches ×

2 1/4 inches) (W/H/D)

Mass:

For the USA and Canada:

Approx. 48 g (1.7 oz)

For countries or regions other than  
the USA and Canada:


Approx. 43 g (1.5 oz)

## Rechargeable battery pack NP-BN

Used battery: Lithium-ion battery  
Maximum voltage: DC 4.2 V  
Nominal voltage: DC 3.6 V  
Maximum charge voltage: DC 4.2 V  
Maximum charge current: 0.9 A  
Capacity:  
    typical: 2.3 Wh (630 mAh)  
    minimum: 2.2 Wh (600 mAh)

Design and specifications are subject to change without notice.

## Trademarks

- The following marks are trademarks of Sony Corporation.  
**Cyber-shot**, "Cyber-shot,"  
"Memory Stick PRO Duo,"  
"Memory Stick PRO-HG Duo,"  
"Memory Stick Duo," "Memory Stick Micro"
- "AVCHD" and "AVCHD" logotype are trademarks of Panasonic Corporation and Sony Corporation.
- Windows is registered trademark of Microsoft Corporation in the United States and/or other countries.
- Mac is registered trademark of Apple Inc.
- SDXC logo is a trademark of SD-3C, LLC.
- " " and "PlayStation" are registered trademarks of Sony Computer Entertainment Inc.
- 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 <sup>TM</sup> or ® marks are not used in all cases in this manual.



- Add further enjoyment with your PlayStation 3 by downloading the application for PlayStation 3 from PlayStation Store (where available.)
- The application for PlayStation 3 requires PlayStation Network account and application download. Accessible in areas where the PlayStation Store is available.

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Additional information on this product and answers to frequently asked questions can be found at our Customer Support Website.

<http://www.sony.net/>

Printed on 70% or more recycled paper using VOC (Volatile Organic Compound)-free vegetable oil based ink.

### 關於相機的詳細資訊（“Cyber-shot 使用者指南”）



“Cyber-shot 使用者指南”是線上使用說明書。關於相機各種功能的深入使用說明，請參考此書。

- ① 進入 Sony 服務網頁。  
<http://www.sony.net/SonyInfo/Support/>
- ② 選擇您的國家與地區。
- ③ 搜尋服務網頁內您相機的型號名稱。
  - 查看您相機底部的型號名稱。

### 檢查附件

括號中的數字代表的是件數。

- 相機（1）
- 充電電池 NP-BN（1）  
（這個充電電池不能用於附有 NP-BN1 電池的 Cyber-shot。）
- 畫筆（1）
- 多功能端子 USB 電纜（1）
- 電源適配器 AC-UB10/UB10B（1）
- 電源線（美加地區非附件）（1）
- 腕帶（1）
- 使用說明書（本說明書）（1）
- 關於防水的注意事項（1）

## 警告

為減少發生火災或電擊的危險，請勿讓本機暴露於雨中或受潮。

## 重要的安全指示

### —請保存這些指示危險

為了降低火災或電擊的危險，請小心遵守這些指示

如果插頭的形狀與電源插座不合，請使用適合電源插座的插頭轉接頭。

CT

## 注意

### 電池組

如果電池組處理不當，電池組可能會爆炸，造成火災，甚至化學灼傷。請遵循以下注意事項。

- 切勿拆解。
- 切勿擠壓，撞擊電池組或對電池組用力過度，如敲擊，跌落或踩踏在電池組上。
- 切勿短路或讓金屬物品接觸到電池端子。
- 切勿暴露在超過 60 °C 的高溫下，例如直射陽光下，或停在太陽下的汽車內。
- 切勿焚化或丟棄在火中。
- 切勿處理損壞或洩漏的鋰離子電池。
- 務必使用 Sony 原廠的充電器或可對電池組充電的裝置來為電池組充電。
- 電池組應放在幼兒不易觸及的地方。
- 使電池組保持乾燥。
- 請僅使用與 Sony 建議的相同或相等的電池類型進行更換。
- 請依照說明書中的說明正確丟棄舊電池組。

### 電源適配器

將電源適配器連接到附近的牆上電源插座。如果使用電源適配器時發生某些問題，請立即中斷插頭與牆上電源插座的連接，以關閉電源。

如果附帶電源線，則該電源線專為本相機設計，不能用於其他電子設備。

## 注意

本產品已經過測試並確定符合 EMC 規定中所提出的使用連接電纜不得超過 3 公尺的限制。

## 注意

特定頻率的電磁場可能會影響此機的畫面和聲音。

## 通知

如果靜電或電磁導致資料傳送中斷（失敗），請重新啟動應用程式或斷開連接，並重新連接通信電纜（USB 等）。

僅適用於台灣



廢電池請回收

附屬電纜上附有鐵芯時的注意事項：USB 電纜或 A/V 連接電纜或電源適配器之 DC 輸出線上的一個鐵芯係抑制電磁波干擾用，請勿任意拆卸。

## 關於本相機的防水、防塵與防震效能

本相機的配備能夠防水、防塵與防震。因為誤用、濫用或未能正確保養相機所造成的損壞不在有限保固範圍內。

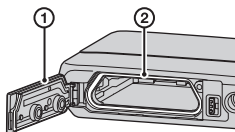
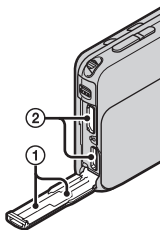
- 本相機的防水/防塵能力相當於 IEC60529 IP58 標準。相機可以在 5 公尺深的水中操作 60 分鐘。
- 請勿讓相機承受加壓的水，例如來自水龍頭的水。
- 請不要在溫泉中使用。
- 請在  $-10^{\circ}\text{C}$  至  $40^{\circ}\text{C}$  之建議操作水溫範圍內使用相機。
- 符合 MIL-STD 810F Method 516.5-Shock 標準，本產品已經通過從 5 公分厚的三夾板上方 1.5 公尺高處掉落的測試\*。

\* 視使用情況和環境而定，對於本相機的損壞、故障或防水效能不提供保證。 CT

- 至於防塵 / 防震的效能，並不保證相機不會有刮傷或者產生凹痕。
- 有時候，相機因為受到掉落之類的強烈震動而失去防水效能。建議到經過授權的維修店去付費檢查相機。
- 隨附的零配件不符合防水、防塵和防震規格。

### 在水底 / 水邊使用相機前的注意事項

- 確認沒有沙子、毛髮、或灰塵之類的異物進入電池 / 記憶卡蓋或多功能接頭蓋內。即使少量異物也可能導致水分進入相機內。
- 請確認密封墊圈及其對應表面沒有刮傷。即使微小的刮傷也可能導致相機進水。如果密封墊圈或其對應表面有刮傷，請將相機帶到經過授權的維修店付費更換密封墊圈。
- 如果密封墊圈或其對應表面上有灰塵或沙子，請用不會留下任何纖維的軟布將其擦乾淨。為電池充電或者使用電纜時，要避免觸及密封墊片以免將其刮壞。
- 請不要用濕手或沾了泥沙的手打開 / 關閉電池 / 記憶卡蓋或多功能接頭蓋，或者在水邊做這些事情。這樣會有讓沙子或水進入內部的風險。打開蓋子之前，要進行“在水底 / 水邊使用相機之後的清潔工作”中描述的程序。
- 請在相機完全乾燥時打開電池 / 記憶卡蓋以及多功能接頭蓋。
- 隨時都要確認電池 / 記憶卡蓋或多功能接頭蓋已經牢牢地鎖住。



① 密封墊圈

② 接觸密封墊圈的表面

## 關於在水底 / 水邊使用相機的注意事項

- 觸控面板可能因為噴濺在螢幕圖示上的水而被啟用。在水底 / 水邊使用相機時，建議觸摸螢幕右邊的 $\text{DISP}_{\text{OFF}}$ 以隱藏圖示。觸摸 $\text{DISP}_{\text{ON}}$ 幾秒鐘以便再度顯示圖示。
- 觸控面板不能在水底操作。請用相機的按鈕進行拍攝操作。
- 請不要讓相機受到衝擊，例如跳入水中。
- 請不要在水底 / 水邊打開和關閉電池 / 記憶卡蓋或多功能接頭蓋。
- 如果要到水下 5 公尺以上的地方，請使用可以另購的防水盒（水底攝影套件）。
- 本相機會沉入水中。請將您的手穿過手腕帶，以免相機沉入水中。
- 由於反映漂浮物體的緣故，用閃光燈在水底拍攝的相片可能會出現微弱的白色圓點。這不是故障。
- 選擇場景選擇中的 $\text{魚}$ （水底）以較少的失真進行水底攝影。
- 如果鏡頭上有水滴或其他異物，將無法記錄清晰的影像。
- 請勿在風沙卷動的地方打開鏡頭蓋。

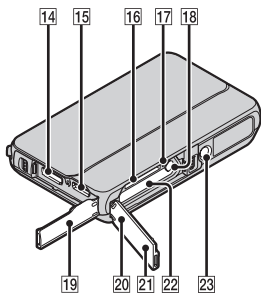
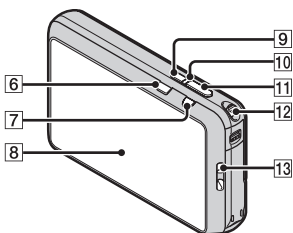
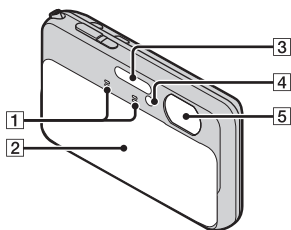
## 在水底 / 水邊使用相機之後的清潔工作

- 相機用過之後，一定要在 60 分鐘內用水清洗，而且不要在清洗完成之前打開電池 / 記憶卡蓋或者多功能接頭的蓋子。沙子或水可能會進入看不到的地方。如果沒有洗乾淨，防水效能會變差。
- 將相機放在裝有純水的清洗盆中約 5 分鐘。然後在水中輕輕搖動相機，按每一個按鈕，推動變焦桿或鏡頭蓋，以便將所有卡在按鈕或鏡頭蓋周邊的鹽分、沙子或其他東西清洗掉。
- 洗乾淨之後，用柔軟的布將水珠擦掉。將相機放在通風良好的陰涼地方乾透。請不要用吹風機吹乾，因為可能有變形和 / 或防水效能變差的風險。
- 用柔軟的乾布將記憶卡 / 電池蓋或端子蓋上的水滴或灰塵擦掉。
- 本相機的構造可以將水排掉。水會從 ON/OFF（電源）按鈕、變焦桿和其他控制器周邊的開口處排掉。從水中取出來之後，要將相機擺在乾布上一會兒讓水排掉。
- 相機放進水底時可能會冒出泡泡。這不是故障。
- 相機本體如果接觸到遮光劑或防曬油可能會褪色。萬一相機接觸到遮光劑或防曬油，請趕快擦乾淨。
- 請不要讓鹽水停留在相機內部或表面。那樣可能會造成腐蝕或褪色，而且防水效能會變差。
- 為了保持防水效能，建議每年將相機送到經銷商或經過授權的維修店去付費更換電池 / 記憶卡蓋或多功能接頭蓋的密封墊片一次。





## 認識各部件

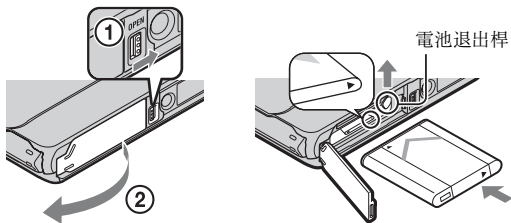


- 1 麥克風
- 2 鏡頭蓋
- 3 閃光燈
- 4 自拍定時器指示燈 / 微笑快門指示燈 / AF 照明器
- 5 鏡頭
- 6 ▶ (播放) 按鈕
- 7 MOVIE (動態影像) 按鈕
- 8 LCD 螢幕 / 觸控面板
- 9 ON/OFF (電源) 按鈕
- 10 電源 / 充電指示燈
- 11 快門按鈕
- 12 W/T (變焦) 桿
- 13 腕帶用掛勾
- 14 HDMI 小型插孔
- 15 多功能接頭 (Type3b)
- 16 記憶卡插槽
- 17 存取指示燈
- 18 電池退出桿
- 19 接頭蓋
- 20 電池 / 記憶卡蓋子
- 21 ↗ (TransferJet™) 標記
- 22 電池插槽
- 23 三腳架安裝孔

- 請使用螺絲長度在 5.5 公釐以下的三腳架，否則無法將相機牢靠地固定住，而且可能會對相機造成損壞。

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## 插入電池



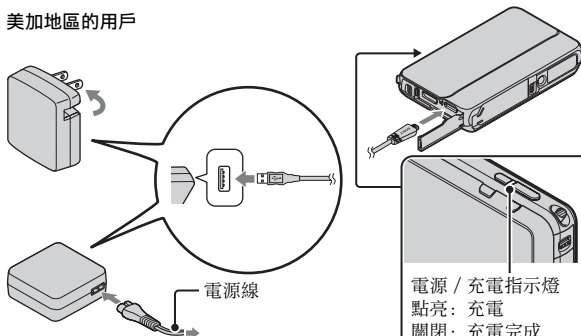
**1** 打開蓋子。

**2** 插入電池。

- 將電池與電池插槽內的導引箭頭對齊。將電池插入到電池退出桿鎖入定位為止。
- 將電池蓋蓋牢，直到聽見蓋子上的卡榫卡入定位以致於看不到卡榫底下的黃色標示為止。
- 電池插入不正確時關上電池蓋可能會損壞相機。

## 為電池充電

美加地區的用戶



美加以外的國家 / 地區的用戶

電源 / 充電指示燈  
點亮：充電  
關閉：充電完成  
閃爍：  
充電出錯  
充電因為過熱而暫停

**1** 打開接頭蓋，用多功能端子 USB 電纜（附件）連接相機與電源適配器（附件）。

**2** 將電源適配器連接到牆上的電源插座。

電源 / 充電指示燈點亮橘色的燈，充電開始。

- 為電池充電時關閉相機。
- 即使電力沒有完全放光，也可以為電池充電。
- 電源 / 充電指示燈閃爍而且充電未完成時，取出電池之後再插回去。

### 附註

- 電源適配器連接到牆上的電源插座時，如果相機上的電源 / 充電指示燈閃爍，表示因為溫度超出建議範圍外而暫停充電。溫度回到適當的範圍內時，會恢復充電。建議您在 10 °C 至 30 °C 的環境溫度下對電池充電。
- 電池的端子部分如果髒了，可能無法有效地充電。遇到這種情況時，請用軟布或棉花棒輕輕地將所有髒東西擦掉，以清潔電池的端子部分。
- 將電源適配器（附件）連接到最近的牆上電源插座。如果使用電源適配器時發生故障，請立即將插頭從插座拔掉以中斷電源。

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- 充電完成時，將電源適配器從牆上的電源插座拔掉。
- 務必只使用原廠的 Sony 電池、多功能端子 USB 電纜（附件）以及電源適配器（附件）。
- BC-TRN2 電池充電器（另售）能夠為本機型所附的 NP-BN 充電電池快速充電。BC-TRN 電池充電器（另售）不能夠為本機型所附的 NP-BN 充電電池快速充電。

## ■ 充電時間（完全充電）

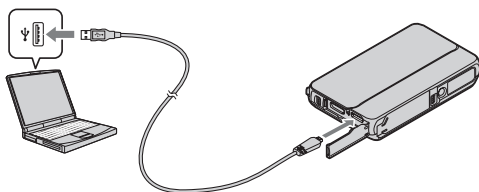
使用電源適配器（附件）時的充電時間大約 115 分鐘。

### 附註

- 上述充電時間適用於在 25 °C 的溫度下為放完電的電池充電的情況。充電可能因為使用情況或環境而需要長一點的時間。

## ■ 連接到電腦上充電

用多功能端子 USB 電纜將相機連接到電腦可以為電池充電。



### 附註

- 經由電腦充電時，請注意下列幾點：
  - 如果相機是連接在沒有連接電源的到膝上型電腦，電腦的電池電量會降低。請不要長時間充電。
  - 在相機與電腦之間建立 USB 連接時，不要開 / 關或重新啟動電腦，或者是將電腦從休眠模式中喚醒。相機可能會造成故障。開 / 關電腦或重新啟動電腦，或者喚醒休眠模式中的電腦之前，要中斷相機與電腦的連接。
  - 對於自行組裝的電腦或修改過的電腦，不保證能夠充電。

## ■ 電池使用時間以及可以記錄與播放的影像數目

	電池使用時間	影像數目
拍攝（靜態影像）	約 125 分	約 250 個影像
檢視（靜態影像）	約 190 分	約 3800 個影像
拍攝（動態影像）	約 60 分	—

### 附註

- 上述影像數目適用於電池充滿電的情況。視使用情況而定，影像的數目可能會減少。
- 可以記錄的影像數目是在下列情況下拍攝的：
  - 使用 Sony “Memory Stick PRO Duo” (Mark2) (另售)
  - 在周邊溫度為 25 °C 時使用電池。
- “拍攝（靜態影像）”的數目以 CIPA 標準為根據，在下列情況下進行拍攝：(CIPA: Camera & Imaging Products Association)
  - [面板亮度] 設定為 [3 (普通)]。
  - 每 30 秒鐘拍一張。
  - 變焦在 W 和 T 端交替轉換。
  - 每拍攝兩次閃光燈閃光一次。
  - 每拍攝十次打開和關閉電源一次。
- 動態影像的電池使用時間適用於下列拍攝情況：
  - 動態影像的畫質：AVC HD HQ
  - 連續拍攝因為設定限制（第 22 頁）而結束時，再度按下 MOVIE（動態影像）按鈕並繼續拍攝。不使用變焦之類的拍攝功能。

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
## ■ 供電

用多功能端子 USB 電纜（附件）連接到電源適配器，相機便可以從牆上的電源插座供電。

用多功能端子 USB 電纜將相機連接到電腦，將影像匯入電腦時便可以不必擔心耗盡電池的電力。

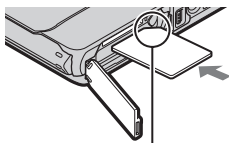
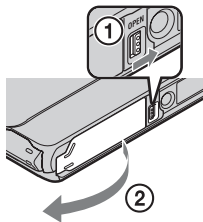
此外，您可以在拍攝時使用拍攝用的電源適配器 AC-UD10（另售）供電。

### 附註

- 電池沒有插入相機時不能供電。
- 用隨附的電源適配器 AC-UB10/UB10B 將相機直接連接到電腦或電源插座時，只能在播放模式中供電。如果相機處於拍攝模式，或者您變更過相機的設定，即使您用多功能端子 USB 電纜進行 USB 連接，也不能供電。
- 如果在相機處於播放模式中時用多功能端子 USB 電纜將相機連接到電腦，相機上的顯示會從播放畫面變成 USB 連接畫面。按 （播放）按鈕切換到播放畫面。

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## 插入記憶卡（另售）



注意要讓缺角那頭朝向正確的方向。

1 打開蓋子。

2 插入記憶卡（另售）。

- 缺角那頭朝向圖示方向，將記憶卡插入到卡入定位為止。

3 關上蓋子。

### ■ 可以使用的記憶卡

	記憶卡	適用於靜態影像	適用於動態影像
A	Memory Stick PRO Duo	○	○（僅限 Mark2）
	Memory Stick PRO-HG Duo	○	○
	Memory Stick Duo	○	—
B	Memory Stick Micro (M2)	○	○（僅限 Mark2）
C	SD 記憶卡	○	○（Class 4 以上）
	SDHC 記憶卡	○	○（Class 4 以上）
	SDXC 記憶卡	○	○（Class 4 以上）
D	microSD 記憶卡	○	○（Class 4 以上）
	microSDHC 記憶卡	○	○（Class 4 以上）

- 在本說明書中，表中的產品統稱如下：

A: “Memory Stick Duo”

B: “Memory Stick Micro”

C: SD 卡

D: microSD 記憶卡

#### 附註

- 以本相機使用“Memory Stick Micro”或 microSD 記憶卡時，務必要使用適當的轉接卡。

### ■ 若要取出記憶卡 / 電池

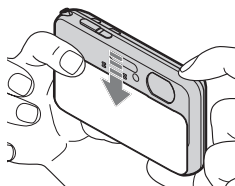
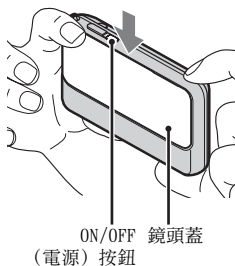
記憶卡：將記憶卡往裡壓一下以退出記憶卡。

電池：推動電池退出桿。小心不要讓電池掉落地上。

#### 附註

- 存取指示燈（第 7 頁）點亮時切勿取出記憶卡 / 電池。這樣可能會對記憶卡 / CT 內部記憶體中的資料造成損壞。

## 設定時鐘



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### 1 將鏡頭蓋往下推。

相機就會開啟。電源指示燈只會在相機開機時點亮綠燈。  
日期與時間設定會在您首次開機時顯示出來。

- 您也可以用按 ON/OFF (電源) 按鈕的方式開啟相機。
- 可能需要一點時間才能開啟電源並進行操作。

### 2 選擇要使用的語言。

### 3 按照螢幕上的指示選擇您要的地理位置，然後觸摸 [下頁]。

### 4 設定 [夏令時間]、[日期時間格式] 和 [日期時間]，然後觸摸 [下頁]。

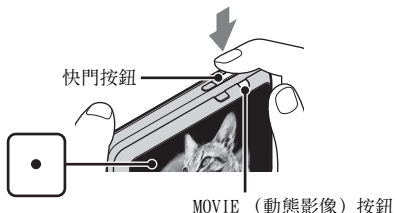
- 午夜會顯示為 12:00 AM，而正午則是 12:00 PM。

### 5 觸摸 [OK]。

### 6 按照螢幕上的指示進行。

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### 拍攝靜態影像

- 1 將快門按鈕按下一半以便對焦。  
影像合焦時，會發出嗶聲，而且 ● 指示會點亮。
- 2 將快門按鈕完全按下去以拍攝影像。

### 拍攝動態影像

- 1 按下 MOVIE (動態影像) 按鈕開始記錄。
  - 用 W/T (變焦) 桿變更變焦比率。
- 2 再度按下 MOVIE 按鈕停止記錄。

#### 附註

- 拍攝動態影像時，變焦桿的運作聲音會在使用變焦功能時被記錄下來。動態影像記錄完成時，MOVIE 按鈕的運作聲音也可能會被記錄下來。
- 在 25 °C 左右的溫度下，以相機的預設設定拍攝時，一次可以連續拍攝大約 29 分鐘。動態影像記錄完成時，可以再按一下 MOVIE 按鈕以重新開始記錄。視周遭溫度而定，記錄可能會停止以保護相機。

## 觀看影像



▶ (播放)



### 1 按▶ (播放) 按鈕。

- 在本相機上播放以其他相機記錄在記憶卡上的影像時，會出現資料檔案的登記畫面。

### ■ 選擇下一個 / 上一個影像

觸摸螢幕上的▶ (下一個) / ◀ (上一個)。

- 若要播放動態影像，請觸摸螢幕中央的▶ (播放)。
- 若要放大，請將 W/T (變焦) 桿推向 T 端。

### ■ 刪除影像

觸摸🗑️ (刪除) → [這個影像]。

### ■ 恢復拍攝影像

觸摸螢幕上的📷。

- 您也可以將快門按鈕按下一半以返回拍攝模式。

## 相機指南

本相機配備有內建的使用指南。這樣您便可以根據需要搜尋相機的功能。



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### 1 觸摸? (相機指南)。

- ?符號會在觀看時出現在螢幕左下角。

### 2 從 [相機指南] 選擇一個搜尋方法。

**拍攝 / 播放 指南：**搜尋拍攝 / 檢視模式中的各種操作功能。

**圖示 指南：**搜尋顯示圖示的功能與意義。

**排除問題：**搜尋常見問題及其解決方法。

**操作導覽：**根據需要搜尋功能。

**關鍵字：**以關鍵字搜尋功能。

**歷史：**檢視 [相機指南] 中顯示的最後 10 個項目。

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## 其他功能簡介

拍攝或播放時使用的其他功能可以用觸摸螢幕上的 MENU 的方式操作。本相機備有功能指南，可以讓您輕鬆地從功能中選擇。顯示指南時，可以使用各種功能。



### ■ 功能表項目

#### 拍攝

動態影像拍攝場景	選擇動態影像的記錄模式。
簡單模式	用最少的功能拍攝靜態影像。
閃光燈	設定閃光燈設定值。
自拍定時器	設定自拍定時器設定值。
散焦效果	以背景散焦模式拍攝時，設定背景散焦效果的等級。
靜態影像尺寸 (Dual Rec)	記錄動態影像時設定拍攝靜態影像的尺寸。
靜態影像尺寸 / 全景影像大小 / 動態影像尺寸 / 動畫品質	選擇靜態影像、全景影像或動態影像檔案的影像尺寸和畫質。
連拍設定	設定連拍設定。
超近拍攝	拍攝微小被攝體的美麗特寫影像。
HDR 繪畫效果	在圖片效果中選擇 [HDR 繪畫] 時，設定效果的等級。
強調的區域	在圖片效果中選擇 [縮樣] 時，設定要對焦的部分。
色調	在圖片效果中選擇 [玩具照相機] 時，設定色調。

擷取的色彩	在圖片效果中選擇 [部分色彩] 時，選擇要擷取的顏色。
EV	以手動方式調整曝光。
ISO	調整感光度。
白平衡	調整影像的色調。
水底白平衡	進行水底拍攝時調整色調。
對焦	選擇對焦方法。
測光模式	選擇測光模式，設定要測量被攝體的哪個部分以決定曝光值。
場景辨識	設定為自動偵測拍攝情況。
柔膚效果	設定美膚效果與效果的等級。
微笑快門	設定在偵測到微笑時自動釋放快門。
微笑靈敏度	設定微笑快門功能偵測微笑的靈敏度。
面孔偵測	選擇自動偵測面孔並調整各種設定。
閉眼減弱功能	設定自動拍攝兩張影像，並選擇沒有眨眼的那一張。
動畫 SteadyShot	設定動態影像模式中的 SteadyShot 的強度。如果變更這項設定，視角會改變。
相機指南	根據需要搜尋相機的功能。

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## 觀看

簡單模式	增加螢幕上的文字尺寸以便於使用。
日期選擇	按日期選擇要觀看的影像。
日曆	選擇日曆上要播放的日期。
影像索引	同時顯示多個影像。
循環播放	選擇一種連續播放的方法。
刪除	刪除一個影像。
以 TransferJet 傳送	將配備有 TransferJet 的兩個產品貼近對齊以便傳送資料。
繪製	在靜態影像上繪圖，並將其另存為新的檔案。
修飾	用各種效果修飾影像。


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3D 檢視	設定為要在 3D 電視機上播放以 3D 模式拍攝的影像。
觀看模式	選擇影像的顯示格式。
顯示連拍群組	播放時可以選擇以群組顯示連拍影像或者顯示所有影像。
保護	保護影像。
列印 (DPOF)	為一個靜態影像添加列印預訂標記。
轉動	將靜態影像向左旋轉。
音量	調整音量。
曝光資料	設定是否顯示目前顯示在螢幕上的檔案的拍攝資料 (Exif 資料)。
索引中的影像數目	設定顯示於索引畫面中的影像數目。
相機指南	根據需要搜尋相機的功能。

## 設定項目

如果在拍攝或播放時觸摸 MENU,  (設定) 會被提供作為最後的選擇。您可以在  (設定) 畫面上變更出廠設定。

 <b>拍攝設定</b>	動態影像格式 / AF 照明器 / 格線 / 清晰影像縮放 / 數位變焦 / 減少風噪音 / 場景辨識指引 / 紅眼減弱 / 眨眼警告 / 寫入日期
 <b>主要設定</b>	聲音 / 面板亮度 / Language Setting / 顯示顏色 / 演示模式 / 初始化 / HDMI 控制 / 防水盒 / USB 連接設定 / USB 電源供給 / LUN 設定 / 下載音樂 / 清空音樂 / TransferJet/Eye-Fi / 省電 / 版本
 <b>記憶卡工具 *</b>	格式化 / 建立記錄資料夾 / 改變記錄資料夾 / 刪除記錄資料夾 / 複製 / 檔案序號
 <b>時鐘設定</b>	區域設定 / 日期時間設定

\* 如果沒有插入記憶卡, 會顯示  (內建記憶體工具), 而且只有 [格式化] 可供選擇。

## 安裝 PC 應用程式 (Windows)

內建的軟體“PlayMemories Home”可以讓您將靜態影像與動態影像匯入電腦並加以使用。

即使沒有安裝“PlayMemories Home”，也可以用本相機拍攝或播放影像，不過，必須要有“PlayMemories Home”才能將 AVCHD 動態影像匯入電腦。

### 1 將相機連接到電腦。

### 2 Windows 7: [電腦] → 相機圖示 → 媒體圖示 → 連按兩下 [PMHOME.EXE]

Windows XP/Vista: [電腦] (在 Windows XP 中，則是 [我的電腦]) → [PMHOME] → 按兩下 [PMHOME.EXE]

### 3 按照畫面上的指示完成安裝。

#### 附註

- “PlayMemories Home”與 Mac OS 不相容。如果在 Mac 上播放影像，請使用 Mac 上安裝的應用程式。  
詳情請參閱 <http://www.sony.co.jp/imsoft/Mac/>

#### ■ “PlayMemories Home”的功能

底下是使用“PlayMemories Home”時的可用功能範例。若要利用“PlayMemories Home”的各種功能，請連線至網際網路，並安裝“擴充功能”。

- 您可以將用相機拍攝的影像匯入電腦並加以顯示。
- 您可以在日曆顯示畫面中按拍攝日期顯示儲存於電腦上的影像。
- 您可以校正（紅眼校正等）靜態影像、列印影像、用電子郵件傳送影像以及變更拍攝日期和時間。
- 您可以儲存並列印有日期的影像。
- 您可以從匯入電腦的 AVCHD 動態影像製作光碟。（擴充功能）

## 靜態影像的數目和可以記錄的動態影像時間

靜態影像的數目和可以記錄的動態影像時間可能會因為拍攝條件和記憶卡而異。

### ■ 靜態影像

(單位：影像張數)

尺寸 \ 容量	內部記憶體	記憶卡
	約 19 MB	2 GB
16M	3	335
VGA	98	9600
16:9 (12M)	3	355

### ■ 動態影像

下表顯示的是大略的最長記錄時間。這些是所有動態影像檔案的總時間。可以持續拍攝約 29 分鐘。MP4 格式動態影像檔案最大可以高達約 2 GB。

(h (時), m (分))

尺寸 \ 容量	內部記憶體	記憶卡
	約 19 MB	2 GB
AVC HD 24M (FX)	—	10 m (10 m)
AVC HD 9M (HQ)	—	25 m (15 m)
MP4 12M	—	15 m
MP4 3M	—	1 h 10 m

( ) 中的數字是最短的可記錄時間。

- 動態影像可以記錄的時間會因為相機配備有可以根據拍攝場景而自動調整畫質的 VBR (Variable Bit Rate) 而有所不同。記錄快速移動的被攝體時，影像會比較清晰，但是可以記錄的時間會比較短，因為需要更多記憶體來記錄。可以記錄的時間也會因為拍攝條件、被攝體或者畫質 / 尺寸的設定而有所不同。



## 使用相機的注意事項

### 本相機內建的功能

- 本說明書說明TransferJet相容/不相容裝置、1080 60i相容裝置與1080 50i相容裝置的各項功能。若要確認您的相機是否支援TransferJet功能、以及是否是與1080 60i或1080 50i相容的裝置，請查看相機底部的下列標誌。

TransferJet 相容裝置:  (TransferJet)

1080 60i 相容裝置: 60i

1080 50i 相容裝置: 50i

- 不要在 3D 相容顯示器上長時間觀看以本相機拍攝的 3D 影像。
- 在 3D 相容顯示器上觀看以本相機拍攝的 3D 影像時，可能有眼睛疲勞、倦怠或噁心之類的不適經驗。為了防止這些症狀，建議您定時休息。不過，您得自行決定休息所需的長度和頻率，因為這些會因人而異。如果您有任何類型的不適，請停止觀看 3D 影像，直到感覺比較好為止，並視需要徵詢醫生意見。另請參考連接本相機或使用於本相機的裝置或軟體所附的使用說明。請注意，孩子的視力還在發育階段（尤其是 6 歲以下的小孩）。讓小孩觀看 3D 影像之前，請徵詢小兒科醫生或眼科醫生的意見，並確認孩子在觀看這種影像時有遵守上述注意事項。

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### 關於使用和維護

對於產品要避免粗暴的使用、拆解、修改、實體衝擊或者敲打、跌落或踐踏之類的撞擊。對於鏡頭要特別小心。

### 關於記錄 / 播放的注意事項

- 開始拍攝之前，要進行試拍，以確定相機能正確的運作。
- 請勿用相機朝向太陽或其它強光。那樣可能會令您的相機故障。
- 如果有濕氣凝結，要在使用相機之前將其清除。
- 請勿搖晃或撞擊本相機。那樣可能會造成故障，您可能無法記錄影像。而且，記錄媒體可能變成無法使用，或者影像資料可能受損。

### 請勿在下列地方使用 / 存放相機

- 在非常炎熱、寒冷或潮濕的地方  
例如，在停在太陽底下的車廂中，相機機身可能變形而造成故障。
- 陽光直射或者靠近發熱器的地方  
相機機身可能褪色或變形，而這可能會造成故障。
- 在會受到搖擺振動的地方
- 靠近會產生強烈無線電波、發出輻射或者強烈磁性的地方。否則相機可能無法正確地記錄或播放影像。

### 攜帶時

不要在相機放置於褲子或裙子的後面口袋中時坐在椅子或其他地方，因為這樣可能會造成故障或者損害相機。

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## Carl Zeiss 鏡頭

本相機配備有 Carl Zeiss 鏡頭，能以優越的對比再生清晰的影像。本相機的鏡頭是根據德國 Carl Zeiss 的品質標準，在經過 Carl Zeiss 認證的品質保證系統底下生產的。

## 關於螢幕的說明

螢幕利用極高精確度技術製造，所以 99.99% 以上的像素都可以有效的使用。不過，您可能會發現細小的黑點和 / 或亮點（白色、紅色、藍色或綠色）出現在螢幕上。這些點是生產過程中的正常結果，不會影響錄影。

## 關於相機的溫度

您的相機和電池可能因為持續使用而變熱，但是這並不是故障。

## 關於過熱保護

您可能無法記錄動態影像，或者電源可能會自動關閉以保護相機，這點要視相機和電池溫度而定。螢幕上會出現一個訊息，然後電源會關閉，或者您無法再記錄動態影像。遇到這種情況時，將電源關閉，等到相機與電池溫度下降為止。如果不讓相機與電池溫度降得夠低就開啟電源，電源可能會再度關閉或者可能會無法記錄動態影像。

## 關於為電池充電

如果為很久沒用的電池充電，可能無法將其充到適當的容量。這是因為電池特性的緣故，並不是故障。請再為電池充電。

## 版權警告

電視節目、影片、錄影帶及其它資料可能具有版權。未經許可錄製這些資料將會觸犯版權法。

## 對於損壞的內容或記錄失敗不補償

對於因為相機或記錄媒體等的故障而造成的記錄失敗或記錄內容遺失或損壞，Sony 不能補償。

## 清潔相機表面

用沾了一點水的軟布清潔相機表面，然後以乾布擦拭表面。若要防止傷害表面塗層或外殼：

- 請不要讓相機接觸化學產品如稀釋劑、揮發油、酒精、用過即丟的清潔布、驅蟲劑、遮光劑或殺蟲劑。

# 規格

## 相機

### [系統]

影像裝置: 7.77 公釐 (1/2.3 型)

Exmor R CMOS 感應器

相機的總像素數: 約 16.8 百萬像素

相機的有效像素數: 約 16.2 百萬像素

鏡頭: Carl Zeiss Vario-Tessar

4 × 變焦鏡頭

f = 4.43 公釐 – 17.7 公釐

(25 公釐 – 100 公釐 (35 公釐

的底片機))

F3.5 (W) – F4.6 (T)

拍攝動態影像 (16:9) 時:

27 公釐 – 108 公釐 \*

拍攝動態影像 (4:3) 時:

33 公釐 – 132 公釐 \*

\* 當 [動畫 SteadyShot] 設為  
[標準] 時

SteadyShot: 光學

曝光控制: 自動曝光、場景選擇  
(16 種模式)

白平衡: 自動、日光、多雲、螢光  
照明 1/2/3、白熾燈、閃光燈、  
單按、水底 1/2

訊號格式:

1080 50i: PAL 彩色、CCIR 標準

HDTV 1080/50i 規格

1080 60i: NTSC 彩色、EIA 標準

HDTV 1080/60i 規格

檔案格式:

靜態影像: 符合 JPEG (DCF,  
Exif, MPF Baseline) 標準, 相  
容於 DPOF

3D 靜態影像: 符合 MPO (MPF  
Extended (視差影像)) 標準

動態影像 (AVCHD 格式):

AVCHD 格式 Ver. 2.0 相容

視訊: MPEG-4 AVC/H.264

音訊: Dolby Digital 2 聲道,  
配備 Dolby Digital Stereo  
Creator

• 由 Dolby Laboratories 授權製  
造。

動態影像 (MP4 格式):

視訊: MPEG-4 AVC/H.264

音訊: MPEG-4 AAC-LC 2 聲道

記錄媒體: 內部記憶體

(約 19 MB)、“Memory Stick  
Duo”、“Memory Stick  
Micro”、SD 卡、microSD 記憶  
卡

閃光燈: 閃光範圍 (ISO 感光度  
(建議曝光指數) 設定為自  
動):

約 0.08 公尺至 3.7 公尺 (W)

約 0.5 公尺至 2.7 公尺 (T)

### [輸入和輸出接頭]

HDMI 接頭: HDMI 小型插孔

多功能接頭: Type3b (AV 輸出 /  
USB/DC 輸入)

視頻輸出

音頻輸出

USB 通訊

USB 通訊:

Hi-Speed USB (USB 2.0)

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## [螢幕]

LCD 螢幕：

寬 (16:9) , 7.5 公分

(3.0 型) TFT 驅動

總點數：921 600 點

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## [電源，一般]

電源：充電電池 NP-BN, 3.6 V

電源適配器 AC-UB10/UB10B,  
5 V

電池消耗量 (進行拍攝時) : 1.0 W

操作溫度：-10 °C至 +40 °C

存放溫度：-20 °C至 +60 °C

尺寸 (符合 CIPA 標準)：

95.9 公釐 × 56.2 公釐 ×

17.9 公釐 (長 / 寬 / 高)

質量 (符合 CIPA 標準)

(包含 NP-BN 電池、“Memory  
Stick Duo”)：

約 133 公克

麥克風：立體聲

揚聲器：單聲

Exif Print：相容

PRINT Image Matching III：相容

防水 / 防塵效能：相當於 IEC60529

IP58 標準 (相機可以在 5 公尺  
深的水中操作 60 分鐘。)

防震效能：

符合 MIL-STD 810F Method

516.5-Shock 標準，本產品已經

通過從 5 公分厚的三夾板上

1.5 公尺高處掉落的測試。

防水、防塵以及抗震效能以 Sony 的  
標準測試為依據。

## 電源適配器 AC-UB10/UB10B

電源要求：AC 100 V 至 240 V,

50 Hz/60 Hz, 70 mA

輸出電壓：DC 5 V, 0.5 A

操作溫度：0 °C至 40 °C

存放溫度：-20 °C至 +60 °C

尺寸：

約 50 公釐 × 22 公釐 × 54 公釐  
(長 / 寬 / 高)

質量：

美國與加拿大：約 48 公克

美國與加拿大以外的國家與地  
區：約 43 公克

## 充電電池 NP-BN

使用的電池：鋰離子電池

最大電壓：DC 4.2 V

額定電壓：DC 3.6 V

最大充電電壓：DC 4.2 V

最大充電電流：0.9 A

容量：

通常：2.3 Wh (630 mAh)

最少：2.2 Wh (600 mAh)

設計及規格如有變更，恕不另行通知。

## 商標

- 下列標記是 Sony Corporation 的商標。

**Cyber-shot**、“Cyber-shot”、  
“Memory Stick PRO Duo”、

“Memory Stick PRO-HG Duo”、

“Memory Stick Duo”、“Memory  
Stick Micro”

- “AVCHD”與“AVCHD”標誌是  
Panasonic Corporation 與 Sony  
Corporation 的商標。
- Windows 是 Microsoft Corporation  
在美國和 / 或其他國家的註冊商  
標。
- Mac 是 Apple Inc. 的註冊商標。
- SDXC 標誌是 SD-3C, LLC 的商標。
- “”和“PlayStation”是  
Sony Computer Entertainment  
Inc. 的註冊商標。
- 此外，在本說明書中所使用的系統  
和產品的名稱通常是他們各自的開  
發商或製造商的商標或註冊商標。  
但是在本說明書中並未在所有場合  
使用™或®標誌。



- 從 PlayStation Store（在有這些  
店的地方）下載 PlayStation 3 的  
應用程式，可以用您的  
PlayStation 3 增添更多樂趣。
- PlayStation 3 的應用程式需要有  
PlayStation Network 帳戶與應用  
程式下載。只能在有 PlayStation  
Store 的地方使用。

在我們的客戶支援網站可以查  
到本產品新增的資訊和常見問  
題的答案。

<http://www.sony.net/>

使用基於不含有 VOC（揮發性有機成  
分）的植物油的油墨在 70% 以上再生  
紙上印刷。

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