DSC-H7/H9

SERVICE MANUAL

Ver 1.2 2007.08

Revision History

Revised-1

Replace the previously issued SERVICE MANUAL 9-852-203-41 with this Manual.



Photo: DSC-H7 Black Model

LEVEL 1

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Hong Kong Model
Chinese Model
Korea Model
Argentine Model
Brazilian Model
Japanese Model

Link		
• SPECIFICATIONS	ACCESSORIES	INSTRUCTION MANUAL
• SERVICE NOTE		

The components identified by $\max k \triangleq 0$ or dotted line with $\max k \triangleq 0$ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

DIGITAL STILL CAMERA









SPECIFICATIONS

Camera

[Svstem]

Image device: 7.18 mm (1/2.5 type) color CCD, Primary color filter

Total pixel number of camera:

Approx. 8 286 000 pixels

Effective pixel number of camera:

Approx. 8 083 000 pixels

Carl Zeiss Vario-Tessar 15× zoom lens f =5.2 – 78 mm Lens:

(31 - 465 mm when converted to a 35 mm still camera) F2.7 - 4.5

Exposure control: Automatic exposure, Shutter speed priority,

Aperture priority, Manual exposure, Scene Selection

(9 modes)

White balance: Automatic, Daylight, Cloudy, Fluorescent 1,2,3,

Incandescent, Flash, One push

File format (DCF compliant):

Still images: Exif Ver. 2.21 JPEG compliant,

DPOF compatible

Movies: MPEG1 compliant (Monaural)

Recording media: Internal Memory (approx. 31 MB), "Memory Stick Duo"

Flash: Flash range (ISO sensitivity (Recommended exposure

value) set to ISOAUTO): approx. 0.2 to 9.8 m (7 7/8 inches to 32 feet 1 7/8 inches) (W)/ approx. 1.2 to 6.0 m (3 feet 11 1/4 inches to 19 feet

8 1/4 inches) (T)

Electric viewfinder (color) Viewfinder:

[Input and Output connectors]

Multi connector Video output

Audio output (Monaural)

USB communication

USB communication:

Hi-Speed USB (USB 2.0 compliant)

[LCD screen]

LCD panel: DSC-H9: 7.5 cm (3.0 type) TFT drive

DSC-H7: 6.2 cm (2.5 type) TFT drive

Total number of dots:

DSC-H9: 230 400 (960 × 240) dots

DSC-H7: 115 200 (480 °-- 240) dots

[Finder]

Panel: 0.5 cm (0.2 type) color

Total number of dots:

Approx. 200 000 dots equivalent

[Power, general]

Rechargeable battery pack NP-BG1, 3.6 V Power:

AC-LS5K AC Adaptor (not supplied), 4.2 V

Power consumption (during shooting with the LCD screen):

DSC-H9: 1.2 W DSC-H7: 1.1 W

Operating temperature:

0 to 40°C (32 to 104°F)

Storage temperature

-20 to +60°C (-4 to +140°F)

 $109.5 \times 83.4 \times 85.7 \text{ mm}$ (4 $3/8 \times 3 3/8 \times 3 3/8 \text{ inches}$) Dimensions:

(W/H/D, excluding protrusions) (for both DSC-H9 and DSC-H7)

Mass: DSC-H9: Approx. 546 g (1 lb 3.3 oz)

(including NP-BG1 battery pack, shoulder strap, adaptor ring,

lens hood and lens cap, etc.)

DSC-H7: Approx. 514 g (1 lb 2.1 oz)

(including NP-BG1 battery pack, shoulder strap, adaptor ring, lens hood and lens cap, etc.)

Microphone: Monaural Speaker: Monaural Exif Print: Compatible PRINT Image Matching III:

Compatible PictBridge: Compatible

BC-CSG/BC-CSGB/BC-CSGC battery charger

Power requirements:

AC 100 V to 240 V, 50/60 Hz, 2 W (BC-CSG/BC-CSGC)/

2.6 W (BC-CSGB) DC 4.2 V, 0.25 A Output voltage:

Operating temperature

0 to 40°C (32 to 104°F)

Storage temperature:

 $-20 \text{ to } +60^{\circ}\text{C} \text{ (-4 to } +140^{\circ}\text{F)}$

Dimensions: Approx. $62 \times 24 \times 91 \text{ mm} (2 1/2 \times 31/32 \times 3 5/8 \text{ inches}) (W/H/D)$

Approx. 75 g (2.7 oz) Mass:

Rechargeable battery pack NPBG1

Used battery: Lithium-ion battery Maximum voltage:DC 4.2 V Nominal voltage: DC 3.6 V Capacity: 3.4 Wh (960 mAh)

Design and specifications are subject to change without notice.

Model information table

Model	DSC-H7/Silver	DSC-H7/Black	DSC-H9/Silver	DSC-H9/Black
	US, CND, AEP, UK,			
Destination	E, AUS, HK, CH,			
	KR, AR, J, JE	KR, J, JE	KR, JE	KR, AR, BR, JE
LCD	2.5 inch	2.5 inch	3.0 inch	3.0 inch
CK board	CK-180, CK-181	CK-180, CK-181	CK-179, CK-182	CK-179, CK-182
MS board	MS-364	MS-364	MS-366	MS-366
PL board	PL-046	PL-046	PL-047	PL-047
SW board	SW-500	SW-500	SW-499	SW-499

· Abbreviation

AR : Argentine model
AUS : Australian model
BR : Brazilian model
CH : Chinese model
CND : Canadian model
HK : Hong Kong model
J : Japanese model
JE : Tourist model
KR : Korea model

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE A SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

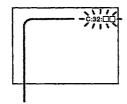
- Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
- 2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
- 3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
- Look for parts which, through functioning, show obvious signs
 of deterioration. Point them out to the customer and
 recommend their replacement.

- 5. Check the B+ voltage to see it is at the values specified.
- 5. Flexible Circuit Board Repairing
 - Keep the temperature of the soldering iron around 270°C during repairing.
 - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
 - Be careful not to apply force on the conductor when soldering or unsoldering.

SERVICE NOTE

Description on Self-diagnosis Display **Self-diagnosis display**

The camera has a self-diagnosis display. This function displays the camera condition with five-digits (a combination of a letter and figures) on the LCD screen. If this occurs check the following code chart. The five-digits display informs you of the camera's current condition. The last two digits (indicated by $\Box\Box$) will differ depending on the state of the camera.



Self-diagnosis display

• C: □□: □□

You can reverse the camera malfunction yourself. (However, contact your Sony dealer or local authorized Sony service facility when you cannot recover from the camera malfunction.)

E: □□: □□
 Contact your Sony dealer or local authorized Sony service facility.

Display Code	Countermeasure	Cause	Caution Display During Error
C:32:□□	Turn the power off and on again.	Trouble with hardware.	SYSTEM ERROR
G 12 DD	Format the "Memory Stick Duo" or internal memory.	"Memory Stick Duo" or internal memory is unformatted.	FORMAT ERROR
C:13:□□	Insert a new "Memory Stick Duo".	"Memory Stick Duo" is broken.	MEMORY STICK Duo ERROR
	Turn the power off and on again.	Trouble with internal memory.	INTERNAL MEMORY ERROR
E:61:□□	Checking of lens drive circuit.	When failed in the focus and zoom initialization.	
E:62:□□	Inspect angular velocity sensor peripheral circuit.	Steady shot function does not work well.	_
E:91:□□	Checking of flash unit or replacement of flash unit.	Abnormality when flash is being charged.	

Method for Copying the Data in Internal Memory

The data can be copied by the operations on the HOME screen.

Copy

Copies all images in the internal memory to a "Memory Stick Duo".

- ① Insert a "Memory Stick Duo" having 32 MB or larger capacity.
- ② Select [Copy] with ▲/V/◄/▶ on the control button, then press ●. The message "All data in internal memory will be copied" appears.
- ③ Select [OK] with ▲, then press ●. Copying starts.

To cancel the copying

Select [Cancel] in step ③, then press ●.

- Use a fully charged battery pack. If you attempt to copy image files using a battery pack with little remaining charge, the battery pack may run out, causing copying to fail or possibly corrupting the data.
- · You cannot copy individual images.
- The original images in the internal memory are retained even after copying. To delete the contents of the internal memory, remove the "Memory Stick Duo" after copying, then execute the [Format] command in [Internal Memory Tool]
- When you copy the data in the internal memory to the "Memory Stick Duo", a new folder is created. You cannot choose a specific folder on the "Memory Stick Duo" as the destination for the data to be copied.
- Even if you copy data, a DPOF (Print order) mark is not copied.

ACCESSORIES

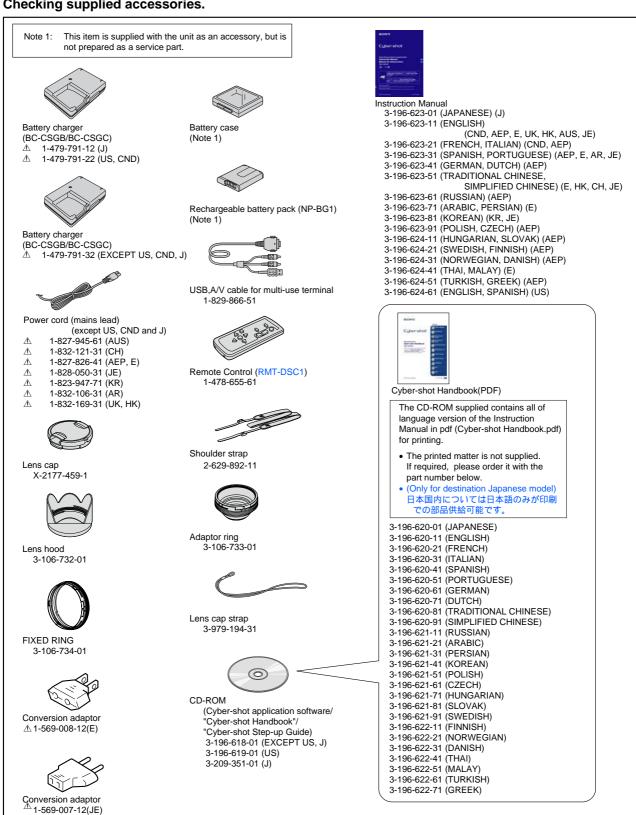
Note:

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The parts numbers of such as a cabinet are also appeared in this section. Refer to the parts number mentioned below the name of parts to order.
- Abbreviation

AR : Argentine model CH: Chinese model HK: Hong Kong model KR: Korea model AUS: Australian model

: Japanese model CND: Canadian model NE: North European model BR: Brazilian model : Tourist model TW: Taiwan model EE : East European model IE.

Checking supplied accessories.



Cyber-shot

Digital Still Camera

Instruction Manual

DSC-H7/H9







For details on the advanced operations, please access "Cyber-shot Handbook" and "Cyber-shot Step-up Guide" contained on the supplied CD-ROM via a computer.

Operating Instructions

Before operating the unit, please read this manual thoroughly, and retain it for future reference.

GB

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 upon your Sony dealer regarding this product.

Model No. DSC-H7/H9

Serial No.

WARNING

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

For Customers in the U.S.A.





This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT SAFEGUARDS

For your protection, please read these safety instructions completely before operating the appliance, and keep this manual for future reference.

Carefully observe all warnings, precautions and instructions on the appliance, or the one described in the operating instructions and adhere to them.

Use

Power Sources

This set should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of electrical power supplied to your home, consult your dealer or local power company. For those sets designed to operate from battery power, or other sources, refer to the operating instructions.

| Polarization

This set may be equipped with a polarized ac power cord plug (a plug having one blade wider than the other).

This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to have a suitable outlet installed. Do not defeat the safety purpose of the polarized plug by forcing it in.

Overloading

Do not overload wall outlets, extension cords or convenience receptacles beyond their capacity, since this can result in fire or electric shock.

Object and Liquid Entry

Never push objects of any kind into the set through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the set.

Attachments

Do not use attachments not recommended by the manufacturer, as they may cause hazards.

I Cleaning

Unplug the set from the wall outlet before cleaning or polishing it. Do not use liquid cleaners or aerosol cleaners. Use a cloth lightly dampened with water for cleaning the exterior of the set.

Installation

Water and Moisture

Do not use power-line operated sets near water – for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.

Power-Cord Protection

Route the power cord so that it is not likely to be walked on or pinched by items placed upon or against them, paying particular attention to the plugs, receptacles, and the point where the cord exits from the appliance.

Accessories

Do not place the set on an unstable cart, stand, tripod, bracket, or table. The set may fall, causing serious injury to a child or an adult, and serious damage to the set. Use only a cart, stand, tripod, bracket, or table recommended by the manufacturer.

Ventilation

The slots and openings in the cabinet are provided for necessary ventilation. To ensure reliable operation of the set, and to protect it from overheating, these slots and openings must never be blocked or covered.

- Never cover the slots and openings with a cloth or other materials.
- Never block the slots and openings by placing the set on a bed, sofa, rug, or other similar surface
- Never place the set in a confined space, such as a bookcase, or built-in cabinet, unless proper ventilation is provided.
- Do not place the set near or over a radiator or heat register, or where it is exposed to direct sunlight.

Lightning

For added protection for this set during a lightning storm, or when it is left unattended and unused for

long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the set due to lightning and power-line surges.

Service

Damage Requiring Service

Unplug the set from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power cord or plug is damaged or frayed.
- If liquid has been spilled or objects have fallen into the set.
- -If the set has been exposed to rain or water.
- -If the set has been subject to excessive shock by being dropped, or the cabinet has been damaged.
- -If the set does not operate normally when following the operating instructions. Adjust only those controls that are specified in the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the set to normal operation.
- When the set exhibits a distinct change in performance – this indicates a need for service.

Servicing

Do not attempt to service the set yourself as opening or removing covers may expose you to dangerous voltage or other hazards.

Refer all servicing to qualified service personnel.

Replacement parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original parts.

Unauthorized substitutions may result in fire, electric shock, or other hazards.

Safety Check

Upon completion of any service or repairs to the set, ask the service technician to perform routine safety checks (as specified by the manufacturer) to determine that the set is in safe operating condition.

Read this first

CAUTION

Replace the battery with the specified type only. Otherwise, fire or injury may result.

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.rbrc.org/

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

Battery charger

This power unit is intended to be correctly orientated in a vertical or floor mount position.

For Customers in the U.S.A.

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.: DSC-H7

Responsible Party: Sony Electronics Inc.

Address: 16530 Via Esprillo,

San Diego, CA 92127U.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.

Declaration of Conformity

Trade Name: SONY Model No.: DSC-H9

Responsible Party: Sony Electronics Inc.

Address: 16530 Via Esprillo.

San Diego, CA 92127U.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.

For the State of California, USA only

Perchlorate Material - special handling may apply, See

www.dtsc.ca.gov/hazardouswaste/perchlorate Perchlorate Material: Lithium battery contains perchlorate.

For Customers in Europe

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. Applicable Accessories: Remote Control

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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Notes on using your camera

Internal memory and "Memory Stick Duo" back up

Do not turn off the camera or remove the battery pack or "Memory Stick Duo" while the access lamp is lighted, as the internal memory data or "Memory Stick Duo" data may be destroyed. Always protect your data by making a back up copy.

Notes on recording/playback

- Before you start recording, make a trial recording to make sure that the camera is working correctly.
- This camera is neither dust-proof, nor splashproof, nor water-proof. Read "Precautions" (page 36) before operating the camera.
- Be careful not to get the camera wet. Water entering the inside of the camera may cause malfunctions which in some cases may not be repairable.
- Do not aim the camera at the sun or other bright light. It may cause the malfunction of your camera.
- Do not use the camera near a location that generates strong radio waves or emits radiation.
 The camera may not be able to record or play back properly.
- Using the camera in sandy or dusty locations may cause malfunctions.
- If moisture condensation occurs, remove it before using the camera (page 36).
- Do not shake or strike the camera. In addition to malfunctions and an inability to record images, this may render the recording medium unusable, or cause image data breakdown, damage or loss.
- Clean the flash surface before use. The heat of flash emission may cause dirt on the flash surface to become discolored or to stick to the flash surface, resulting in insufficient light emission.

Notes on the LCD screen, the LCD finder and the lens

- The LCD screen and the LCD finder are manufactured using extremely high-precision technology so over 99.99% of the pixels are operational for effective use. However, there may be some tiny black points and/or bright points (white, red, blue or green in color) that constantly appear on the LCD screen or the LCD finder. These points are normal in the manufacturing process and do not affect the recording in any way.
- When the battery level becomes low, the lens might stop moving. Insert a charged battery pack and turn on the camera again.
- Do not hold the camera by taking hold of the LCD screen.



I On image data compatibility

- This camera conforms with DCF (Design rule for Camera File system) universal standard established by JEITA (Japan Electronics and Information Technology Industries Association).
- Playback of images recorded with your camera on other equipment and playback of images recorded or edited with other equipment on your camera are not guaranteed.

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 contents of the recording

The contents of the recording cannot be compensated for if recording or playback is not possible due to a malfunction of your camera or recording media, etc.

Getting started

Checking the accessories supplied

 Battery charger BC-CSG/BC-CSGB/ BC-CSGC (1)



• Power cord (mains lead) (1) (not supplied in the USA and Canada)

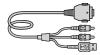


• Rechargeable battery pack NP-BG1 (1)/ Battery case (1)





• USB, A/V cable for multi-use terminal (1)



• Shoulder strap (1)



· Remote Control (1)



• Lens hood (1)/Adaptor ring (1)

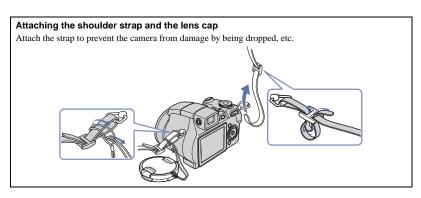




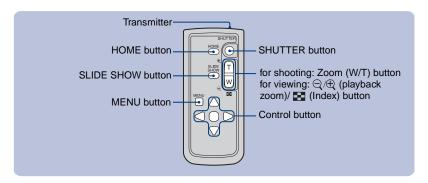
Lens cap (1)/Lens cap strap (1)



- CD-ROM (Cyber-shot application software/ "Cyber-shot Handbook"/"Cyber-shot Step-up Guide") (1)
- Instruction Manual (this manual) (1)



Remote Control



Note

Remove the insulation sheet before using the Remote Control.



To change the battery of the Remote Control

- While pressing on the tab, inset your fingernail into the slit to pull out the battery case.
- 2 Place a new battery with the + side facing up.
- 3 Insert the battery case back into the Remote Control until it clicks.

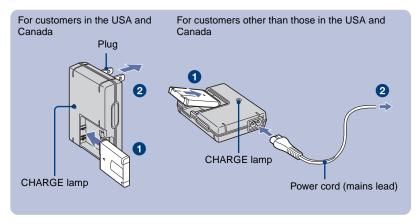


WARNING

Battery may explode if mistreated. Do not recharge, disassemble or dispose of in fire.

- When the lithium battery becomes weak, the operating distance of the Remote Control may shorten, or the Remote Control may not function properly. In this case, replace the battery with a Sony CR2025 lithium battery.
 Use of another battery may present a risk of fire or explosion.
- The Remote Control has a button type lithium battery (CR2025) built in. Do not use batteries other than CR2025.

1 Preparing the battery pack



- 1 Insert the battery pack into the battery charger.
- 2 Connect the battery charger to the wall outlet (wall socket).

The CHARGE lamp lights on, and charging starts.

When the CHARGE lamp turns off, charging is finished (Practical charge).

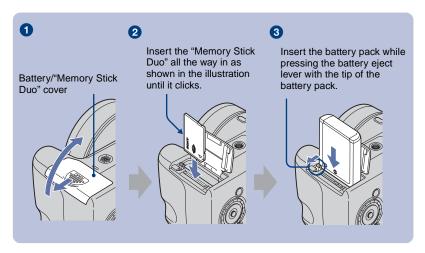
If you continue charging the battery pack for about one more hour (until it is fully charged), the charge will last slightly longer.

I Charging time

Full charge time	Practical charge time
Approx. 330 min.	Approx. 270 min.

- Time required to charge a fully depleted battery pack at a temperature of 25°C (77°F). Charging may take longer under certain circumstances or conditions.
- See page 32 for the number of images that can be recorded.
- Connect the battery charger to an easily accessible wall outlet (wall socket) close by.
- Even if the CHARGE lamp is not lit, the battery charger is not disconnected from the AC power source
 (mains) as long as it is connected to the wall outlet (wall socket). If some trouble occurs while using the
 battery charger, immediately shut off the power by disconnecting the plug from the wall outlet (wall
 socket).
- When charging is finished, disconnect the power cord (mains lead) from the wall outlet (wall socket), and remove the battery pack from the battery charger.
- Designed for use with compatible Sony batteries.

2 Inserting the battery pack/a "Memory Stick Duo" (not supplied)



- 1 Open the battery/"Memory Stick Duo" cover.
- 2 Insert the "Memory Stick Duo" (not supplied) all the way in until it clicks.
- 3 Insert the battery pack.
- 4 Close the battery/"Memory Stick Duo" cover.
- When there is no "Memory Stick Duo" inserted

The camera records/plays back images using the internal memory (approx. 31 MB).

To check the remaining battery time

Press POWER button to turn on and check the remaining battery on the LCD screen.

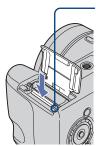
Battery remaining indicator	4777]	4777	47771	<i>ځ</i> 7777)	
Battery remaining guidelines	Sufficient power remaining	Battery almost fully charged	Battery half full	Battery low, recording/ playback will stop soon.	Change the battery with fully charged one, or charge the battery. (The warning indicator flashes.)

- It takes about one minute until the correct battery remaining indicator appears.
- The displayed battery remaining indicator may not be correct under certain circumstances.
- The Clock Set screen appears when the camera is turned on for the first time (page 15).

To remove the battery pack/"Memory Stick Duo"

Open the battery/"Memory Stick Duo" cover.

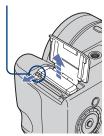
"Memory Stick Duo"



Make sure that **the** access lamp is not lit, then push the "Memory Stick Duo" in once.

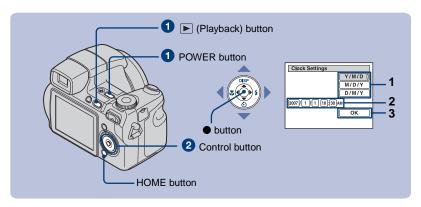
Battery pack

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



• Never remove the battery pack/"Memory Stick Duo" when the access lamp is lit. This may cause damage to data in the "Memory Stick Duo".

3 Turning the camera on/setting the clock



- 1 Press the POWER button or press 🕞 (Playback) button.
- 2 Set the clock with the control button.
 - **1** Select the date display format with \triangle/∇ , then press \blacksquare .
 - **2** Select each item with $\blacktriangleleft / \triangleright$ and set the numeric value with $\blacktriangle / \blacktriangledown$, then press \bullet .
 - **3** Select [OK], then press ●.

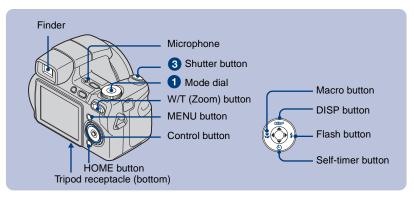
To change the date and time

Press the HOME button, and select [4] Clock Settings] in \blacksquare (Settings) (pages 23, 24).

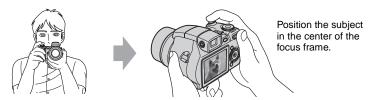
When you turn on the power

If the camera is running on battery power and you do not operate the camera for about three minutes, the camera turns off automatically to prevent wearing down the battery pack (Auto power-off function).

Shooting images easily



- 1 Select the desired function from the mode dial.
- 2 Hold the camera steady, keeping your arm at your side.



3 Shoot with the shutter button.

When shooting still images:

- **1** Press and hold the shutter button halfway down to focus.
 - The (AE/AF lock) indicator (green) flashes, a beep sounds, the indicator stops flashing and remains lit.
- **2** Press the shutter button fully down.



AE/AF lock indicator

When shooting movies:

Press the shutter button fully down.

To stop recording, press the shutter button fully down again.

Mode dial/Zoom/Flash/Macro/Self-timer/Display/Finder/Lens hood

Using the mode dial

Set the mode dial to the desired function.

Auto Adjustment

Allows easy shooting with the settings adjusted automatically.

P Program Shift

Allows you to shoot with the exposure adjusted automatically (both the shutter speed and the aperture value). Also you can select various setting using the menu.

S Shutter Speed Priority Shooting

Allows you to shoot after adjusting the shutter speed manually.

A Aperture priority Shooting

Allows you to shoot after adjusting the aperture value manually.

M Manual Exposure Shooting

Allows you to shoot after adjusting the exposure manually.

Movie Recording

Allows you to record movies with audio.

iso High Sensitivity

Shoot images without a flash even in low lighting.

Report Portrait

Shoot with backgrounds blurred away, and the subject is sharpened.

Advanced Sports Shooting

Shoot images by predicting the movement of the subject and setting focus.

Twilight Portrait

Shoot sharp images of people in a dark place without losing the nighttime atmosphere.

Landscape

Shoot with the focus on a distant subject.

SCN Scene Selection

Selects a Scene Selection in the menu.*

*Scene Selection in the menu

Twilight

Shoot night scenes without losing the nighttime atmosphere.

E Beach

Shoot seaside or lakeside scenes with the blueness of the water captured more vividly.

ප Snow

Shoot snow scenes in white more clearly.

Fireworks

Shoot fireworks in all their splendor.

IW/T Using the zoom

Press T to zoom, press W to undo zoom.

Flash (Selecting a flash mode for still images)

Press \triangleright (\clubsuit) on the control button repeatedly until the desired mode is selected.

\$AUTO: Flash Auto

Strobes when there is insufficient light or backlight (default setting)

4: Flash forced on

4sL: Slow synchro (Flash forced on)

The shutter speed is slow in a dark place to clearly shoot the background that is out of flash light.

3: Flash forced off

• When using flash, the flash automatically pops up and strobes. Close the flash by hand after use.

Macro (Shooting close-up)

Press ◀ (♥) on the control button repeatedly until the desired mode is selected.

Macro off

**: Macro on (W side: Approx. 1 cm or farther (13/32 inches or farther), T side: Approx. 120 cm or farther (3 feet 11 1/4 inches or farther))

Using the self-timer

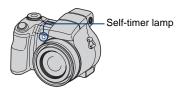
Press ▼ (⑤) on the control button repeatedly until the desired mode is selected

COFF: Not using the self-timer

☼₁₀: Setting the 10-second delay self-timer

3: Setting the 2-second delay self-timer

Press the shutter button, the self-timer lamp flashes, and a beep sounds until the shutter operates.



DISP Changing the screen display

Press ▲ (DISP) on the control button. Each time you press ▲ (DISP) button, the LCD screen or the LCD finder changes as follows.

→ Brightness of LCD backlight up
↓
Histogram on
↓
Indicators off
↓
Indicators on*

* The LCD backlight will return to normal brightness.

Shooting in the dark (DSC-H9 only)

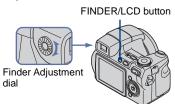
The Night Shot function lets you shoot subjects in the dark places without using the flash.

Set NIGHTSHOT switch to ON



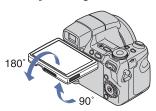
To shoot using the finder

With the FINDER/LCD button, you can choose to shoot either using the finder or the LCD screen. When you use the finder, the image does not appear on the LCD screen. Adjust the finder adjustment dial to your eyesight so that the image appears clearly within the finder, then shoot the image.



Adjusting the angle of the LCD screen (DSC-H9 only)

You can adjust the angle of the LCD screen.



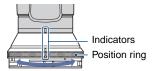
 Forcing the LCD screen to move over the range of movement may cause malfunction.

Attaching the lens hood

1 Attach the adaptor ring while the power is off.



2 Turn the position ring and position the indicator of the adaptor ring to the indicator of this camera, as illustrated below.



3 Turn the lens hood and position the indicator to the indicator of the position ring until it clicks. While doing this, hold and fix the indicator of the adaptor ring to not turn.



Storing the lens hood

Position the lens hood as shown below and turn the lens hood clockwise until it clicks.

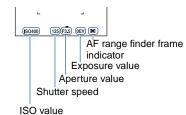


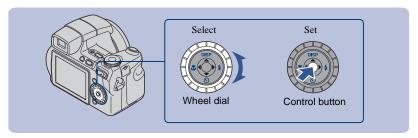
Shooting with manual adjustment

Using the wheel dial

You can change the following settings by using the wheel dial.

- · ISO value
- · Shutter speed
- · Aperture value
- Exposure value (EV)
- · AF range finder frame indicator
 - When manual focus is selected, the distance which the focus is set is adjusted.

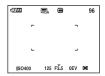




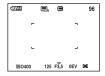
To select the item

item.

Turn the wheel dial to select the item you want to set.
 Move the yellow indication ▼ to select the



2 Press ● on the control button. The value turns yellow.

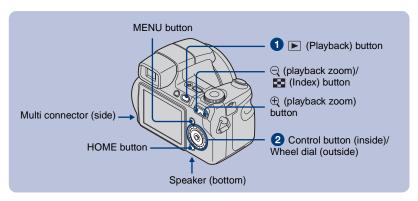


3 To set other items, press ● and then perform the following operations. Items that cannot be selected are displayed as gray.

To select the value

When the values are displayed in yellow, the values can be selected and set by turning the wheel dial. The displayed value is set.

Viewing/deleting images



1 Press ▶ (Playback) button.

If you press \triangleright when the camera is powered off, the camera is turned on automatically and set to playback mode. To switch to the shooting mode, press \triangleright again.

Select an image with ◄/▶ on the control button.

Movie:

Press ● to play back a movie. (Press ● again to stop playback.)

Press ▶ to fast forward, ◀ to rewind. (Press ● to return to normal playback.)

Press ▼ to display the volume control screen, then press ◄/▶ to adjust the volume.

• By turning the wheel dial, you can also easily view the next/previous image.

- 1 Display the image you want to delete, then press MENU.
- 2 Select im [Delete] with ▲ and select [This Image] with ◄/▶, then press ●.
- **3** Select [OK] with \triangle , then press \blacksquare .

I⊕⊝ To view an enlarged image (playback zoom)

Press

while displaying a still image.

To undo the zoom, press \bigcirc .

Adjust the position: $\triangle/\nabla/\triangle$

Cancel playback zoom:

Viewing an index screen

Press [(Index) button to display the index screen while a still image is displayed.

Then, select an image with $\triangle/\nabla/\blacktriangleleft/\triangleright$.

To return to the single image screen, press

.

- Each time you press [40] (Index), the number of pictures on the index screen changes.

To delete images in index mode

- **1** Press MENU while the index screen is displayed.
- 2 Select [Delete] with ▲ and select [Multiple Images] with ◄/▶, then press ●.
- **3** Select the image you want to delete with $\triangle / \nabla / \blacktriangleleft / \triangleright$, then press \bullet .
 - ✓ mark is checked in the checkbox of the image.

To cancel a selection, select an image you have selected for deletion, then press ● again.

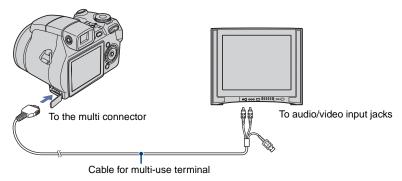
- **4** Press MENU and select [OK] with **△**, then press **●**.
 - To delete all the images in a folder, select [All In This Folder], then press in step 2.

To play back a series of images (Slide Show)

- **1** Press HOME and select [□ Slide Show] in ► (View Images).
- **2** Select [OK] with **△**, then press **●**.
- This is same as pressing the SLIDE SHOW button on the Remote Control.

To view images on TV screen

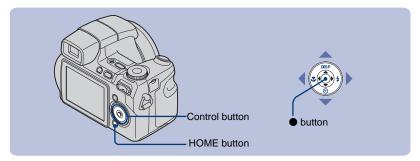
Connect the camera to the TV with the cable for multi-use terminal (supplied).



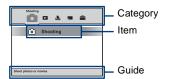
Learning the various functions – HOME/Menu

Using the HOME screen

The HOME screen is the gateway screen for all the functions of your camera. You can select the shooting mode or playback mode, or change the settings from the HOME screen.



1 Press HOME to display the HOME screen.



- 2 Select a category with ◄/▶ on the control button.
- 3 Select an item with ▲/▼, then press ●.
- When you select the (Manage Memory) or 🖴 (Settings) category



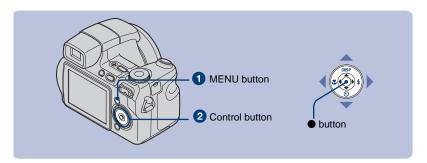
- **1** Select the desired item with \triangle/∇ on the control button.
 - This is functional only when you select (Settings).
- **2** Move to the right with \triangleright , select a setting with \triangle/∇ , then press \bullet .
- **3** Select a setting with \triangle/∇ , then press \blacksquare .
 - The camera is set to the shooting mode by pressing the shutter button halfway down.

HOME items

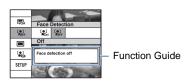
Press HOME button displays the following items. Details on the items are displayed on the screen by the guide.

Category	Items	
■ Shooting	Shooting	
► View Images	Single Image	
	Index Display	
	Slide Show	
▲ Printing, Other	Print	
	Music Tool	
	Download Music	Format Music
Manage Memory	Memory Tool	
	Memory Stick Tool Format Change REC. Folder	Create REC. Folder Copy
	Internal Memory Tool Format	- 17
Settings	Main Settings	
	Main Settings 1 Beep Initialize	Function Guide
	Main Settings 2 USB Connect Video Out	COMPONENT
	Shooting Settings	
	Shooting Settings 1 AF Illuminator AF Mode Conversion Lens	Grid Line Digital Zoom
	Shooting Settings 2 Flash Sync. Auto Review	Auto Orientation Expanded Focus
	Clock Settings	
	Language Setting	

Using menu items



1 Press MENU to display the menu.



- The menu will be displayed only during shooting and playback mode.
- Different items will become visible depending on the selected mode.
- Select the desired item with ▲/▼ on the control button.
 - If the desired item is hidden, keep pressing **△**/**▼** until the item appears on the screen.
- 3 Select the desired setting with **◄/▶** on the control button.



- If the desired item is hidden, keep pressing **◄/▶** until the item appears on the screen.
- Press after selecting an item in playback mode.
- 4 Press MENU to turn off the menu.

Menu items

The available menu items vary depending on the camera mode.

The shooting menu is available only in the shooting mode, and the viewing menu is available only in the playback mode.

Also, the menu items available vary depending on the mode dial position. Only the available items are displayed on the screen.

Menu for shooting

Selects a preset setting according to the scene.
Selects the still image size.
Detects the faces of your subjects and adjusts focus, etc.
Selects the continuous shooting method.
Changes the vividness of the image or adds special effects.
Selects the metering mode.
Adjusts the color tones.
Adjusts the amount of flash light.
Sets to reduce the red-eye phenomenon.
Adjusts the contrast.
Adjusts the sharpness.
Selects the anti-blur mode.
Selects shooting settings.

^{*} Menu items can be set on the menu screen only on DSC-H7. To set menu items on DSC-H9, press the buttons for each function.



Menu for viewing

(Delete)	Deletes images.
(Slide Show)	Plays back a series of images.
(Retouch)	Retouches images.
or (Protect)	Prevents accidental erasure.
DPOF	Adds a Print order mark on image that you want to print out.
(Print)	Prints images using a PictBridge compliant printer.
(Rotate)	Rotates a still image.
(Select Folder)	Selects the folder for viewing images.

Enjoying your computer

You can display images shot with the camera on the computer. Also, you can use still images and movies from the camera more than ever by taking advantage of the software. For details, refer to "Cyber-shot Handbook".

Supported Operating Systems for USB connection and application software (supplied)

	For Windows users	For Macintosh users
USB connection	Windows 2000 Professional, Windows XP Home Edition or Windows XP Professional	Mac OS 9.1/9.2/ Mac OS X(v10.1 to v10.4)
Application software "Picture Motion Browser"	Windows 2000 Professional, Windows XP Home Edition or Windows XP Professional	not compatible

- · Must be installed with above OS at delivery.
- If your OS does not support USB connections, use a commercially available Memory Stick Reader/Writer.
- For further details on the operating environment of "Picture Motion Browser" Cyber-shot application software, refer to "Cyber-shot Handbook".



Viewing "Cyber-shot Handbook" and "Cyber-shot Step-up Guide"

For Windows users

1 Turn on your computer, and insert the CD-ROM (supplied) into the CD-ROM drive. The screen below appears.



When you click the [Cyber-shot Handbook] button, the screen for copying "Cyber-shot Handbook" appears.

- 2 Follow the on-screen instructions to copy. When you click the "Cyber-shot Handbook" button, the both of the "Cyber-shot Handbook" and the "Cyber-shot Step-up Guide" will be installed.
- **3** After the installation is complete, double-click the shortcut created on the desktop.

For Macintosh users

Turn on your computer, and insert the CD-ROM (supplied) into the CD-ROM drive. Follow the instructions below.

To view the "Cyber-shot Handbook"

- Select the [Handbook] folder and copy "Handbook.pdf" stored in the [GB] folder to your computer.
- **2** After copying is complete, double-click "Handbook.pdf".

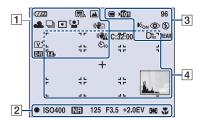
To view the "Cyber-shot Step-up Guide"

- 1 Copy the [stepupguide] folder in the [stepupguide] folder to your computer.
- 2 Select [stepupguide], [language] and then [GB] folder stored in the CD-ROM and copy all the files in the [GB] folder, then write over them to the files in the [img] folder stored in [stepupguide] which is copied to your computer in the step 1.
- **3** After copying is completed, double-click "stepupguide.hqx" in the [stepupguide] folder to uncompress it, then double-click the generated file "stepupguide".
- If an uncompress tool for HQX file is not installed, install the Stuffit Expander.

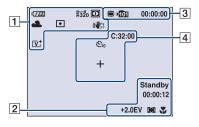
Indicators on the screen

Each time you press ▲ (DISP) button, the display changes (page 18).

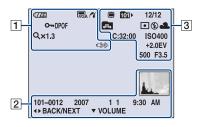
When shooting still images



When shooting movies



When playing back



1

47///	Battery remaining
	Low battery warning
8M S:2 5M 3M VGA (16:9	Image size
FINE ISTD #320	
iŝo 🏜 🎘 🟜	Mode dial/Menu (Scene
₩]₹{ ₩	Selection)
PSAM	Mode dial
O	Night Shot (DSC-H9 only)
※▲ ※※※↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓	White balance
BRK BRK ±0.3 ±0.7 BRK ±1.0	Recording mode
(e) (e)	Metering mode
[<u>•</u>]	Face Detection
(NON (NOFF	SteadyShot
(4)	Vibration warning
<u></u> \$ეი აე₂	Self-timer
W T	Zoom scaling
x1.3 sQ PQ	
V'N' S'BW'	Color mode
O - O + D -R	Contrast
<u> </u>	Sharpness
((PictBridge connecting
О-	Protect
VOL. IIIII	Volume
DP0F	Print order (DPOF) mark
Q×1.3	Zoom scaling
	PictBridge connecting

REC	Standby/Recording a movie ISO number NR slow shutter Shutter speed Aperture value
NR I	NR slow shutter Shutter speed
	Shutter speed
125	
	Aperture value
F3.5	
+2.0EV	Exposure Value
	AF range finder frame indicator
F	Manual focus
1 <u>cm 10cm 1m 2m ∞</u>]	Manual focus bar
1	Macro
	Playback
	Playback bar
00:00:12	Counter/Recording time
	Histogram • ⊗ appears when histogram display is disabled.
101-0012	Folder-file number
	Recorded date/time of the playback image
● OK ◆◆ MOVE ◆► MOVE	Operation guide for shooting image
	Operation guide for playing image
◄► BACK/NEXT S	Select images
▼ VOLUME A	Adjust volume

. ■	Recording/playback Media
>101	Recording folder
1011·	Playback folder
96	Remaining number of recordable images
12/12	Image number/Number of images recorded in selected folder
00:00:00	Remaining recordable time
444	Change folder
E ON	AF illuminator
③	Red-eye reduction
(0)	Metering mode
\$ \$SL (\$)	Flash mode
‡ •	Flash charging
AWB ☀ ♣ 祟祟祟ஃ ţwB	White balance
D _t D _w	Conversion lens
REAR	Flash synchro
C:32:00	Self-diagnosis display
ISO400	ISO number
+2.0EV	Exposure Value
500	Shutter speed
F3.5	Aperture value

_	
C:32:00	Self-diagnosis display
Ů 10 Ů 2	Self-timer
г п	AF range finder frame
<u></u>	Spot metering cross hair
•	1 0
II.	Histogram

Battery life and memory capacity

Battery life and number of images that can be recorded/viewed

The tables show the approximate number of images that can be recorded/viewed and the battery life when you shoot images in [Normal] mode with the battery pack (supplied) at full capacity and at an ambient temperature of 25°C (77°F). The numbers of images that can be recorded or viewed take into account changing the "Memory Stick Duo" as necessary.

Note that the actual numbers may be less than those indicated in the table depending on the conditions of use.

- Battery capacity decreases as you use it more, as the time passes.
- The number of images that can be recorded/ viewed and the battery life are decreased under the following conditions:
 - The surrounding temperature is low.
 - The flash is used frequently.
 - The camera has been turned on and off many times.
 - The zoom is used frequently.
 - The brightness of Backlight is set to up.
 - [AF Mode] is set to [Monitor].
 - [SteadyShot] is set to [Continuous].
 - The battery power is low.
 - [Face Detection] is set to [On].

When shooting still images

LCD screen/ Finder	No. of Images	Battery life (min.)
DSC-H9		
LCD screen	Approx. 280	Approx. 140
Finder	Approx. 310	Approx. 155
DSC-H7		
LCD screen	Approx. 300	Approx. 150
Finder	Approx. 320	Approx. 160

- · Shooting in the following situations:
 - [AF Mode] is set to [Single].
 - [SteadyShot] is set to [Shooting].
 - 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 measurement method is based on the CIPA standard.
- (CIPA: Camera & Imaging Products Association)
- The number of images/battery life does not change, regardless of image size.

When viewing still images

No. of Images	Battery life (min.)			
DSC-H9				
Approx. 6000	Approx. 300			
DSC-H7				
Approx. 7200	Approx. 360			

Viewing single images in order at about three second intervals

When shooting movies

Shooting with the LCD screen	Shooting with the finder			
DSC-H9				
Approx. 150	Approx. 170			
DSC-H7				
Approx. 160	Approx. 170			

 Shooting movies continuously with an image size of [320]

Number of still images and recording time of movies

The number of still images and the length of time for movies may vary depending on the shooting conditions.

• You can select the image size to be used when shooting from the menu (pages 25, 26).

The approximate number of still images

(Units: Images)

Capacity	Internal memory	"Memory Stick Duo" formatted with this camera						
Size	Approx. 31 MB	128 MB	256 MB	512 MB	1 GB	2 GB	4 GB	8 GB
8M	10	40	72	148	302	620	1225	2457
3:2	10	40	72	148	302	620	1225	2457
5M	13	51	92	188	384	789	1559	3127
3M	21	82	148	302	617	1266	2501	5017
VGA	202	790	1428	2904	5928	12154	24014	48166
16:9	33	133	238	484	988	2025	4002	8027

- The number of images listed is for when [REC Mode] is set to [Normal].
- When the number of remaining shootable images is greater than 9,999, the ">9999" indicator appears.
- When images recorded using earlier Sony models are played back on this camera, the display may differ from the actual image size.

The approximate recording time of movies

(Units: hour: minute: second)

Capacity	Internal memory	"Memory Stick Duo" formatted with this camera						
Size	Approx. 31 MB	128 MB	256 MB	512 MB	1 GB	2 GB	4 GB	8 GB
640(Fine)	-	-	0:02:50	0:06:00	0:12:20	0:25:10	0:50:00	1:40:20
640(Standard)	0:01:30	0:05:50	0:10:40	0:21:40	0:44:20	1:31:00	3:00:00	6:01:10
320	0:06:00	0:23:40	0:42:50	1:27:00	2:57:50	6:04:30	12:00:20	24:04:50

- Movies with the size set to [640(Fine)] can only be recorded on a "Memory Stick PRO Duo".
- The size of a movie file is limited to approx. 2 GB. During recording, movie recording stops automatically when the file size of the movie reaches approx. 2 GB.
- This camera does not support HD recordings or playbacks for movies.

Troubleshooting

If you experience trouble with your camera, try the following solutions.

1 Check the items below, and refer to "Cyber-shot Handbook" (PDF). If a code such as "C/E:□□:□□" appears on the screen, refer to "Cyber-shot Handbook".

Remove the battery pack, and insert the battery pack again after about one minute, and turn on the power.

3 Initialize the settings (page 24).

Consult your Sony dealer or local authorized Sony service facility.

Please understand that you give your consent that the contents of the internal memory, Music files may be checked when you send your camera to be repaired.

Battery pack and power

The battery pack cannot be inserted.

• Insert the battery pack correctly to push the battery eject lever (page 13).

Cannot turn on the camera.

- After installing the battery pack into the camera, it may take a little while to get the camera powered.
- Insert the battery pack correctly (page 13).
- The battery pack is discharged. Insert charged battery pack (page 12).
- The battery pack is dead. Replace it with a new one.
- Use a recommended battery pack (page 10).

The power turns off suddenly.

- If you do not operate the camera for about three minutes while the power is on, the camera turns off automatically to prevent wearing down the battery pack. Turn on the camera again (page 15).
- The battery pack is dead. Replace it with a new one.

The battery remaining indicator is incorrect.

- This phenomenon occurs when you use the camera in an extremely hot or cold location.
- The displayed battery remaining differs from the current one. Fully discharge and then charge the battery pack to correct the display.
- The battery pack is discharged. Insert the charged battery pack (page 12).
- The battery pack is dead. Replace it with a new one.

Cannot charge the battery pack.

• You cannot charge the battery pack using the AC Adaptor (not supplied).

Shooting still images/movies

Your camera cannot record images.

- Check the free capacity of the internal memory or "Memory Stick Duo" (pages 33). If it is full, do one of the following:
 - Delete unnecessary images (page 21).
- Change the "Memory Stick Duo".
- You are using the "Memory Stick Duo" with the write-protect switch, and the switch is set to the LOCK position. Set the switch to the recording position.
- · You cannot record images while charging the flash.
- When shooting a still image, set the mode dial to a position other than **!!**
- Set the mode dial to the when shooting movies.
- The image size is set to [640(Fine)] when recording movies. Do one of the following:
 - Set the image size to other than [640(Fine)].
- Insert a "Memory Stick PRO Duo".
- The lens cap is attached. Remove it.

Cannot insert dates on images.

 This camera does not have a feature for superimposing dates on images. By using "Picture Motion Browser", you can print or save images with the date.

Vertical streaks appear when you are shooting a very bright subject.

 The smear phenomenon is occurring and white, black, red, purple, or other streaks appear on the image. This phenmenon is not a malfunction.

Viewing images

Your camera cannot play back images.

- Press ▶ (Playback) button (page 21).
- The folder/file name has been changed on your computer.
- When an image file has been processed by a computer or when the image file was recorded using a model other than that of your camera, playback on your camera is not guaranteed.
- The camera is in USB mode. Delete the USB connection.

Precautions

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 strong magnetic place
- In sandy or dusty places
 Be careful not to let sand or dust get into the camera. This may cause the camera to malfunction, and in some cases this malfunction cannot be repaired.

On cleaning

Cleaning the LCD screen

Wipe the screen surface with an LCD cleaning kit (not supplied) to remove fingerprints, dust, etc.

Cleaning the lens

Wipe the lens with a soft cloth to remove fingerprints, dust, 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. Do not use the following as they may damage the finish or the casing.

- Chemical products such as thinner, benzine, alcohol, disposable cloths, insect repellent, sunscreen or insecticide, etc.
- Do not touch the camera with the above on your hand.
- Do not leave the camera in contact with rubber or vinyl for a long time.

On operating temperatures

Your camera is designed for use under the temperatures between 0°C and 40°C (32°F and 104°F). Shooting in extremely cold or hot places that exceed this range is not recommended.

On moisture condensation

If the camera is brought directly from a cold to a warm location, moisture may condense inside or outside the camera. This moisture condensation may cause a malfunction of the camera.

If moisture condensation occurs

Turn off the camera and wait about an hour for the moisture to evaporate. Note that if you attempt to shoot with moisture remaining inside the lens, you will be unable to record clear images.

On the internal rechargeable backup battery

This camera has an internal rechargeable battery for maintaining the date and time and other settings regardless of whether the power is on or off.

This rechargeable battery is continually charged as long as you are using the camera. However, if you use the camera for only short periods, it discharges gradually, and if you do not use the camera at all for about one month it becomes completely discharged. In this case, be sure to charge this rechargeable battery before using the camera.

However, even if this rechargeable battery is not charged, you can still use the camera as long as you do not record the date and time.

Charging method of the internal rechargeable backup battery

Insert charged battery pack in the camera, and then leave the camera for 24 hours or more with the power off.

Specifications

Camera [System] Image device: 7.18 mm (1/2.5 type) color CCD, Primary color filter Total pixel number of camera: Approx. 8 286 000 pixels Effective pixel number of camera: Approx. 8 083 000 pixels Lens: Carl Zeiss Vario-Tessar 15× zoom lens f = 5.2 - 78 mm (31 – 465 mm when converted to a 35 mm still camera) F2.7 - 4.5 Exposure control: Automatic exposure, Shutter speed priority, Aperture priority, Manual exposure, Scene Selection (9 modes) White balance: Automatic, Daylight, Cloudy, Fluorescent 1.2.3, Incandescent, Flash, One File format (DCF compliant): Still images: Exif Ver. 2.21 JPEG compliant, DPOF compatible Movies: MPEG1 compliant (Monaural) Recording media: Internal Memory (approx. 31 MB), "Memory Stick Duo" Flash: Flash range (ISO sensitivity (Recommended exposure value) set to ISOAUTO): approx. 0.2 to 9.8 m (7 7/8 inches to 32 feet 1 7/8 inches) (W)/ approx. 1.2 to 6.0 m (3 feet 11 1/4 inches to 19 feet 8 1/4 inches) (T) Viewfinder: Electric viewfinder (color) [Input and Output connectors] Multi connector Video output Audio output (Monaural) USB communication USB communication: Hi-Speed USB (USB 2.0 compliant) [LCD screen] LCD panel: DSC-H9: 7.5 cm (3.0 type) TFT drive DSC-H7: 6.2 cm (2.5 type) TFT drive Total number of dots: DSC-H9: 230 400 (960 × 240) dots DSC-H7:

115 200 (480 × 240) dots [Finder]

Panel: 0.5 cm (0.2 type) color Total number of dots:

Approx. 200 000 dots equivalent

[Power, general]

Power: Rechargeable battery pack NP-BG1, 3.6 V AC-LS5K AC Adaptor (not supplied), 4.2 V Power consumption (during shooting with the LCD screen): DSC-H9: 1.2 W DSC-H7: 1.1 W

Operating temperature: 0 to 40°C (32 to 104°F) Storage temperature: -20 to +60°C (-4 to +140°F) Dimensions: $109.5 \times 83.4 \times 85.7 \text{ mm}$ (4 3/8 × $3.3/8 \times 3.3/8$ inches) (W/H/D, excluding protrusions) (for both DSC-H9 and DSC-H7) Mass:

DSC-H9:

Approx. 546 g (1 lb 3.3 oz) (including NP-BG1 battery pack, shoulder strap, adaptor ring, lens hood and lens cap, etc.)

DSC-H7:

Approx. 514 g (1 lb 2.1 oz) (including NP-BG1 battery pack, shoulder strap, adaptor ring, lens hood and lens cap, etc.)

Microphone: Monaural Speaker: Monaural Exif Print: Compatible

PRINT Image Matching III: Compatible

PictBridge: Compatible

BC-CSG/BC-CSGB/BC-CSGC battery charger

Power requirements: AC 100 V to 240 V, 50/ 60 Hz, 2 W (BC-CSG/BC-CSGC)/ 2.6 W (BC-CSGB) Output voltage: DC 4.2 V, 0.25 A

Operating temperature: 0 to 40°C (32 to 104°F) Storage temperature: -20 to +60°C (-4 to $+140^{\circ}F$)

Dimensions: Approx. $62 \times 24 \times 91 \text{ mm}$ (2 1/2 × $31/32 \times 35/8$ inches) (W/H/D) Mass: Approx. 75 g (2.7 oz)

Rechargeable battery pack NP-

Used battery: Lithium-ion battery Maximum voltage: DC 4.2 V Nominal voltage: DC 3.6 V Capacity: 3.4 Wh (960 mAh)

Design and specifications are subject to change without notice

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Revision History

Ver.	Date	History	Contents	S.M. Revissued
1.0	2007.04	Official Release	_	
1.1	2007.05	Correction-1	Correction of ACCESSORIES	Yes
		(C1)	S.M Correction: Page5	
1.2	2007.08	Revised-1	Correction of ACCESSORIES	Yes
			S.M Correction: Page5	