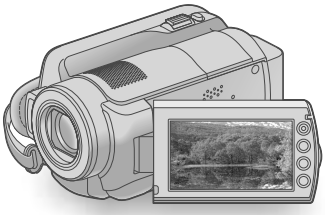
SONY

4-121-426-**12**(1)



HDR-XR100E/XR105E/XR106E/ XR200E/XR200VE

Digital HD Video Camera Recorder

Operating Guide

AVCHD HDMI MEMORY STICK InfoLITHIUM H SERIES

NAVTEQ MAPS

HANDYCAM

Table of contents 8

Getting started 10

Recording 14

Playback 19

Saving movies and photos with a computer 24

Saving images with a DVD writer/ recorder 35

Making good use of your camcorder 39

Additional information 49

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

WARNING

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

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

CAUTION

Battery pack

If the battery pack is mishandled, the battery pack can burst, cause a fire or even chemical burns. Observe the following cautions.

- Do not disassemble.
- Do not crush and do not expose the battery pack to any shock or force such as hammering, dropping or stepping on it.
- Do not short circuit and do not allow metal objects to come into contact with the battery terminals.
- Do not expose to high temperature above 60°C (140°F) such as in direct sunlight or in a car parked in the sun.
- Do not incinerate or dispose of in fire.
- Do not handle damaged or leaking lithium ion batteries.
- Be sure to charge the battery with Sony battery charger or the 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 promptly according to the instructions.

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

AC Adaptor

Do not use the AC Adaptor placed in a narrow space, such as between a wall and furniture.

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

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

Notice for customers in the United Kingdom

A moulded plug complying with BS1363 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 BS1362 (i.e., marked with ⓐ 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.

FOR CUSTOMERS IN EUROPE

CE

Hereby, Sony Corporation, declares that this HDR-XR200VE Digital HD Video Camera Recorder is in compliance with the essential requirements and other relevant provisions of the Directive 1999/5/EC. For details, please access the following URL: http://www.compliance.sony.de/

Notice for the customers in the countries applying EU Directives (HDR-XR100E/XR105E/XR106E/XR200E)

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.

ATTENTION

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

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

Notice

If static electricity or electromagnetism causes data transfer to discontinue midway (fail), restart the application or disconnect and connect the 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: Wireless Remote Comander (HDR-XR200E/XR200VE)

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.
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.

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.: HDR-XR200E
Responsible Party: Sony Electronics Inc.
Address: 16530 Via Esprillo, San Diego, CA 92127 U.S.A.
Telephone number: 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.

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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.

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

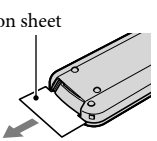
received, including interference that may cause undesired operation.

Supplied items

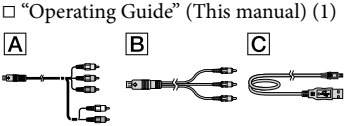
The numbers in ( ) are the supplied quantity.

□ AC Adaptor (1)
□ Power cord (Mains lead) (1)
□ Component A/V cable (1) A
□ A/V connecting cable (1) B
□ USB cable (1) C
□ Wireless Remote Commander (1) (only for HDR-XR200E/XR200VE)

- A button-type lithium battery is already installed. Remove the insulation sheet before using the Wireless Remote Commander.



□ Rechargeable battery pack NP-FH60 (1)
□ CD-ROM "Handycam Application Software" (1)
– "PMB" (software, including "PMB Guide")
– "Handycam Handbook" (PDF)
□ "Operating Guide" (This manual) (1)



- See page 41 for the "Memory Stick" media you can use with this camcorder.

Notes on use

Using the camcorder

- The camcorder is not dustproofed, dripproofed or waterproofed. See "Precautions" (p. 51).
- Do not do any of the following when the 🎞 (Movie)/📷 (Photo) mode lamps (p. 12) or the ACCESS lamps (p. 10), the access lamp (p. 41) are lit or flashing. Otherwise, the recording media may be damaged, recorded images may be lost or other malfunctions could occur.
  – ejecting the "Memory Stick PRO Duo" media
  – removing the battery pack or AC Adaptor from the camcorder
- Do not apply shock or vibration to the camcorder. The camcorder may not be able to record or play movies and photos.
- Do not use the camcorder in very loud areas. The camcorder may not be able to record or play movies and photos.
- When connecting the camcorder to another device with communication cables, be sure to insert the connector plug in the correct way. Pushing the plug forcibly into the terminal will damage the terminal and may result in a malfunction of the camcorder.
- Do not close the LCD screen when the camcorder is connected to another device with the USB cable. Your recorded images may be lost.
- Even if the camcorder is turned off, the GPS function is working as long as the GPS switch is set to ON. Make sure that the GPS switch is set to OFF during take off and landing of an airplane (HDR-XR200VE).
- To protect the internal hard disk from shock by dropping, the camcorder has drop sensor function. When a drop occurs, or under a non-gravity condition, the block noise made when this function is activated by the camcorder may also be recorded. If the drop sensor catches a drop repeatedly, recording/playback may be stopped.
- When the temperature of the camcorder becomes extremely high or extremely low, you may not be able to record or play back on the camcorder, due to the protection features of the camcorder being activated in such situations. In this case, a message appears on the LCD screen (p. 50).

- Do not turn on the camcorder in a low-pressure area, where the altitude is more than 5,000 meters (16,000 feet). Doing so may damage the hard disk drive of the camcorder.
- If you repeat recording/deleting images for a long time, fragmentation of data occurs on the recording media. Images cannot be saved or recorded. In such a case, save your images on some type of external media first, and then perform [MEDIA FORMAT] (p. 39).
- The LCD screen is 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 appear constantly on the LCD screen. These points are normal results of the manufacturing process and do not affect the recording in any way.

On recording

- Before starting to record, test the recording function to make sure the image and sound are recorded without any problems.
- Compensation for the contents of recordings cannot be provided, even if recording or playback is not possible due to a malfunction of the camcorder, recording media, etc.
- TV color systems differ depending on the country/region. To view your recordings on a TV, you need a PAL system-based TV.
- Television programs, films, video tapes, and other materials may be copyrighted. Unauthorized recording of such materials may be contrary to the copyright laws.
- To prevent your image data from being lost, save all your recorded images on external media periodically. It is recommended that you save the image data on a disc such as DVD-R using your computer. Also, you can save your image data using a VCR, or a DVD/HDD recorder.

On playing back recorded images on other devices

- The camcorder is compatible with MPEG-4 AVC/H.264 High Profile for high definition image quality (HD) recording. Therefore, you cannot play back images recorded with high definition image quality (HD) on the camcorder with the following devices;
  – Other AVCHD format compatible devices which are not compatible with High Profile
  – Devices which are not compatible with the AVCHD format

Discs recorded with high definition image quality (HD)

- This camcorder captures high definition footage in the AVCHD format. DVD media containing AVCHD footage should not be used with DVD based players or recorders, as the DVD player/recorder may fail to eject the media and may erase its contents without warning. DVD media containing AVCHD footage may be played on a compatible Blu-ray Disc™ player/recorder or other compatible device.

About language setting

- The on-screen displays in each local language are used for illustrating the operating procedures. Change the screen language before using the camcorder if necessary (p. 13).

About this manual

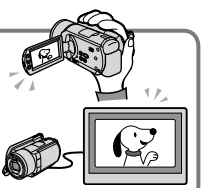
- The images of the LCD screen used in this manual for illustration purposes are captured using a digital still camera, and therefore may appear different from the actual images of the LCD screen.
- In this Operating Guide, the hard disk of the camcorder and “Memory Stick PRO Duo” media are called “recording media.”
- In this Operating Guide, both “Memory Stick PRO Duo” media and “Memory Stick PRO-HG Duo” media are referred as “Memory Stick PRO Duo” media.
- You will find the “Handycam Handbook” (PDF) on the supplied CD-ROM (p. 48).
- The screenshots are from Windows Vista. The scenes may vary depending on the operating system of the computer.

Operation flow

Recording movies and photos (p. 14)

- In the default settings, movies are recorded with high definition image quality (HD) on the internal hard disk.
- In the default settings, photos are recorded on the internal hard disk.
- You can change the recording media selected, and the image quality of movies (p. 40, 45).

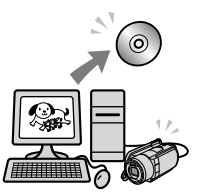
Playing movies and photos (p. 19)



Playing movies and photos on your camcorder (p. 19)

Playing movies and photos on a connected TV (p. 22).

Saving movies and photos on a disc

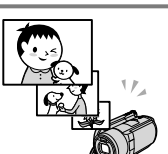


Saving movies and photos with a computer (p. 24)

- You can create a disc with either high definition image quality (HD) or standard definition image quality (SD) from high definition image quality (HD) movies imported to the computer. See page 27 on the characteristics of each type of disc.

Creating a disc with a DVD writer or a recorder (p. 35)

Deleting movies and photos (p. 39)



- You can free recording space by deleting movies and photos that you have saved on other media, from the internal hard disk.

Table of contents

Read this first 2
Operation flow 7

Getting started

Step 1: Charging the battery pack 10
Charging the battery pack abroad 11
Step 2: Turning the power on, and setting the date and time 12
Changing the language setting 13

Recording

Recording 14
Recording and playing movies and photos easily (Easy Handycam operation) 18
Acquiring recording location information using the GPS (HDR-XR200VE) 18

Playback

Playback on the camcorder 19
Playing images on a TV 22

Saving movies and photos with a computer

Preparing a computer (Windows) 24
When using a Macintosh 24
Selecting the method for creating a disc (computer) 27
Creating a disc with one touch (One Touch Disc Burn) 29
Importing movies and photos to a computer (Easy PC Back-up) 30
Changing the destination drive or folder for movies and photos 30
Starting PMB (Picture Motion Browser) 31
Creating a high definition image quality (HD) disc 31
Playing a high definition image quality (HD) disc on a computer 32
Creating a Blu-ray disc 32
Creating a standard definition image quality (SD) disc that can be played on ordinary DVD players 33
Copying a disc 33
Editing movies 34
Capturing photos from a movie 34

Saving images with a DVD writer, recorder

Selecting the method for creating a disc (DVD writer/recorder) 35
Creating a high definition image quality (HD) disc with a DVD writer, etc. (USB cable connection) 36

Creating a standard definition image quality (SD) disc with a recorder, etc. (A/V connecting cable connection) 37

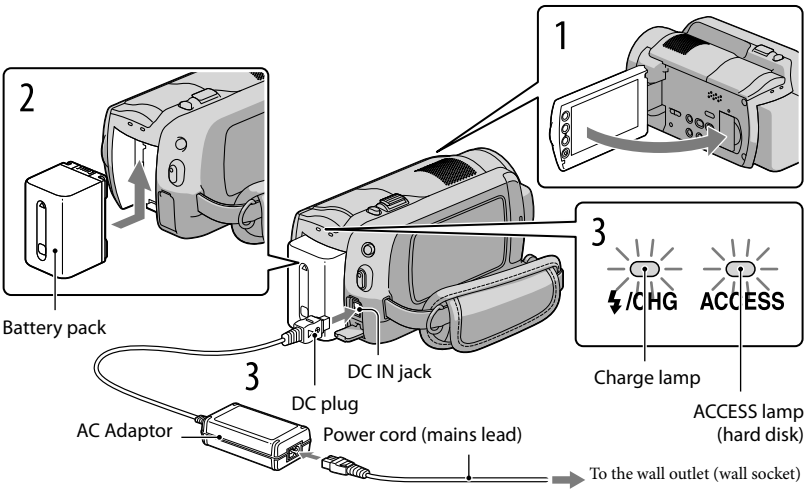
Making good use of your camcorder

Deleting movies and photos 39
Coping with shooting conditions 40
Changing the recording medium 40
To check the recording media settings 41
Dubbing or copying movies and photos from the internal hard disk to a "Memory Stick PRO Duo" media 42
Customizing your camcorder with menus 42
Using the HELP function 43
Getting detailed information from the "Handycam Handbook" 48

Additional information

Troubleshooting 49
Precautions 51
Specifications 54
Screen indicators 58
Parts and controls 59
Index 62

Step 1: Charging the battery pack



You can charge the "InfoLITHIUM" battery pack (H series) after attaching it to your camcorder.

- You cannot attach any "InfoLITHIUM" battery pack other than the H series to your camcorder.

1 Turn off your camcorder by closing the LCD screen.

2 Attach the battery pack by sliding it in the direction of the arrow until it clicks.

3 Connect the AC Adaptor and the power cord (mains lead) to your camcorder and the wall outlet (wall socket).

- Be sure that the ▲ mark on the DC plug is facing the right.

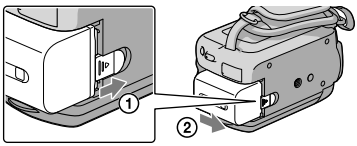
The charge lamp lights up and charging starts. The charge lamp turns off when the battery pack is fully charged.

4 When the battery is charged, disconnect the AC Adaptor from the DC IN jack of your camcorder.

- See page 55 on charging, recording and playing time.
- When your camcorder is on, you can check the approximate amount of remaining battery power with the remaining battery indicator at the upper left on the LCD screen.

To remove the battery pack

Close the LCD screen. Slide the BATT (battery) release lever ① and remove the battery pack ②.



To use a wall outlet (wall socket) as a power source

Make the same connections as “Step 1: Charging the battery pack.”

Notes on the battery pack and the AC Adaptor

- When you remove the battery pack or disconnect the AC Adaptor, close the LCD screen and make sure that the (Movie) lamp/ (Photo) lamp (p. 12)/ACCESS lamps (p. 10)/access lamp(p. 41) are turned off.
- Do not short-circuit the DC plug of the AC Adaptor or battery terminal with any metallic objects. This may cause a malfunction.
- In the default setting, the power turns off automatically if you leave your camcorder without any operation for approximately 5 minutes, to save battery power ([A.SHUT OFF]).

Charging the battery pack abroad

You can charge the battery pack in any countries/regions using the AC Adaptor supplied with your camcorder within the AC 100 V - 240 V, 50 Hz/60 Hz range.

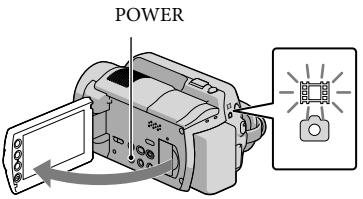
- Do not use an electronic voltage transformer.

Step 2: Turning the power on, and setting the date and time

1 Open the LCD screen of your camcorder.

Your camcorder is turned on.

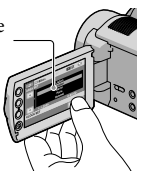
- To turn on your camcorder when the LCD screen is open, press POWER.



(Movie): To record movies
(Photo): To record photos

2 Select the desired geographical area with ▲/▼, then touch [NEXT].

Touch the button on the LCD screen.

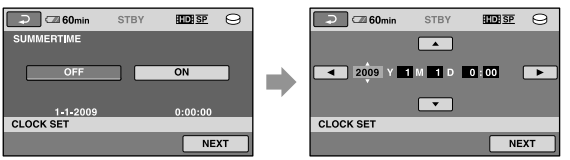


- To set the date and time again, touch (HOME) → (SETTINGS) → [CLOCK/ LANG] → [CLOCK SET]. When an item is not on the screen, touch ▲/▼ until the item appears.

3 Set [SUMMERTIME], date and time, then touch OK.

The clock starts.

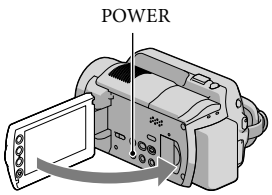
- If you set [SUMMERTIME] to [ON], the clock advances 1 hour.



- The date and time does not appear during recording, but they are automatically recorded on the recording media, and can be displayed during playback. To display the date and time, touch (HOME) → (SETTINGS) → [VIEW IMAGES SET] → [DATA CODE] → [DATE/TIME] → OK → ↩ → ✕.
- You can turn off the operation beeps by touching (HOME) → (SETTINGS) → [SOUND/DISP SET] → [BEEP] → [OFF] → OK → ↩ → ✕.

To turn off the power

Close the LCD screen. The (Movie) lamp flashes several seconds, then the camcorder is turned off.



- You can turn off your camcorder also by pressing POWER.
- When [POWER ON BY LCD] (p. 46) is set to [OFF], turn off your camcorder by pressing POWER.

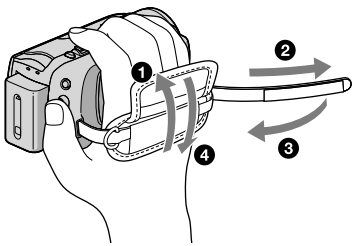
Changing the language setting

You can change the on-screen displays to show messages in a specified language.
Touch (HOME) → (SETTINGS) → [CLOCK/LANG] → [LANGUAGE SET] → the desired language → OK → → .

Recording

Recording movies

In the default setting, movies are recorded with high definition image quality (HD) on the hard disk (p. 40, 45).

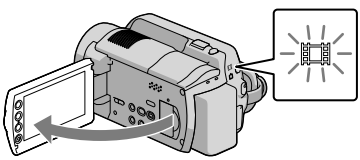


1 Fasten the grip belt.

2 Open the LCD screen of your camcorder.

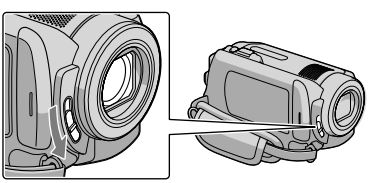
Your camcorder is turned on.

- To turn on your camcorder when the LCD screen is already open, press POWER.

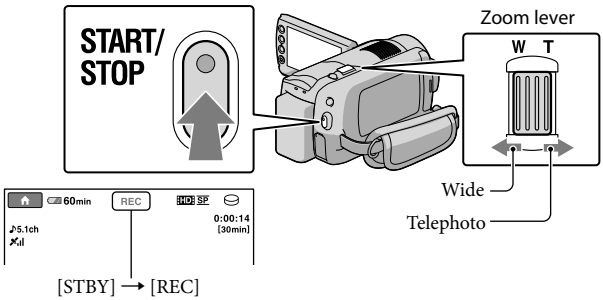


For HDR-XR100E/XR105E/XR106E

Open the lens cover.



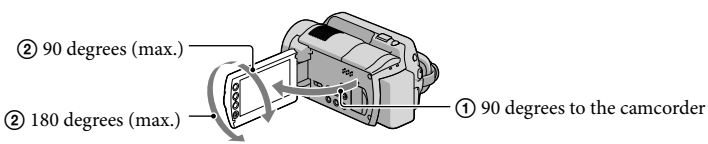
3 Press START/STOP to start recording.



To stop recording, press START/STOP again.

- Move the power zoom lever slightly for a slower zoom. Move it further for a faster zoom.

- If you close the LCD screen during recording, the camcorder stops recording.
- See page 56 on the recordable time of movies.
- The maximum continuous recordable time of movies is about 13 hours.
- When a movie file exceeds 2 GB, the next movie file is created automatically.
- You can change the recording media and image quality (p. 40, 45).
- You can change the recording mode of movies (p. 45).
- [STEADYSHOT] is set as follows in the default setting.
  HDR-XR100E/XR105E/XR106E: [ON]
  HDR-XR200E/XR200VE: [ACTIVE]
- To adjust the angle of the LCD panel, first open the LCD panel 90 degrees to the camcorder (①), and then adjust the angle (②). If you rotate the LCD panel 180 degrees to the lens side (②), you can record movies/photos in mirror mode.



- In the default setting, a photo is recorded automatically when the camcorder detects the smile of a person during movie recording ([SMILE SHUTTER]). An orange frame appears around a face targeted for possible smile detection shot. You can change the setting in the menu.
- You can increase the zooming level by using the digital zoom. Set the zooming level by touching (HOME) → (SETTINGS) → [MOVIE SETTINGS] → [DIGITAL ZOOM] → the desired setting → OK → ↩ → ✕.
- When viewing movies on an x.v.Color-compliant TV, record movies with the x.v.Color function. Touch (HOME) → (SETTINGS) → [MOVIE SETTINGS] → [X.V.COLOR] → [ON] → OK → ↩ → ✕. Some settings may be required on a TV to view the movies. Refer to the instruction manuals of the TV.

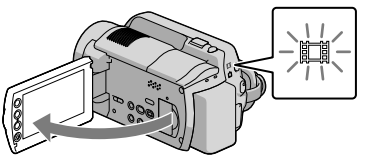
Shooting photos

In the default setting, photos are recorded on the hard disk (p. 40).

1 Open the LCD screen of your camcorder.

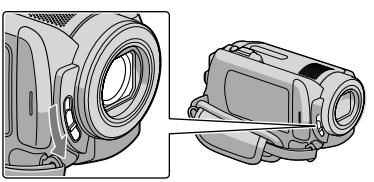
Your camcorder is turned on.

- To turn on your camcorder when the LCD screen is already open, press POWER.



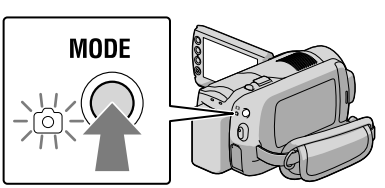
For HDR-XR100E/XR105E/XR106E

Open the lens cover.

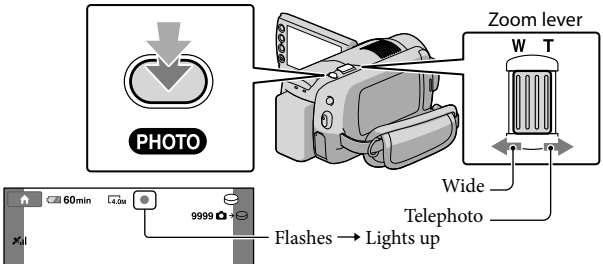


2 Press MODE to turn on the (Photo) lamp.

The aspect ratio of the screen becomes 4:3.



3 Press PHOTO lightly to adjust the focus, then press it fully.



When IIIIIIII disappears, the photo is recorded.

- Move the power zoom lever slightly for a slower zoom. Move it further for a faster zoom.

- You can check the recordable number of photos on the LCD screen (p. 58).
- To change the image size, touch (HOME) → (SETTINGS) → [PHOTO SETTINGS] → [IMAGE SIZE] → a desired setting → OK → → .
- You can record photos during movie recording by pressing PHOTO. The image file size is as follows when recording high definition image quality (HD) movies;
  HDR-XR100E/XR105E/XR106E: 2.3M
  HDR-XR200E/XR200VE: 3.0M
- Your camcorder flashes automatically when there is insufficient ambient light. The flash does not work during movie recording. You can change how your camcorder flashes by touching (HOME) → (SETTINGS) → [PHOTO SETTINGS] → [FLASH MODE] → a desired setting → OK → → (HDR-XR200E/XR200VE).
- You cannot record photos while is displayed.

Recording and playing movies and photos easily (Easy Handycam operation)

Simply press EASY.

To cancel Easy Handycam operation, press EASY again after you finish recording, or menu operations. During Easy Handycam operation, you can set basic options, such as changing the image size or deleting images, among the setting and adjustment items. Other items are set automatically.

- When Easy Handycam operation is started, nearly all menu settings are reset to the default settings automatically. (Some menu items retain the settings that were made before Easy Handycam operation.)

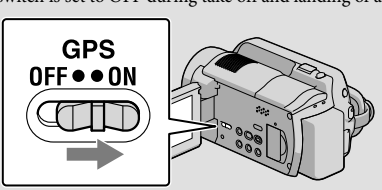
EASY appears during Easy Handycam operation mode.

Acquiring recording location information using the GPS (HDR-XR200VE)

When you set the GPS switch to ON, appears on the LCD screen, and your camcorder acquires the location information from the GPS satellites. Acquiring the location information enables you to use functions such as the Map Index.

The indicator changes according to the strength of GPS signal reception.

- Make sure that the GPS switch is set to OFF during take off and landing of an airplane.



- Built-in map is powered by companies as follows; Map of Japan by ZENRIN CO., LTD., other areas by NAVTEQ.

Playback on the camcorder

In the default setting, movies and photos on the internal hard disk are played (p. 40).

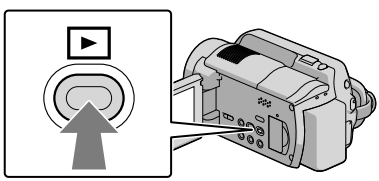
Playing movies

1 Open the LCD screen of your camcorder.

Your camcorder is turned on.

- To turn on your camcorder when the LCD screen is already open, press POWER.

2 Press ▶ (VIEW IMAGES).



The VISUAL INDEX screen appears after some seconds.

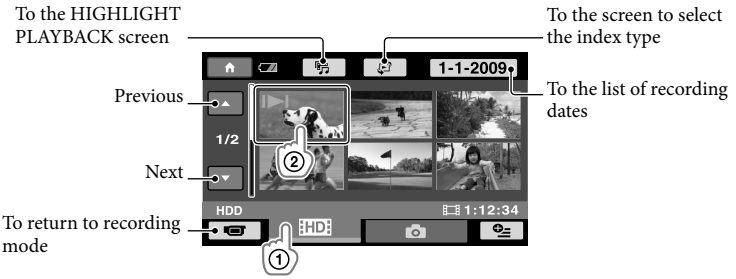
- You can display the VISUAL INDEX screen by pressing ▶ (VIEW IMAGES) on the LCD screen as well.

3 Touch the HD (or SD) tab ① → a desired movie ②.

HDR-XR100E/XR105E/XR106E

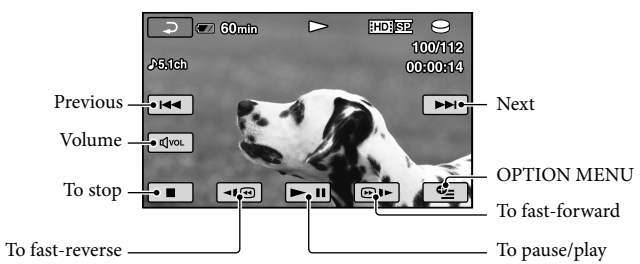
- I▶I/▶ appears on the movie/photo that was played or recorded most recently. Touch the image to continue playing from the scene.

HDR-XR200E/XR200VE



- I▶I/▶ appears on the movie/photo that was played or recorded most recently. Touch the image to continue playing from the scene.

Your camcorder starts playing the selected movie.



- When playback from the selected movie reaches the last movie, the screen returns to the VISUAL INDEX screen.
- Touch ◄I◎/◎►I during pause to play back movies slowly.
- As you repeat touching ◄I◎/◎►I during playback, movies are played as fast as about 5 times → about 10 times → about 30 times → about 60 times.
- You can turn on or off the on-screen display by pressing DISP located on the panel behind the LCD panel.
- The recording date, time, and shooting conditions are recorded automatically during recording. This information are not displayed during recording, but you can display it during playback by touching (HOME) → (SETTINGS) → [VIEW IMAGES SET] → [DATA CODE] → a desired setting → OK → ⮌ → X.
- Protected demonstration movie has been provided on your camcorder when you buy it.

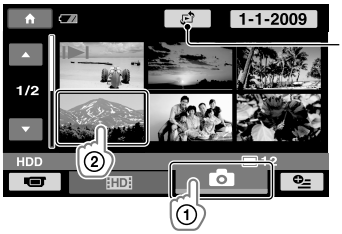
To adjust the sound volume of movies

While playing back movies, touch VOL → adjust with −/+ → ⮌.

- You can adjust the sound volume from the OPTION MENU (p. 43).

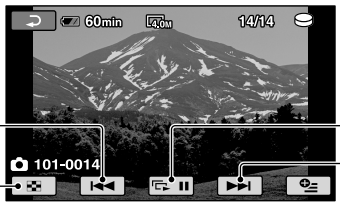
Viewing photos

Touch (Photo) ① → a desired photo ② on the VISUAL INDEX screen.



Displays the Map Index screen (p. 44) (HDR-XR200VE)

Your camcorder displays the selected photo.



Previous

To start/stop slide show

To the VISUAL INDEX screen

Next

- You can zoom in the photo by moving the zoom lever while viewing photos (PB ZOOM). If you touch a point in the PB ZOOM frame, the point comes to the center in the frame.
- When viewing photos recorded on a "Memory Stick PRO Duo" media, 101 ▸ (playback folder) appears on the screen.

Playing images on a TV

Connection methods and the image quality (high definition (HD) or standard definition (SD)) played on the TV screen differ depending on what type of TV is connected, and the connectors used. You can connect your camcorder to the TV easily following the instructions of [TV CONNECT Guide].

Connecting a TV using [TV CONNECT Guide]

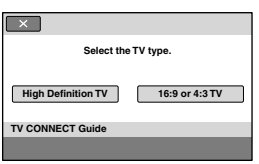
1 Switch the input on the TV to the connected jack.

- Refer to the instruction manuals of the TV.

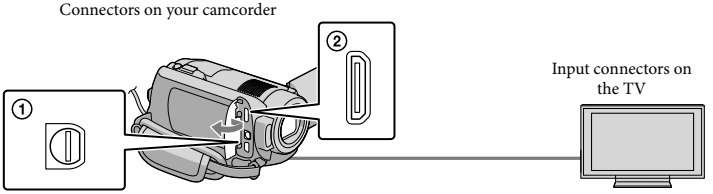
2 Turn on your camcorder, and touch (HOME) → (OTHERS) → [TV CONNECT Guide] on the LCD screen.

- When an item is not on the screen, touch / until the item appears.
- Use the supplied AC Adaptor as the power source (p. 11).

3 Connect your camcorder and TV referring to [TV CONNECT Guide].



Connectors on your camcorder



① A/V Remote Connector
② HDMI OUT (mini) jack

- When the A/V connecting cable is used to output movies, movies are output with standard definition image quality (SD).

4 Play back movies and photos on your camcorder (p. 19).

- Make the required output settings on your camcorder.
  To connect a high definition TV via component video jacks:
  (HOME) → (SETTINGS) → [OUTPUT SETTINGS] → [COMPONENT] → [1080i/576i] → OK → ↩ → ✕
  To connect a non-high-definition TV via component video jacks:
  (HOME) → (SETTINGS) → [OUTPUT SETTINGS] → [COMPONENT] → [576i] → OK → ↩ → ✕
  To connect a 4:3 TV:
  (HOME) → (SETTINGS) → [OUTPUT SETTINGS] → [TV TYPE] → [4:3] → OK → ↩ → ✕
  To activate "BRAVIA" Sync:
  (HOME) → (SETTINGS) → [GENERAL SET] → [CTRL FOR HDMI] → [ON] → OK → ↩ → ✕

On "PhotoTV HD"

This camcorder is compatible with the "PhotoTV HD" standard. "PhotoTV HD" allows for highly-detailed, photo-like depiction of subtle textures and colors. By connecting Sony's PhotoTV HD-compatible devices using an HDMI cable (sold separately)* or the component A/V cable (supplied)**, a whole new world of photos can be enjoyed in breathtaking full HD quality.

* The TV will automatically switch to the appropriate mode when displaying photos.

**Setup of the TV will be necessary. Please refer to the instruction manual of your PhotoTV HD-compatible TV for details.

Preparing a computer

(Windows)

You can perform following operations using "PMB (Picture Motion Browser)."
– Importing images to a computer
– Viewing and editing imported images
– Creating a disc
– Uploading movies and photos to websites

To save movies and photos using a computer, install "PMB" from the supplied CD-ROM beforehand.

- Do not format the hard disk of your camcorder from a computer. Your camcorder may not operate correctly.
- This camcorder captures high definition footage in the AVCHD format. Using the enclosed PC software, high definition footage can be copied onto DVD media. However, DVD media containing AVCHD footage should not be used with DVD based players or recorders, as the DVD player/recorder may fail to eject the media and may erase its contents without warning.

Step 1 Checking the computer system

OS*1
Microsoft Windows XP SP3*2/Windows Vista SP1*3
CPU
Intel Pentium 4 2.8 GHz or faster (Intel Pentium 4 3.6 GHz or faster, Intel Pentium D 2.8 GHz or faster, Intel Core Duo 1.66 GHz or faster, or Intel Core 2 Duo 1.66 GHz or faster is recommended.) However, Intel Pentium III 1 GHz or faster is sufficient for the following operations: – Importing the movies and photos to the computer – One Touch Disc Burn – Creating an Blu-ray disc/AVCHD format disc/DVD-video (Intel Pentium 4, 2.8 GHz or faster, is required when creating a DVD video by converting high definition image quality (HD) to standard definition image quality (SD).) – Copying a disc
Software
DirectX 9.0c or later (This product is based on DirectX technology. It is necessary to have DirectX installed)
Memory
For Windows XP: 512 MB or more (1 GB or more is recommended.) However, 256 MB or more is sufficient for processing only the movies with standard definition image quality (SD). For Windows Vista: 1 GB or more
Hard disk
Disk volume required for installation: Approximately 500 MB (10 GB or more may be necessary when creating AVCHD format discs. 50 GB maximum may be necessary when creating Blu-ray discs.)
Display
Minimum 1,024 × 768 dots
Others
USB port (this must be provided as standard, Hi-Speed USB (USB 2.0 compatible)), Blu-ray disc/DVD burner (CD-ROM drive is necessary for installation) Either NTFS or exFAT file system is recommended as the hard disk file system.

- Operation with all computer environments is not assured.

*1 Standard installation is required. Operation is not assured if the OS has been upgraded or in a multi-boot environment.

*2 64-bit editions and Starter (Edition) are not supported.

*3 Starter (Edition) is not supported.

When using a Macintosh

The supplied software "PMB" is not supported by Macintosh computers.
To process photos using a Macintosh computer connected to your camcorder, see the following website.
http://guide.d-imaging.sony.co.jp/mac/ms/us/

Step 2 Installing the supplied software "PMB"

Install "PMB" before connecting your camcorder to a computer.

- If a version of "PMB" supplied with another device has already been installed on the computer, check the version. (The version number is displayed by clicking [Help] - [About PMB].) Compare the version number of the supplied CD-ROM with that of the previously installed "PMB," check to ensure that the versions have been installed in order, from the lower to the higher. If the version number of the previously installed "PMB" is higher than that of the "PMB" of your camcorder, uninstall "PMB" from the computer and then re-install it in order, from lower to higher. If you install a higher version of "PMB" first, some functions may not work correctly.
- See page 48 on the "Handycam Handbook."

1 Confirm that your camcorder is not connected to the computer.

2 Turn on the computer.

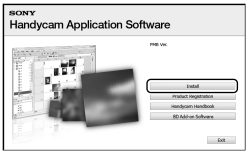
- Log on as an Administrator for installation.
- Close all applications running on the computer before installing the software.

3 Place the supplied CD-ROM in the disc drive of your computer.

The installation screen appears.

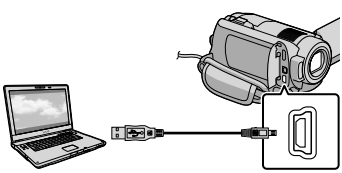
- If the screen does not appear, click [Start] → [Computer] (in Windows XP, [My Computer]), then double-click [SONYPICTUTIL (E:)] (CD-ROM).

4 Click [Install].



5 Select the language for the application to be installed, then click [Next].

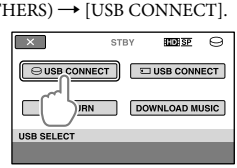
6 Turn on your camcorder, then connect the camcorder to the computer using the supplied USB cable.



The [USB SELECT] screen appears on the camcorder screen automatically.

7 Touch [USB CONNECT] on the camcorder screen.

- If the [USB SELECT] screen does not appear, touch (HOME) → (OTHERS) → [USB CONNECT].



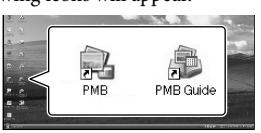
8 Click [Continue].

9 Confirm the license agreement, and if you accept the terms, change ○ to ◉ → click [Next] → [Install] on the computer screen.

10 Follow the on-screen instructions to install the software.

- Depending on the computer, you may need to install third party software. If the installation screen appears, follow the instructions to install the required software.
- Restart the computer if required to complete the installation.

When the installation is completed, following icons will appear.



- Other icons may appear.
- No icon may appear depending on the installation procedure.
- The Handycam Handbook is not installed in this procedure (p. 48).

To disconnect your camcorder from the computer

1 Click the icon at the bottom right of the desktop of the computer → [Safely remove USB Mass Storage Device].

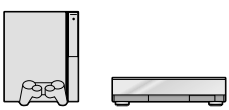
2 Touch [END] → [YES] on the camcorder screen.

3 Disconnect the USB cable.

- You can create a Blu-ray disc by using a computer with a Blu-ray disc burner. Install the BD Add-on Software for "PMB" (p. 32).

Selecting the method for creating a disc (computer)

Several methods for creating a high definition image quality (HD) disc or a standard definition image quality (SD) disc from high definition image quality (HD) movies or photos recorded on your camcorder are described here. Select the method that suits your disc player.

Player	Choosing a method and disc type	
Blu-ray disc playback devices (a Blu-ray disc player, PLAYSTATION®3, etc.)	① Importing movies and photos to a computer (Easy PC Back-up) (p. 30) ↓ ② Creating a Blu-ray disc* with high definition image quality (HD) (p. 32)	Blu-ray
AVCHD format playback devices (a Sony Blu-ray disc player, PLAYSTATION®3, etc.) 	Creating a disc with one touch (One Touch Disc Burn) (p. 29)	HD
	① Importing movies and photos to a computer (Easy PC Back-up) (p. 30) ↓ ② Creating a AVCHD format disc with high definition image quality (HD) (p. 31)	HD
Ordinary DVD playback devices (a DVD player, a computer that can play DVDs, etc.)	① Importing movies and photos to a computer (Easy PC Back-up) (p. 30) ↓ ② Creating a standard definition image quality (SD) disc (p. 33)	SD

* To create a Blu-ray disc, the BD Add-on Software for "PMB" must be installed (p. 32).

Characteristics of each type of disc

Blu-ray Using a Blu-ray disc enables you to record high definition image quality (HD) movies of a longer duration than DVD discs.

HD High definition image quality (HD) movie can be recorded on DVD media, such as DVD-R discs, and a high definition image quality (HD) disc is created.

SD Standard definition image quality (SD) movie converted from high definition image quality (HD) movie can be recorded on DVD media, such as DVD-R discs, and a standard image quality (SD) disc is created.

Discs you can use with "PMB"

You can use 12 cm discs of following type with "PMB." For Blu-ray disc, see page 32.

Disc type	Features
DVD-R/DVD+R/DVD+R DL	Unrewritable
DVD-RW/DVD+RW	Rewritable

- Always maintain your PLAYSTATION®3 to use the latest version of the PLAYSTATION®3 system software.
- The PLAYSTATION®3 may not be available in some countries/regions.

Creating a disc with one touch

(One Touch Disc Burn)

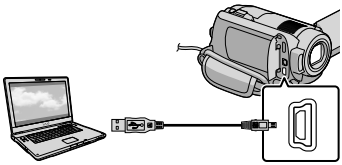
You can save movies and photos on a disc by simply pressing the (DISC BURN) button on your camcorder. Movies and photos recorded on your camcorder that have not yet been saved with One Touch Disc Burn can be saved on a disc automatically. Movies and photos are saved on a disc with their recorded image quality.

- High definition image quality (HD) movies (the default setting) will make a high definition image quality (HD) disc. You cannot play a high definition image quality (HD) disc on DVD players.
- Creating a Blu-ray disc is not available with One Touch Disc Burn.
- To create a standard definition image quality (SD) disc from high definition image quality (HD) movies, import movies to a computer first (p. 30), and then create a standard definition image quality (SD) disc (p. 33).
- Install "PMB" beforehand (p. 25), however, do not start "PMB."
- Connect your camcorder to the wall outlet (wall socket) using the AC Adaptor supplied for this operation (p. 11).
- With the (DISC BURN) button, you can save movies and photos recorded on the internal hard disk only.

1 Turn on your computer, and place an empty disc on the DVD drive.

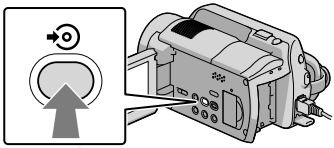
- See page 27 for the type of discs you can use.
- If any other software than "PMB" starts automatically, shut it down.

2 Turn on your camcorder, and connect it to the computer using the USB cable.

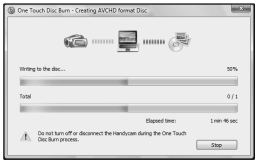


- Do not close the LCD screen when the camcorder is connected to another device with the USB cable. Your recorded images may be lost.

3 Press the (DISC BURN) button.



4 Follow the instructions on the computer screen.



- Movies and photos are not saved on the computer when you perform One Touch Disc Burn.

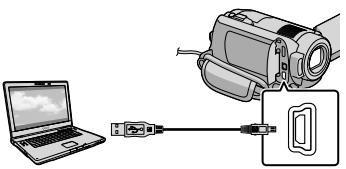
Importing movies and photos to a computer

(Easy PC Back-up)

Movies and photos recorded on your camcorder that have not yet been saved with Easy PC Back-up can be imported to a computer automatically. Turn on the computer beforehand.

- Connect your camcorder to the wall outlet (wall socket) using the AC Adaptor supplied for this operation (p. 11).

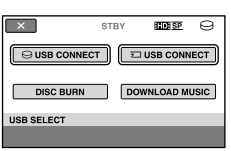
1 Turn on your camcorder, and connect it to the computer using the USB cable.



The [USB SELECT] screen appears on the camcorder screen.

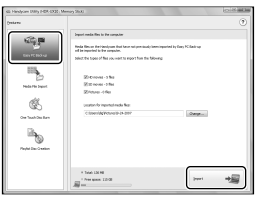
- Do not close the LCD screen when the camcorder is connected to another device with the USB cable. Your recorded images may be lost.

2 Touch [USB CONNECT] to import images from the internal hard disk, or [USB CONNECT] to import images from a "Memory Stick PRO Duo" media.



The [Handycam Utility] window appears on the computer screen.

3 On the computer screen, click [Easy PC Back-up] → [Import].



Movies and photos are imported to your computer.
When the operation is completed, the "PMB" screen appears.

- When the operation is completed, a screen to indicate that movies are being analyzed may appear. It may take a long time to analyze movies. In the meantime, you can operate "PMB."

- You can create either high definition image quality (HD) discs (Blu-ray disc/AVCHD format disc) (p. 31) or standard definition image quality (SD) discs (p. 33) from imported high definition image quality (HD) movies.
- See PMB Guide on importing selected movies and photos (p. 31).
- You can export high definition image quality (HD) movies from your computer to your camcorder (HDR-XR100E/XR200E/XR200VE). On the "PMB" screen, click [Manipulate] → [Export to] → [Handycam (Hard Disk Drive)]/[Handycam (Memory Stick)]. See PMB Guide for details (p. 31).

Changing the destination drive or folder for movies and photos

On the [Handycam Utility] screen in step 3 above, click [Easy PC Back-up] → [Change]. On the screen displayed, you can select the drive or folder where the images are to be saved.

Starting PMB (Picture Motion Browser)

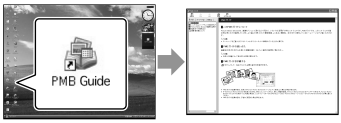
Double-click the “PMB” short-cut icon on the computer screen.

- If the icon is not displayed on the computer screen, click [Start] → [All Programs] → [Sony Picture Utility] → [PMB] to start “PMB.”

You can view, edit, or create discs of movies and photos using “PMB.”

Reading “PMB Guide”

Refer to the PMB Guide for details of the “PMB.” Double-click the PMB Guide short-cut icon on the computer screen to open the PMB Guide.



- If the icon is not displayed on the computer screen, click [Start] → [All Programs] → [Sony Picture Utility] → [Help] → [PMB Guide]. You can also open the PMB Guide from [Help] of “PMB.”

Creating a high definition image quality (HD) disc

You can create a high definition image quality (HD) disc by putting together high definition image quality (HD) movies previously imported to your computer (p. 30).

- In this section, the procedure for recording a high definition image quality (HD) movie on a DVD disc (p. 27) is explained.
- You can play a high definition image quality (HD) disc on AVCHD format playback devices, such as a Sony Blu-ray disc player and a PLAYSTATION®3. You cannot play the disc on ordinary DVD players (p. 27).

1 Turn on your computer, and place an empty disc on the DVD drive.

- See page 28 for the type of discs you can use.
- If any software starts automatically, shut it down.

2 Double-click the “PMB” short-cut icon on the computer screen to start “PMB.”

- You may start “PMB” also by clicking [Start] → [All Programs] → [Sony Picture Utility] → [PMB].

3 Click [Folders] or [Calendar] on the left side in the window, and select the folder or date, then select the high definition image quality (HD) movies.

- High definition image quality (HD) movies are marked with HD.
- You cannot save photos on a disc.
- To select plural movies, hold the Ctrl key down and click thumbnails.

4 At the top of the window, click [Manipulate] → [AVCHD (HD) Creation].

The window used to select movies appears.

- To add movies to the previously selected ones, select the movies in the main window and drag and drop onto the window for selecting movies.

5 Follow the instructions on the screen to create a disc.

- It may take a long time to create a disc.

Playing a high definition image quality (HD) disc on a computer

You can play back high definition image quality (HD) discs using “Player for AVCHD” that is installed together with “PMB.”

To start “Player for AVCHD,” Click [Start] → [All Programs] → [Sony Picture Utility] → [Player for AVCHD]. See the “Player for AVCHD” help on the operation.

- Movies may not be played smoothly depending on the computer environment.

Creating a Blu-ray disc

You can create a Blu-ray disc with a high definition image quality (HD) movie previously imported to a computer (p. 30).

To create a Blu-ray disc, the BD Add-on Software for “PMB” must be installed. Click [BD Add-on Software] on the installation screen of “PMB,” and install this plug-in according to the on-screen instructions.

- Connect your computer to the internet when you install [BD Add-on Software].

Place an empty Blu-ray disc in the disc drive, and click [Manipulate] → [Blu-ray Disc (HD) Creation] in step 4 of “Creating a high definition image quality (HD) disc” (p. 31). Other procedures are the same as that for creating a high definition image quality (HD) disc.

- Your computer must support the creation of Blu-ray discs.
- BD-R (unrewritable) and BD-RE (rewritable) media are available for creating Blu-ray discs. You cannot add contents to either type of disc after creating the disc.

Creating a standard definition image quality (SD) disc that can be played on ordinary DVD players

You can create a standard definition image quality (SD) disc by selecting movies and photos previously imported to your computer (p. 30).

- You may select high definition image quality (HD) movies as sources. However, image quality is converted from high definition (HD) to standard definition (SD). It will take a longer time for converting the image quality of the movies than it took to actually record the movies.

1 Turn on your computer, and place an empty disc on the DVD drive.

- See page 28 for the type of discs you can use.
- If any software starts automatically, shut it down.

2 Double-click the "PMB" short-cut icon on the computer screen to start "PMB."

- You may start "PMB" also by clicking [Start] → [All Programs] → [Sony Picture Utility] → [PMB].

3 Click [Folders] or [Calendar] on the left side in the window, and select the folder or date, then select the movies and photos.

- High definition image quality (HD) movies are marked with HD.
- To select plural movies and photos, hold the Ctrl key down and click thumbnails.

4 At the top of the window, click [Manipulate] → [DVD-Video (SD) Creation].

The window used to select movies and photos appears.

- To add movies and photos to the previously selected ones, select the movies and photos in the main window and drag and drop onto the window for selecting movies and photos.

5 Follow the instructions on the screen to create a disc.

- It may take a long time to create a disc.

Copying a disc

You can copy a recorded disc to another disc using "Video Disc Copier."
You can also copy a disc by converting high definition image quality (HD) movies to standard definition image quality (SD) movies.
Click [Start] → [All Programs] → [Sony Picture Utility] → [Video Disc Copier] to start the software. See the "Video Disc Copier" help on the operation.

- You cannot copy to a Blu-ray disc.

Editing movies

You can cut out only necessary parts from a movie and save it as another file. Using “PMB,” select the movie you want to edit, then click [Manipulate] → [Video Trimming] on the menu to display the Video Trimming window. See the PMB Guide on the operation (p. 31).

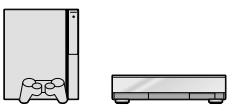
Capturing photos from a movie

You can save a frame of a movie as a photo file.
On the movie playback window of “PMB,” click to display [Save Frame] windows. See the PMB Guide on the operation (p. 31).

Selecting the method for creating a disc (DVD writer/recorder)

Several methods for creating a high definition image quality (HD) disc or a standard definition image quality (SD) disc from high definition image quality (HD) movies or photos recorded on your camcorder are described here. Select the method that suits your disc player.

- Prepare a DVD disc such as a DVD-R, for creating a disc.
- See page 32 to create a Blu-ray disc.

Player	Choosing a method and disc type	
AVCHD format playback devices (a Sony Blu-ray disc player, PLAYSTATION®3, etc.) 	Creating a high definition image quality (HD) disc with a DVD writer, etc. (USB cable connection) (p. 36)	HD
Ordinary DVD playback devices (a DVD player, a computer that can play DVDs, etc.)	Creating a standard definition image quality (SD) disc with a disc recorder, etc. (A/V connecting cable connection) (p. 37)	SD

- Always maintain your PLAYSTATION®3 to use the latest version of the PLAYSTATION®3 system software.
- The PLAYSTATION®3 may not be available in some countries/regions.

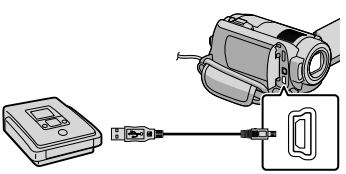
Creating a high definition image quality (HD) disc with a DVD writer, etc.

(USB cable connection)

You can save high definition image quality (HD) movies on a disc by connecting your camcorder to disc creation devices, such as a Sony DVD writer, with the USB cable. Refer also to the instruction manuals supplied with the devices to be connected. The method used to create a disc by connecting your camcorder to a Sony DVD writer with the USB cable is described here.

- Connect your camcorder to the wall outlet (wall socket) using the AC Adaptor supplied for this operation (p. 11).

1 Turn on your camcorder, and connect a DVD writer, etc. to the ⚷ (USB) jack of your camcorder with the USB cable (supplied).



The [USB SELECT] screen appears on the camcorder screen.

2 Touch [USB CONNECT] when movies are recorded on the internal hard disk, or [USB CONNECT] when movies are recorded on a "Memory Stick PRO Duo" media on the camcorder screen.

3 Record movies on the connected device.

- For details, refer to the instruction manuals supplied with the device to be connected.

4 After the operation is completed, touch [END] → [YES] on the camcorder screen.

5 Disconnect the USB cable.

- The high definition image quality (HD) disc that you created should not be used in DVD players/recorders. Because DVD players/recorders are not compatible with the AVCHD format, DVD players/recorders may fail to eject the disc.
- Sony DVD writer may not be available in some countries/regions.

Creating a standard definition image quality (SD) disc with a recorder, etc.

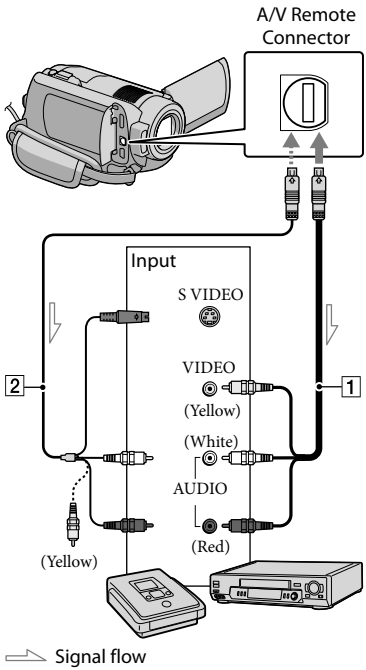
(A/V connecting cable connection)

You can dub images played back on your camcorder on a disc or video cassette, by connecting your camcorder to a disc recorder or a Sony DVD writer, etc. with the A/V connecting cable. Connect the device in either way of 1 or 2. Refer also to the instruction manuals supplied with the devices to be connected. Select the recording media that contains movies you want to dub before starting the operation (p. 40).

- Connect your camcorder to the wall outlet (wall socket) using the AC Adaptor supplied for this operation (p. 11).
- High definition image quality (HD) movies will be dubbed with standard definition image quality (SD).

1 A/V connecting cable (supplied)
Your camcorder is equipped with A/V Remote Connector (p. 59). Connect the A/V connecting cable to your camcorder.

2 A/V connecting cable with S VIDEO (sold separately)
When connecting to another device via the S VIDEO jack, by using an A/V connecting cable with an S VIDEO cable (sold separately), higher quality images can be produced than with an A/V connecting cable. Connect the white and red plug (left/right audio) and the S VIDEO plug (S VIDEO channel) of the A/V connecting cable with an S VIDEO cable. If you connect the S VIDEO plug only, you will hear no sound. The yellow plug (video) connection is not necessary.



1 Insert the recording media in the recording device.

- If your recording device has an input selector, set it to the input mode.

2 Connect your camcorder to the recording device (a disc recorder, etc.) with the A/V connecting cable 1 (supplied) or an A/V connecting cable with S VIDEO 2 (sold separately).

- Connect your camcorder to the input jacks of the recording device.

3 Start playback on your camcorder, and record it on the recording device.

- Refer to the instruction manuals supplied with your recording device for details.

4 When dubbing is finished, stop the recording device, and then your camcorder.

- Since dubbing is performed via analog data transfer, the image quality may deteriorate.
- You cannot dub images to recorders connected with an HDMI cable.
- To hide the screen indicators (such as a counter, etc.) on the screen of the monitor device connected, touch (HOME) → (SETTINGS) → [OUTPUT SETTINGS] → [DISP OUTPUT] → [LCD PANEL] (the default setting) → [OK] → [↩] → [✕].
- To record the date/time or camera settings data, touch (HOME) → (SETTINGS) → [VIEW IMAGES SET] → [DATA CODE] → a desired setting → [OK] → [↩] → [✕].
  In addidion touch (HOME) → (SETTINGS) → [OUTPUT SETTINGS] → [DISP OUTPUT] → [V-OUT/PANEL] → [OK] → [↩] → [✕].
- When the screen size of display devices (TV, etc.) is 4:3, touch (HOME) → (SETTINGS) → [OUTPUT SETTINGS] → [TV TYPE] → [4:3] → [OK] → [↩] → [✕].
- When you connect a monaural device, connect the yellow plug of the A/V connecting cable to the video input jack, and the white (left channel) or the red (right channel) plug to the audio input jack on the device.
- Sony DVD writer may not be available in some countries/regions.

Deleting movies and photos

You can free media space by deleting movies and photos from recording media. Select the recording medium that contains the movies and photos you want to delete before starting the operation (p. 40).

1 Touch (HOME) → (OTHERS) → [DELETE].

2 To delete movies, touch [DELETE] → [HD DELETE] or [SD DELETE].

- To delete photos, touch [DELETE] → [DELETE].

3 Touch and display the ✓ mark on the movies or photos to be deleted.

4 Touch OK → [YES] → OK → .

- To delete all movies at one time
  In step 2, touch [DELETE] → [HD DELETE ALL]/[SD DELETE ALL] → [YES] → [YES] → OK → .
- To delete all photos at one time
  In step 2, touch [DELETE] → [DELETE ALL] → [YES] → [YES] → OK → .

Formatting the recording media

Formatting deletes all the movies and photos to recover recordable free space.

- Connect your camcorder to the wall outlet (wall socket) using the AC Adaptor supplied for this operation (p. 11).
- To avoid the loss of important images, you should save them (p. 27, 35) before formatting the recording media.

1 Touch (HOME) → (MANAGE MEDIA) → [MEDIA FORMAT].

2 Touch the recording media to be formatted ([HDD] or [MEMORY STICK]).

3 Touch [YES] → [YES] → OK.

- While [Executing…] is displayed, do not operate the POWER switch or other buttons, disconnect the AC Adaptor, or eject the "Memory Stick PRO Duo" media from your camcorder. (The ACCESS/access lamp is lit or flashing while formatting the medium.)
- Protected movies and photos will also be deleted.

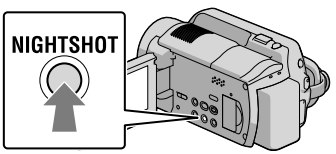
Coping with shooting conditions

Many settings and adjustment options are available on the menu (p. 42).

Recording in dark places (NightShot)(HDR-XR200E/XR200VE)

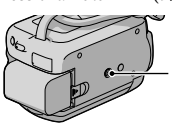
When you press NIGHTSHOT, appears. You can record images in dark places. To cancel the NightShot function, press NIGHTSHOT again.

- Using NightShot in bright places will cause a malfunction of your camcorder.



Using a tripod

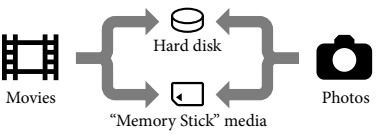
Attach the tripod (sold separately) to the tripod receptacle using a tripod screw (sold separately, the length of the screw must be less than 5.5 mm (7/32 in.)).



Tripod receptacle

Changing the recording medium

You can select the internal hard disk or "Memory Stick PRO Duo" media as the recording, playback, or editing medium on your camcorder. Select the medium to be used for movies and photos separately. In the default setting, both movies and photos are recorded on the hard disk.



- You can do recording, playback, and editing operations on the selected medium.
- See page 56 for the recordable time of movies.

Selecting the recording media for movies

1 Touch (HOME) → (MANAGE MEDIA) → [MOVIE MEDIA SET].

The [MOVIE MEDIA SET] screen appears.

2 Touch the desired medium.

3 Touch [YES] → OK.

The recording medium is changed.

Selecting the media for photos

1 Touch (HOME) → (MANAGE MEDIA) → [PHOTO MEDIA SET].

The [PHOTO MEDIA SET] screen appears.

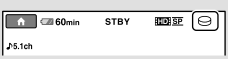
2 Touch the desired recording medium.

3 Touch [YES] → [OK].

The recording medium is changed.

To check the recording media settings

Light up the (Movie) lamp to check the recording medium used for movies, or the (Photo) lamp for photos. The media icon is displayed at the top right corner of the screen.



: Internal hard disk
: "Memory Stick PRO Duo" media

Inserting a "Memory Stick PRO Duo" media

- Set the recording medium to [MEMORY STICK] to record movies and/or photos on a "Memory Stick PRO Duo" media (p. 40).

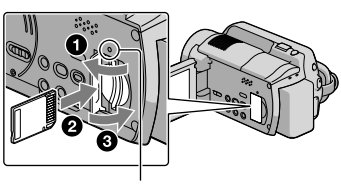
Types of "Memory Stick" media you can use with your camcorder

- For recording movies, it is recommended that you use the "Memory Stick PRO Duo" media of 1 GB or larger marked with:
  – MEMORY STICK PRO DUO ("Memory Stick PRO Duo" media)*
  – MEMORY STICK PRO-HG DUO ("Memory Stick PRO-HG Duo" media)

  * Marked with Mark2 or not, either can be used.
- "Memory Stick PRO Duo" media of up to 16 GB is confirmed to work with this camcorder.

1 Open the "Memory Stick Duo" media cover, and insert the "Memory Stick PRO Duo" media into the "Memory Stick Duo" media slot until it clicks.

- If you force the "Memory Stick PRO Duo" media into the slot in the wrong direction, the "Memory Stick PRO Duo" media, the "Memory Stick Duo" media slot, or image data may be damaged.
- Close the "Memory Stick Duo" media cover after inserting the "Memory Stick PRO Duo" media.



Access lamp
("Memory Stick PRO Duo" media)

The [Create a new Image Database File.] screen appears when you insert a new "Memory Stick PRO Duo" media.

2 Touch [YES].

- To record only photos on a "Memory Stick PRO Duo" media, touch [NO].

- If [Failed to create a new Image Database File. It may be possible that there is not enough free space.] is displayed in step 2, format the "Memory Stick PRO Duo" media (p. 39).

To eject the "Memory Stick PRO Duo" media

Open the "Memory Stick PRO Duo" media cover and lightly push the "Memory Stick PRO Duo" media in once.

- Do not open the "Memory Stick Duo" media cover during recording.
- When inserting or ejecting the "Memory Stick PRO Duo" media, be careful so that the "Memory Stick PRO Duo" media does not pop out and drop.

Dubbing or copying movies and photos from the internal hard disk to a "Memory Stick PRO Duo" media

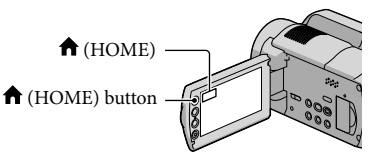
Touch (HOME) → (OTHERS) → [MOVIE DUB]/[PHOTO COPY], then follow the displays on the screen.

Customizing your camcorder with menus

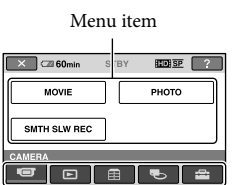
- Menu items are described in more details with color photos in the "Handycam Handbook" (p. 48).

Using the HOME MENU

When you press the (HOME) button, the HOME MENU appears. You can change the settings of your camcorder.



1 Touch the desired category → the menu item to be changed.



2 Follow the instruction on the screen.

3 After completing the setting, touch [OK].

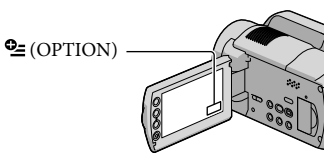
- When the item is not on the screen, touch /.
- To return to the previous screen, touch .
- To hide the HOME MENU screen, touch .
- You cannot select the grayed items or settings.

Using the HELP function

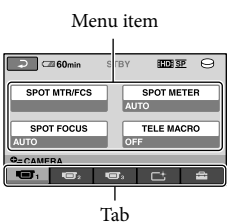
To see the descriptions on the HOME MENU, touch [?] (HELP) on the HOME MENU screen. (The bottom of [?] turns orange.) Then, touch the menu item you want to know about.

Using the OPTION MENU

The OPTION MENU appears just like the pop-up window that appears when you right-click the mouse on a computer. The menu items you can change in the context appears.



1 Touch the desired tab → the item to change the setting.



2 After completing the setting, touch [OK].

- When the item you want is not on the screen, touch another tab. (There may be no tab.)
- You cannot use the OPTION MENU during Easy Handycam operation.

List of the HOME MENU

(CAMERA) category

MOVIE ..... p. 14
PHOTO ..... p. 16
SMTH SLW REC..... Records fast moving subjects in slow-motion.

(VIEW IMAGES) category

VISUAL INDEX..... p. 19
MAP* ..... Displays the Map Index for searching for movies and photos by recording location.
FILM ROLL ..... p. 19
FACE..... p. 19
PLAYLIST..... Displays and plays the playlist of movies.

(OTHERS) category

DELETE
- DELETE ..... p. 39
- DELETE ..... p. 39

YOUR LOCATION* ..... Displays the current location on a map.
PHOTO CAPTURE ..... Captures photos from desired scenes of movies.
MOVIE DUB
- DUB/
- DUB..... p. 42

PHOTO COPY
- COPY by select ..... p. 42
- COPY by date..... p. 42

EDIT
- DELETE ..... p. 39
- DELETE ..... p. 39
- PROTECT..... Sets the protection to avoid deleting movies.
- PROTECT..... Sets the protection to avoid deleting photos.
- DIVIDE ..... Divides movies.

PLAYLIST EDIT
- ADD/ ADD ..... Adds movies in a playlist.
- ADD by date/
  ADD by date..... Adds movies recorded on a same day at one time in a playlist.
- ERASE/
  ERASE ..... Erases movies from a playlist.
- ERASE ALL/
  ERASE ALL..... Erases all movies from a playlist.
- MOVE/
  MOVE..... Changes the order of movies in a playlist.

USB CONNECT

USB CONNECT ..... Connects the internal hard disk via USB.

USB CONNECT ..... Connects the "Memory Stick PRO Duo" media via USB.

DISC BURN ..... p. 29

DOWNLOAD MUSIC** .. Download music files that can be played with HIGHLIGHT PLAYBACK.

TV CONNECT Guide ..... p. 22

MUSIC TOOL

DOWNLOAD MUSIC** .. Download music files that can be played with HIGHLIGHT PLAYBACK.

EMPTY MUSIC** ..... Deletes music files.

BATTERY INFO ..... Displays the battery information.

(MANAGE MEDIA) category

MOVIE MEDIA SET ..... p. 40

PHOTO MEDIA SET ..... p. 40

MEDIA INFO ..... Displays information on the recording media, such as free space.

MEDIA FORMAT ..... p. 39

REPAIR IMG.DB F. ..... p. 50

(SETTINGS) category

MOVIE SETTINGS

HD / SD SET ..... Sets image quality for recording, playback, or editing movies.

REC MODE ..... Sets the mode to record movies. When recording fast moving subject, a high image quality, such as [FH], is recommended.

AUDIO MODE ..... Sets the recording sound format (5.1ch surround./2ch stereo).

NIGHTSHOT LIGHT** .... Emits infrared light when using NIGHTSHOT.

WIDE SELECT ..... Sets the horizontal to vertical ratio when recording movies with standard definition image quality (SD).

DIGITAL ZOOM ..... p. 15

STEADYSHOT ..... p. 15

AUTO SLW SHUTTR ..... Adjusts the shutter speed automatically.

X.V.COLOR ..... p. 15

GUIDEFRAME ..... Displays the frame to make sure the subject is horizontal or vertical.

REMAINING SET ..... Sets how the remaining recording time of the media is to be displayed.

FLASH MODE** ..... Sets how the flash is activated.

FLASH LEVEL** ..... Sets the brightness of flash.

REDEYE REDUC** ..... Prevents redeye when shooting with flash.

CONVERSION LENS ..... Optimizes the Steadyshot function and focus according to the attached lens.

AUTO BACK LIGHT ..... Adjusts the exposure for backlit subjects automatically.

PHOTO SETTINGS

IMAGE SIZE ..... Sets the photo size.

FILE NO. ..... Sets how to assign the file number.

NIGHTSHOT LIGHT** .... Emits infrared light when using NIGHTSHOT.

STEADYSHOT** ..... Sets the SteadyShot function when recording photos.

AUTO SLW SHUTTR..... Adjusts the shutter speed automatically.
GUIDEFRAME..... Displays the frame to make sure the subject is horizontal or vertical position.
FLASH MODE** ..... Sets how the flash is activated.
FLASH LEVEL** ..... Sets the brightness of flash.
REDEYE REDUC**..... Prevents redeye when shooting with flash.
CONVERSION LENS..... Optimizes the SteadyShot function (HDR-XR200E/XR200VE) and the focus according to the attached lens.
AUTO BACK LIGHT..... Adjusts the exposure for backlit subjects automatically.

FACE FUNC. SET

FACE DET. SETTING..... Changes the [FACE DETECTION] and [FRAME SETTING] setting.
SMILE SHUTTER ..... Changes the [DETECTION SET], [SMILE SENSITIVITY], [SMILE PRIORITY] and [FRAME SETTING] setting.

VIEW IMAGES SET

HD / SD SET..... Sets image quality for recording, playback, or editing movies.
DATA CODE..... Displays the detailed recording data during playback.

SOUND/DISP SET

VOLUME..... p. 20
BEEP ..... p. 12
LCD BRIGHT..... Adjusts the brightness of the LCD screen.
LCD BL LEVEL..... Adjusts the backlight of the LCD screen.
LCD COLOR..... Adjusts the color intensity of the LCD screen.

OUTPUT SETTINGS

TV TYPE..... p. 23
DISP OUTPUT..... Sets whether the on-screen displays appears on the TV screen or not.
COMPONENT ..... p. 23
HDMI RESOLUTION..... Sets the output image resolution when connecting your camcoder to a TV with an HDMI cable.

CLOCK/ A LANG

CLOCK SET ..... p. 12
AREA SET..... p. 12
AUTO CLOCK ADJ*..... Sets whether the camcorder adjusts the clock automatically by acquiring the time from GPS or not.
AUTO AREA ADJ*..... Sets whether the camcorder compensates for a time differences automatically by acquiring the current area information from GPS or not.
SUMMERTIME..... p. 12
A LANGUAGE SET..... p. 13

GENERAL SET

DEMO MODE..... Sets whether the demonstration appears or not.
REC LAMP**..... Sets the recording lamp to light up or not.
CALIBRATION..... Calibrates the touch panel.
A.SHUT OFF ..... Changes the [A.SHUT OFF] setting (p. 11).
POWER ON BY LCD ..... Sets whether the camcoder is turned on and off when you open and close the LCD screen.

REMOTE CTRL** ..... Sets whether the Wireless Remote Commander is to be used or not.
DROP SENSOR ..... p. 5
CTRL FOR HDMI ..... p. 23

• [SOUND/DISP SET] is changed to [SOUND SETTINGS] during Easy Handycam operation.
* HDR-XR200VE
**HDR-XR200E/XR200VE

List of the OPTION MENU

Following items are available on the OPTION MENU only.

tab

SPOT MTR/FCS..... Adjusts the brightness and focus for the seleted subject simultaneously.
SPOT METER..... Adjusts the brightness of images to a subject you touch on the screen.
SPOT FOCUS..... Focuses on a subject you touch the screen.
TELE MACRO ..... Shoots a subject in focus with the background out of focus.
EXPOSURE..... Adjusts the brightness of movies and photos.
FOCUS ..... Focuses manually.
SCENE SELECTION..... Selects an appropriate recording setting according to the type of scene, such as night view or beach.
WHITE BAL.. ..... Adjusts the white balance.

tab

FADER..... Fades scenes in or out.

tab

BLT-IN ZOOM MIC..... Records movies with directional sound as you zoom in or out.
MICREF LEVEL..... Sets the microphone level.
SELF-TIMER..... Used during photo recording.
TIMING ..... Sets the timing to be used to start recording for [SMTH SLW REC].

The tab depends on the situation / no tab

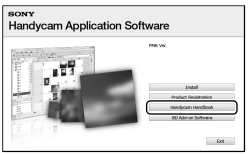
SLIDE SHOW..... Plays a series of photos.
SLIDE SHOW SET..... Sets the repetition option for the slide show.

Getting detailed information from the “Handycam Handbook”

The “Handycam Handbook” is a users guide designed to be read on a computer screen. The functions of your camcorder are described, some of them with color photos. The “Handycam Handbook” is intended to be read when you want to know more about operating your camcorder.

1 To install the “Handycam Handbook” on a Windows computer, place the supplied CD-ROM in the disc drive of your computer.

2 On the installation screen displayed, click [Handycam Handbook].

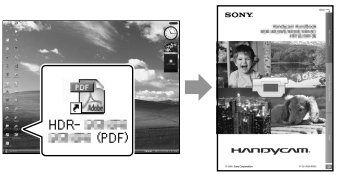


3 Select the desired language and the model name of your camcorder, then click [Handycam Handbook (PDF)].

- The model name of your camcorder is printed on its bottom surface.

4 Click [Exit] → [Exit], then remove the CD-ROM from your computer.

To view the “Handycam Handbook,” double-click the short-cut icon on the computer screen.



- When using a Macintosh, open the [Handbook] – [GB] folder in the CD-ROM, then copy [Handbook.pdf].
- You need Adobe Reader to read “Handycam Handbook.” http://www.adobe.com/
- Refer to the “PMB Guide” for details on the supplied software “PMB” (p. 31).

Troubleshooting

If you run into any problems using your camcorder, use the following table to troubleshoot the problem. If the problem persists, disconnect the power source and contact your Sony dealer.

Notes before sending your camcorder for repair

- Your camcorder may be required to initialize or change the current hard disk of your camcorder, depending on the problem. In the event of this, the data stored on the hard disk will be deleted. Be sure to save the data on the internal hard disk on other media (backup) before sending your camcorder for repair (p. 27, 35). We will not compensate you for any loss of hard disk data.
- During repair, we may check a minimum amount of data stored on the hard disk in order to investigate the problem. However, your Sony dealer will neither copy nor retain your data.
- See the Handycam Handbook (p. 48) for details on the symptoms of your camcorder, and "PMB Guide" (p. 31) on connecting your camcorder to a computer.

The power does not turn on.

- Attach a charged battery pack to the camcorder (p. 10).
- Connect the plug of the AC Adaptor to the wall outlet (wall socket) (p. 11).

The camcorder does not operate even when the power is set to on.

- It takes a few seconds for your camcorder to be ready to shoot after the power is turned on. This is not a malfunction.
- Disconnect the AC Adaptor from the wall outlet (wall socket) or remove the battery pack, then reconnect it after about 1 minute. If your camcorder still does not work, press the RESET button (p. 60) using a pointed object: (If you press the RESET button, all settings, including the clock setting, are reset.)
- The temperature of your camcorder is extremely high. Turn off the camcorder and leave it for a while in a cool place.
- The temperature of your camcorder is extremely low. Leave the camcorder with the power turned on. If you still cannot operate your camcorder, turn off the camcorder and take it to a warm place. Leave the camcorder there for a while, then turn on the camcorder.

The camcorder gets warm.

- Your camcorder may become warm during operation. This is not a malfunction.

The power abruptly turns off.

- Use the AC Adaptor (p. 11).
- Turn on the power again.
- Charge the battery pack (p. 10).

Pressing START/STOP or PHOTO does not record images.

- Press MODE to turn on the (Movie) or (Photo) lamp (p. 12).
- Your camcorder is recording the image you have just shot on the recording media. You cannot make new recording during this period.
- The recording media is full. Delete unnecessary images (p. 39).
- Total number of movie scenes or photos exceeds the recordable capacity of your camcorder. Delete unnecessary images (p. 39).

The recording stops.

- The temperature of your camcorder is extremely high/low. Turn off your camcorder and leave it for a while in a cool/warm place.

"PMB" cannot be installed.

- Check the computer environment or installation procedure required to install "PMB" (p. 24).

"PMB" does not work correctly.

- Quit "PMB" and restart your computer.

The camcorder is not recognized by the computer.

- Disconnect devices from the USB jack of the computer other than the keyboard, mouse, and your camcorder.
- Disconnect the USB cable from the computer and your camcorder, and restart the computer, then connect the computer and your camcorder again in the proper order.

Self-diagnosis display/Warning indicators

If indicators appear on the LCD screen, check the following.
If the problem persists even after you have tried to fix a couple of times, contact your Sony dealer or local authorized Sony service facility.

C:04:□□

- The battery pack is not an "InfoLITHIUM" battery pack (H series). Use an "InfoLITHIUM" battery pack (H series) (p. 10).
- Connect the DC plug of the AC Adaptor to the DC IN jack of your camcorder securely (p. 10).

C:13:□□ / C:32:□□

- Remove the power source. Reconnect it and operate your camcorder again.

E:20:□□ / E:31:□□ / E:61:□□ / E:62:□□ / E:91:□□ / E:94:□□ / E:95:□□ / E:96:□□

- Your camcorder need to be repaired. Contact your Sony dealer or local authorized Sony service facility. Inform them of the 5-digit code, which starts from "E."

101-0001

- When the indicator flashes slowly, the file is damaged or unreadable.

- The hard disk of your camcorder is full. Delete unnecessary images on the hard disk (p. 39).
- An error may have occurred with the hard disk drive in your camcorder.

- Battery power is low.

- The temperature of your camcorder is getting high. Turn off your camcorder and leave it in a cool place.

- The temperature of your camcorder is low. Make the camcorder warm.

- No "Memory Stick PRO Duo" media is inserted (p. 41).
- When the indicator flashes, there is not enough free space for recording images. Delete unnecessary images (p. 39), or format the "Memory Stick PRO Duo" media (p. 39) after storing the images on other media.
- The Image Database File is damaged. Check the Image Database File by touching (HOME) → (MANAGE MEDIA) → [REPAIR IMG.DB F.] → recording media.

- The "Memory Stick PRO Duo" media is damaged. Format the "Memory Stick PRO Duo" media with your camcorder (p. 39).

- An incompatible "Memory Stick Duo" media is inserted (p. 41).

- Access to the “Memory Stick PRO Duo” media was restricted on another device.

(HDR-XR200E/XR200VE)

- There is something wrong with the flash.

- The amount of light is not sufficient. Use the flash. (HDR-XR200E/XR200VE)
- The camcorder is unsteady. Hold the camcorder steady with both hands. However, note that the camera-shake warning indicator does not disappear.

- The drop sensor function is activated. You may not be able to record nor play back images.

- The recording media is full. Delete unnecessary images (p. 39).
- Photos cannot be recorded during processing. Wait for a while, then record.

On use and care

- Do not use or store the camcorder and accessories in the following locations:
  - Anywhere extremely hot, cold or humid. Never leave them exposed to temperatures above 60 °C (140 °F), such as under direct sunlight, near heaters or in a car parked in the sun. They may malfunction or become deformed.
  - Near strong magnetic fields or mechanical vibration. The camcorder may malfunction.
  - Near strong radio waves or radiation. The camcorder may not be able to record properly.
  - Near AM receivers and video equipment. Noise may occur.
  - On a sandy beach or anywhere dusty. If sand or dust gets in your camcorder, it may malfunction. Sometimes this malfunction cannot be repaired.
  - Near windows or outdoors, where the LCD screen or the lens may be exposed to direct sunlight. This damages the inside of the LCD screen.
- Operate your camcorder on DC 6.8 V/7.2 V (battery pack) or DC 8.4 V (AC Adaptor).
- For DC or AC operation, use the accessories recommended in these operating instructions.
- Do not let your camcorder get wet, for example, from rain or sea water. If your camcorder gets wet, it may malfunction. Sometimes this malfunction cannot be repaired.
- If any solid object or liquid gets inside the casing, unplug your camcorder and have it checked by a Sony dealer before operating it any further.
- Avoid rough handling, disassembling, modifying, physical shock, or impact such as hammering, dropping or stepping on the product. Be particularly careful of the lens.
- Keep the camcorder turning off when you are not using your camcorder.
- Do not wrap your camcorder with a towel, for example, and operate it. Doing so might cause heat to build up inside.
- When disconnecting the power cord (mains lead), pull it by the plug and not the cord (lead).

- Do not damage the power cord (mains lead) such as by placing anything heavy on it.
- Do not use a deformed or damaged battery pack.
- Keep metal contacts clean.
- Keep the Wireless Remote Commander and button-type battery out of children's reach. If the battery is accidentally swallowed, consult a doctor immediately.
- If the battery electrolytic liquid has leaked:
  – Consult your local authorized Sony service facility.
  – Wash off any liquid that may have contacted your skin.
  – If any liquid gets in your eyes, wash with plenty of water and consult a doctor.

When not using your camcorder for a long time

- To keep your camcorder in optimum state for a long time, turn it on and let it run by recording and playing back images about once a month.
- Use up the battery pack completely before storing it.

LCD screen

- Do not exert excessive pressure on the LCD screen, as it may cause damage.
- If your camcorder is used in a cold place, a residual image may appear on the LCD screen. This is not a malfunction.
- While using your camcorder, the back of the LCD screen may heat up. This is not a malfunction.

To clean the LCD screen

- If fingerprints or dust make the LCD screen dirty, it is recommended that you use a soft cloth to clean it. When you use the LCD Cleaning Kit (sold separately), do not apply the cleaning liquid directly to the LCD screen. Use cleaning paper moistened with the liquid.

On handling the casing

- If the casing is soiled, clean the camcorder body with a soft cloth lightly moistened with water, and then wipe the casing with a dry soft cloth.
- Avoid the following to avoid damage to the finish:
  – Using chemicals such as thinner, benzine, alcohol, chemical cloths, repellent, insecticide and sunscreen
  – Handling the camcorder with above substances on your hands
  – Leaving the casing in contact with rubber or vinyl objects for a long period of time

About care and storage of the lens

- Wipe the surface of the lens clean with a soft cloth in the following instances:
  – When there are fingerprints on the lens surface
  – In hot or humid locations
  – When the lens is exposed to salty air such as at the seaside
- Store in a well-ventilated location subject to little dirt or dust.
- To prevent mold, periodically clean the lens as described above.

On charging the pre-installed rechargeable battery

Your camcorder has a pre-installed rechargeable battery to retain the date, time, and other settings even when the camcorder is turned off. The pre-installed rechargeable battery is always charged while your camcorder is connected to the wall outlet (wall socket) via the AC Adaptor or while the battery pack is attached. The rechargeable battery will be fully discharged in about 3 months if you do not use your camcorder at all. Use your camcorder after charging the pre-installed rechargeable battery. However, even if the pre-installed rechargeable battery is not charged, the camcorder operation will not be affected as long as you are not recording the date.

Procedures

Connect your camcorder to a wall outlet (wall socket) using the supplied AC Adaptor, and leave it with the LCD screen closed for more than 24 hours.

Note on disposal/transfer of the camcorder

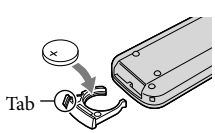
Even if you perform [MEDIA FORMAT] or formatting the hard disk of the camcorder, you may not delete data from the hard disk completely. When you transfer the camcorder, it is recommended that you perform [EMPTY] (See "Getting detailed information from the "Handycam Handbook"" (p. 48).) to prevent the recovery of your data. Also, when you dispose of the camcorder, it is recommended that you destroy the actual body of the camcorder.

Note on disposal/transfer of the "Memory Stick PRO Duo" media

Even if you delete data in the "Memory Stick PRO Duo" media or format the "Memory Stick PRO Duo" media on your camcorder or a computer, you may not delete data from the "Memory Stick PRO Duo" media completely. When you give the "Memory Stick PRO Duo" media to somebody, it is recommended that you delete date completely using data deletion software on a computer. Also, when you dispose of the "Memory Stick PRO Duo" media, it is recommended that you destroy the actual body of the "Memory Stick PRO Duo" media.

To change the battery of the Wireless Remote Commander (HDR-XR200E/XR200VE)

①While pressing on the tab, inset your fingernail into the slit to pull out the battery case.
②Place a new battery with the + side facing up.
③Insert the battery case back into the Wireless Remote Commander 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 Wireless Remote Commander may shorten, or the Wireless Remote Commander 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.

Specifications

System

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

Recording format:
Video: HD: MPEG-4 AVC/H.264 AVCHD format compatible
SD: MPEG2-PS
Audio: Dolby Digital 2ch/5.1ch
Dolby Digital 5.1 Creator

Photo file format: DCF Ver.2.0 compatible
Exif Ver.2.21 compatible
MPF Baseline compatible

Recording medium:
Hard disk:
HDR-XR100E/XR105E/XR106E: 80 GB
HDR-XR200E/XR200VE: 120 GB
"Memory Stick PRO Duo" media
When measuring media capacity, 1 GB equals 1 billion bytes, a portion of which is used for data management.

Image device: 3.6 mm (1/5 type) CMOS sensor
Recording pixels (photo, 4:3):
Max. 4.0 mega (2 304 × 1 728) pixels*
Gross: Approx. 2 360 000 pixels
Effective (movie, 16:9):
HDR-XR100E/XR105E/XR106E:
Approx. 1 430 000 pixels
HDR-XR200E/XR200VE:
Approx. 1 490 000 pixels
Effective (photo, 16:9):
Approx. 1 490 000 pixels
Effective (photo, 4:3):
Approx. 1 990 000 pixels

Lens:
HDR-XR100E/XR105E/XR106E:
Carl Zeiss Vario-Tessar
10 × (Optical), 20 ×, 120 × (HDR-XR100E/XR105E), 150 × (HDR-XR106E) (Digital)
Filter diameter: 30 mm (1 3/16 in.)
F1.8 ~ 2.2
Focal length:
f=3.2 ~ 32.0 mm (5/32 ~ 1 5/16 in.)
When converted to a 35 mm still camera
For movies**: 42 ~ 497 mm (1 11/16 ~ 19 5/8 in.) (16:9)
For photos: 38 ~ 380 mm (1 1/2 ~ 15 in.) (4:3)
HDR-XR200E/XR200VE:
Carl Zeiss Vario-Sonnar T*
15 × (Optical), 30 ×, 180 × (Digital)
Filter diameter: 30 mm (1 3/16 in.)
F1.8 ~ 2.6
Focal length:
f=3.1 ~ 46.5 mm (1/8 ~ 1 7/8 in.)
When converted to a 35 mm still camera
For movies: 40 ~ 600 mm (1 5/8 ~ 23 5/8 in.) (16:9)
For photos: 37 ~ 555 mm (1 1/2 ~ 21 7/8 in.) (4:3)

Color temperature: [AUTO], [ONE PUSH], [INDOOR] (3 200 K), [OUTDOOR] (5 800 K)

Minimum illumination: 5 lx (lux) ([AUTO SLW SHUTTR] [ON], Shutter speed 1/25 sec) 0 lx (lux) (during NightShot function (HDR-XR200E/XR200VE))

* The unique pixel array of Sony's ClearVid and the image processing system (BIONZ) allow still image resolution equivalent to the sizes described.

** The focal length figures are actual figures resulting from wide angle pixel readout.

Input/Output connectors

A/V Remote Connector: Component/video and audio output jack

HDMI OUT jack: HDMI mini connector

USB jack: mini-B (HDR-XR105E/XR106E: output only)

LCD screen

Image: 6.7 cm (2.7 type, aspect ratio 16:9)

Total dot number: 211 200 (960 × 220)

General

Power requirements: DC 6.8 V/7.2 V (battery pack) DC 8.4 V (AC Adaptor)

Average power consumption:
HDR-XR100E/XR105E/XR106E: During camera recording with normal brightness:
Hard disk: HD: 3.8 W SD: 3.1 W
"Memory Stick PRO Duo" media: HD: 3.5 W SD: 3.0 W
HDR-XR200E/XR200VE: During camera recording with normal brightness:
Hard disk: HD: 3.9 W SD: 3.3 W
"Memory Stick PRO Duo" media: HD: 3.5 W SD: 3.0 W

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.):
HDR-XR100E/XR105E/XR106E:
69 × 68 × 118 mm (2 3/4 × 2 3/4 × 4 3/4 in.) (w/h/d) including the projecting parts
69 × 68 × 129 mm (2 3/4 × 2 3/4 × 5 1/8 in.) (w/h/d) including the projecting parts, and the supplied rechargeable battery pack attached

HDR-XR200E/XR200VE:
70 × 68 × 122 mm (2 7/8 × 2 3/4 × 4 7/8 in.) (w/h/d) including the projecting parts
70 × 68 × 133 mm (2 7/8 × 2 3/4 × 5 1/4 in.) (w/h/d) including the projecting parts, and the supplied rechargeable battery pack attached

Mass (approx.):
HDR-XR100E/XR105E/XR106E: 330 g (11 oz) main unit only
410 g (14 oz) including the supplied rechargeable battery pack
HDR-XR200E/XR200VE: 390 g (13 oz) main unit only
470 g (1 lb) including the supplied rechargeable battery pack

AC Adaptor AC-L200C/AC-L200D

Power requirements: AC 100 V - 240 V, 50 Hz/60 Hz

Current consumption: 0.35 A - 0.18 A

Power consumption: 18 W

Output voltage: DC 8.4 V*

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.): 48 × 29 × 81 mm (1 15/16 × 1 3/16 × 3 1/4 in.) (w/h/d) excluding the projecting parts

Mass (approx.): 170 g (6.0 oz) excluding the power cord (mains lead)

* See the label on the AC Adaptor for other specifications.

Rechargeable battery pack NP-FH60

Maximum output voltage: DC 8.4 V

Output voltage: DC 7.2 V

Maximum charge voltage: DC 8.4 V

Maximum charge current: 2.12 A

Capacity: 7.2 Wh (1 000 mAh)

Type: Li-ion

Design and specifications of your camcorder and accessories are subject to change without notice.

- Manufactured under license from Dolby Laboratories.

Expected charging and running time for the supplied battery pack (minute)

HDR-XR100E/XR105E/XR106E

Recording media	Hard disk		"Memory Stick PRO Duo" media	
	HD	SD	HD	SD
Charging time (full charge)	135			
Continuous recording time	110	135	120	140
Typical recording time	55	65	60	70
Playback time	150	170	170	195

HDR-XR200E/XR200VE

Recording media	Hard disk		"Memory Stick PRO Duo" media	
	HD	SD	HD	SD
Charging time (full charge)	135			
Continuous recording time	105	130	120	140
Typical recording time	50	65	60	70
Playback time	145	160	170	195

- Recording and playback time is approximate time available using a fully charged battery pack.
- High definition image quality (HD)/Standard definition image quality (SD)
- Recording condition: Recording mode [SP], LCD backlight [ON]
- Typical recording time shows the time when you repeat recording start/stop, turning the power on/off and zooming.

Expected recording time of movies in the internal hard disk

- To set the recording mode, touch (HOME) → (SETTINGS) → [MOVIE SETTINGS] → [REC MODE]. In the default setting, the recording mode is [HD SP] (p. 45).

High definition image quality (HD) in h (hour) m (minute)

Recording mode	Recording time		
	HDR-XR100E/ XR105E/ XR106E	HDR-XR200E	HDR-XR200VE
[HD FH]	9 h 40 m	14 h 30 m	14 h 30 m
[HD HQ]	19 h 40 m	29 h 40 m	29 h 30 m
[HD SP]	24 h 0 m	36 h 0 m	35 h 50 m
[HD LP] (5.1 ch)*	32 h 0 m	48 h 10 m	47 h 50 m
[HD LP] (2 ch)*	33 h 30 m	50 h 30 m	50 h 10 m

Standard definition image quality (SD) in h (hour) m (minute)

Recording mode	Recording time		
	HDR-XR100E/ XR105E/ XR106E	HDR-XR200E	HDR-XR200VE
[SD HQ]	19 h 40 m	29 h 40 m	29 h 30 m
[SD SP]	29 h 10 m	43 h 50 m	43 h 40 m
[SD LP] (5.1 ch)*	56 h 0 m	84 h 10 m	83 h 40 m
[SD LP] (2 ch)*	61 h 0 m	91 h 50 m	91 h 20 m

Example of expected recording time of movies in a "Memory Stick PRO Duo" media

Recording mode	For 4 GB capacity in minute	
	High definition (HD)	Standard definition (SD)
[FH]	25 (25)	--
[HQ]	55 (35)	55 (50)
[SP]	65 (45)	80 (50)
[LP] (5.1 ch)*	90 (70)	160 (105)
[LP] (2 ch)*	95 (70)	170 (110)

* You can change the recording sound format with [AUDIO MODE] (p. 45).

- The number in ( ) is the minimum recordable time.
- A Sony "Memory Stick PRO Duo" media is used.
- The recording time will vary depending on the recording conditions and the type of "Memory Stick" media used.
- On charging/recording/playback time
  - Measured when using the camcorder at 25 °C (77 °F) (10 °C to 30 °C (50 °F to 86 °F) is recommended)
  - The recording and playback time will be shorter in low temperatures, or depending on the conditions under which you use your camcorder.

On trademarks

- "Handycam" and HANDYCAM are registered trademarks of Sony Corporation.
- "AVCHD" and "AVCHD" logotype are trademarks of Panasonic Corporation and Sony Corporation.
- "Memory Stick," "Memory Stick Duo," "MEMORY STICK DUO," "Memory Stick PRO Duo," "MEMORY STICK PRO DUO," "Memory Stick PRO-HG Duo," "MEMORY STICK PRO-HG DUO," "MagicGate," "MAGICGATE," "MagicGate Memory Stick" and "MagicGate Memory Stick Duo" are trademarks or registered trademarks of Sony Corporation.
- "InfoLITHIUM" is a trademark of Sony Corporation.
- "x.v.Colour" is a trademark of Sony Corporation.
- "BIONZ" is a trademark of Sony Corporation.
- "BRAVIA" is a trademark of Sony Corporation.
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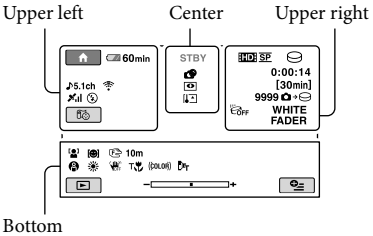
Screen indicators



Upper left

Indicator	Meaning
	HOME button
5.1ch 2ch	AUDIO MODE
	Self-timer recording
	GPS tracking status
	Current location
	Flash, REDEYE REDUC
	BLT-IN ZOOM MIC
	MICREF LEVEL low
4:3	WIDE SELECT
60 min	Remaining battery
	Return button

Center

Indicator	Meaning
[STBY]/[REC]	Recording status
4.0M 3.0M 1.9M VGA	Photo size
	Slide show set
	NightShot
	Warning
	Playback mode

Upper right

Indicator	Meaning
HD SP/SD SP	Recording quality (HD/SD) and recording mode (FH/HQ/SP/LP)
	Recording/playback media
0:00:00	Counter (hour:minute:seond)
[00min]	Expected recording remaining time
WHITE FADER BLACK FADER	FADER
OFF	LCD backlight off
OFF	Drop sensor off
	Drop sensor activated
9999 9999	Approximate number of recordable photos and recording media
101	Playback folder
100/112	Current playing movie or photo/Number of total recorded movies or photos

Bottom

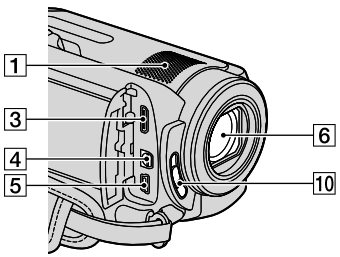
Indicator	Meaning
	FACE DETECTION
	Smile detection set
	Manual focus
	SCENE SELECTION
	White balance
OFF	SteadyShot off
	EXPOSURE/SPOT METER
T	TELE MACRO
(COLOR)	X.V.COLOR
	Protected image
W T	CONVERSION LENS

Indicator	Meaning
	OPTION button
	VIEW IMAGES button
	Slide show button
101-0005	Data file name
	VISUAL INDEX button

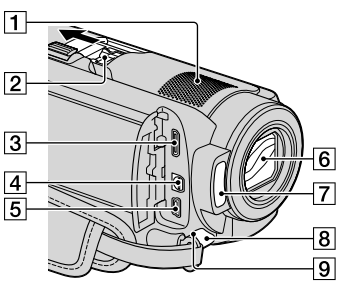
- Indicators and their positions are approximate and may differ from what you actually see.
- Depending on the models of camcorder, some indicator may not be displayed.

Figures in ( ) are reference pages.

HDR-XR100E/XR105E/XR106E



HDR-XR200E/XR200VE



1 Built-in microphone

2 Active Interface Shoe

Active Interface Shoe

The Active Interface Shoe supplies power to optional accessories such as a video light, a flash, or a microphone. The accessory can be turned on or off as you operate the POWER switch on your camcorder.

3 HDMI OUT (mini) jack (22)

4 A/V Remote Connector (22, 37)

5 (USB) jack (25, 29, 30, 36)
HDR-XR105E/XR106E: output only

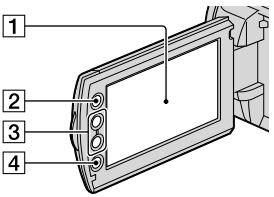
6 Lens (Carl Zeiss lens)

7 Flash (17)

8 Camera recording lamp (46)
The camera recording lamp lights up in red during recording. The lamp flashes when the remaining recording media capacity or battery power is low.

9 Remote sensor/Infrared port

10 LENS COVER switch



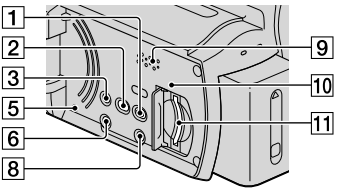
1 LCD screen/Touch panel (12)

2 ⌂ (HOME) button (42)

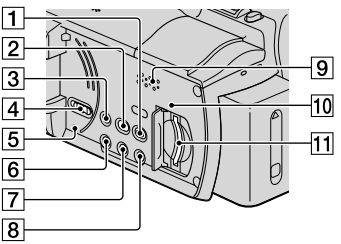
3 Zoom buttons (15, 17, 21)

4 START/STOP button (15)

HDR-XR100E/XR105E/XR106E



HDR-XR200E/XR200VE



1 ▶ (VIEW IMAGES) button (19)

2 (DISC BURN) button (29)

3 EASY button (18)

4 GPS switch (HDR-XR200VE) (18)

5 RESET button
Press RESET to initialize all the settings including the clock setting.

6 POWER button (13)

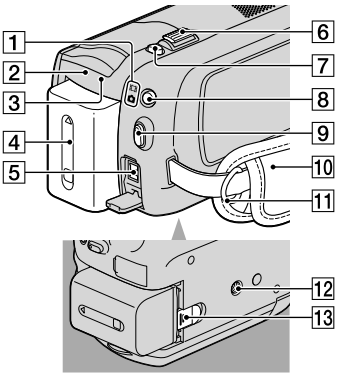
7 NIGHTSHOT button (40)

8 DISP (display) button (20)
To turn off the backlight of the LCD screen, press and hold DISP down. To turn it on, press and hold DISP down again.

9 Speaker

10 Access lamp (“Memory Stick PRO Duo” media) (41)
While the lamp is lit or flashing, the camcorder is reading or writing data.

11 “Memory Stick PRO Duo” media slot (41)



1 (Movie)/ (Photo) lamps (12)

2 CHG lamp (HDR-XR100E/XR105E/XR106E)/ /CHG lamp (HDR-XR200E/XR200VE) (10)

3 ACCESS lamp (Hard disk) (10)
While the lamp is lit or flashing, the camcorder is reading or writing data.

4 Battery pack (10)

5 DC IN jack (10)

6 Power zoom lever (15, 17, 21)

7 PHOTO button (17)

8 MODE button (16)

9 START/STOP button (15)

10 Grip belt (14)

11 Hook for a shoulder belt

12 Tripod receptacle (40)

13 BATT (battery) release lever (11)

Index

A

Active Interface Shoe 59
AVCHD.....27, 35
A/V connecting cable.....37

B

Battery.....10
Blu-ray disc.....32

C

Capturing photos from a movie.....34
Care 51
Charging the battery abroad 11
Charging the battery pack 10
Computer.....24
Computer system.....24
Copy 42
Copying a disc.....33
Creating a disc 27, 35
Creating a high definition image quality (HD) disc.....31
Creating a standard definition image quality (SD) disc.....33

D

Delete 39
Destination drive or folder.....30
Disc recorder.....37
Dubbing.....42
DVD writer.....36

E

Easy Handycam operation 18
Easy PC Back-up 30
Editing movies 34

F

Format.....39

H

Handycam Handbook.....48
HELP function.....43
High definition image quality (HD) 40
HOME MENU.....42, 44

I

Image quality.....40
Install.....25

L

Language.....13

M

Macintosh 24
“Memory Stick”.....41
“Memory Stick PRO Duo”.....41
Menu 42
Movies.....14, 19

N

NightShot.....40

O

One Touch Disc Burn 29
Operation beeps.....12
Operation flow.....7
OPTION MENU 43, 47

P

Parts and controls.....59
Photos 16, 21
Playback.....19
Playing a high definition image quality (HD) disc.....32
PMB (Picture Motion Browser).....24, 25
PMB Guide.....31
Precautions.....51

R

Recording 14
Recording and playback time ...55
Recording media.....40
Repair.....49
RESET 60

S

Screen indicators 58
Self-diagnosis display.....50
Setting the date and time.....12
Software 25
Specifications 54
Standard definition image quality (SD) 40
Supplied items.....5

T

Tripod.....40
Troubleshooting.....49
Turning the power on 12
TV.....22
TV CONNECT Guide 22

U

USB.....24, 36
Using a wall outlet (wall socket) as a power source.....11

V

VISUAL INDEX 19
Volume.....20

W

Warning indicators.....50
Windows.....24
Wireless Remote Commander battery 53

Z

Zoom..... 15, 17, 21

You will find the menu lists on pages 44 to 47.

SONY HANDYCAM GB

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.

Printed in Japan