SONY

3-075-459-**11** (1)

Digital Video Camera Recorder

MICROMV

Operating Instructions

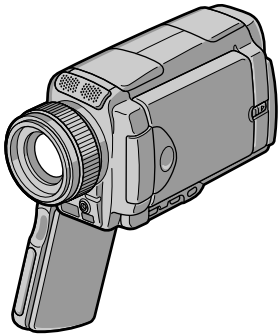
Before operating the unit, please read this manual thoroughly, and retain it for future reference.

Owner's Record

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

Model No. **DCR-IP**_____ Model No. **AC-**_____

Serial No. _____ Serial No. _____



Digital Handycam IP

Network Handycam IP

InfoLITHIUM™ F SERIES

micro Cassette Memory

MEMORY STICK™

Bluetooth™

MPEG MOVIE AD

DCR-IP45/IP55

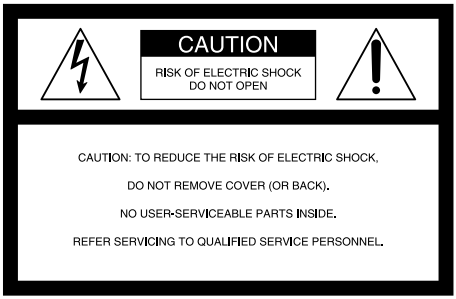
©2002 Sony Corporation

Welcome!

Congratulations on your purchase of this Sony Handycam. With your Handycam, you can capture life's precious moments with superior picture and sound quality. Your Handycam is loaded with advanced features, but at the same time it is very easy to use. You will soon be producing home video that you can enjoy for years to come.

WARNING

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



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

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

CAUTION

The use of optical instruments with this product will increase eye hazard. As the laser beam used in this Handycam is harmful to eyes, do not attempt to disassemble the cabinet.
Refer to servicing to qualified personnel only.

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

CAUTION

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

RECYCLING LITHIUM-ION BATTERIES

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

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

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

"Memory Stick"

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

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

DCR-IP55 only

Countries and areas where you can use network functions are restricted.
For details, refer to the separate Network Operating Instructions.

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.:	DCR-IP55
Responsible Party:	Sony Electronics Inc.
Address:	680 Kinderkamack Road, Oradell, NJ07649 U.S.A.
Telephone No.:	201-930-6972

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

CAUTION

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

DCR-IP55 only

IMPORTANT NOTE

To comply with FCC RF exposure compliance requirements, the following antenna installation and device operating configurations must be satisfied: the antenna has been installed by the manufacturer and no changes can be made.

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio/TV technician for help.

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

For customers in CANADA

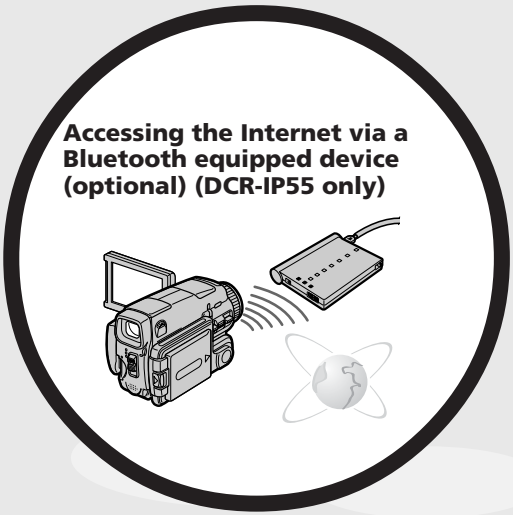
DCR-IP55 only

The term “IC:” before the radio certification number only signifies that Industry Canada technical specifications were met.

Main Features

- Recording moving pictures on tapes (p. 29)
- Playing back tapes (p. 42)
- Recording still images on the "Memory Stick"s (p. 49, 114)
- Recording moving pictures on the "Memory Stick"s (p. 129)
- Viewing still images recorded on the "Memory Stick"s (p. 135)
- Viewing moving pictures on the "Memory Stick"s (p. 138)

- Viewing moving pictures recorded on tapes using the i.LINK cable (p. 152)
  (The i.LINK of this camcorder adopts the MICROMV format only. It does not adopt the DV or the MPEG2 format of D-VHS.)
- Viewing images recorded on the "Memory Stick"s using the USB cable (p. 166, 171)
- Viewing moving pictures recorded on tapes using the USB cable (p. 161)
- Capturing images on your computer from your camcorder using the USB cable (p. 163)



Accessing the Internet, sending/receiving your e-mail. For details, refer to the Network Function Operating Instructions supplied with your camcorder. (DCR-IP55 only) (p. 172)

Other uses

Functions to adjust exposure in the recording mode

- BACK LIGHT (p. 37)
- NightShot/Super NightShot/Color Slow Shutter (p. 38)
- Recording with the flash (p. 51, 118)
- PROGRAM AE (p. 65)
- White balance (p. 54)
- Adjusting the exposure manually (p. 68)
- Flexible Spot Meter (p. 69)
- HOLOGRAM AF (p. 119)

Functions to give images more impact

- Digital zoom (p. 176). The default setting is set to **OFF**. (To zoom greater than 10×, select the digital zoom power in **D ZOOM** in the menu settings.)
- Fader (p. 58)
- Picture effect (p. 61, 75)
- Digital effect (p. 62, 76)
- Title (p. 92, 97)
- MEMORY MIX (p. 125)

Functions to give a natural appearance to your recordings

- Sports lesson mode (p. 65)
- Landscape mode (p. 65)
- Manual focus (p. 70)
- Spot Focus (p. 72)

Functions to use after recording

- END SEARCH (p. 41)
- DATA CODE (p. 43)
- MULTI-PICTURE SEARCH (p. 79)
- Tape PB ZOOM (p. 77)
- TITLE SEARCH (p. 83)

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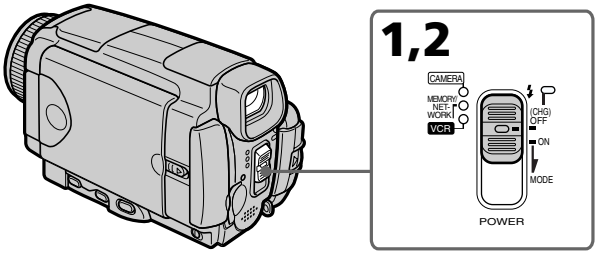
Introduction – Basic operations

This section describes the basic operations to operate the camcorder.

How to turn on the power and select the mode

To supply power for the camcorder, see “Step 1 Preparing the power supply” on page 17.



(1) Slide the POWER switch down while pressing the small green button, then release your finger.
The camcorder is turned on, and then the camcorder turns to the CAMERA mode so that the CAMERA lamp lights up.

(2) Slide the POWER switch down. Each time you slide it down, the mode changes as follows and corresponding mode lamp also lights up.

CAMERA Use this mode when you record on a tape.

MEMORY/NETWORK (DCR-IP55)

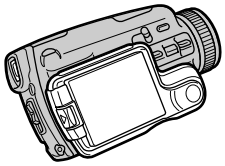
MEMORY:	Use this mode when you record on a “Memory Stick,” or play back or edit an image in a “Memory Stick.”
NETWORK: (DCR-IP55 only)	Use this mode when you use the network function. For details, refer to the supplied network function operating instructions.

VCR Use this mode when you play back or edit an image recorded on a tape or “Memory Stick”.

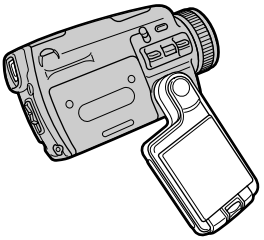
Grip position

The grip on this camcorder can be moved to three positions. Turn the grip to the appropriate position depending on your purpose.

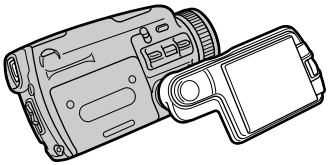
Storing position



Recording position



Cassette inserting/ejecting position



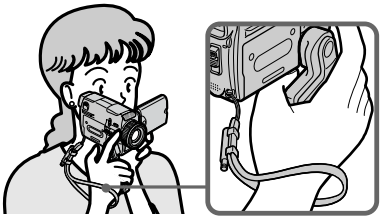
Storing position
Turn the grip to this position when you store your camcorder.

Recording position
Turn the grip until it comes to a steady position or where it is easy to grip in order to perform operations such as the zoom function. Then hold your camcorder through the wrist strap to prevent the camera from dropping.

Cassette inserting/ejecting position
Turn the grip to this position so that the cassette lid can be seen completely.

Note
When inserting or ejecting the cassette, be sure to turn the grip to the cassette inserting/ejecting position. Otherwise, the cassette cannot be inserted or ejected.

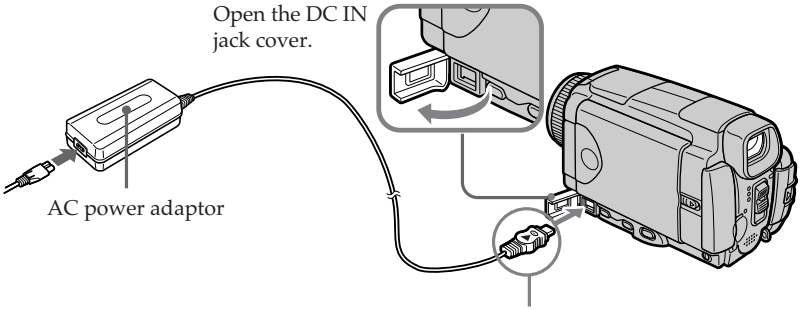
Quick Start Guide – Recording on a tape



This chapter introduces you to the basic features to record pictures on tepes of your camcorder. See the page in parentheses "( )" for more information.
Turn the grip to the recording position, and hold your camcorder through the wrist strap to prevent the camera from dropping as illustrated.

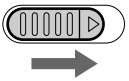
1 Connecting the power cord (p. 20)

Use the battery pack when using your camcorder outdoors (p. 17).

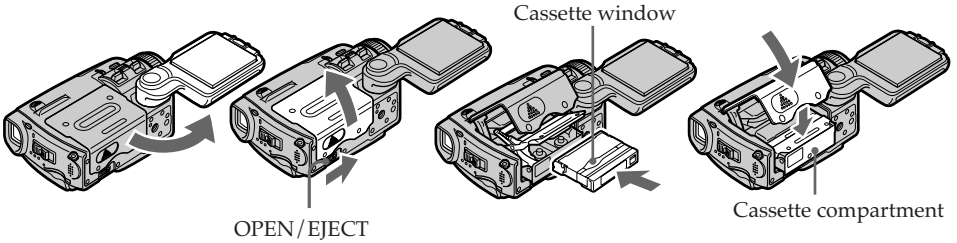


2 Inserting a cassette (p. 25)

1. Turn the grip to the cassette inserting/ejecting position. Otherwise, the cassette cannot be inserted or ejected.
2. Slide OPEN/EJECT in the direction of the arrow and open the lid.



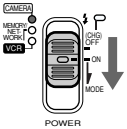
3. Push the middle portion of the back of the cassette into the cassette compartment. Insert the cassette in a straight line deeply into it with the cassette window facing out.
4. Press the cassette compartment lightly to close. After the cassette compartment goes down completely, close the lid until it clicks.



3 Recording a picture (p. 29)

Viewfinder
When the LCD panel is closed, use the viewfinder.
Adjust the viewfinder lens to your eyesight (p. 33).

1. Remove the lens cap.
2. Turn the grip to the recording position, and hold your camcorder through the wrist strap.
3. Set the POWER switch to CAMERA. The CAMERA lamp lights up.

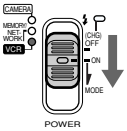


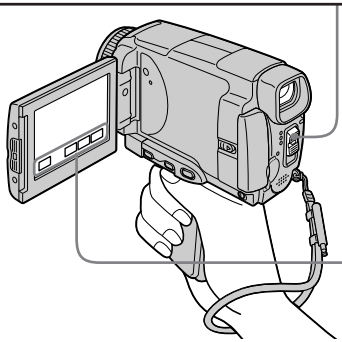
4. Slide OPEN in the direction of the ▶ mark indicated on the camcorder to open the LCD panel. The picture appears on the LCD screen.
5. Press START/STOP. Your camcorder starts recording. To stop recording, press START/STOP again.

When you purchase your camcorder, the clock setting is not set up yet. Set the clock setting before recording (p. 22).

4 Monitoring the playback picture on the LCD screen (p. 42)

1. Set the POWER switch to VCR.
The VCR lamp lights up.



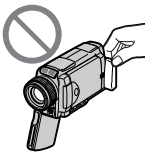


2. Press ◀◀ of the touch panel to rewind the tape.

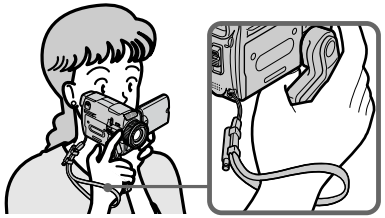
3. Press ▶ II of the touch panel to start playback.

Note
When using the touch panel, press operation buttons lightly with your thumb or the supplied stylus (DCR-IP55 only) supporting the LCD screen from the rear of it. Do not press the LCD screen with sharp objects other than the stylus supplied (DCR-IP55 only).

Note
Do not pick up your camcorder by the LCD panel, the battery pack, the flash or the jack cover.



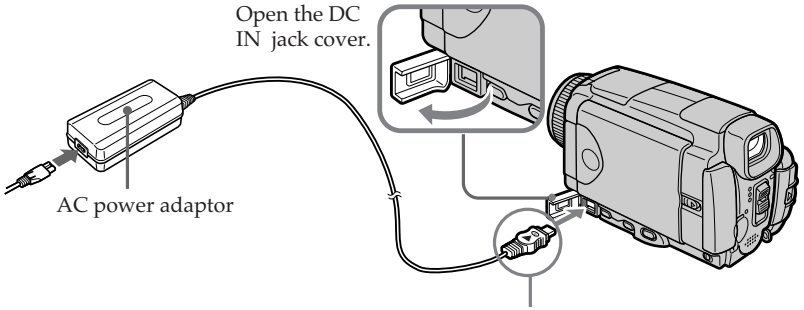
Quick Start Guide – Recording on a "Memory Stick"



This chapter introduces you to the basic features to record on a "Memory Stick" of your camcorder. See the page in parentheses "( )" for more information.
Turn the grip to the recording position, and hold your camcorder through the wrist strap to prevent the camera from dropping as illustrated.

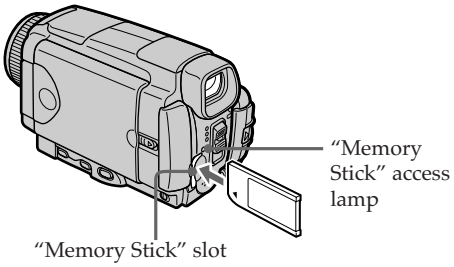
1 Connecting the power cord (p. 20)

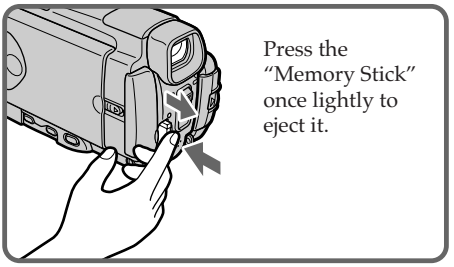
Use the battery pack when using your camcorder outdoors (p. 17).



2 Inserting a "Memory Stick" (p. 104)

Position the ◀ mark on the "Memory Stick" as illustrated and insert a "Memory Stick" in the "Memory Stick" slot as far as it can go.

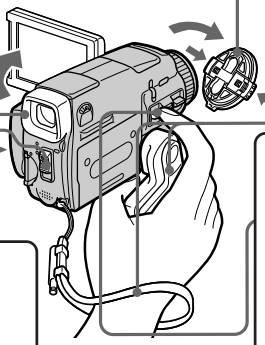




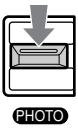
Press the "Memory Stick" once lightly to eject it.

3 Recording a still image on a "Memory Stick" (p. 114)

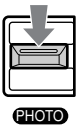
Viewfinder
When the LCD panel is closed, use the viewfinder.
Adjust the viewfinder lens to your eyesight (p. 33).



1. Remove the lens cap.
2. Turn the grip to the recording position, and hold your camcorder through the wrist strap.
3. Set the POWER switch to MEMORY/NETWORK (DCR-IP55 only). The MEMORY/NETWORK lamp lights up.
4. Slide OPEN in the direction of the ▶ mark indicated on the camcorder to open the LCD panel. The picture appears on the LCD screen.
5. Press PHOTO lightly.
   When the green ● mark stops flashing, then lights up, you can record a still image.



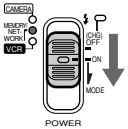
6. Press PHOTO deeper.
   The image when you pressed PHOTO deeper will be recorded on a "Memory Stick".

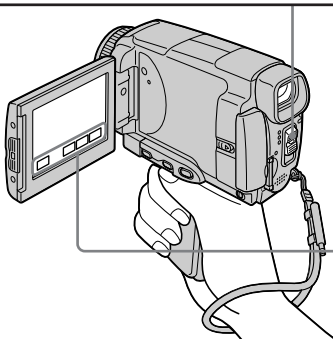


When you purchase your camcorder, the clock setting is not set up yet. If you want to record the date and time for a picture, set the clock setting before recording (p. 22).

4 Monitoring the still image on the LCD screen (p. 135)

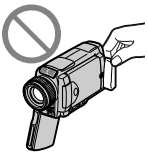
1. Set the POWER switch to MEMORY/NETWORK (DCR-IP55 only) or VCR.
   The MEMORY/NETWORK or VCR lamp lights up.





2. Press PLAY or ⊏ PB.
   The last recorded image is displayed.

Note
Do not pick up your camcorder by the LCD panel, the battery pack, the flash or the jack cover.



Using this manual

The instructions in this manual are for the two models listed in the table below. Before you start reading this manual and operating your camcorder, check the model number by looking at the bottom of your camcorder. The DCR-IP55 is the model used for illustration purposes. Otherwise, the model name is indicated in the illustrations. Any differences in operation are clearly indicated in the text, for example, "DCR-IP55 only".

As you read through this manual, buttons and settings on your camcorder are shown in capital letters.

e.g. Set the POWER switch to CAMERA.

When you carry out an operation, you can hear a beep to indicate that the operation is being carried out.

Types of differences

DCR-	IP45	IP55
Mark on the POWER switch	MEMORY	MEMORY/NETWORK
Network function	—	●

● Provided
— Not provided

Note on the MICROMV format

MICROMV Your camcorder is based on the MICROMV format. You can only use MICROMV cassettes with your camcorder.

- Records and plays back for about 60 minutes with equal quality when compared to DV (digital video).
- The Micro Cassette Memory feature is provided with all MICROMV cassettes. The camcorder can access any scene easily using the memory (MULTI-PICTURE SEARCH function).
- Adopts the MPEG2 format as a data compression method. This format is the same as the one for DVD (digital versatile disc). Records in 12 Mbps bit rate to obtain a higher quality of image.
- Transition between the last scene you recorded and the next scene is the still image. This is not malfunction.

The mark is indicated on the MICROMV cassette.

Note on TV color systems

TV color systems differ from country to country. To view your recordings on a TV set, you need a NTSC system-based TV.

Copyright precautions

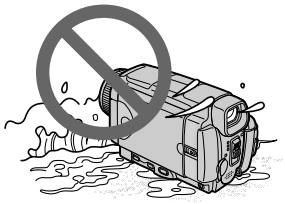
Television programs, films, video tapes, and other materials may be copyrighted. Unauthorized recording of such materials may be contrary to the provision of the copyright laws.

Precautions on camcorder care

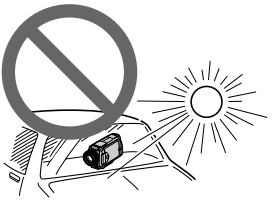
Lens and LCD screen/finder

- **The LCD screen and the finder are manufactured using extremely high-precision technology, so over 99.99% of the pixels are operational for effective use. However, there may be some tiny black points and/or bright points (white, red, blue or green in color) that constantly appear on the LCD screen and the finder. These points are normal in the manufacturing process and do not affect the recording in any way.**
- Do not let your camcorder get wet. Keep your camcorder away from rain and sea water. Letting your camcorder get wet may cause your camcorder to malfunction. Sometimes this malfunction cannot be repaired **[a]**.
- Never leave your camcorder exposed to temperatures above 60 °C (140 °F), such as in a car parked in the sun or under direct sunlight **[b]**.
- Be careful when placing the camera near a window or outdoors. Exposing the LCD screen, the finder or the lens to direct sunlight for long periods may cause malfunctions **[c]**.
- Do not directly shoot the sun. Doing so might cause your camcorder to malfunction. Take pictures of the sun in low light conditions such as dusk **[d]**.

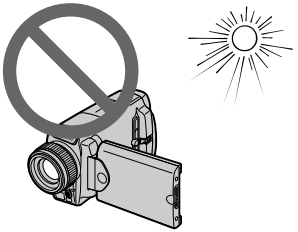
[a]



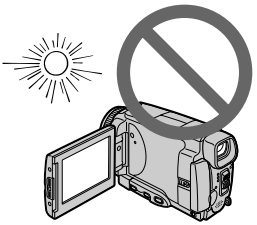
[b]



[c]

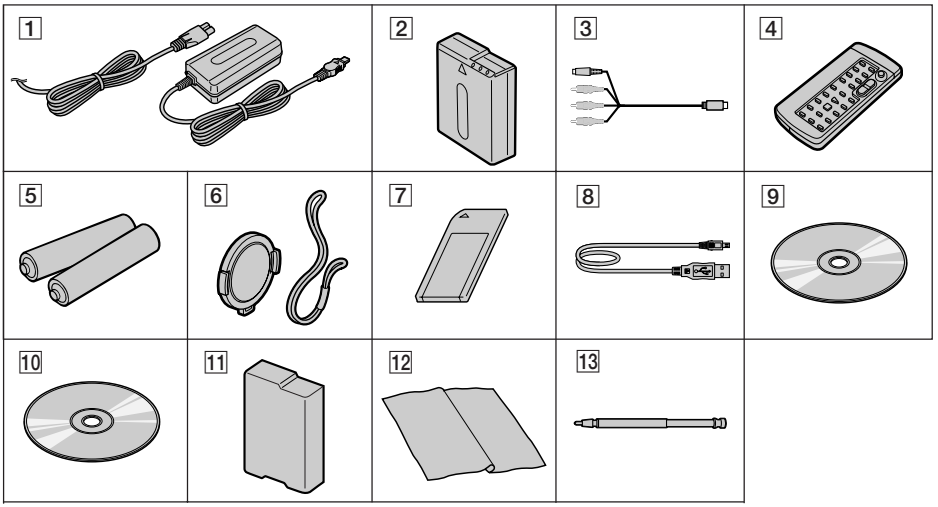


[d]



Checking supplied accessories

Make sure that the following accessories are supplied with your camcorder.



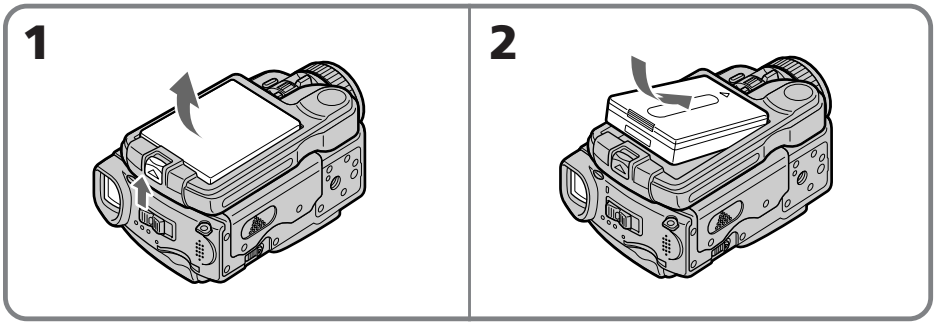
1 **AC-L20A AC power adaptor** (1), **the power cord** (1) (p. 18, 20)
2 **NP-FF50 battery pack** (1) (p. 17, 18)
3 **A/V connecting cable** (1) (p. 47, 85)
4 **Wireless Remote Commander** (1) (p. 212)
5 **Size AA (R6) batteries for the Remote Commander** (2) (p. 213)
6 **Lens cap** (1) (p. 29), **String** (1) (p. 211)
7 **"Memory Stick"** (1) (p. 103)
8 **USB cable** (1) (p. 151)
9 **CD-ROM (SPVD-008 USB Driver)** (1) (p. 153)
10 **CD-ROM (MovieShaker Ver.3.1 for MICROMV)** (1) (p. 152)
11 **Battery terminal cover** (1) (p. 17)
12 **Cleaning cloth** (1) (p. 202)
13 **Stylus** (1) (DCR-IP55 only)

Contents of the recording cannot be compensated if recording or playback is not made due to a malfunction of the camcorder, storage media, etc.

Step 1 Preparing the power supply

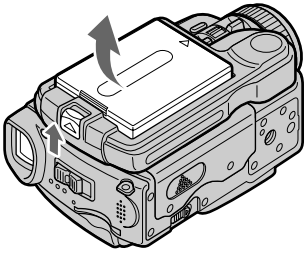
Installing the battery pack

(1) Lift BATT (battery) RELEASE in the direction of the arrow to release the battery terminal cover.
(2) Insert the battery pack in the direction of the arrow until it clicks.



To remove the battery pack

The battery pack is removed in the same way as the battery terminal cover.



Battery terminal cover

To protect the battery terminals, install the battery terminal cover after the battery pack is removed.

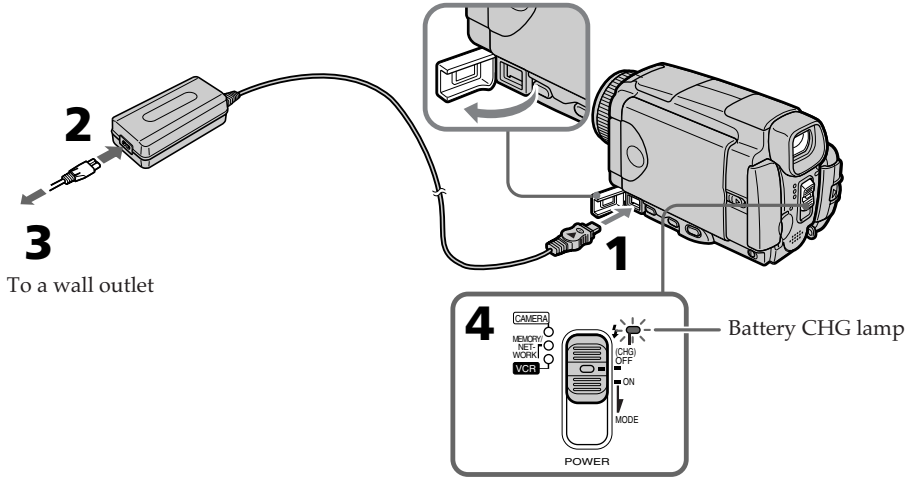
Installing the battery pack

Make sure that the battery pack is properly installed. Check also the battery pack is not attached to your camcorder askew.

Charging the battery pack

Charge the battery pack before using your camcorder.
Your camcorder operates only with the **"InfoLITHIUM" battery pack (F series)**.
See page 196 for details of the "InfoLITHIUM" battery pack.

(1) Open the DC IN jack cover and connect the supplied AC power adaptor to the DC IN jack on your camcorder with the plug's ▲ mark facing up.
(2) Connect the power cord to the AC power adaptor.
(3) Connect the power cord to a wall outlet.
(4) Set the POWER switch to OFF (CHG).
The battery CHG lamp lights up when the charge begins. After charging is completed, the battery CHG lamp goes off (full charge).



After charging the battery pack

Disconnect the AC power adaptor from the DC IN jack on your camcorder.

Note

Prevent metallic objects from coming into contact with the metal parts of the DC plug of the AC power adaptor. This may cause a short-circuit, damaging the AC power adaptor.

While charging the battery pack, the battery CHG lamp flashes in the following cases:
– The battery pack is not installed correctly.
– Something is wrong with the battery pack.

When you use the AC power adaptor
Place the AC power adaptor near the wall outlet. If any trouble occurs with this unit, disconnect the plug from the wall outlet as soon as possible to cut off the power.

Charging time

Battery pack	Full charge
NP-FF50 (supplied)	120
NP-FF70	150

Approximate minutes at 25°C (77°F) to charge an empty battery pack

Recording time

Battery pack	Recording with the viewfinder		Recording with the LCD screen			
			Backlighting on		Backlighting off	
	Continuous	Typical*	Continuous	Typical*	Continuous	Typical*
NP-FF50 (supplied)	70	35	60	30	70	35
NP-FF70	155	85	130	70	155	85

Approximate minutes when you use a fully charged battery

* Approximate recording time when you repeat recording start/stop, zooming and turning the power on/off. The actual battery life may be shorter.

Playing time

Battery pack	Playing time on LCD screen	Playing time with LCD closed
NP-FF50 (supplied)	60	70
NP-FF70	130	155

Approximate minutes when you use a fully charged battery

Note
Approximate recording time and continuous playing time at 25 °C (77 °F). The battery life will be shorter if you use your camcorder in a cold environment.

If the power goes off although the battery remaining indicator indicates that the battery pack has enough power to operate
Charge the battery pack fully again so that the indication on the battery remaining indicator is correct.

Recommended charging temperature
We recommend charging the battery pack in an ambient temperature of between 10 °C to 30 °C (50 °F to 86 °F).

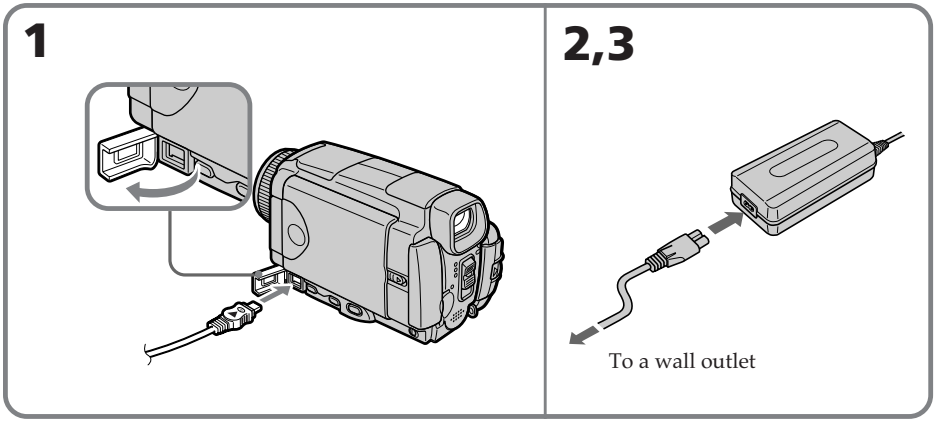
What is "InfoLITHIUM"?
The "InfoLITHIUM" is a lithium ion battery pack which can exchange data such as battery consumption with compatible electronic equipment. This unit is compatible with the "InfoLITHIUM" battery pack (F series). Your camcorder operates only with the "InfoLITHIUM" battery. "InfoLITHIUM" F series battery packs have the InfoLITHIUM F SERIES mark.

"InfoLITHIUM" is a trademark of Sony Corporation.

Connecting to a wall outlet

When you use your camcorder for a long time, we recommend that you power it from a wall outlet using the AC power adaptor.

(1) Open the DC IN jack cover and connect the supplied AC power adaptor to the DC IN jack on your camcorder with the plug's ▲ mark facing up.
(2) Connect the power cord to the AC power adaptor.
(3) Connect the power cord to a wall outlet.



PRECAUTION
The camcorder is not disconnected from the AC power source (house current) as long as it is connected to a wall outlet, even if the camcorder itself has been turned off.

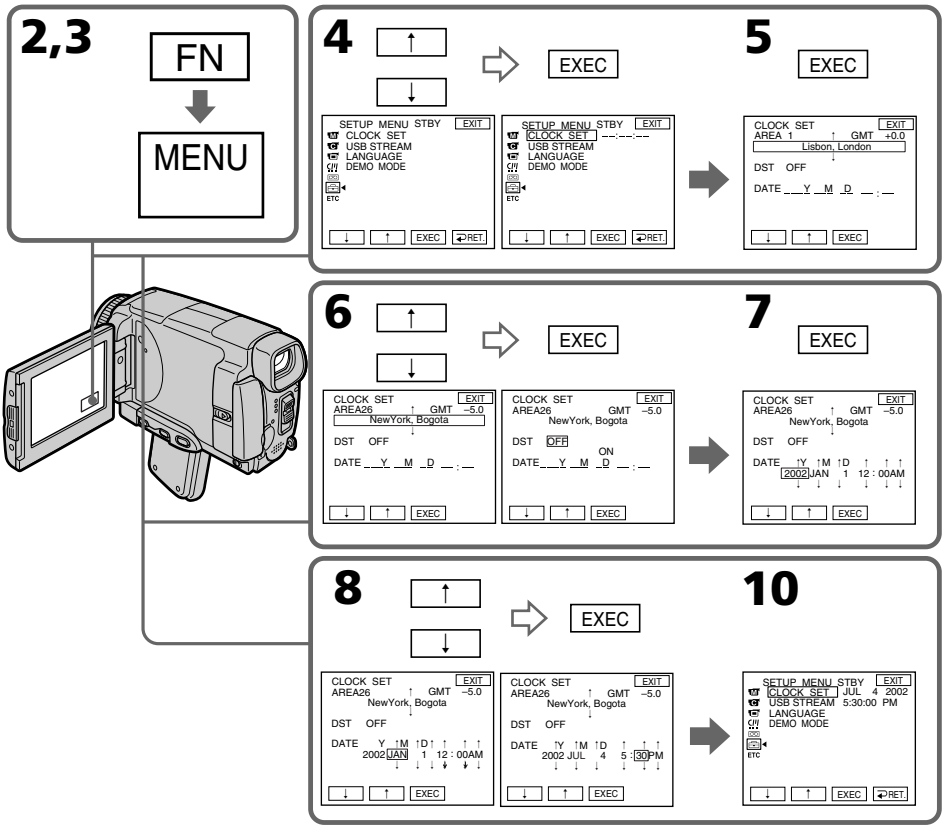
Notes
- The AC power adaptor can supply power even if the battery pack is attached to your camcorder.
- The DC IN jack has "source priority." This means that the battery pack cannot supply any power if the power cord is connected to the DC IN jack, even when the power cord is not plugged into a wall outlet.
- Prevent metallic objects from coming into contact with the metal parts of the DC plug of the AC power adaptor. This may cause a short-circuit, damaging the AC power adaptor.

A car battery
You cannot use a car battery with the camcorder.

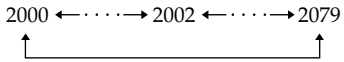
Step 2 Setting the date and time

Set the date and time when you use your camcorder for the first time. “CLOCK SET” will be displayed each time you set the POWER switch to MEMORY/NETWORK (DCR-IP55 only) unless you set the date and time settings.
If you do not use your camcorder for **about three months**, the date and time settings may be released (bars may appear) because the built-in rechargeable battery installed in your camcorder will have been discharged (p. 203).
In this case, charge the built-in rechargeable battery, then set your area, the daylight saving time (DST), the year, the month, the day, the hour and the minute.

(1) Set the POWER switch to CAMERA or MEMORY/NETWORK (DCR-IP55 only). The CAMERA or MEMORY/NETWORK lamp lights up.
(2) Press FN (Function) to display PAGE1 (p. 27).
(3) Press MENU to display the menu.
(4) Press ↓/↑ to select ⊟, then press EXEC.
(5) Press ↓/↑ to select CLOCK SET, then press EXEC.
(6) Press ↓/↑ to select your area, then press EXEC.
(7) Press ↓/↑ to select whether your area is in daylight saving time or not, then press EXEC.
(8) Press ↓/↑ to select the year, then press EXEC.
(9) Set the month, day and hour with the same procedure as step 8.
(10) Press ↓/↑ to set the minute, then press EXEC by the time signal. The clock starts to move.



The year changes as follows:



To return to FN (Function)

Press EXIT.

Note

Instead of DST, SUMMERTIME is displayed on the LCD screen for some models.

When using your camcorder abroad

Set the clock to the local time (p. 24).

If you use the camcorder in a region where summer time is used

Set DST SET to ON in the menu settings.

If you do not set the date and time

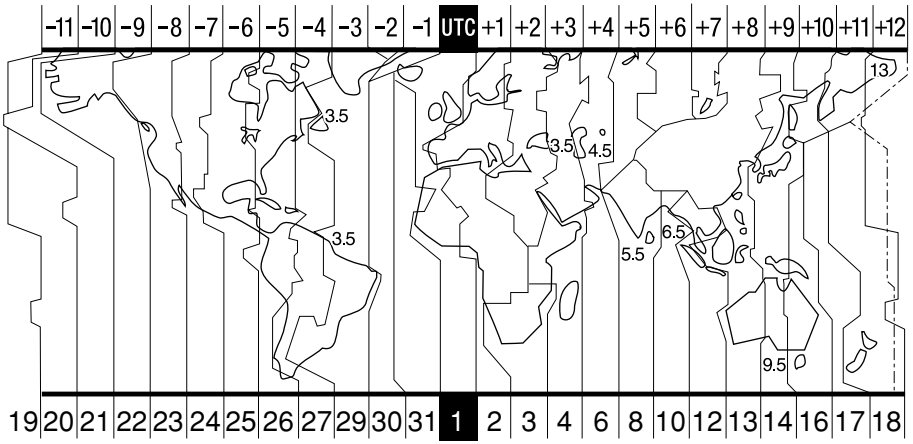
"– – – – – – – –" and "– –:– –:– –" are recorded on the tape or the "Memory Stick" as the data code.

Note on the time indicator

The internal clock of your camcorder operates on a 12-hour cycle.
– 12:00 AM stands for midnight.
– 12:00 PM stands for noon.

Simple setting of clock by time difference

You can easily set the clock to the local time by setting a time difference. Set up the AREA SET and DST SET items in the menu settings.
See page 182 for more information.



Area code	Time-zone differences	Area setting
1	GMT	Lisbon, London
2	GMT+01:00	Berlin, Paris
3	GMT+02:00	Helsinki, Cairo
4	GMT+03:00	Moscow, Nairobi
5	GMT+03:30	Tehran
6	GMT+04:00	Abu Dhabi, Baku
7	GMT+04:30	Kabul
8	GMT+05:00	Karachi, Islamabad
9	GMT+05:30	Calcutta, New Delhi
10	GMT+06:00	Almaty, Dhaka
11	GMT+06:30	Rangoon
12	GMT+07:00	Bangkok, Jakarta
13	GMT+08:00	HongKong, Singapore
14	GMT+09:00	Seoul, Tokyo
15	GMT+09:30	Adelaide, Darwin
16	GMT+10:00	Melbourne, Sydney
17	GMT+11:00	Solomon Is
18	GMT+12:00	Fiji, Wellington

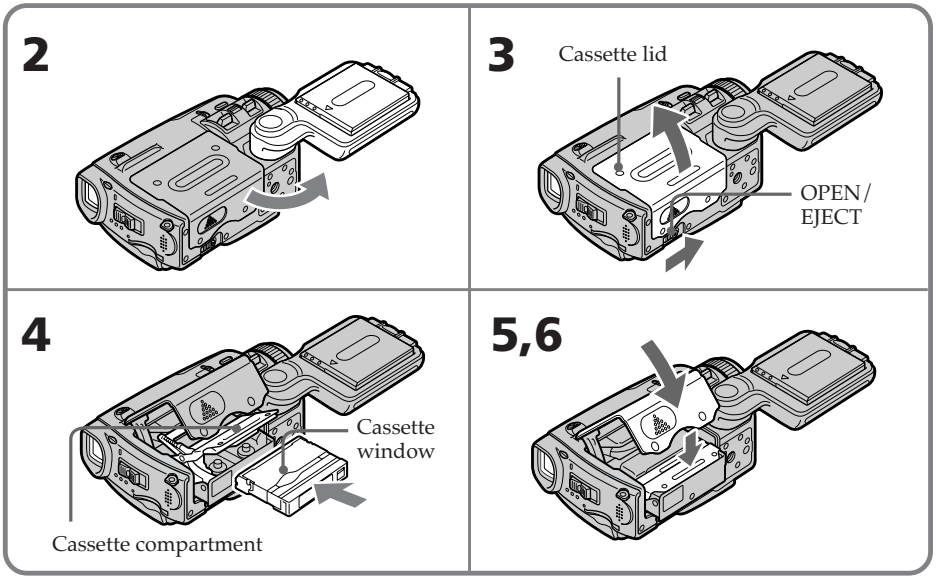
Area code	Time-zone differences	Area setting
19	GMT–12:00	Eniwetok, Kwajalein
20	GMT–11:00	Midway Is., Samoa
21	GMT–10:00	Hawaii
22	GMT–09:00	Alaska
23	GMT–08:00	LosAngeles, Tijuana
24	GMT–07:00	Denver, Arizona
25	GMT–06:00	Chicago, Mexico City
26	GMT–05:00	New York, Bogota
27	GMT–04:00	Santiago
28	GMT–03:30	St. John's
29	GMT–03:00	Brasilia, Montevideo
30	GMT–02:00	Fernando de Noronha
31	GMT–01:00	Azores

To set your local time

Select AREA in the menu settings, then press EXEC. Next, select the country or area where you stay in, using the table above, then press EXEC.

Step 3 Inserting a cassette

(1) Prepare the power source. See "Introduction – Basic operations" (p. 9) for more information.
(2) Turn the grip to the cassette inserting/ejecting position .
(3) Slide OPEN/EJECT in the direction of the arrow and open the lid. The cassette compartment automatically lifts up and opens.
(4) Push the middle portion of the back of the cassette into the cassette compartment. Insert the cassette in a straight line deeply into it with the cassette window facing out.
(5) Press the cassette compartment lightly to close. The cassette compartment automatically goes down.
(6) After the cassette compartment goes down completely, close the lid until it clicks.



To eject a cassette

Follow the procedures above, and take out the cassette after the cassette compartment opens completely in step 3.