ENGLISH

Advanced Recording

● DATE/TIME

⌘ The DATE/TIME function works in CAM, PLAYER, M.REC and M.PLAY modes.
⌘ The date and time are automatically recorded on a special data area of the tape.

1. Press the MENU button.
   ■ The menu list will appear.

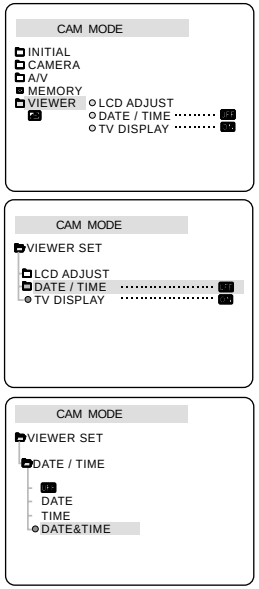
2. Move the MENU SELECTOR to highlight VIEWER and push the MENU SELECTOR.

3. Move the MENU SELECTOR to highlight DATE/TIME.

4. Push the MENU SELECTOR to select the sub-menu.

5. Using the MENU SELECTOR, select the DATE/TIME mode.
   ■ You can choose to display - the OFF, DATE, TIME, DATE/TIME
   - OFF
   - DATE only
   - TIME only
   - DATE & TIME
   ■ To return to the previous menu, highlight the DATE/TIME in the middle of the and push the MENU SELECTOR.

6. To exit, press the MENU button.



Notes

■ The DATE/TIME is not affected by the OSD ON/OFF (DISPLAY) button.
■ The DATE/TIME will read “- - -” in the following conditions.
- During playback of a blank section of a tape.
- If the tape was recorded before setting the DATE/TIME in the Camera’s memory.
- When the lithium battery becomes weak or dead.

■ Before you can use the DATE/TIME function, you must set the Clock.
See CLOCK SET on page 37.

Advanced Recording

● TV DISPLAY

⌘ The TV DISPLAY function works in CAM, PLAYER, M.REC and M.PLAY modes.
⌘ You can select the output path of the OSD (On Screen Display).
- ■ OFF: The OSD appears in the LCD screen only.
- ■ ON: The OSD appears in the LCD screen, View Finder and TV.
- ■ Use the DISPLAY button located at the left side of the camcorder to turn ON/OFF all of the OSD displayed on the LCD/View Finder/TV.

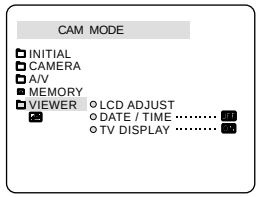
1. Set the camcorder to CAM, PLAYER, M.REC and M.PLAY mode.

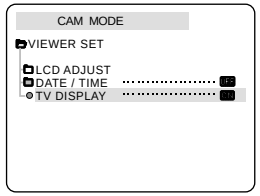
2. Press the MENU button.
   - ■ The menu list will appear.

3. Move the MENU SELECTOR to highlight VIEWER and push the MENU SELECTOR.

4. Select the TV DISPLAY mode in list, push the MENU SELECTOR.
   - ■ The DISPLAY mode switches between ON/OFF with each push.

5. To exit, press the MENU button.



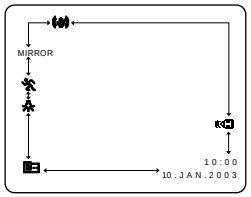


ENGLISH

Advanced Recording

Using Quick Menu(Navigation Menu)

⌘ Quick menu is available only in CAM and M.REC mode.
⌘ Quick menu is used to adjust camera functions by simply using the MENU SELECTOR button.
This feature is useful for when you want to make simple adjustments without having to access the menus and submenus.



(CAM mode)

■ **DATE/TIME (see page 56)**
- Each time you select DATE/TIME and push the MENU SELECTOR, it will be displayed in the order of DATE - TIME - DATE/TIME - OFF.

■ **WL.REMOTE( ) (see page 38)**
- Each time you select WL.REMOTE and push the MENU SELECTOR, the WL.REMOTE is switched to either enabled ( ) or disabled (OFF).

■ **EIS ( ) (see page 47)**
- Each time you select EIS and push the MENU SELECTOR, the EIS icon is displayed or set to OFF.

■ **DSE (Digital Special Effect) (see page 48)**
- Each time you select DSE and push the MENU SELECTOR, the DSE preset values are applied or set to OFF. DSE values will not switch between On and Off if they have not been preset in the menu.

■ **PROGRAM AE (see page 42)**
- Each time you select PROGRAM AE and push the MENU SELECTOR, you can choose between the preset PROGRAM AE values and AUTO. You can't choose between Auto and the PROGRAM AE values if the values have not been preset in the regular menu.

Advanced Recording

■ **WHT. BALANCE (see page 44)**

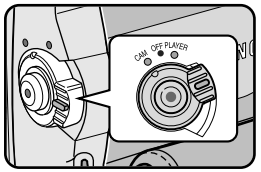
- Each time you select WHT. BALANCE and push the MENU SELECTOR, you can choose between preset WHT.BALANCE values and AUTO. As in PROGRAM AE, you can't choose between Auto and WHT.BALANCE values it they have not been preset.

■ **SHUTTER SPEED & EXPOSURE**

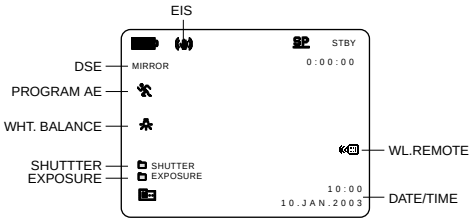
- You can set values for SHUTTER SPEED and EXPOSURE by selecting ( ) icon and pushing the MENU SELECTOR. For more information, see the next chapter.

Setting the Quick menu

1. Set the camcorder to CAM mode.



2. Move the MENU SELECTOR to select a function you want and then push the MENU SELECTOR to change the values.



Note

■ Quick menu function will not operate in EASY mode.

ENGLISH

Advanced Recording

SHUTTER SPEED & EXPOSURE

- ⌘ You can set SHUTTER SPEED and EXPOSURE only in CAM mode.
- ⌘ SHUTTER SPEED and EXPOSURE values can only be set in the Quick Menu.
- ⌘ SHUTTER SPEED and EXPOSURE are automatically switched and/or deactivated.

1. Set the power switch to CAM mode.

2. Move the MENU SELECTOR until you see icon( ) on, and then push the MENU SELECTOR.
   - ■ You see a screen on which you can select SHUTTER SPEED and EXPOSURE.
   - ■ Move the MENU SELECTOR to select the item you want and then push the MENU SELECTOR.
   - ■ SHUTTER SPEED can be set to 1/50, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000 or 1/10000.
   - ■ EXPOSURE can be set between 00 and 29.

3. To exit from the setting screen, select the icon( ) and push the MENU SELECTOR.

Recommended Shutter speeds when recording

- ⌘ Outdoor sports such as golf or tennis : 1/2000 or 1/4000.
- ⌘ Moving cars or trains or other rapidly moving vehicles such as roller coasters : 1/1000, 1/500 or 1/250
- ⌘ Indoor sports such as basketball : 1/120

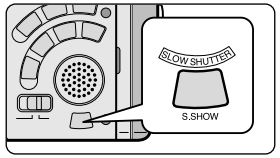
Notes

- ■ If you want to use the selected shutter speed and exposure value, you should begin the recording with the shutter speed and the exposure adjustment screens displayed on the LCD.
- ■ If you manually change the shutter speed and the exposure value when Auto-exposure option is selected, manual changes are applied first.
- ■ The image may not seem as smooth when a high shutter speed is set.
- ■ The camcorder returns to the auto shutter setting and auto exposure setting when you change to the EASY, SLOW SHUTTER modes.
- ■ When recording with a SHUTTER SPEED of 1/1000 or higher, make sure the sun is not shining into the lens.
- ■ When recording with a SHUTTER SPEED or EXPOSURE, the Flash function doesnot work.

Advanced Recording

SLOW SHUTTER (Low Shutter Speed)

⌘ The SLOW SHUTTER function works in CAM mode only.
⌘ The shutter speed can be controlled, allowing you to record slow moving objects.



1. Set the power switch to CAM mode.
2. Press the SLOW SHUTTER button.
3. Each time you press the SLOW SHUTTER button, SHUTTER SPEED is changed to 1/25, 1/12, 1/6, 1/3, 1/2, off.
4. To exit, press the SLOW SHUTTER button.

Notes

- When using "SLOW SHUTTER" the image takes on a slow motion like effect.
- The SLOW SHUTTER function will not operate in EASY mode.
- When recording with a SLOW SHUTTER, the Flash function does not work.

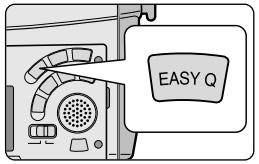
ENGLISH

Advanced Recording

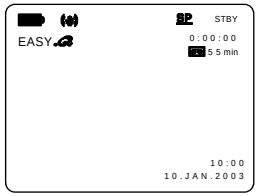
EASY Mode (for Beginners)

⌘ The EASY mode allows a beginner to easily make good recordings.
- The EASY mode only operates in CAM mode.

1. Set the power switch to CAM mode.



2. By pressing the EASY button, all functions on the camera will be set to off and the recording settings will be set to the following basic modes:
   - Battery level, recording mode, counter, DATE/TIME, and EIS ( ) will be displayed.
   - The word “EASY.Q” will appear on the LCD at the same time.
     However, the DATE/TIME will only be seen if it has been previously set. (see page 56)



3. Press START/STOP to start recording.
   - Recording will begin using the basic automatic settings.

4. Pressing the EASY button again turns the EASY mode off.
   - The camera will return to the settings that were set prior to activating EASY mode.

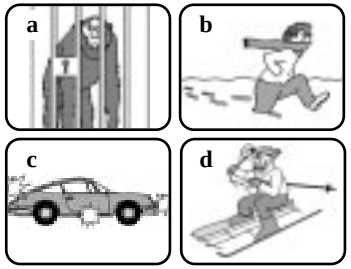
Notes

- In EASY mode, certain functions are not available, such as MENU, BLC, MF/AF.
  - If you want to use these functions, you must first switch the EASY mode off.
- The EASY mode settings are deleted when the battery pack is uninstalled from the camcorder and therefore, they must be reset when a battery pack has been replaced.

Advanced Recording

MF/AF (Manual Focus/Auto Focus)

⌘ The MF/AF function works in CAM, M.REC mode only.
⌘ In most situations, it is better to use the automatic focus feature, as it enables you to concentrate on the creative side of your recording.
⌘ Manual focusing may be necessary under certain conditions that make automatic focusing difficult and/or unreliable.



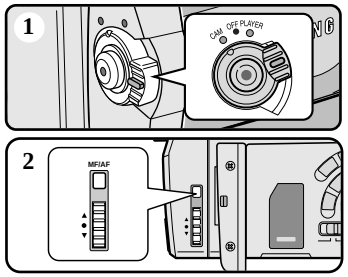
Auto Focusing

⌘ If you are inexperienced in the use of camcorders, we recommend that you make use of Auto Focus.

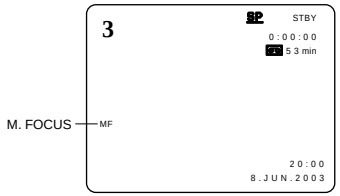
Manual Focusing

⌘ In the following cases you may obtain better results by adjusting the focus manually.

a. A picture containing several objects, some close to the camcorder, others further away.
b. A person enveloped in fog or surrounded by snow.
c. Very shiny or glossy surfaces like a car.
d. People or objects moving constantly or quickly like an athlete or a crowd.



1. Set the power switch to CAM mode.
2. Frame the picture with the zoom control.
   ■ If you use the zoom after manual focusing, the picture may go out of focus.
3. Press the MF/AF button to switch to manual focus.
   ■ M. FOCUS(MF) appears in the display.
4. Turn the MF dial up or down until the object is in focus.
   ■ Zoom out a little if focusing is difficult.
5. To return to AF(Auto Focus: A), press the MF/AF button again.

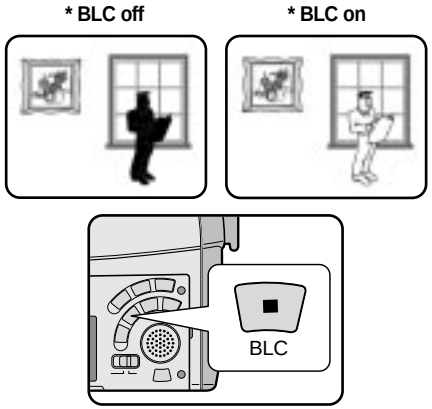


ENGLISH

Advanced Recording

BLC (Back Light Compensation)

⌘ BLC works in CAM/M.REC mode.
⌘ Back lighting exists when the subject is darker than the background:
- The subject is in front of a window.
- The person to be recorded is wearing white or shiny clothes and is placed against a bright background; the person's face is too dark to distinguish his/her features.
- The subject is outdoors and the background is overcast.
- The light sources are too bright.
- The subject is against a snowy background.



1. Set the power switch to CAM mode.

2. Press the BLC button.
   - Normal - BLC - Normal
   - BLC enhances the subject.

Note

- The BLC function will not operate in EASY mode.

Advanced Recording

Fade In and Out

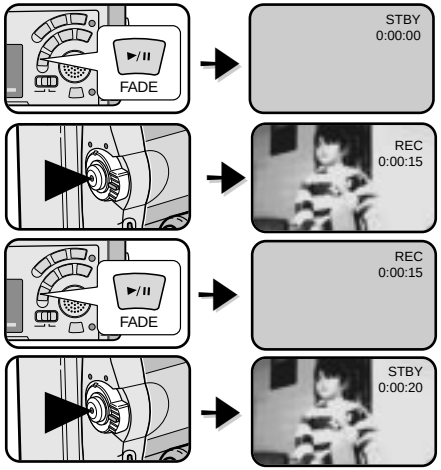
⌘ The FADE function works in CAM mode only.
⌘ You can give your recordings a professional look by using special effects such as fading in at the beginning of a sequence or fading out at the end of a sequence.

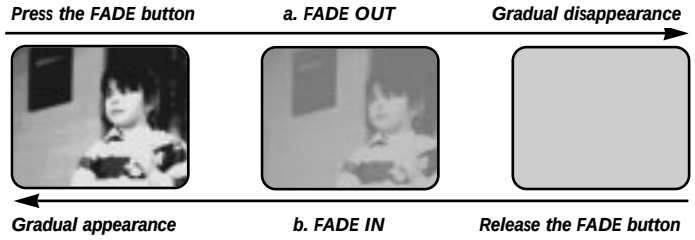
To Start Recording

1. Before recording, hold down the FADE button. The picture and sound gradually disappear (fade out).
2. Press the START/STOP button and at the same time release the FADE button. Recording starts and the picture and sound gradually appear (fade in).

To Stop Recording (use FADE IN / FADE OUT)

3. When you wish to stop recording, hold down the FADE button. The picture and sound gradually disappear (fade out).
4. When the picture has disappeared, press the START/STOP button to stop recording.





a. FADE OUT (Approx. 4 seconds)

b. FADE IN (Approx. 4 seconds)

ENGLISH

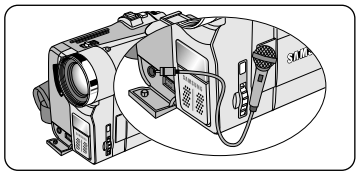
Advanced Recording

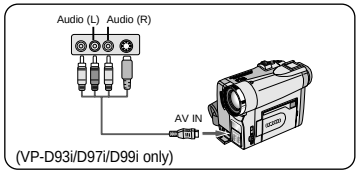
Audio dubbing

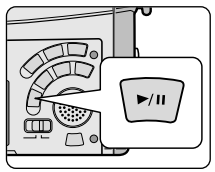
- ⌘ The AUDIO DUBBING function only works in PLAYER Mode.
- ⌘ You can add sound to the original sound on a pre-recorded tape, recorded in SP mode with 12bit sound.
- ⌘ Use the internal and external microphones or other audio equipment.
- ⌘ The original sound will not be erased.

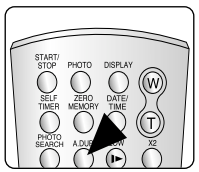
Dubbing sound

1. Set the camcorder to PLAYER mode.
   - ■ If you want to use an external microphone, connect the microphone to the external MIC input jack on the camcorder.
   - ■ When you wish to dub using the External A/V input, connect the Multi-AV cable to the camcorder by inserting the Multi-AV cable into the Multi-AV Jack at the front side of the camcorder. (VP-D93i/D97i/D99i only)
     - Press the MENU button, move the MENU SELECTOR to highlight A/V and push the MENU SELECTOR.
     - Move the MENU SELECTOR to highlight AV IN/OUT and push the MENU SELECTOR to select AV IN/OUT.
     - Move the MENU SELECTOR to highlight AV IN(or S-VIDEO IN) and push the MENU SELECTOR to select AV IN(or S-VIDEO IN).
2. Press the ▶/II (PLAY/STILL) button and find the timeframe of the scene to be dubbed.
3. Press the ▶/II (PLAY/STILL) button to pause the scene.
4. Press the A.DUB button on the Remote Control.
   - ■ A.DUB will be displayed on the LCD.
   - ■ The camcorder is in a ready-to-dub state for dubbing.
5. Press the ▶/II (PLAY/STILL) button to start dubbing.
   - ■ Press the ■ (STOP) button to stop the dubbing.









Notes

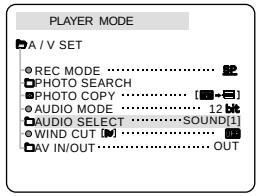
- ■ You can not use the audio dubbing function while playing a write protected video tape.
- ■ When you wish to dub using the External A/V input, you must connect the Multi-AV cable to the audio system from which you wish to record. (VP-D93i/D97i/D99i only)
- ■ When adding sound using the built-in microphone, make sure not to connect any cables to the camcorder.
- ■ You can not dub sound on a pre-recorded tape in LP mode or 16 bit mode.

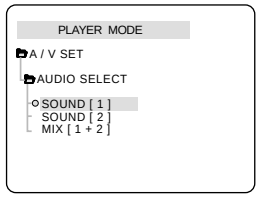
ENGLISH

Advanced Recording

Dubbed audio Playback

1. Insert the dubbed tape and press MENU button.
2. Move the MENU SELECTOR to highlight A/V.
3. Push the MENU SELECTOR to enter the sub-menu.
4. Use the MENU SELECTOR to select AUDIO SELECT from the submenu.
5. Push the MENU SELECTOR to enter the sub-menu.
6. Using the MENU SELECTOR, select the AUDIO playback channel.
   - Push the MENU SELECTOR to confirm the audio playback channel.
     - SOUND1 : play the original sound.
     - SOUND2 : play the dubbed sound.
     - MIX(1+2) : play back SOUND1 and 2 equally mixed.
7. To exit, press the MENU button.
8. Press the ▶/II (PLAY/STILL) button to playback the dubbed tape.





Note

- When you playback added sound (SOUND2 or MIX mode), you may experience loss of sound quality.

ENGLISH

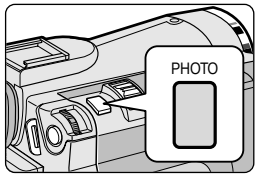
Advanced Recording

PHOTO Image Recording

1. Press the PHOTO button lightly (about halfway down) and hold it.
   - The still picture appears on the LCD monitor.
   - If you do not wish to record, release the button.

2. Press the PHOTO button fully down.
   - The still picture is recorded for about 6~7 seconds.

3. After the PHOTO has been recorded, the camcorder returns to STBY mode.



Searching for a PHOTO picture

⌘ The PHOTO SEARCH works in PLAYER mode only.

1. Press the MENU button. (or press the PHOTO SEARCH button on the remote control.)
   - The MENU list will appear.

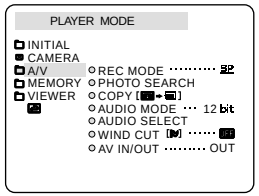
2. Move the MENU SELECTOR to highlight A/V.

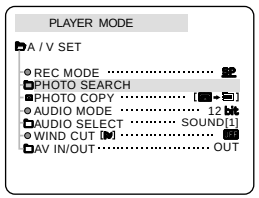
3. Push the MENU SELECTOR to enter the sub-menu.

4. Select PHOTO SEARCH from the sub-menu and push the MENU SELECTOR.

5. Search the PHOTO using the ▶▶ (FF) and ◀◀ (REW) buttons.
   - The PHOTO search process appears on the LCD while you are searching.
   - After completing the search, the camcorder displays the still image.

6. To exit, press the ■ (STOP) button.





Advanced Recording

Various Recording Techniques

⌘ In some situations different recording techniques may be required for more dramatic results.

Note

Please rotate the LCD screen carefully as excessive rotation may cause damage to the inside of the hinge that connects the LCD screen to the Camcorder.

1. General recording.

2. Downward recording.

Making a recording with a top view of the LCD screen.

3. Upward recording.

Making a recording viewing the LCD screen from below.

4. Self recording.

Making a recording viewing the LCD screen from the front.

5. Recording with the Viewfinder.

- In circumstances where it is difficult to use the LCD monitor, the viewfinder can be used as a convenient alternative.

ENGLISH

Playback

Tape Playback

⌘ The playback function works in PLAYER mode only.

Playback on the LCD

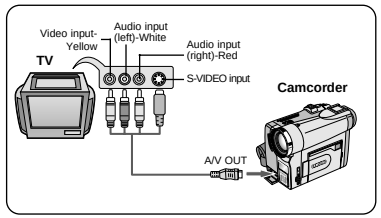
⌘ It is practical to view a tape using the LCD when in a car or outdoors.

Playback on a TV monitor

⌘ To play back a tape, the television must have a compatible colour system.
⌘ We recommend that you use the AC Power Adapter as the power source for the camcorder.

Connecting to a TV which has Audio/Video input jacks

1. Connect the camcorder and TV with the Multi-AV cable.
   - The yellow plug : Video
   - The white plug : Audio(L)
   - The red plug : Audio(R) - STEREO only
     - If you connect to a monaural TV or VCR, connect the yellow plug (Video) to the video input of the TV or VCR and the white plug (Audio L) to the audio input of the TV or VCR.
   - ⌘ You may use the SCART adapter (optional).
2. Set the power switch on the camcorder to PLAYER mode.
3. Turn on the TV and set the TV/VIDEO selector on the TV to VIDEO.
   - Refer to the TV or VCR user's manual.
4. Play the tape back.



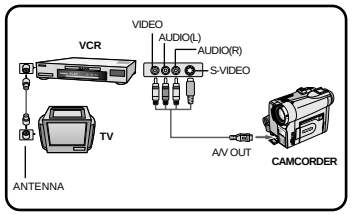
Notes

- You may use the S-VIDEO plug to obtain better quality pictures if you have a S-VIDEO connector on your TV.
- Even if you use a S-VIDEO plug, you need to connect an audio cable.
- If you connect the cable to the Multi-AV Jack, you will not hear sound from the speakers.

Playback

Connecting to a TV which has no Audio and Video input jacks

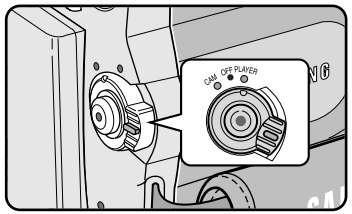
⌘ You can connect your camcorder to a TV through a VCR.



1. Connect the camcorder and VCR with the Multi-AV cable.
   - The yellow plug : Video
   - The white plug : Audio(L) - Mono
   - The red plug : Audio(R)
2. Connect a TV to the VCR.
3. Set the power switch on the camcorder to PLAYER mode.
4. Turn on both the TV and VCR.
   - Set the input selector on the VCR to LINE.
   - Select the channel reserved for your VCR on the TV set.
5. Play the tape back.

Playback

⌘ You can play the recorded tape in PLAYER mode.



1. Connect a power source and set the power switch to PLAYER mode.
2. Insert the tape you wish to play back.
3. Using the ▶▶ (FF) and ◀◀ (REW) buttons, find the first position you wish to play back.
4. Press the ▶/II (PLAY/STILL) button.
   - The images you recorded will appear on the TV after a few seconds.
   - If a tape reaches its end while being played back, the tape will rewind automatically.

Note

- The playback mode (SP/LP) is selected automatically.

ENGLISH

Playback

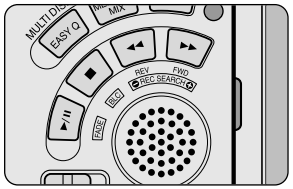
Various Functions while in PLAYER mode

⌘ The PLAY/STILL, STOP, FF, REW buttons are located on the camcorder and the Remote Control.
⌘ The F.ADV(Frame advance), X2, SLOW buttons are located on the Remote Control only.
⌘ To prevent tape and head-drum wear, your camcorder will automatically stop if it is left in STILL or SLOW modes for more than 5 minutes.

Playback pause

⌘ Press the ▶/II (PLAY/STILL) button during Playback.

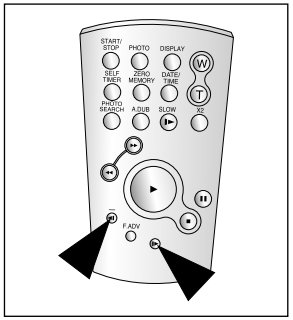
⌘ To resume playback, press the ▶/II (PLAY/STILL) button.



Picture search (Forward/Reverse)

⌘ Press the ▶▶ (FF) or ◀◀ (REW) buttons once during Playback or Still mode.
To resume normal playback, press the ▶/II (PLAY/STILL) button.

⌘ Keep pressing ▶▶ (FF) or ◀◀ (REW) buttons during Playback or Still mode.
To resume normal playback, release the button.



Slow playback (Forward/Reverse)

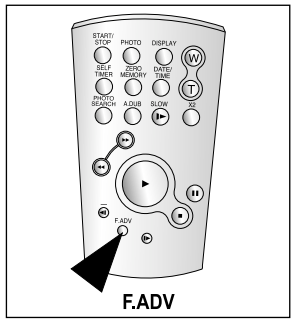
⌘ Forward Slow Playback
- Press the SLOW button on the remote control during Playback.
- To resume normal playback, press the ▶/II (PLAY/STILL) button.

⌘ Reverse Slow Playback
- Press the ◀II (–) button during Forward Slow Play back.
- To resume forward slow playback, press the II▶ (+) button.
- To resume normal playback, press the ▶/II (PLAY/STILL) button.

Playback

Frame advance (To play back frame by frame)

- Press the F.ADV button on the Remote Control while in Still mode.
  The F.ADV function works in still mode only.
- To resume normal playback, press the ▶/II (PLAY/STILL) button.
  - ⌘ Forward frame advance
    - ■ Press the F.ADV button on the remote control in Still mode.
  - ⌘ Reverse frame advance
    - ■ Press ◀II (–) the button on the remote control to change the direction in F.ADV mode.
    - ■ Press the F.ADV button on the remote control.



F.ADV

X2 Playback (Forward/Reverse)

- ⌘ Forward X2 Playback
  - ■ Press the X2 button on the Remote Control during Playback.
  - ■ To resume normal playback, press the ▶/II (PLAY/STILL) button.
- ⌘ Reverse X2 Playback
  - ■ Press ◀II (–) the button during during Forward X2 Playback
  - ■ To resume normal playback, press the ▶/II (PLAY/STILL) button.

Reverse playback

- ⌘ To playback in reverse at normal speed, press the ◀II (–) button during normal forward playback.
- ⌘ Press the ▶/II (PLAY/STILL) or II▶ (+) button to return to normal forward playback.

Notes

- ■ Mosaic shaped distortion may appear on the screen while in some of the various playback modes.
  - \- Mosaic shaped distortion or noise may be experienced when you play back tapes recorded in LP which contain various playback functions.
- ■ Sound will only be heard during normal SP or LP playback.

ENGLISH

Playback

ZERO MEMORY

⌘ The MEMORY function works in both CAM and PLAYER modes.
⌘ You can mark a point on a tape that you want to return to following playback.

1. Press the ZERO MEMORY button on the remote control during playback or recording at the point you wish to return to.
   - The time code is changed to a tape counter that is set to zero memory with the M 0:00:00(Zero memory indicator)
   - If you want to cancel the zero memory function, press the ZERO MEMORY button again.

2. Finding the zero position.
   - When you have finished playback, fast forward or rewind the tape.
     - The tape stops automatically when it reaches the zero position.
   - When you have finished recording, press the power switch on the PLAYER and press the ◀◀ (REW) button.
     - The tape stops automatically when it reaches the zero position.

3. The tape counter with the M (Zero memory indicator) disappears from the display and the tape counter is changed to the time code.

Notes

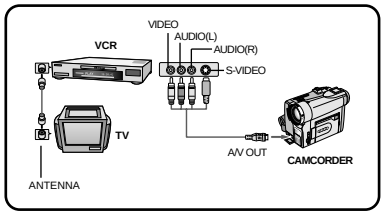
- In the following situations, ZERO MEMORY mode may be canceled automatically:
  - At the end of the section marked with the ZERO MEMORY function.
  - When the tape is ejected.
  - When you remove the battery pack or power supply.
- The zero memory may not function correctly where there is a break between recordings on the tape.

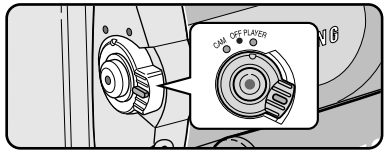
ENGLISH

Recording in PLAYER mode

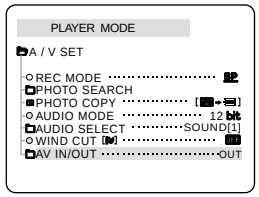
Recording in PLAYER mode (VP-D93i/D97i/D99i only)

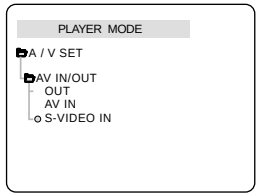
⌘ You can use this camcorder as a recorder.
⌘ You can record a tape from VCR or TV.





1. Connect the camcorder and VCR or TV with the Multi-AV cable.
2. Set the power switch of the camcorder to PLAYER mode.
3. Turn on the VCR or TV.
4. Insert the blank tape with protection tab closed into the camcorder.
   - ■ If you want to record from a connected VCR, insert a recorded VHS tape into the VCR.
5. Push the MENU button, move the MENU SELECTOR to highlight A/V and push the MENU SELECTOR.
6. Move the MENU SELECTOR to highlight AV IN/OUT and push the MENU SELECTOR to select AV IN/OUT.
7. Move the MENU SELECTOR to highlight AV IN or S-VIDEO IN and push the MENU SELECTOR.
   - ■ "AV IN" and picture appear on the LCD monitor.
   - ■ OUT : Releases the INPUT mode
   - ■ AV IN : When signals are received from the Audio/Video input jacks
   - ■ S-VIDEO IN : When signals are received from the the S-video (S-Jack plug) and Audio inputs
8. Press the START/STOP button to set the camcorder to REC PAUSE mode.
   - ■ "PAUSE" on the LCD monitor.
9. Select the TV program or playback the VHS tape.
10. Press START/STOP button to start recording.
    - ■ If you want to pause recording for a while, press the START/STOP button again.
11. To stop recording, press the ■ (STOP) button.





Notes

- ■ When you record the images being played back on analog VCR, if they are not being played back in normal speed, (for example, more than double speed or slow playback), only gray image appears on the camcorder.
- ■ If you want to see the camcorder picture with a TV, set AV IN/OUT menu to OUT.

ENGLISH

IEEE 1394 Data Transfer

Transferring IEEE1394 (i.LINK)-DV standard data connections

Connecting to a DV device

⌘ Connecting with other DV standard products.
- ■ A standard DV connection is quite simple.
  If a product has a DV port, you can transfer data by connecting to the DV port using the correct cable.

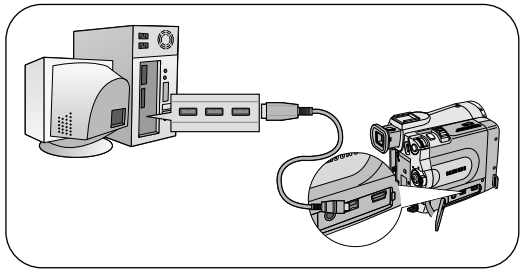
!!! Please be careful since there are two types of DV ports, (4pin, 6pin). This camcorder has a 4pin terminal.

⌘ With a digital connection, video and audio signals are transmitted in digital format, allowing high quality images to be transferred.

Connecting to a PC

⌘ If you want to transmit data to a PC, you must install a IEEE 1394 add-on card onto the PC. (not supplied)
- ■ Turn off the power of both the camcorder and the PC before connecting.
- ■ Optional software necessary.

⌘ The frame rate recorded for video capturing is dependent on the capacity of the PC.



● System requirements

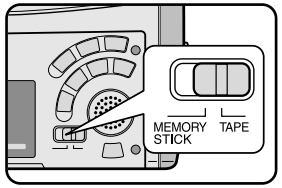
- ■ CPU : faster Intel® Pentium III™ 450Mhz compatible.
- ■ Operating system : Windows® 98SE, ME, 2000, XP, Mac OS (9.1~10.2)
- ■ Main memory : more than 64 MB RAM
- ■ IEEE1394 add-on card or built in IEEE1394 card

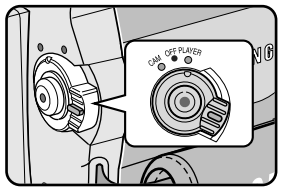
Notes

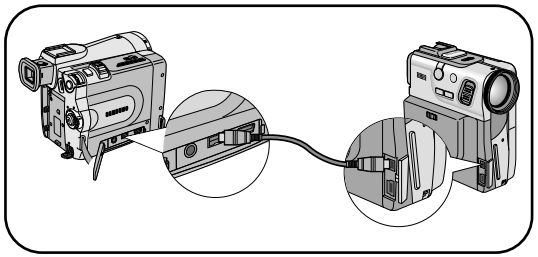
- ■ When you transmit data from the camcorder to another DV device, some functions may not work.
  If this occurs, please reconnect the DV cable or turn the power OFF and ON again.
- ■ Operation may not work correctly, depending on the software you are using, and the specifications of your PC and its settings.
  - See your PC instruction manual for details.
- ■ When you transmit data from the camcorder to PC, PC function button is available in PLAYER mode only.
- ■ Do not use the camcorder and IEEE1394 together as this will cause IEEE1394 to shut off.
- ■ Do not disconnect the DV cable while data is being transferred to the PC.

IEEE 1394 Data Transfer

Recording with a DV connection cable (VP-D93i/D97i/D99i only)







1. Set the mode switch to TAPE.
2. Set the power switch to PLAYER mode.
3. Connect the DV cable (not supplied) from the DV IN/OUT port of the camcorder to the DV IN/OUT port of the other DV device.
   - Make sure that DV appears on the screen.
4. Press the START/STOP button to begin REC PAUSE mode.
   - PAUSE is displayed on the OSD.
5. Start playback on the other DV device while you monitor the picture.
6. Press the START/STOP button to start recording.
   - If you want to pause recording momentarily, press the START/STOP button again.
7. To stop recording, press the ■ (STOP) button.

Notes

- When using this camcorder as a recorder, the pictures that appear on a monitor may seem uneven, however recorded pictures will not be affected.
- Operation are not guaranteed for all the recommanded computer environments mentioned above.

ENGLISH

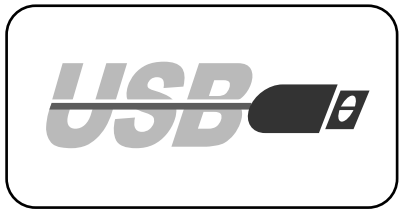
USB interface

● Transferring a Digital Image through a USB Connection

- ⌘ You can easily transfer still images/movies from a camera, tape to a PC without additional add-on cards via a USB connection.
- ⌘ You can transfer an image to a PC via a USB connection.
- ⌘ If you transfer data to a PC, you need to install the software (Driver, Editing software) supplied with the camcorder.

System Requirements

- CPU : Intel® Pentium II™ 400MHz processor compatible or better
- Operating system : Windows® 98SE/ME/2000/XP
- RAM : 64 MB or more
- CD-ROM: 4x CD-ROM drive
- VIDEO : 65,000-colour or better video display card
- Available USB port
- Hard Disc : 4GB (8GB recommended)



Notes

- Intel® Pentium II™ is a trademark of the Intel Corporation.
- Windows® is a registered trademark of the Microsoft® Corporation.
- All other brands and names are property of their respective owners.
- Operations are not guaranteed for all of the recommended computer environments mentioned above.

USB interface

Installing DVC Media 6.0 Program

⌘ Do not connect the camcorder to PC before installing the program.
⌘ If another camera or scanner is connected, please disconnect it in advance.

Program installation

1. Insert the software CD into CD-ROM drive.
   - Installation selection screen appears in the monitor.
2. If the installation selection screen does not appear after inserting the CD click “Run” on the Windows “Start” menu and execute SETUP.EXE file to begin installation.
   - When CD-ROM drive is set to “D:drive”, type “D:\setup.exe” and press Enter.
3. Click one of the icons listed below to install the selected software.
   (The program automatically check and install the driver which the PC is needed)
   - ■ DVC Driver: USB PC CAMERA Driver (Capture driver, Twain driver)
   - ■ DVC Media 6.0: PC Application program
   - ■ Photo Edition: Editing Software
   - ■ MS Formatter: Using when you format Memory Stick on your PC

1.

Using the “PC camera” function

⌘ You can use this camcorder as a PC CAMERA.
⌘ When you connect to a Web site that can provide video chatting functions, you can use your camcorder for such functions.
⌘ Using the camcorder with PC installed Net-meeting program, you can conduct video conference.
⌘ The screen size of PC CAMERA is 160 X 120 Pixel. (320 X 240)

1. Set the mode switch to Tape or Memory Stick, set the power switch to CAM.
2. Connect one end of the USB cable to the USB jack on the camcorder and the other end to the USB connector on your computer.

Notes

■ DVC Media 6.0 User’s Manual is included on the accompanying CD in Adobe’s Portable Document Format (PDF).
The user’s manual can be viewed using Acrobat Reader software, which is also included on the CD. (The Acrobat Reader is a freeware product of adobe systems, Inc.)

ENGLISH

USB interface

Connecting to a PC

1. Connect a USB cable to the USB port on the PC.
2. Connect the other end of the USB cable into the proper terminal on the camcorder. (USB jack)
3. Connect the audio cable to the Line input jack of the PC.
   If the PC has no Line input jack, connect the audio cable to the MIC input jack.
   There is a possibility you'll here some audio noise if you use the MIC jack.

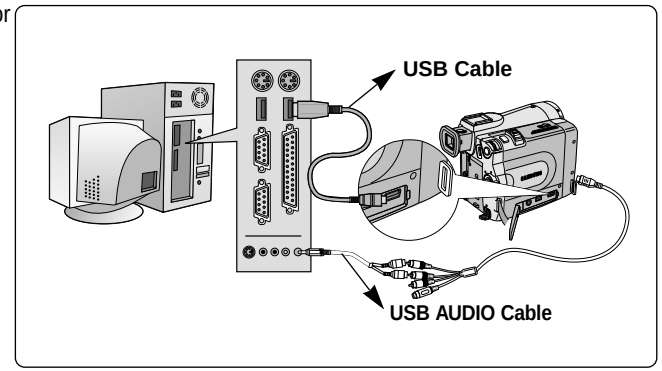
Disconnecting the USB cable

⌘ After completing the data transmission, you must disconnect the cable in the following way:

1. Select the removable disc icon and click the right mouse button to select [Eject].
2. Select [Confirm] and disconnect the USB cable when the Windows Splash screen appears.

Notes

- If you disconnect the USB cable from the PC or the camcorder while transferring, the data transmission will stop and the data may be damaged.
- If you connect the USB cable to a PC via a USB HUB or simultaneously connect the USB cable along with other USB devices, the camcorder may not work properly.
  - If this occurs, remove all USB devices from the PC and reconnect the camcorder.



Digital Still Camera mode

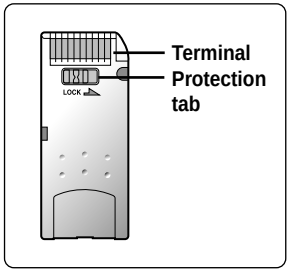
MEMORY STICK

⌘ The Memory Stick stores and manages still images or moving images recorded by the camera.

Memory Stick Functions

⌘ Recording still images and MJPEG movie
⌘ Viewing still images and MJPEG movie
- Single
- Slide show
- Multi display

⌘ Protecting images against accidental erasure
⌘ Deleting images recorded on a Memory Stick
⌘ Print marking still images
⌘ Formatting a Memory Stick



Notes

- You can use most of the camera's functions when recording to the Memory Stick.
- "▶▶▶ ▭" appears on the screen while recording to the Memory Stick.
- While recording or loading an image, do not eject or insert the Memory Stick.
  - Inserting or ejecting a Memory Stick while recording or loading an image can cause data damage.
- If you want to save all images on the Memory Stick, set the write protect tab on the Memory Stick to LOCK.

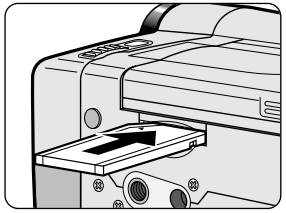
MEMORY STICK ™

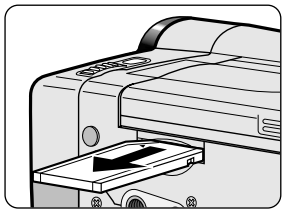
- "Memory Stick" and MEMORY STICK ™ are trademarks of Sony Corporation.
- All other product names mentioned herein may be the trademarks or registered trademarks of their respective companies. Furthermore, "™"and "®" are not mentioned in each case in this manual.
- "Memory Stick PRO" can not be used with this unit.

ENGLISH

Digital Still Camera mode

Inserting and ejecting the Memory Stick





● **Inserting the Memory Stick**

1. Turn the Power switch to OFF.
2. Insert the Memory Stick into the Memory Stick slot located beneath the camcorder, in the direction of the arrow.

● **Ejecting the Memory Stick**

1. Turn the Power switch to OFF.
2. Push the Memory Stick, then it comes out of the camcorder automatically.
3. Pull out the Memory Stick.

⌘ Do not attempt to pull the Memory Stick out without first pushing it in.

Notes

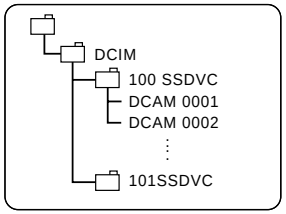
- If you set the camcorder to M.PLAY mode, the last recorded image appears.
  - If there are no recorded images on the Memory Stick, “NO STORED IMAGE!”and ▣ will display on the screen.
- Do not turn the power off while recording, loading, erasing or formatting.
- Please turn the power off before you insert or eject the Memory Stick.
  You could lose data on the Memory Stick.

- Do not allow metal substances to come in contact with the terminals of the Memory Stick.
- Do not bend, drop or apply strong shock to Memory Stick.
- After pulling the Memory Stick out from the camcorder, please keep the Memory Stick in a soft case to prevent static shock.
- The stored contents may be changed or lost as a result of misuse, static electricity, electric noise or repair.
  Save important images separately.
- Samsung is not responsible for data loss due to misuse.
- If the USB cable is connected to the camcorder, the ▶▶ (FWD), ◀◀ (REV), ■, S.SHOW, MULTI-DISPLAY buttons are not available in M.PLAY mode.

Digital Still Camera mode

Structure of folders and files on the Memory Stick

- The still images that you recorded are saved in JPEG file format on the Memory Stick.
- The moving images that you recorded are saved in MJPEG file format on the Memory Stick.
- Each file has a file number and all files are assigned to a folder.
  - A file number from DCAM0001 to DCAM9999 is sequentially assigned to each recorded image.
  - Each folder is numbered from 100SSDVC to 999SSDVC and recorded on the Memory Stick.



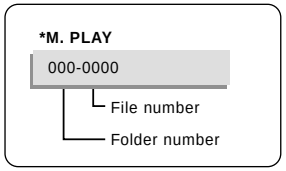


Image Format

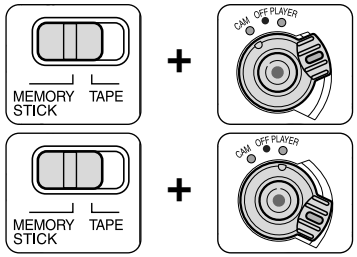
- Still image
  - Images are compressed in JPEG (Joint Photographic Experts Group) format.
  - The number of pixels are 1280 × 960, 640 × 480 in each mode.

- Moving Image
  - Images are compressed in MJPEG (Motion Joint Photographic Experts Group) format.
  - The number of pixels are 320 × 240, 160 × 120 in each mode.

Selecting the CAMCORDER mode

- You can use this camcorder as a Digital Still Camera (DSC).
- You have to set the mode switch to MEMORY STICK position to use this camcorder as Digital Still Camera.
  - M.REC mode (Memory RECORD mode)
    1. Set the mode switch to MEMORY STICK.
    2. Set the power switch to CAM.

  - M.PLAY mode (Memory PLAYBACK mode)
    1. Set the mode switch to MEMORY STICK.
    2. Set the power switch to PLAYER.



ENGLISH

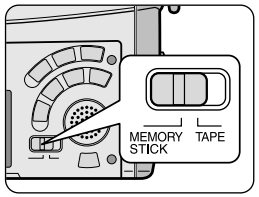
Digital Still Camera mode

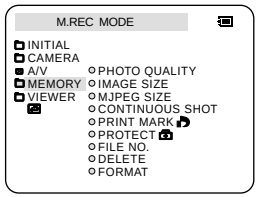
Selecting the image quality

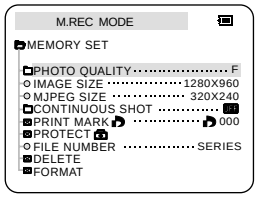
⌘ You can select the quality of a still image to be recorded.

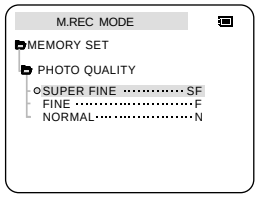
Select the photo quality

1. Set the mode switch to MEMORY STICK.
2. Set the power switch to the CAM mode.
3. Press the MENU button.
   - The menu list will appear.
4. Move the MENU SELECTOR to highlight MEMORY.
5. Push the MENU SELECTOR to enter the sub-menu.
6. Move the MENU SELECTOR to highlight PHOTO QUALITY in the submenu.
7. Push the MENU SELECTOR.
8. Using the MENU SELECTOR, select the image quality.
   - Push the MENU SELECTOR to confirm the image quality.
   - If you exit the sub-menu without pushing the MENU SELECTOR, the quality mode is not changed.
9. To exit, press the MENU button.









● Number of images on the Memory Stick

QUALITY	Still Image Size	8MB	16MB
SUPER FINE	1280 × 960 640 × 480	Approx.12 Approx.49	Approx.24 Approx.99
FINE	1280 × 960 640 × 480	Approx.24 Approx.99	Approx.49 Approx.199
NORMAL	1280 × 960 640 × 480	Approx.49 Approx.199	Approx.99 Approx.399

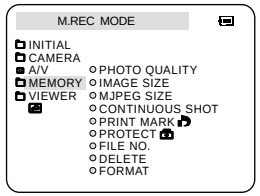
- The actual number that you can record varies depending on the image size.

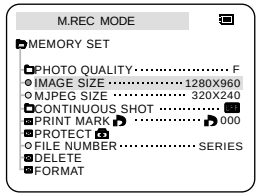
ENGLISH

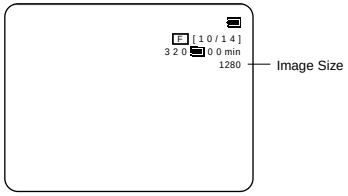
Digital Still Camera mode

Selecting the recording image size

⌘ Select the image size of still image to be recorded.







1. Set the mode switch to MEMORY STICK.
2. Set the power switch to the CAM mode.
3. Press the MENU button.
   - The menu list will appear
4. Move the MENU SELECTOR to highlight MEMORY and push the MENU SELECTOR.
5. Select IMAGE SIZE from the submenu and push the MENU SELECTOR.
   - The IMAGE SIZE toggles between 1280 x 960 and 640 x 480 with each push.
6. To exit the menu, press the MENU button.

Note

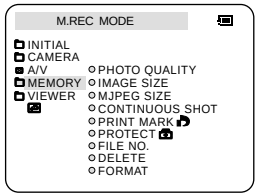
- When still images are recorded at an image size of 1280 x 960 on your camcorder, images are sometimes not played back properly on other digital devices that do not support recording at an image size of 1280 x 960.

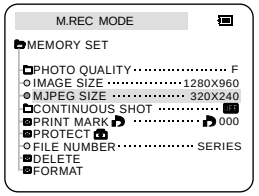
ENGLISH

Digital Still Camera mode

Selecting the moving picture size

1. Set the mode switch to MEMORY STICK position.
2. Set the power switch to CAM mode.
3. Press the MENU button.
4. Move the MENU SELECTOR to highlight MEMORY.
5. Push the MENU SELECTOR to enter the sub-menu.
6. Move the MENU SELECTOR to highlight MJPEG SIZE.
7. Push the MENU SELECTOR button.
   - The MJPEG SIZE toggles between 320 × 240 - 160 × 120 with each push.





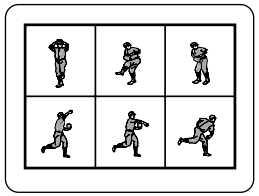
● **Maximum recording time of moving picture**

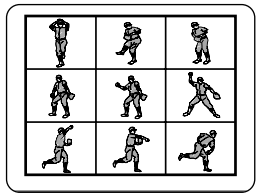
MJPEG SIZE	Maximum recording time
320 × 240	15 seconds
160 × 120	60 seconds

Digital Still Camera mode

Recording images continuously

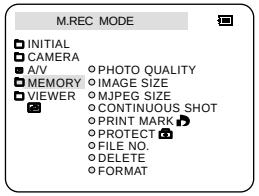
- ⌘ You can record still images continuously.
- ⌘ Select one of the three modes described below before recording.
  - ■ NORMAL( ) : Your camcorder records up to 2 still images in 1280 x 960 size or 6 still images in 640 x 480 size at about 0.7sec intervals.
  - ■ HIGH SPEED (HS) : Your camcorder records up to 9 still images in 640 x 480 size at about 0.07sec intervals.
    - Recording image size is 640 x 480 only
  - ■ MULTI SCENE (6, 9) : Your camcorder records 6 or 9 still images at about 0.4sec intervals and displays the images on a single page divided into six or nine boxes. Still images are recorded in 640 x 480 size.

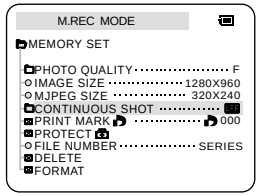


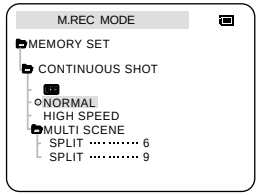


Select the CONTINUOUS SHOT

1. Set the mode switch to MEMORY STICK.
2. Set the power switch to the CAM mode.
3. Press the MENU button and move the MENU SELECTOR to highlight MEMORY.
4. Move the MENU SELECTOR to highlight CONTINUOUS SHOT in the submenu.
5. Push the MENU SELECTOR.
6. Using the MENU SELECTOR, select the continuous shot.
   - ■ Push the MENU SELECTOR to confirm the continuous shot.
   - ■ If you exit the sub-menu without pushing the MENU SELECTOR, the continuous shot mode is not changed.
7. To exit, press the MENU button.







Notes

- ■ When selecting NORMAL or HIGH SPEED
  - Recording continues up to the maximum number of still images during pressing PHOTO deeper. Release PHOTO button to STOP recording.
- ■ During recording images continuously, the flash does not work.
- ■ The number of images you can record continuously varies depending on the image size and the capacity of the Memory stick.

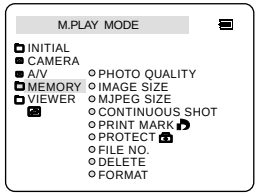
ENGLISH

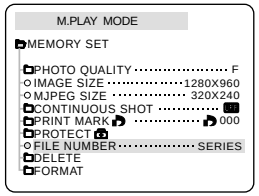
Digital Still Camera mode

Setting the File Number

- The images you take are automatically assigned file numbers from 0001 to 9999.
- Set the image file numbers so that they reset each time a Memory Stick is formatted, or so that they count up continuously.
  - SERIES
    - Numbering is continuous between the Memory Sticks, so that the first file number assigned on a new Memory Stick is 1 more than the last file number assigned on the previous Memory Stick.
    - When the file number are set to SERIES, each image taken is assigned a different number, avoiding duplication of numbers. This is convenient when you want to manage your images on a PC.
    - We recommend keeping the file numbers set to SERIES.
  - RESET
    When the Memory Stick is formatted, the file number resets to its default value (100-0001).
    If the Memory Stick already contains files, the next available number is assigned.

1. Set the mode switch to MEMORY STICK position.
2. Set the power switch to CAM or PLAYER mode.
3. Press the MENU button and move the MENU SELECTOR to highlight MEMORY.
4. Push the MENU SELECTOR to enter submenu.
5. Select FILE NUMBER from the sub-menu and push the MENU SELECTOR.
   - The FILE NUMBER toggles between SERIES and RESET with each push.
6. To exit, press the MENU button.

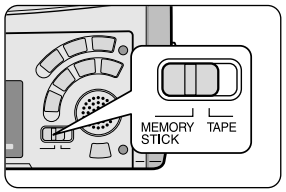




Digital Still Camera mode

Recording Still images to a Memory Stick in M.REC Mode.

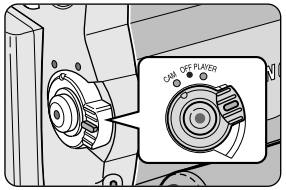
⌘ Audio cannot be recorded with still images onto the Memory Stick.



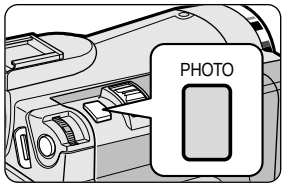
Recording images to a Memory Stick

1. Set the mode switch to MEMORY STICK.

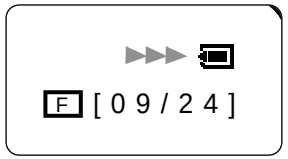
2. Set the power switch to CAM.



3. Press the PHOTO button lightly (about halfway down) and hold it.
   - During autofocus photo mark ( ) flashes in the display as the camcorder adjust the focus and it is displayed continuously when the camcorder is ready to take the still image.
   - If you do not wish to record, release the pressure from the button.



4. Press the PHOTO button fully down.
   - The still image is recorded to the Memory Stick.
   - While the camcorder is recording the still image, “▶▶▶” appears on the screen.



Notes

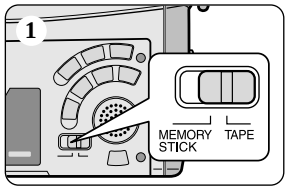
- The remote controller’s PHOTO button has no halfway setting.
  Press the button fully and the camcorder immediately takes the image.
- Do not turn the power off, eject a Memory Stick or remove the battery pack during recording.
  The Memory Stick or its data may be damaged.
- If focusing is difficult with the autofocus mode when using the PHOTO function, focus manually.

ENGLISH

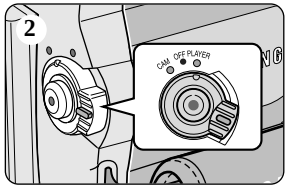
Digital Still Camera mode

Recording an image from a cassette as a still image.

- ⌘ You can record a still image from a cassette onto a Memory Stick.
- ⌘ If you want to recorded multiple still images from a cassette to a Memory Stick, use the COPY function. (see page 91)
- ⌘ The still images date/time will reflect the date and time the copies are made.
- ⌘ The image size of a still image recorded from cassette onto a Memory Stick will be 640 × 480.

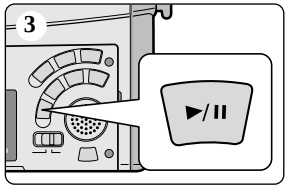


1. Set the mode switch to TAPE.

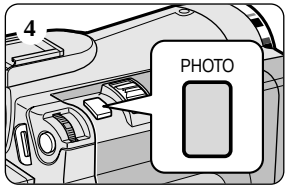


2. Set the power switch to PLAYER mode.

3. Play back the cassette.



4. Press the PHOTO button lightly (about halfway down), when the image you want to record appears.
   - The camcorder is set to playback pause(STILL) mode.
   - If you do not wish to record, release the PHOTO button, select the image again.



5. Press the PHOTO button fully down.
   - The still image is recorded to the Memory Stick.
   - While the camcorder is recording the still image, "▶▶▶" appears on the screen.

ENGLISH

Digital Still Camera mode

Copying still images from a cassette to Memory Stick

⌘ You can copy still images recorded with PHOTO function on a cassette onto a Memory Stick.
- The still images date/time will reflect the date and time the copies are made.
- The image size of a still image copied from tape to Memory Stick will be 640 × 480.
- Before operation
  - Insert a recorded tape into your camcorder and rewind the tape.
  - Insert a Memory Stick into your camcorder.

1. Set the mode switch to TAPE.

2. Set the power switch to the PLAYER mode.

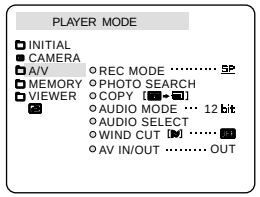
3. Press the MENU button.

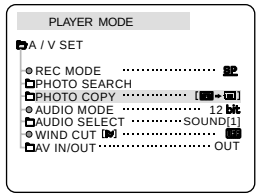
4. Move the MENU SELECTOR to highlight A/V and push the MENU SELECTOR.
   - The submenu will appear.

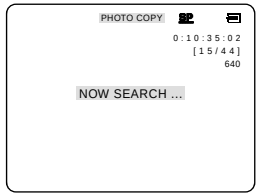
5. Move the MENU SELECTOR to highlight PHOTO COPY and push the MENU SELECTOR.
   - All still images that recorded on a cassette will be copied to a Memory Stick.

6. The camcorder automatically performs the photo search to find still images and copying starts.

7. Press ■ (STOP) button to stop copying.
   - Copying stops when the cassette is finished or Memory Stick is full.







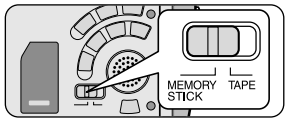
ENGLISH

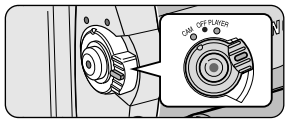
Digital Still Camera mode

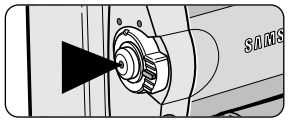
MJPEG RECORDING

⌘ Audio cannot be recorded onto the Memory Stick.

Saving the pictures captured by a camera as a moving picture file onto MEMORY STICK



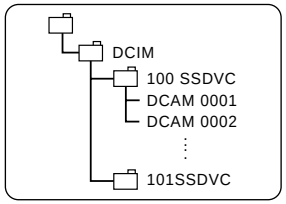




1. Insert the MEMORY STICK into your camcorder.
2. Set the mode switch to MEMORY STICK position.
3. Set the power switch to CAM mode.
4. Press the START/STOP button.
   - When MJPEG SIZE in the menu setting is set to 320 x 240, the maximum recording time is 15 seconds. however, when MJPEG SIZE in the menu settings is set to 160 x 120, the maximum recording time is 60 seconds.
   - You can record a camera still image onto the memory stick by pressing the Photo button instead of the START/STOP button.
5. Press the START/STOP button to stop the recording.
   - The camcorder starts to write the moving picture to the Memory Stick when recording is finished.
   - While the camcorder is writing the moving picture, "▶▶▶" appears on the screen.

Notes

- The moving picture images that you recorded are saved in *.avi file format on the Memory Stick.
- You can record the moving picture images as 320 x 240 pixel or 160 x 120 pixel.
- The file that you recorded are saved in a following folder.



Digital Still Camera mode

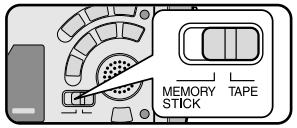
- The moving picture images on a Memory Stick are smaller size and lower definition than one on Tape.
- There could be any broken or mosaic pictures while playing the MJPEG moving picture images, but it is not malfunction.
- You can transfer MJPEG file to PC through DVC Media 6.0 using USB port on your PC.
  And then, play MJPEG file with a moving picture player program like a Microsoft Windows Media Player.
  (DVC Media 6.0 is included in the CD that is supplied).
- The following functions are not allowed in M.REC Mode.
  - EIS (Electronic Image Stabilizer), Digital Zoom, Fade, Program AE, Digital Effect, Slow Shutter
- While you record in Memory Stick, do not turn the power off, eject a Memory Stick or remove the battery pack.
  The Memory Stick or its data maybe damaged.
- Moving images recorded on the Memory Stick may not play on other manufacturer's camcorders.
- The MJPEG file recorded by another camcorder might not be allowed to play by this camcorder.

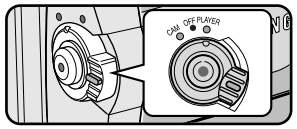
ENGLISH

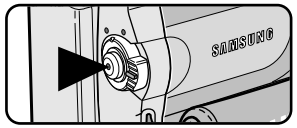
Digital Still Camera mode

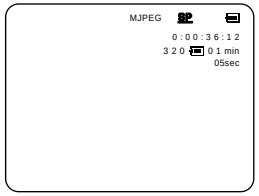
Recording a picture from a cassette as a moving picture

⌘ You can record moving picture from a cassette onto a Memory Stick.
⌘ Audio cannot be recorded onto the Memory Stick.
- Before operation
  - Insert a recorded tape into your camcorder.
  - Insert a Memory Stick into your camcorder.









1. Set the mode switch to TAPE.
2. Set the power switch to PLAYER mode.
3. Playback the cassette.
4. Press START/STOP at the scene where you want to start recording from.
   - You can record up to 15 seconds in 320 × 240 and 60 seconds in 160 × 120.
5. Press the START/STOP button to stop the recording.
   - The camcorder starts to write the moving picture to the Memory Stick when recording is finished.
   - While the camcorder is writing the moving picture, "▶▶▶" appears on the screen.

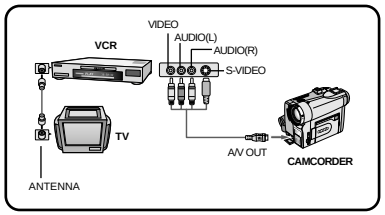
Notes

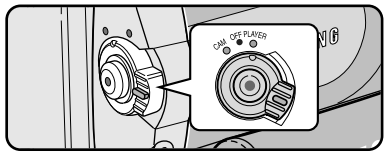
- The moving picture images on a Memory Stick are smaller and have less definition than those recorded on Tape.
- There may occasionally be broken or mosaic pictures while playing the MJPEG moving picture images, but it is not a malfunction.
- Do not eject the Memory Stick during recording.
  The Memory Stick or its data may be damaged.
- The date/time of the moving picture will reflect the date and time is has been recorded to the Memory Stick.

Digital Still Camera mode

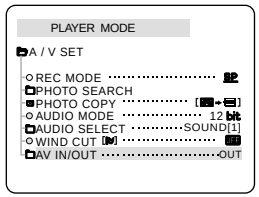
Recording a moving picture from other equipment (VP-D93i/D97i/D99i only)

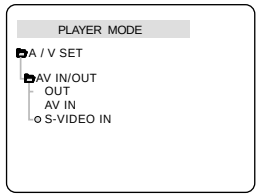
⌘ You can record moving picture from VCR or TV onto a Memory Stick.
⌘ Audio cannot be recorded onto the Memory Stick.
- Before operation
  - Eject a cassette from your camcorder.
  - Insert a Memory Stick into your camcorder.





1. Connect the camcorder and VCR or TV with the Multi-AV cable.
2. Set the power switch of the camcorder to PLAYER mode.
3. Turn on the VCR or TV.
   - If you want to record from a connected VCR, insert a recorded VHS tape into the VCR.
4. Push the MENU button, move the MENU SELECTOR to highlight A/V and push the MENU SELECTOR.
5. Move the MENU SELECTOR to highlight AV IN/OUT and push the MENU SELECTOR to select AV IN/OUT.
6. Move the MENU SELECTOR to highlight AV IN or S-VIDEO IN and push the MENU SELECTOR. (see page 75)
   - "AV-IN" and picture appear on the LCD monitor.
   - OUT: Releases the INPUT mode.
   - AV IN: When signals are received from the Audio/Video input jacks.
   - S-VIDEO IN: When signals are received from the S-VIDEO (S-Jack plug)
7. Press START/STOP at the scene where you want to start recording from.
   - You can record up to 15 seconds in 320 × 240 and 60 seconds in 160 × 120.
8. Press the START/STOP button to stop the recording.
   - The camcorder starts to write the moving picture to the Memory Stick when recording is finished.
   - While the camcorder is writing the moving picture, " ▶▶▶ " appears on the screen.





Notes

- If you want to see the camcorder picture with a TV, set AV IN/OUT menu to OUT.
- Do not eject the Memory Stick during recording. The Memory Stick or its data may be damaged.
- There is no need to load a cassette if you only record a moving picture onto the Memory Stick. If a cassette is inserted, eject a cassette from your camcorder.

ENGLISH

Digital Still Camera mode

Recording a moving picture from DV connecting cable (VP-D93i/D97i/D99i only)

⌘ You can record moving picture from DV connecting cable onto a Memory Stick.
⌘ Audio cannot be recorded onto the Memory Stick.
■ Before operation
- Eject a cassette from your camcorder.
- Insert a Memory Stick into your camcorder.

1. Set the mode switch to TAPE.

2. Set the power switch to PLAYER mode.

3. Connect the DV cable (not supplied) from the DV IN/OUT port of the camcorder to the DV IN/OUT port of the other DV device.
   ■ Make sure that DV appears on the screen.

4. Start Playback on the other DV device.

5. Press START/STOP at the scene where you want to start recording from.
   ■ When MJPEG SIZE is set to 320 x 240, the maximum recording time is 15 seconds.
   However, when MJPEG SIZE is set to 160 x 120, the maximum recording time is 60 seconds.

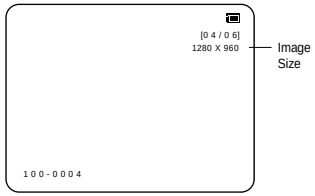
6. To stop recording, press the START/STOP button.
   ■ The camcorder starts to write the moving picture to the Memory Stick when recording is finished.
   ■ While the camcorder is writing the moving picture, "▶▶▶" appears on the screen.

ENGLISH

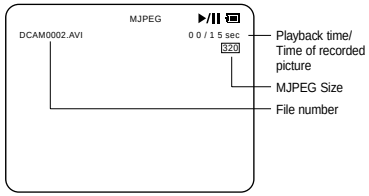
Digital Still Camera mode

Viewing Still images/Moving pictures

- You can playback and view still images/moving pictures recorded on the Memory Stick.
- There are 3 ways to view recorded images.
  - Single images/Moving pictures
  - Slide show : To view all images automatically and in consecutive order.
  - Multi display : To view 6 images at once.
- You cannot hear the sound.



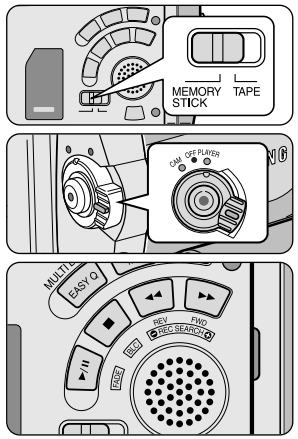
still image



moving picture

To view a Single image

1. Set the mode switch to MEMORY STICK.
2. Set the power switch to PLAYER mode.
   - The last still image/moving picture recorded apears in the display.
     - If there are no recorded still images/moving pictures on the Memory Stick, NO STORED IMAGE! and will display on the screen.
3. Using the ▶▶(FWD) and ◀◀(REV) buttons, search for the desired still images/moving pictures.
   - To view the next still image/moving picture: press the ▶▶(FWD) button.
   - To view the previous still image/moving picture: press the ◀◀(REV) button.
   - Pressing ▶▶(FWD) when you are on the last still image/moving picture will take you to the first still image and pressing ◀◀(REV) when you are on the first still image/moving picture will take you to the last still image/moving picture.
   - Keep pressing ▶▶(FWD) or ◀◀(REV) to search for an still image/moving picture quickly.
   - Moving picture: Pressing ▶/II(PLAY/STILL) plays back the moving picture and will show first scene as a still image when playback ends.
     - Pressing ▶/II(PLAY/STILL) during playback will stop the moving picture and the scene is shown as a still image.
       Pressing ▶/II(PLAY/STILL) again will restart the playback.



Notes

- There could be any broken or mosaic pictures while playing the MJPEG moving pictures, but it is not malfunction.
- The moving pictures that you recorded in the Memory Stick might not be allowed to play by the camcorder of another brands.
- The MJPEG file recorded by another camcorder might not be allowed to play by this camcorder.
- You can transfer MJPEG file to PC through DVC Media 6.0 using USB port on your PC.
  And then, play MJPEG file with a moving picture player program like a Microsoft Windows Media Player.
  (DVC Media 6.0 is included in the CD that is supplied)

ENGLISH

Digital Still Camera mode

To view a slide show

1. Set the mode switch to MEMORY STICK.

2. Set the power switch to PLAYER mode.
   - The last recorded still image/moving picture appears

3. Press the S.SHOW button.
   - All images will be played back consecutively for 3~4 seconds each.

4. To stop the slide show, press the S.SHOW button again.

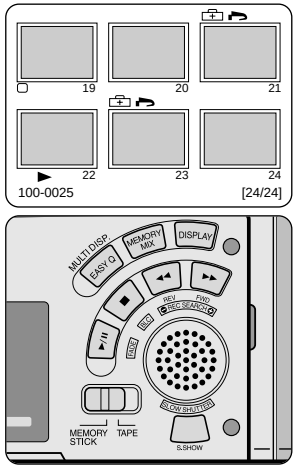
To view the Multi Display

1. Set the mode switch to MEMORY STICK.

2. Set the power switch to PLAYER mode.
   - The last recorded still image/moving picture appears.

3. To view six stored still image/moving picture on single screen, press the MULTI DISP. button.
   - A selection mark (▶) appears under the still image/moving picture.
   - Moving pictures will be displayed with the first scene as a still image, indicated by a picture mark (▢).
   - Move the MENU SELECTOR to select a still image/moving picture.
   - To display the previous six images, press the ◀◀ (REV).
   - To display the next six images, press the ▶▶ (FWD).

4. To return to single playback mode, press the MULTI DISP. button again.
   - The still image/moving picture you have marked fills the whole display.



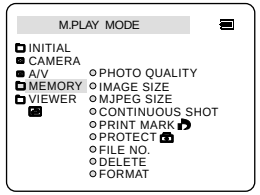
ENGLISH

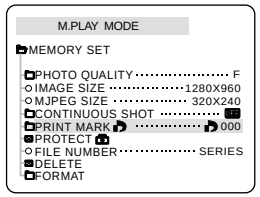
Digital Still Camera mode

Marking still images for printing

⌘ This camcorder supports the DPOF (Digital Print Order Format) print format.
⌘ You can automatically print still images recorded on a Memory Stick with a printer supporting DPOF.
⌘ There are 2 ways to make a PRINT MARK.
- THIS FILE : You can set a print mark on the photo image displayed on the LCD.
- ALL FILES : To print 1 copy each of all of the stored still images.

1. Set the mode switch to MEMORY STICK.
2. Set the power switch to PLAYER.
   - The last recorded image appears.
3. Using the ▶▶ (FWD) and ◀◀ (REV) buttons, search for the still image that you want to mark.
4. Press the MENU button.
5. Move the MENU SELECTOR to highlight MEMORY and push the MENU SELECTOR.
   - The MEMORY SET submenu will appear.
6. Move the MENU SELECTOR to highlight PRINT MARK, push the MENU SELECTOR.
7. Use the MENU SELECTOR to select either THIS FILE or ALL FILES and push the MENU SELECTOR.
8. Use the MENU SELECTOR to select the quantity and push the MENU SELECTOR.





Notes

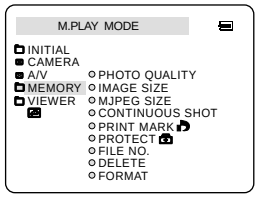
- When you setup the PRINT MARK option to ALL FILES, 999 files from the current file are set to 1 or 0.
- The ALL FILES option may require extended operation time depending on the number of stored still images.
- You cannot write print marks on moving pictures.

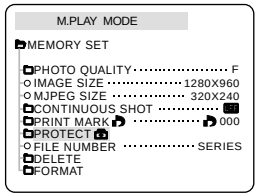
ENGLISH

Digital Still Camera mode

Protection from accidental erasure

⌘ You can protect important still images/moving pictures from accidental erasure.
- ■ If you execute FORMAT, all still images/moving pictures including protected images will be erased.





1. Set the mode switch to MEMORY STICK.
2. Set the power switch to PLAYER.
   - ■ The last recorded still image/moving picture appears.
   - ■ If there are no recorded still images/moving pictures on the Memory Stick, NO STORED IMAGE! and will display on the screen.
3. Using the ▶▶ (FWD) and ◀◀ (REV) buttons, search for the still image/moving picture that you want to protect.
4. Press the MENU button.
5. Move the MENU SELECTOR to highlight MEMORY and push the MENU SELECTOR.
   - ■ The submenu of MEMORY SET will appear.
6. Move the MENU SELECTOR to highlight PROTECT and push the MENU SELECTOR.
7. Push the MENU SELECTOR to set PROTECT to ON or OFF.
   - ■ THIS FILE : protects the currently selected file from erasure.
8. Using the ▶▶ (FWD) and ◀◀ (REV) buttons, search for the still image/moving picture that you wish to protect.
9. To exit the menu, press the MENU button.

Note

- ■ If the write protect tab on the Memory Stick is set to LOCK, you cannot carry out image protection.

ENGLISH

Digital Still Camera mode

Deleting Still images/Moving pictures

⌘ You can erase the still images/moving pictures recorded on the Memory Stick.
⌘ If you want to delete protected still images/moving pictures, you must first deactivate the image protection.
⌘ An image which has been deleted cannot be recovered.

1. Set the mode switch to MEMORY STICK.

2. Set the power switch to PLAYER.

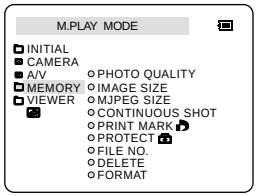
3. Using the ▶▶ (FWD) and ◀◀ (REV) buttons, search for the still image/moving picture that you want to delete.

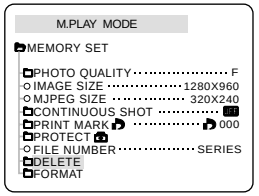
4. Press the MENU button.

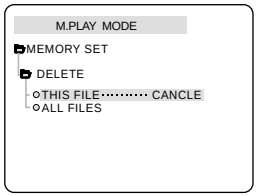
5. Move the MENU SELECTOR to highlight MEMORY and push the MENU SELECTOR.
   - The MEMORY SET submenu will appear.

6. Move the MENU SELECTOR to highlight DELETE and push the MENU SELECTOR.
   - Using the MENU SELECTOR, select either THIS FILE or ALL FILES and push the MENU SELECTOR.
   - THIS FILE : deletes only the file currently selected.
   - ALL FILES : deletes all files stored in the Memory Stick.

7. A box will appear to verify whether you wish to delete the still image/moving picture.
   - Using the MENU SELECTOR, select the item.
   - EXECUTE : deletes the selected still images/moving pictures.
   - CANCEL : does not delete the selected still images/moving pictures and returns to the previous menu.







Note

■ If you try to delete a protected image, “PROTECT!” appears on the screen.

ENGLISH

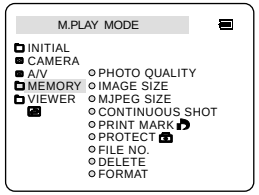
Digital Still Camera mode

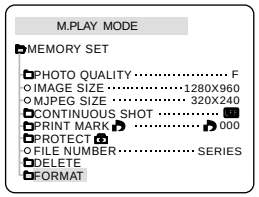
Formatting the Memory Stick

- ⌘ You can use the MEMORY FORMAT functions to completely delete all still images/moving pictures and options on the Memory Stick, including protected still images/moving pictures.
- ⌘ The format function restores the Memory Stick to its initial state.
- ⌘ The Memory Stick supplied with this camcorder has been formatted already.

Attention

- ⌘ If you execute the MEMORY FORMAT function, all still images/moving pictures will be erased completely and erased still images/moving pictures cannot be recovered.





1. Set the mode switch to MEMORY STICK.
2. Set the power switch to PLAYER mode.
3. Press the MENU button.
4. Move the MENU SELECTOR to highlight MEMORY and push the MENU SELECTOR.
   - The sub menu will appear.
5. Select FORMAT from the list and push the MENU SELECTOR.
6. “ALL FILES ARE DELETED! FORMAT REALLY?” appears on the screen.
7. Using the MENU SELECTOR, select the item.
   - NO : To return to previous menu
   - YES : To start formatting.
8. Push the MENU SELECTOR.
9. To exit the menu, push the MENU button.

Notes

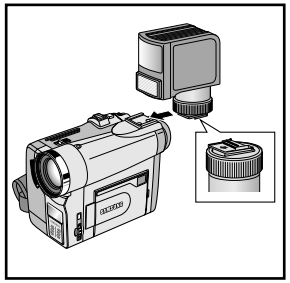
- If you want to format the Memory Stick on your PC, use only the “Memory Stick formatter” supplied with the software CD.

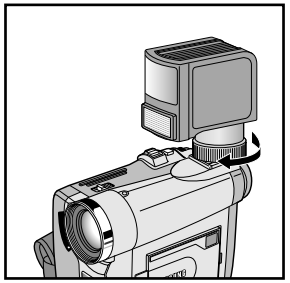
Smart Shoe

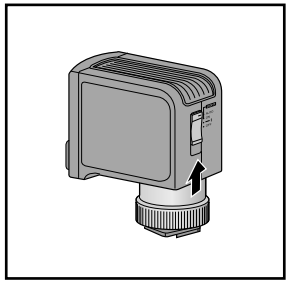
Using the Smart Shoe

⌘ You can use to attach an optional accessory to the camcorder's Smart Shoe.
⌘ The accessory is powered by the camcorder's power supply.
⌘ Turn the camcorder's power off before attaching/removing the accessory to the Smart Shoe.
⌘ Types of optional accessories for Smart Shoe.
- VL-S1FL Video Light/Flash
- ZM-EC1 Gun Zoom Mic

ex) Using the VL-S1FL Video Light/Flash(optional)







1. Slide the VL-S1FL(Video Light/Flash) onto the Smart Shoe and tighten with shoe lock.
   - Slide the VL-S1FL onto the camcorder until it clicks securely into place.
   - Make sure that the accessory does not come disconnected when turning the shoe lock.

2. Set the camcorder to CAMERA or M.REC mode.

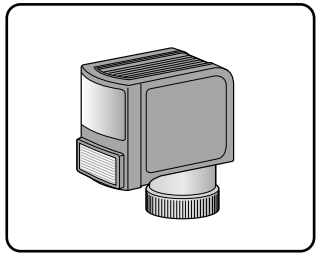
3. Move the Video Light's power switch to AUTO or ON.

ENGLISH

Smart Shoe

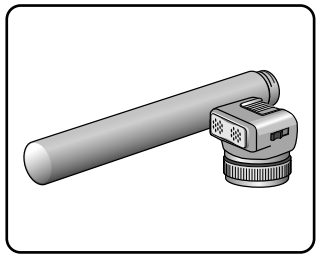
VL-S1FL Video Light/Flash

Attach the Video Light/Flash to a camcorder when recording in dark places.
When recording a PHOTO, you can take natural-looking flash pictures with appropriate illumination using the Flash.



ZM-EC1 Gun Zoom Mic

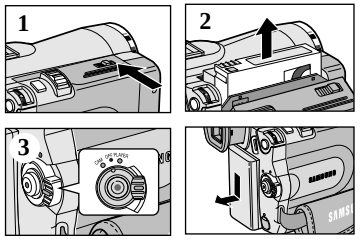
This is a highly sensitive microphone that can be switched between functioning as a directional microphone (Gun mode) or variable microphone (Zoom mode).



Maintenance

After finishing a recording

⌘ At the end of a recording you must remove the power source.
⌘ When recording with a Lithium Ion Battery Pack, leaving the pack on the camcorder can reduce the life span of the battery. Hence, it should be removed from the camcorder.



1. Slide the TAPE EJECT switch in the direction of the arrow.
   - Opening the cassette door ejects the tape automatically.
   - Please wait while the tape is completely ejected.

2. After removing the tape, close the door and store the camcorder in a dust free environment.
   - Dust and other foreign materials can cause square-shaped noise or jerky images.

3. Set the power switch to the OFF mode.

4. Disconnect the power source or remove the Lithium Ion Battery Pack.
   - Hold down the BATTERY RELEASE button and slide the battery pack in the direction of the arrow.

ENGLISH

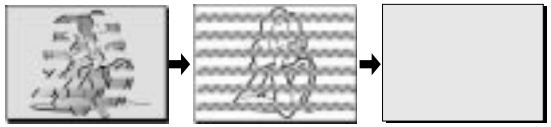
Maintenance

Cleaning and Maintaining the Camcorder

Cleaning the Video Heads

To ensure normal recording and clear pictures, clean the video heads
when the playback pictures display square block-shaped noise or distortion, or a blue screen appears.

1. Set the power switch to PLAYER mode.
2. Insert the cleaning tape.
3. Press the ▶/II (PLAY/STILL) button.
4. Press the ■ (STOP) button after 10 seconds.



Notes

- Check the quality of the picture using a videocassette.
  If the picture quality has not improved, repeat the operation.
  If the problem continues, contact your local authorized service center.
- Clean the video heads with a dry type cassette cleaner.

Maintenance

Using Your Camcorder Abroad

⌘ Each country or region has its own electric and colour systems.
⌘ Before using your camcorder abroad, check the following items.

Power sources

- You can use your camcorder in any country or area with the supplied AC Power Adapter within 100V to 240V, 50/60 Hz.
- Use a commercially available AC plug Adapter, if necessary, depending on the design of the local wall outlet.

Colour system

- You can view your recording in the viewfinder.
  However, to view it on a television or copy it to a videocassette recorder, the television or VCR must be PAL-compatible and have the appropriate audio/video jacks.
  Otherwise, you may need to use a transcoder.

● **PAL-compatible Countries/Regions**
Australia, Austria, Belgium, Bulgaria, China, CIS, Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, Great Britain, Holland, Hong Kong, Hungary, India, Iran, Iraq, Kuwait, Libya, Malaysia, Mauritius, Norway, Romania, Saudi Arabia, Singapore, Slovak Republic, Spain, Sweden, Switzerland, Syria, Thailand, Tunisia, etc.

● **NTSC-compatible Countries/Regions**
Bahamas, Canada, Central America, Japan, Korea, Mexico, Philippines, Taiwan, United States of America, etc.

Notes

You can make recordings with your camcorder and view pictures on the LCD from anywhere in the world.

ENGLISH

Troubleshooting

Troubleshooting

⌘ Before contacting a Samsung authorized service centre, perform the following simple checks.
They may save you the time and expense of an unnecessary call.

Self Diagnosis Display

Display	Blinking	Informs that...	Action
▭	slow	the battery pack is almost discharged.	Change to a charged one.
TAPE END!	slow	When the remaining time on the tape is about 2 minutes.	Prepare a new one.
TAPE END!	no	the tape reached its end.	Change to a new one.
TAPE!	slow	there is no tape in camcorder.	Insert a tape.
PROTECTION!	slow	the tape is record protected.	If you want to record, release the protection.
⏏ ····D L C R	slow	the camcorder has some mechanical fault.	1. Eject the tape. 2. Set to OFF. 3. Detach the battery. 4. Reattach the battery. * If unresolved contact your local service representative.
◆	slow	moisture condensation has formed in the camcorder.	see below.

Moisture Condensation

⌘ If the camcorder is brought directly from a cold place to a warm place, moisture may condense inside the camcorder, on the surface of the tape, or on the lens. In this condition, the tape may stick to the head drum and be damaged or the unit may not operate correctly.
To prevent possible damage under these circumstances, the camcorder is fitted with a moisture sensor.

⌘ If there is moisture inside the camcorder, ◆ (DEW) is displayed. If this happens, none of the functions except cassette ejection will work.
Open the cassette compartment and remove the battery.
Leave the camcorder for at least two hours in a dry warm room.

Troubleshooting

Self Diagnosis Display in M.REC/M.PLAY mode

Display	Blinking	Informs that...	Action
MEMORY STICK!	slow	There no Memory stick in the camcorder.	Insert a Memory Stick.
MEMORY FULL!	slow	There is not enough memory to record.	Change to a new Memory Stick. Erase recorded image.
NO STORED IMAGE!	slow	There are no images recorded on the Memory Stick.	Record new images.
WRITE PROTECT!	slow	The Memory Stick is record protected.	Release the write protect tab on the Memory Stick.
PROTECT!	slow	When you try to delete to protected image.	Cancel the protect of image.
READ ERROR!	slow	The camera can not playback.	Format a Memory Stick or insert Memory Stick recorded on this camcorder.
WRITE ERROR!	slow	The camera can not record.	Format a Memory Stick or change to a new Memory Stick.
NOT FORMATTED!	slow	The Memory Stick needs to format.	Format a Memory Stick.
NOW DELETE...	slow	When progressing FILE DELETE.	Wait until Delete has finished.
NOW FORMAT...	slow	When progressing MEMORY FORMAT.	Wait until formatting has finished.
NOW COPY...	slow	When progressing FILE COPY.	Wait until copying has finished.

ENGLISH

Troubleshooting

⌘ If these instructions do not solve your problem, contact your nearest Samsung authorized service centre.

Symptom	Explanation/Solution
You cannot switch the camcorder on.	Check the battery pack or the AC Power Adapter.
START/STOP button does not operate while recording.	Check the POWER switch is set to CAM. You have reached the end of the cassette. Check the record protection tab on the cassette.
The camcorder goes off automatically.	You have left the camcorder set to STBY for more than 5 minutes without using it. The battery pack is fully exhausted.
The battery pack is quickly exhausted.	The atmospheric temperature is too low. The battery pack has not been charged fully. The battery pack is completely dead, and cannot be recharged, Use another battery pack.
When you see a blue screen during playback.	The video heads may be dirty. Clean the head with a cleaning tape.
A vertical strip appears on the screen when recording a dark background.	The contrast between the subject and the background is too great for the camcorder to operate normally. Make the background bright to reduce the contrast or use the BLC function while you are recording brighter.
The image in the viewfinder is blurred.	The Viewfinder lens has not been adjusted. Adjust the viewfinder control lever until the indicators displayed on the viewfinder come into sharp focus.
Auto focus does not work.	Check the M.FOCUS menu. Auto focus does not work in the Manual Focus mode.
Play, FF or REW button does not work.	Check the POWER switch. Set the power switch to PLAYER. You have reached the beginning or end of the cassette.
When you see a broken block image during the RECORD SEARCH.	This is normal operation and it is not a failure or defect.

Specifications

Model name: SCD99

System	
Video signal	PAL
Video recording system	2 rotary heads, Helical scanning system
Audio recording system	Rotary heads, PCM system
Usable cassette	Digital video tape (6.35mm width): Mini DV cassette
Tape speed	SP: approx. 18.83mm/s LP: approx. 12.57mm/s
Tape recording time	SP: 60 minutes (when using DVM 60), LP: 90 minutes (when using DVM 60)
FF/REW time	Approx. 150 sec. (using DVM60 tape)
Image device	CCD (Charge Coupled Device)
Lens	F2.0 12x(Optical), 800x(Digital) Electronic zoom lens
Filter diameter	Ø30
LCD monitor/Viewfinder	
Size/dot number	2.5inchs 123k(VP-D93(i)/D97(i) only), 211k(VP-D99(i) only)
LCD monitor Method	TFT LCD
Viewfinder	0.24" B/W LCD(VP-D93(i)/D97(i) only), Colour LCD(VP-D99(i) only)
Connectors	
Video output	1Vp-p (75Ω terminated)
S-video output	Y: 1Vp-p, 75Ω, C: 0. 286Vp-p, 75Ω
Audio output	-7.5dBs (600Ω terminated)
DV input/output	VP-DXXi: 4pin special in/out connector, VP-DXX: out only
USB output	Mini-B type connector
External mic	Ø3.5 stereo
Earphone	Ø3.5 stereo

General	
Power source	DC 8.4V, Lithium Ion Battery Pack 7.4V
Power source type	Lithium Ion Battery Pack, Power supply (100V~240V) 50/60Hz
Power consumption (Recording)	5.9W(LCD), 4.7W(EVF)
Operating temperature	0˚~40˚C (32˚F~104˚F)
Storage temperature	-20˚C ~ 60˚C (-4˚F ~ 140˚F)
External dimension	Length 126.5mm, Height 93.5mm, Width 75mm
Weight	485g (Except for Lithium Ion Battery Pack and tape)
Built-in MIC	Omni-directional stereo condenser microphone
Remote control	Indoors: greater than 15m (straight line), Outdoors: about 5m (straight line)

- These technical specifications and design may be changed without notice.

ENGLISH

INDEX

- A -

Accessories 12
Audio dubbing 66
AUDIO MODE 54
AUDIO SELECT 67
AV IN/OUT 75

- B -

Battery Pack 24
BEEP SOUND 39
BLC 64

- C -

Cassette 27
Charging the Lithium Ion Battery Pack 24
Cleaning 106
CLOCK SET 37
Condensation 108
Connecting to TV or VCR 70
CONTINUOUS SHOT 87
Copying Still images from a cassette to Memory Stick 91

- D -

DATE/TIME 56
DC Cable 23
Deleting Still images/Moving pictures 101
DEMONSTRATION 41
Digital zoom 45, 46
DSE (Digital Special Effects) 48
DV 76, 77

- E -

Earphone 34
EASY Mode 62
EIS (Electronic Image Stabilizer) 47
EXPOSURE 60

- F -

Fade 65
File Number 88
Flash 52
Focusing 63
Formatting the Memory Stick 102
Frame advance 73
Functions buttons 14

- H -

Hand Strap 22

- I -

IEEE1394 76
Image Size 85

- L -

LCD 30, 31
Lithium Battery Installation 21

INDEX

- M -

Maintenance 105
Memory Mix 50
Memory Stick 81, 89
MF/AF 63
MJPEG RECORDING 92
MJPEG SIZE 86
Multi display 98

- O -

OSD 18, 19

- P -

PC Connection 76
PHOTO copy 91
PHOTO quality 84
PHOTO SEARCH 68
Playback 72
Playback Connection 70
Print Mark 99
PROGRAM AE 42
Protection 100

- Q -

Quick Menu 58

- R -

REC MODE 53
REC Search 29
Recording images to a Memory Stick 89
Remote control 17, 20, 38

- S -

Self Timer 20
Shutter Sound 40
SHUTTER SPEED 59
SLIDE SHOW 98
SLOW SHUTTER 61
Smart Shoe 103
Sound 34
Speaker 34
Still images 97

- T -

Tape Protection 27
TV DISPLAY 57

- U -

USB 78

- V -

Viewfinder 30, 32
Viewing still images/moving pictures 97

- W -

WHT.BALANCE 44
WIND CUT 55

- Z -

ZERO MEMORY 74
Zoom 45, 46

ENGLISH

Power Sources (United Kingdom Only)

The mains lead on the power adapter is supplied with a moulded plug incorporating a fuse.
The value of the fuse is indicated on the pin face of the plug and, if it requires replacing, a fuse approved to BS1362 of the same rating must be used.
Never use the plug with the fuse cover omitted if the cover is detachable.
If a replacement fuse cover is required, it must be of the same colour as the pin face of the plug.
Replacement covers are available from your dealer.
If the fitted plug is not suitable for the power points in your house or the cable is not long enough to reach a power point, you should obtain a suitable safety approved extension lead or consult your dealer for assistance.
However, if there is no alternative to cutting off the plug, remove the fuse and then safely dispose of the plug.
Do NOT connect the plug to a mains socket as there is a risk of shock hazard from the bared flexible cord.
IMPORTANT
The wires in the mains lead are coloured in accordance with the following code:
BLUE = NEUTRAL BROWN = LIVE
As these colours may not correspond to the coloured markings identifying the terminals in your plug, proceed as follows:
The wire coloured BLUE must be connected to the terminal marked with the letter N or coloured BLUE or BLACK.
The wire coloured BROWN must be connected to the terminal marked with the letter L or coloured BROWN or RED.

WARNING Do not connect either wire to the earth terminal marked with the letter E or the earth symbol, ⏚ , or coloured GREEN or GREEN and YELLOW.

NOTE This page is applicable to Great Britain only.

ENGLISH

THIS CAMCORDER IS MANUFACTURED BY:

SAMSUNG
ELECTRONICS

***Samsung Electronics' Internet Home Page**

United Kingdom http://www.samsungelectronics.co.uk

AD68-00656E