

ENGLISH

DVD Camera Recoder

SC-DC163/DC164/DC165

AF Auto Focus

CCD Charge Coupled Device

LCD Liquid Crystal Display



RoHS compliant

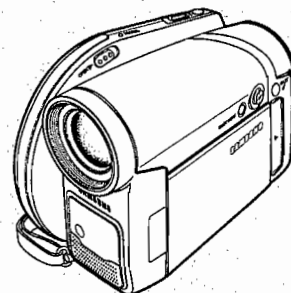
Our product complies with "The Restriction Of the use of certain Hazardous Substances in electrical and electronic equipment", and we do not use the 6 hazardous materials- Cadmium(Cd), Lead (Pb), Mercury (Hg), Hexavalent Chromium (Cr+6), Poly Brominated Biphenyls (PBBs), Poly Brominated Diphenyl Ethers(PBDEs)- in our products.

Owner's Instruction Book

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

US PATENT 4415844

Use only approved battery packs.
Otherwise, there is a danger of overheating, fire or explosion.
Samsung is not responsible for problems occurring due to
using unapproved batteries.

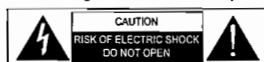


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Notices and Safety Instructions

Safety Instructions

Shock Hazard Marking and Associated Graphical Symbols



Explanation of Safety Related Symbols



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



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

WARNING - To Reduce The Risk Of Fire Or Electric Shock, Do Not Expose This Apparatus To Rain Or Moisture.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet. Consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been moisture, does not operate normally, or has been dropped.



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15. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

16. VENTILATION:

Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the CAMCORDER and to protect it from overheating. These openings must not be blocked or covered. Never place your CAMCORDER on a bed, sofa, rug, or other similar surface: on or near a radiator or heat register. This CAMCORDER should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

17. POWER SOURCES:

The CAMCORDER should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supply at your home, consult your appliance dealer or local power company. A CAMCORDER is intended to be operated from battery power, or other sources, refer to the operating instructions.

18. GROUNDING OR POLARIZATION:

This CAMCORDER may be equipped with either a polarized 2-wire AC line plug (a plug having one blade wider than the other) or a 3-wire grounding type plug, a plug having a third (grounding) pin. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to replace your outlet. Do not defeat the safety purpose of the polarized plug.

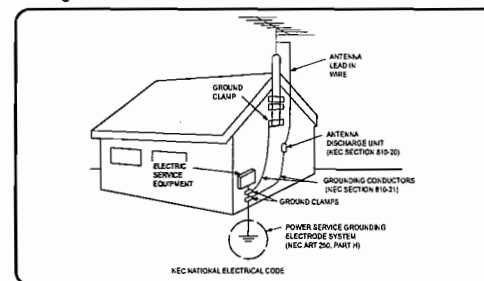
19. POWER-CORD PROTECTION:

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords or plugs, convenient receptacles, and the point where they exit from the unit.

20. OUTDOOR ANTENNA GROUNDING:

If an outside antenna or cable system is connected to the CAMCORDER, be sure the antenna or cable system is grounded to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire and supporting structure, grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding to conductors, location of antenna-discharge unit, connection to grounding electrodes and requirements for the grounding electrode.

See figure below.



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21. LIGHTNING:

For added protection of this CAMCORDER during a lightning storm or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the CAMCORDER due to lightning and power-line surges.

22. POWER LINES:

An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

23. OVERLOADING:

Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

24. OBJECTS AND LIQUIDS:

Never push objects of any kind into this CAMCORDER through openings as they may touch dangerous voltage points or short out a part that could result in a fire or electric shock. Never spill liquids of any kind onto the CAMCORDER. Should spillage occur, unplug unit and have it checked by a technician before use.

25. SERVICING:

Do not attempt to service this CAMCORDER yourself. Opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

26. DAMAGE REQUIRING SERVICE:

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

- a. When the power-supply cord or plug is damaged.
- b. If any liquid has been spilled onto, or objects have fallen into the CAMCORDER.
- c. If the CAMCORDER has been exposed to rain or water.
- d. If the CAMCORDER does not operate normally by following the operating instructions, adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the CAMCORDER to its normal operation.
- e. If the CAMCORDER has been dropped or the cabinet has been damaged.
- f. When the CAMCORDER exhibits a distinct change in performance, this indicates a need for service.

27. REPLACEMENT PARTS:

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer and having the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

28. SAFETY CHECK:

Upon completion of any service or repairs to this CAMCORDER, ask the service technician to perform safety checks to determine that the CAMCORDER is in safe operating order.

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29. To prevent damage which may result in fire or shock hazard, do not expose this appliance to rain or moisture.
30. If this power supply is used at 240V ac, a suitable plug adapter should be used.

NOTE TO CATV SYSTEM INSTALLER:

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

USER INSTALLER CAUTION:

Your authority to operate this FCC certified equipment could be voided if you make changes or modifications not expressly approved by this party responsible for compliance to part 15 FCC rules.

NOTE:

Hg LAMP(S) INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE OR FEDERAL LAWS. For details see lamprecycle.org, eiaa.org, or call 1-800-Samsung (7267864)

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

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

The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems."

This Booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 004-000-00345-4.

FCC Warning

The user is cautioned that changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

FCC ID : A3L06RAINBOW1

This device complies with Part 15 of FCC Rules.

Operation is subject to the following two conditions;

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

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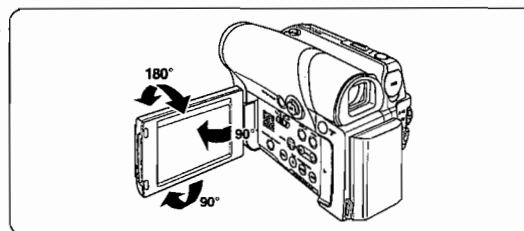
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Notes and Safety Instructions

Notes regarding the Rotation of the LCD Screen

Please rotate the LCD Screen carefully as illustrated. Over rotation may cause damage to the inside of the hinge that connects the LCD Screen to the Camcorder.

1. Open the LCD Screen 90 degrees to the Camcorder with your finger.
2. Rotate it to the best angle to record or play.
 - If you rotate the LCD Screen 180 degrees to the lens side, you can close the LCD Screen with the facing out.
 - This is convenient during playback operations.

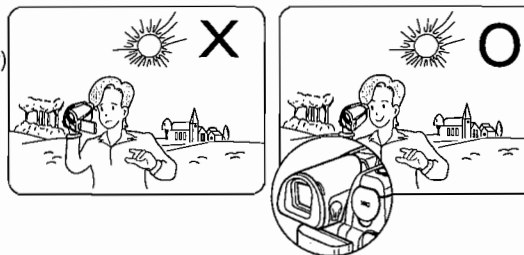


Note

Refer to page 36 to adjust brightness and color of the LCD Screen.

Notes regarding the LCD Screen, Viewfinder, Lens

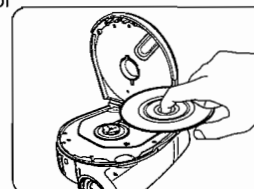
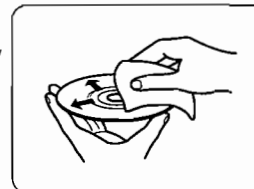
1. Direct sunlight can damage the LCD Screen, the inside of the Viewfinder or the Lens. Take pictures of the sun only in low light conditions, such as at dusk.
2. The LCD Screen has been manufactured using high precision technology. However, there may be tiny dots (red, blue or green in color) that appear on the LCD Screen. These dots are normal and do not affect the recorded picture in any way.
3. Do not pick up the Camcorder by holding the Viewfinder, LCD Screen or Battery Pack.
4. Applying excessive force to the Viewfinder may damage it.



Notes and Safety Instructions

Notes regarding the Disc Cleaning and Handling

- Take care not to touch the recording side (the rainbow colored side) of the disc with fingers. Discs contaminated by fingerprints or foreign substances may disrupt the discs from playing properly.
- Use a soft cloth to clean the discs.
- Clean lightly from the center of a disc to the outside edge. Circling or cleaning too hard may create scratches on the disc and further cause the disc to play abnormally.
- Do not use benzene, thinner, detergent, alcohol or anti-static spray when cleaning the disc. It may cause malfunction of the disc.
- Press the supporting holder in the center of the disc case for easy removal of the disc.
- Handle discs by the edges and the center hole to avoid finger marks on the recording side of the disc.
- Do not bend or apply heat to the disc.
- Always store the discs vertically in their plastic cases when not in use.
- Store the discs away from direct sunlight, heating elements, moisture or dust.



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Notes and Safety Instructions

Notes regarding Camcorder

- Do not leave the Camcorder exposed to high temperatures (above 60 °C or 140 °F).
For example, in a parked car in the sun or exposed to direct sunlight.
- Do not let the Camcorder get wet. Keep the Camcorder away from rain, sea water, and any other form of moisture.
If the Camcorder gets wet, it may get damaged. Sometimes a malfunction due to exposure to liquids cannot be repaired.
- A sudden rise in atmospheric temperature may cause condensation to form inside the Camcorder.
 - When you move the Camcorder from a cold location to a warm location (e.g. from outside to inside during the winter.)
 - When you move the Camcorder from a cool location to a hot location (e.g. from inside to outside during the summer.)

Notices regarding Copyright (SC-DC165 only)

Television programs, video tapes, DVD titles, films, and other program materials may be copyrighted.

Unauthorized copying of copyrighted material may be against the law.

All the trade names and registered trademarks mentioned in this manual or other documentation provided with your Samsung product are trademarks or registered trademarks of their respective holders.

Servicing & Replacement Parts

- Do not attempt to service this Camcorder yourself.
- Opening or removing covers may expose you to dangerous voltage or other hazards.
- Refer all servicing to qualified service personnel.
- When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer and having the same characteristics as the original part.
- Unauthorized substitutions may result in fire, electric shock or other hazards.

Getting to Know Your Camcorder

Features

- **DVD Disc Camcorder**
DVD-VIDEO Title Production with 80mm DVD-RW/+RW/
DVD-R/+R DL(Dual Layer) discs.
- **High Power Zoom Lens**
Offers you High Power Zoom Lens with 30x Zoom Lens
(SC-DC163 only), 33x Zoom Lens (SC-DC164/D165 only)
- **USB Interface for Digital Image Data Transfer**
You can transfer images to a PC using the USB interface
without an add-on card.
- **Photo Capture**
The Photo Capture function lets you capture the scene
you want while the disc is in play, and save as a still
image on the Memory Card.
- **1200x Digital Zoom**
Allows you to magnify an image up to 1200 times its
original size.
- **Color TFT LCD**
A high-resolution color TFT LCD gives you clean, sharp
images as well as the ability to review your recordings
immediately. Also 2.7 inch Wide LCD (SC-DC164/DC165
only).
- **Digital Image Stabilizer (DIS)**
The DIS compensates for any handshake, reducing
unstable images particularly at high magnification.
- **Various Digital Effects**
The Digital Effects allows you to give your films a special
look by adding various special effects.
- **Back Light Compensation (BLC)**
The BLC function compensates for the bright background
behind a subject you're recording.
- **Program AE**
The Program AE enables you to alter the shutter speed
and aperture to suit the type of scene/action to be
recorded.
- **Digital Still Camera Function**
 - Using Memory Card, you can easily record and
playback standard still images.
 - You can transfer standard still images on the Memory
Card to your PC using the USB interface.
- **Moving Image Recording**
Moving image recording makes it possible to record video
onto a Memory Card.
- **Multi Memory Card Slot**
Multi Memory Card slot is able to use Memory Stick (Duo),
Memory Stick PRO, MMC and SD.
- **Multi OSD Language**
You can select the desired OSD language from OSD list.

Getting to Know Your Camcorder

Convenient and easy use of a Camcorder

A camcorder is a digital device that enables recording, playing and editing of moving pictures in various structures. The inconvenience and inferiority of an analogue tape, which uses a conventional tape for recording and loses picture quality over time, has been improved. A DVD disc enables recording with better picture quality as it uses MPEG2, the standard format for digital TV, as the basic format for recording. Use it in the following order for convenience:

- It is recommended to use Sony discs for better recording and playback quality.
- Samsung is not responsible for any lost or missed recordings due to any disc problems.
Samsung is not responsible for any recorded video or audio.

Select a disc for recording

Select the disc type depending on your purpose

	DVD-RW	DVD+RW	DVD-R/+R DL
Rewritable	O	O	X (Record only once)
Editing	O (VR mode)	X	X

- Dual layered DVD+R discs have the same features as DVD-R with doubled capacity.)



Getting to Know Your Camcorder

Step 2 Format the new disc ~ Page 41

When a DVD-RW disc is to be used:

When you insert a new DVD-RW disc, you are prompted to format the disc.
You can format the disc in the Video or VR (Video Recording) mode.

	Format	Compatibility after finalization
DVD-RW	Video Mode	Playback on other DVD player
	VR Mode	Playback on other DVD player in which VR mode is supported

When a DVD+RW disc is to be used:

A new DVD+RW disc is automatically formatted in the VR (Video Recording) mode once it is inserted.

When a DVD-R/+R DL disc is to be used:

A new DVD-R disc is automatically formatted in the Video mode once it is inserted.
If the formatted disc is finalized, it can be played on other DVD players with much compatibility.

Notes

- If a disc is already formatted, you may not be prompted to format the disc.

Step 3 Recording ~ Page 43

While recording, it is recorded in free spaces so as not to overwrite any existing file. If finalized upon recording, you can play the disc on a DVD player.

Getting to Know Your Camcorder

Step 4 Playing ~Page 64

A typical DVD disc is consisted of titles and multiple chapters.
A piece of recording from the start point to the end point is called a "title".
When finalized, chapters are automatically created on the DVD-RW/+RW(Video Mode) and DVD-R/+R DL discs.
Multiple title lists that had been recorded can be played.



Step 5 Editing a recorded disc ~Page 73

With a simplified and easy menu structure editing on a disc is easier than tapes.
Various edit functions such as Delete, Partial Delete, Add, Move, Rename, Protect and so on are available for easy editing.
In the VR Mode on a DVD-RW disc, Playlists are created.
In other word, additional Playlists can be created without damaging the existing files on the same disc.



Step 6 Finalizing to play on other DVD players ~Page 86

You must finalize the recording with Disc Manager if you wish to play the disc, which is recorded and edited on this product, on other DVD players.

For a DVD-RW/+RW disc formatted in the VR (Video Recording) mode:

To play on a DVD player that enables the playing in the VR mode, you must finalize the disc.

For DVD-RW/DVD-R/+R DL discs formatted in the Video mode:

To play on a DVD player that enables the playing in the Video mode, you must at first finalize the disc.

No more recording or editing can be made on the disc once it has been finalized.

Getting to Know Your Camcorder

About Discs

Recording & Playing of DVD-RW discs

- Recording and playing in the VR and the Video modes are enabled with DVD-RW discs.
- Only playing is enabled upon finalization. Neither recording, deleting nor editing is enabled upon finalization.
- To record, delete or edit on a finalized DVD-RW disc, you must unfinalize the disc first.
- The VR (Video Recording) Mode:
 - It is the format available for a DVD-RW disc.
 - Various editing functions such as Record, Delete and Edit are enabled.
 - If recorded in the VR mode and the disc has been finalized, it may not play on other DVD players.
- The Video Mode:
 - It is the format available for DVD-RW/-R discs.
 - Unlike the VR mode, editing of a recording is disabled.
 - If recorded in the Video mode and the disc has been finalized, it will play on other DVD players.

Recording & Playing of DVD+RW discs

- Recording and playing in the VR mode is enabled with DVD+RW discs.
- Other DVD players can play back the disc without finalizing it.
- You cannot use the editing function.

Recording & Playing of DVD-R/+R DL discs

- To play a DVD-R/+R DL disc on a typical DVD player, you must finalize the disc.
- A finalized DVD-R/+R DL disc will function as same as the generic DVD video discs.
- A finalized DVD-R/+R DL cannot be unfinalized.
- A finalized DVD-R/+R DL disc cannot be used for further recording.
- A DVD-R/+R DL disc can be used for recording only once, hence rewriting nor editing of recordings is disabled.

Incompatible Discs:

CD, CD-R, CD-RW, CD-ROM, DVD-ROM, DVD+R(single layer), DVD-RAM

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Getting to Know Your Camcorder

Accessories Supplied with Camcorder

Make sure that the following basic accessories are supplied with your Camcorder.

Basic Accessories

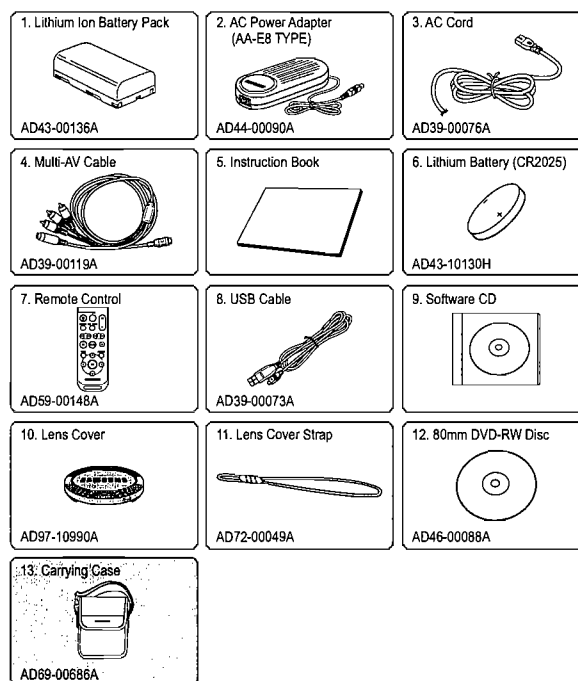
1. Lithium Ion Battery Pack
2. AC Power Adapter (AA-E8 TYPE)
3. AC Cord
4. Multi-AV Cable
5. Instruction Book
6. Lithium Battery for Remote Control (SC-DC164/DC165 only) or Clock. (TYPE: CR2025)
7. Remote Control (SC-DC164/DC165 only)
8. USB Cable
9. Software CD
10. Lens Cover
11. Lens Cover Strap
12. 80mm DVD-RW Disc (SC-DC165 only)

Optional Accessory

13. Carrying Case

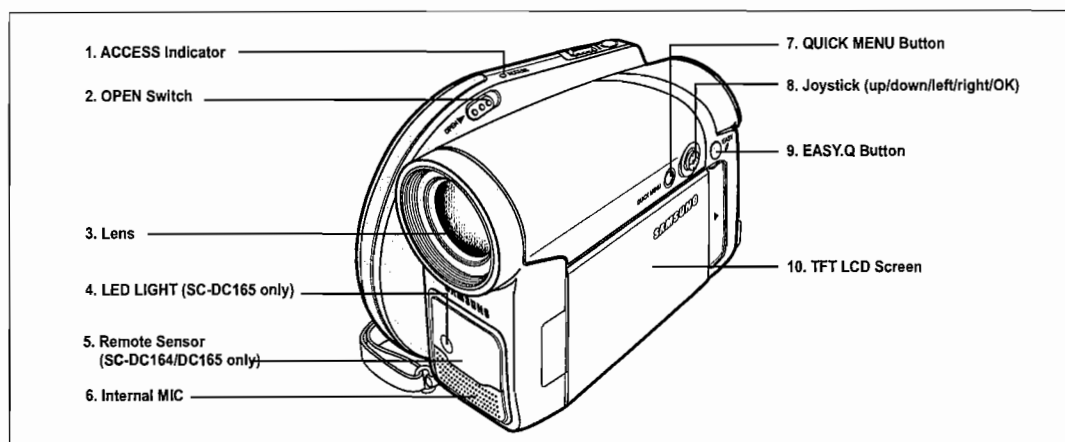
Note

Parts and accessories are available at your local Samsung dealer and service center.



Getting to Know Your Camcorder

Front & Left View

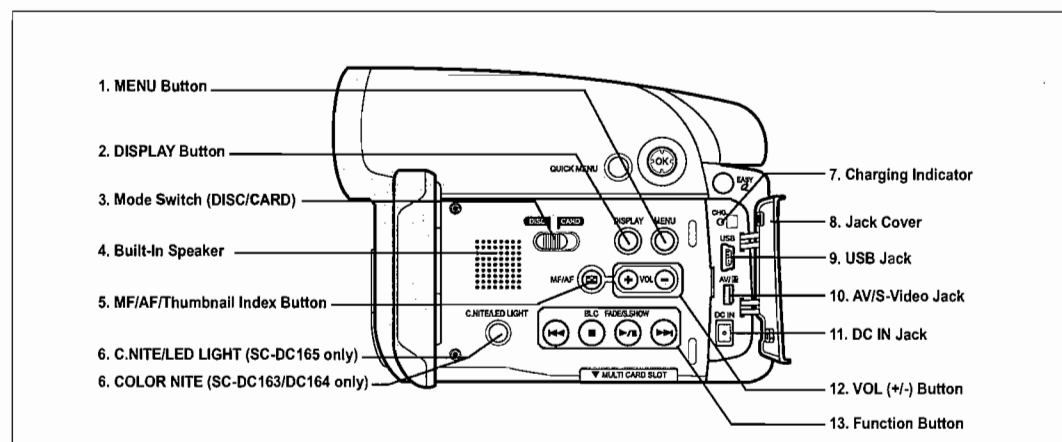


1. ACCESS Indicator ↪ page 40
2. OPEN Switch ↪ page 40
3. Lens
4. LED LIGHT (SC-DC165 only) ↪ page 50
5. Remote Sensor (SC-DC164/DC165 only)
6. Internal MIC

7. QUICK MENU Button ↪ page 27
8. Joystick (up/down/left/right/OK) ↪ page 26
9. EASY.Q Button ↪ page 44
10. TFT LCD Screen

Getting to Know Your Camcorder

Left Side View



1. MENU Button
2. DISPLAY ↗ page 29
3. Mode Switch (DISC/CARD)
4. Built-In Speaker
5. MF/AF/Thumbnail index Button ↗ page 53
6. C.NITE/LED LIGHT (SC-DC165 only) ↗ page 50
6. COLOR NITE (SC-DC163/DC164 only) ↗ page 49
7. Charging Indicator
8. Jack Cover
9. USB Jack

10. AV/S-Video Jack

11. DC IN Jack

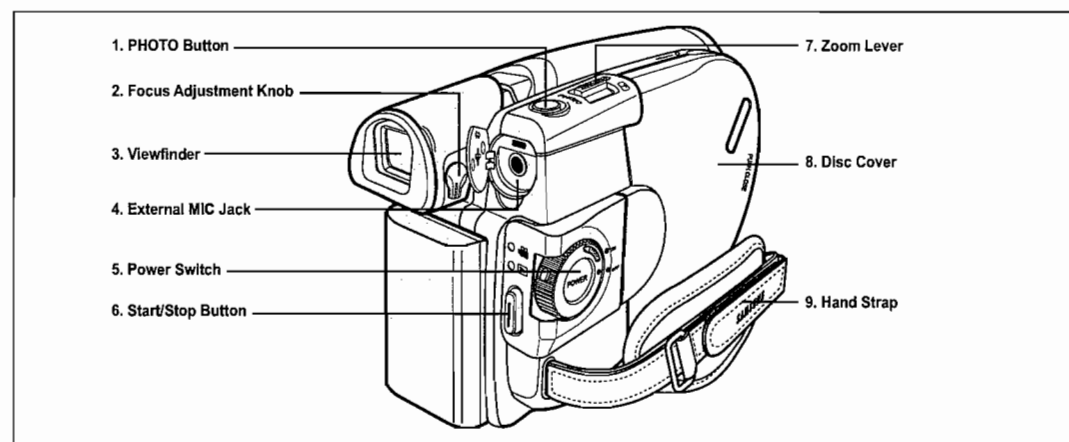
12. VOL (+/-) Button

13. Function Buttons

Mode Button	<Player Mode>	<Camera Mode>	<M.Player Mode>	
			Still image	Movie image
⏮	Backward Search/ Skip	-	Backward Skip	Backward Search
⏭	Forward Search/ Skip	-	Forward Skip	Forward Search
▶/⏸	Play/Still	FADE	Slide Show	Play/Still
■	Stop	BLC	-	Stop

Getting to Know Your Camcorder

Right & Top View



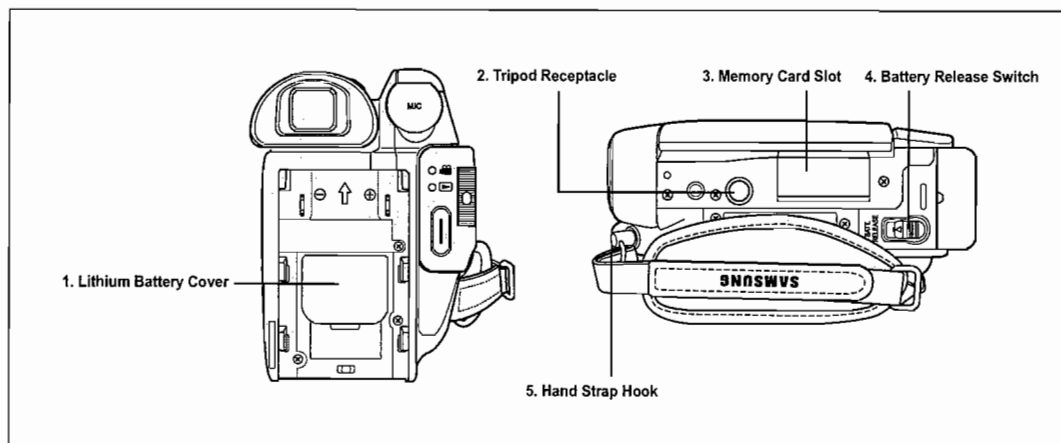
1. PHOTO Button ↪page 98
2. Focus Adjustment Knob ↪page 38
3. Viewfinder
4. External MIC Jack
5. Power Switch (ON/OFF/📷(Camera)/▶(Player))

6. Start/Stop Button
7. Zoom Lever
8. Disc Cover
9. Hand Strap

ENGLISH

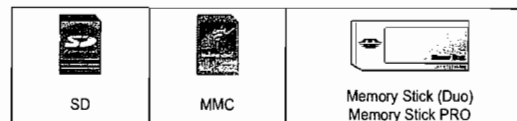
Getting to Know Your Camcorder

Rear & Bottom View



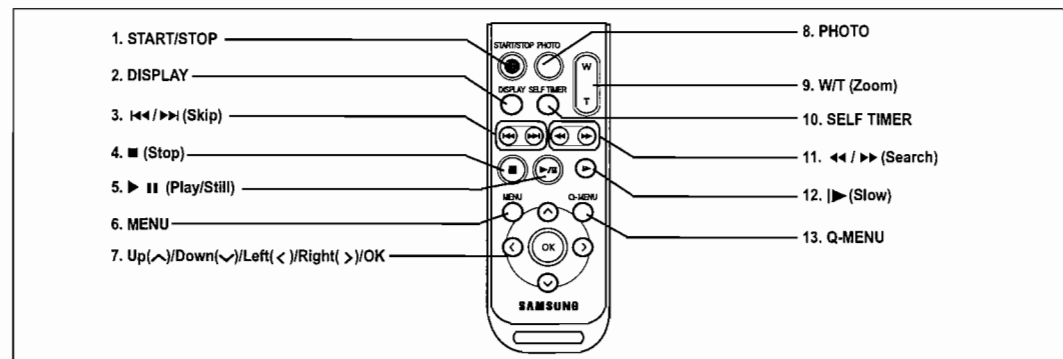
1. Lithium Battery Cover
2. Tripod Receptacle
3. Memory Card Slot
4. Battery Release Switch
5. Hand Strap Hook

Usable Memory Card



Getting to Know Your Camcorder

Remote Control (SC-DC164/DC165 only)



1. START/STOP
2. DISPLAY ↪ page 29
3. ⏮/⏭ (Skip)
4. ■ (Stop)
5. ▶/⏮ (Play/Still)
6. MENU
7. Up(↑)/Down(↓)/Left(←)/Right(→)/OK

8. PHOTO ↪ page 98
9. W/T (Zoom) ↪ page 45
10. SELF TIMER ↪ page 46
11. ⏮/⏭ (Search)
12. |▶ (Slow)
13. Q-MENU

ENGLISH

Preparation

Using the Hand Strap & Lens Cover

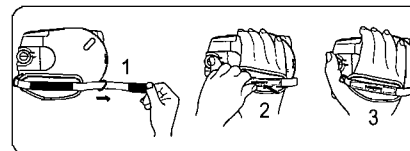
It is very important to ensure that the Hand Strap has been correctly adjusted before you begin your recording.

The Hand Strap enables you to:

- Hold the Camcorder in a stable, comfortable position.
- Press the **[ZOOM]** lever and **[Start/Stop]** button without having to change the position of your hand.

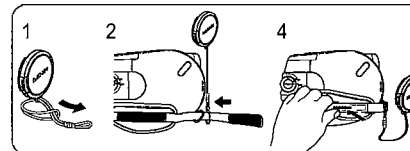
Hand Strap

1. Pull and open the Hand Strap and release the Hand Strap. Insert the Hand Strap into the Hand Strap Hook.
2. Insert your hand into the Hand Strap and adjust its length.
3. Close the Hand Strap.



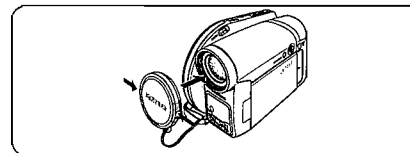
Lens Cover

1. Hook up the Lens Cover with the Lens Cover Strap as illustrated.
2. Pull and open the Hand Strap and release the Hand Strap.
3. Hook up the Lens Cover Strap to the Hand Strap and adjust it following the steps as described for the Hand Strap.
4. Close the Hand Strap.



Installing the Lens Cover after Operation

Press buttons on both sides of the Lens Cover, then insert it to the Camcorder Lens.

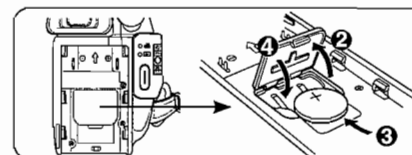


Preparation

Lithium Battery Installation

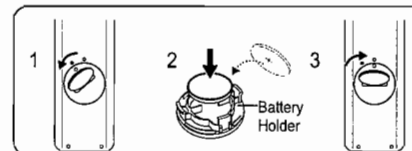
Lithium Battery Installation for the Internal Clock

1. Remove the Battery Pack from the rear of the Camcorder.
2. Open the Lithium Battery Cover on the rear of the Camcorder.
3. Position the Lithium Battery in the Lithium Battery Holder, with the positive (+) terminal face up.
Be careful not to reverse the polarity of the Battery.
4. Close the Lithium Battery Cover.



Installing the Lithium-Ion battery in the remote control (SC-DC164/DC165 only)

1. Turn the battery holder counterclockwise as indicated with [⊙] mark using your fingernail or a coin to open it. The battery holder opens.
2. Insert the battery while the positive (+) terminal faces down and press it firmly until you hear locking sound.
3. Place the battery holder to match its [⊙] mark with the [○] mark on the remote control, and turn the battery holder clockwise to fix it.



Precaution regarding the Lithium Battery

1. The Lithium Battery maintains the clock function and preset contents of the memory; even if the Battery Pack or AC Power adapter is removed.
2. The Lithium Battery for the Camcorder lasts about 6 months under normal operation from time of installation.
3. When the Lithium Battery becomes weak or dead, the date/time indicator will display **12:00 AM JAN.01.2006** when you set the **Date/Time** to **On**. When this occurs, replace the Lithium Battery with a new one (type CR2025).
4. There is a danger of explosion if Lithium Battery is incorrectly replaced. Replace only with the same or equivalent type.

Warning: Keep the Lithium Battery out of reach of children. Should a battery be swallowed, consult a doctor immediately.

ENGLISH

Preparation

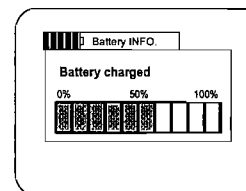
Using the Lithium Ion Battery Pack

- ❖ Use SB-LSM80 or SB-LSM160 Battery Pack only.
- ❖ The Battery Pack may be charged a little at the time of purchase.

Charging the Lithium Ion Battery Pack

1. Turn the **[Power]** switch to **[Off]**.
2. Attach the Battery Pack to the Camcorder.
3. Connect the AC Power Adapter to an AC Cord and connect the AC Cord to a wall socket.
4. Connect the DC cable to the DC IN jack on the Camcorder.
The charging indicator will start to blink, showing that the Battery is charging.
5. Press and hold the **[DISPLAY]** button while charging and the charging status will be displayed on the LCD Screen for 7 seconds.
6. When the Battery is fully charged, disconnect the Battery Pack and the AC Power Adapter from the Camcorder. Even with the Power switched Off, the Battery Pack will still discharge.

Blinking time	Charging rate
Once per second	Less than 50%
Twice per second	50% ~ 75%
Three times per second	75% ~ 90%
Blinking stops and stays on	90% ~ 100%
On for a second and off for a second	Error - Reset the Battery Pack and the DC Cable



Charging, Recording Times based on Model and Battery Type

- ❖ If you close the LCD Screen, it switches off and the Viewfinder switches on automatically.
- ❖ The continuous recording times given in the table to the right are approximations.
Actual recording time depends on usage.
- ❖ The continuous recording times in the operating instructions are measured using a fully charged Battery Pack at 77 °F (25 °C).
- ❖ Even when the Power switched Off, the Battery Pack will still discharge if it is left attached to the device.

Battery	Time	Charging time	Continuous recording time	
			LCD On	Viewfinder On
SB-LSM80 (AD43-00136A)		Approx. 1hr 20min	Approx. 1hr 20min	Approx. 1hr 30min
SB-LSM160 (Option)		Approx. 3hr	Approx. 2hr 40min	Approx. 3hr

Preparation

The amount of continuous recording time available depends on;

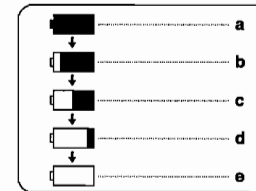
- The type and capacity of the Battery Pack you are using.
 - Ambient temperature.
 - How often the Zoom function is used.
 - Type of use (Camcorder/Camera/With LCD Screen etc.).
- It is recommended that you have several batteries available.

Battery Level Display

The battery level display indicates the amount of power remaining in the Battery Pack.

- a. Fully charged
- b. 20~40% used
- c. 40~80% used
- d. 80~95% used
- e. Completely used (Blinking)

(The Camcorder will turn off soon, change the battery as soon as possible.)



Battery Pack Management

- The Battery Pack should be recharged in an environment between 32 °F (0 °C) and 104 °F (40 °C).
- The Battery Pack should never be charged in a room with a temperature that is below 32 °F (0 °C).
- The life and capacity of the Battery Pack will be reduced if it is used in temperatures below 32 °F (0 °C) or left in temperatures above 104 °F (40 °C) for a long period of time, even when it is fully recharged.
- Do not put the Battery Pack near any heat source (i.e. fire or a heater).
- Do not disassemble, apply pressure to or heat the Battery Pack.
- Do not allow the + and – terminals of the Battery Pack to be short-circuited. It may cause leakage, heat generation, induce overheating or fire.

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Preparation

Notes regarding the Battery Pack

- Please refer to the Table on page 22 for approximate continuous recording time.
- The recording time is affected by temperature and environmental conditions.
- The recording time shortens dramatically in a cold environment. As the environmental temperature and conditions vary. The continuous recording times in the operating instructions are measured using a fully charged Battery Pack at 77 °F (25 ° C). The remaining battery time may differ from the approximate continuous recording times given in the instructions.
- It is recommended to use original Battery Pack that is available at SAMSUNG service center.
When the Battery reaches the end of its life, please contact your local dealer.
The batteries have to be dealt with as chemical waste.
- Make sure that the Battery Pack is fully charged before starting to record.
- A brand new Battery Pack is not charged. Before using the Battery Pack, you need to charge it completely.
- Fully discharging a Lithium Ion Battery damages the internal cells.
The Battery Pack may be prone to leakage when fully discharged.
- To preserve battery power, keep your Camcorder turned off when you are not operating it.
- If your Camcorder is in **Camera Mode**, and it is left in STBY mode without being operated for more than 5 minutes, it will automatically turn itself off to protect against unnecessary battery discharge.
- Make sure that the Battery Pack is fitted firmly into place.
Do not drop the Battery Pack. Dropping the Battery Pack may damage it.

Preparation

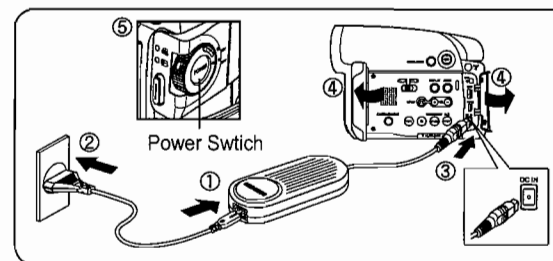
Connecting a Power Source

- ❖ There are two types of power source that can be connected to your Camcorder.
 - The AC Power adapter and AC Cord: used for indoor recording.
 - The Battery Pack: used for outdoor recording.

Using a Household Power Source

Connect to a house hold power source to use the Camcorder without worrying about the battery power. You can keep the Battery Pack attached; the battery power will not be consumed.

1. Connect the AC Power adapter (AA-E8 Type) to the AC Cord.
2. Connect the AC Cord to a wall socket.
The plug and wall socket type may differ according to your resident country.
3. Connect the DC cable to the DC IN jack of the Camcorder.
4. Open the LCD Screen and Jack Cover.
5. Set the Camcorder to each mode by holding down the Green Tab on the **[Power]** switch and turning it to the **[ON]** or **[OFF]**.



Preparation

About the Operating Modes

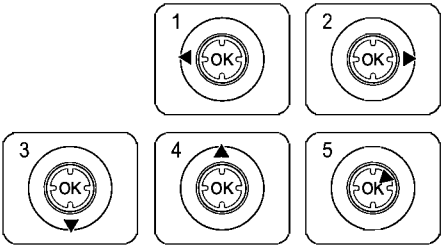
- ❖ The operating modes are determined by the position of the [Power] switch and the [Mode] switch.
- ❖ Set the Operation Mode by adjusting [Power] switch and [Mode] switch before operating any functions.
- ❖ Each time you move the [Power] switch downward, it toggles between [Camera] and [Player] mode.

Mode Name	<Camera Mode>	<Player Mode>	<M.Cam Mode>	<M.Player Mode>
[Power] Switch				
[Mode] Switch				

Using the Joystick

- ❖ The Joystick is used to make a selection and to move the cursor left, right, up and down. Using the Joystick, you can easily make your selection and navigate the menu.

1. Move to a previous menu item / Adjust the selected item (to the left).
2. Move to a sub menu item / Adjust the selected item (to the right).
3. Move to a lower menu item.
4. Move to an upper menu item.
5. Press to select the chosen item.



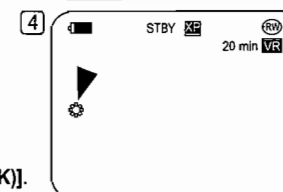
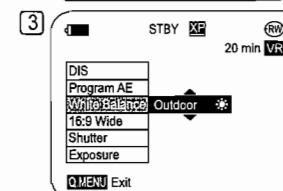
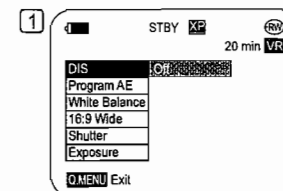
Preparation

Using the QUICK MENU

- ❖ QUICK MENU is used to access Camcorder functions by using the [QUICK MENU] button.
- ❖ QUICK MENU provides easier access to frequently used menus without using the [MENU] button.

Functions available using the QUICK MENU are as below:

<Camera Mode>		DIS Program AE White Balance 16:9 Wide Shutter Exposure	➤ page 61 ➤ page 54 ➤ page 56 ➤ page 60 ➤ page 52 ➤ page 52
<Player Mode>	Title List	Delete Partial Delete Protect Title Name Title Info	➤ page 71 ➤ page 72 ➤ page 70 ➤ page 68 ➤ page 69
	Playlist	New Playlist Delete Edit Playlist Playlist Name Playlist Info	➤ page 73 ➤ page 77 ➤ pages 78~82 ➤ page 74 ➤ page 76
<M.Cam Mode>		White Balance Photo Quality Exposure	➤ page 56 ➤ page 96 ➤ page 52
<M.Player Mode>		Delete Delete All (Thumbnail index only) Protect Print Mark Format	➤ page 102 ➤ page 103 ➤ page 101 ➤ page 108 ➤ page 104



<When the White Balance option in Camera mode was selected.>

For example: Setting the White Balance

- Press the [QUICK MENU] button.
 - The quick menu list will appear.
- Move the [Joystick] up or down to select <White Balance>, then press the [Joystick(OK)].
- Move the [Joystick] up or down to select desired mode (Auto, Indoor, Outdoor, or Custom WB), then press the [Joystick(OK)].
- To exit, press the [QUICK MENU] button.

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Preparation

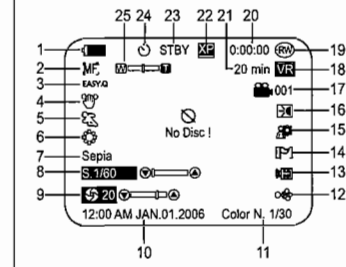
OSD (On Screen Display) in Camera Mode/Player Mode

- | | |
|--|---|
| 1. Battery Level ↗ page 22 | 23. Operating Mode |
| 2. Manual focus ↗ page 53 * | 24. Self Timer ↗ page 46
(SC-DC164/DC165 only) |
| 3. EASY.Q ↗ page 44 * | 25. Zoom Position ↗ page 45 |
| 4. DIS ↗ page 61 | 26. PB Zoom ↗ page 67 |
| 5. Program AE ↗ page 54 | 27. Warning Indicator ↗ page 121 |
| 6. White Balance Mode
↗ page 56 | 28. Message Line ↗ page 121 |
| 7. Digital Effects Mode
↗ page 58 | 29. Volume Control ↗ page 64 |
| 8. Shutter Speed ↗ page 52 * | 30. AV IN ↗ page 89 * |
| 9. Exposure ↗ page 52 * | 31. Playback Speed ↗ page 65 |
| 10. Date/Time ↗ page 37 | |
| 11. Color Nite ↗ pages 49~50 * | |
| 12. USB ↗ page 114 | |
| 13. Remote ↗ page 31
(SC-DC164/DC165 only) | |
| 14. Wind Cut ↗ page 51 | |
| 15. BLC (Back Light
Compensation) ↗ page 48 | |
| 16. LED LIGHT ↗ page 50
(SC-DC165 only) | |
| 17. Title List Number | |
| 18. Disc Format ↗ page 85 | |
| 19. Disc Type | |
| 20. Counter | |
| 21. Remaining Time | |
| 22. Record Mode ↗ page 42 | |

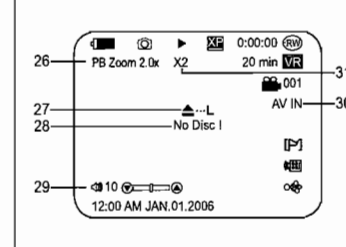
Note

Functions not marked with * will be retained when the Camcorder is restarted after turning it off.

OSD in Camera Mode



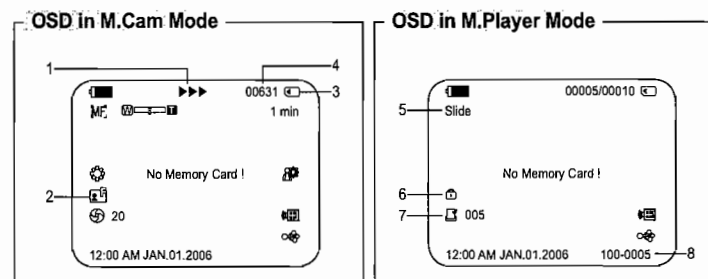
OSD in Player Mode



Preparation

OSD (On Screen Display) in M.Cam Mode/M.Player Mode

1. Image Recording Indicator
2. Photo Quality ↗ page 96
3. CARD (Memory Card) Indicator
4. Image Counter (Total number of recordable still images)
5. Slide Show ↗ page 100
6. Erase Protection Indicator ↗ page 101
7. Print Mark ↗ page 108
8. Folder Number-File Number ↗ page 95



Turning the OSD (On Screen Display) On/Off

Turning OSD On/Off

Press the **[DISPLAY]** button on the left side control panel.

- Each press of the button toggles the OSD function on and off.
- When you turn the OSD off,
 - In **Camera Mode**: The STBY, REC modes are always displayed on the screen, even when the OSD is turned off.
 - In **Player Mode**: When you press any function button, the function is displayed on the OSD for 3 seconds before it turns off.

Turning the Date/Time On/Off

To turn the Date/Time on or off, access the menu and change the **Date/Time** mode. ↗ page 37

ENGLISH

Initial Setting : System Menu Setting

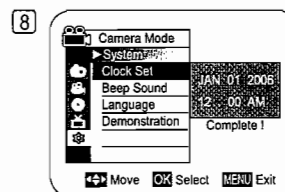
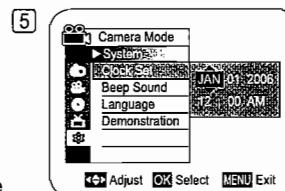
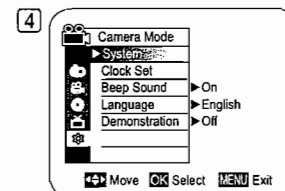
Setting the Clock (Clock Set)

- ❖ Clock setup works in **Camera Mode/Player Mode/M.Cam Mode/M.Player Mode**. ↪ page 26
- ❖ The Date/Time is automatically recorded onto a disc. Before recording, please set the **Date/Time**. ↪ page 37

1. Set the **[Mode]** switch to **[DISC]** or **[CARD]**.
2. Set the **[Power]** switch to **[CAMERA (Camera)]** or **[PLAYER (Player)]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<System>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<Clock Set>**, then press the **[Joystick(OK)]**.
 - The month will highlight first.
6. Move the **[Joystick]** up or down to set current month, then press the **[Joystick(OK)]**.
 - The day will be highlighted.
7. You can set the day, year, hour, minute, and AM/PM following the same procedure for setting the month.
8. Press the **[Joystick(OK)]** after setting the AM/PM.
 - A message **<Complete!>** is displayed.
 - To adjust the clock, select the Year, Month, Day, Hour, Min, or AM/PM by pressing the **[Joystick(OK)]**, then move the **[Joystick]** up or down to set respective values.
9. To exit, press the **[MENU]** button.

Notes

- After the Lithium Battery loses its charge (after about 6 months), the date/time appears on the screen as **12:00 AM JAN.01.2006**.
- You can set the year up to 2037.
- If the Lithium Battery is not installed, any input data will not be backed up.



Initial Setting : System Menu Setting

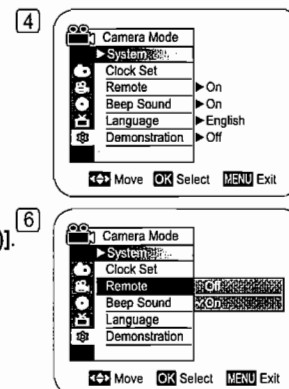
Setting the Wireless Remote Control Acceptance (Remote) (SC-DC164/DC165 only)

- ❖ The **Remote** function works in **Camera Mode/Player Mode/M.Cam Mode/M.Player Mode**. ↪ page 26
- ❖ The **Remote** function allows you to enable or disable the remote control for use with the Camcorder.

1. Set the **[Mode]** switch to **[DISC]** or **[CARD]**.
2. Set the **[Power]** switch to **[CAMERA (Camera)]** or **[PLAY (Player)]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<System>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<Remote>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** up or down to select **<On>** or **<Off>**, then press the **[Joystick(OK)]**.
7. To exit, press the **[MENU]** button.

Note

If you set the **Remote** to **Off** in the menu and try to use it, the remote control icon (📶) will blink for 3 seconds on the LCD Screen and then disappear.

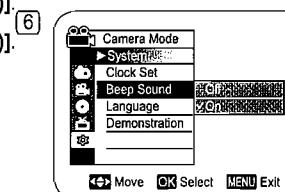
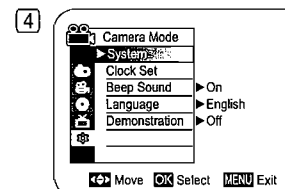


Initial Setting : System Menu Setting

Setting the Beep Sound (Beep Sound)

- ❖ The **Beep Sound** function works in **Camera Mode/Player Mode/M.Cam Mode/M.Player Mode**. ↗ page 26
- ❖ You can turn the **Beep Sound** on or off, when on, each press of a button sounds a beep.

1. Set the **[Mode]** switch to **[DISC]** or **[CARD]**.
2. Set the **[Power]** switch to **[CAMERA (Camera)]** or **[PLAYER (Player)]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<System>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<Beep Sound>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** up or down to select **<On>** or **<Off>**, then press the **[Joystick(OK)]**.
7. To exit, press the **[MENU]** button.

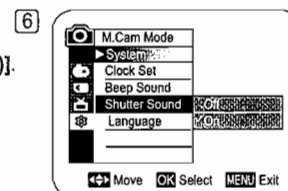
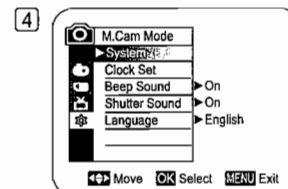


Initial Setting : System Menu Setting

Setting the Shutter Sound (Shutter Sound)

- ❖ The **Shutter Sound** function works only in **M.Cam Mode**. ↪ page 26
- ❖ You can turn the **Shutter Sound** on or off, when on, with each press of the **[PHOTO]** button the Shutter will sound.

1. Set the **[Mode]** switch to **[CARD]**.
2. Set the **[Power]** switch to **[CAM (Camera)]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<System>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<Shutter Sound>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** up or down to select **<On>** or **<Off>**, then press the **[Joystick(OK)]**.
7. To exit, press the **[MENU]** button.



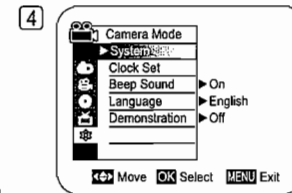
ENGLISH

Initial Setting : System Menu Setting

Selecting the OSD Language (Language)

- ❖ The **Language** function works in **Camera Mode/Player Mode/M.Cam Mode/M.Player Mode**. ↪ page 26
- ❖ You can select the desired language to display the menu screen and the messages.

1. Set the **[Mode]** switch to **[DISC]** or **[CARD]**.
2. Set the **[Power]** switch to **[CAMERA]** or **[PLAYER]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<System>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<Language>**, then press the **[Joystick(OK)]**.
 - The available language options are listed.
6. Move the **[Joystick]** up or down to select desired OSD language, then press the **[Joystick(OK)]**.
 - The OSD language is refreshed in selected language.
7. To exit, press the **[MENU]** button.



Note

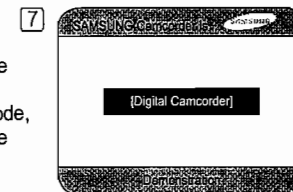
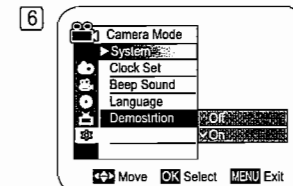
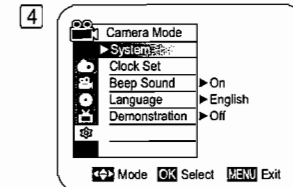
The word **Language** in the menu is always indicated in English.

Initial Setting : System Menu Setting

Viewing the Demonstration (Demonstration)

- ❖ The **Demonstration** function may only be used in the **Camera Mode** without a disc inserted in the Camcorder.
- ↳ page 26
- ❖ Before you begin: Make Sure that there is no disc inserted in the Camcorder. ↳ page 40
- ❖ Demonstration automatically shows you the major functions that are included with your Camcorder so that you may use them more easily.
- ❖ The Demonstration operates repeatedly until the Demonstration mode switched Off.

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[CAMERA (Camera)]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<System>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<Demonstration>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** up or down to select **<On>**, then press the **[Joystick(OK)]**.
 - The Demonstration will begin.
7. To quit the Demonstration, press the **[MENU]** button.



Notes

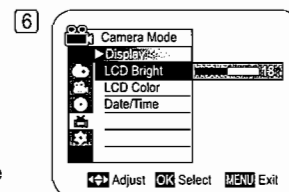
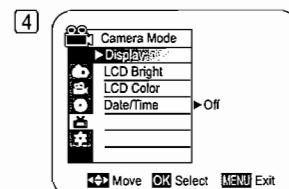
- The **Demonstration** function is automatically activated when the Camcorder is left idle for more than 10 minutes after switching to the **Camera Mode** (no disc is inserted in the Camcorder).
- If you press other buttons (**FADE**, **BLC**, **EASY.Q**, **MF/AF**) during the Demonstration mode, the demonstration stops temporarily and resumes 10 minutes later if you do not operate any other functions.

ENGLISH

Initial Setting : Display Menu Setting

Adjusting the LCD Screen (LCD Bright/LCD Color)

- ❖ Adjusting the LCD Screen works in **Camera Mode/Player Mode/M.Cam Mode/M.Player Mode**. ↪ page 26
 - ❖ Your Camcorder is equipped with a 2.5 inch (SC-DC163) / 2.7 inch wide (SC-DC164/DC165) color Liquid Crystal Display (LCD) Screen, which enables you to view what you are recording or playing back directly.
 - ❖ Depending on the conditions under which you are using the Camcorder (indoors or outdoors for example), you can adjust;
 - **LCD Bright**
 - **LCD Color**
1. Set the **[Mode]** switch to **[DISC]** or **[CARD]**.
 2. Set the **[Power]** switch to **[CAMERA]** or **[PLAYER]**.
 3. Press the **[MENU]** button.
 - The menu list will appear.
 4. Move the **[Joystick]** up or down to select **<Display>**, then press the **[Joystick(OK)]**.
 5. Move the **[Joystick]** up or down to select the item you want to adjust (**LCD Bright** or **LCD Color**), then press the **[Joystick(OK)]**.
 6. Move the **[Joystick]** left or right to adjust the value of the selected item (**LCD Bright** or **LCD Color**), then press the **[Joystick(OK)]**.
 - You can set values for **<LCD Bright>** and **<LCD Color>** between **<0> ~ <35>**.
 7. To exit, press the **[MENU]** button.
 - Adjusting the LCD Screen does not affect the brightness and color of the image to be recorded.

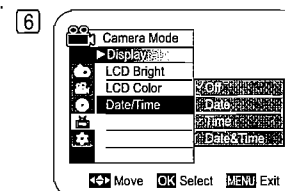
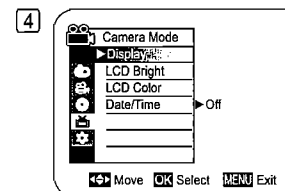


Initial Setting : Display Menu Setting

Displaying the Date/Time (Date/Time)

- ❖ The **Date/Time** function works in **Camera Mode/Player Mode/M.Cam Mode/M.Player Mode**. ↪ page 26
- ❖ The date and time are automatically recorded on a special data area of the disc.

1. Set the **[Mode]** switch to **[DISC]** or **[CARD]**.
2. Set the **[Power]** switch to **[CAMERA]** or **[PLAYER]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<Display>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<Date/Time>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** up or down to select the display type of the Date/Time, then press the **[Joystick(OK)]**.
 - Display type of the Date/Time: **<Off>**, **<Date>**, **<Time>**, **<Date&Time>**.
7. To exit, press the **[MENU]** button.



Notes

- The Date/Time will read **12:00 AM JAN.01.2006** in the following conditions.
 - During playback of a blank section of a disc.
 - If the disc was recorded before setting the **Date/Time** in the Camcorder.
 - When the Lithium Battery becomes weak or dead.
- Before you use the **Date/Time** function, you must set the clock. ↪ page 30

DVD Recorder: Before Recording

Using the Viewfinder

- ❖ In the [📷 (Camera)] mode, the Viewfinder will work when the LCD Screen is closed.
- ❖ In the [▶ (Player)] mode, the Viewfinder will work when the LCD Screen is closed or rotated counterclockwise 180°.

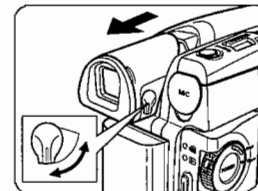
Adjusting the Focus

The focus adjustment knob of the Viewfinder enables individuals with vision problems to see clearer images.

1. Close the LCD Screen and pull out the Viewfinder.
2. Use the Focus Adjustment Knob of the Viewfinder to focus the picture.

Note

Viewing the sun or any strong light source through the Viewfinder for a prolonged period may be harmful, or cause temporary impairment.



DVD Recorder: Before Recording

Various Recording Techniques

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

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.

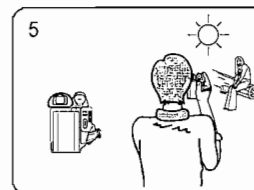
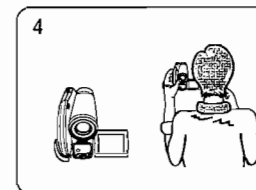
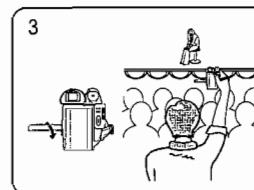
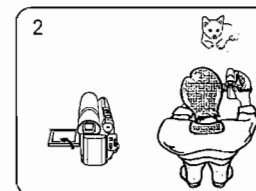
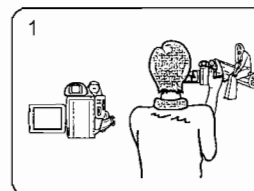
Making a recording viewing the LCD Screen from the front.

5. Recording with the Viewfinder.

In circumstances where it is difficult to use the LCD Screen, the Viewfinder can be used as a convenient alternative.

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.



ENGLISH

DVD Recorder: Before Recording

Inserting and Removing a Disc

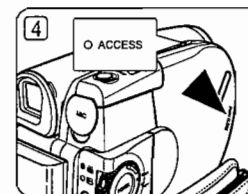
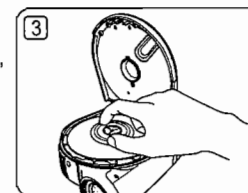
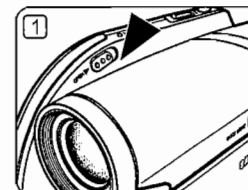
- ❖ When inserting a disc or closing the disc cover, do not apply excessive force. It may cause a malfunction.
- ❖ You cannot open the disc cover while loading.
- ❖ Make sure that the camcorder's power is on.
- ❖ Set the **[Mode]** switch to **[DISC]** and the **[Power]** switch to **[CAMERA (Camera)]** to view menus and messages displayed on the LCD Screen.

Inserting a Disc

1. Push the **[OPEN]** switch in the direction of the arrow.
 - The cover of disc insertion block will open.
2. Gently open the cover by hand until it stops.
3. Push the disc against the turntable at the center to lock until a click is heard.
 - The recording side of the disc must face the inside of the DVD camcorder.
 - Do not touch the recording side of the disc or the pickup lens.
4. Gently push the section marked the **[PUSH CLOSE]** on the cover of the disc insertion block, to close the cover.
 - Once inserted the disc is recognized with the **[ACCESS]** indicator blinking. Do not cut off the power supply during this time. Do not shake nor apply impact. It may cause a malfunction.

Note

Put aside Hand Strap downward not to disturb inserting or ejecting the disc.



DVD Recorder: Before Recording

When using a New Disc: Formatting a new Disc

Formatting may be required if a new disc is inserted.
Recognition of the disc will start.

For a DVD-R/+R DL disc:

The **<Now Formatting...Video Mode>** message will appear and the formatting will automatically begin in the Video mode.

- Upon completion the **<Completed!>** message will appear.

For a DVD-RW disc:

You are prompted with the **<Disc is not formatted. Do you want to format?>** message.

Move the **[Joystick]** left or right to select **<Video>** or **<VR>**, then press **[Joystick(OK)]**.

- Please refer to Page 11 for applications by mode.
- Upon completion the **<Completed!>** message will appear.
- If you select **<Cancel>**, the **<Not Formatted!>** warning message will appear.
Formatting a new disc is required to record on it. To format later, use the **<Disc Manager>** menu.

For a DVD+RW disc:

The **<Disc Formatting... (VR)>** message will appear and the formatting will automatically begin in the VR mode.

- Upon completion the **<Complete !>** message will appear.

Removing a Disc

1. Push the **[OPEN]** switch in the direction of the arrow.
 - The cover of the disc insertion block will open.
2. Gently open the cover by hand until it stops.
3. Remove the disc.
 - While pushing down the center portion of the turntable, pick up the disc by the edges to remove.
4. Gently push the section marked **[PUSH CLOSE]** on the cover of the disc insertion block, to close the cover.

DVD Recorder: Before Recording

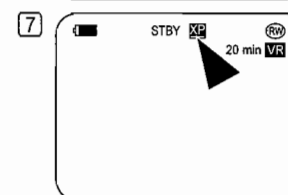
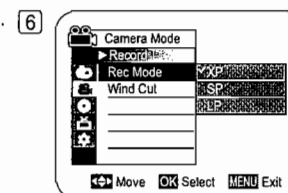
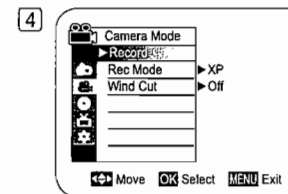
Selecting the Record Mode (Rec Mode)

- ❖ The Record Mode function works in both **Camera Mode** and **Player Mode**. ↪ page 26
- ❖ This Camcorder can film in the XP (extra play), the SP (standard play) and the LP (long play) modes. The XP mode is set as the factory default.

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[CAMERA (Camera)]** or **[PLAYER (Player)]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<Record>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<Rec Mode>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** up or down to select desired record mode (**XP**, **SP** or **LP**), then press the **[Joystick(OK)]**.
7. To exit, press the **[MENU]** button.
 - The icon of the selected mode is displayed.

Recording Times on the Disc Type

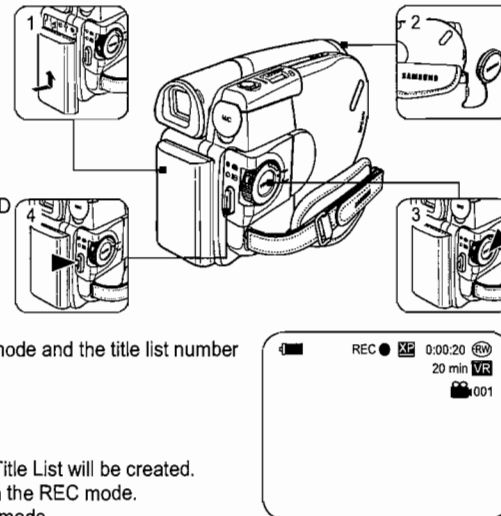
	DVD-RW/+RW/-R (1.4G)	DVD+R DL (2.6G)
XP	20min	??min
SP	30min	??min
LP	60min	??min



DVD Recorder : Basic Recording

Making your First Recording

1. Connect a power source to the Camcorder. ↪ page 25
 - (A Battery Pack or a AC Power adapter)
 - Insert a disc. ↪ page 41
2. Remove the Lens Cover.
3. Open the LCD Screen
 - Set the **[Mode]** switch to **[DISC]**.
 - Set the **[Power]** switch to **[CAMERA (Camera)]**.
Make sure that **<STBY>** is displayed.
 - Make sure the image you want to record appears on the LCD Screen or Viewfinder.
 - Make sure the Battery Level indicates that there is enough remaining power for your expected recording time.
4. To start recording, press the **[Start/Stop]** button.
 - **<REC>** is displayed on the LCD Screen.
The record mode, recording time, the disc type, the format mode and the title list number are displayed on the LCD Screen.
5. To stop recording, press the **[Start/Stop]** button again.
 - The **<Writing data...>** message will appear.
 - **<STBY>** is displayed on the LCD Screen.
 - If you press the **[Start/Stop]** button to record again, a new Title List will be created.
The title list number will not appear in the STBY mode but in the REC mode.
6. To review just recorded title, move the **[Joystick]** left in STBY mode.
 - After the review of recorded title from the beginning to its end, it switches to STBY mode.
 - Pressing the **[Stop]** or **[Start/Stop]** button in the middle of the review switches to STBY mode.



Notes

- DVD-RW discs can create up to 99 Title Lists, DVD+RW discs can create up to 49 Title Lists.
- Detach the Battery Pack when you are finished recording to prevent unnecessary battery power consumption.
- If the power cable/batteries are disconnected, or recording is disabled by any impact during recording an error message will appear and the system is switched to the data recovery mode.
While data is being recovered no other function is enabled. After data recovery the system will be switched to the STBY mode.

ENGLISH

DVD Recorder : Basic Recording

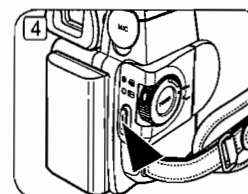
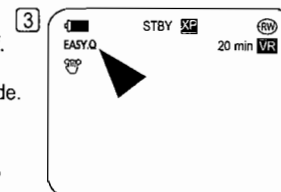
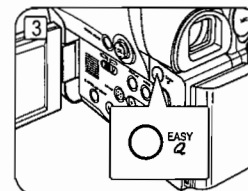
Recording with Ease for Beginners (EASY.Q Mode)

- ❖ The EASY.Q function works only in **Camera Mode**. ➞ page 26
- ❖ The EASY.Q function allows a beginner to easily make good recordings.

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[CAMERA (Camera)]**.
3. By pressing the **[EASY.Q]** button, all functions on the Camcorder will be set to off and the recording settings will be set to the following basic modes:
 - The word **<EASY.Q>** and DIS (📷) appear at the same time.
4. Press the **[Start/Stop]** button to start recording.
 - Recording will begin using the basic automatic settings.
5. Press the **[EASY.Q]** button again in the STBY mode and then turn the EASY.Q mode off.
 - The EASY.Q function will not turn off while you are recording.
 - The Camcorder will return to the settings that were set prior to activating EASY.Q mode.

Notes

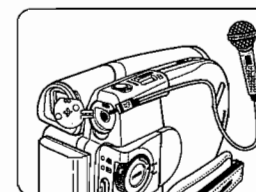
- In EASY.Q mode, certain functions are not available, such as Menu, BLC, Manual focus, Color Nite. If you want to use these functions, you must first turn the EASY.Q mode off.
- The EASY.Q mode settings are deleted when the Battery Pack is removed from the Camcorder and must be reset when the Battery Pack is replaced.
- The EASY.Q mode will not turn off during a recording.
- **Digital Zoom, Color Nite, White Balance, Program AE or Digital Effect** is not available in the EASY.Q mode.



DVD Recorder : Basic Recording

Using External Microphone

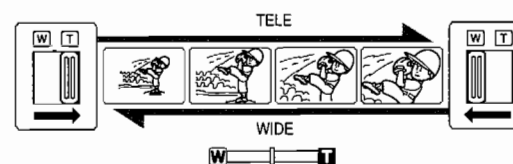
Connect external microphone (generally available) to the external microphone jack of this Camcorder. Clearer sound can be recorded.



Zooming In and Out

- ❖ The Zoom function works in both **Camera Mode** and **M.Cam Mode**. ↪ page 26
- ❖ Zooming is a recording technique that lets you change the size of the subject in a scene.
- ❖ You can zoom using variable zoom speeds.
- ❖ Use these features for different shots. Please note that over-use of the Zoom feature can lead to unprofessional looking results and a reduction of battery usage time.

1. Move the **[Zoom]** lever slightly for a gradual zoom, move it further for a high-speed zoom.
 - Your zooming is monitored on the OSD.
2. **[T]** (Telephoto) side: Subject appears closer.
3. **[W]** (Wide angle) side: Subject appears farther away.
 - You can record a subject that is about 10mm (about 0.5 inch) away from the lens surface in the Wide position.



ENGLISH

DVD Recorder : Basic Recording

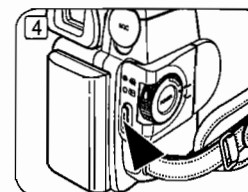
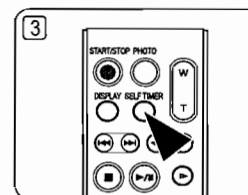
Self Record using the Remote Control (SELF TIMER) (SC-DC164/DC165 only)

- ❖ The SELF TIMER function works only in **Camera Mode**. ↪ page 26
- ❖ When you use the SELF TIMER function on the remote control, the recording begins automatically in 10 seconds.

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[CAMERA]**.
3. Press the **[SELF TIMER]** button until the appropriate indicator is displayed.
4. Press the **[Start/Stop]** button to start the timer.
 - SELF TIMER starts counting down from 10 with a beep sound.
 - In the last one second of the countdown the beep sound gets faster, then recording starts automatically.
 - If you want to cancel the SELF TIMER function before recording, press the **[SELF TIMER]** button.
5. Press the **[Start/Stop]** button again when you wish to stop recording.

Notes:

- Do not obstruct the remote control sensor by putting obstacles between the remote control and Camcorder.
- The remote control range is 4 ~5m (13 ~17 ft).
- The effective remote control angle is up to 30 degrees left /right from the center line.
- Using a tripod is recommended for using the SELF TIMER function.



DVD Recorder : Basic Recording

Using the Fade In and Out (FADE)

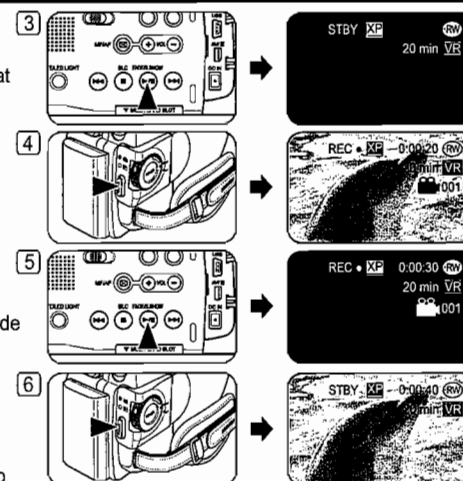
- ❖ The Fade function works only in **Camera Mode**. ↪ page 26
- ❖ You can give your recording a professional look by using special effects such as fade in at the beginning of a sequence or fade out at the end of a sequence.

To Start Recording

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[CAMERA]**.
3. Before recording, hold down the **[FADE]** button.
 - The picture and sound gradually disappear (fade out).
4. 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).

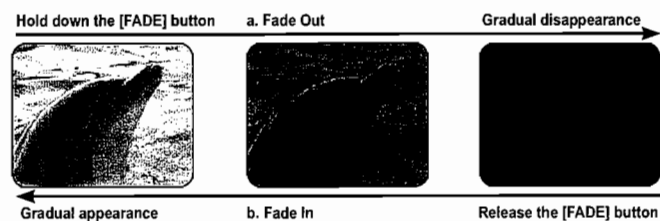
To Stop Recording

5. When you wish to stop recording, hold down the **[FADE]** button.
 - The picture and sound gradually disappear (fade out).
6. 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)



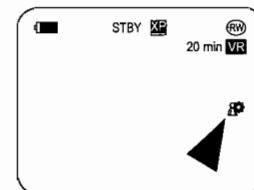
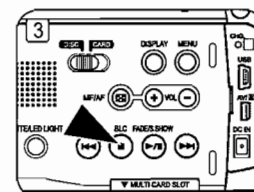
DVD Recorder : Basic Recording

Using Back Light Compensation Mode (BLC)

- ❖ BLC works in both **Camera Mode** and **M.Cam Mode**. ↪ page 26
- ❖ 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 **[Mode]** switch to **[DISC]** or **[CARD]**.
2. Set the **[Power]** switch to **[CAMERA (Camera)]**.
3. Press the **[BLC]** button.
 - BLC icon (BLC) is displayed.
4. To exit BLC mode, press the **[BLC]** button again.
 - Each press of the **[BLC]** button toggles: Normal → BLC → Normal.



Note

The BLC function will not operate in EASY.Q mode.

DVD Recorder : Basic Recording

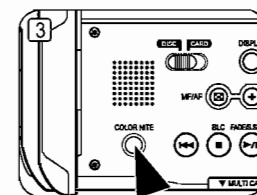
Using the Color Nite

- ❖ Color Nite function works only in **Camera Mode**. ↪page 26
- ❖ You can take a shot of an object in slow motion by controlling the shutter speed, or a brighter image in dark places without a compromise in colors.

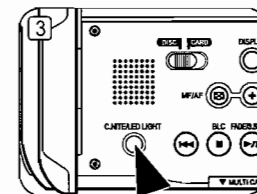
1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[CAMERA]**.
3. Press the **[COLOR NITE]** (SC-DC163/DC164 only) or **[C.NITE/LED LIGHT]** (SC-DC165 only) button.
4. Each time you press the **[COLOR NITE]** (SC-DC163/DC164 only) or **[C.NITE/LED LIGHT]** (SC-DC165 only) button, shutter speed is changed to;
 - ▶ **<Color N. 1/30>**, **<Color N. 1/15>** and off. (SC-DC163/DC164 only)
 - ▶ **<Color N. 1/30>**, **<Color N. 1/15>**, **<Color N. 1/15(1/24)>** and off. (SC-DC165 only)

Notes

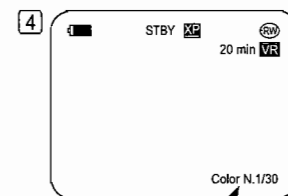
- The Color Nite will not turn on or off while you are recording.
- When using the Color Nite, the image takes on a slow motion like effect.
- When using the Color Nite, the focus adjusts slowly and the white dots may appear on the screen, this is not a defect.
- The Color Nite is not available while DIS or EASY.Q is in use.
- Program AE, White Balance, Digital Zoom, Mosaic, Mirror, Emboss2, Pastel2, or 16:9 Wide is not available in the Color Nite mode.
- If DIS or EASY.Q is set, Color Nite mode will be released.



<SC-DC163/DC164 only>



<SC-DC165 only>



ENGLISH

DVD Recorder : Basic Recording

Using the LED LIGHT (SC-DC165 only)

- ❖ The LED LIGHT function works only in **Camera Mode**. ↪ page 26
- ❖ The LED LIGHT enables you to record a subject in dark places without sacrificing color.
- ❖ The LED LIGHT can be used with Color Nite function only.

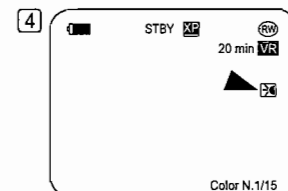
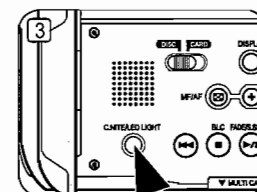
1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[CAMERA (Camera)]**.
3. Press the **[C.NITE/LED LIGHT]** button until <Color N. 1/15(>4)> appears.

Danger

- The LED LIGHT can become extremely hot.
- Do not touch it while in operation or soon after turning it off, otherwise serious injury may result.
- Do not place the Camcorder into the carrying case immediately after using the LED LIGHT, since it remains extremely hot for some time.
- Do not use near flammable or explosive materials.

Notes

- The LED LIGHT will not turn on or off while you are recording.
- The range of the LED LIGHT is limited. (up to 6.6ft (2m))



DVD Recorder : Advanced Recording

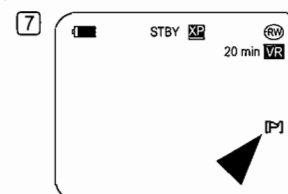
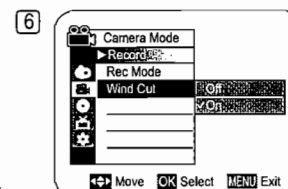
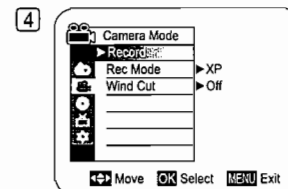
Cutting Off Wind Noise (Wind Cut)

- ❖ The **Wind Cut** function works only in **Camera Mode**. ↪page 26
- ❖ Use the Wind Cut when recording in windy places such as the beach or near buildings.
- ❖ The Wind Cut function minimizes wind noise or other noise while recording.
 - When the Wind Cut is on, some low pitched tones are eliminated along with the sound of the wind.

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[CAMERA (Camera)]**.
3. Press the **[MENU]** button.
4. Move the **[Joystick]** up or down to select **<Record>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<Wind Cut>**, then press the **[Joystick(OK)]**.
6. To activate the Wind Cut function, move the **[Joystick]** up or down to select **<On>**, then press the **[Joystick(OK)]**.
7. To exit, press the **[MENU]** button.
 - Wind Cut icon (P) is displayed.

Note

Make sure **Wind Cut** is set to **off** when you want the microphone to be as sensitive as possible.



DVD Recorder : Advanced Recording

Setting the Shutter Speed & Exposure (Shutter/Exposure)

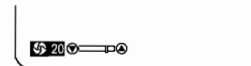
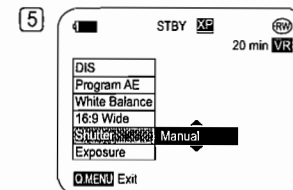
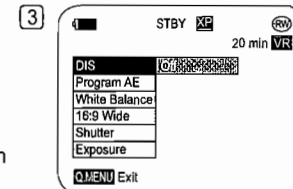
- ❖ The Shutter Speed function works only in **Camera Mode**. ↪ page 26
 - ❖ The Exposure function works in both **Camera Mode** and **M.Cam Mode**. ↪ page 26
 - ❖ The Shutter Speed and Exposure functions can be set in the QUICK MENU.
1. Set the [Mode] switch to [DISC] or [CARD].
 2. Set the [Power] switch to [CAM] (Camera).
 3. Press the [QUICK MENU] button.
 - QUICK MENU list will appear.
 4. Move the [Joystick] up or down to select <Shutter> or <Exposure>, then press the [Joystick(OK)].
 5. Move the [Joystick] up or down to select <Manual>, then press the [Joystick(OK)].
 6. Move the [Joystick] left or right to select desired shutter speed or exposure value, then press the [Joystick(OK)].
 - Shutter speed can be set to <1/60>, <1/100>, <1/250>, <1/500>, <1/1000>, <1/2000>, <1/4000> or <1/10000>.
 - Exposure value can be set between <00> and <29>.
 7. To exit, press the [QUICK MENU] button.
 - Selected settings are displayed.

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: 1/100

Notes

- If you manually change the Shutter Speed and the Exposure value when Program AE 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 and auto exposure settings when you change to the EASY.Q mode.
- When recording with a Shutter Speed of 1/1000 or higher, make sure the sun is not shining into the lens.



DVD Recorder : Advanced Recording

Auto Focus / Manual Focus

- ❖ The Auto Focus/Manual Focus function works in both **Camera Mode** and **M.Cam Mode**. →page 26
- ❖ 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 or unreliable.

Auto Focus

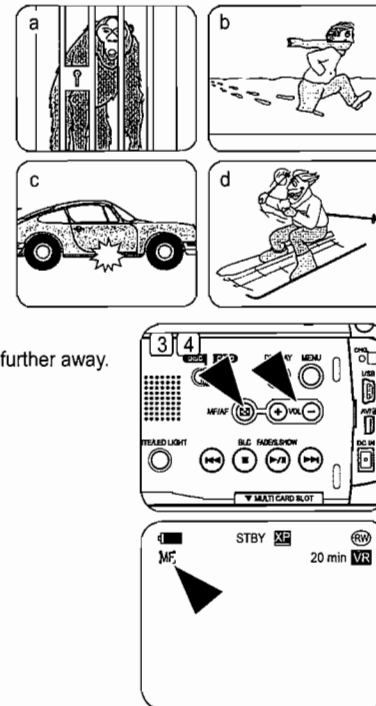
- ❖ If you are inexperienced in the use of Camcorders, we recommend that you make use of Auto Focus.

Manual Focus

- ❖ In the following situations, 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 **[Mode]** switch to **[DISC]** or **[CARD]**.
 2. Set the **[Power]** switch to **[CAMERA]**.
 3. Press the **[MF/AF]** button.
 - The manual focus icon (MF) will blink.
 4. Focus with the **[VOL+]** and **[VOL-]** buttons.

Note

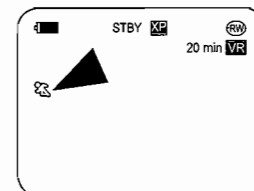
Manual Focus is not available in the EASY.Q mode.



DVD Recorder : Advanced Recording

Programmed Automatic Exposure Modes (Program AE)

- ❖ The **Program AE** function works only in **Camera Mode**. ↪ page 26
 - ❖ The **Program AE** mode allows you to adjust shutter speeds and apertures to suit different recording conditions.
 - ❖ They give you creative control over the depth of field.
- **<Auto (A)> mode**
 - Auto balance between the subject and the background.
 - To be used in normal conditions.
 - The shutter speed automatically varies from 1/60 to 1/250 per second, depending on the scene.
 - **<Sports (S)> mode**
For recording people or objects moving quickly.
 - **<Portrait (P)> mode**
 - For focusing on the background of the subject, when the background is out of focus.
 - The Portrait mode is most effective when used outdoors.
 - The shutter speed automatically varies from 1/60 to 1/1000 per second.
 - **<Spotlight (L)> mode**
For recording correctly when there is only light on the subject and not the rest of the picture.
 - **<Sand/Snow (Ss)> mode**
For recording when people or objects are darker than the background because of reflected light from sand or snow.
 - **<High Speed (H)> (High Shutter Speed) mode**
For recording fast-moving subjects such as players in golf or tennis games.



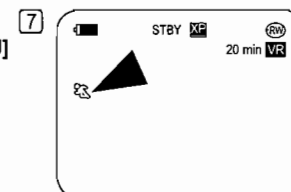
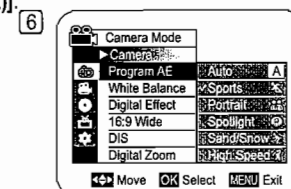
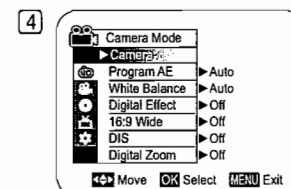
DVD Recorder : Advanced Recording

Setting the Program AE

1. Set the [Mode] switch to [DISC].
2. Set the [Power] switch to [CAMERA (Camera)].
3. Press the [MENU] button.
 - The menu list will appear.
4. Move the [Joystick] up or down to select <Camera>, then press the [Joystick(OK)].
5. Move the [Joystick] up or down to select <Program AE>, then press the [Joystick(OK)].
 - The available options are listed.
6. Move the [Joystick] up or down to select desired program AE option, then press the [Joystick(OK)].
7. To exit, press the [MENU] button.
 - The icon of the selected mode is displayed.
 - When the <Auto> mode is selected, no icon is displayed.

Notes

- Direct accessing the **Program AE** function is available simply using the [QUICK MENU] button. ➡ page 27
- The **Program AE** function will not operate in EASY.Q mode

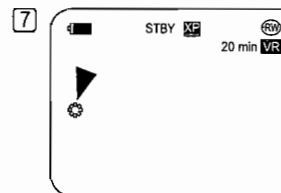
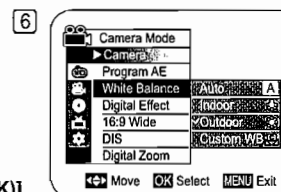
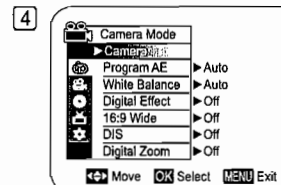


DVD Recorder : Advanced Recording

Setting the White Balance (White Balance)

- ❖ The **White Balance** function works in both **Camera Mode** and **M.Cam Mode**. ↪ page 26
- ❖ The **White Balance** is a recording function that preserves the unique image color of the object in any recording condition.
- ❖ You may select the appropriate White Balance mode to obtain good quality image color.
 - **Auto** (A): This mode is generally used to control the White Balance automatically.
 - **Indoor** (i): This controls the White Balance according to the indoor ambience.
 - Under halogen or studio/video lighting
 - Subject is of one dominant color
 - Close up
 - **Outdoor** (o): This controls the White Balance according to the outdoor ambience.
 - In daylight, especially for close up and where the subject is of one dominant color.
 - **Custom WB** (WB): This controls the White Balance according to the shooting environment.

1. Set the **[Mode]** switch to **[DISC]** or **[CARD]**.
2. Set the **[Power]** switch to **[Camera]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<Camera>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<White Balance>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** up or down to select desired mode (**Auto**, **Indoor**, **Outdoor** or **Custom WB**), then press the **[Joystick(OK)]**.
 - Refer to page 57 for the details of setting Custom WB.
7. To exit, press the **[MENU]** button.
 - The icon of the selected mode is displayed.
 - When the **<Auto>** mode is selected, no icon is displayed.



DVD Recorder : Advanced Recording

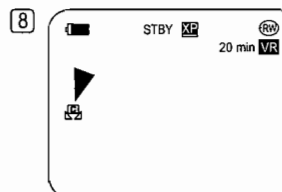
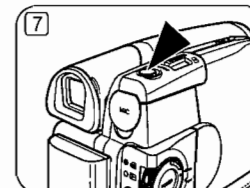
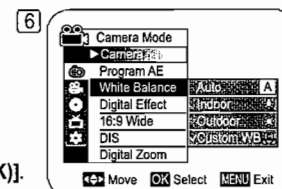
Setting the Custom White Balance

❖ You can adjust the white balance as you wish based on the shooting environment.

1. Set the **[Mode]** switch to **[DISC]** or **[CARD]**.
2. Set the **[Power]** switch to **[CAMERA]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<Camera>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<White Balance>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** up or down to select **<Custom WB>**, then press the **[Joystick(OK)]**.
 - The **<Set White Balance>** will blink.
7. Place the white object under the desired lighting, then press the **[PHOTO]** button.
 - The **<Set White Balance>** will disappear and the white balance setting will commence.
8. To exit, press the **[MENU]** button.
 - Custom WB icon (WB) is displayed.

Notes

- Direct accessing the **White Balance** function is available simply using the **[QUICK MENU]** button. → page 27
- The **White Balance** function will not operate in EASY.Q mode.
- Turn the **Digital Zoom** off (if necessary) to set a more accurate white balance.
- Reset the white balance if lighting conditions change.
- During normal outdoor recording, setting to Auto may provide better results.

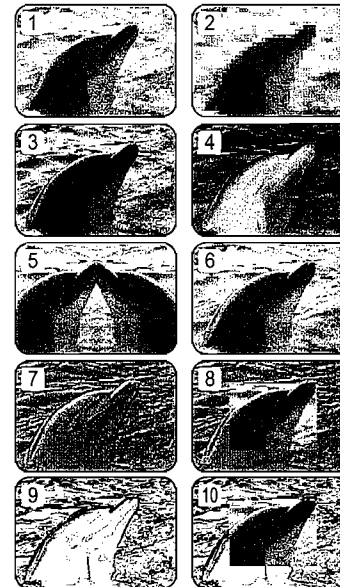


DVD Recorder : Advanced Recording

Applying Digital Effects (Digital Effect)

- ❖ The **Digital Effect** function works only in **Camera Mode**. ↗page 26
- ❖ The Digital Effects enable you to give a creative look to your recording.
- ❖ Select the appropriate Digital Effect for the type of picture that you wish to record and the effect you wish to create.
- ❖ There are 10 Digital Effect modes.

1. **<Art> mode**
This mode gives the images a coarse effect.
2. **<Mosaic> mode**
This mode gives the images a mosaic effect.
3. **<Sepia> mode**
This mode gives the images a reddish-brown pigment.
4. **<Negative> mode**
This mode reverses the colors, creating a negative image.
5. **<Mirror> mode**
This mode cuts the picture in half, using a mirror effect.
6. **<BLK & WHT> mode**
This mode changes the images to black and white.
7. **<Emboss1> mode**
This mode creates a 3D effect (embossing).
8. **<Emboss2> mode**
This mode creates a 3D effect (embossing) on surrounding area of an image.
9. **<Pastel1> mode**
This mode applies a pale pastel drawing effect to an image.
10. **<Pastel2> mode**
This mode applies a pale pastel drawing effect to surrounding area of an image.



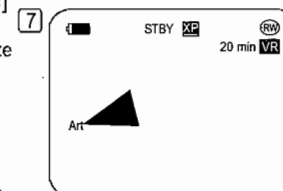
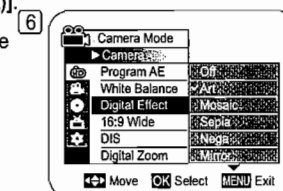
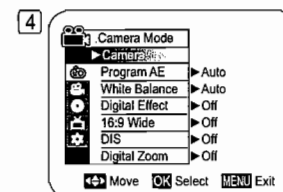
DVD Recorder : Advanced Recording

Selecting the Digital Effects

1. Set the [Mode] switch to [DISC].
2. Set the [Power] switch to [CAMERA (Camera)].
3. Press the [MENU] button.
 - The menu list will appear.
4. Move the [Joystick] up or down to select <Camera>, then press the [Joystick(OK)].
5. Move the [Joystick] up or down to select <Digital Effect>, then press the [Joystick(OK)].
6. Move the [Joystick] up or down to select the desired Digital Effect option, then press the [Joystick(OK)].
 - The display mode is set to the selected mode.
7. To exit, press the [MENU] button.

Notes

- Direct accessing the **Digital Effect** function is available simply using the [QUICK MENU] button. ➡ page 27
- The **Mosaic**, **Mirror**, **Emboss2**, or **Pastel2** mode is not available while **DIS** or **Color Nite** is in use.
- Digital Effect modes are not available while **EASY.Q** is in use.
- Once **DIS**, **EASY.Q**, **Color Nite**, or **16:9 Wide** is set, **Mosaic**, **Mirror**, **Emboss2**, or **Pastel2** mode will be released.
- **Digital Zoom** is not available in the **Mosaic**, **Mirror**, **Emboss2**, or **Pastel2** mode.
- Digital Effect modes other than **Mosaic**, **Mirror**, **Emboss2**, or **Pastel2** mode is available while **DIS** is in use.



ENGLISH

DVD Recorder : Advanced Recording

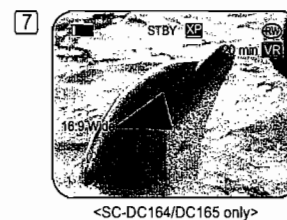
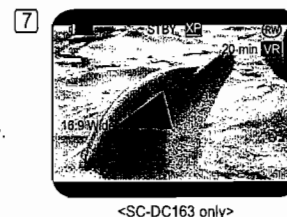
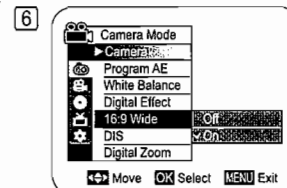
Setting the 16:9 Wide mode (16:9 Wide)

- ❖ The **16:9 Wide** function works only in **Camera Mode**. ↪ page 26
- ❖ Select to record a picture to be played back on a 16:9 Wide TV.
- ❖ Recordings in 16:9 Wide will play back naturally only when the TV supports 16:9 aspect ratio.

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[CAMERA (Camera)]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<Camera>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<16:9 Wide>**, then press the **[Joystick(OK)]**.
6. To activate the 16:9 Wide function, move the **[Joystick]** up or down to select **<On>**, then press the **[Joystick(OK)]**.
 - If you do not want to use the 16:9 Wide function, set the **<16:9 Wide>** menu to **<Off>**.
7. To exit, press the **[MENU]** button.
 - The display mode is set to the selected mode.

Notes

- The **16:9 Wide** mode is not available while **DIS**, **EASY.Q** or **Color Nite** is in use.
- Once **DIS**, **EASY.Q** or **Color Nite** is set, **16:9 Wide** mode will be released.
- **Digital Zoom** is not available in the **16:9 Wide** mode.



DVD Recorder : Advanced Recording

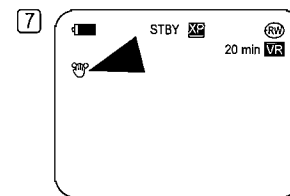
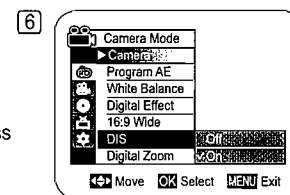
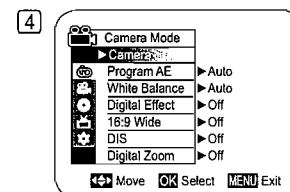
Setting the Digital Image Stabilizer (DIS)

- ❖ The **DIS** function works only in **Camera Mode**. ↪ page 26
- ❖ DIS (Digital Image Stabilizer) is a function that compensates for any shaking or hand movement while holding the Camcorder (within reasonable limits).
- ❖ It provides more stable pictures when:
 - Recording with the zoom (DIS is not available in Digital Zoom mode.)
 - Recording a small object close-up
 - Recording and walking at the same time
 - Recording through the window of a vehicle

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[CAMERA]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<Camera>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<DIS>**, then press the **[Joystick(OK)]**.
6. To activate the DIS function, move the **[Joystick]** up or down to select **<On>**, then press the **[Joystick(OK)]**.
 - If you do not want to use the DIS function, set the **<DIS>** menu to **<Off>**.
7. To exit, press the **[MENU]** button.
 - DIS icon () is displayed.

Notes

- Direct accessing the **DIS** function is available simply using the **[QUICK MENU]** button. ↪ page 27
- Digital Zoom, Color Nite, 16:9 Wide, Mosaic, Mirror, Emboss2, or Pastel2 is not available in the **DIS** mode.
- It is recommended that you deactivate the **DIS** function when using a tripod.



DVD Recorder : Advanced Recording

Zooming In and Out with Digital Zoom (Digital Zoom)

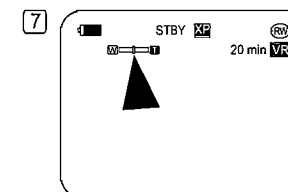
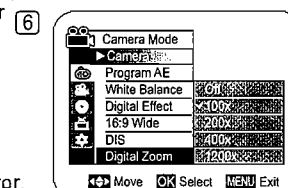
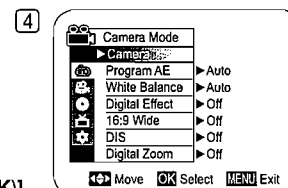
- ❖ The **Digital Zoom** works only in **Camera Mode**. ↪page 26
- ❖ Zooming more than 30x (SC-DC163 only), 33x (SC-DC164/DC165 only) is achieved digitally, up to 1200x when combined with optical zoom.
- ❖ The picture quality may deteriorate depending on how much you zoom in on the subject.
- ❖ We recommend that you use the **DIS** feature with **Digital Zoom** for picture stability. ↪page 61

Selecting the Digital Zoom

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[CAMERA (Camera)]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<Camera>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<Digital Zoom>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** up or down to select desired zoom value (**Off**, **100x**, **200x**, **400x** or **1200x**), then press the **[Joystick(OK)]**.
7. To exit, press the **[MENU]** button.
 - When using the digital zoom switch, an indicator appears on the screen.

Notes

- Maximum zooming may result in lower picture quality.
- **Digital Zoom** is not available while **DIS**, **EASY.Q**, **Color Nite**, **16:9 Wide**, **Mosaic**, **Mirror**, **Emboss2**, or **Pastel2** is in use.
- Once **Color Nite**, **16:9 Wide**, **Mosaic**, **Mirror**, **Emboss2**, or **Pastel2** is set, **Digital Zoom** mode will be released. (The **Digital Zoom** mode will be backed up.)
- Once **DIS** or **EASY.Q** is set, **Digital Zoom** mode will be released.



DVD Recorder : What's Title List and Playlist

What's Title List

- ❖ The Title List displays multiple titles (scenes) that have been recorded.
- ❖ A title is created between this points where you start and stop a recording. Once deleted you cannot recover the title again.

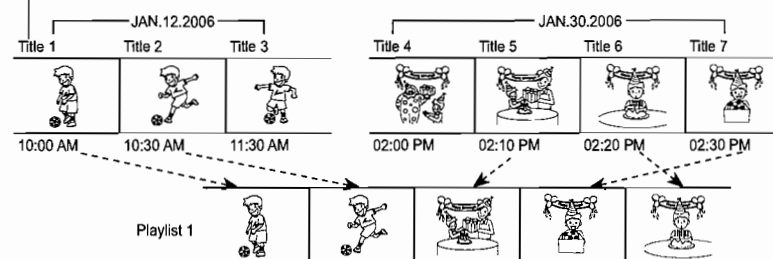
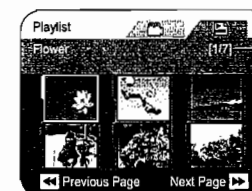


What's Playlist? [DVD-RW(VR mode)]

- ❖ You can create a Playlist on the same disc by gathering your favorites from the recorded scenes (title lists).
- ❖ You can edit the Playlist without changing the original recordings.
- ❖ Even the Playlist is deleted the original title lists remain undeleted.
- ❖ Playlist of up to 199 playlists can be created, and up to 999 title scenes can be registered on a Playlist.

Example: You have recorded a few scenes on a DVD-RW in VR mode. You want to save the original recording, but you also want to create a digest by putting the favorite scenes together. In this case, you can create a Playlist by selecting just your favorite scenes, leaving the original recording as it is.

- A title is created between the points where you start and stop a recording. Once deleted you cannot recover the title again.



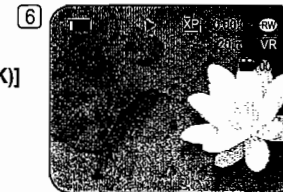
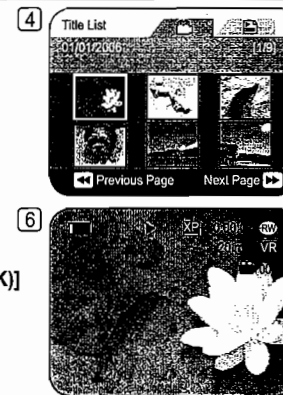
ENGLISH

DVD Recorder : Title List

Playing Title Lists DVD-RW/+RW/-R/+R DL

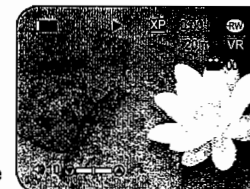
The recorded Title List scenes are displayed as a thumbnail index on the LCD Screen. You can find the desired scene quickly using this convenient index. If the LCD is closed, you can view the recording through the viewfinder. Use the Playback related buttons on the camcorder or on the remote control. ↪ page 65

1. Insert the disc you want to view.
2. Set the **[Mode]** switch to **[DISC]**.
3. Set the **[Power]** switch to **[▶](Player)**.
4. Open the LCD Screen.
 - The thumbnail index of the Title List will appear.
 - Use the **[MENU]** button to adjust brightness or color of the LCD Screen. ↪ page 36
5. Use the **[Joystick]** to select a Title List scene to be played, then press the **[Joystick(OK)]** or **[▶/II]** button.



Adjusting the Volume DVD-RW/+RW/-R/+R DL

- ❖ When you use the LCD Screen for playback, you can hear recorded sound from the built-in speaker.
- ❖ When you hear sounds once the disc is in play, use the **[VOL +,-]** buttons to adjust the volume.
 - A volume level display will appear on the LCD Screen.
 - Levels may be adjusted from anywhere between **00** to **19**.
 - If you close the LCD Screen while playing, you may not hear sound from the speaker.
 - When the Multi-AV cable is connected to the Camcorder, you cannot hear sound from the Built-In Speaker and cannot adjust the volume.



DVD Recorder : Title List

Various Functions while in Player Mode DVD-RW/+RW/-R/+R DL

- ❖ This function works only in **Player Mode**. ↪ page 26
- ❖ Functions of Play, Still, Stop, Fast Forward, Rewind, Forward Skip, and Reverse Skip are accessible using the remote control. (SC-DC164/DC165 only)
- ❖ Frame Advance and Slow functions are accessible only using the remote control. (SC-DC164/DC165 only)

Playback/Still

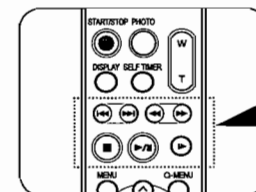
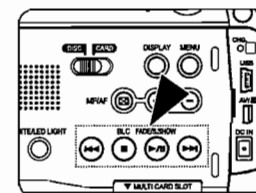
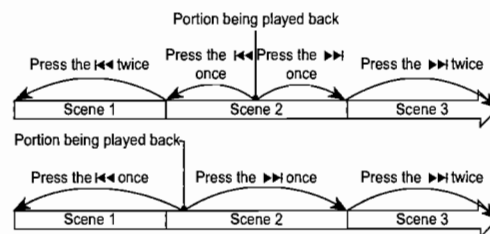
- Press the **[▶/II]** button during playback.
- To resume playback, press the **[▶/II]** button.

Picture Search (Forward/Reverse)

- Press the **[◀◀]/[▶▶]** button to choose the play speed between x2, x4, x8, x16, and x32 of normal during playback.
- To resume normal playback, press the **[▶/II]** button.
- Same as **[◀◀]/[▶▶]** buttons on the remote control.

Skip Playback (Forward/Reverse)

- Press and hold the **[◀◀]/[▶▶]** buttons during playback.
- When playing a disc, if you press and hold the **[▶▶]** button, it moves to the next scene. If you press and hold the **[◀◀]** button, it moves to the beginning of the scene. One more press makes it move to the beginning of the previous scene. If you press and hold the **[◀◀]** button at a portion several seconds from the start of scene, it moves to the beginning of the previous scene.



DVD Recorder : Title List

Slow Playback (Forward/Reverse) (SC-DC164/DC165 only)

Forward Slow Playback

- Press the [▶] button on the remote control during playback.
 - To resume normal playback, press the [▶/||] button.

Frame Advance (To play back frame by frame) (SC-DC164/DC165 only)

Forward Frame Advance

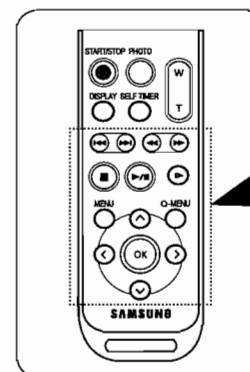
- Press the [➤] button on the remote control while in pause mode.
 - Video sequence advances frame by frame each time you press the [➤] button.
 - The F.ADV function works in pause mode only.
 - To resume normal playback, press the [▶/||] button.

Reverse frame advance

Press the [◀] button on the remote control to change the direction in F.ADV mode or pause mode.

Note

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 discs recorded in LP which contain various playback functions.



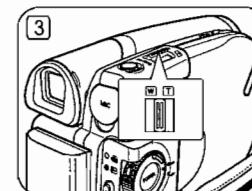
DVD Recorder : Title List

Zooming during Playback (PB ZOOM) DVD-RW/+RW/-R/+R DL

- ❖ The **PB Zoom** function works only in **Player Mode**. ↪page 26
 - ❖ The **PB Zoom** function enables you to magnify the playback or still image.
1. Set the **[Mode]** switch to **[DISC]**.
 2. Set the **[Power]** switch to **[▶(Player)]**.
 3. Move the **[Zoom]** lever toward **[T(Tele)]** to activate the PB Zoom during playback.
 - The image is magnified starting from the center of image.
 4. You can zoom in from 2.0x to 8.0x by moving the **[Zoom]** lever.
 - It zooms 2.0x → 4.0x → 8.0x progressively.
 - Zoom ratio is displayed.
 5. Use the **[Joystick]** to move the screen up, down, right or left.
 6. To cancel the PB Zoom function, move the **[Zoom]** lever toward **[W(Wide)]**.

Notes

- The **PB Zoom** function enlarges the center of the screen only.
- You cannot apply the **PB Zoom** function to pictures which are being input from an external video source.
- The **PB Zoom** images cannot be exported to a PC.
- OSD will not be displayed on the LCD Screen while the **PB Zoom** function is being operated.
- To stop operating **PB Zoom** function, press the **[■(STOP)]** button.



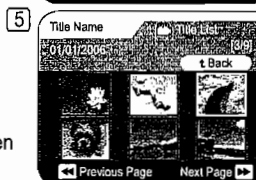
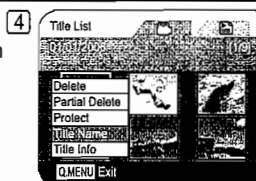
ENGLISH

DVD Recorder : Title List

Renaming a Title (Title Name) DVD-RW/+RW/-R/+R DL

- ❖ **Title Name** function works only in **Player Mode**. ↪ page 26
 - ❖ The recording date automatically becomes the title name if date had been set in the system menu. ↪ page 37
- You can change the recording date to any desired title name.

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[▶(Player)]**.
 - The Title List screen appears.
3. Press the **[QUICK MENU]** button.
4. Move the **[Joystick]** up or down to select **<Title Name>**, then press the **[Joystick(OK)]**.
5. Use the **[Joystick]** to select a title scene you want to rename from the Title List scenes, then press the **[Joystick(OK)]**.
 - Title Name screen will appear.
6. Use the **[Joystick]** to move the cursor to the first character of the current title name.
7. Use the **[Joystick]** to move the cursor to **<Delete>**, then press the **[Joystick(OK)]** to delete the existing title name.
8. Use the **[Joystick]** to select the desired characters and items, then press the **[Joystick(OK)]**.
 - Up to 20 characters can be input.
 - **<Russia>**: Selects the language for the Title Name.
 - **<Delete>**: Deletes the character at the cursor position.
 - **<Space>**: Enter a blank and moves the cursor one forward (to the right).
 - **<Done>**: Registers the character inputs.
 - **<Back>**: Returns to the previous mode.
9. Use the **[Joystick]** to select **<Done>**, then press the **[Joystick(OK)]**.
 - The title name is now changed.

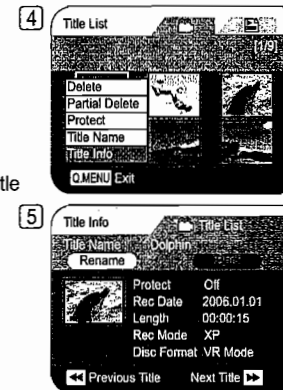


DVD Recorder : Title List

Title Information (Title Info) DVD-RW/+RW/R/+R DL

- ❖ **Title Info** function works only in **Player Mode**. ↪ page 26
- ❖ It shows you the title information.
- ❖ You can view the **Title name**, **Protect**, **Rec Date**, **Length**, **Rec Mode** and **Disc Format**.

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[▶(Player)]**.
 - The **Title List** screen appears.
3. Press the **[QUICK MENU]** button.
4. Move the **[Joystick]** up or down to select **<Title Info>**, then press the **[Joystick(OK)]**.
5. Use the **[Joystick]** to select a scene you want to display the title information from the Title List scenes, then press the **[Joystick(OK)]**.
 - It shows the information on the selected title.
 - The title information includes the **<Title Name>**, **<Protect>**, **<Rec Date>**, **<Length>**, **<Rec Mode>** and **<Disc Format>**.
6. To exit, press the **[Joystick(OK)]**.



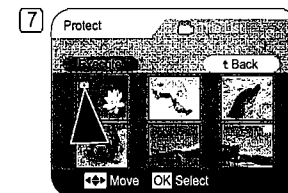
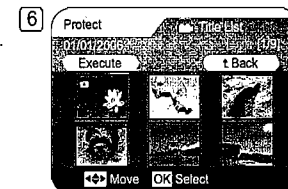
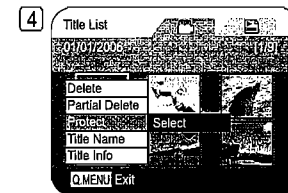
ENGLISH

DVD Recorder : Title List

Protecting a Title (Protect) DVD-RW/+RW

- ❖ **Protection** function works only in **Player Mode**. ↪ page 26
- ❖ You can set protection for a title so that the title cannot be deleted.

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[▶(Player)]**.
 - The Title List screen appears.
3. Press the **[QUICK MENU]** button.
4. Move the **[Joystick]** up or down to select **<Protect>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<Select>**, then press the **[Joystick(OK)]**.
 - **<Select All>** will result in all title scenes to be marked with **<🔒>**.
6. Use the **[Joystick]** to select title scenes to be protected, then press the **[Joystick(OK)]**.
 - The selected title scenes will be marked with **<🔒>**.
 - The above procedure will release the lock on the title if previously set.
7. Move the **[Joystick]** up to select **<Execute>**, then press the **[Joystick(OK)]**.
 - Protect is set on all selected titles.



DVD Recorder : Title List

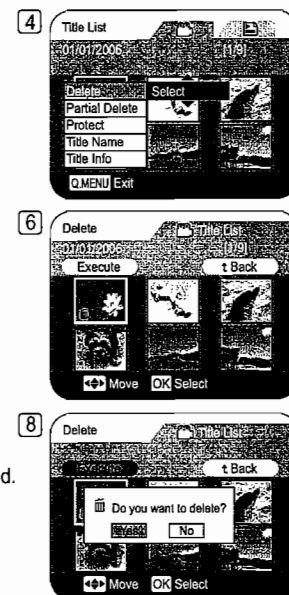
Deleting a Title (Delete) DVD-RW/+RW

- ❖ Delete function works only in **Player Mode**. ↪ page 26
- ❖ Title scenes can be individually or all deleted.

1. Set the [Mode] switch to [DISC].
2. Set the [Power] switch to [▶(Player)].
 - The Title List screen appears.
3. Press the [QUICK MENU] button.
4. Move the [Joystick] up or down to select <Delete>, then press the [Joystick(OK)].
5. Move the [Joystick] up or down to select <Select>, then press the [Joystick(OK)].
 - <Select All> will result in all title scenes to be marked with <■>.
6. Use the [Joystick] to select title scenes to be deleted, then press the [Joystick(OK)].
 - The selected title scenes will be marked with <■>.
7. Move the [Joystick] up to select <Execute>, then press the [Joystick(OK)].
 - The <Do you want to delete?> message will appear.
8. Move the [Joystick] left or right to select <Yes>, then press the [Joystick(OK)].
 - All selected titles will be deleted.
 - Related files in Playlist will be deleted.

Note

An audible warning will be heard if you try to delete a title that had previously been protected. You must release the protect function to delete the title. ↪ page 70



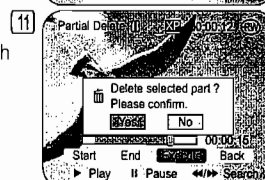
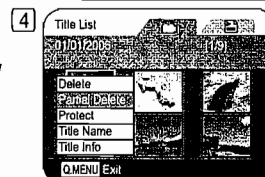
DVD Recorder : Title List

Deleting a Section of a Title (Partial Delete) DVD-RW(VR mode)

- ❖ **Partial Delete** function works only in **Player Mode**. ↪ page 26
 - ❖ Title scene can be partially deleted.
 - ❖ The editing function only works on a DVD-RW (VR Mode). You should format the DVD-RW to VR Mode before recording. ↪ page 41
1. Set the [Mode] switch to [DISC].
 2. Set the [Power] switch to [▶(Player)].
 3. Press the [QUICK MENU] button.
 4. Move the [Joystick] up or down to select <Partial Delete>, then press the [Joystick(OK)].
 5. Move the [Joystick] to select a title scene you want to delete partially from the Title List scenes, then press the [Joystick(OK)].
 - The selected title will be paused, then the <Start> will be highlighted.
 6. Search the start point of deletion by pressing the [◀◀/▶▶] or [▶/II] button.
 7. Press the [▶/II] button at the start point to pause the screen, then press the [Joystick(OK)].
 - The <End> will be highlighted.
 8. Press the [◀◀/▶▶] or [▶/II] button to search the end point of deletion.
 9. Press the [▶/II] button at the end point to pause the screen, then press [Joystick(OK)].
 - The <Execute> will be highlighted.
 10. Press the [Joystick(OK)].
 - The <Delete selected part? Please confirm.> message will appear.
 11. Move the [Joystick] left or right to select <Yes>, then press the [Joystick(OK)].
 - The selected part of the title will be deleted.

Notes

- The length of the section to be deleted must be at least 5 seconds long.
 - If the length of the section to be deleted is less than 5 seconds, you will be prompted with the message **The range is too short.**
 - If the end time precedes the starting point, you will be prompted with the message **End point cannot be marked earlier than start point.**
- An audible warning will be heard if you try to delete a title that had previously been protected. You must release the protect function to delete.



DVD Recorder : Playlist

Creating a New Playlist (New Playlist) DVD-RW/VR mode

- ❖ This function works only in **Player Mode**. ↪ page 26
- ❖ The editing function only works on a DVD-RW (VR Mode). You should format the DVD-RW to VR Mode before recording. ↪ page 41

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[▶(Player)]**.
 - The Title List scenes will appear.
3. Move the **[Joystick]** up to highlight the Title List icon (📁), then move the **[Joystick]** right to highlight the Playlist icon (📋).
 - The Playlist scenes will be displayed in the form of a thumbnail index.
 - No thumbnail index is provided before creating a Playlist.
4. Press the **[QUICK MENU]** button.
5. Move the **[Joystick]** up or down to select **<New Playlist>**, then press the **[Joystick(OK)]**.
 - Title List scenes will appear.
6. Use the **[Joystick]** to select a scene to play, then press the **[Joystick(OK)]**.
 - The selected scene will be marked with <✓>.
 - Keep selecting in the order of your preference for playing.
7. Move the **[Joystick]** up to **<Add>**, then press the **[Joystick(OK)]**.
 - A new Playlist will be created

Notes

- Up to 199 playlists can be created.
- Up to 999 title scenes can be registered on a Playlist.



DVD Recorder : Playlist

Renaming a Playlist (Playlist Name) DVD-RW(VR mode)

- ❖ **Playlist Name** function works only in **Player Mode**. ↪ page 26
 - ❖ The recording date automatically becomes the title name if date had been set in the system menu.
You can change the recording date to any desired title name.
 - ❖ The editing function only works on a DVD-RW (VR Mode).
You should format the DVD-RW to VR Mode before recording. ↪ page 41
1. Set the **[Mode]** switch to **[DISC]**.
 2. Set the **[Power]** switch to **[▶(Player)]**.
 - The Title List scenes will appear.
 3. Move the **[Joystick]** up to highlight the Title List icon (📁), then move the **[Joystick]** right to highlight the Playlist icon (📁).
 - The Playlist scenes will be displayed in the form of a thumbnail index.
 4. Press the **[QUICK MENU]** button.
 5. Move the **[Joystick]** up or down to select **<Playlist Name>**, then press the **[Joystick(OK)]**.
 6. Use the **[Joystick]** to select a Playlist scene you want to rename from the Playlist scenes, then press the **[Joystick(OK)]**.
 - Playlist Name screen will appears.
 7. Use the **[Joystick]** to move the cursor to the first character of the current title name.
 8. Use the **[Joystick]** to move the cursor to **<Delete>**, then press the **[Joystick(OK)]** to delete the existing title name.
 9. Use the **[Joystick]** to select the desired characters and items, then press the **[Joystick(OK)]**.
 - Up to 20 characters can be input.
 - **<Russia>**: Selects the language for the Playlist Name.
 - **<Delete>**: Deletes the character at the cursor position.
 - **<Space>**: Enter a blank and moves the cursor one forward (to the right).
 - **<Done>**: Registers the character inputs.
 - **<Back>**: Returns to the previous mode.
 10. Use the **[Joystick]** to select **<Done>**, then press the **[Joystick(OK)]**.
 - The Playlist name is now changed.

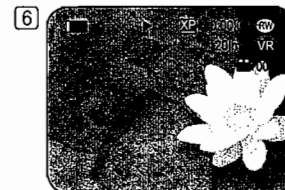
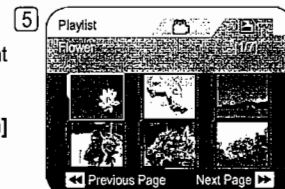
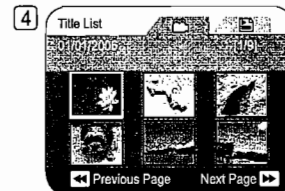


DVD Recorder : Playlist

Playing the Playlist DVD-RW(VR mode)

- ❖ This function works only in **Player Mode**. ↪ page 26
- ❖ The Playlist scenes are displayed in the form of a thumbnail index on the LCD Screen.
If the LCD is closed, you can view the recording through the viewfinder. Use the Playback related buttons on the Camcorder or on the remote control. ↪ page 65
- ❖ The editing function only works on a DVD-RW (VR Mode). You should format the DVD-RW to VR Mode before recording. ↪ page 41

1. Insert the disc you want to view.
2. Set the **[Mode]** switch to **[DISC]**.
3. Set the **[Power]** switch to **[▶(Player)]**.
4. Open the LCD Screen.
 - The Title List scenes will appear.
5. Move the **[Joystick]** up to highlight the Title List icon (📁), then move the **[Joystick]** right to highlight the Playlist icon (📂).
 - The Playlist scenes will be displayed in the form of a thumbnail index.
6. Use the **[Joystick]** to select a Playlist scene to be played, then press the **[Joystick(OK)]** or **[▶/II]** button.
 - The selected scene will be playing one scene after another continuously to the last scene.
7. Press the **[VOL +,-]** buttons to adjust volume.
 - The sound will be heard through the built-in speaker.

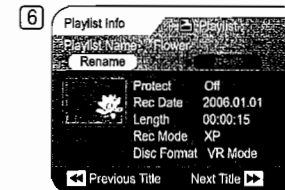
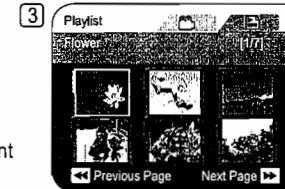


DVD Recorder : Playlist

Playlist Information (Playlist Info) DVD-RW (VR mode)

- ❖ **Playlist Info** function works only in **Player Mode**. ↪ page 26
- ❖ It shows you the Playlist information.
You can view the **Playlist name, Protect, Rec Date, Length, Rec Mode** and **Disc Format**.
- ❖ The editing function only works on a DVD-RW (VR Mode). You should format the DVD-RW to VR Mode before recording.
↪ page 41

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[▶(Player)]**.
 - The Title List screen will appear.
3. Move the **[Joystick]** up to highlight the Title List icon (📁), then move the **[Joystick]** right to highlight the Playlist icon (📁).
 - The Playlist scenes will be displayed in the form of a thumbnail index.
4. Press the **[QUICK MENU]** button.
5. Move the **[Joystick]** up or down to select **<Playlist Info>**, then press the **[Joystick(OK)]**.
6. Use the **[Joystick]** to select a Playlist you want to display the Playlist information from the Playlist scenes, then press the **[Joystick(OK)]**.
 - It shows you information on the selected Playlist.
 - Playlist information includes **Playlist Name, Protect, Rec Date, Length, Rec Mode** and **Disc Format**.
7. To exit, press the **[Joystick(OK)]**.

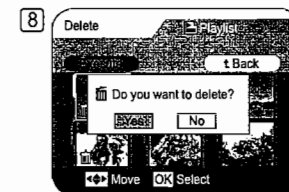
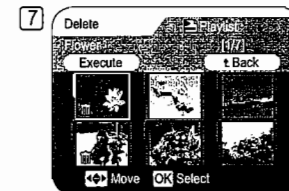
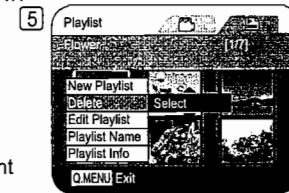


DVD Recorder : Playlist

Deleting a Playlist (Delete) DVD-RW(VR mode)

- ❖ Delete function works only in **Player Mode**. ↪ page 26
- ❖ Undesired playlists can be deleted individually or all.
- ❖ The editing function only works on a DVD-RW (VR Mode). You should format the DVD-RW to VR Mode before recording. ↪ page 41

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[▶(Player)]**.
 - The Title List screen will appear.
3. Move the **[Joystick]** up to highlight the Title List icon (📄), then move the **[Joystick]** right to highlight the Playlist icon (📁).
 - The Playlist scenes will be displayed in the form of a thumbnail index.
4. Press the **[QUICK MENU]** button.
5. Move **[Joystick]** up or down to **<Delete>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** up or down to select **<Select>**, then press the **[Joystick(OK)]**.
 - **<Select All>** will result in all playlists to be marked with <📁>.
7. Use the **[Joystick]** to select Playlist to be deleted, then press the **[Joystick(OK)]**.
 - The selected Playlist will be marked with <📁>.
8. Move the **[Joystick]** up to select **<Execute>**, then press the **[Joystick(OK)]**.
 - **<Do you want delete?>** message will appear.
9. Move the **[Joystick]** left or right to select **<Yes>**, then press the **[Joystick(OK)]**.
 - All selected playlists will be deleted.



ENGLISH

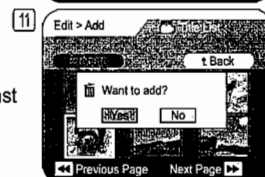
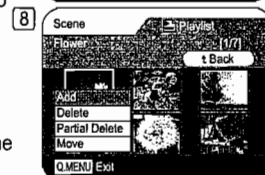
DVD Recorder : Playlist

Adding Scenes to Playlist (Edit Playlist-Add) DVD-RW(VR mode)

- ❖ This function works only in **Player Mode**. ↪ page 26
 - ❖ You can add more scenes in an existing Playlist.
 - ❖ The editing function only works on a DVD-RW (VR Mode). You should format the DVD-RW to VR Mode before recording. ↪ page 41
1. Set the **[Mode]** switch to **[DISC]**.
 2. Set the **[Power]** switch to **[▶(Player)]**.
 - The Title List screen will appear.
 3. Move the **[Joystick]** up to highlight the Title List icon (⏏), then move the **[Joystick]** right to highlight the Playlist icon (📁).
 - The Playlist scenes will be displayed in the form of a thumbnail index.
 4. Press the **[QUICK MENU]** button.
 5. Move the **[Joystick]** up or down to select **<Edit Playlist>**, then press the **[Joystick(OK)]**.
 - The screen will be switched to the Edit Playlist mode.
 6. Use the **[Joystick]** to select the Playlist to which the scenes are to be added, then press the **[Joystick(OK)]**.
 - The scenes inside the Playlist will appear.
 7. Press the **[QUICK MENU]** button.
 8. Move the **[Joystick]** up or down to select **<Add>**, then press the **[Joystick(OK)]**.
 - The Title List scenes to be added to the Playlist will appear.
 9. Use the **[Joystick]** to select the Title List scenes to be added to the Playlist, then press the **[Joystick(OK)]**.
 - The selected scenes will be marked with <✓>.
 10. Move the **[Joystick]** up to select **<Execute>**, then press the **[Joystick(OK)]**.
 - **<Want to add?>** message will appear.
 11. Move the **[Joystick]** left or right to select **<Yes>**, then press the **[Joystick(OK)]**.
 - The **<Now Add!>** message will appear.
 - The selected scenes will be added to the Playlist. The new scene will be added as the last scene.

Note

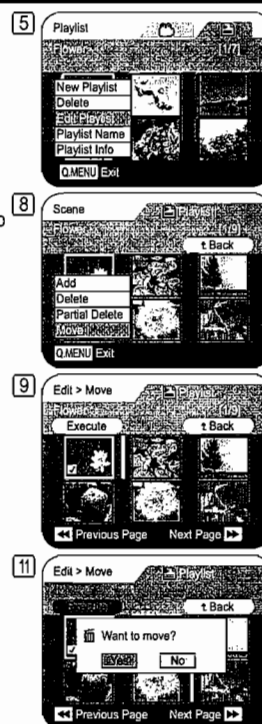
An audible warning will be heard if **[▶/⏏]** is pressed while the QUICK MENU is displayed.



DVD Recorder : Playlist

Changing the Order of Scene Playing within a Playlist (Edit Playlist-Move) DVD-RW(VR mode)

- ❖ This function works only in **Player Mode**. ↪ page 26
 - ❖ You can change the order of scene playing within a Playlist.
 - ❖ The editing function only works on a DVD-RW (VR Mode). You should format the DVD-RW to VR Mode before recording. ↪ page 41
1. Set the **[Mode]** switch to **[DISC]**.
 2. Set the **[Power]** switch to **[▶(Player)]**.
 - The Title List scenes will appear.
 3. Move the **[Joystick]** up to highlight the Title List icon (📄), then move the **[Joystick]** right to highlight the Playlist icon (📁).
 - The Playlist scenes will be displayed in the form of a thumbnail index.
 4. Press the **[QUICK MENU]** button.
 5. Move the **[Joystick]** up or down to select **<Edit Playlist>**, then press the **[Joystick(OK)]**.
 - The screen will be switched to the Edit Playlist mode.
 6. Use the **[Joystick]** to select the Playlist which contains the scenes to change the order of playing, then press the **[Joystick(OK)]**.
 - The scenes inside the Playlist will appear.
 7. Press the **[QUICK MENU]** button.
 8. Move the **[Joystick]** up or down to select **<Move>**, then press the **[Joystick(OK)]**.
 9. Use the **[Joystick]** to select the scene to be moved, then press the **[Joystick(OK)]**.
 - The Selected scenes will be marked with <✓>.
 - Also a bar next to the scenes will appear.
 10. Use the **[Joystick]** to move the bar to the position of your choice, then press the **[Joystick(OK)]**.
 - The selected scene will be moved to the new position.
 11. Move the **[Joystick]** up to select **<Execute>**, then press the **[Joystick(OK)]**.
 - The **<Want to move?>** message will appear.
 12. Move the **[Joystick]** left or right to select **<Yes>**, then press the **[Joystick(OK)]**.
 - The **<Now Move!>** message will appear.



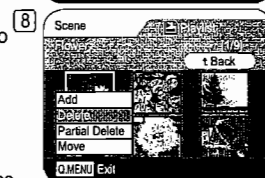
ENGLISH

DVD Recorder : Playlist

Deleting Scenes from Playlist (Edit Playlist-Delete) DVD-RW(VR mode)

- ❖ This function works only in **Player Mode**. ↪page 26
- ❖ You can delete the scenes from a Playlist.
- ❖ The editing function only works on a DVD-RW (VR Mode). You should format the DVD-RW to VR Mode before recording. ↪page 41

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[▶(Player)]**.
 - The Title List screen will appear.
3. Move the **[Joystick]** up to highlight the Title List icon (📄), then move the **[Joystick]** right to highlight the Playlist icon (📁).
 - The Playlist scenes will be displayed in the form of a thumbnail index.
4. Press the **[QUICK MENU]** button.
5. Move the **[Joystick]** up or down to select **<Edit Playlist>**, then press the **[Joystick(OK)]**.
 - The screen will be switched to the Edit Playlist mode.
6. Use the **[Joystick]** to select the Playlist which contains the scenes to be deleted, then press the **[Joystick(OK)]**.
 - The scenes inside the Playlist will appear.
7. Press the **[QUICK MENU]** button.
8. Move the **[Joystick]** up or down to select **<Delete>**, then press the **[Joystick(OK)]**.
9. Use the **[Joystick]** to select the scenes to be deleted, then press the **[Joystick(OK)]**.
 - The selected scenes will be marked with <✓>.
10. Move the **[Joystick]** up to select **<Execute>**, then press the **[Joystick(OK)]**.
 - The **<Want to delete?>** message will appear.
11. Move the **[Joystick]** left or right to select **<Yes>**, then press the **[Joystick(OK)]**.
 - The **<Now Delete!>** message will appear.
 - The selected scenes will be deleted.

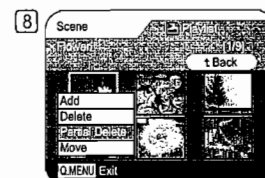


DVD Recorder : Playlist

Deleting a Section of a Playlist (Edit Playlist - Partial Delete) DVD-RW(VR mode)

- ❖ This function works only in **Player Mode**. ↪ page 26
- ❖ You can delete a part from a Playlist.
- ❖ The editing function only works on a DVD-RW (VR Mode). You should format the DVD-RW to VR Mode before recording. ↪ page 41

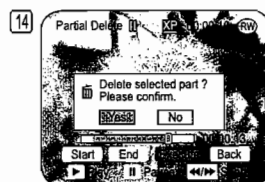
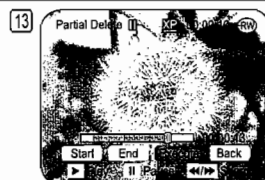
1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[▶(Player)]**.
 - The Title List screen will appear.
3. Move the **[Joystick]** up to highlight the Title List icon (⏏), then move the **[Joystick]** right to highlight the Playlist icon (📁).
 - The Playlist scenes will be displayed in the form of a thumbnail index.
4. Press the **[QUICK MENU]** button.
5. Move the **[Joystick]** up or down to select **<Edit Playlist>**, then press the **[Joystick(OK)]**.
 - The screen will be switched to the Edit Playlist mode.
6. Use the **[Joystick]** to select the Playlist which contains the scenes to be partially deleted within, then press the **[Joystick(OK)]**.
 - The scenes inside the Playlist will appear.
7. Press the **[QUICK MENU]** button.
8. Move the **[Joystick]** up or down to select **<Partial Delete>**, then press the **[Joystick(OK)]**.
9. Use the **[Joystick]** to select the scene to be partially deleted, then press the **[Joystick(OK)]**.
 - The Partial Delete screen will appear. The Scene will be paused and the **<Start>** will be highlighted.



ENGLISH

DVD Recorder : Playlist

10. Press the [◀◀/▶▶] or [▶/⏏] to search the starting point of deletion.
11. Press the [▶/⏏] button to pause the screen at the starting point of deletion, then press the [Joystick(OK)].
 - The <End> will be highlighted.
12. Press the [◀◀/▶▶] or [▶/⏏] to search the end point of deletion.
13. Press the [▶/⏏] button to pause the screen at the end point of deletion, then press the [Joystick(OK)].
 - The <Execute> will be highlighted.
14. Press the [Joystick(OK)].
 - The <Deleting selected part? Please confirm.> message will appear.
15. Move the [Joystick] left or right to select <Yes>, then press the [Joystick(OK)].
 - The <Now deleting. Please wait!> message will appear.



Note

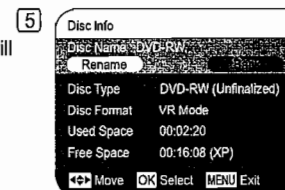
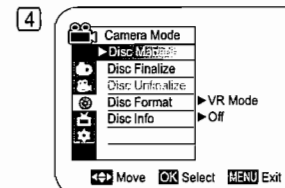
- The length of the section to be deleted must be at least 5 seconds long.
 - If the length of the section to be deleted is less than 5 seconds, you will be prompted with the message **The range is too short.**
 - If the end time precedes the starting point, you will be prompted with the message **End point cannot be marked earlier than start point.**

DVD Recorder : Disc Manager

Disc Information (Disc Info) DVD-RW/+RW/-R/+R DL

- ❖ This function works in both **Camera Mode** and **Player Mode**. ↗page 26
- ❖ It provides disc information.

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[CAMERA (Camera)]** or **[PLAY (Player)]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<Disc Manager>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<Disc Info>**, then press the **[Joystick(OK)]**.
 - **<Disc Name>**, **<Disc Type>**, **<Disc Format>**, **<Used Space>** and **<Free Space>** will be displayed.
6. To exit, press the **[Joystick(OK)]**.



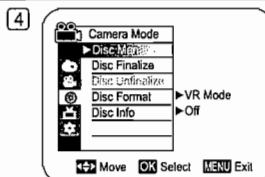
ENGLISH

DVD Recorder : Disc Manager

Editing the Disc Name (Disc Info-Rename) DVD-RW/+RW/-R/+R DL

- ❖ This function works in both **Camera Mode** and **Player Mode**. ↪ page 26
- ❖ You can specify a disc name.

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[CAMERA]** or **[PLAYER]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<Disc Manager>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<Disc Info>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** left or right to select **<Rename>**, then press the **[Joystick(OK)]**.
 - Disc Title screen will appear.
7. Use the **[Joystick]** to move the cursor to the first character of the current disc title.
8. Use the **[Joystick]** to move the cursor to **<Delete>**, then press the **[Joystick(OK)]** to delete the existing disc title.
9. Use the **[Joystick]** to select the desired characters and items, then press the **[Joystick(OK)]**.
 - Up to 20 characters can be input.
10. Use the **[Joystick]** to select **<Done>**, then press the **[Joystick(OK)]**.
 - The disc name will be changed.



DVD Recorder : Disc Manager

Formating a Disc (Disc Format) DVD-RW/+RW

- ❖ This function works only in **Camera Mode**. ↪ page 26
- ❖ When using the Camcorder for the first time and a disc is inserted you are prompted to format the disc. Format later if you wish to change the disc format. By formatting, all existing data will be deleted.

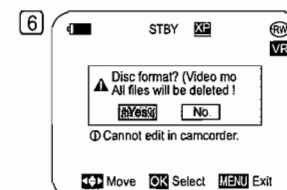
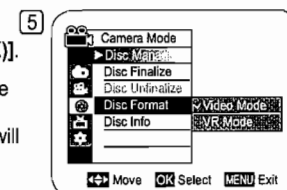
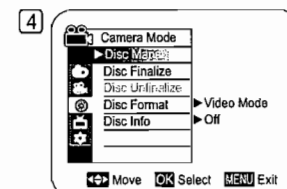
1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[CAMERA (Camera)]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<Disc Manager>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<Disc Format>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** up or down to select **<Video Mode>** or **<VR Mode>**, then press the **[Joystick(OK)]**. Set the mode depending on the application.
 - The **<Disc format? (Video mode or VR mode) All files will be delete !>** message will appear.
 - If you insert DVD+RW disc, formatting will automatically begin in the VR mode.

Video Mode	If the disc has been finalized, you are enabled to play the disc on other DVD players with much compatibility.
VR Mode	You can edit the disc on a Camcorder but the players are limited.

7. Move the **[Joystick]** left or right to select **<Yes>**, then press the **[Joystick(OK)]**.
 - When formatting is complete, the **<Complete!>** message will appear.

Note

Formatting is disabled if the disc had been protected. To enable formatting you must release the protection.



ENGLISH

DVD Recorder : Disc Manager

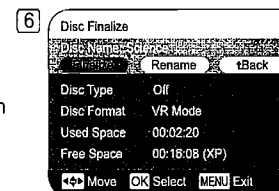
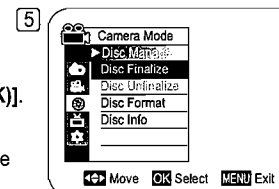
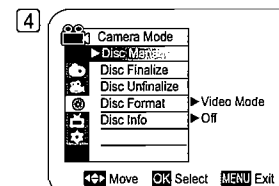
Finalizing a Disc (Disc Finalize) DVD-RW/+RW/-R/+R DL

- ❖ This function works only in **Camera Mode**. ↪ page 26
- ❖ To play the contents of a DVD-RW on other DVD players you must finalize the disc. When finalizing, there should be enough power in the batteries. If an the AC Power adapter is to be used, make sure that the jack is properly connected. A power cut during finalizing may disrupt the disc from replaying.

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[CAMERA (Camera)]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<Disc Manager>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<Disc Finalize>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** left or right to select **<Finalize>**, then press the **[Joystick(OK)]**.
 - The **<Finalizing, please wait...>** message will appear. When finalizing is complete the **<Complete !>** message will appear.

Notes

- Once finalized, the Title Lists or Playlists in the disc cannot be deleted or edited.
- Time required for finalizing may differ by disc type.
- When a DVD-RW disc is finalized, it becomes compatible with a DVD-Video and this can be played on a DVD player.
- If a DVD-RW disc had been finalized in the Video mode, no further recording, deleting, editing on that disc is enabled.

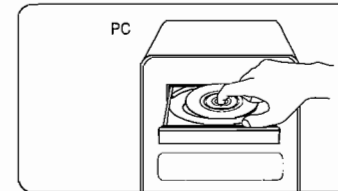


DVD Recorder : Disc Manager

Playing Back on a PC with DVD drive

❖ Detailed instructions and screen may differ depending on PC manufacturer and Operating System.

1. Turn on your PC.
2. Insert a finalized disc into the DVD drive of the PC.
 - Starts DVD playback application software and the movie will play.
 - If a DVD playback application does not start automatically, run the application from "Start" of your desktop.



Notes

- Use a DVD drive compatible to 80mm discs.
- A DVD playback application software should have been installed before playing back. ➡ page 115
- Video and audio may be paused or skipped when you play back from a DVD disc directly. In this case, copy the data into your hard disk drive.

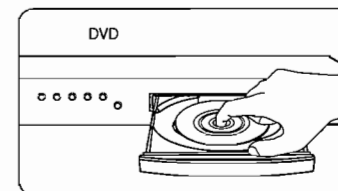
Playing back a finalized disc using a DVD player

To playback a disc recorded in Video mode

You can playback a finalized DVD disc recorded in video mode using a DVD player/recorder which can play back DVD-RW/+RW/-R/+R DL discs.

Other DVD players can play back a DVD+RW disc that has not been finalized.

1. Turn on the DVD player/recorder.
2. Insert the finalized DVD disc into the tray of the DVD player/recorder.
 - It may start playing automatically or press the PLAY button to start.
 - For further details on playing back DVD discs, refer to the user's manual.



To playback DVD discs recorded in VR mode:

A finalized DVD disc in VR mode can be played back using a DVD player which is capable of playing DVD-RW discs which has been recorded in VR mode.

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DVD Recorder : Disc Manager

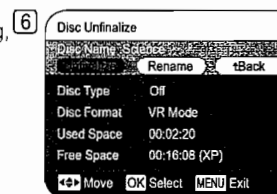
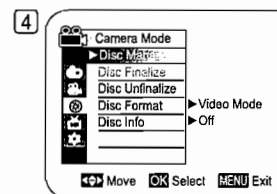
Unfinalizing a Disc (Disc Unfinalize) DVD-RW/+RW

- ❖ This function works only in **Camera Mode**. ↪ page 26
- ❖ If a DVD-RW/+RW disc had been finalized in the VR mode or Video mode (DVD-RW), you can unfinalize the disc for further recording.

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[CAMERA (Camera)]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<Disc Manager>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<Disc Unfinalize>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** left or right to select **<Unfinalize>**, then press the **[Joystick(OK)]**.
 - The **<Unfinalizing, please wait...>** message will appear. When unfinalizing is complete, the **<Complete !>** message will appear.

Note

When a disc had been finalized and the **[Start/Stop]** button is pressed: For further recording, move to the **Disc Manager** mode in the VR mode of a DVD-RW disc to unfinalize the disc.

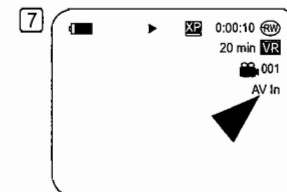
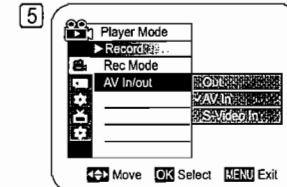
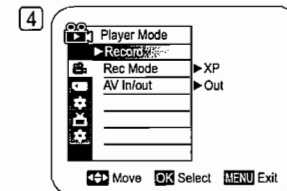


DVD Recorder : Connection

Setting the AV In/Out (SC-DC165 only)

- ❖ AV In/Out function works only in **Player Mode**. ↪ page 26
- ❖ AV In/Out setting enables you to record signal from external sources and display it on LCD Screen.
Also, you can direct your video or image to external devices to record or play back.

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[▶(Player)]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<Record>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<AV In/Out>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** up or down to select **<AV In>**, **<S-Video In>** or **<Out>**, then press the **[Joystick(OK)]**.
 - If you want to see the Camcorder picture with a TV, set **<AV In/Out>** menu to **<Out>**.
7. To exit, press the **[MENU]** button.



ENGLISH

DVD Recorder : Connection

Viewing Recordings on TV

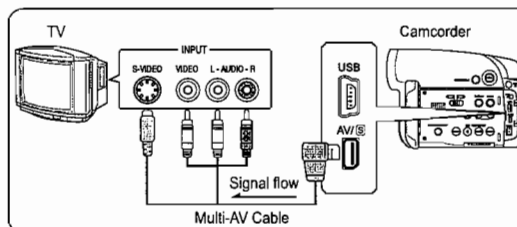
- ❖ The Playback function works only in **Player Mode**. ↪ page 26

Playing back on a TV Monitor

- ❖ To play back a disc, the television must be NTSC compatible. ↪ page 120
- ❖ 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 to your TV with the Multi-AV cable.
 - The yellow jack: Video
 - The white jack: Audio(L)-mono
 - The red jack: Audio(R)
 - If you connect to a monaural TV, connect the yellow jack (Video) to the video input of the TV and the white jack (Audio L) to the audio input of the TV.
2. Set the **[Mode]** switch to **[DISC]**.
3. Set the **[Power]** switch to **[▶(Player)]**.
4. Turn on the TV and set the TV/VIDEO selector on the TV to Video.
 - Refer to the TV user's manual.
5. Play the disc. ↪ page 64



Notes

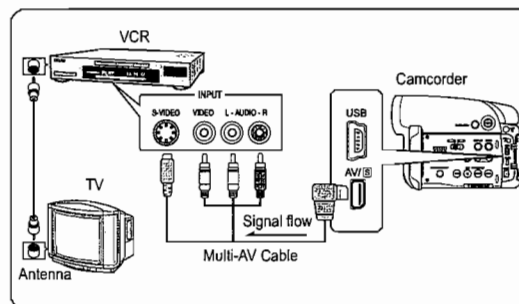
- You may use an S-Video connector on the cable to obtain better quality pictures if you have a S-Video connector on your TV.
- Even if you use an S-Video connector, you need to connect an audio cable.
- If you connect the cable to the AV/S jack you will not hear sound from the Camcorder's speakers.
- If only a mono audio input is available on the TV set, use the audio cable with the white jack (Audio L).

DVD Recorder : Connection

Connecting to a TV which has no Audio/Video Input Jacks

❖ You can connect your Camcorder to a TV through a VCR.

1. Connect the Camcorder to your VCR with the Multi-AV cable.
 - The yellow jack: Video
 - The white jack: Audio(L) - Mono
 - The red jack: Audio(R)
2. Connect a TV to the VCR.
3. Set the **[Mode]** switch to **[DISC]**.
4. Set the **[Power]** switch to **[▶(Player)]**.
5. 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.
6. Play the disc. ➡ page 64



Notes

- If the VCR has an S-Video input terminal, you may use S-Video for better quality.
- Even if you use an S-Video connector, you need to connect an audio cable.
- If only a mono audio input is available on the VCR set, use the audio cable with the white jack (Audio L).

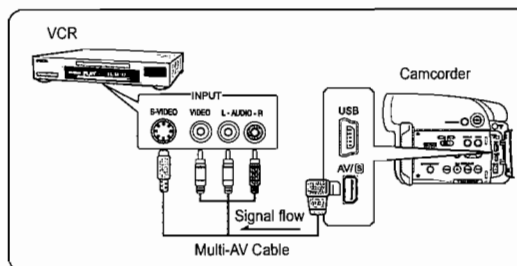
ENGLISH

DVD Recorder : Connection

Copying a Disc onto a Tape

- ❖ The copying function works only in **Player Mode**. ↪ page 26
- ❖ Connect your Camcorder to a VCR using the AV/S jack to dub the recording from a disc onto a VCR tape.

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[▶(Player)]**.
3. Insert in your Camcorder the source disc from which you are to dub.
4. Insert in a mono VCR a new VCR tape.
5. Connect the Camcorder to your VCR with Multi-AV cable.
 - Connect the Multi-AV cable to the input jack on your VCR.
 - The yellow jack: Video
 - The white jack: Audio(L)-mono
 - The red jack: Audio(R)
6. Press the Record button on your VCR to start recording.
7. On your Camcorder play the source disc. Please refer to Page 63 for Playing.
 - Press the **[DISPLAY]** button so as not to display OSD.



When Copying is Complete:

Stop recording on your VCR, then press the **[■(Stop)]** button on your Camcorder.

DVD Recorder : Connection

Recording (Copying) a TV Program or Video Tape onto a Disc (SC-DC165 only)

- ❖ The Recording (Copying) function works only in **Player Mode**. ➡ page 26
- ❖ Connect your Camcorder to a VCR or a TV using the AV/S jack to record a TV program or a copying of a video tape onto a disc. Set the **AV In/Out** before Recording (Copying). ➡ page 89

Recording (Copying) onto a Disc

1. Get your TV or VCR ready.
2. Connect the Camcorder to your VCR or TV with Multi-AV cable.
 - Connect the Multi-AV cable to the output jack on your VCR or TV
 - The yellow jack: Video
 - The white jack: Audio (L) – Mono
 - The red jack: Audio (R)
3. Insert an empty disc in your Camcorder.
 - Please refer to page 11 for selecting and formatting of discs.

In case of VCR

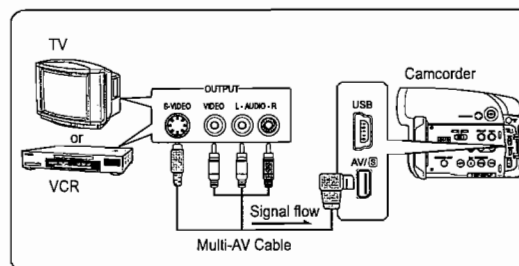
4. Insert the tape to be played in your VCR.
 - Pause at the starting point of playing.
5. Start copying by pressing the **[▶/II]** button on your Camcorder.
6. Press the PLAY button on your VCR to play the tape.

In case of TV

4. Select a TV channel to be recorded.
5. Start recording by pressing the **[▶/II]** button on your Camcorder.

When Recording (Copying) is Complete:

Press the **[■(Stop)]** button on your Camcorder to stop recording(copying).



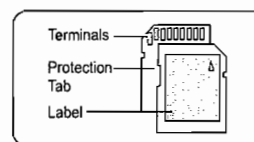
Digital Still Camera

Using the Memory Card (Usable Memory Card) (not supplied)

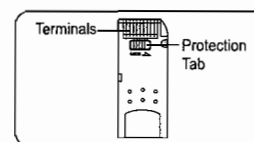
- ❖ The Memory Card stores and manages still images recorded by the Camcorder.
- ❖ Before inserting or ejecting the Memory Card, set the **[Power]** switch to **[OFF]**.

Memory Card Functions

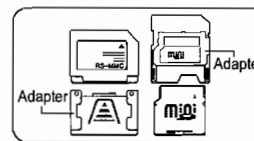
- ❖ Recording/Viewing Still Images
- ❖ Protecting Images from accidental erasure (except MMC)
- ❖ The Memory Stick Duo/MMC does not have a Protection Tab. When using the Memory Stick Duo/MMC, be careful not to edit or delete data by mistake.
- ❖ Deleting Still Images stored in Memory Card
- ❖ Marking Still Images with Print Information
- ❖ Formatting Memory Cards



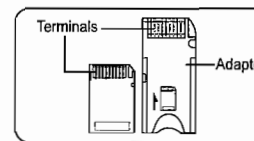
<MMC/SD>



<Memory Stick/Memory Stick PRO>



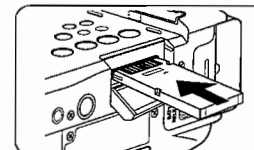
<RS MMC/Mini SD>



<Memory Stick Duo>

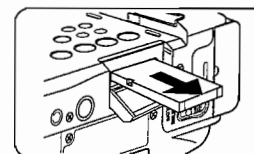
Inserting a Memory Card

1. Open the Memory Card Cover.
2. Insert the Memory Card.
- Please insert the Memory Card with its terminals facing upward.
3. Insert the Memory Card into the slot until it softly clicks.
4. Close the Memory Card Cover.



Ejecting a Memory Card

1. Open the Memory Card Cover.
2. Slightly push the Memory Card inwards to pop it out.
3. Pull the Memory Card out of the slot and close the Memory Card Cover.



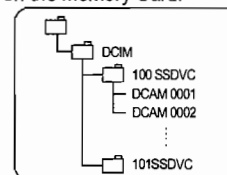
Digital Still Camera

Notes

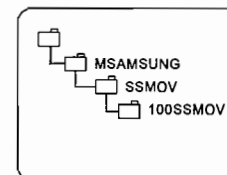
- Memory Stick Duo, RS MMC or Mini SD should be inserted by using the Adapter (not supplied).
- Do not apply excessive force when you insert/eject the Memory Card.
- Do not turn the power off while recording, loading, erasing still image or formatting the Memory Card.
- Please turn the power off before you insert or eject the Memory Card to avoid losing data.
- Do not place the Memory Card near a strong electro-magnetic device.
- Do not allow metal substances to come in contact with the terminals on the Memory Card.
- Do not bend, drop or apply strong shock to Memory Card.
- After pulling the Memory Card out from the Camcorder, keep the Memory Cards in a soft case to prevent static shock.
- The data stored on the Memory Card 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.

Structure of Folders and Files on the Memory Card

- ❖ The still images that you recorded are saved in JPEG file format on the Memory Card.
- ❖ The moving images that you recorded are saved in MPEG4 file format on the Memory Card.
- ❖ Each file has a file number and all files are assigned to a folder.
 - A file number from DCAM0001 is sequentially assigned to each recorded image.
 - Each folder is numbered from 100SSDVC and recorded on the Memory Card.



<Still Image>



<Moving Image>

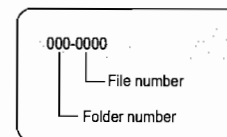
Image Format

Still Image

- Images are compressed in JPEG (Joint Photographic Experts Group) format.
- The picture size is 800x600

Moving Image

- Images are compressed in MPEG4 (Moving Picture Experts Group) format.
- The picture size is 720x480.



<M.Player Mode>

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Digital Still Camera

Selecting the Photo Quality (Photo Quality)

- ❖ **Photo Quality** function works only in **M.Cam Mode**. ↪ page 26
- ❖ You can select the quality of a still image to be recorded.

Select the Image Quality

1. Set the **[Mode]** switch to **[CARD]**.
2. Set the **[Power]** switch to **[CAMERA (Camera)]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<Memory>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<Photo Quality>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** up or down to select desired image quality (**Super Fine** or **Fine**, **Normal**), then press the **[Joystick(OK)]**.
7. To exit, press the **[MENU]** button.
 - The icon of the selected option is displayed.

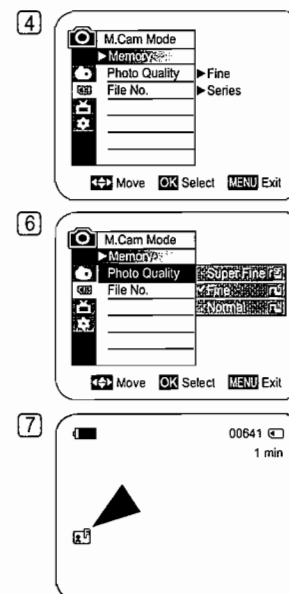
Number of Images on the Memory Card

Quality	8MB	16MB
<Super Fine>	Approx. 34	Approx. 68
<Fine>	Approx. 45	Approx. 90
<Normal>	Approx. 74	Approx. 148

The actual number of images that you can record varies depending on the nature of the subject to be recorded.

Notes

- Direct accessing the **Photo Quality** function is available simply using the **[QUICK MENU]** button. ↪ page 27
- The above approximation is based on a 8MB Memory Card under normal recording conditions.
- The number of images that can be stored on a Memory Card depends on various conditions.

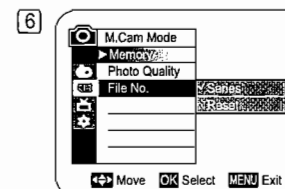
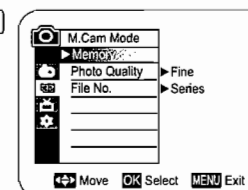


Digital Still Camera

Setting the File Number (File No.)

- ❖ File Number setting works only in **M.Cam Mode**. ↪ page 26
- ❖ File Numbers are given to images in the order they were recorded when they are stored on the Memory Card.
- ❖ File numbers may be set as follows:
 - **<Series>**: When there are existing files, the new image will be named as the next number in the sequence.
 - **<Reset>**: When there are no files stored on the Memory Card, the file numbering starts from 0001.

1. Set the **[Mode]** switch to **[CARD]**.
2. Set the **[Power]** switch to **[CAMERA (Camera)]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<Memory>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<File No.>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** up or down to select desired option (**Series** or **Reset**), then press the **[Joystick(OK)]**.
 - The selected option is applied.
7. To exit, press the **[MENU]** button.



Digital Still Camera

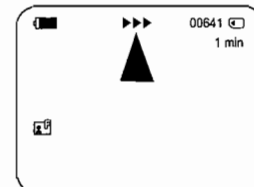
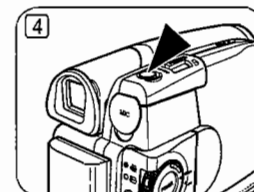
Taking a Still Image (JPEG) on the Memory Card

- ❖ You may take still images while in **M.Cam Mode** and store the images on the Memory Card. ↪ page 26
- ❖ You can take still images using the remote control.(SC-DC164/DC165 only)
- ❖ Audio will not be recorded with a still image on to the Memory Card.

1. Insert the Memory Card.
2. Set the **[Mode]** switch to **[CARD]**.
3. Set the **[Power]** switch to **[CAMERA]**.
4. After framing your object to record, fully press the **[PHOTO]** button to take the picture.
 - The picture is taken and saved into the Memory Card within a few seconds.
 - Taking another picture within this interval is not possible.
 - The <▶▶▶> indicator appears during the time it takes to save the image.

Notes

- Still images are saved in the Memory Card in an 800x600 format.
- The number of still images that can be stored depends on the quality of the image.

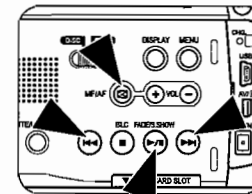
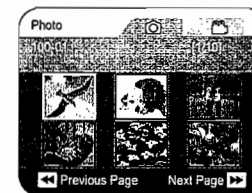


Digital Still Camera

Viewing Still Images (JPEG)

- ❖ This function works only in **M.Player Mode**. → page 26
- ❖ You can playback and view still images recorded on the Memory Card.

1. Set the **[Mode]** switch to **[CARD]**.
2. Set the **[Power]** switch to **[▶(Player)]**.
 - The thumbnail index of still image appears. If there are no recorded images on the Memory Card, **<No image!>** is displayed.
3. Using the **[Joystick]** to select a desired still image, then press the **[Joystick(OK)]** or **[▶/■]** button.
 - To display the previous six images, press and hold the **[◀◀]** button.
 - To display the next six images, press the **[▶▶]** button.



To view a Single Image

1. Press the **[DISP]** button in the state of the thumbnail index.
2. Using the **[◀◀/▶▶]** buttons, search for the desired still image.
 - To view the next image: press the **[▶▶]** button.
 - To view the previous image: press the **[◀◀]** button.
 - Keep pressing **[◀◀]** or **[▶▶]** to search for an image quickly.

Holding the **[◀◀]** or **[▶▶]** buttons will not change the displayed image while the file number displayed changes until it is released. When the button is released, selected file will be displayed.
3. To return to thumbnail index, press the **[DISP]** button again.

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Digital Still Camera

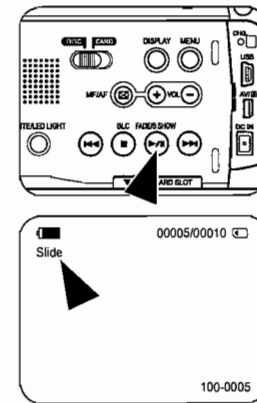
To view a Slide Show

Press the [▶/II (S.SHOW)] button in the state of the single display

- All images will be played back consecutively for 2~3 seconds each.
- The <Slide> is displayed. The Slide Show will start from the current picture.
To stop the slide show, press the [▶/II (S.SHOW)] button again.

Notes

- To switch to moving image display mode from still image display mode:
In thumbnail index, move the [Joystick] up to highlight still image icon, then move it right to highlight moving image icon. To switch back to still image display mode from moving image display mode, reverse the above step.
- Any large sized image taken with another device will be displayed as a thumbnail image.



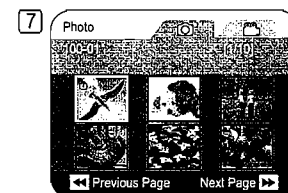
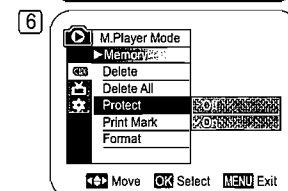
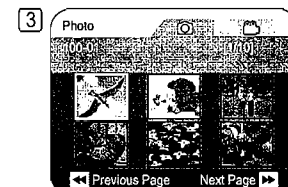
Digital Still Camera

Protection from accidental Erasure (Protect)

- ❖ The **Protect** function works only in **M.Player Mode**. ↪ page 26
 - ❖ You can protect important images from accidental erasure.
If you execute format, all images including protected images will be erased.
1. Set the **[Mode]** switch to **[CARD]**.
 2. Set the **[Power]** switch to **[▶(Player)]**.
 - The thumbnail index of still image appears. If there are no recorded images on the Memory Card, **<No image!>** is displayed.
 3. Use the **[Joystick]** to select images to be protected.
 4. Press the **[MENU]** button.
 - The menu list will appear.
 5. Move the **[Joystick]** up or down to select **<Memory>**, then press the **[Joystick(OK)]**.
 6. Move the **[Joystick]** up or down to select **<Protect>**, then press the **[Joystick(OK)]**.
 7. Move the **[Joystick]** up or down to select **<On>**, then press the **[Joystick(OK)]**.
 - The protection icon (🔒) is displayed.

Notes

- It operates identically in Single Display.
- Direct accessing the **Protect** function is available simply using the **[QUICK MENU]**.
↪ page 27
- Protected images will show the (🔒) mark when they are displayed.
- If the write protection tab on the Memory Card is set to LOCK, you cannot set image protection.



Digital Still Camera

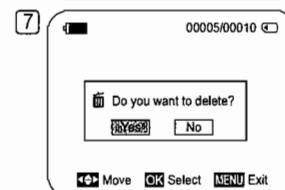
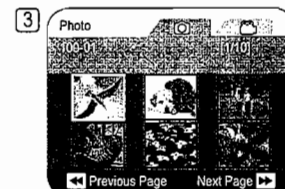
Deleting Still Images and Moving Images (Delete)

- ❖ The **Delete** function works only in **M.Player Mode**. ↪page 26
- ❖ You can erase the still images and moving images recorded on the Memory Card.
- ❖ If you want to delete protected images, you must first deactivate the image protection.
- ❖ An image which has been deleted cannot be recovered.

1. Set the **[Mode]** switch to **[CARD]**.
2. Set the **[Power]** switch to **[▶(Player)]**.
 - The thumbnail index of still image appears. If there are no recorded images on the Memory Card, **<No image!>** is displayed.
3. Move the **[Joystick]** to select a image to be deleted.
4. Press the **[MENU]** button.
 - The menu list will appear.
5. Move the **[Joystick]** up or down to select **<Memory>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** up or down to select **<Delete>**, then press the **[Joystick(OK)]**.
 - The **<Do you want to delete?>** message will appear.
7. Move the **[Joystick]** left or right to select **<Yes>**, then press the **[Joystick(OK)]**.
 - The selected image will be deleted.

Notes

- It operates identically in Single Display.
- Direct accessing the **Delete** function is available simply using the **[QUICK MENU]**.
↪page 27
- If an erroneous image file is found on the Memory Card, the message **Memory Card Error!** will be displayed. It may be caused by copying images from different digital devices.
- Formatting the Memory Card will Delete All the stored images. ↪page 104
- To protect important pictures from accidental deletion, activate the image protection.
↪page 101



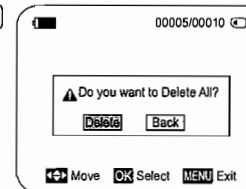
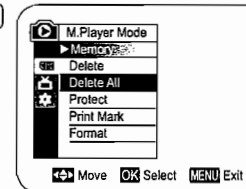
Digital Still Camera

Deleting All Images at Once

6. Move the [Joystick] up or down to select <Delete All>, then press the [Joystick(OK)]. 7
 - A message <Do you want to Delete All?> is displayed.
7. Move the [Joystick] left or right to select <Yes> or <No>, then press the [Joystick(OK)].
8. To exit, press the [MENU] button.

Notes

- Direct accessing the **Delete All** function is available simply using the [QUICK MENU].
↳ page 27
- Deleting all files using the **Delete All** menu may take a while. To Delete All files much faster, format the Memory Card after backing up the files into other storage device.
↳ page 104



Digital Still Camera

Formatting the Memory Card (Format)

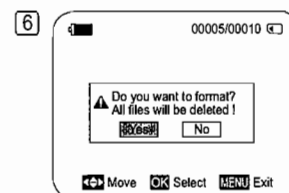
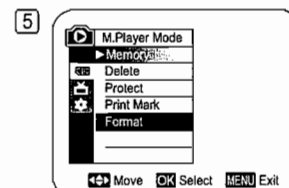
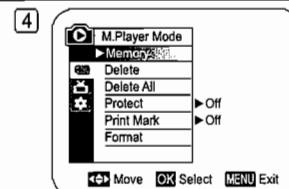
- ❖ The **Format** function works only in **M.Player Mode**. ↪ page 26
- ❖ You can use the **Format** functions to completely Delete All images and options on the Memory Card, including protected images.
- ❖ The **Format** function restores the Memory Card to its initial state.

Attention

- ❖ If you execute the **Format** function, all images will be erased completely and erased images cannot be recovered.
1. Set the **[Mode]** switch to **[CARD]**.
 2. Set the **[Power]** switch to **[▶(Player)]**.
 - The thumbnail index of still image appears. If there are no recorded images on the Memory Card, **<No image!>** is displayed.
 3. Press the **[MENU]** button.
 - The menu list will appear.
 4. Move the **[Joystick]** up or down to select **<Memory>**, then press the **[Joystick(OK)]**.
 5. Move the **[Joystick]** up or down to select **<Format>**, then press the **[Joystick(OK)]**.
 - The **<Do you want to format? All files will be deleted !>** message will appear.
 6. Move the **[Joystick]** to the left or right to select **<Yes>**, then press the **[Joystick(OK)]**.
 - The **<Complete!>** message will appear when the format is completed.
 7. To exit, press the **[MENU]** button.

Notes

- It operates identically in Single Display.
- Direct accessing the **Format** function is available simply using the **[QUICK MENU]**. ↪ page 27
- If you execute the **Format** function, all still images/moving images will be erased completely and erased still images/moving images cannot be recovered.
- Formatting the Memory Card using a different device will cause Memory Card read errors.
- Do not turn the power off in the middle of the formatting.
- A Memory Card with the protection tab set to save will not be formatted. ↪ page 94
- Do not format the Memory Card on a PC. **Not Formatted** message may appear if a Memory Card formatted on a PC was inserted.



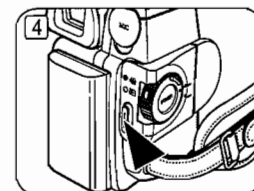
Digital Still Camera

Recording a Moving Images (MPEG) on the Memory Card

- ❖ You may record moving images while in **M.Cam Mode**. ↪ page 26
- ❖ You can record moving images with audio on the Memory Card.
- ❖ The screen format of the moving image to be recorded is 720x480.

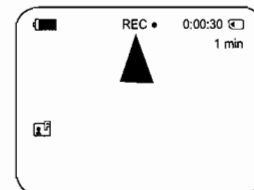
Saving Moving Images onto a Memory Card

1. Insert the Memory Card.
2. Set the **[Mode]** switch to **[CARD]**.
3. Set the **[Power]** switch to **[CAMERA (Camera)]**.
4. Press the **[Start/Stop]** button, the moving images are recorded on the Memory Card in MPEG4.
 - You can record a still image on Memory Card by pressing the **[PHOTO]** button instead of the **[Start/Stop]** button. ↪ page 98
5. Press the **[Start/Stop]** button to stop the recording.



Notes

- Moving images that you recorded are saved in *.avi (avi 1.0) file format on the Memory Card.
- The files that you recorded are saved in a following folder. (see illustration right)
- The moving images on a Memory Card are a smaller size and lower definition than images on Disc.
- The sound is recorded in stereo.
- The following functions are not allowed in **M.Cam Mode**: **DIS**, **Digital Zoom**, **Fade**, **Program AE**, **Digital Effect**, **Color Nite**.
- While recording on a Memory Card, don't insert or eject the disc as it may record noise.
- While recording on a Memory Card, don't eject the Memory Card or it may break the data on the Memory Card or Memory Card itself.
- Turning the power off while accessing the Memory Card may damage the data stored on the Memory Card.



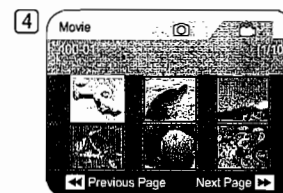
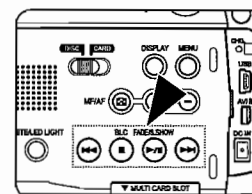
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Digital Still Camera

Playing the Moving Images (MPEG) on the Memory Card

- ❖ The Moving images playback function works only in **M. Player Mode**. ↪ page 26
- ❖ You can play the moving images on the Memory Card. Stereo audio is played back at the same time.
- ❖ Playing back on a PC shows better quality than on a TV.
- ❖ To switch to moving image screen from still image screen:
In thumbnail index, move the **[Joystick]** up to highlight still image icon, then move it right to highlight moving image icon. To switch back to still image screen from moving image screen, reverse the above step.

1. Set the **[Mode]** switch to **[CARD]**.
2. Set the **[Power]** switch to **[▶/II](Player)**.
 - The thumbnail index of still image appears. If there are no recorded images on the Memory Card, the **<No image!>** message will appear.
3. Move the **[Joystick]** up to highlight still image icon, then move it right to highlight moving image icon.
4. Use the **[Joystick]** to select moving image that you want to play, then press the **[Joystick(OK)]** or **[▶/II]** button.
 - To display the previous six images, press and hold the **[◀◀]** button.
 - To display the next six images, press the **[▶▶]** button.
 - You can control playback using the **[▶/II]**, **[◀◀/▶▶]** and **[■(Stop)]** buttons.



Notes

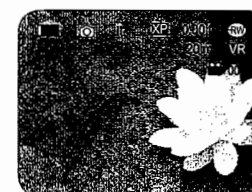
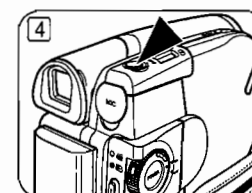
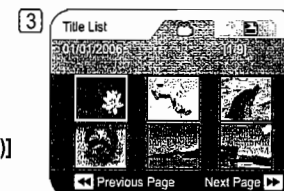
- **[MENU]** and **[QUICK MENU]** buttons are not available while moving image playback.
- There may be broken or mosaic pictures while playing the moving images, but it is not malfunction.
- The moving images that you recorded on the Memory Card may not play on other manufacturer's.
- The moving images recorded by another Camcorder may not play on by this Camcorder.
- To playback moving images on a PC, the Video Codec (in the CD provided with the Camcorder) should be installed.
 - You need Microsoft Windows Media Player Version 9 or higher version in order to play moving images on the Memory Card on your PC.
 - You can download the Microsoft Windows Media Player applied each languages on Microsoft Website, "<http://www.microsoft.com/windows/windowsmedia/download/default.asp>".

Digital Still Camera

Recording Still Images from a DVD title on a Memory Card (Photo Capture)

- ❖ This function works only in **Player Mode**. ↪ page 26
- ❖ If you press the **[PHOTO]** button at the scene you want while the disc is in play, the scene being played stops and is saved as a still image on the Memory Card.

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[▶(Player)]**.
 - The thumbnail index of the Title List will appear.
3. Use the **[Joystick]** to select a Title List scene to be played, then press the **[Joystick(OK)]** or **[▶/II]**.
 - The selected scene will be playing one scene after another continuously to the last scene.
4. Press the **[PHOTO]** button.
 - The still image is recorded on the Memory Card.
 - During the time it takes to save an image, the playback screen is paused and the OSD is displayed. (see illustration right)



Notes

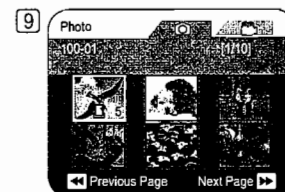
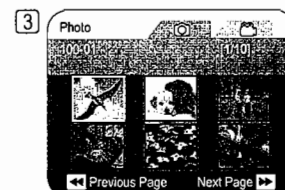
- Still images copied from the DVD to the Memory Card are saved in a 640x480 format.
- Number of images you can save varies depending on the image resolution.

Digital Still Camera

Marking Images for Printing (Print Mark)

- ❖ The **Print Mark** function works only in **M.Player Mode**. ➡ page 26
- ❖ This Camcorder supports the DPOF (Digital Print Order Format) print format.
- ❖ You can automatically print images recorded on a Memory Card 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 Screen. It can be set up to 999.
 - **<All Files>**: To print 1 copy each of all of the stored images.

1. Set the **[Mode]** switch to **[CARD]**.
2. Set the **[Power]** switch to **[▶(Player)]**.
 - The thumbnail index of still image appears. If there are no recorded images on the Memory Card, the **<No image!>** message will appear.
3. Use the **[Joystick]** to search for the still image that you want to mark.
4. Press the **[MENU]** button.
 - The menu list will appear.
5. Move the **[Joystick]** up or down to select **<Memory>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** up or down to select **<Print Mark>**, then press the **[Joystick(OK)]**.
7. Move the **[Joystick]** up or down to select desired option (**Off**, **All Files** or **This File**), then press the **[Joystick(OK)]**.
8. If you select **<This File>**, move the **[Joystick]** up or down to select the quantity, then press the **[Joystick(OK)]**.
9. To exit, press the **[MENU]** button.
 - Print Mark icon() and number of prints are displayed.



Digital Still Camera

Removing the Print Mark

To remove all Print Marks, select **<Off>**.

To remove individual file's Print Mark, select the file and set **<This File>** to **<000>**.

Notes

- It operates identically in Single Display.
- Direct accessing the **Print Mark** function is available simply using the **[QUICK MENU]**. ↪ page 27
- If the Print Mark is set to **This File**, you can set the number of copies from **000** to **999**.
- If the Print Mark is set to **All Files**, you can set the number of copies to **1**.
- The **All Files** option may require extended operation time depending on the number of stored images.
- DPOF supporting printers are commercially available.
- Use the USB cable provided with the Camcorder.

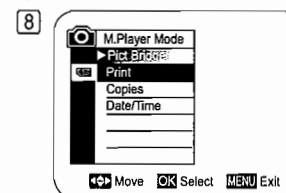
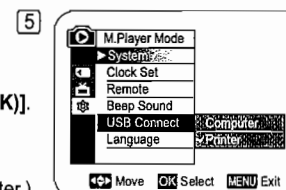
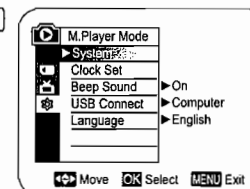
PictBridge™

Printing Your Pictures-Using the PictBridge™

- ❖ **PictBridge** function works only in **M.Player Mode**. ➔ page 26
- ❖ By connecting the Camcorder to printers with PictBridge support (sold separately), you can send images from the Memory Card directly to the printer with a few simple operations.
- ❖ With the PictBridge Support, you can control the printer directly through your Camcorder in order to print out stored pictures. For direct printing of your stored pictures using the PictBridge function, you must connect your Camcorder to a PictBridge printer using a USB cable.

Connecting To a Printer (USB Connect)

1. Turn your printer power off.
 - Turn your Camcorder on by setting the [Mode] switch to [CARD].
2. Set the [Power] switch to [▶(Player)].
3. Press the [MENU] button.
 - The menu list will appear.
4. Move the [Joystick] up or down to select <System>, then press the [Joystick(OK)].
5. Move the [Joystick] up or down to select <USB Connect>, then press the [Joystick(OK)].
6. Move the [Joystick] up or down to select <Printer>, then press the [Joystick(OK)].
 - <Computer>: Connect to a computer.
 - <Printer>: Connect to a printer. (To use the <PictBridge> function, connect to a printer.)
7. Connect your Camcorder to the printer using the provided USB cable.
8. Turn your printer power on.
 - The <PictBridge> menu screen appears automatically after a short period.
 - The cursor highlights <Printer>.



PictBridge™

Selecting Images

1. In the <PictBridge> settings menu, press the [◀/▶] buttons to select an image to print.

Setting the Number of Prints

2. Move the [Joystick] up or down to select <Copies>, then press the [Joystick(OK)].
3. Move the [Joystick] up or down to set the number of prints, then press the [Joystick(OK)].

Setting the Date/Time Imprint Option

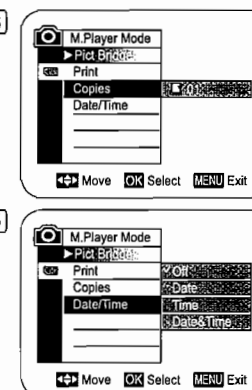
4. Move the [Joystick] up or down to select <Date/Time>, then press the [Joystick(OK)].
5. Move the [Joystick] up or down to select the Date/Time display type, then press the [Joystick(OK)].
 - Date/Time display type: <Off>, <Date>, <Time>, <Date&Time>

Printing Images

Move the [Joystick] up or down to select <Print>, then press the [Joystick(OK)], and selected image files will be printed.

Notes

- The Date/Time Imprint Option may not supported by all printers. Check with your printer manufacturer. The **Date/Time** menu cannot be setup if the printer does not support this option.
- The PictBridge™ is a registered trademark of CIPA(Camera & Imaging Products Association), an image transfer standard developed by Canon, Fuji, HP, Olympus, Seiko Epson, and Sony.
- PictBridge supporting printers are commercially available.
- Use the USB cable provided with the Camcorder.
- Use the AC power adapter for your Camcorder during PictBridge Direct Printing. Turning your Camcorder off during the printing might damage data on the Memory Card.
- Printing still images is supported. Moving images are not available for printing.
- You can set various printing options depending on the printer.
- Please refer to the user's manual of the printer for details.



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USB Interface

Using USB Interface

Transferring a Digital Image through a USB Connection

- ❖ The Camcorder supports both USB 1.1 and 2.0 standards. (Depends on the PC specification)
- ❖ You can transfer a recorded file in memory Card to a PC via a USB connection.
- ❖ If you transfer data to a PC, you need to install the software (DV Driver, Video Codec, DirectX 9.0) supplied with the Camcorder.

USB Connection Speed depending on the System

High speed USB connection is supported by Microsoft (Windows) device drivers only.

- Windows 98SE/ME - Full Speed USB
- Windows 2000 - High speed USB on a system with Service Pack 4 or later installed.
- Windows XP - High speed USB on a system with Service Pack 1 or later installed.



System Requirements

	Windows System	
	Minimum	Recommended
CPU	Intel® Pentium III™, 600MHz	Intel® Pentium 4™, 2GHz
OS(Operating System)	Windows® 98SE/ME	Windows® 2000/XP
Memory	128MB	512MB
HDD capacity	1GB or more	2GB or more
Resolution	1024 x 768 dots 24bit Color	1024 x 768 dots 24bit Color
USB	USB1.1	USB2.0 High Speed

- It is not available for Macintosh systems.

USB Interface

Notes

- USB 2.0 works only for removable disk functions.
- On a slower PC than recommended, movie playback may not be smooth or video editing may take a long time.
- On a slower PC than recommended, movie playback may skip frames or operate unexpectedly.
- Intel® Pentium III™ or Pentium 4™ 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.
- In **M.Cam Mode** or **M.Player Mode**, be sure that the Memory Card is inserted into Camcorder before connecting USB cable. If no Memory Card or an unformatted Memory Card is inserted, PC will not recognize your Camcorder as a removable disk.
- USB Streaming requires **Video Codec**, **DV Driver** and **DirectX 9.0**.
- If you disconnect the USB cable from the PC or the Camcorder during the data transfer, the data transfer will stop and the data may be damaged.
- If you connect the USB cable to a PC using a USB HUB or with other devices at the same time, it may cause conflict and may not work properly. If this occurs, remove all other USB devices and try the connection again.

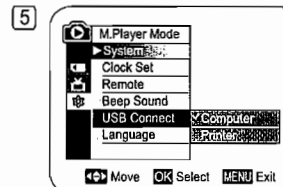
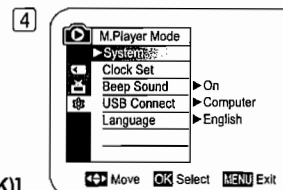
ENGLISH

USB Interface

Selecting the USB Device (USB Connect)

- ❖ The **USB Connect** function works only in **M.Player Mode**. ↪ page 26
- ❖ Using the USB cable, you can connect your Camcorder to a computer to copy your moving images and still images from the Memory Card, or to a printer to print your images.

1. Set the **[Mode]** switch to **[CARD]**.
2. Set the **[Power]** switch to **[▶(Player)]**.
3. Press the **[MENU]** button.
 - The menu list will appear.
4. Move the **[Joystick]** up or down to select **<System>**, then press the **[Joystick(OK)]**.
5. Move the **[Joystick]** up or down to select **<USB Connect>**, then press the **[Joystick(OK)]**.
6. Move the **[Joystick]** up or down to select **<Computer>** or **<Printer>**, then press the **[Joystick(OK)]**.
 - You can select **<Computer>** to use the Camcorder as a PC Camera, USB Stream or removable disk.
 - You can select **<Printer>** to use the Pictbridge feature. ↪ page 110
7. To exit, press the **[MENU]** button.



USB Interface

Installing DV Media Pro 1.0

- ❖ You need to install DV Media Pro 1.0 to play back recorded movie files or the transferred data from this Camcorder with the USB cable on your PC.

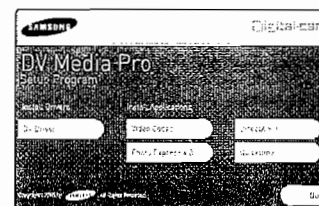
Before your start!

- ❖ Turn on your PC. Exit all other applications running.
- ❖ Insert the provided CD into the CD-ROM drive.
The setup screen appears automatically soon after the CD was inserted. If the setup screen does not appear, click on the "Start" on the bottom left corner and select "Run" to display a dialog. Type "D:\autorun.exe" and then press ENTER, if your CD-ROM drive is mapped to "D: Drive".

Installing Driver - DV Driver and DirectX 9.0

- ❖ DV Driver is a software driver that is required to support establishing connection to a PC.
(If it is not installed, some functions will not be supported.)

- Click on <DV Driver> on the Setup screen.**
 - Driver software required is installed automatically. Following drivers will be installed:
 - USB Removable disk driver (Windows 98 SE only)
 - USB PC-CAMERA driver
- Click on <Confirm> to finish driver installation.**
 - Windows 98 SE users need to restart the PC.
- If the <DirectX 9.0> is not installed, it is installed automatically after setting <DV Driver>.**
 - After installing <DirectX 9.0>, PC needs to restart.
 - If <DirectX 9.0> is installed already, there is no need to restart of PC.



Application Installation - Video Codec

- ❖ Click on <Video Codec> on the Setup screen.
<Video Codec> is required to play movie files recorded by this Camcorder on a PC.

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USB Interface

Application Installation – Photo Express 4.0

1. Click <Photo Express 4.0> on the Setup screen.
 - It is a photo editing tool that allows users to edit images.

Application Installation – Quick Time

1. Click <Quick Time> on the Setup screen.
 - QuickTime is Apple's technology for handling movie, sound, animation, graphics, text, music, and even 360-degree virtual reality (VR) scenes.

Installing Video Studio 7.0

- After inserting the CD, the setup screen displays automatically. Follow the instruction to start installation. It is a video editing tool that allows users to edit movie files.

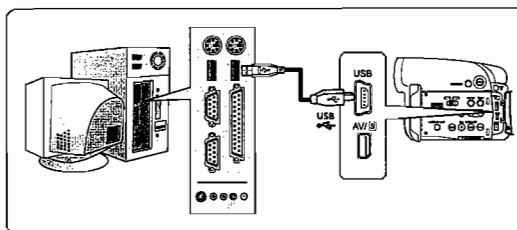
Notes

- For photo editing, use **Photo Express 4.0**.
- For movie playback on a PC, it is required to install software in this order : **DV Driver - DirectX 9.0 - Video Codec**
- For movie editing, use the **Video Studio 7.0**. (from the second CD provided)
- For PC Cam use, it is required to install the **DV Driver**.
- Compatibility warning pop-up message may appear depending on PC manufacturers. Click on "Continue" to proceed following instructions.
- You have to install **DV Driver, Video Codec** and **DirectX 9.0** to run DV Media Pro 1.0 properly.

USB Interface

Connecting to a PC

1. Connect a USB cable to the USB jack on the PC.
 - If a USB cable is connected to the Camcorder's USB jack, nothing is displayed on a TV.
2. Connect the other end of the USB cable into the USB jack on the Camcorder. (USB jack)
 - If a PC is connected to the Camcorder with a USB cable only, **[Zoom]** lever can be operated.



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

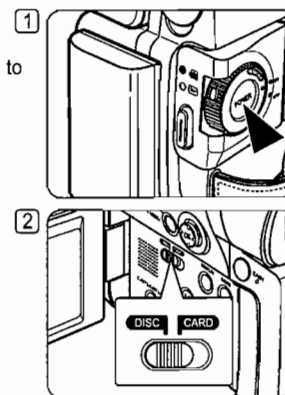
- If you disconnect the USB cable from the PC or the Camcorder while transferring, the data transmission will stop and the data may be damaged.
- If you connect the USB cable to a PC via a USB HUB or simultaneously connect the USB cable along with other USB devices, the Camcorder may not work properly.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

USB Interface

Using the PC Camera Function

- ❖ This function works only in **Camera Mode**. ↪page 26
- ❖ To use the PC Camera function, the **DV Driver**, **Video Codec** and **DirectX 9.0** programs must be installed in the PC.
- ❖ You can use this Camcorder as a PC Camera.
- ❖ When you connect to a Web site that provides video chatting functions, you can use your Camcorder for such functions.
- ❖ When using this Camcorder for video conferencing (such as NetMeeting), voice communication may not be supported depending on the video conferencing software. In this case, connect an external microphone to the soundcard of the PC to enable voice communication.
- ❖ Using the Camcorder with PC Net-meeting program installed, you can participate in video conference.
- ❖ The PC Camera's screen size (Transferred video frame rate for the PC Camera function is max 15 fps.)
 - 640X480(VGA) pixels for USB 2.0 connection.
- ❖ If PC is connected with the USB to the Camcorder, only the **[Power]** switch, **[Mode]** switch, **[Zoom]** lever can be operated.

1. Set the **[Mode]** switch to **[DISC]**.
2. Set the **[Power]** switch to **[CAMERA]**.
3. 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.



USB Interface

Using the USB Streaming Function

- ❖ This function works in both **Camera** and **Player Modes**. ↗page 26
 - ❖ To use USB streaming, the **DV Driver**, **Video Codec** and **DirectX 9.0** programs must be installed in the PC.
 - ❖ You can view Camcorder video on your PC using USB streaming.
 - ❖ You can also store it as a moving image in the "avi" file format, or as a still image in the "jpg" file format on a PC.
1. Connect one end of the USB cable to the USB jack on the Camcorder and the other end to the USB jack on your computer.
 2. Setup and execute Windows Movie Maker or the Ulead VIDEO Studio Software application provided on the CD.
 - For detailed instructions for Ulead VIDEO Studio use, refer to the program's Help function.
 - Windows Movie Maker is used for WINDOWS ME and XP users. (C:\program files\Movie maker\moviemk.exe)

Using the removable Disk Function

- ❖ You can easily transfer data from a Memory Card to a PC without additional cards via a USB connection.
1. Set the **[Mode]** switch to **[CARD]**, set the **[Power]** switch to **[CAMERA (Camera)]** or **[PLAYER (Player)]**.
 2. Connect one end of the USB cable to the USB jack on the Camcorder and the other end to the USB jack on your computer.
 3. To verify whether the removable disk has been properly recognized, open Windows Explorer and locate the removable disk.

ENGLISH

Maintenance

Using Your Camcorder Abroad

- ❖ Each country or region has its own electric and color 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 jack adapter, if necessary, depending on the design of the local wall outlet.

Color system

You can view your recordings using the built-in LCD screen and viewfinder.

However, to view your recordings on a television set or to copy it to a video cassette recorder (VCR), the television set or the VCR must comply with NTSC-compatible and have the appropriate Audio / Video jacks. Otherwise, you may need to use a separate Video Format Transcoder (NTSC-PAL format Converter).

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.

Note

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

Troubleshooting

Troubleshooting

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

Self Diagnosis Display in <Camera/Player> Modes

Display	Blinking	Informs that...	Action
	Slow	The Battery Pack is almost discharged.	Change to a charged one.
No Disc!	Slow	There is no disc in Camcorder	Insert a disc.
Disc full!	Slow	There is not enough memory to record.	Change to a new disc. Erase recorded image.
Bad Disc!	Slow	If inserted disc is not recognized by the Camcorder.	Eject and re-insert the disc. Try another disc.
Disc Protect!	Slow	The disc is protected from recording.	If you want to record, release the protection.
Finalized Disc!	Slow	The disc is finalized.	To record on a DVD-RW/+RW disc, unfinalise it.
 ...L C R	Slow	The Camcorder has some mechanical fault.	1. Eject the disc. 2. Set to [OFF] . 3. Detach the battery. 4. Reattach the battery. * If unresolved, contact your local samsung service center.

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Troubleshooting

Self Diagnosis Display in <M.Cam/M.Player> Modes

Display	Blinking	Informs that...	Action
No Memory Card!	Slow	There is no Memory Card in the Camcorder.	Insert a Memory Card.
Memory Card Full!	Slow	There is not enough memory to reocrd.	Change to a new Memory Card. Erase recorded image.
Read Error!	Slow	The Camcorder can not playback	Format a Memory Card or insert Memory Card recorded on this Camcorder.
Write Error!	Slow	The Camcorder can not record.	Format a Memory Card or change to a new Memory Card.
Not Formatted!	Slow	The Memory Card needs to format.	Format a Memory Card. ↩ page 104
No Photo (Movie)!	Slow	There are no images recorded on the Memory Card.	Record new images.
Protect!	Slow	When you try to delete to protected image.	Cancel the protection of image.

Troubleshooting

❖ If these instructions do not solve your problem, contact your nearest Samsung authorized service center.

Symptom	Explanation/Solution
You cannot switch the Camcorder on.	Check the Battery Pack or the AC Power adapter.
The Camcorder shuts off automatically.	- You have left the Camcorder set to STBY for more than 5 minutes without using it. - The Battery Pack is fully exhausted.
Charge runs out quickly.	- 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.
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 in bright Surroundings.
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 Manual Focus menu. - Auto focus does not work in the Manual Focus mode.
When you see a mosaic pattern during playback search.	- This is normal operation and it is not a failure or defect. - The disc may be damaged. Replace the disc. - Cleaning the disc ↪page 7.

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Troubleshooting

Symptom	Explanation/Solution
Pressing the [Start/Stop] button does not start recording.	▪ Check the [Power] switch is set to [CAM] (Camera). ▪ Camcorder is writing the recording taken on the disc. Press the [Start/Stop] button again after the message <Writing data...> disappears. ▪ There is not enough free space in the disc. Replace the disc with a new one or format the disc. ▪ The DVD-RW (Video Mode)/+RW disc was finalized. Make the disc writable to record additional pictures. ▪ Camcorder is too hot. Turn off the power and cool it down a while.
Disc is not recognized and the disc cover opens.	▪ The disc is a damaged one. Replace with a new disc.
Pressing the [▶/⏏] button does not start playing.	▪ Check the [Power] switch is set to [▶] (Player). ▪ Check the disc compatibility. ▪ Check the disc was inserted properly to face its writable side toward the Camcorder. ▪ A disc with data that had been recorded using other devices may not properly work with this Camcorder.

Troubleshooting

Symptom	Explanation/Solution
Playback screen interrupted unexpectedly.	Check the Power supply (Battery Pack or AC Power Adapter) is properly connected and stable.
Cannot play back recorded DVD-RW/-R/+R DL disc on a DVD player.	A disc with data that had been recorded using other devices may not properly work with this Camcorder.
Cannot play back recorded DVD-RW/-R/+R DL disc on a PC.	- Clean the disc using a cleaning cloth. - Finalize the disc. - A disc recorded in VR mode cannot be played back using a player that does not support VR mode. Refer to the user's manual of playback device to check the compatibility.
Pushing the [OPEN] switch does not open the Disc Cover.	- Check the Power supply (Battery Pack or AC Power Adapter) is properly connected and stable. - Detach the Battery Pack from the Camcorder and install it again. - Check the Battery Pack was charged. - Disc finalization was interrupted by turning the Camcorder off. Turn the Camcorder on, and take out the disc after finalizing the disc.
Cannot close the Disc Cover.	Check the disc was inserted properly.

Troubleshooting

Setting menu items

Main Menu	Sub Menu	Functions	Available Mode				Page
			Camera	Player	M.Cam	M.Player	
Camera	Program AE	Selecting the Program AE Function	✓				54
	White Balance	Setting White Balance	✓		✓		56
	Digital Effect	Setting the Digital special effect	✓				58
	16:9 Wide	Setting the 16:9 Wide mode	✓				60
	DIS	Selecting the Digital Image Stabilizing	✓				61
	Digital Zoom	Selecting Digital Zoom	✓				62
Record	Rec Mode	Selecting the recording speed	✓				42
	AV In/Out ■	Selecting the AV input/output		✓			89
	Wind Cut	Minimizing wind noise	✓				51
Memory	Photo Quality	Selecting Image Quality		✓	✓		96
	Delete	Deleting Files				✓	102
	Delete All	Deleting all Files				✓	103
	Protect	Preventing Accidental Erasure in Memory Card				✓	101
	Print Mark	Print images recorded on a Memory Card				✓	108
	Format	Formatting the Memory Card				✓	104
	File No.	File Naming Options			✓		97
Disc Manager	Disc Finalize	Finalizing a Disc	✓				86
	Disc Unfinalize	Unfinalizing a Disc	✓				88
	Disc Format	Formatting Disc	✓				85
	Disc Info	Providing a Disc Information	✓	✓			83
Display	LCD Bright	Setting the Brightness tone of the LCD Screen	✓	✓	✓	✓	36
	LCD Color	Setting the Color tones of the LCD Screen	✓	✓	✓	✓	36
	Date/Time	Setting the Color tones of the LCD Screen	✓	✓	✓	✓	37

■: SC-DC165 only

Troubleshooting

Main Menu	Sub Menu	Functions	Available Mode				Page
			Camera	Player	M.Cam	M.Player	
System	Clock Set	Setting the time	✓	✓	✓	✓	30
	Remote ●	Using the remote control	✓	✓	✓	✓	31
	Beep Sound	Setting the Beep sound	✓	✓	✓	✓	32
	Shutter Sound	Setting the Shutter sound			✓		33
	USB Connect	Selecting the USB device				✓	114
	Language	Selecting the OSD language	✓	✓	✓	✓	34
	Demonstration	Demonstration	✓				35

●: SC-DC164/DC165 only



MEMORY STICK™

- "Memory Stick" and "S" 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 instance in this manual.

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Specifications

Model Name: SC-DC163/DC164/DC165

System	
Video signal	NTSC
Picture Compression format	MPEG-2
Audio Compression format	Dolby Digital 2ch/256kbps
Recording Quality	XP (about 9Mbps), SP (about 6Mbps), LP (about 3Mbps)
Image device	CCD (Charge Coupled Device) (680k pixels)
Lens	F1.6 30x(SC-D163), 33x(SC-DC164/DC165)(Optical), 1200x(Digital) Electronic zoom lens
Filter diameter	Ø30
LCD Screen/Viewfinder	
Size/dot number	SC-DC163: 2.5inches 112k / SC-DC164/DC165: 2.7inch 230k
LCD Screen Method	TFT LCD
Viewfinder	Color LCD
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)
USB output	Mini-B type connector
External Mic	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)	4.5W(LCD), 4.0W(Viewfinder)
Operating temperature	0°~40°C (32°F~104°F)
Storage temperature	-20°C ~ 60°C (-4°F ~ 140°F)
External dimension	Height 3.44 inches (87.5 mm), Length 4.78 inches (121.5 mm), Width 2.36 inches (60 mm)
Weight	0.948 lb (430 g, 15.17 oz) (Except for Lithium Ion Battery Pack)
Internal MIC	Omni-directional stereo microphone
Remote control (SC-DC164/DC165 only)	Indoors: greater than 49 ft (15 m) (straight line), Outdoors: about 16.4 ft (5 m) (straight line)

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

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Warranty (SEA users only)

SAMSUNG LIMITED WARRANTY

SAMSUNG Electronics America Inc. (SEA), warrants that this product is free from defective material and workmanship. SEA further warrants that if product fails to operate properly within the specified warranty period and the failure is due to improper workmanship or defective material, SEA will repair or replace the product at its option.

All warranty repairs must be performed by a SEA authorized service center. The name and address of the location nearest you can be obtained by calling toll free: 1-800 SAMSUNG (1-800-726-7864).

Labor

90 days carry-in

Parts

1 year

On carry-in models, transportation to and from the service center is the customer's responsibility.

The original dated sales receipt must be retained by the customer and is the only acceptable proof of purchase. It must be presented to the authorized service center.

EXCLUSIONS (WHAT IS NOT COVERED)

This warranty does not cover damage due to accident, fire, flood and/or other acts of God; misuse, incorrect line voltage, improper installation, improper or unauthorized repairs, commercial use, or damage that occurs in shipping.

Exterior and interior finish, lamps, and glass are not covered under this warranty.

Customer adjustments which are explained in the instruction manual are not covered under the terms of this warranty.

This warranty will automatically be voided for any unit found with a missing or altered serial number. This warranty is valid only on products purchased in the United States and Puerto Rico.

Some States do not allow the exclusions or limitations of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

Contact SAMSUNG WORLD WIDE

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center.

Region Country	Customer	Care Center	Web Site
North America	CANADA	1-800-SAMSUNG (726-7864)	www.samsung.com/ca
	MEXICO	01-800-SAMSUNG (726-7864)	www.samsung.com/mx
	U.S.A	1-800-SAMSUNG (726-7864)	www.samsung.com
Latin America	ARGENTINE	0800-333-3733	www.samsung.com/ar
	BRAZIL	0800-124-421	www.samsung.com/br
	CHILE	800-726-7864(SAMSUNG)	www.samsung.com/cl
	COSTA RICA	0-800-507-7267	www.samsung.com/latin
	ECUADOR	1-800-10-7267	www.samsung.com/latin
	EL SALVADOR	800-6225	www.samsung.com/latin
	GUATEMALA	1-800-299-0013	www.samsung.com/latin
	JAMAICA	1-800-234-7267	www.samsung.com/latin
	PANAMA	800-7267	www.samsung.com/latin
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	REP. DOMINICA	1-800-751-2676	www.samsung.com/latin
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Middle East & Africa	SINGAPORE	1800-SAMSUNG (7267864)	www.samsung.com/sq
	THAILAND	1800-29-3232	www.samsung.com/th
	TAIWAN	02-689-3232	www.samsung.com/tw
	VIETNAM1	0800-329-999	www.samsung.com/vn
	SOUTH AFRICA	800 568 889	www.samsung.com/za
	U.A.E	0860 7267864 (SAMSUNG)	www.samsung.com/za
		800SAMSUNG (7267864)	www.samsung.com/mea

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