

Sports Camcorder

SC-X205(L)/X210(L)/X220(L)

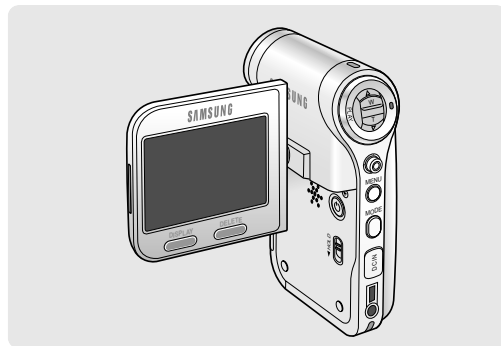
- AF** Auto Focus
CCD Charge Coupled Device
LCD Liquid Crystal Display



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 (Cr⁶⁺), 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.

SAMSUNG

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.

Notices and Safety Instructions

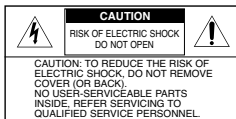
Safety Instructions

Shock Hazard Marking and Associated Graphical 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.

Explanation of Safety Related Symbols



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.



Figure 12-100: Trip Hazard

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.

Notices and Safety Instructions

- 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:

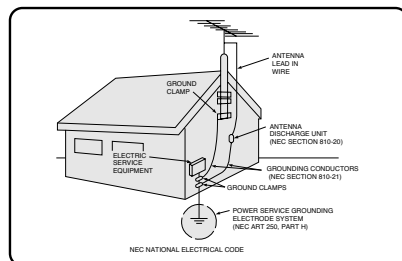
This CAMCORDER may be equipped with either a polarized 2-wire AC line plug (a plug having one blade wider than the other) or a 3-wire grounding type plug, a plug having a third (grounding) pin. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails 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.



Notices and Safety Instructions

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.

Notices and Safety Instructions

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.

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, eiae.org, or call 1-800-Samsung (726-7864)

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 : A3L06MM2MX2

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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Notices and Safety Precautions

Precautions when using the Sports Camcorder

- ❖ Please note the following precautions for use:
 - ❖ Please keep this device in a safe place. The device contains a lens that can be damaged by shock. Keep away from the reach of the children.
-
- Do not place your device in a wet place. Moisture and water may cause the device to malfunction.
 - To avoid electric shock, do not touch your device or power cable with wet hands.
 - Do not use the flash close to another's eyes. The flash emits a strong light that may cause damage similar to direct sunlight on one's eyesight. Particular care should be observed if photographing infants, when the flash should be no less than 3 feet from your subject.
 - If the device is not working properly, please consult your nearest dealer or authorized Samsung service facility. Disassembling the device yourself may cause irrecoverable damage which will be difficult to repair.
 - Clean the device with a dry, soft cloth. Use a soft cloth moistened with a mild detergent solution for removing stains. Do not use any type of solvent, especially benzene, as it may seriously damage the finish.
 - Keep your device away from rain and saltwater. After using, clean the device. Saltwater may cause the parts to corrode.

Notices and Safety Precautions

Notes Regarding COPYRIGHT

- ❖ Television programs, movie video tapes, DVD titles, films and other program materials may be copyrighted. Unauthorized recording of copyrighted materials may infringe on the rights of the Copyright owners and is contrary to copyright laws.
- ❖ 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.

Notes Regarding Moisture Condensation

- ❖ **A sudden rise in atmospheric temperature may cause condensation to form inside the Sports Camcorder.**

For Example:

- ❖ Entering or leaving a heated place on a cold day might cause condensation inside the product.
- ❖ To prevent condensation, place the product in a carrying case or a plastic bag before exposing it to a sudden change of temperature.

Notes Regarding the Sports Camcorder

- 1. Do not leave the Sports Camcorder exposed to high temperature (above 60°C or 140°F).**
For example, in a parked closed car in summer or exposed to direct sunlight.
- 2. Do not let the Sports Camcorder get wet.**
Keep the Sports Camcorder away from rain, salt water, or any other form of moisture.
The Sports Camcorder will be damaged if immersed in water or subjected to high levels of moisture.

Notices and Safety Precautions

Notes Regarding the Battery Pack

- ❖ We recommend using the original battery pack that is available [at the](#) retailer where you purchased the Sports Camcorder.
- ❖ Make sure the battery pack is fully charged before starting to record.
- ❖ To preserve battery power, keep the Sports Camcorder turned off when you are not operating it.
- ❖ If your device 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 attached firmly in place.
- ❖ The new battery pack provided with the product is not charged. Before using the battery pack, you need to fully charge it.
- ❖ Do not drop the battery pack. Dropping the battery pack may damage it.
- ❖ Fully discharging a Lithium Polymer battery damages the internal cells. The battery pack may be prone to leakage when fully discharged.
- ❖ To avoid damage to the battery pack, make sure to remove the battery when no charge remains.
- ❖ Clean the terminal to remove foreign substance before inserting the battery pack.

- * When the battery reaches the end of its life, please contact your local dealer.
Batteries must be disposed of as chemical waste.
- * Be careful not to drop the battery pack when you release it from the Sports Camcorder.

Notices and Safety Precautions

Notes Regarding the Lens

- ❖ Do not film with the Sports Camcorder lens pointing directly at the sun. Direct sunlight can damage the CCD (Charge Coupled Device, the imaging sensor).

Notes Regarding the LCD Display

1. The LCD monitor has been manufactured using the high precision technology. However, there may be tiny dots (red, blue or green in color) that appear on the LCD monitor. These dots are normal and do not affect the recorded picture in any way.
2. When you use the LCD monitor under direct sunlight or outdoors, it may be difficult to see the picture clearly.
3. Direct sunlight can damage the LCD monitor.

Precautions Regarding Service

- ❖ Do not attempt to service the Sports Camcorder yourself.
- ❖ Opening or removing covers may expose you to dangerous voltage or other hazards.
- ❖ Refer all servicing to qualified service personnel.

Precautions Regarding 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.

Getting to Know Your Sports Camcorder

Features

- **Integrated Digital Sports Camcorder/DSC operation**

An integrated digital imaging device that easily converts between a Digital Sports Camcorder and a Digital Still Camera with comfortable and easy recording.

- **High Resolution Image Quality (Digital Still Sports Camcorder)**

Employing 680K CCD Pixel, a maximum resolution of 640X480 is available.

- **100x Digital Zoom**

Allows the user to magnify an image up to 100x its original size.

- **Colorful TFT LCD**

A high-resolution(230K) colorful TFT LCD gives you clean, sharp images as well as the ability to review your recorded files immediately.

- **Electronic Image Stabilizer (EIS)**

With the Sports Camcorder, you can reduce unstable images by avoiding natural shaking movements.

- **Various Digital Effects**

The DSE (Digital Special Effects) allows you to give the film a special look by adding various special effects.

- **USB Interface for Data Transfer**

You can transfer still images and movie files or any other files to a PC using the USB interface.

- **PC Cam for multi-entertaining**

You can use this the Sports Camcorder as a PC camera for video chatting, video conference and other PC camera applications.

- **Voice Record / Playback with vast memory**

You can record voices and store it in the internal memory, memory card (not supplied) and play back the recorded voice files.

- **Plus Advantage, MP3**

With the Sports Camcorder, you can play back MP3 files stored in the internal memory or memory card (not supplied).

Enjoy your favorite songs with your Sports Camcorder.

- **A Sports Camcorder equipped with External Camera Module (SC-X205L/X210L/X220L only)**

The Sports Camcorder is equipped with an External Camera Module, which enables you to directly [record](#) when connected to the main unit

- **Weatherproof (External Camera Module only) (SC-X205L/X210L/X220L only)**

The External Camera Module is weatherproof according to IP42 standard.

IP-Protection Level

4- The External Camera is protected against contact from solid objects over 1mm in diameter.

2- The External Camera is protected against water sprayed from a vertical position above the center of Sports Camcorder top (Power LED facing up) at 15 degree angles.

- **Multi OSD Language**

Supports various foreign languages to display the menu and information.

You can select the desired OSD language from OSD list.

- **Multi jack**

The Multi jack functions as an Earphone, AV Input/Output or External Camera Module(SC-X205L/X210L/X220L only) jack.

You can use various functions with only one jack.

Getting to Know Your Sports Camcorder

Accessories Supplied with the Sports Camcorder

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

Basic Accessories

1. Lithium Polymer Battery pack
2. AC Power Adapter
3. Audio/Video Cable
4. USB Cable
5. Earphones
6. Hand Strap
7. Instruction Book/Quick Guide
8. Software CD
9. Lens Cover
10. External Camera Module
(SC-X205L/X210L/X220L only)
11. Rubber Mount
(SC-X205L/X210L/X220L only)
12. Long Mount Band
(SC-X205L/X210L/X220L only)

1. Lithium Polymer Battery pack  AD43-00164A	2. AC Power Adapter  AD44-00105B	3. Audio/Video Cable  AD39-00001B	4. USB Cable  AD39-00073D
5. Earphones  AD30-00006A	6. Hand Strap  AD81-00010A	7. Instruction Book/Quick Guide  	8. Software CD  AD46-00061A / AD46-00082A
9. Lens Cover  AD97-11231A	10. External Camera Module  AD97-11230A	11. Rubber Mount  AD73-00189A	12. Long Mount Band  AD61-02541A
13. Carrying Case  AD69-00804A	14. Extended life Battery pack  AD43-00170A		

Optional Accessories

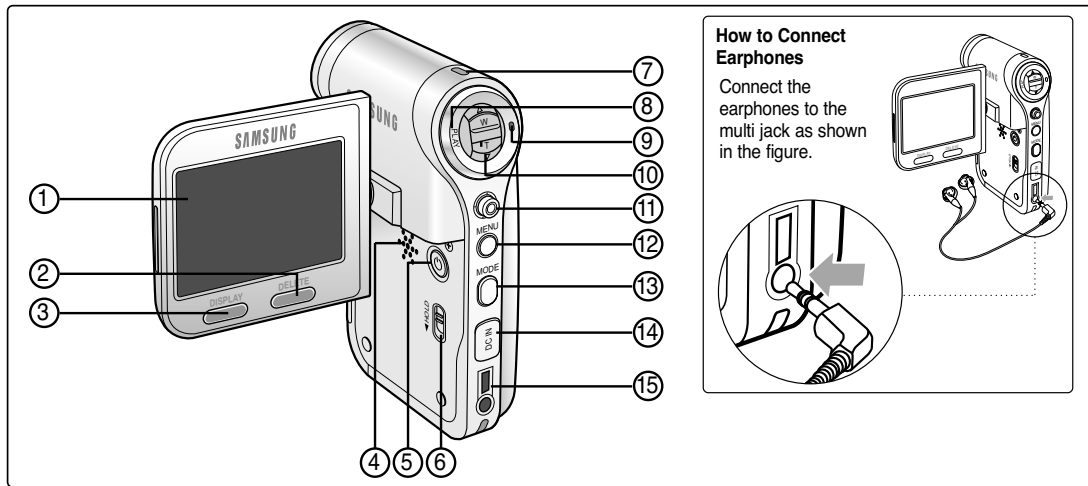
13. Carrying Case
14. Extended life Battery pack

[Notes]

- ❖ A carrying case is supplied as a basic accessory for SC-X210L/X220L. And it is supplied as an optional accessory for SC-X205L.
- ❖ Parts and accessories are available at your local Samsung dealer and service center.
- ❖ You can download programs, the latest driver software, and audio/video CODECs from the Samsung Electronics webpage.

Location of Controls

Rear & Left View



1. LCD monitor
2. DELETE button
3. DISPLAY button
4. Built-in speaker
5. POWER button
6. MP3/ *External Camera Module HOLD switch
7. Record / Power/Charging indicator
8. PLAY button

9. Record/Stop button
10. [W/T] switch
11. Joystick (Up, Down, Left, Right, OK)
12. MENU button
13. MODE button
14. DC IN jack
15. Multi jack

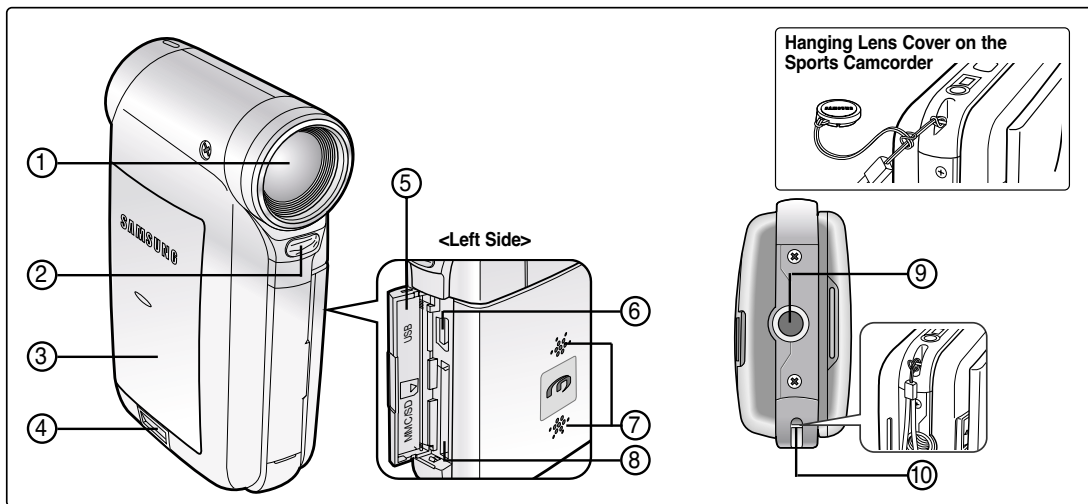
[Notes]

❖ Multi jack is a unified Earphones, AV Input/Output and *External Camera Module jack.

❖ * Items apply to the SC-X205L/X210L/X220L models only.

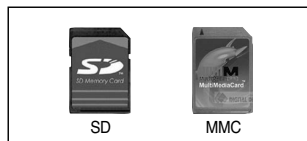
Location of Controls

Side & Bottom View



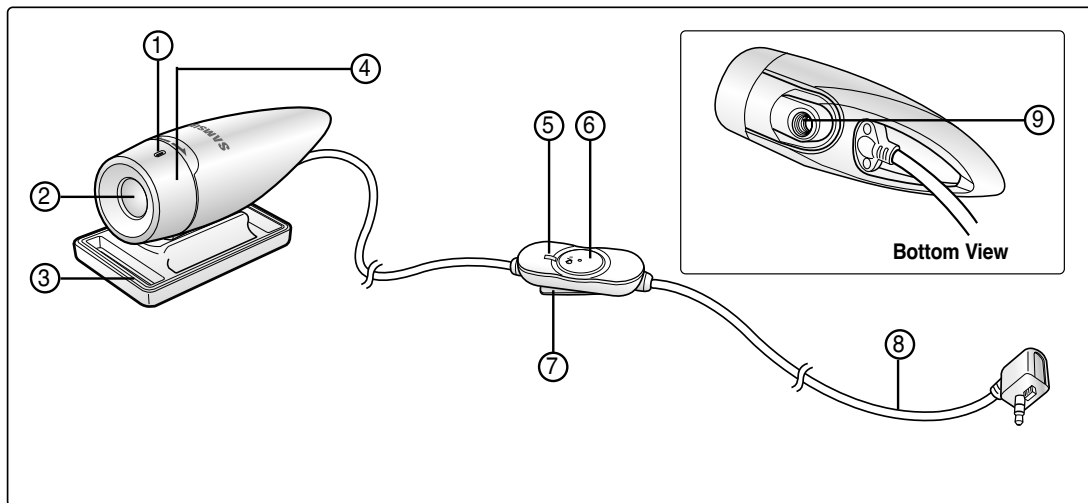
- | | |
|-------------------------|------------------------|
| 1. Lens | 6. USB port |
| 2. Flash | 7. Built-in microphone |
| 3. Battery pack | 8. Memory card slot |
| 4. Battery eject switch | 9. Tripod receptacle |
| 5. Front cover | 10. Strap hook |

Usable Memory Cards (2GB Max)



Location of Controls

External Camera Module View (SC-X205L/X210L/X220L only)

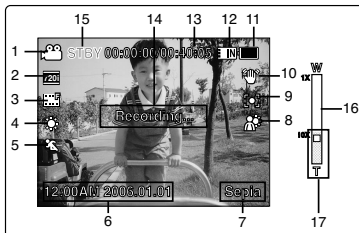


- | | |
|------------------------------------|---------------------------------|
| 1. Built-in microphone | 6. POWER/Record/Stop button |
| 2. Lens | 7. Clip |
| 3. Rubber Mount | 8. External Camera Module cable |
| 4. Picture Rotator | 9. Rubber Mount receptacle |
| 5. Record/Power indicator | |

Location of Controls : LCD Display

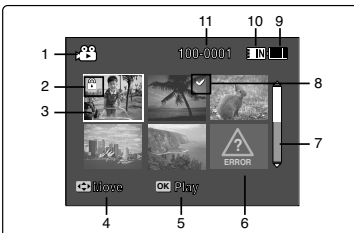
OSD (On Screen Display in Movie Record Mode/Movie Play Mode)

Movie Record Mode



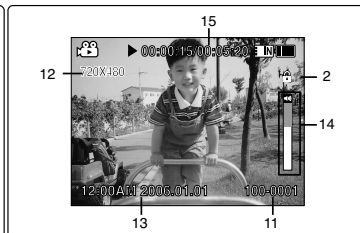
1. Mode indicator
2. Image size indicator
3. Image quality indicator
4. White balance indicator
5. Program AE indicator
6. Date/Time indicator
7. Effect indicator
8. BLC indicator *
9. Focus indicator *
10. EIS indicator
11. Battery life indicator
12. Memory type indicator
13. Counter
(Elapsed time/Remaining time)
14. Warning and note indicator
15. Record/Stop indicator
16. Optical zoom indicator
17. Digital zoom indicator

Movie Play Mode



1. Mode indicator
2. Lock indicator
3. Current display indicator
4. Move (Help Key)
5. Play (Help Key)
6. Damaged file indicator
7. Scroll bar
8. Multi selection indicator
9. Battery life indicator
10. Memory type indicator
11. Image counter (Current image)

Movie Play Mode



12. Image size indicator
13. Date/Time indicator
14. Volume indicator
15. Counter
(Elapsed time/Recorded time)

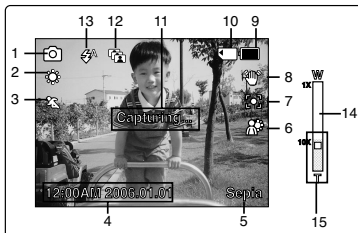
[Notes]

- ❖ Settings indicated with * will not be retained when the Sports Camcorder is turned off.
- ❖ The OSD indicators of this product are based on model SC-X210(L).
- ❖ The OSD indicators are based on internal memory.

Location of Controls : LCD Display

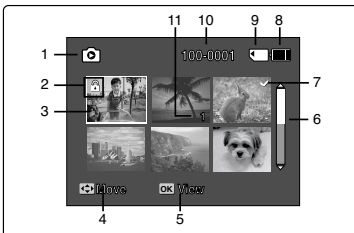
OSD (On Screen Display in Photo Capture Mode/Photo View Mode)

Photo Capture Mode



1. Mode indicator
2. White balance indicator
3. Program AE indicator
4. Date/Time indicator
5. Effect indicator
6. BLC indicator *
7. Focus indicator *
8. EIS indicator
9. Battery life indicator
10. Memory type indicator
11. Warning and note indicator
12. Multi shot indicator
13. Flash indicator
14. Optical zoom indicator
15. Digital zoom indicator

Photo View Mode



1. Mode indicator
2. Lock indicator
3. Current display indicator
4. Move (Help Key)
5. View (Help Key)
6. Scroll bar indicator
7. Multi selection indicator
8. Battery life indicator
9. Memory type indicator
10. Image counter indicator (Current image)
11. DPOF indicator

Photo View Mode



12. Date/Time indicator

[Notes]

- ❖ Settings indicated with * will not be retained when the Sports Camcorder is turned off.
- ❖ The OSD indicators are based on internal memory.

Location of Controls : LCD Display

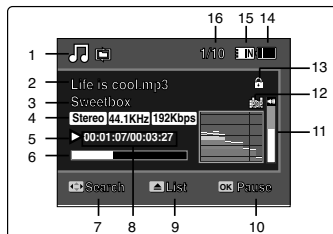
OSD (On Screen Display) in MP3 Mode

MP3 Mode



1. Mode indicator
2. File name indicator
3. Lock indicator
4. Move (Help Key)
5. Play (Help Key)
6. Scroll bar indicator
7. Battery life indicator
8. Memory type indicator
9. Counter(Elapsed time)
10. Repeat indicator

MP3 Mode



1. Mode indicator
2. File name indicator
3. Artist indicator
4. Sampling rate/Bit rate
5. Operation indicator
6. Progress bar indicator
7. Search (Help Key)
8. Counter(Elapsed time/Full time)
9. List (Help Key)
10. Play/Pause (Help Key)
11. Volume indicator
12. Equalizer indicator
13. Lock indicator
14. Battery life indicator
15. Memory type indicator
16. File number indicator (Current / Total)

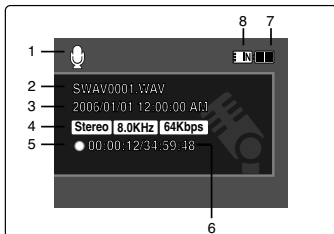
[Notes]

- ❖ Settings will be retained when the Sports Camcorder is turned off.
- ❖ The MP3 file with tag information will display the artist name.
MP3 files with no tag information will leave the item blank.

Location of Controls : LCD Display

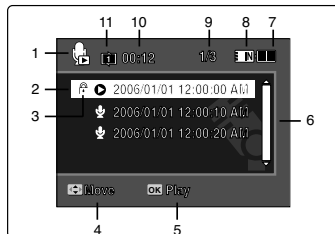
OSD (On Screen Display in Voice Record Mode/Voice Play Mode)

Voice Record Mode



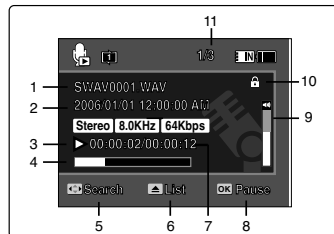
1. Mode indicator
2. File name indicator
3. Date/Time indicator
4. Sampling rate/Bit rate
5. Operation indicator
6. Counter
(Elapsed Time / Remaining Time)
7. Battery life indicator
8. Memory type indicator

Voice Play Mode



1. Mode indicator
2. Date/Time indicator
3. Lock indicator
4. Move (Help Key)
5. Play (Help Key)
6. Scroll bar indicator
7. Battery life indicator
8. Memory type indicator
9. File number indicator
(Current / Total)
10. Counter(Elapsed time)
11. Repeat indicator

Voice Play Mode



1. File name indicator
2. Date/Time indicator
3. Operation indicator
4. Progress bar indicator
5. Search (Help Key)
6. List (Help Key)
7. Counter
(Elapsed time / Recorded time)
8. Play/Pause/Stop (Help Key)
9. Volume indicator
10. Lock indicator
11. File Number (Current / Total)

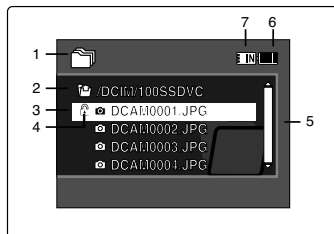
[Note]

- ♣ Settings will be retained when the Sports Camcorder is turned off.

Location of Controls : LCD Display

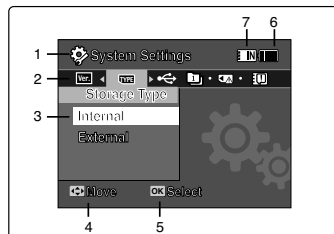
OSD (On Screen Display in File Browser Mode/System Settings Mode)

File Browser Mode



1. Mode indicator
2. Current selected folder indicator
3. Current selected file indicator
4. Lock indicator
5. Scroll bar indicator
6. Battery life indicator
7. Memory type indicator

System Settings Mode



1. Mode indicator
2. Menu tab
3. Setup item
4. Move (Help Key)
5. Select (Help Key)
6. Battery life indicator
7. Memory type indicator

How to Use the Battery Pack

Battery Pack Installation / Ejection

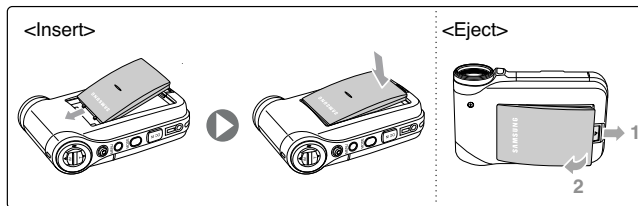
It is recommended you purchase one or more additional battery packs to allow continuous use of your Sports Camcorder.

To insert the battery pack

Slide the battery pack into the groove until it clicks.

To eject the battery pack

Pull the Battery eject switch to eject the battery pack.



Battery

SB-P120A (1200mAh)

SB-P190A (1900mAh)

[Notes]

- ❖ Clean the terminals to remove foreign substances before inserting the battery pack.
- ❖ If the Sports Camcorder will not be in use for a while, remove the battery pack from the Sports Camcorder.

How to Use the Battery Pack

Maintaining the Battery Pack

- ❖ The battery pack should be recharged in an environment of between 32°F(0°C) and 104°F(40°C).
- ❖ The battery pack should never be charged in a room 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.
- ❖ Do not put the battery pack near any heat sources (fire or flames, for example).
- ❖ Do not disassemble, process, press 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 fire and overheating.
- ❖ It is recommended that you use the original Samsung Battery Pack that is available at the retailer where you purchased the Sports Camcorder.

Continuous recording time based on battery type

If you close the LCD screen, it switches off automatically.

The continuous recording times given in the table below are approximations. Actual recording time depends on usage.

Battery \ Time	Continuous Recording Time	
	LCD ON	Backlight OFF
SB-P120A (1200mAh)	Approx. 1 hr. 20 min.	Approx. 1 hr. 40 min.
SB-P190A (1900mAh)	Approx. 2 hr. 30 min.	Approx. 2 hr. 50 min.

[Warning]

- ❖ When you eject the battery pack from the Sports Camcorder, hold the battery pack to prevent it from dropping to the floor.

[Notes]

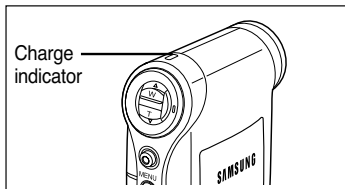
- ❖ Prepare an extra battery if you use the Sports Camcorder outdoors.
- ❖ Contact a Samsung retailer to purchase a new battery pack.
- ❖ If you zoom in or out, the recording time becomes shorter.
- ❖ 'The Continuous Recording Time' listed is approximate and is affected by functions such as zooming.

How to Use the Battery Pack

Battery Level Display

The Battery Level Display shows the amount of battery power remaining in the Battery Pack.

Battery Level Indicator	State	Message
	Fully charged	-
	20~40% used	-
	40~60% used	-
	60~80% used	-
	80~95% used	-
	Exhausted(flickers) The device will soon turn off. Change the Battery Pack as soon as possible.	-
	(flickers) The device will be forced to turn off after 5 seconds.	"Low battery"



Tips for Battery Identification

If the battery has been fully charged, the charge indicator is green.
If you are charging the battery, the color of the charge indicator is orange.
The charge indicator flickers if the battery is abnormal.

Charging time based on battery type

Capacity	using AC Power Adapter	using USB cable
SB-P120A (1200mAh)	Approx. 1 hr. 50 min	Approx. 3hr. 40 min
SB-P190A (1900mAh)	Approx. 3 hr. 20 min	Approx. 6hr. 20 min

[Notes]

- ✦ You may charge your Sports Camcorder by connecting it to a PC with the USB cable.
- ✦ You may not charge via USB if the power is on.
- ✦ The charging time with the USB cable may differ depending on the PC.

How to Use the Battery Pack

Charging the Battery Pack

1. Turn off the Sports Camcorder by pressing the [POWER] button.
2. Insert the Battery Pack to the unit.
3. Open the connector cover of the unit.
4. Charge the battery pack with using AC Power Adapter or USB Cable.

AC Power Adapter	Connect the AC Power Adapter with the Sports Camcorder properly and plug the AC Power Adapter to the wall outlet.
USB Cable	Connect the USB Cable with the Sports Camcorder properly and connect the other side to a USB port of a PC.

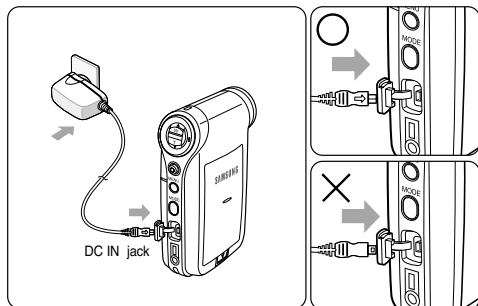
[Note]

- ❖ You may use the Sports Camcorder powered by the AC Power Adapter indoors where available.

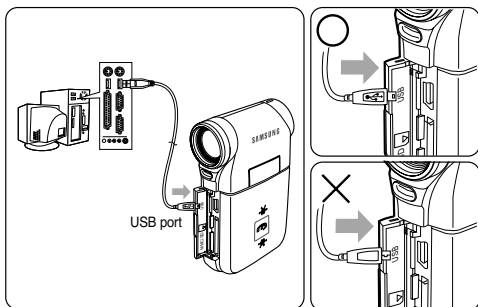
[Warning]

- ❖ It is recommended you fully charge the battery pack before use.
- ❖ You should only charge the battery in an environment between 32°F and 104°F.
- ❖ If ambient temperature is too low when charging, it may take long to fully charge or may not fully charge the battery, which results the green indicator will not turn on.
- ❖ Before connecting the cable, make sure that you don't have any foreign substances between connectors.

Connecting the AC Power Adapter



Connecting the USB Cable



Getting Started

The LED Color

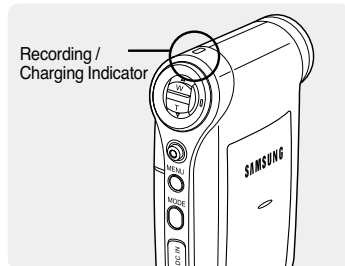
The LED Color indicates the power or charge status.

Recording / Charging Indicator

LED Color	During Recording	During Charging
Red	Recording <Movie and Voice Recorder Mode>	-
Orange	-	Charging
Green	-	Fully Charged

Power Indicator

LED Color	Power
Blue	On



Before You Start Operating the Sports Camcorder

Before using the Sports Camcorder, refer to this page for easy operation. The memory card is not supplied.

1. Insert the Battery Pack and insert a memory card into the Memory Card slot. ➡page 34
2. Charge the Battery Pack by directly connecting the AC Power Adapter to the Sports Camcorder.
➡page 25
3. Press the [POWER] button to turn on the Sports Camcorder.
4. Select the desired mode by pressing the [MODE] button.
5. Press the [Record / Stop] button to take a picture, start recording movie / voice.
6. When finished, press the [POWER] button to turn the Sports Camcorder off.

Getting Started

Using the MODE button

The Mode button is used to change the Sports Camcorder mode. Available modes are Movie, Photo, MP3, Voice Recorder, File Browser and System Settings.

Setting the Mode

Set the desired mode by pressing the [MODE] button.

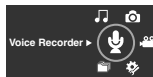
The Sports Camcorder switches to the designated mode.

Functions of Each Mode



Movie mode

You can record and play movie files.



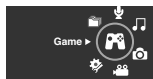
Voice Recorder mode

You can record and listen to voice files.



Photo mode

You can take and view photo files.



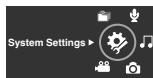
File Browser mode

You can delete, lock, copy the file and view file information.



MP3 mode

You can play back mp3 files.



System Settings mode

Using this mode, you can set / adjust settings regarding the LCD display, Date / Time, Reset and Memory management.

Power Saving Function

The LCD monitor is turned off after a certain period of time has passed in each mode in order to prevent unnecessary battery power consumption.

Press any button to go back [and turn on the LCD monitor](#).

Mode	Video	Photo	MP3	Voice	File Browser	System Settings	USB
Time	10 min.	3 min.	30 sec.	30 sec.	30 sec.	60 sec.	60 sec.

Getting Started

Using the Function button

The Function button is used to make a selection, move the cursor, select the functions and exit from the menu.

Using the Function button

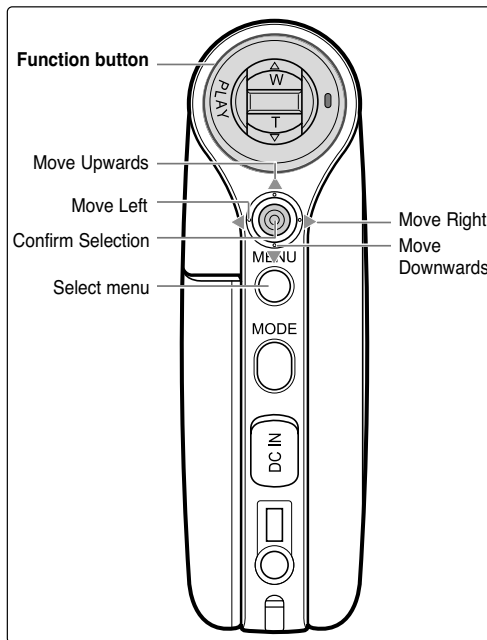
Button	Recording / Capturing	Playing/Viewing
	Zoom out (▲)	Multi-Play screen / List
	Zoom in (▼)	-
	Change from Record/ Capture to Play/View	Play/Pause
	Recording	Change from Play/View to Record/Capture

Using the Joystick

- ❖ The joystick is used to make a selection, move the cursor, select functions, and exit from the menu.
- 1. **Move the cursor left / right by moving the [Joystick].**
- 2. **Move the cursor up / down by moving the [Joystick].**
 - ◆ You can adjust the volume by moving the [Joystick] (up / down) in *Movie* / *MP3* / *Voice Recorder* playback modes
- 3. **Confirm your selection by pressing the [Joystick(OK)].**

Using the MENU button

1. Set the desired mode by pressing the [MODE] button.
2. Press the [MENU] button.
3. Move the cursor by moving the [Joystick] up / down / left / right to select desired menu item, and then press the [Joystick(OK)] to confirm.
4. Press the [MENU] button to finish.

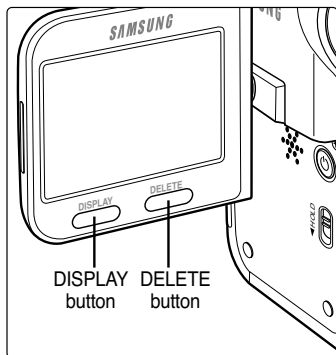


Getting Started

Using the DISPLAY button

Each press of the [DISPLAY] button toggles the OSD indicator on and off.

1. Open the LCD monitor.
2. Press the [POWER] button to turn on the Sports Camcorder.
 - ◆ The movie screen appears.
 - ◆ You can select Movie mode or Previous mode as the start-up mode in System Settings. ➡page 109
3. Press the [DISPLAY] button.



If you press the [DISPLAY] button in Movie and Photo modes

- ❖ Once : All indicators will disappear on the screen.
- ❖ Twice : The backlight turns off.
- ❖ 3 times : It returns to the initial screen.

[Note]

- ❖ Above description applies to the Movie and Photo mode.

If you press the [DISPLAY] button in another mode

- ❖ Once : The back light turns off.
- ❖ Twice : It returns to the initial screen.

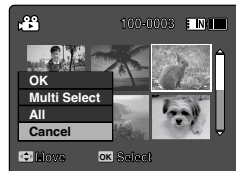
[Note]

- ❖ Above description applies to the MP3/Voice Recorder/File Browser/System Settings mode.

Using the DELETE button

The [DELETE] button is used to delete saved files.

- ◆ <OK>: The selected file is deleted.
- ◆ <Multi Select>: The selected files will be deleted.
- ◆ <All>: All files will be deleted.
- ◆ <Cancel>: Cancels deletion.



Getting Started

Structure of the Folders and Files

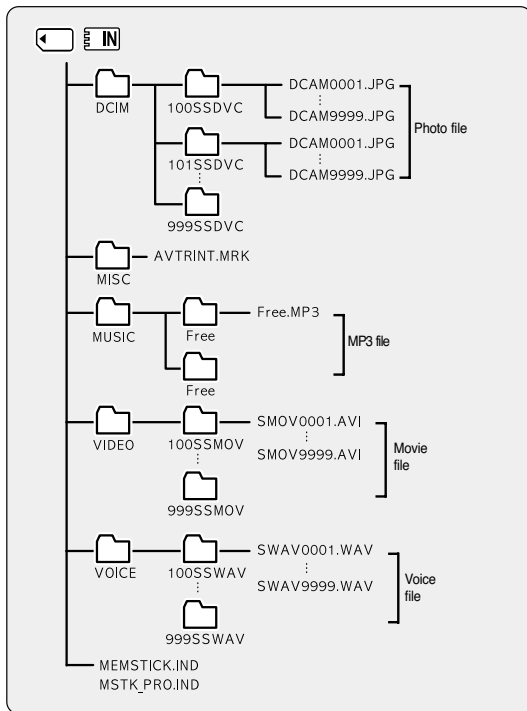
The movie files and photo files are stored in internal memory or on a memory card as shown below.

[Notes]

- ❖ Refer to page 33 for details about memory card.
- ❖ You can store general data in files and folders of the Sports Camcorder.
- ❖ You can store up to 9,999 files and 999 folders.
- ❖ DCAM****.JPG: Photo file
- ❖ SMOV****.AVI: Movie file
- ❖ SWAV****.WAV: Voice file
- ❖ *****.MP3: MP3 file
- ❖ **MISC: DPOF files are stored.**
- ❖ **You can freely change the file or folder names in the Music folder.**
- ❖ Movie files made on other manufacturers' equipment may not play on this Sports Camcorder.

[Warning]

- ❖ Do not turn the power off while recording, playing, erasing files or formatting.
- ❖ Turn the power off before you insert or eject the memory card to avoid losing data.
- ❖ Save important files separately.
- ❖ Memory cards are made with precision technology. They are sensitive and vulnerable to electric shock, temperature and humidity. Be cautious with handling them to avoid losing data.
- ❖ Damaged data may not be recovered, and SAMSUNG is not responsible for lost data. Make sure to back up important files on your PC separately.



Getting Started

Recording Time and Capacity

Movie Record Time

Media	Capacity	Super Fine		Fine		Normal	
		352p	720i/720p	352p	720i/720p	352p	720i/720p
Internal Memory	512MB (SC-X205(L))	approx. 21min.	approx. 14min.	approx. 32min.	approx. 21min.	approx. 65min.	approx. 32min.
	1GB (SC-X210(L))	approx. 43min.	approx. 29min.	approx. 65min.	approx. 43min.	approx. 131min.	approx. 65min.
	2GB (SC-X220(L))	approx. 86min.	approx. 58min.	approx. 130min.	approx. 86min.	approx. 262min.	approx. 130min.
SD/MMC	32MB	approx. 1min. 20sec.	approx. 50sec.	approx. 2min.	approx. 1min. 20sec.	approx. 4min.	approx. 2min.
	64MB	approx. 3min.	approx. 2min.	approx. 4min.	approx. 3min.	approx. 7min.	approx. 4min.
	128MB	approx. 4min.	approx. 3min.	approx. 7min.	approx. 4min.	approx. 17min.	approx. 7min.
	256MB	approx. 11min.	approx. 7min.	approx. 17min.	approx. 11min.	approx. 32min.	approx. 17min.
	512MB	approx. 21min.	approx. 14min.	approx. 32min.	approx. 21min.	approx. 65min.	approx. 32min.
	1GB	approx. 43min.	approx. 29min.	approx. 65min.	approx. 43min.	approx. 131min.	approx. 65min.
	2GB	approx. 86min.	approx. 58min.	approx. 130min.	approx. 86min.	approx. 262min.	approx. 130min.

[Notes]

- ❖ The recording time and capacity is an approximation.
- ❖ The recording time shown are maximum figures based on using one function.
In actual use, using more than one function will reduce the capacity of each.
- ❖ The compressibility is changed automatically depending on the recorded images. The maximum recording time and capacity can be changed in 'Movie Record'.
- ❖ The Sports camcorder supports 2GB memory cards and lower. Any card above 2GB may not record or play properly.
- ❖ If you record movie files at Normal(352/720) quality to the internal memory or a memory card, the recording time increases but the movie may have lower quality than other levels.
- ❖ The recording time and capacity may vary if a bad sector(section) is generated when you record movie files to a memory card.

Getting Started

Number of Photos that can be taken

Media	Capacity	Quality
		640x480
Internal Memory	512MB (SC-X205(L))	approx. 2875
	1GB (SC-X210(L))	approx. 5754
	2GB (SC-X220(L))	approx. 11511
SD/MMC	32MB	approx. 177
	64MB	approx. 357
	128MB	approx. 716
	256MB	approx. 1436
	512MB	approx. 2875
	1GB	approx. 5754
	2GB	approx. 11511

Voice Record Time

Media	Capacity	Time
Internal Memory	512MB (SC-X205(L))	approx. 17hr.
	1GB (SC-X210(L))	approx. 35hr.
	2GB (SC-X220(L))	approx. 70hr.
SD/MMC	32MB	approx. 1hr.
	64MB	approx. 2hr.
	128MB	approx. 4hr.
	256MB	approx. 8hr.
	512MB	approx. 17hr.
	1GB	approx. 35hr.
	2GB	approx. 70hr.

Number of MP3 files that can be saved

Media	Capacity	MP3 files
Internal Memory	512MB (SC-X205(L))	approx. 128files
	1GB (SC-X210(L))	approx. 256files
	2GB (SC-X220(L))	approx. 512files
SD/MMC	32MB	approx. 8files
	64MB	approx. 16files
	128MB	approx. 32files
	256MB	approx. 64files
	512MB	approx. 128files
	1GB	approx. 256files
	2GB	approx. 512files

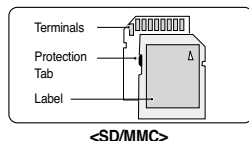
[Notes]

- ❖ Number of MP3 files that can be saved is based on 128Kbps sampling / 4MB size.
- ❖ Capacity may vary depending on file size.
- ❖ You must only format the memory card on the Sports Camcorder.
➡page 100
- ❖ Do not format the memory card on your PC.
- ❖ If you set the light on, the number of photos that can be taken will be reduced.
- ❖ The recordable time and number of files are maximum figures based on using one function.
In actual use, using more than one function will reduce the capacity of each.
- ❖ While saving to a Memory Card, recording may stop and a message will appear saying <Low speed card. Please record at lower quality.> It is because the writing speed of the Memory Card is slow. We recommended using a Memory Card of 1.25MB/sec or greater.

Getting Started

Using a Memory card (SD/MMC) (not supplied)

- ❖ Samsung is not responsible for data loss due to misuse.
- ❖ Turning the power off / ejecting the memory card during memory operation such as formatting, deleting, recording, and playback may damage the data.
- ❖ You may modify the name of a file / folder stored in the memory card using a PC. The Sports Camcorder may not recognize modified files.
- ❖ It is recommended that you power off before inserting or ejecting the memory card to avoid losing data.
- ❖ It is not guaranteed that you may use a memory card formatted on other devices. Be sure to format your memory card using the Sports Camcorder.
- ❖ Save important files separately on other media, such as floppy disk, hard disk, or CD.
- ❖ You have to format newly-purchased memory cards, memory cards that the Sports Camcorder cannot recognize or the cards that have data saved by other devices.
- ❖ A memory card has a certain life span. If you use it for a long time, you may not be able to record new data. In this case, you have to purchase a new memory card.
- ❖ Do not bend, drop, or apply a strong impact to the Memory Card.
- ❖ Do not use or store in a hot, dusty or humid environment.
- ❖ Do not allow foreign substances on the memory card terminals. Use a soft dry cloth to clean the terminals if required.
- ❖ Use a memory card case to avoid losing data from moving and static electricity.
- ❖ After a period of use, the memory card may get warm. This is normal and not a malfunction.
- ❖ Damaged data may not be recovered, and SAMSUNG is not responsible for the lost data. Make sure to back up important files separately on a PC.
- ❖ miniSD/RS-MMC cards must be inserted in a special card adapter in order to be used.
- ❖ Be sure to insert miniSD/RS-MMC cards in the dedicated card adapter before use. Inserting a card in the Sports Camcorder without the adapter may damage the Sports Camcorder or the card.
- ❖ Do not insert an empty card adapter in the Sports Camcorder. Do not leave the adapter in the Sports Camcorder while inserting or removing miniSD/RS-MMC cards. This may cause the Sports Camcorder to malfunction.

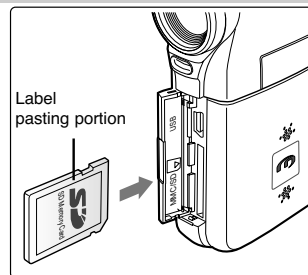


Getting Started

Inserting / Ejecting the memory card (SD/MMC) (not supplied)

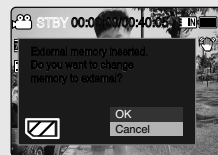
Inserting a memory card

1. Open the Front cover.
2. Insert the memory card into the memory card slot until it softly clicks.
3. Close the Front cover.



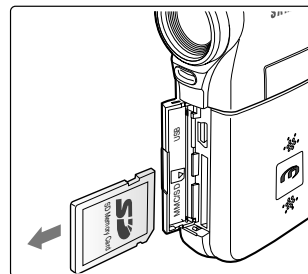
Caution: This screen will appear if the memory card is inserted with the power on.

- ◆ If you select <OK>, the memory type changes to 'External' and if you select <Cancel>, files are stored in internal memory.
- ◆ If you insert a locked memory card, the [] icon is displayed next to the memory type indicator.



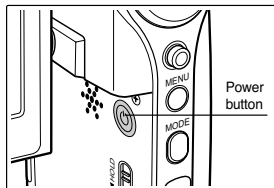
Ejecting a memory card

1. Open the Front cover.
2. Slightly push the memory card inwards to pop it out.
3. Pull the memory card out of the memory card slot and close the Front cover.



How to set to Movie mode

1. Press the [POWER] button to turn on the Sports Camcorder.



2. The Movie Record screen appears.



1 Movie Mode

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- ◆ Save important data / recordings separately on other media, to avoid accidental loss due to a system failure or other reasons.

Movie Mode : Recording

Recording

You can record video and store it in memory.

Refer to the page 119 for recording video using the External Camera Module. (SC-X205L/X210L/X220L only)

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.
- ◆ You can select Movie mode or Previous mode as the start-up mode in System Settings.
➡page 109

2. Press [Record/Stop] button to start recording.

- ◆ [●] indicator displays on LCD.
- ◆ The elapsed and remaining times are displayed and the Sports Camcorder starts recording.

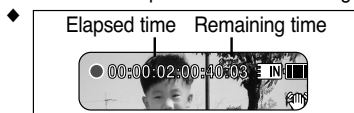
3. Press the [Record/Stop] button again to stop recording.

- ◆ The Sports Camcorder stops recording.

4. After recording, press the [POWER] button to turn off the Sports Camcorder to prevent battery power consumption.

Reading the Counter

- ◆ The timestamp will be recorded along with the movie to enable faster searching.



[Notes]

- ❖ If the Auto Shut Off is set, the Sports Camcorder turns off automatically after 5 minutes.
- ❖ Detach the Battery Pack when you finish recording to prevent unnecessary battery power consumption.
- ❖ To adjust the LCD screen brightness, set the <LCD Brightness> in System Settings mode. ➡page 102
- ❖ The LCD monitor brightness will not affect the brightness of the recording.

Movie Mode : Recording

Zooming In and Out

Zooming allows you to change the size of the subject captured in a scene. You can take advantage of the 10x optical electro motion zoom lens.

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.
- ◆ You can select Movie mode or Previous mode as the start-up mode in System Settings. ➡page 109

2. Press the [Record/Stop] button to start recording.



Slide the [W/T] switch up to zoom out.

- The shot subject's size is reduced, and you can record movies as if you were far away from the subject.
- On the zoom indicator in the LCD screen, the arrow moves to W.
- The smallest rate of zoom out is the default rate (original resolution of the subject).



Slide the [W/T] switch down to zoom in.

- The subject is larger, and you can record movies as if you were close to the subject.
- On the zoom indicator the arrow moves to T.
- The largest optical zoom ratio is 10x.

Zoom Out



Zoom In



[Notes]

- ❖ Frequent use of zooming may result in higher battery power consumption.
- ❖ Optical zoom preserves the image quality.
- ❖ Refer to page 49 to read about Digital Zoom.

Movie Mode : Playing

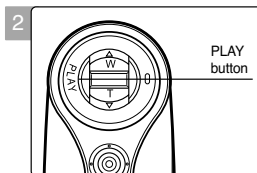
Playing Movie Files on the LCD monitor

You can view playback of movie files on the LCD monitor.

1. Press the **[POWER]** button to turn on the Sports Camcorder.
 - ◆ The Movie Record screen appears.
2. Press the **[PLAY]** button or **[Joystick(OK)]**.
 - ◆ Switches to Movie Play mode.
3. Move the **[Joystick]** left/right to find the movie file you want to view.
 - ◆ Each movement of the **[Joystick]** goes to the previous/next movie.
4. Press the **[PLAY]** button or **[Joystick(OK)]** to play the movie file you want. Each time you press the **[PLAY]** button or **[Joystick(OK)]**, play or pause is selected repeatedly.

[Note]

- ❖ If there is no file stored to view, the message <No Files...> appears.



Movie Mode : Playing

Playing Multiple Movie Files

Using the [W/T] switch in Movie Play mode, you can display multiple images on the LCD monitor. You can also select and play the desired movie file in a multi-view screen.

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

2. Press the [PLAY] button or [Joystick(OK)] and move the [W/T] switch to W(WIDE).

- ◆ The Multi-view screen appears.

3. Move the [Joystick] to left/right/up/down to find the movie file you want to play.

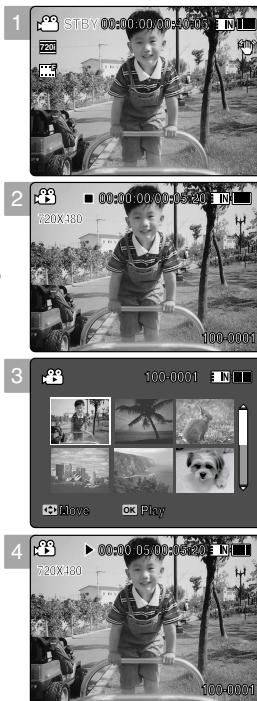
4. Press the [PLAY] button or [Joystick(OK)] to play the movie file you want.

- ◆ Each time you press the [PLAY] button or [Joystick(OK)], play or pause is selected repeatedly.

5. Press the [PLAY] button or [Joystick(OK)] again to pause.

[Notes]

- ❖ If there is no file stored to view, the message <No Files...> appears.
- ❖ When the earphones, Audio / Video cable or * External Camera Module is connected to the Sports Camcorder, the built-in speaker will automatically turn off.
(* Items apply to SC-X205L/X210L/X220L only.)



Movie Mode : Playing

Controls used to play the movie file

[PLAY] button or [Joystick(OK)]: Play or pause the movie file

[W] switch: The Multi-play screen appears.

[Joystick](left): In Movie Play mode: Press it to move to previous file.

Press and hold it to use RPS (Reverse Playback Search) function.

(RPS rate: 2x→4x→8x→16x→32x→64x→128x)

[Joystick](right): In Movie Play mode: Press it to move to next file.

Press and hold it to use FPS (Forward Playback Search) function.

(FPS rate: 2x→4x→8x→16x→32x→64x→128x)

In Movie Play mode: Press and hold it to play slowly when paused.

Press it to move to the next frame when paused.

Adjusting the Sound

1. Press the [PLAY] button or [Joystick(OK)] to play the movie file in Movie play mode.

2. Move the [Joystick] up to increase the volume.

- ◆ Each time you move the [Joystick] up, the volume bar increases and the sound level will get louder.

- ◆ The volume bar disappears after 1~2 seconds.

3. Move the [Joystick] down to decrease the volume.

- ◆ Each time you move the [Joystick] down, the volume bar decreases and the sound level will get quieter.

- ◆ The volume bar disappears after 1~2 seconds.

[Notes]

- ❖ You can adjust the volume up to 10 steps.

- ❖ You can also play the movie file on a TV screen by connecting the Sports Camcorder to a TV. ➡page 127

- ❖ A video codec is required to play the movie files recorded on the Sports Camcorder on a computer.

Install the software provided in the Software CD to have the CODEC automatically installed in the system. If you do not have the CD, search the product model name in the Download Center on the Samsung Electronics home page (www.samsung.com) to get the CODEC installation file. ➡page 124



Movie Mode : Setting the Recording Options

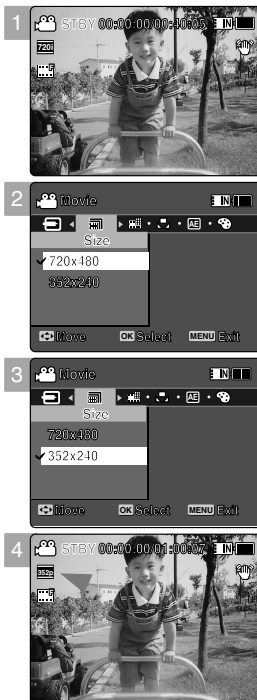
Setting the Movie Size

You can set the movie files size. The file storage capacity depends on the memory capacity and movie file size.

1. Press the [POWER] button to turn on the Sports Camcorder.
 - ◆ The Movie Record screen appears.
2. Press the [MENU] button.
 - Move the [Joystick] left / right to select <Size>.
3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
 - ◆ Available options are: <720x480> / <352x240>
4. Press the [MENU] button to exit the menu.
 - ◆ The selected function icon is displayed.

[Notes]

- ❖ If <TV> is selected in <Record Mode>, the size is set to 720i only.
- ❖ If <PC> is selected in <Record Mode>, the size is set to 720p or 352p.
- ❖ Regarding detailed image capacity. ➡ page 31.
- ❖ Higher resolution requires more memory space, which results in shorter maximum recording time.
- ❖ When the screen size is set to 352(352x240), it is played back in smaller size than 720(720x480) on PC.
- ❖ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie record mode.



Movie Mode : Setting the Recording Options

Setting the Movie Quality

You can set the movie file's quality. The files storage capacity depends on the memory capacity and movie file quality.

1. Press the [POWER] button to turn on the Sports Camcorder.
 - ◆ The Movie Record screen appears.
2. Press the [MENU] button.
Move the [Joystick] left / right to select <Quality>.
3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
 - ◆ Available options are: <Super Fine> / <Fine> / <Normal>
4. Press the [MENU] button to exit the menu.
 - ◆ The selected function icon is displayed.

[Notes]

- ❖ Regarding detailed image capacity. ➡ page 31.
- ❖ You can record video files with size of 720i/Normal, 720p/Normal, 352p/Fine and 352p/Normal onto a Memory Card but the quality is not guaranteed.
- ❖ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie record mode.



Movie Mode : Setting the Recording Options

Setting the White Balance

The White Balance may vary depending on the lighting conditions.
The White Balance is used to preserve natural colors under different lighting conditions.

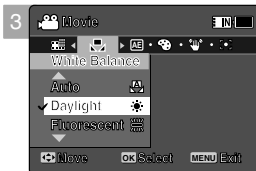
1. Press the [POWER] button to turn on the Sports Camcorder.
◆ The Movie Record screen appears.
2. Press the [MENU] button.
Move the [Joystick] left / right to select <White Balance>.
3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
◆ To set Custom, frame your Sports Camcorder on a white area (such as a wall), filling the LCD monitor with white color. Press the [Joystick(OK)] to set. Movies recorded after the Custom set will be affected by the setting.

Auto	Automatically sets according to the recording environment.
Daylight	Adjusts the color according to daylight/indoor, outdoor light
Fluorescent	Suitable for a fluorescent light environment.
Tungsten	Suitable for an incandescent light environment.
Custom	You can adjust the white balance as you wish based on the recording environment.

4. Press the [MENU] button to exit the menu.
◆ The selected function icon is displayed.
◆ If <Auto> is selected, no icon will be displayed.

[Notes]

- ◆ When recording outdoors, the <Auto> setting will allow you to achieve the best results.
- ◆ As the lighting conditions change, set the appropriate white balance before recording.
- ◆ The subject used for <Custom> should be white color. If not, the color balance will not be natural.
- ◆ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie record mode.



Movie Mode : Setting the Recording Options

Setting the Program AE (Programmed Auto Exposure)

Program AE modes are preset automatic exposure modes based upon an internal computer program. It allows you to adjust the aperture setting to suit different conditions.

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

2. Press the [MENU] button.

Move the [Joystick] left / right to select <Program AE>.

3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

Auto	Auto balances between the subject and background to get the best result. The shutter speed automatically varies from 1/60 to 1/250 per second depending on the scene.
Sports	For recording fast-moving people or objects. It is suitable for sports events and recording outside in the car.
Spotlight	Compensates for a subject that appears too bright under strong direct light such as spotlight. It is suitable for concerts and school performances.
Sand/Snow	Use when the light is very strong such as on the beach or in the snow.

4. Press the [MENU] button to exit the menu.

- ◆ The selected function icon is displayed.
- ◆ If <Auto> is selected, no icon will be displayed.

[Note]

- ❖ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie record mode.



Movie Mode : Setting the Recording Options

Setting the Effects

You can apply various digital effects to your recording.

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

2. Press the [MENU] button.

Move the [Joystick] left / right to select <Effect>.

3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

Off	Cancels the <Effect>.
Art	Adds artistic effects to your movie file.
Mosaic	A mosaic overlay appears on your movie file.
Sepia	The picture is displayed in sepia color similar to that of an old photograph.
Negative	Reverses the colors, creating the look of a negative.
Mirror	This mode cuts the picture in half using a Mirror effect.
B&W	Changes the images into Black and White.

4. Press the [MENU] button to exit the menu.

- ◆ The selected effect and icon are displayed.
- ◆ If <Off> is selected, no icon will be displayed.

[Note]

- ❖ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie record mode.



Movie Mode : Setting the Recording Options

Setting the EIS (Electronic Image Stabilizer)

The Electrical Image Stabilizer is a function that compensates for hand shake and other movements while recording.

EIS provides a more stable image when:

- ◆ Recording with zoom
- ◆ Recording small objects
- ◆ Recording while walking or moving
- ◆ Recording through the window in a vehicle

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

2. Press the [MENU] button.

Move the [Joystick] left / right to select <EIS>.

3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

- ◆ <On>: Set the EIS function.
- ◆ <Off>: Cancel the EIS function.

4. Press the [MENU] button to exit the menu.

- ◆ If you select <On>, the EIS icon is displayed.
- ◆ If you select <Off>, no icon is displayed.

[Note]

- ✿ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie record mode.



Movie Mode : Setting the Recording Options

Setting the Focus

You can set the focus depending on the subject or environment. In most situations, it is best to use the AF(Auto Focus).

1. Press the [POWER] button to turn on the Sports Camcorder.
 - ◆ The Movie Record screen appears.
2. Press the [MENU] button.
Move the [Joystick] left / right to select <Focus>.
3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
 - ◆ <AF>: Set the focus automatically.
 - ◆ <MF>: Set the focus manually.
4. Press the [MENU] button to exit the menu.
 - ◆ The selected function icon is displayed.
 - ◆ If you select <AF>, no icon is displayed.

Manual Focus <MF>

Adjust the focus using the [Joystick] up/down to zoom in or out manually.

- ◆ When a picture contains objects that are both close and far away from the Sports Camcorder.
- ◆ When a person is enveloped in fog or surrounded by snow.

[Notes]

- ❖ The focus is set to <AF> automatically when the Sports Camcorder is turned off.
- ❖ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie record mode.



Movie Mode : Setting the Recording Options

Setting the BLC (Backlight Compensation)

The Backlight Compensation function helps to make the subject brighter when the subject is in front of a window or the subject is too dark to distinguish. You can use this function when using the Sports Camcorder in bright or snowy backgrounds.

1. Press the **[POWER]** button to turn on the Sports Camcorder.
 - ◆ The Movie Record screen appears.
2. Press the **[MENU]** button.
Move the **[Joystick]** left / right to select **<BLC>**.
3. Move the **[Joystick]** up / down to select an option, and then press the **[Joystick(OK)]**.
 - ◆ **<On>**: Set the BLC function.
 - ◆ **<Off>**: Cancel the BLC function.
4. Press the **[MENU]** button to exit the menu.
 - ◆ The selected function icon is displayed.
 - ◆ If you select **<Off>**, no icon is displayed.

[Notes]

- ✿ The BLC is set to **<Off>** when the Sports Camcorder is turned off.
- ✿ While the menu screen is displayed, pressing the **[Record / Stop]** button will move to Movie record mode.



Movie Mode : Setting the Recording Options

Setting the Digital Zoom

Zooming more than 10x is achieved digitally, up to 100X when combined with optical zoom. The Digital Zoom processes data to enlarge the center portion of the image to fill the frame. It may produce a less detailed and slightly grainy picture.

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

2. Press the [MENU] button.

Move the [Joystick] left / right to select <Digital Zoom>.

3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

- ◆ <On>: Enables digital zoom. Attempts to zoom in more than 10x will automatically apply digital zooming. (up to 100x)
- ◆ <Off>: Disables digital zoom. Only optical zoom 10x will be supported for zooming

4. Press the [MENU] button to exit the menu.

- ◆ When using the digital zoom switch, a digital zoom indicator appears on the screen.

[Note]

- ♣ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie record mode.



Movie Mode : Setting the Recording Options

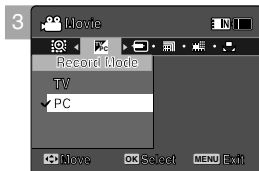
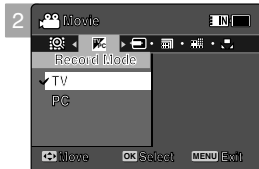
Setting the Record Mode

You can set the proper record mode before starting movie file recording.

1. Press the **[POWER]** button to turn on the Sports Camcorder.
 - ◆ The Movie Record screen appears.
2. Press the **[MENU]** button.
Move the **[Joystick]** left / right to select **<Record Mode>**.
3. Move the **[Joystick]** up / down to select an option, and then press the **[Joystick(OK)]**.
 - ◆ **<TV>**: The system generates clear images when played back on TV.
 - ◆ **<PC>**: The system generates clear images when played back on PC.
 - ◆ We recommend copying the file onto a PC or connecting the Sports Camcorder to a TV for a better playback picture.
4. Press the **[MENU]** button to exit the menu.
 - ◆ If you select **<TV>**, **<▷>** is displayed with size icon.
 - ◆ If you select **<PC>**, **<▷p>** is displayed with size icon.

[Notes]

- ❖ If **<TV>** is selected as the Record Mode, the size is set to 720i only.
- ❖ If **<PC>** is selected as the Record Mode, the size is set to 720p or 352p.
- ❖ When the size is set to **<352>**, **<PC>** is automatically selected for movie files recording.
- ❖ While the menu screen is displayed, pressing the **[Record / Stop]** button will move to Movie record mode.



Movie Mode : Setting the Recording Options

Setting the Line In/Out

You can record or play back the contents of the Sports Camcorder onto an external device and vice versa. ➡page 128, 129

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

2. Press the [MENU] button.

Move the [Joystick] left / right to select <Line In/Out>.

3. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

- ◆ <In>: Select this when recording the contents of an external device into the Sports Camcorder.
- ◆ <Out>: Select this when recording or playing back the contents of the Sports Camcorder onto an external device.

4. Press the [MENU] button to exit the menu.

- ◆ The Sports Camcorder is set to the selected setting.

[Note]

- ✿ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie record mode.



Movie Mode : Setting the Viewing Options

Deleting Movie Files

You can delete saved movie files.

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

2. Press the [PLAY] button or [Joystick(OK)].

- ◆ Switches to Movie Play mode.
- ◆ Move to desired movie file, using the [Joystick].

Deleting Movie Files in Full Screen-View

3. Press the [DELETE] button on the LCD monitor.

4. Select an option by moving the [Joystick] up / down and then press the [Joystick(OK)].

- ◆ <OK>: Deletes the selected movie file.
- ◆ <Cancel>: Cancels the deletion.

Deleting Movie Files in Multi-View

3. Move the [W/T] switch to W (WIDE).

- ◆ The screen switches to multi-view.

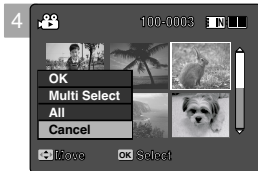
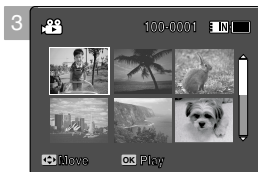
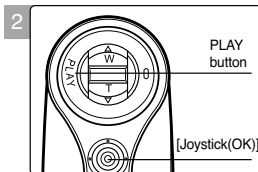
4. Press the [DELETE] button on the LCD monitor.

5. Select an option by moving the [Joystick] up / down and then press the [Joystick(OK)].

- ◆ <OK>: Deletes the selected movie file using the [Joystick(OK)].
- ◆ <Multi Select>: Multiple movie files can be selected using the [Joystick(OK)].
 <✓> indicator appears on the selected files.
 Press the [PLAY] button to delete.
- ◆ <All>: All movie files will be deleted.
- ◆ <Cancel>: Cancels the deletion.

[Note]

- ◆ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie record mode.



Movie Mode : Setting the Viewing Options

Setting the Play Mode

You can play all files continuously or play the selected file only. You can also set the repeat option for all files.

1. Press the **[POWER]** button to turn on the Sports Camcorder.
 - ◆ The Movie Record screen appears.
2. Press the **[PLAY]** button or **[Joystick(OK)]**.
 - ◆ Switches to Movie Play mode.
3. Press the **[MENU]** button.
Move the **[Joystick]** left / right to select **<Play Mode>**.
4. Move the **[Joystick]** up / down to select an option, and then press the **[Joystick(OK)]**.
 - ◆ **<Play One>**: The selected movie file will be played.
 - ◆ **<Play All>**: All movie files will be played.
 - ◆ **<Repeat One>**: The selected movie file will be played repeatedly.
 - ◆ **<Repeat All>**: All movie files will be played repeatedly.
5. Press the **[MENU]** button to exit the menu.
Press the **[PLAY]** button.
 - ◆ The selected option will be applied.

[Note]

- ❖ While the menu screen is displayed, pressing the **[Record / Stop]** button will move to Movie record mode.



Movie Mode : Setting the Viewing Options

Locking Movie Files

You can protect saved important movie files from accidental deletion. Protected files will not be deleted unless you release the protection or format the memory.

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

2. Press the [PLAY] button or [Joystick(OK)].

- ◆ Switches to Movie Play mode.
- ◆ Move to desired movie file, using the [Joystick].

Locking Movie Files in Full Screen-View

3. Press the [MENU] button.

Move the [Joystick] left / right to select <Lock>.

4. Press the [Joystick(OK)] to lock.

- ◆ The selected movie file is locked.

Locking Movie Files in Multi-View

3. Move the [W/T] switch to W (WIDE).

- ◆ The screen switches to multi-view.

4. Press the [MENU] button.

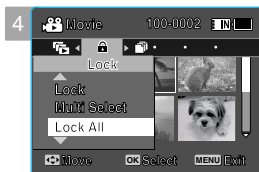
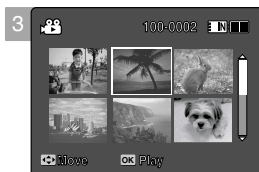
Move the [Joystick] left / right to select <Lock>.

5. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

- ◆ <Lock>: Locks the selected movie file using the [Joystick(OK)].
- ◆ <Multi Select>: Multiple movie files can be selected using the [Joystick(OK)].
 < < > indicator appears on the selected files.
 Press the [PLAY] button to lock.
- ◆ <Lock All>: All movie files are locked.
- ◆ <Unlock All>: Unlocking all movie files.

[Notes]

- ◆ The < > icon is displayed on the locked file.
- ◆ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie record mode.



Movie Mode : Setting the Viewing Options

Copying Movie Files

You can copy saved files from the internal memory to a memory card and vice versa.

1. Insert a memory card in the memory card slot on Sports Camcorder.
2. Press the [POWER] button to turn on the Sports Camcorder.
 - ◆ The Movie Record screen appears.
3. Press the [PLAY] button or [Joystick(OK)].
 - ◆ Switches to Movie Play mode.
 - ◆ Move to desired movie file, using the [Joystick].

Copying Movie Files in Full Screen-View

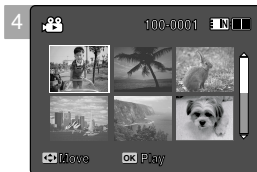
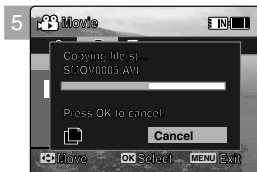
4. Press the [MENU] button.
Move the [Joystick] left / right to select <Copy To>.
5. Press the [Joystick(OK)] to copy.
 - ◆ Copies the selected movie file.

Copying Movie Files in Multi-View

4. Move the [W/T] switch to W (WIDE).
 - ◆ The screen switches to multi-view.
5. Press the [MENU] button.
Move the [Joystick] left / right to select <Copy To>.
6. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
 - ◆ <OK>: Copies the selected movie file.
 - ◆ <Multi Select>: Multiple movie files can be selected using the [Joystick(OK)].
 <✓> indicator appears on the selected files.
 Press the [PLAY] button to copy.
 - ◆ <All>: Cancel copying movie file.

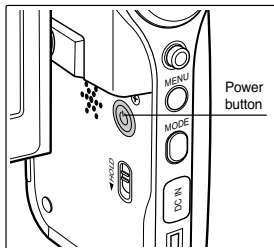
[Notes]

- ✿ The Sports Cam copies from the currently-used memory to another. If the internal memory was used, it copies to a memory card.
- ✿ If the memory card is not inserted, you cannot perform the <Copy To> function.
- ✿ While the menu screen is displayed, pressing the [Record / Stop] button will move to Movie record mode.

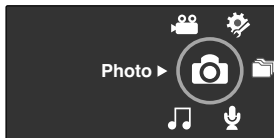


How to set to Photo mode

1. Press the [POWER] button to turn on the Sports Camcorder.



2. Set the **Photo** mode by pressing the [MODE] button.



2 Photo Mode

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- ◆ Save important data / recordings separately on other media, to avoid accidental loss due to a system failure or other reasons.

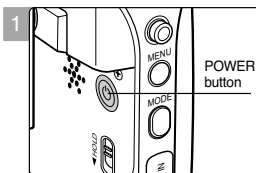
Photo Mode : Capturing

Capturing Images

You can take still photo images.

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.



2. Set the Photo mode by pressing the [MODE] button.

- ◆ The Photo Capture screen appears.



3. Press the [Record / Stop] button to take a picture.

4. After capturing, press the [POWER] button to turn off the Sports Camcorder to prevent battery power consumption.



[Notes]

- ❖ If the battery is low, the flash will not operate automatically.
- ❖ In order to take pictures on the memory card, insert a memory card and then set the storage type to <External>. ➡page 97

Photo Mode : Capturing

Zooming In and Out

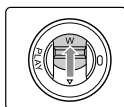
Zooming lets you change the size of the subject captured in a scene. You can take advantage of the 10x optical electro motion zoom lens.

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

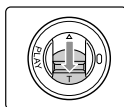
2. Set the Photo mode by pressing the [MODE] button.

- ◆ The Photo Capture screen appears.



Slide the [W/T] switch up to zoom out.

- The shot subject's size is reduced, and you can take a picture as if you were far away from the subject.
- On the zoom indicator in the LCD screen, the arrow moves to W.
- The smallest rate of zoom out is the default rate (original resolution of the subject).



Slide the [W/T] switch down to zoom in.

- The subject is larger, and you can take a picture as if you were close to the subject.
- On the zoom indicator the arrow moves to T.
- The largest optical zoom ratio is 10x, which is the biggest among the basic zoom.

Zoom Out



Zoom In

[Notes]

- ❖ Frequent use of zooming may result in higher battery power consumption.
- ❖ You can take advantage of 10x digital zoom as well as 10x optical zoom for a total of 100x zoom.
- ❖ Optical zoom preserves the image quality.

Photo Mode : Viewing

Viewing Photo Files on the LCD monitor

It is handy and practical to view pictures using the LCD monitor in locations such as in a car, indoors, or outdoors.

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

2. Set the **Photo mode by pressing the [MODE] button.**

- ◆ The Photo Capture screen appears.

3. Press the [PLAY] button or [Joystick(OK)].

- ◆ Switches to Photo View mode.

4. Move the [Joystick] left / right to find the photo you want to view.

- ◆ Each movement of the joystick goes to the previous / next photo.

[Notes]

- ❖ If there is no file stored to view, the message <No Files...> appears.
- ❖ Moving the [Joystick] right at the last photo will move to the first photo.
- ❖ Moving the [Joystick] left at the first photo will move to the last photo.
- ❖ Moving the [Joystick] left / right for more than 1 second will start fast search.
- ❖ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.

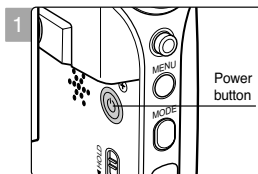


Photo Mode : Viewing

Viewing Multiple Photo Files

Using the [W/T] switch in Photo View mode, you can display multiple images on one LCD screen.

1. Press the [POWER] button to turn on the Sports Camcorder.
 - ◆ The Movie Record screen appears.
2. Set the Photo mode by pressing the [MODE] button.
 - ◆ The Photo Capture screen appears.
3. Press the [PLAY] button or [Joystick(OK)] and slide the [W/T] switch to W(WIDE).
 - ◆ The Multi-view screen appears.
4. Move the [Joystick] to the left / right / up or down to find the photo file you want to View.
5. Press [PLAY] button or [Joystick(OK)] to view the photo file you want.
 - ◆ The full screen is displayed.



[Notes]

- ❖ If there is no file stored to view, the message <No Files...> appears.
- ❖ Display time may vary depending on the picture size.
- ❖ The image edited or turned in Image Viewer program on your PC may not be displayed.

Photo Mode : Setting the Capturing Options

Setting the White Balance

The White Balance allows calibration of the picture for accurate color display in different lighting conditions. We recommended setting the white balance prior to any photo capturing.

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

2. Set the **Photo mode by pressing the [MODE] button.**

- ◆ The Photo Capture screen appears.

3. Press the [MENU] button.

Move the [Joystick] left / right to select <White Balance>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

- ◆ To set **Custom**, frame your Sports Camcorder on a white area (such as a wall), filling the LCD monitor with white color. Press the [Joystick(OK)] to set.

Auto	Automatically sets according to the shooting environment.
Daylight	Adjusts the color according to daylight/indoor, outdoor light.
Fluorescent	Suitable for a fluorescent light environment.
Tungsten	Suitable for an incandescent light environment.
Custom	Adjusts the white balance based on the shooting environment.

5. Press the [MENU] button to exit the menu.

- ◆ The selected function icon is displayed.
- ◆ If <Auto> is selected, no icon will be displayed.

[Notes]

- ❖ When taking pictures outdoors, <Auto> setting will allow you to obtain the best results.
- ❖ As the lighting condition changes, set the appropriate white balance before taking a picture.
- ❖ The subject used for <Custom> should be white color. If not, the color balance will not be natural.
- ❖ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.



Photo Mode : Setting the Capturing Options

Setting the Program AE (Programmed Auto Exposure)

Program AE modes are preset automatic exposure modes based upon an internal computer program. Program AE allows you to adjust the aperture setting to suit different conditions.

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

2. Set the Photo mode by pressing the [MODE] button.

- ◆ The Photo Capture screen appears.

3. Press the [MENU] button.

Move the [Joystick] left / right to select <Program AE>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

Auto	Auto balances between the subject and background to get the best result. The shutter speed automatically varies from 1/60 to 1/250 per second depending on the scene.
Sports	For recording fast-moving people or objects. It is suitable for sports events and recording outside in the car.
Spotlight	Compensates for a subject that appears too bright under strong direct light such as spotlight. It is suitable for concerts and school performances.
Sand/Snow	Use when the light is very strong such as on the beach or in the snow.

5. Press the [MENU] button to exit the menu.

- ◆ The selected function icon is displayed.
- ◆ If you select <Auto>, no icon is displayed.

[Note]

- ◆ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.



Photo Mode : Setting the Capturing Options

Setting the Effects

You can apply various digital effects to your photos.

1. Press the **[POWER]** button to turn on the Sports Camcorder.
◆ The Movie Record screen appears.
2. Set the **Photo** mode by pressing the **[MODE]** button.
◆ The Photo Capture screen appears.
3. Press the **[MENU]** button.
Move the **[Joystick]** left / right to select **<Effect>**.
4. Move the **[Joystick]** up / down to select an option, and then press the **[Joystick(OK)]**.

Off	Cancels the <Effect> .
Art	Adds artistic effects to your photo file.
Mosaic	A mosaic overlay appears on your photo file.
Sepia	The picture is displayed in sepia color similar to that of an old photograph.
Negative	Reverses the colors, creating the look of a negative.
Mirror	This mode cuts the picture in half using a mirror effect.
B&W	Changes the images into Black and White.

5. Press the **[MENU]** button to exit the menu.
◆ The selected effect and icon are displayed.
◆ If you select **<Off>**, no icon is displayed.

[Note]

- While the menu screen is displayed, pressing the **[Record / Stop]** button will move to Photo Capture mode.



Photo Mode : Setting the Capturing Options

Setting the Flash

Flash is very useful not only for brighter subjects at night, but also in daytime when there is not enough lighting on the subject, such as in a shadow, indoors, and in backlight situations.

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

2. Set the Photo mode by pressing the [MODE] button.

- ◆ The Photo Capture screen appears.

3. Press the [MENU] button.

Move the [Joystick] left / right to select <Flash>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

- ◆ <On>: Flash will go on.
- ◆ <Auto>: Flash will be set automatically according to lighting conditions.
- ◆ <Off>: **Flash will not come on.** Select this option when you cannot use the flash in locations such as a museum.

5. Press the [MENU] button to exit the menu.

- ◆ The selected function icon is displayed.

[Notes]

- ❖ If the battery is low, the flash will not operate automatically.
- ❖ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.



Photo Mode : Setting the Capturing Options

Setting the Continuous Shot

You can take a series of pictures continuously with just one press of the shutter.

1. Press the [POWER] button to turn on the Sports Camcorder.
 - ◆ The Movie Record screen appears.
2. Set the **Photo** mode by pressing the [MODE] button.
 - ◆ The Photo Capture screen appears.
3. Press the [MENU] button.
Move the [Joystick] left / right to select <Continuous Shot>.
4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
 - ◆ <Off>: Disables Continuous Shot and takes one photo at a time.
 - ◆ <3 shots>: Enables Continuous shot and takes 3 photos in a row.
5. Press the [MENU] button to exit the menu.
 - ◆ The selected function icon is displayed.
 - ◆ If <Off> is selected, no icon will be displayed.

[Notes]

- ❖ When you set <Continuous Shot>, you cannot use the flash.
- ❖ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.



Photo Mode : Setting the Capturing Options

Setting the EIS (Electronic Image Stabilizer)

The Electronic Image Stabilizer is a function that compensates for hand shake and other movements while taking pictures.

EIS provides more stable photo when:

- ◆ Capturing with zooming
- ◆ Capturing small objects
- ◆ Capturing while walking or moving
- ◆ Capturing through the window in moving vehicle

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

2. Set the Photo mode by pressing the [MODE] button.

- ◆ The Photo Capture screen appears.

3. Press the [MENU] button.

Move the [Joystick] left / right to select <EIS>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

- ◆ <On>: Enables EIS function.
- ◆ <Off>: Disables EIS function.

5. Press the [MENU] button to exit the menu.

- ◆ If you select <On>, the EIS icon () is displayed.
- ◆ If you select <Off>, no icon is displayed.

[Note]

- ❖ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.

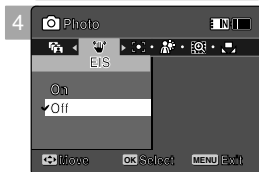


Photo Mode : Setting the Capturing Options

Setting the Focus

Select an appropriate focus method for the best results.

1. Press the [POWER] button to turn on the Sports Camcorder.
 - ◆ The Movie Record screen appears.
2. Set the **Photo** mode by pressing the [MODE] button.
 - ◆ The Photo Capture screen appears.
3. Press the [MENU] button.
 - Move the [Joystick] left / right to select <Focus>.
4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].
 - ◆ <AF>: Set the focus automatically.
 - ◆ <MF>: Set the focus manually.
5. Press the [MENU] button to exit the menu.
 - ◆ If you select the <MF>, the icon () is displayed.
 - ◆ If you select the <AF>, no icon is displayed.

Manual Focus <MF>

Adjust the focus moving [Joystick] up/down to zoom in or out manually.

- ◆ When a picture has subjects close or distant to the Sports Camcorder
- ◆ When a person is enveloped in fog or surrounded by snow

[Note]

- ❖ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.



Photo Mode : Setting the Capturing Options

Setting the BLC (Backlight Compensation)

The Backlight Compensation function helps to make the subject brighter when the subject is in front of a window or the subject is too dark to distinguish. You can use this function when using the Sports Camcorder in the bright backgrounds including snow scenes.

1. Press the **[POWER]** button to turn on the Sports Camcorder.
 - ◆ The Movie Record screen appears.
2. Set the **Photo** mode by pressing the **[MODE]** button.
 - ◆ The Photo Capture screen appears.
3. Press the **[MENU]** button.
Move the **[Joystick]** left /right to select **<BLC>**.
4. Move the **[Joystick]** up / down to select an option, and then press the **[Joystick(OK)]**.
 - ◆ **<On>**: Set the BLC function.
 - ◆ **<Off>**: Cancel the BLC function.
5. Press the **[MENU]** button to exit the menu.
 - ◆ The selected function icon () is displayed.
 - ◆ If you select **<Off>**, no icon is displayed.

[Notes]

- ❖ The BLC is set to **<Off>** when the Sports Camcorder is turned off.
- ❖ While the menu screen is displayed, pressing the **[Record / Stop]** button will move to Photo Capture mode.



Photo Mode : Setting the Capturing Options

Setting the Digital Zoom

As well as the 10x optical zoom, this Sports Camcorder supports 10x digital zoom which produces a total of 100x zoom. Exceeding the optical zoom limit will automatically engage the digital zoom when available. Digital zoom may produce a grainy picture.

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

2. Set the **Photo mode by pressing the [MODE] button.**

- ◆ The Photo Capture screen appears.

3. Press the [MENU] button.

Move the [Joystick] left /right to select <Digital Zoom>.

4. Move the [Joystick] up / down to select an option, and then press the [Joystick(OK)].

- ◆ **<On>**: Enables digital zoom. Attempts to zoom in more than 10x will automatically apply digital zooming.(up to 100x)
- ◆ **<Off>**: Disables digital zoom. Only optical zoom 10x will be supported for zooming

5. Press the [MENU] button to exit the menu.

- ◆ When using the digital zoom switch, an indicator appears on the screen.

[Note]

- ❖ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.

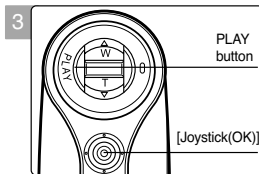


Photo Mode : Setting the Viewing Options

Deleting Photo Files

You can delete saved Photo files.

1. Press the **[POWER]** button to turn on the Sports Camcorder.
 - ◆ The Movie Record screen appears.
2. Set the **Photo** mode by pressing the **[MODE]** button.
 - ◆ The Photo Capture screen appears.
3. Press the **[PLAY]** button or **[Joystick(OK)]**.
 - ◆ Switches to Photo View mode.
 - ◆ Move to desired photo file, using the [Joystick].



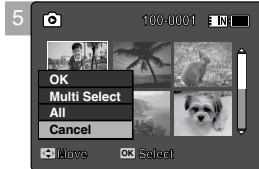
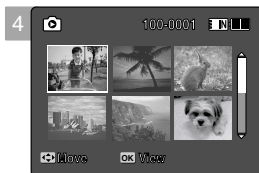
Deleting Photo Files in Full Screen-View

4. Press the **[DELETE]** button on the **LCD monitor**.
5. Select an option by moving the **[Joystick]** up / down and then press the **[Joystick(OK)]**.
 - ◆ **<OK>**: Deletes the selected photo file using the [Joystick(OK)].
 - ◆ **<Cancel>**: Cancels the deletion.
6. Press the **[MENU]** button to exit the menu.



Deleting Photo Files in Multi-View

4. Slide the **[W/T]** switch to **W (WIDE)**.
 - ◆ The screen switches to multi-view.
5. Press the **[DELETE]** button on the **LCD monitor**.
6. Select an option by moving the **[Joystick]** up / down and then press the **[Joystick(OK)]**.
 - ◆ **<OK>**: Deletes the selected photo file.
 - ◆ **<Multi Select>**: Multiple photo files can be selected using the [Joystick(OK)].
 - < ✓ > indicator appears on the selected files. Press the **[PLAY]** button to delete.
 - ◆ **<All>**: All Photo files will be deleted.
 - ◆ **<Cancel>**: Cancels the deletion.



[Note]

- ◆ While the menu screen is displayed, pressing the **[Record / Stop]** button will move to Photo Capture mode.

Photo Mode : Setting the Viewing Options

Setting the Slide show

You can set a slide show, and also set the interval and repetition options for the slide show.

1. Press the **[POWER]** button to turn on the Sports Camcorder.
 - ◆ The Movie Record screen appears.
2. Set the **Photo** mode by pressing the **[MODE]** button.
 - ◆ The Photo Capture screen appears.
3. Press the **[PLAY]** button or **[Joystick(OK)]**.
 - ◆ Switches to Photo View mode.
4. Press the **[MENU]** button.
Move the **[Joystick]** left / right to select **<Slide>**.
5. Select **<Interval (sec.)>** by moving the **[Joystick]** up / down and then press the **[Joystick(OK)]**.
 - ◆ Interval range: 1 ~ 10 seconds.
7. Select **<Repeat>** by moving the **[Joystick]** up / down and then press the **[Joystick(OK)]**.
8. Set the repeat option by moving the **[Joystick]** up / down and then press the **[Joystick(OK)]**.
 - ◆ **<Off>**: Sets not to repeat the slide show.
 - ◆ **<On>**: Sets to repeat the slide show.
9. Select **<Start>** by moving the **[Joystick]** up / down and then press the **[Joystick(OK)]**.
 - ◆ Slide show starts. To stop the slide show, press the **[Joystick(OK)]**.

[Notes]

- ❖ The interval between photos may vary depending on the size of the photo.
- ❖ Slide show starts from the current photo displayed.
- ❖ Slide show cannot start from a damaged photo file. Damaged photos will be skipped during the slide show.
- ❖ While the menu screen is displayed, pressing the **[Record / Stop]** button will move to Photo Capture mode.



Photo Mode : Setting the Viewing Options

Setting the DPOF (Digital Print Order Format) Function

You can automatically print a photo file recorded with a printer that supports DPOF.

Setting the DPOF is only available when using a memory card.

1. Insert the memory card into the memory card slot on the Sports Camcorder.

2. Press the [POWER] button to turn on the Sports Camcorder.

◆ The Movie Record screen appears.

3. Set the Photo mode by pressing the [MODE] button.

◆ The Photo Capture screen appears.

4. Press the [PLAY] button.

◆ Switches to Photo View mode.

◆ Move to desired photo file, using the [Joystick].

Setting the DPOF in Full Screen-View

5. Press the [MENU] button.

Move the [Joystick] left / right to select <DPOF>.

6. Select an option by moving the [Joystick] up / down and then press the [Joystick(OK)].

◆ <Copies>: Move the [Joystick] up / down to select the number of copies you want to print and press the [Joystick(OK)]. (copy range: 0 ~ 30)

◆ <Off>: Cancels DPOF printing.

7. Press the [MENU] button to exit the menu.

Setting the DPOF in Multi-View

5. Slide the [W/T] switch to W (WIDE).

◆ The screen switches to multi-view.

6. Press the [MENU] button.

Move the [Joystick] left / right to select <DPOF>.

7. Select an option by moving the [Joystick] up / down and then press the [Joystick(OK)].

◆ <Copies>: Move the [Joystick] up / down to select the number of copies you want to print and press the [Joystick(OK)]. (copy range: 0 ~ 30)

◆ <Set All>: All photo files will be marked with DPOF printing.

◆ <Reset All>: All photo files will be resetted.

8. Press the [MENU] button to exit the menu.

[Notes]

◆ < [DPOF] > icon is displayed on the photos with DPOF setup.

◆ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.

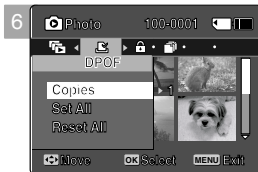


Photo Mode : Setting the Viewing Options

Locking Photo Files

You can protect important saved photo files from accidental erasure. Protected files will not be deleted unless you release the protection or format the memory.

1. Press the [POWER] button to turn on the Sports Camcorder.

- ◆ The Movie Record screen appears.

2. Set the **Photo mode by pressing the [MODE] button.**

- ◆ The Photo Capture screen appears.

3. Press the [PLAY] button.

- ◆ Switches to Photo View mode.
- ◆ Move to desired photo file, using the [Joystick].

Locking Photo Files in Full Screen-View

4. Press the [MENU] button.

Move the [Joystick] left / right to select <Lock>.

5. Press the [Joystick(OK)].

- ◆ Locks the selected photo file.
- ◆ Press the [MENU] button once again to set unlock.

Locking Photo Files in Multi-View

4. Slide the [W/T] switch to W (WIDE).

- ◆ The screen switches to multi-view.

5. Press the [MENU] button.

Move the [Joystick] left / right to select <Lock>.

6. Select an option by moving the [Joystick] up / down and then press the [Joystick (OK)].

- ◆ <Lock>: Locks the selected photo file using the [Joystick(OK)].
- ◆ <Multi Select>: Multiple photo files can be selected using the [Joystick(OK)].
 < <Multi Select> icon appears on the selected files.
- ◆ <Lock All>: All photo files are locked.
- ◆ <Unlock All>: Unlocking all photo files.

[Notes]

- ◆ The <Multi Select> icon is displayed on the locked file.
- ◆ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.



Photo Mode : Setting the Viewing Options

Copying Photo Files

You can copy saved files from the internal memory to a memory card and vice versa.

1. Insert the memory card into the memory card slot on the Sports Camcorder.
2. Press the [POWER] button to turn on the Sports Camcorder.

◆ The Movie Record screen appears.

3. Set the **Photo mode** by pressing the [MODE] button.

◆ The Photo Capture screen appears.

4. Press the [PLAY] button.

◆ Switches to Photo View mode.

◆ Move to desired photo file, using the [Joystick].

Copying Photo Files in Full Screen-View

5. Press the [MENU] button.

Move the [Joystick] left / right to select <Copy To>.

6. Press the [Joystick(OK)].

◆ Copies the selected Photo file.

Copying Photo Files in Multi-View

5. Slide the [W/T] switch to W (WIDE).

◆ The screen switches to multi-view.

6. Press the [MENU] button.

Move the [Joystick] left / right to select <Copy To>.

7. Select an option by moving the [Joystick] up / down and then press the [Joystick (OK)].

◆ <OK>: Copies the selected Photo file.

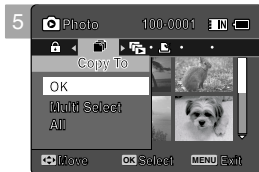
◆ <Multi Select>: Multiple Photo files can be selected using the [Joystick(OK)].

<✓> indicator appears on the selected files. Press the [PLAY] button to copy.

◆ <All>: Cancel copying Photo file.

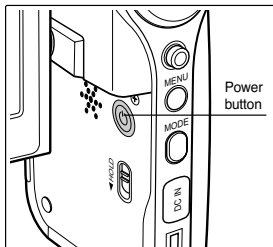
[Notes]

- ❖ The Sports Cam copies from the currently-used memory to another. If the internal memory was used, it copies to a memory card.
- ❖ If the memory card is not inserted, you cannot perform the <Copy To> function.
- ❖ While the menu screen is displayed, pressing the [Record / Stop] button will move to Photo Capture mode.

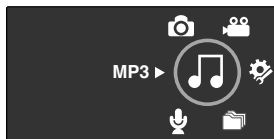


How to set to MP3 mode

1. Press the [POWER] button to turn on the Sports Camcorder.



2. Set the **MP3** mode by pressing the [MODE] button.



3 MP3 Mode

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- ◆ Save important data / recordings separately on other media, to avoid accidental loss due to a system failure or other reasons.