ENGLISH

THE CAM IS MANUFACTURED BY:

SAMSUNG ELECTRONICS

SERVICE DIVISION
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(1-800-726-7864)

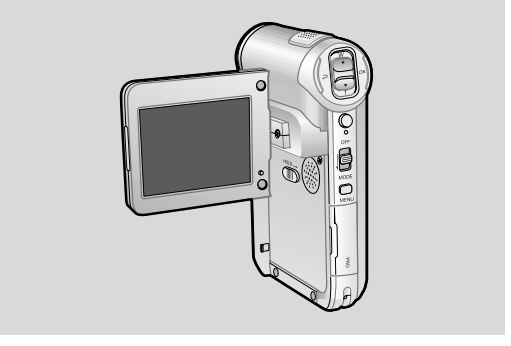
***Samsung Electronics' Internet Home Page**
http://www.samsungusa.com

AD68-00814F

ENGLISH

Digital Video CAM

SC-M102/M105/M110



AF Auto Focus
CCD Charge Coupled Device
LCD Liquid Crystal Display

Owner's Instruction Book

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

SAMSUNG ELECTRONICS

US PATENT 4415844

Notices and Safety Precautions

Notices and Safety Instructions

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

To prevent electric shock, match wide blade of plug to wide slot and fully insert.

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 fire or electric shock.

This symbol is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying this product.

1. READ INSTRUCTIONS:

All the safety and operating instructions should be read before the CAM is operated.

2. RETAIN INSTRUCTIONS:

The safety and operating instructions should be retained for future reference.

3. HEED WARNINGS:

All warnings on the CAM and in the operating instructions should be adhered to.

4. FOLLOW INSTRUCTIONS:

All operating and maintenance instructions should be followed.

5. CLEANING:

Unplug this the CAM from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a dry cloth used for dusting cabinets.

6. ATTACHMENTS:

Do not use attachments not recommended by the CAM product manufacturer as they may be hazardous.

7. WATER AND MOISTURE.

Do not use the CAM near water;
for example, near a bathtub, wash bowl, kitchen sink, laundry tub, in a wet basement, near a swimming pool or lake.

8. ACCESSORIES:

Do not place the CAM on an unstable cart, stand, tripod, bracket or table. the CAM may fall, causing serious injury to a child or adult, and serious damage to the unit.
Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the CAM. Any mounting of the unit should follow the manufacturer s instructions and should use a mounting accessory recommended by the manufacturer.

- An appliance and cart combination should be moved with care. Quick stops, excessive force and uneven surfaces may cause the appliance and cart combination to overturn.

PORTABLE CART WARNING (Symbol provided by RETAC)

Notices and Safety Instructions

9. VENTILATION:

Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the CAM and to protect it from overheating. These openings must not be blocked or covered. Never place your the CAM on a bed, sofa, rug, or other similar surface: on or near a radiator or heat register. The CAM 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.

10. POWER SOURCES:

The CAM 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.
If the CAM is intended to be operated from battery power, or other sources, refer to the operating instructions.

11. GROUNDING OR POLARIZATION:

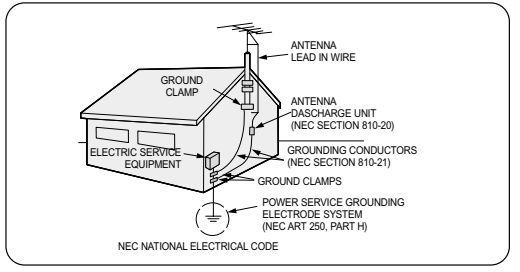
The CAM may be equipped with either a polarized
2-wire AC line plug (a plug having one blade wider than the other)
or a 3-wire grounding type plug, a plug having a third (grounding) pin.
If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit,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

12. 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, playing particular attention to cords or plugs, convenient receptacles, and the point where they exit from the unit.

13. OUTDOOR ANTENNA GROUNDING:

If an outside antenna or cable system is connected to the CAM, 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

14. LIGHTNING:

For added protection of the CAM 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 CAM due to lightning and power-line surges.

15. 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.

16. OVERLOADING

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

17. OBJECTS AND LIQUIDS:

Never push objects of any kind into the CAM 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 CAM. Should spillage occur, unplug unit and have it checked by a technician before use.

18. SERVICING:

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

19. DAMAGE REQUIRING SERVICE:

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

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

20. 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.

21. SAFETY CHECK:

- Upon completion of any service or repairs to the CAM, ask the service technician to perform safety checks to determine that the CAM is in safe operating order.
- To prevent damage which may result in fire or shock hazard, do not expose this appliance to rain or moisture.

Notices and Safety Instructions

21. POWER SUPPLY

If this power supply is used at 240V AC, a suitable plug adapter should be used.

NOTE TO CATV SYSTEM INSTALLER:

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

USER INSTALLER CAUTION:

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

NOTE:

Hg LAMP(S) INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE OR FEDERAL LAWS.

For details see lamprecycle.org, eiae.org, or call 1-800-Samsung.

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: A3L04SPIDER

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

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Notices and Safety Precautions

Precautions on the CAM Care

- 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 benzenes, as they 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

1. **A sudden rise in atmospheric temperature may cause condensation to form inside the CAM.**

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 CAM

1. **Do not leave the CAM 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 CAM get wet.**
   Keep the CAM away from rain, salt water, or any other form of moisture.
   The CAM will be damaged if immersed in water or subjected to high levels of moisture.

Notices and Safety Precautions

Notes Regarding the Battery Pack

- Make sure the battery pack is fully charged before starting to record.
- To preserve battery power, keep the CAM 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.

✳ 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 CAM.

Notes Regarding a Trademark

- The logos regarding DivX, DivX Licensed are the trademark of DivX, Network, Inc and can be used after contracting license.

Notices and Safety Precautions

Notes Regarding the Lens

- Do not film with the camera 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 maybe difficult to see the picture clearly.
3. Direct sunlight can damage the LCD monitor.

Precautions Regarding Service

- Do not attempt to service the CAM 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 the CAM

Features

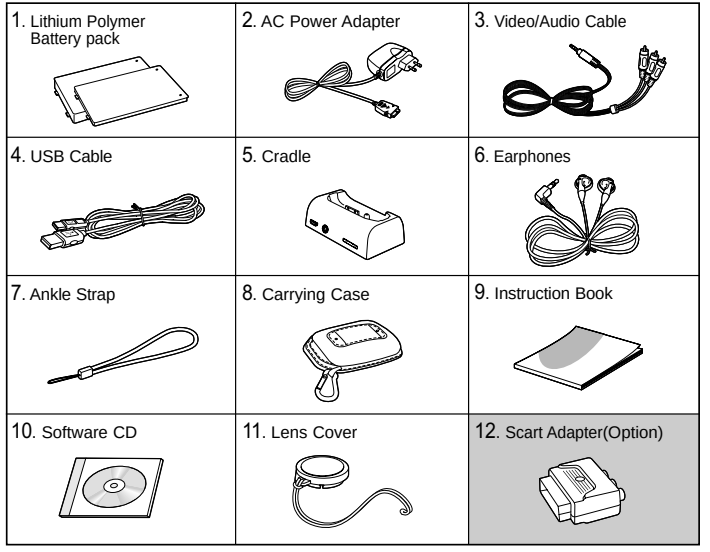
- **Integrated Digital CAM/DSC operation**
  An integrated digital imaging device that easily converts between a Digital CAM and a Digital Still Camera with comfortable and easy recording.
- **High Resolution Image Quality (Digital Still Camera)**
  Employing 680K CCD Pixel, a maximum resolution of 1280x960 is available.
- **100x Digital Zoom**
  Allows the user to magnify an image up to 100x its original size.
- **Colorful TFT LCD**
  A high-resolution(210K) colorful TFT LCD gives you clean, sharp images as well as the ability to review your recorded files immediately.
- **Electrical Image Stabilizer (EIS)**
  With the CAM, 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 recorded video or any other files to a PC using the USB interface.
- **PC Cam for multi-entertaining**
  You can use this the CAM as a PC camera for video chatting, video conference and other PC camera applications.
- **Voice Record / Playback with vast memory**
  You can record voice and store it in the internal memory, Memory Stick and Memory Stick Pro(Option) and playback the recorded voice.
- **Plus Advantage, MP3**
  With the CAM, you can playback the MP3 file stored in the internal memory, Memory Stick and Memory Stick Pro(Option). Enjoy your favorite songs with the MP3 files with the CAM.

Getting to Know the CAM

Accessories Supplied with the CAM

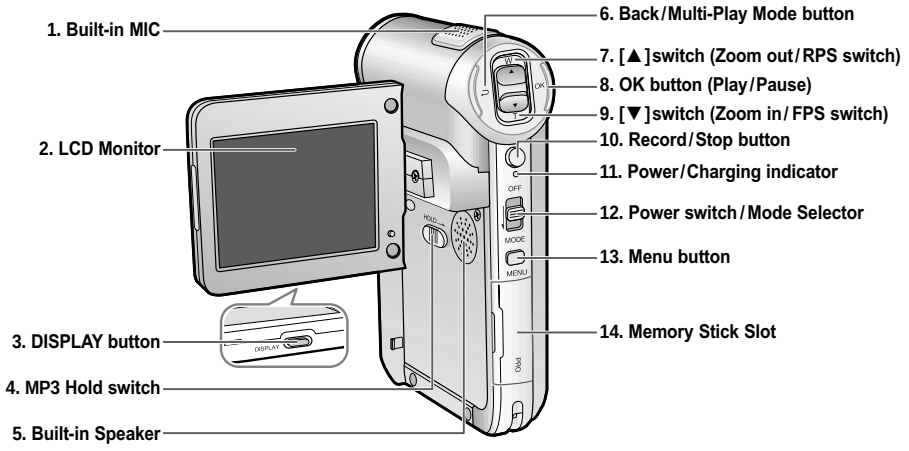
※ Make sure that the following basic accessories are supplied with your digital CAM.

1. Lithium Polymer Battery pack / Extended life Battery pack(option)
2. AC Power Adapter
3. Video/Audio Cable
4. USB Cable
5. Cradle
6. Earphones
7. Ankle Strap
8. Carrying Case
9. Instruction Book
10. Software CD
11. Lens Cover
12. Scart Adapter(Option)



Name of Each Part

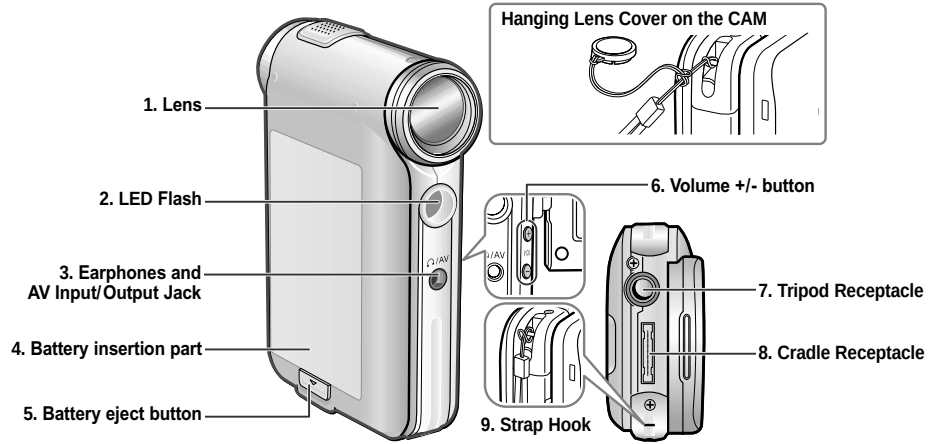
Rear & Left View



1	Built-in MIC	8	OK button (Play/Pause)
2	LCD Monitor	9	[▼]switch (Zoom in/FPS switch)
3	DISPLAY button	10	Record/Stop button
4	MP3 Hold switch	11	Power/Charging indicator
5	Built-in Speaker	12	Power switch/Mode Selector
6	Back/Multi-Play Mode button	13	Menu button
7	[▲]switch (Zoom out/RPS switch)	14	Memory Stick Slot

Name of Each Part

Right & Bottom View

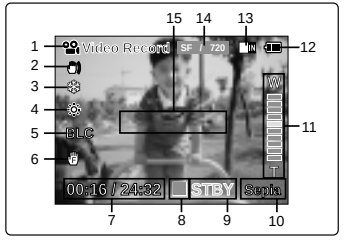


1	Lens	6	Volume +/- button
2	LED Flash	7	Tripod Receptacle
3	Earphones and AV Input/Output Jack	8	Cradle Receptacle
4	Battery insertion part	9	Strap Hook
5	Battery eject button		

Name of Each Part: LCD Display

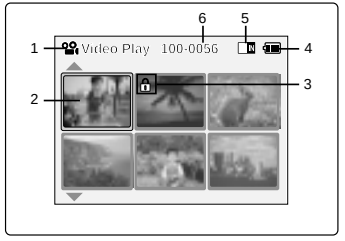
OSD (On Screen Display in Video Record Mode/Video Play Mode)

Video Record Mode



1. Mode indicator
2. EIS indicator
3. Program AE indicator
4. White Balance indicator
5. BLC indicator
6. Focus indicator
7. Counter
   (Elapsed time/Remaining time)
8. Record/Standby indicator
9. Record/Standby text
10. Effect indicator
11. Zoom in/Zoom out indicator
12. Battery life indicator
13. Memory type indicator
14. Image quality/size indicator
15. Warning and note indicator

Video Play Mode



1. Mode indicator
2. Current display indicator
3. Lock indicator
4. Battery life indicator
5. Memory type indicator
6. Image counter(Current image)

Video Play Mode

7. Warning and note indicator
8. Counter
   (Elapsed time/Recorded time)
9. Operation indicator
   (Play/Pause/RPS/FPS)
10. Volume indicator

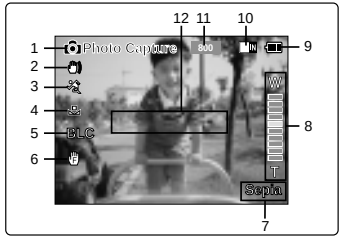
Notes

⌘ Functions you've set will not be canceled if you turn the CAM on again.

Name of Each Part: LCD Display

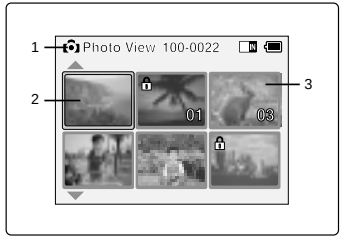
OSD (On Screen Display in Photo Capture Mode/Photo View Mode)

Photo Capture Mode



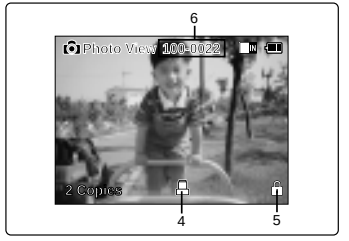
1. Mode indicator
2. EIS indicator
3. Program AE indicator
4. White balance indicator
5. BLC indicator
6. Focus indicator
7. Effect indicator
8. Zoom in/out indicator
9. Battery life indicator
10. Memory type indicator
11. Image size indicator
12. Warning and note indicator

Photo View Mode



1. Mode indicator
2. Current display indicator
3. Number of print

Photo View Mode



4. Printer indicator
5. Lock indicator
6. Image counter (Current image)

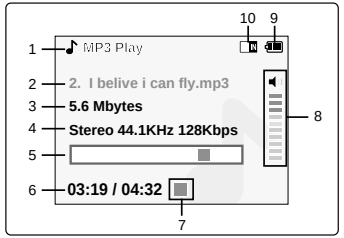
Notes

⌘ Functions you've set will not be canceled if you turn the CAM on again.

Name of Each Part: LCD Display

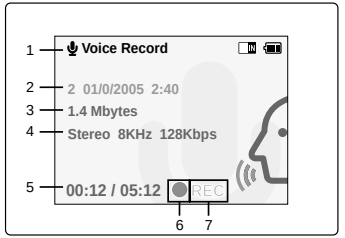
OSD (On Screen Display in MP3 Play Mode / Voice Record / Play Mode)

MP3 Play Mode



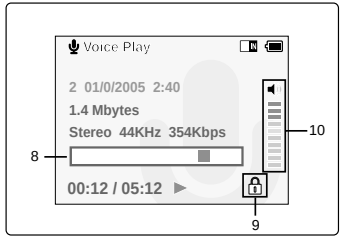
1. Mode indicator
2. File number / File name / File format
3. File size
4. Sampling Rate/Bit Rate
5. Progress Bar
6. Elapsed time/Full time
7. Operation indicator
8. Volume indicator
9. Battery life indicator
10. Memory type indicator

Voice Record Mode



1. Mode indicator
2. File number / Date and Time
3. File size
4. Sampling Rate/Bit Rate
5. Elapsed time/Full time
6. Operation indicator
7. Record / Standby text

Voice Play Mode



8. Progress Bar
9. Lock indicator
10. Volume indicator

Notes

※ Functions you've set will not be canceled if you turn the CAM on again.

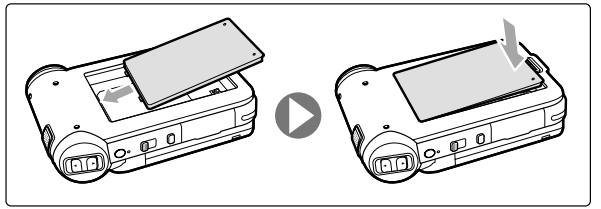
How to Use the Battery Pack

Battery Pack Installation / Ejection

It is recommeded you purchase one or more additional battery packs to allow continuos use of your CAM.

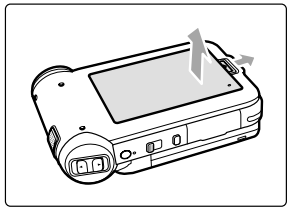
To insert the battery pack

Slide the battery pack and fix it to the groove until it clicks.



To eject the battery pack

Push the [Battery Eject] button to eject the battery pack.



How to Use the Battery Pack

Maintain 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.

Continuous recording time based on battery type

If you close the LCD screen, it switches on automatically.
The continuous recording time given in the table below is approximations. Actual recording time depends on usage.

Battery \ Time	Continuous Recording Time	
	LCD ON	LCD OFF
SB-P90A (900mAh)	60 min.	80 min.
SB-P18A (1800mAh) (option)	120 min.	160 min.

Notes

- Prepare an extra battery if you use the CAM outdoors.
- Contact the Samsung service center to purchase new battery pack.

Warning

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

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	
	Fully charged
	20~40% used
	40~80% used
	80~95% used
	Exhausted(flickers) The device will soon turn off. Change the Battery Pack as soon as possible.

Tips for Battery Identification

A charge mark is provided on the battery pack to help you remember whether it has been charged or not.
If the battery has been fully charged, the charge indicator is turned off. 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

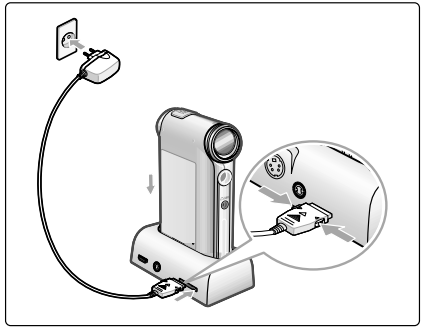
Capacity	Power On	Power Off
SB-P90A (900mAh)	6 hr. 30 min	1 hr. 40 min
SB-P18A (1800mAh) (option)	13 hr.	3 hr. 20 min

How to Use the Battery Pack

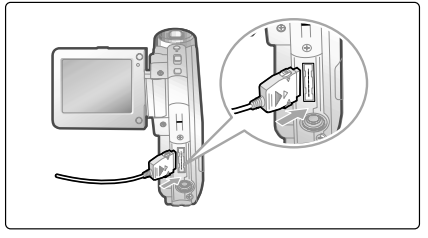
Charging the Battery Pack

1. **Move [Mode Selector] up to turn the CAM off.**
2. **Attach the Battery Pack to the CAM.**
3. **Fix the CAM into the cradle.**
4. **Connect the jack with the cradle.**
   ◆ Detach the jack by pressing the buttons of the jack.
5. **Insert the AC power adapter into the outlet.**

Charging through the cradle



Charging directly to the CAM



Notes

- You can charge the battery pack when you use the CAM. Connect the AC power adapter with the CAM directly.

Warning

- It is recommended you fully charged the battery pack before use.
- You had better to charge in the temperature between 0°C and 40°C.

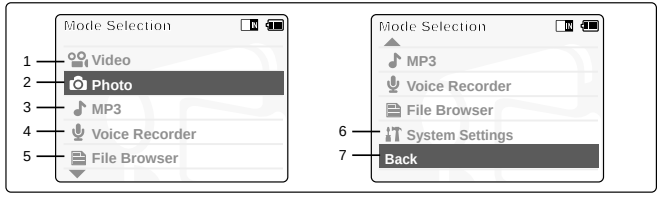
Getting Started

Before You Start Operating the CAM

Before using the CAM, refer to this page for easy operation. The Memory Stick is an optional accessory.

1. **Install the battery pack and insert the Memory Stick into the Memory Stick slot.** (Refer to page 31)
2. **Charge the battery pack by fixing the CAM into the cradle and connecting the power cable to the cradle.** (Refer to page 22)
3. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 97)
4. **Move the [▲/▼] switch to select the desired mode and press the [OK] button.**
5. **Press the [OK] button to take pictures, record, hear music or record voice.**
   Press the [Menu] button to view the menu.
6. **When you finished, turn the CAM off moving [Mode Selector] up.**

For example : If you want to select Photo Mode



1. Video: You can record and play video files.
2. Photo: You can take and view photo files.
3. MP3: You can download and hear the music.
4. Voice Recorder: You can record and hear the voice.
5. File Browser: You can delete, lock, copy the file and view the file information.
6. System Settings: You can set the LCD monitor brightness/color, date/time, system and memory.
7. Back: The screen moves to previous menu in the selected mode.

Getting Started

Using the Function Button

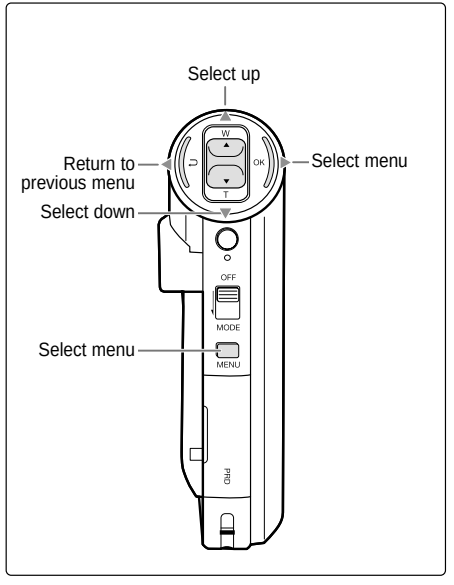
The Function button is used to make a selection, move the cursor, select the functions and exit from the menu.

The Use of Various Function button

Button	Recording / Picture taking	Playing/Viewing	Selecting
	Zoom out (▲)	RPS (◀◀)	Select up
	Zoom in (▼)	FPS (▶▶)	Select down
	Multi-Play screen	Multi-Play screen	Return to previous menu
	Select	Play/Pause	Finish selecting

The Use of [Back] and [Menu] button

Button	Video Record/Photo Capture	Video Play/Photo View
	Move to Video Play/ Photo View	Move to Video Recoed/ Photo Capture
MENU (Press for about 2 seconds)	Menu Selection	Move to File Options

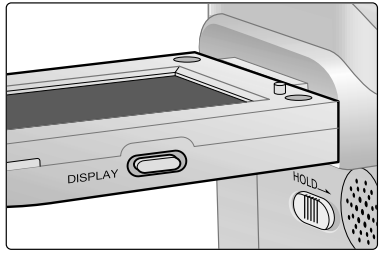


Getting Started

Using the Display button

You can use various functions pressing the [Display] button.

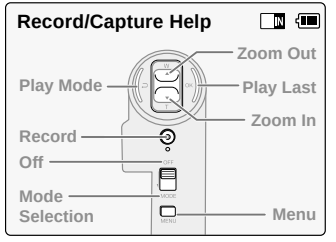
1. **Open the LCD monitor.**
2. **Move [Mode Selector] down to turn on the CAM.**
   - ◆ The video screen appears.
   - ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 97)
3. **Press the [Display] button.**



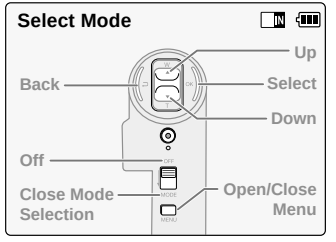
If you press the [Display] button

- Once: The display indicators turn off.
- Twice: The back light turns off.
- 3 times: It returns to the initial screen.
- Hold down the button for 2 seconds: The [Help] screen according to each mode appears.

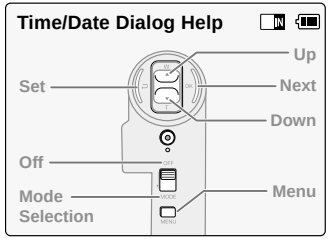
Record / Capture Help



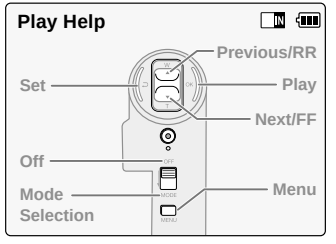
Select Mode Help



Time / Date Dialog Help



Play Help

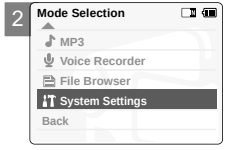


Getting Started

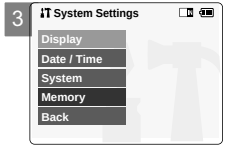
Adjusting the LCD Monitor

Your the CAM is equipped with a color Liquid Crystal Display monitor, which enables you to view directly what you are recording or playing back. Depending on the conditions under which you are using the CAM (indoors or outdoors for example), you can adjust the LCD Brightness or Color.

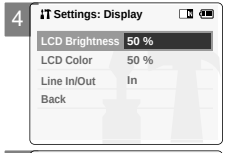
1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *System Settings* and press the [OK] button.**



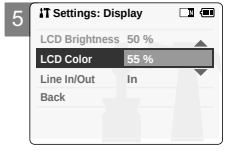
3. **Move the [▲/▼] switch to select <Display> and press the [OK] button.**



4. **Move the [▲/▼] switch to select <LCD Brightness> or <LCD Color> and press the [OK] button.**



5. **Move the [▲/▼] switch to select desired brightness or color and press the [OK] button.**
   ◆ Refer to page 88~89 for details.



Notes

- If you select [Back] in the menu, the previous menu appears.
- If it is too bright, adjust the LCD Brightness.

Getting Started

Structure of the Folders and Files

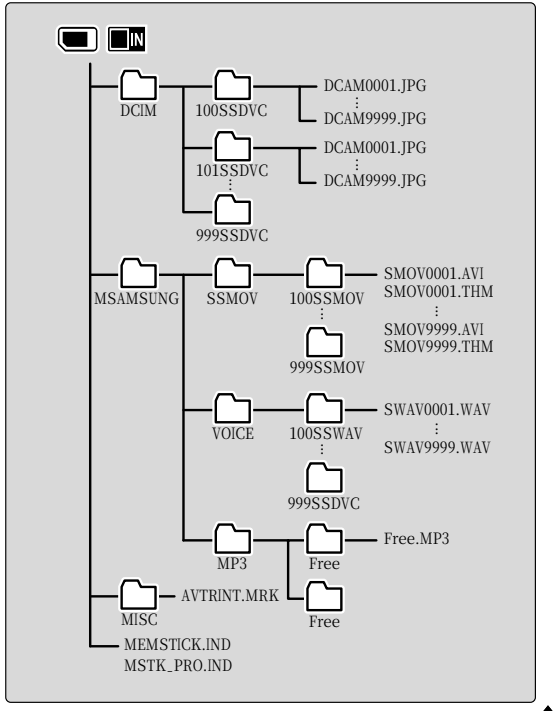
The video files and photo files are stored in internal memory, Memory Stick or Memory Stick Pro as below.

Notes

- Refer to page 31 for details about Memory Stick.
- You can store general data in files and folders of the CAM.
- The number of the file is up to 9,999 and folder is up to 100.
- DCAM✱✱✱✱.JPG: Photo file
  SMOV✱✱✱✱.AVI: Video file
  SMOV✱✱✱✱.THM: Thumnail file
  SWAV✱✱✱✱.WAV: Voice file
  DCAM✱✱✱✱.MP3: MP3 file
- MISC: DPOF files are stored.
- Do not change the file or folder name except 'Free'.
- You can freely change the file or folder name of 'Free'.
- When copying video files to the CAM from a PC, use Image Mixer.
- Yo may not be able to play video files if you copy video files directly to the CAM from a PC without using Image Mixer.

Warning

- Do not turn the power off while recording, playing, erasing file or formatting the Memory Stick.
- Please turn the power off before you insert or eject the Memory Stick to avoid losing data.
- Save important files separately.



Getting Started

Recording Time and Capacity

Video Record

Media	Capacity	Super Fine		Fine		Normal	
		360	720	360	720	360	720
Internal Memory	256MB	22min. 44sec	5min. 41sec	34min. 8sec	8min. 32sec	68min. 16sec	17min. 4sec
	512MB	45min. 32sec	11min. 23sec	68min. 16sec	17min. 4sec	136min. 32sec	34min. 8sec
	1GB	91min	22min. 45sec	136min. 32sec	34min. 8sec	45min. 16sec	68min. 16sec
Memory Stick Pro	256MB	22min. 44sec	5min. 41sec	34min. 8sec	8min. 32sec	68min. 16sec	17min. 4sec
	512MB	45min. 32sec	11min. 23sec	68min. 16sec	17min. 4sec	136min. 32sec	34min. 8sec
	1GB	91min	22min. 45sec	136min. 32sec	34min. 8sec	45min. 16sec	68min. 16sec

Warning

- The compressibility is changed automatically depending on the recorded images and the maximum recording time and capacity can be changed in 'Video Record'.
- Because the transmit speed of the data is faster than the Memory Stick's speed, you may be not able to play normal video files of the Memory Stick.
- You may be not able to record or play normal video files if you use the Memory Stick that over 1GB.

Getting Started

Photo Capture

Media	Capacity	Quality		
		1280X960	800X600	640X480
Internal Memory	256MB	347 images	888 images	1,391 images
	512MB	694 images	1,777 images	2,782 images
	1GB	1,356 images	3,472 images	5,434 images
Memory Stick	32MB	43 images	111 images	173 images
	64MB	86 images	222 images	347 images
	128MB	173 images	444 images	695 images
Memory Stick Pro	256MB	347 images	888 images	1,391 images
	512MB	694 images	1,777 images	2,782 images
	1GB	1,356 images	3,472 images	5,434 images

Voice Record

Media	Capacity	Time
Internal Memory	256MB	2hr. 13min
	512MB	4hr. 27min
	1GB	8hr. 41min
Memory Stick	32MB	16min. 40sec
	64MB	33min. 20sec
	128MB	1hr. 7sec
Memory Stick Pro	256MB	2hr. 13min
	512MB	4hr. 27min
	1GB	8hr. 41min

Notes

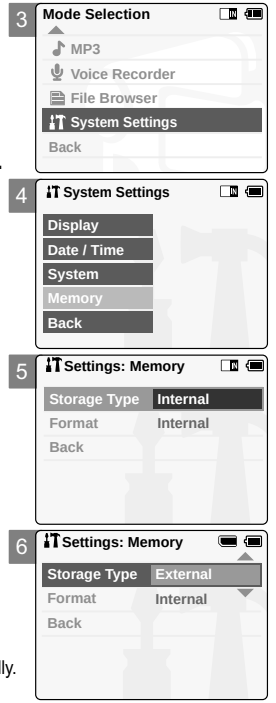
- The recording time and capacity is an approximation.
- You can format the Memory Stick on the CAM. (Refer to page 101)
- Do not format the Memory Stick or Memory Stick Pro on the PC.
- The recording time and the number of images shown are maximum figures based on using one function. In actual use, using more than one function will reduce the capacity of each.

Getting Started

Selecting the Memory Type

You can select the memory type - internal memory or external memory(Memory Stick, Memory Stick Pro).
The Memory Stick is an optional accessory.
The video file and the photo files are stored in internal memory by default.

1. **Insert the Memory Stick.** (Refer to page 31)
2. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
3. **Move the [▲/▼] switch to select *System Settings* and press the [OK] button.**
4. **Move the [▲/▼] switch to select <Memory> and press the [OK] button.**
5. **Move the [▲/▼] switch to select <Storage Type> and press the [OK] button.**
6. **Move the [▲/▼] switch to select desired type and press the [OK] button.**
   ◆ You can select external or interal memory.



Note

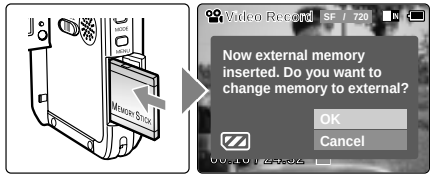
⌘ If you insert the Memory Stick or Memory Stick Pro, the memory type selection screen appears automatically.

Getting Started

Using the Memory Stick

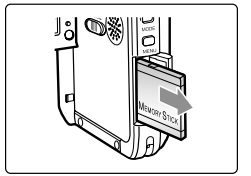
Inserting a Memory Stick

1. **Open the LCD monitor.**
2. **Open the Memory Stick slot lid.**
3. **Insert the Memory Stick into the slot until it softly clicks.**
4. **Close the slot lid.**
5. **The pop-up screen appears.**
   ◆ If you select <OK>, the memory type changes to 'External' and if you select 'Cancel', files are stored in internal memory continuously.



Ejecting a Memory Stick

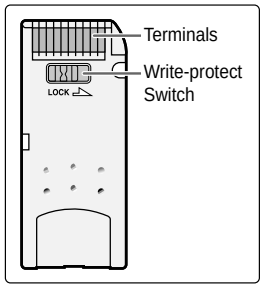
1. **Open the LCD monitor.**
2. **Open the Memory Stick slot lid.**
3. **Slightly push the Memory Stick inwards to pop it out.**
4. **Pull the Memory Stick out of the slot and close the lid.**



Notes

⌘ Do not apply excessive force when you insert / eject the Memory Stick.
⌘ Do not turn the power off while recording, playing, erasing files or formatting the Memory Stick.
⌘ Please turn the power off before you insert or eject the Memory Stick to avoid losing data.
⌘ Do not place the Memory Stick near a strong electro-magnetic device.
⌘ Do not allow metal substances to come in contact with the terminals on the Memory Stick.
⌘ Do not bend the Memory Stick.
⌘ After pulling the card out from the CAM, keep the Memory Sticks in a soft case to prevent static shock.
⌘ The data stored on the card may be changed or lost as a result of misuse, static electricity, electric noise or repair. Save important files separately.
⌘ Samsung is not responsible for data loss due to misuse.

The Memory Stick View



MEMORY STICK ™

⌘ Memory Stick and MEMORY STICK ™ are trademarks of Sony Corporation.
⌘ All other product names mentioned herein may be the trademarks or registered trademarks of their respective companies. TM will not be mentioned in every instance in this manual.

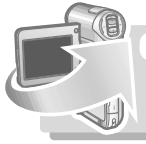
Getting Started

2 Different Operations

There is two ways of navigating on Mode Selection screen for your convenience. You can select the way you prefer.

Mode Selection

1. **Select the modes moving the [▲/▼] switch and pressing the [OK] button.**

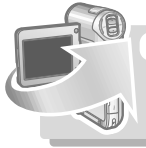


SPECIAL OPERATION

Select the modes waiting 2 seconds in the Mode selection menu.

Menu Selection

1. **Select the menus moving the [▲/▼] switch.**
2. **Select the menus pressing [Menu] button after pressing the [OK] button.**
   ◆ The menu screen appears.



SPECIAL OPERATION

1. Press the [Menu] button for 2 seconds.
   ◆ The menu screen of the selected mode appears.

Notes

⌘ In this user's manual, the only first operation is described for convenience.
Be aware of more convenient way for you to use the CAM.

1 Video Mode

Recording 34
Recording 34
Zooming In and Out 35

Playing 36
Playing on the LCD Monitor 36

Selecting File Options 38
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Locking Video files 39
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Setting Various Functions 41
Setting the Video file Size 41
Setting the Video file Quailty 42
Setting the Focus 43
Setting the EIS 44
Setting the White Balance 45
Setting the Program AE 46
Setting the BLC 47
Setting the Effect 48
Setting the Digital Zoom 49

Video Mode : Recording

Recording

You can record moving person and objects and store it in memory.

1. **Move [Mode Selector] down to turn on the CAM.**
   ◆ The Video Record screen appears.
   ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 97)

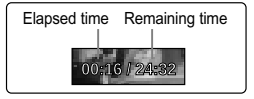
2. **Press [Record/Stop] button to start recording.**
   ◆ [● REC] indicator displays on LCD.
   ◆ The elapsed time is displayed and it starts recording.

3. **Press the [Record/Stop] button again to stop recording.**
   ◆ It stops recording and the CAM is ready again.

4. **Move [Mode Selector] up to turn off the CAM.**

Notes

- If the Auto Shut Off is set, the CAM turns off automatically after 5 minutes.
- Detach the Battery Pack when you finished recording to prevent unnecessary battery power consumption.
- You can check the recording time.



Video Mode : Recording

Zooming In and Out

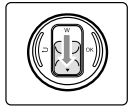
Zooming technique lets you change the size of the subject captured in a scene.

1. **Move [Mode Selector] down to turn on the CAM.**
   ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 97)

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

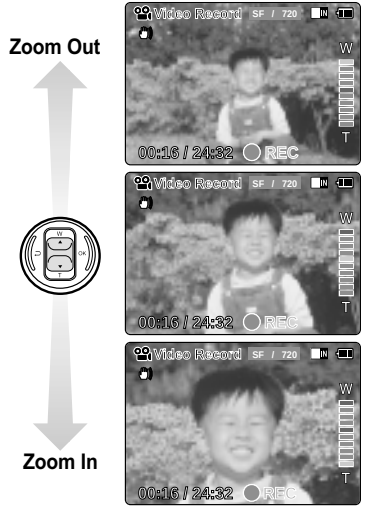
Move the [▲/▼] switch up to zoom out.

- The subject appears farther away when you zoom out.



Move the [▲/▼] switch down to zoom in.

- The subject appears closer when you zoom in.



Notes

- Frequent use of zooming may result in faster battery power consumption.
- Refer to page 49 about Digital Zoom.

Video Mode : Playing

Playing on the LCD Monitor

It is handy and practical to view video files using the LCD monitor almost anywhere such as in a car, indoors or outdoors.

1. **Move [Mode Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.
   - ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 97)

2. **Press the [Menu] button and move the [▲/▼] switch. Press the [OK] button after selecting <Play>.**

3. **Move the [▲/▼] switch to find the video file you want to play.**
   - ◆ Each time you move the [▲/▼] switch, the frame moves horizontally.
   - ◆ Each time you press the [+]/[-] button or press and hold the [▲/▼] switch, a page(6 frame) moves.

4. **Press [OK] button to play the video file you want.**
   - ◆ Each time you press the [OK] button, play or pause is selected repeatedly.
5. **Press the [Back] button after pressing the [OK] button to stop playing.**

Video Mode : Playing

The button and switch you use when playing the video file

OK button [OK]: Play or pause the video file
RPS switch [▼]: Reverse picture search (RPS rate: -X2, -X4, -X8, -X16, -X32, -X64, -X128)
FPS switch [▲]: Fast picture search (FPS rate: X2, X4, X8, X16, X32, X64, X128)

Adjusting the Sound

1. **Press the [OK] button to play the video file.**

2. **Press the [+] button to increase the volume.**
   - ◆ Each time you press the [+] button, the volume bar increases and the volume gets louder.
   - ◆ The volume bar disappears after 1~2 seconds.
3. **Press the [-] button to decrease the volume.**
   - ◆ Each time you press the [-] button, the volume bar decreases and the volume gets quieter.
   - ◆ The volume bar disappears after 1~2 seconds.

Notes

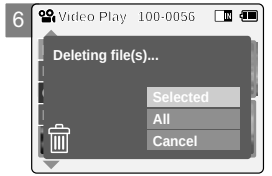
- ⌘ You can adjust the volume up to 10 steps.
- ⌘ When the Audio/Video cable is connected to the CAM, you can't hear the sound from the Built-in Speaker and can't adjust the volume.
- ⌘ You can also play the video file on a TV screen by connecting the CAM to a TV. (Refer to page 108)

Video Mode : Selecting File Options

Deleting Video files

You can delete video files in <File Options>.

1. **Move [Mode Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.
   - ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 97)
2. **Press the [Menu] button and move the [▲/▼] switch. Press the [OK] button after selecting [Play].**
3. **Move the [▲/▼] switch to select the video file you want to delete.**
4. **Press the [Menu] button to select <File Options> and press the [OK] button.**
   - ◆ You can select <File Options> only in <Play>.
5. **Move the [▲/▼] switch to select <Delete> and press the [OK] button.**
6. **Move the [▲/▼] switch to select the followings. Press the [OK] button.**
   - ◆ **Selected**: The selected video file is deleted.
   - ◆ **All**: All video files are deleted.
   - ◆ **Cancel**: Cancel deleting video files.
7. **Press the [Menu] button to finish deleting the files.**



Note

⌘ Press and hold the [Menu] button in Video Play, you can move to <File Options> directly.

Video Mode : Selecting File Options

Locking Video files

You can lock the important video file to prevent accidental deletion.

1. **Move [Mode Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.
   - ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 97)
2. **Press the [Menu] button and move the [▲/▼] switch. Press the [OK] button after selecting <Play>.**
3. **Move the [▲/▼] switch to select the video file you want to lock.**
4. **Press the [Menu] button to select <File Options> and press the [OK] button.**
   - ◆ You can select <File Options> only in <Play>.
5. **Move the [▲/▼] switch to select <Lock> and press the [OK] button.**
6. **Move the [▲/▼] switch to select the followings and press the [OK] button.**
   - ◆ **Selected**: The selected video file is locked.
   - ◆ **All**: All video files are locked.
   - ◆ **Cancel**: Cancel locking video files.
7. **Press the [Menu] button to finish locking the files.**
   - ◆ The <🔒> icon is displayed on the locked file.

Note

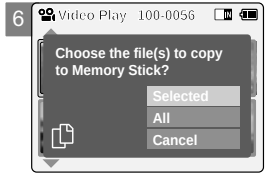
⌘ Press and hold the [Menu] button in Video Play, you can move to <File Options> directly.

Video Mode : Selecting File Options

Copying Video files

You can copy the video file to the internal or external memory.

1. **Move [Mode Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.
   - ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 97)
2. **Press the [Menu] button and move the [▲/▼] switch. Press the [OK] button after selecting <Play>.**
3. **Move the [▲/▼] switch to select the video file you want to copy.**
4. **Press the [Menu] button to select <File Options> and press the [OK] button.**
   - ◆ You can select <File Options> only in <Play>.
5. **Press the [▲/▼] switch to select <Copy To> and press the [OK] button.**
   - ◆ If you selected the Storage type 'External', the file is copied to 'Internal'.
6. **Move the [▲/▼] switch to select the followings and press the [OK] button.**
   - ◆ **Selected**: Copy the selected video file.
   - ◆ **All**: Copy all video files.
   - ◆ **Cancel**: Cancel copying video files.
7. **Press the [Menu] button to finish copying the files.**



Note

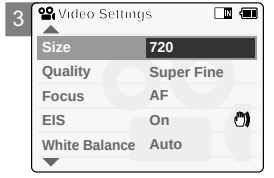
⌘ Press and hold the [Menu] button in Video Play, you can move to <File Options> directly.

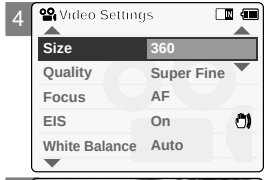
Video Mode : Setting Various Functions

Setting the Video file Size

You can set the file size for video files. The number of stored files varies depending on the memory stick capacity and video file size.

1. **Move [Mode Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.
   - ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 97)
2. **Press the [Menu] button and move the [▲/▼] switch. Press the [OK] button after selecting <Settings>.**
3. **Move the [▲/▼] switch to select <Size> and press the [OK] button.**
   - ◆ **720**: Select 720 pixel.
   - ◆ **360**: Select 360 pixel.
4. **Move the [▲/▼] switch to select the video file size and press the [OK] button.**
5. **Press the [Menu] button to finish setting.**
   - ◆ The icon of selected function is displayed.





Notes

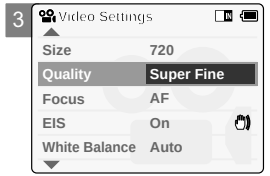
⌘ If you select <Back> in the menu, the previous menu appears.
⌘ Press and hold the [Menu] button in Video Record, you can move to <Settings> directly.

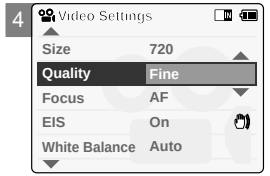
Video Mode : Setting Various Functions

Setting the Video file Quality

You can set the quality for video files. The number of stored files varies depending on the Memory Stick capacity and video file quality.

1. **Move [Mode Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.
   - ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 97)
2. **Press the [Menu] button and move the [▲/▼] switch. Press the [OK] button after selecting <Settings>.**
3. **Move the [▲/▼] switch to select <Quality> and press the [OK] button.**
   - ◆ **SF**(Super Fine): Select highest quality.
   - ◆ **F**(Fine): Select high quality.
   - ◆ **N**(Normal): Select normal quality.
4. **Move the [▲/▼] switch to select the video file quality and press the [OK] button.**
5. **Press the [Menu] button to finish setting.**
   - ◆ The icon of selected function is displayed.





Notes

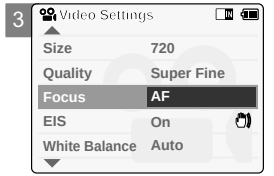
- ⌘ If you select <Back> in the menu, the previous menu appears.
- ⌘ Press and hold the [Menu] button in Video Record, you can move to <Settings> directly.

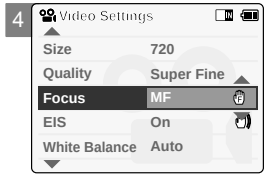
Video Mode : Setting Various Functions

Setting the Focus

You can set the focus depending on the subject or the environment. In most situations, you can record best using AF(Auto Focus).

1. **Move [Mode Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.
   - ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 97)
2. **Press the [Menu] button and move the [▲/▼] switch. Press the [OK] button after selecting <Settings>.**
3. **Move the [▲/▼] switch to select <Focus> and press the [OK] button.**
   - ◆ **AF**: Set the focus automatically. When the CAM turns on, AF is selected in default.
   - ◆ **MF( )**: Set the focus manually.
4. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
5. **Press the [Menu] button to finish setting.**
   - ◆ The icon of selected function is displayed.
   - ◆ If you select the AF, any icon is not displayed.





Manual Focus

Adjust the focus using [▲/▼] switch to zoom in or out manually.

- ◆ When a picture contains both of objects close and far away from the CAM
- ◆ When a person is enveloped in fog or surrounded by snow

Notes

- ⌘ If you select <Back> in the menu, the previous menu appears.
- ⌘ Press and hold the [Menu] button in Video Record, you can move to <Settings> directly.

Video Mode : Setting Various Functions

Setting the EIS (Electrical Image Stabilizer)

The Electrical Image Stabilizer is a function that compensate for shakings or hand movements while recording.
EIS provides more stable video when:

- ◆ Recording with zooming
- ◆ Recording small objects
- ◆ Recording while walking or moving
- ◆ Recording through the window in the car

1. Move [Mode Selector] down to turn on the CAM.

- ◆ The Video Record screen appears.
- ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 97)

2. Press the [Menu] button and move the [▲/▼] switch. Press the [OK] button after selecting <Settings>.

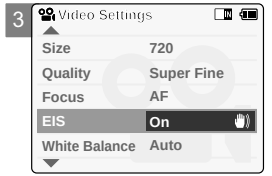
3. Move the [▲/▼] switch to select <EIS> and press the [OK] button.

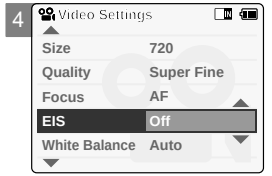
- ◆ **On( )**: Set the EIS function.
- ◆ **Off**: Cancel the EIS function.

4. Move the [▲/▼] switch to select desired setting and press the [OK] button.

5. Press the [Menu] button to finish setting.

- ◆ The icon of selected function is displayed.





Notes

- ⌘ If you select <Back> in the menu, the previous menu appears.
- ⌘ Press and hold the [Menu] button in Video Record, you can move to <Settings> directly.

Video Mode : Setting Various Functions

Setting the White Balance

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

1. Move [Mode Selector] down to turn on the CAM.

- ◆ The Video Record screen appears.
- ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 97)

2. Press the [Menu] button and move the [▲/▼] switch. Press the [OK] button after selecting <Settings>.

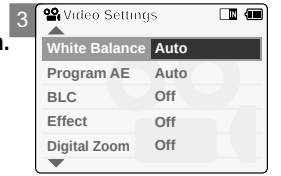
3. Move the [▲/▼] switch to select <White Balance> and press the [OK] button.

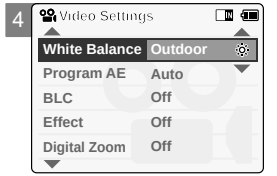
- ◆ **Auto**: Adjust the color depending on the condition automatically.
- ◆ **Hold( )**: Record with first selected color without adjusting color.
- ◆ **Outdoor( )**: Record with the balanced light. (Natural light)
- ◆ **Indoor( )**: Record with the balanced light. (Glow lamp or light in the studio)

4. Move the [▲/▼] switch to select desired setting and press the [OK] button.

5. Press the [Menu] button to finish setting.

- ◆ The icon of selected function is displayed.
- ◆ If you select <Auto>, any icon is not displayed.





Notes

- ⌘ If you select <Back> in the menu, the previous menu appears.
- ⌘ Turn the Digital Zoom off for more accurate White Balance setting.
- ⌘ Press and hold the [Menu] button in Video Record, you can move to <Settings> directly.

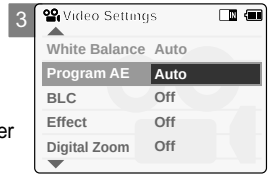
Video Mode : Setting Various Functions

Setting the Program AE (Programmed Auto Exposure)

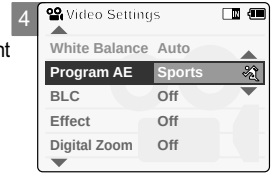
It allows you to adjust the shutter speed and aperture setting to suit different conditions.

1. **Move [Mode Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.
   - ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 97)

2. **Press the [Menu] button and move the [▲/▼] switch. Press the [OK] button after selecting <Settings>.**



3. **Move the [▲/▼] switch to select <Program AE> and press the [OK] button.**
   - ◆ **Auto**: Auto balance 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, 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 concert and school performance.
   - ◆ **Sand/Snow**: Use when the light is very strong such as on the beach or in the snow.
   - ◆ **HS Shutter**: Allows fast-moving images to be captured one frame at a time.



4. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**

5. **Press the [Menu] button to finish setting.**
   - ◆ The icon of selected function is displayed.
   - ◆ If you select <Auto>, any icon is not displayed.

Notes

- ⌘ If you select <Back> in the menu, the previous menu appears.
- ⌘ Press and hold the [Menu] button in Video Record, you can move to <Settings> directly.

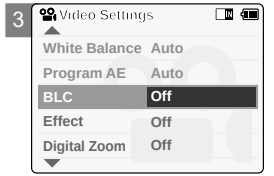
Video Mode : Setting Various Functions

Setting the BLC (Backlight Compensation)

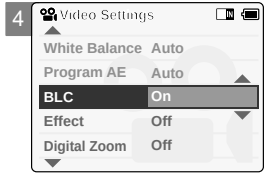
The Backlight Compensation function helps to make the subject brighter when the subject is in front of a window or the subject is too dark to distinguish. You can use this function when using your the CAM in the bright background and snowy background.

1. **Move [Mode Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.
   - ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 97)

2. **Press the [Menu] button and move the [▲/▼] switch. Press the [OK] button after selecting <Settings>.**



3. **Move the [▲/▼] switch to select <BLC> and press the [OK] button.**
   - ◆ **On(BLC)**: Set the BLC function.
   - ◆ **Off**: Cancel the BLC function.



4. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**

5. **Press the [Menu] button to finish setting.**
   - ◆ <BLC> is displayed.

Notes

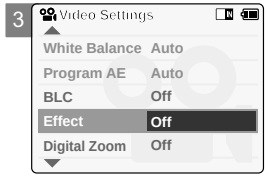
- ⌘ If you select <Back> in the menu, the previous menu appears.
- ⌘ Press and hold the [Menu] button in Video Record, you can move to <Settings> directly.

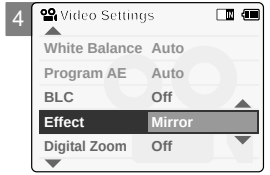
Video Mode : Setting Various Functions

Setting the Effect

You can create professional looking effect on your video file.

1. **Move [Mode Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.
   - ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 97)
2. **Press the [Menu] button and move the [▲/▼] switch. Press the [OK] button after selecting <Settings>.**
3. **Move the [▲/▼] switch to select <Effect> and press the [OK] button.**
   - ◆ **Off**: Cancel the <Effect>.
   - ◆ **Art**: Artistic effects on your video file.
   - ◆ **Mosaic**: A mosaic overlay appears on your video 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.
   - ◆ **Emboss**: Embossing effects on your video file.
4. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
5. **Press the [Menu] button to finish setting.**
   - ◆ The letters of selected function is displayed.





Notes

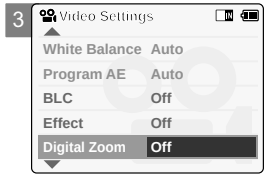
- ⌘ If you select <Back> in the menu, the previous menu appears.
- ⌘ Press and hold the [Menu] button in Video Record, you can move to <Settings> directly.

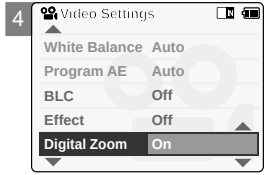
Video Mode : Setting Various Functions

Setting the Digital Zoom

You can magnify optical zoom(10x) digitally. The Digital Zoom processes data to enlarge the center portion of the image to fill the frame may produce a less detailed and slightly grainy picture.

1. **Move [Mode Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.
   - ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 97)
2. **Press the [Menu] button and move the [▲/▼] switch. Press the [OK] button after selecting <Settings>.**
3. **Move the [▲/▼] switch to select <Digital Zoom> and press the [OK] button.**
   - ◆ **On**: Set the Digital Zoom. (X100)
   - ◆ **Off**: Cancel the Digital Zoom.
4. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
5. **Press the [Menu] button to finish setting.**
   - ◆ 4 zoom indicators increase after setting the Digital Zoom.





Notes

- ⌘ If you select <Back> in the menu, the previous menu appears.
- ⌘ Press and hold the [Menu] button in Video Record, you can move to <Settings> directly.

MEMO

2 Photo Mode

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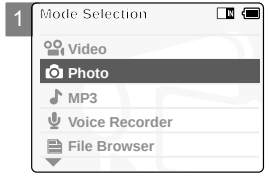
Photo Mode : Capturing

Capturing Images

You can take pictures as well as you can record files.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.



2. **Move the [▲/▼] switch to select *Photo* mode and press the [OK] button.**
   ◆ The CAM is ready for taking pictures.
   ◆ [📷] indicator is displayed on LCD.

3. **Press [Record/Stop] button to take pictures.**

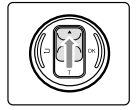
Photo Mode : Capturing

Zooming In and Out

Zooming technique lets you change the size of the subject captured in a scene.

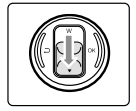
1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.

2. **Move the [▲/▼] switch to select *Photo* mode and press the [OK] button.**
   ◆ To take pictures, press the [OK] button again.



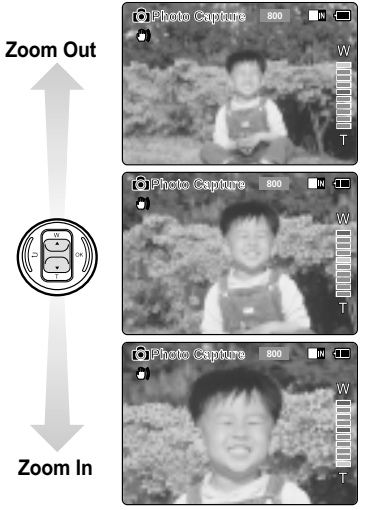
Move the [▲/▼] switch up to zoom out.

- The subject appears farther away when you zoom out.



Move the [▲/▼] switch down to zoom in.

- The subject appears closer when you zoom in.



Notes

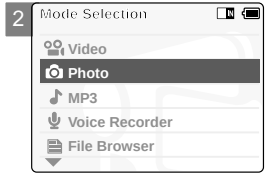
- ⌘ Frequent use of zooming may result in faster battery power consumption.
- ⌘ Refer to page 67 about Digital Zoom.

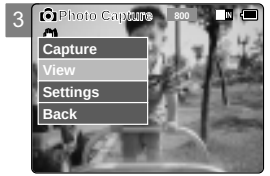
Photo Mode : Viewing

Viewing Photo files on the LCD Monitor

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

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Photo* mode and press the [OK] button.**
   ◆ The Photo Capture screen appears.
3. **Press the [Menu] button and move the [▲/▼] switch.**
   Press the [OK] button after selecting <View>.
4. **Move the [▲/▼] switch to find the photo you want to view.**
   ◆ Each time you move the [▲/▼] switch, the frame moves horizontally.
   ◆ Each time you press the [+]/[-] button or press and hold the [▲/▼] switch, a page(6 frame) moves.
5. **Press [OK] button to view the photo you want.**
   ◆ The full screen displays.
   ◆ Press the [+] or [-] button to view the previous or next picture.





Note

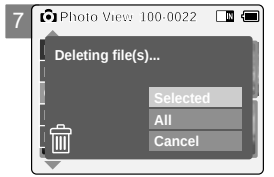
※ Display time may vary depending on the picture size.

Photo Mode : Selecting File Options

Deleting Photo files

You can delete photo files or pictures in <File Options>.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select [Photo] mode and press the [OK] button.**
   ◆ The Photo Capture screen appears.
3. **Press the [Menu] button and move the [▲/▼] switch.**
   Press the [OK] button after selecting <View>.
4. **Move the [▲/▼] switch to select the photo file you want to delete.**
5. **Press the [Menu] button to select <File Options> and press the [OK] button.**
   ◆ You can select <File Options> only in <View>.
6. **Move the [▲/▼] switch to select <Delete> and press the [OK] button.**
7. **Move the [▲/▼] switch to select the followings and press the [OK] button.**
   ◆ **Selected**: The selected photo file is deleted.
   ◆ **All**: All photo files are deleted.
   ◆ **Cancel**: Cancel deleting photo files.
8. **Press the [Menu] button to finish deleting the files.**



Note

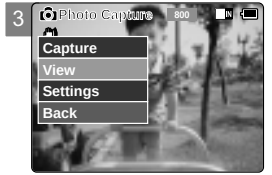
※ Press and hold the [Menu] button in Photo View, you can move to <File Options> directly.

Photo Mode : Selecting File Options

Locking Photo files

You can lock the important photo file not to be deleted.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Photo* mode and press the [OK] button.**
   ◆ The Photo Capture screen appears.
3. **Press the [Menu] button and move the [▲/▼] switch.**
   Press the [OK] button after selecting <View>.
4. **Move the [▲/▼] switch to select the photo file you want to lock.**
5. **Press the [Menu] button to select <File Options> and press the [OK] button.**
   ◆ You can select <File Options> only in <View>.
6. **Move the [▲/▼] switch to select <Lock> and press the [OK] button.**
7. **Move the [▲/▼] switch to select the followings and press the [OK] button.**
   ◆ **Selected**: The selected photo file is locked.
   ◆ **All**: All photo files are locked.
   ◆ **Cancel**: Cancel locking photo files.
8. **Press the [Menu] button to finish locking the files.**
   ◆ The < 🔒 > icon is displayed on the locked file.



Note

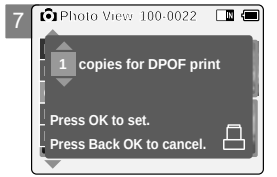
⌘ Press and hold the [Menu] button in Photo View, you can move to <File Options> directly.

Photo Mode : Selecting File Options

Setting DPOF (Digital Print Order Format) Function

You can print photos(DPOF files) connecting the CAM to DPOF compatible printer directly with the USB cable or inserting the memory stick. (Refer to page 115 about connecting to a photo printer)

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Photo* mode and press the [OK] button.**
   ◆ The Photo Capture screen appears.
3. **Press the [Menu] button and move the [▲/▼] switch.**
   Press the [OK] button after selecting <View>.
4. **Move the [▲/▼] switch to select the photo file you want to print.**
5. **Press the [Menu] button to select <File Options> and press the [OK] button.**
6. **Move the [▲/▼] switch to select <DPOF> and press the [OK] button.**
7. **Move the [▲/▼] switch to select copies you want to print.**



Notes

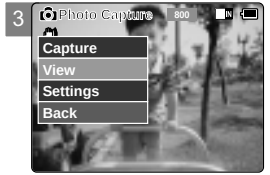
⌘ Press and hold the [Menu] button in Photo View, you can move to <File Options> directly.
⌘ Refer to page 116 for further details about printing DPOF files.
⌘ You can set copies for DPOF print up to 99.

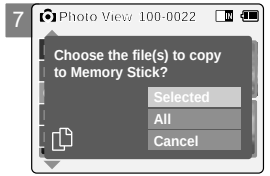
Photo Mode : Selecting File Options

Copying Photo files

You can copy photo files to the internal or external memory.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Photo* mode and press the [OK] button.**
   ◆ The Photo Capture screen appears.
3. **Press the [Menu] button and move the [▲/▼] switch.**
   Press the [OK] button after selecting <View>.
4. **Move the [▲/▼] switch to select the photo file you want to copy.**
5. **Press the [Menu] button to select <File Options> and press the [OK] button.**
   ◆ You can select <File Options> only in <View>.
6. **Move the [▲/▼] switch to select <Copy To> and press the [OK] button.**
   ◆ If you selected the Storage type 'External', the file is copied to 'Internal'.
7. **Move the [▲/▼] switch to select the followings and press the [OK] button.**
   ◆ **Selected**: Copy the selected photo file.
   ◆ **All**: Copy all photo files.
   ◆ **Cancel**: Cancel copying photo files.
8. **Press the [Menu] button to finish copying the files.**





Note

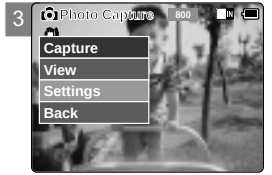
※ Press and hold the [Menu] button in Photo View, you can move to <File Options> directly.

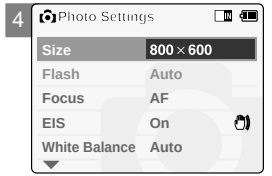
Photo Mode : Setting Various Functions

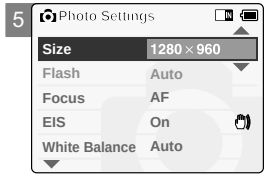
Setting the Photo file Size

You can set the photo files size. The number of stored files varies depending on the Memory Stick capacity, photo files size.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Photo* mode and press the [OK] button.**
   ◆ The Photo Capture screen appears.
3. **Press the [Menu] button and move the [▲/▼] switch.**
   Press the [OK] button after selecting <Settings>.
4. **Move the [▲/▼] switch to select <Size> and press the [OK] button.**
   ◆ You can select 1280x960, 800x600 or 640x480 size.
5. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
6. **Press the [Menu] button to finish setting.**







Notes

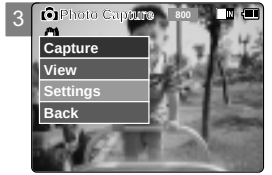
※ If you select <Back> in the menu, the previous menu appears.
※ Press and hold the [Menu] button in Photo View, you can move to <File Options> directly.

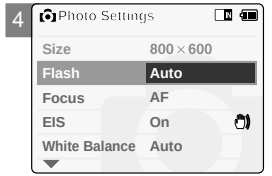
Photo Mode : Setting Various Functions

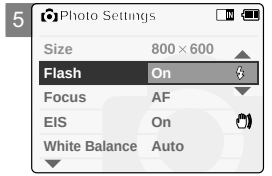
Setting the Flash

The Flash works only in Photo Mode and allows the user to take brighter photos in dark place such as in the night, indoor and in shade areas.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Photo* mode and press the [OK] button.**
   ◆ The Photo Capture screen appears.
3. **Press the [Menu] button and move the [▲/▼] switch.**
   Press the [OK] button after selecting <Settings>.
4. **Move the [▲/▼] switch to select <Flash> and press the [OK] button.**
5. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
   ◆ **Auto**: Set the flash automatically.
   ◆ **On( )**: Turn on the flash.
   ◆ **Off( )**: Turn off the flash.
6. **Press the [Menu] button to finish setting.**
   ◆ The icon of selected function is displayed.







Notes

- If you select <Back> in the menu, the previous menu appears.
- Press and hold the [Menu] button in Photo View, you can move to <File Options> directly.

Photo Mode: Setting Various Functions

Setting the Focus

You can set the focus depending on the subject or the environment.
In most situations, you can record the best photo using AF(Auto Focus).

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Photo* mode and press the [OK] button.**
   ◆ The Photo Capture screen appears.
3. **Press the [Menu] button and move the [▲/▼] switch.**
   Press the [OK] button after selecting <Settings>.
4. **Move the [▲/▼] switch to select <Focus> and press the [OK] button.**
   ◆ **AF**: Set the focus automatically. When the CAM turns on, AF is selected in default.
   ◆ **MF( )**: Set the focus manually.
5. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
6. **Press the [Menu] button to finish setting.**
   ◆ The icon of selected function is displayed.
   ◆ If you select the AF, any icon is not displayed.

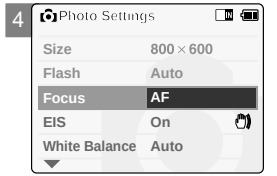
Manual Focus

Adjust the focus using [▲/▼] switch to zoom in or out manually.

◆ When a picture contains both of objects close and far away from the CAM
◆ When a person is enveloped in fog or surrounded by snow

Notes

- If you select <Back> in the menu, the previous menu appears.
- Press and hold the [Menu] button in Photo View, you can move to <File Options> directly.



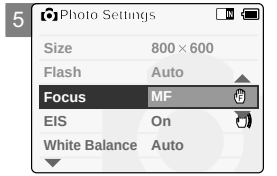
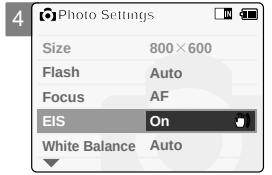


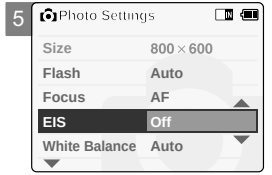
Photo Mode : Setting Various Functions

Setting the EIS (Electrical Image Stabilizer)

The Electrical Image Stabilizer is a function that compensate for shakings or hand movements while taking pictures.
Refer to page 44 for further details.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Photo* mode and press the [OK] button.**
   ◆ The Photo Capture screen appears.
3. **Press the [Menu] button and move the [▲/▼] switch.**
   Press the [OK] button after selecting <Settings>.
4. **Move the [▲/▼] switch to select <EIS> and press the [OK] button.**
   ◆ **On( )**: Set the EIS function.
   ◆ **Off**: Cancel the EIS function.
5. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
6. **Press the [Menu] button to finish setting.**
   ◆ The icon of selected function is displayed.





Notes

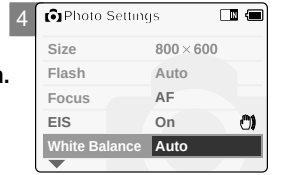
- If you select <Back> in the menu, the previous menu appears.
- Press and hold the [Menu] button in Photo View, you can move to <File Options> directly.

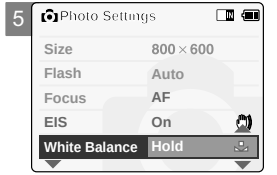
Photo Mode : Setting Various Functions

Setting the White Balance

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

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Photo* mode and press the [OK] button.**
   ◆ The Photo Capture screen appears.
3. **Press the [Menu] button and move the [▲/▼] switch.**
   Press the [OK] button after selecting <Settings>.
4. **Move the [▲/▼] switch to select <White Balance> and press the [OK] button.**
   ◆ **Auto**: Adjust the color depending on the condition automatically.
   ◆ **Hold( )**: Record with first selected color without adjusting color.
   ◆ **Outdoor( )**: Record with the balanced light. (Natural light)
   ◆ **Indoor( )**: Record with the balanced light. (Glow lamp, light in the studio or video light)
5. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
6. **Press the [Menu] button to finish setting.**
   ◆ The icon of selected function is displayed.
   ◆ If you select <Auto>, any icon is not displayed.





Notes

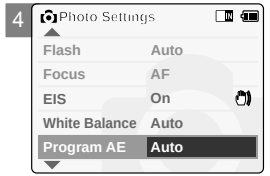
- If you select <Back> in the menu, the previous menu appears.
- Turn the Digital Zoom off for more accurate White Balance setting.
- Press and hold the [Menu] button in Photo View, you can move to <File Options> directly.

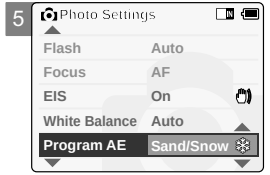
Photo Mode : Setting Various Functions

Setting the Program AE (Programmed Auto Exposure)

It allows you to adjust the shutter speed and aperture setting to suit different conditions.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Photo* mode and press the [OK] button.**
   ◆ The Photo Capture screen appears.
3. **Press the [Menu] button and move the [▲/▼] switch.**
   Press the [OK] button after selecting <Settings>.
4. **Move the [▲/▼] switch to select <Program AE> and press the [OK] button.**
   ◆ **Auto**: Auto balance 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 fast-moving people or objects. It is suitable for sports events or when you are outside in the car.
   ◆ **Spotlight**: Compensates for a subject that appears too bright under strong direct light such as spotlight. It is suitable for concert and school performance.
   ◆ **Sand/Snow**: Use when the light is very strong such as on the beach or in the snow.
   ◆ **HS Shutter**: Allows fast-moving images to be captured one frame at a time.
5. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
6. **Press the [Menu] button to finish setting.**
   ◆ The icon of selected function is displayed.
   ◆ If you select <Auto>, any icon is not displayed.





Notes

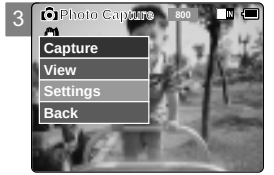
- If you select <Back> in the menu, the previous menu appears.
- Press and hold the [Menu] button in Photo View, you can move to <File Options> directly.

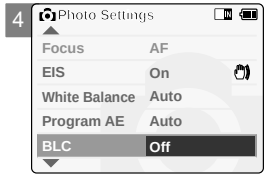
Photo Mode : Setting Various Functions

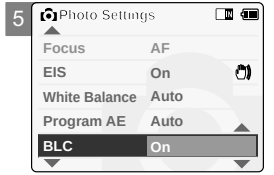
Setting the BLC (Backlight Compensation)

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 CAM in the bright background and snowy background.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Photo* mode and press the [OK] button.**
   ◆ The Photo Capture screen appears.
3. **Press the [Menu] button and move the [▲/▼] switch.**
   Press the [OK] button after selecting <Settings>.
4. **Move the [▲/▼] switch to select <BLC> and press the [OK] button.**
   ◆ **On(BLC)**: Set the BLC function.
   ◆ **Off**: Cancel the BLC function.
5. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
6. **Press the [Menu] button to finish setting.**
   ◆ <BLC> is displayed.







Notes

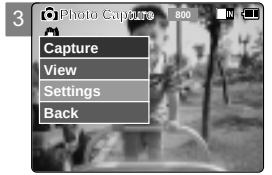
- If you select <Back> in the menu, the previous menu appears.
- Press and hold the [Menu] button in Photo View, you can move to <File Options> directly.

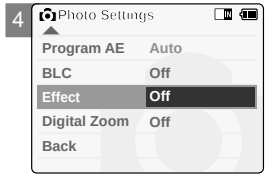
Photo Mode : Setting Various Functions

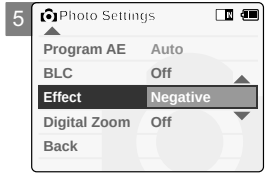
Setting the Effect

You can create professional looking effect on your photo files.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Photo* mode and press the [OK] button.**
   ◆ The Photo Capture screen appears.
3. **Press the [Menu] button and move the [▲/▼] switch.**
   Press the [OK] button after selecting <Settings>.
4. **Move the [▲/▼] switch to select <Effect> and press the [OK] button.**
   ◆ Refer to page 48 about the various effect.
5. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
6. **Press the [Menu] button to finish setting.**
   ◆ The letters of selected function is displayed.







Notes

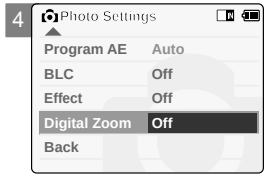
- If you select <Back> in the menu, the previous menu appears.
- Press and hold the [Menu] button in Photo View, you can move to <File Options> directly.

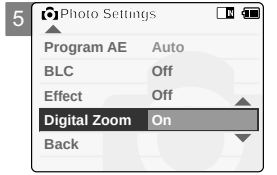
Photo Mode : Setting Various Functions

Setting the Digital Zoom

You can magnify optical zoom(x10) digitally. The Digital Zoom processes data to enlarge the center portion of the image to fill the frame may produce a less detailed and slightly grainy photos.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Photo* mode and press the [OK] button.**
   ◆ The Photo Capture screen appears.
3. **Press the [Menu] button and move the [▲/▼] switch.**
   Press the [OK] button after selecting <Settings>.
4. **Move the [▲/▼] switch to select <Digital Zoom> and press the [OK] button.**
   ◆ **On**: Set the Digital Zoom.
   ◆ **Off**: Cancel the Digital Zoom.
5. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
6. **Press the [Menu] button to finish setting.**
   ◆ 4 zoom indicators increase after setting the Digital Zoom.





Notes

- If you select <Back> in the menu, the previous menu appears.
- Press and hold the [Menu] button in Photo View, you can move to <File Options> directly.

MEMO

3 MP3 / Voice Recorder Mode / Using File Browser

MP3 Mode

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Using File Browser

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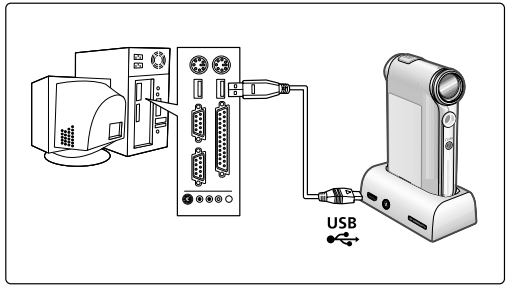
MP3 Mode : Storing Music in the CAM

Copying Music files to the CAM

You can transfer music files from your PC to the internal memory, Memory Stick or Memory Stick Pro. For copying music files, the CAM must be connected to your PC with the USB cable. You don't have to connect the CAM to your PC when you transfer music files to the Memory Stick directly.

1. **Connect the CAM to a PC with the USB cable.**
   ◆ Your computer recognizes this device and the removable drive appears in 'My Computer'.
2. **Double-click the new removable drive to open.**
3. **Select the MP3 folder and double-click to enter.**
4. **Copy the MP3 file you want from PC to the CAM.**
   ◆ Refer to the folder structure on page 27 for copying MP3 files.



Disconnecting USB Connection

After completing the data transfer, you must disconnect the cable in the following way.
1. Select the removable disk icon and click the right mouse button to select 'Safely Remove Hardware'.
2. Select 'Stop' and disconnect the USB cable when the pop-up screen disappears.

Notes

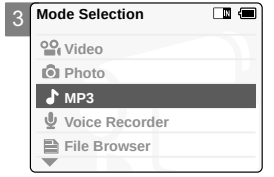
⌘ The way of transferring, playing with the Memory Stick is same as that of internal memory.

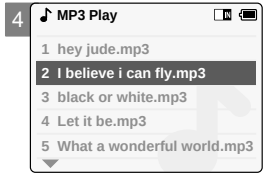
MP3 Mode : Playing

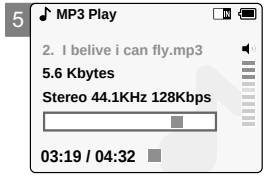
Playing Music files

You can hear the music copied from your PC directly or with the Memory Stick.

1. **Connect the earphones to the CAM.**
   ◆ You can also hear the music from the Built-in speaker without the earphones.
2. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
3. **Move the [▲/▼] switch to select *MP3* mode and press the [OK] button.**
4. **Move the [▲/▼] switch to find the music you want to hear and press the [OK] button.**
   ◆ The selected music is played.
5. **Press the [OK] button again to stop hearing music.**
   ◆ Each time you press the [OK] button, play or pause is selected repeatedly.





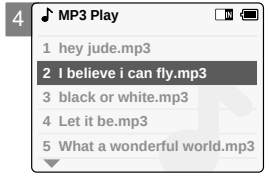


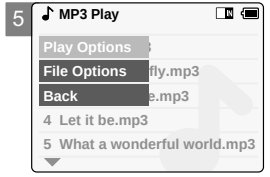
MP3 Mode : Selecting Play Options

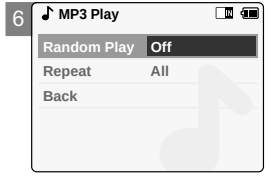
Setting Random Play

You can play the music randomly.

1. **Connect the earphones to the CAM.**
   ◆ You can also hear the music from the Built-in speaker without the earphones.
2. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
3. **Move the [▲/▼] switch to select *MP3* mode and press the [OK] button.**
4. **Press the [Menu] button when the music list appears.**
5. **Move the [▲/▼] switch to select <Play Options> and press the [OK] button.**
6. **Move the [▲/▼] switch to select <Random Play> and press the [OK] button.**
   ◆ **On**: Set the Random Play function.
   ◆ **Off**: Cancel the Random Play function.
7. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
8. **Press the [Menu] button to finish setting.**







Note

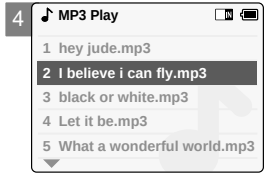
※ If you select <Back> in the menu, the previous menu appears.

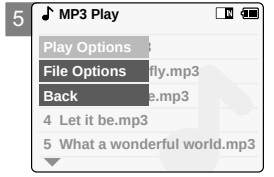
MP3 Mode : Selecting Play Options

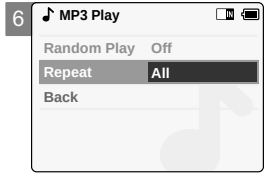
Setting Repeat Play

You can play the only one or all music repeatedly.

1. **Connect the earphones to the CAM.**
   ◆ You can also hear the music from the Built-in speaker without the earphones.
2. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
3. **Move the [▲/▼] switch to select *MP3* mode and press the [OK] button.**
4. **Press the [Menu] button when the music list appears.**
5. **Move the [▲/▼] switch to select <Play Options> and press the [OK] button.**
6. **Move the [▲/▼] switch to select <Repeat> and press the [OK] button.**
   ◆ **All**: All files are repeated.
   ◆ **One**: One file is repeated.
7. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
8. **Press the [Menu] button to finish setting.**







Note

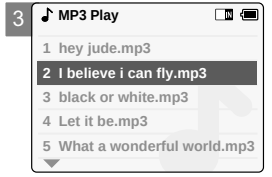
※ If you select <Back> in the menu, the previous menu appears.

MP3 Mode : Selecting File Options

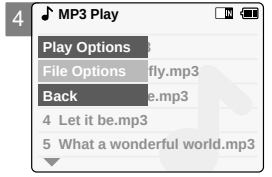
Deleting Music files

You can delete the music file you want.

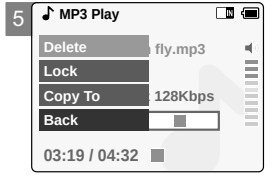
1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
2. **Move the [▲/▼] switch to select *MP3* mode and press the [OK] button.**
   ◆ The Mode Selection screen appears.
3. **Press the [Menu] button when the music list appears.**



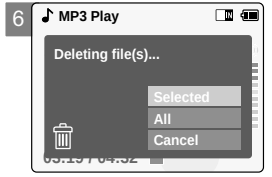
4. **Move the [▲/▼] switch to select <File Options> and press the [OK] button.**



5. **Move the [▲/▼] switch to select <Delete> and press the [OK] button.**



6. **Move the [▲/▼] switch to select the followings and press the [OK] button.**
   ◆ **Selected**: The selected music file is deleted.
   ◆ **All**: All music files are deleted.
   ◆ **Cancel**: Cancel deleting music files.
7. **Press the [Menu] button to finish deleting the files.**



Note

⌘ If you select <Back> in the menu, the previous menu appears.

MP3 Mode : Selecting File Options

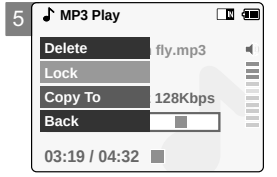
Locking Music files

You can lock the important music file not to be deleted.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
2. **Move the [▲/▼] switch to select *MP3* mode and press the [OK] button.**
   ◆ The Mode Selection screen appears.
3. **Press the [Menu] button when the music list appears.**

4. **Move the [▲/▼] switch to select <File Options> and press the [OK] button.**

5. **Move the [▲/▼] switch to select <Lock> and press the [OK] button.**



7. **Move the [▲/▼] switch to select the followings and press the [OK] button.**
   ◆ **Selected**: The selected music file is locked.
   ◆ **All**: All music files are locked.
   ◆ **Cancel**: Cancel locking music files.
8. **Press the [Menu] button to finish locking the files.**
   ◆ The < 🔒 > icon is displayed on the locked file.

Note

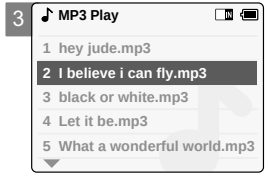
⌘ If you select <Back> in the menu, the previous menu appears.

MP3 Mode : Selecting File Options

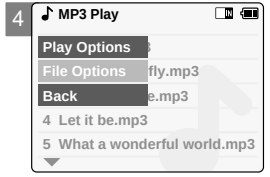
Copying Music files

You can copy the music file to the internal or external memory.

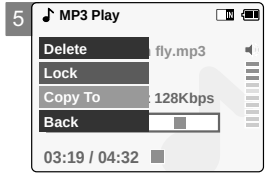
1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *MP3* mode and press the [OK] button.**
3. **Press the [Menu] button when the music list appears.**



4. **Move the [▲/▼] switch to select <File Options> and press the [OK] button.**



5. **Move the [▲/▼] switch to select <Copy To> and press the [OK] button.**
   ◆ If you selected the Storage type 'External', the file is copied to 'Internal'.



6. **Move the [▲/▼] switch to select the followings and press the [OK] button.**
   ◆ **Selected**: Copy the selected music file.
   ◆ **All**: Copy all music files.
   ◆ **Cancel**: Cancel copying music files.
7. **Press the [Menu] button to finish copying the files.**

Note

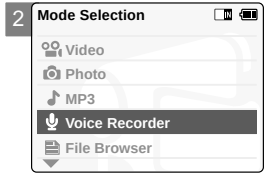
⌘ If you set Hold function with the MP3 Hold switch, you can't delete, lock or copy music files. You can only use Power switch and volume [+]/[-] buttons.

Voice Recorder Mode : Recording

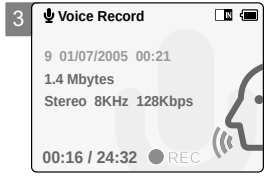
Recording Voice

You can record voice using the built-in microphone in the CAM.

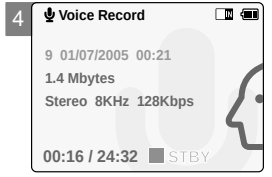
1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Voice Recorder* mode and press the [OK] button.**



3. **Press the [Record/Stop] button to record voice.**
   ◆ The elapsed time and <● REC> is displayed. It starts recording.



4. **Press the [Record/Stop] button to stop recording voice.**
   ◆ <■ STBY> is displayed and it stops recording.

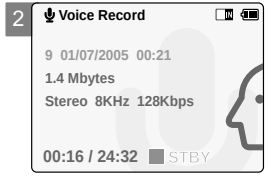


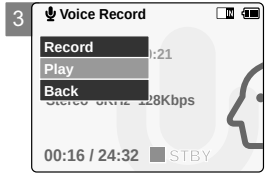
Voice Recorder Mode : Playing

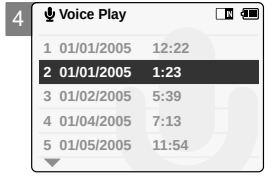
Playing Voice files

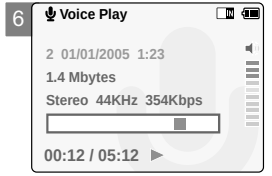
You can hear the recorded voice connecting earphones.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Voice Recorder* mode and press the [OK] button.**
3. **Press the [Menu] button when the Voice Record screen appears.**
4. **Move the [▲/▼] switch to select <Play> and press the [OK] button.**
5. **Move the [▲/▼] switch to select the file you want to play.**
6. **Press the [OK] button to play the recorded voice.**
   ◆ Press the [OK] button to pause playing.









The button and switch you use when playing the recording

Play/Pause [OK] button: Play or pause the voice file
Rewind [▲] switch: Rewind the voice file
Fast Forward [▼] switch: Wind the voice file forward

Note

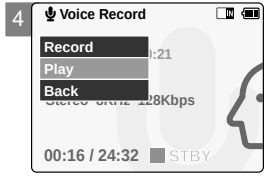
⌘ Press the [Back] button while recording standby status to view the file list.

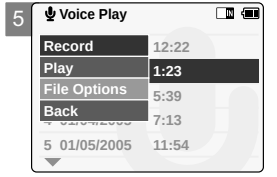
Voice Recorder Mode : Selecting File Options

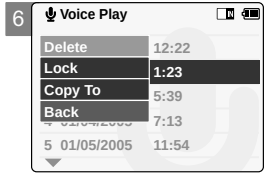
Deleting Voice files

You can delete voice files you want.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Voice Recorder* mode and press the [OK] button.**
3. **Press the [Menu] button when the Voice Record Screen appears.**
4. **Move the [▲/▼] switch to select <Play> and press the [OK] button.**
5. **Press the [Menu] button to select <File Options> and press the [OK] button.**
   ◆ You can select <File Options> only in <Play>.
6. **Move the [▲/▼] switch to select <Delete> and press the [OK] button.**
7. **Move the [▲/▼] switch to select the followings and press the [OK] button.**
   ◆ **Selected**: The selected voice file is deleted.
   ◆ **All**: All voice files are deleted.
   ◆ **Cancel**: Cancel deleting voice files.
8. **Press the [Menu] button to finish deleting the files.**







Note

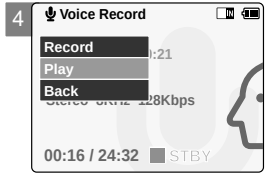
⌘ If you select <Back> in the menu, the previous menu appears.

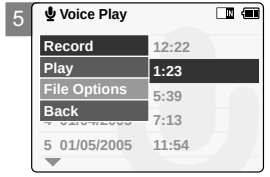
Voice Recorder Mode : Selecting File Options

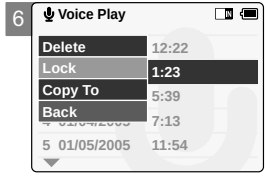
Locking Voice files

You can lock the important voice file not to be deleted.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Voice Recorder* mode and press the [OK] button.**
3. **Press the [Menu] button when the Voice Record screen appears.**
4. **Move the [▲/▼] switch to select <Play> and press the [OK] button.**
5. **Press the [Menu] button to select <File Options> and press the [OK] button.**
   ◆ You can select <File Options> only in <Play>.
6. **Move the [▲/▼] switch to select <Lock> and press the [OK] button.**
7. **Move the [▲/▼] switch to select the followings and press the [OK] button.**
   ◆ **Selected**: The selected voice file is locked.
   ◆ **All**: All voice files are locked.
   ◆ **Cancel**: Cancel locking voice files.
8. **Press the [Menu] button to finish locking the files.**







Note

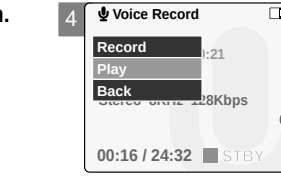
⌘ If you select <Back> in the menu, the previous menu appears.

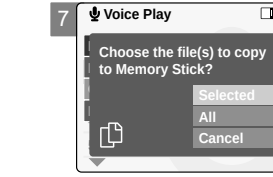
Voice Recorder Mode : Selecting File Options

Copying Voice files

You can copy the voice file to the internal or external memory.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *Voice Recorder* mode and press the [OK] button.**
3. **Press the [Menu] button when the Voice Record screen appears.**
4. **Move the [▲/▼] switch to select <Play> and press the [OK] button.**
5. **Press the [Menu] button to select <File Options> and press the [OK] button.**
   ◆ You can select <File Options> only in <Play>.
6. **Move the [▲/▼] switch to select <Copy To> and press the [OK] button.**
   ◆ If you selected the Storage type 'External', the file is copied to 'Internal'.
7. **Move the [▲/▼] switch to select the followings and press the [OK] button.**
   ◆ **Selected**: Copy the selected voice file.
   ◆ **All**: Copy all voice files.
   ◆ **Cancel**: Cancel copying voice files.
8. **Press the [Menu] button to finish copying the files.**





Note

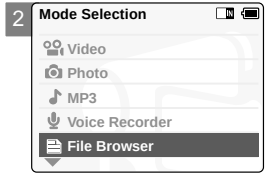
⌘ If you select <Back> in the menu, the previous menu appears.

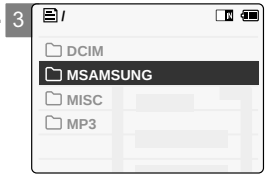
Using File Browser

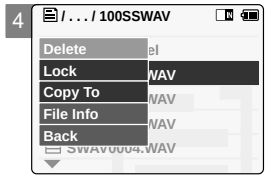
Deleting Files or Folders

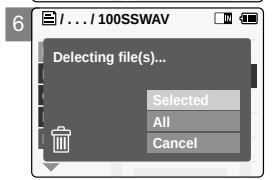
You can delete the file(AVI, MP3, JPEG, WAV) or folders you recorded.

1. **Move the [Mode Selector] down to turn on the CAM and press it again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *File Browser* and press the [OK] button.**
3. **Move the [▲/▼] switch to select <MSAMSUNG> folder and press the [OK] button.**
4. **Move the [▲/▼] switch to select the folder to find the file you want to delete. Press the [OK] button.**
   ◆ Press the [Menu] button if you want to delete the selected folder.
   ◆ Perform these steps repeatedly until the file you want to delete appears.
5. **Press the [Menu] button and move the [▲/▼] switch. Press the [OK] button after selecting <Delete>.**
6. **Move the [▲/▼] button to select the setting you want. Press the [OK] button.**
   ◆ **Selected**: The selected file is deleted.
   ◆ **All**: All files are deleted.
   ◆ **Cancel**: Cancel deleting files.
7. **Press the [Menu] button to finish deleting the files or folders.**









Note

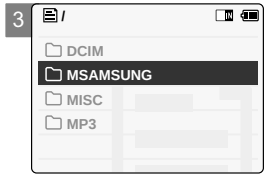
※ If you select <Back> in the menu, the previous menu appears.

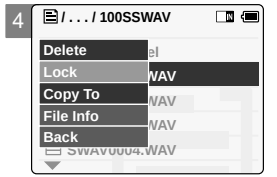
Using File Browser

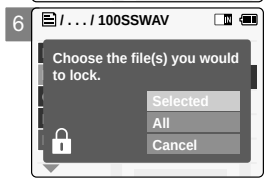
Locking Files

You can lock the important video files or photo files not to be deleted.

1. **Move the [Mode Selector] down to turn on the CAM and press it again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *File Browser* and press the [OK] button.**
3. **Move the [▲/▼] switch to select <MSAMSUNG> folder and press the [OK] button.**
4. **Move the [▲/▼] switch to select the file you want to lock. Press the [OK] button.**
   ◆ Perform these steps repeatedly until the file you want to lock appears.
5. **Press the [Menu] button and move the [▲/▼] switch. Press the [OK] button after selecting <Lock>.**
6. **Move the [▲/▼] button to select the followings. Press the [OK] button.**
   ◆ **Selected**: The selected file is locked.
   ◆ **All**: All files are locked.
   ◆ **Cancel**: Cancel locking files.
7. **Press the [Menu] button to finish locking the files.**
   ◆ The [🔒] icon is displayed on the locked file.







Notes

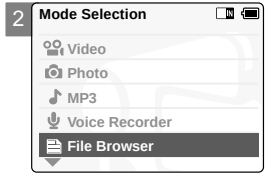
※ If you select <Back> in the menu, the previous menu appears.
※ You can't lock folders.

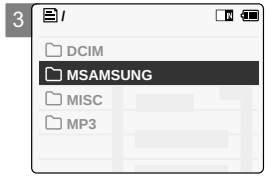
Using File Browser

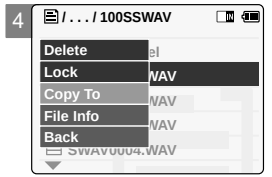
Copying Files or Folders

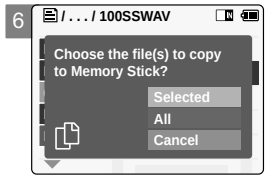
You can copy the file or folder to the internal or external memory.

1. **Move the [Mode Selector] down to turn on the CAM and press it again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *File Browser* and press the [OK] button.**
3. **Move the [▲/▼] switch to select <MSAMSUNG> folder and press the [OK] button.**
4. **Move the [▲/▼] switch to select the folder to find the file you want to copy. Press the [OK] button.**
   ◆ Press the [Menu] button if you want to copy the selected folder.
   ◆ Perform these steps repeatedly until the file you want to copy appears.
5. **Press the [Menu] button and move the [▲/▼] switch. Press the [OK] button after selecting <Copy To>.**
   ◆ If you selected the Storage type 'External', the file is copied to 'Internal'.
6. **Move the [▲/▼] button to select the followings. Press the [OK] button.**
   ◆ **Selected**: Copy the selected file.
   ◆ **All**: Copy all files.
   ◆ **Cancel**: Cancel copying files.
7. **Press the [Menu] button to finish copying the files or folders.**









Note

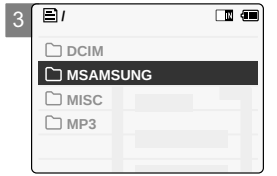
※ If you select <Back> in the menu, the previous menu appears.

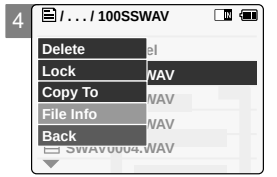
Using File Browser

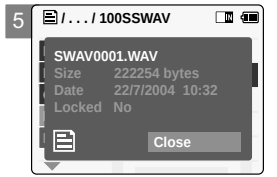
Viewing File Information

You can see the file name, format, size and date.

1. **Move the [Mode Selector] down to turn on the CAM and press it again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *File Browser* and press the [OK] button.**
3. **Move the [▲/▼] switch to select <MSAMSUNG> folder and press the [OK] button.**
4. **Move the [▲/▼] switch to select the file you want to see its file information. Press the [OK] button.**
   ◆ Perform these steps repeatedly until the file you want to see its file information appears.
5. **Press the [Menu] button and move the [▲/▼] switch. Press the [OK] button after selecting <File Info>.**
   ◆ The screen with file name, format, size and date appears.
6. **Press the [Menu] button to finish viewing file information.**
   ◆ If you select <Close> in the screen, the screen disappears.







MEMO

4 Setting the CAM

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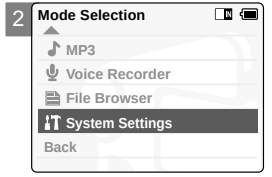
Setting Your the CAM : Adjusting the LCD Monitor

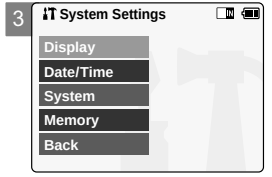
Adjusting the LCD Brightness

You can adjust the brightness of the LCD monitor depending on the situation.

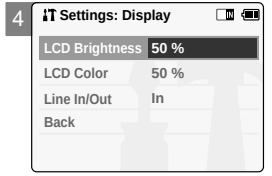
1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *System Settings* and press the [OK] button.**



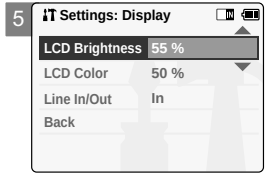
3. **Move the [▲/▼] switch to select <Display> and press the [OK] button.**



4. **Move the [▲/▼] switch to select <LCD Brightness> and press the [OK] button.**
   ◆ You can adjust the LCD Brightness from 0% to 100%.



5. **Move the [▲/▼] switch to select the brightness you want.**
6. **Press the [Menu] button to finish setting.**



Notes

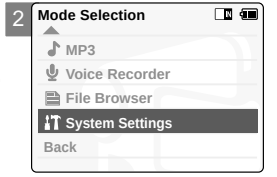
- If you select <Back> in the menu, the previous menu appears.
- A brighter LCD Monitor setting consumes more battery power.

Setting Your the CAM : Adjusting the LCD Monitor

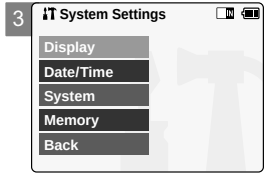
Adjusting the LCD Color

You can adjust the color of the LCD monitor depending on the situation.

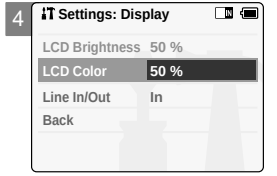
1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *System Settings* and press the [OK] button.**



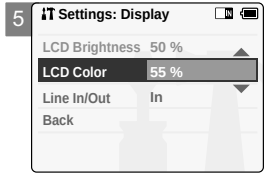
3. **Move the [▲/▼] switch to select <Display> and press the [OK] button.**



4. **Move the [▲/▼] switch to select <LCD Color> and press the [OK] button.**
   ◆ You can adjust the LCD Brightness from 0% to 100%.



5. **Move the [▲/▼] switch to select the color you want.**
6. **Press the [Menu] button to finish setting.**



Note

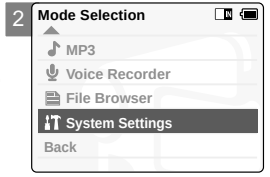
- If you select <Back> in the menu, the previous menu appears.

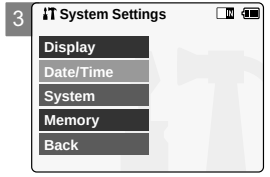
Setting the CAM : Adjusting Date/Time

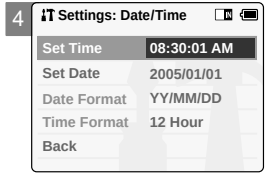
Setting Time

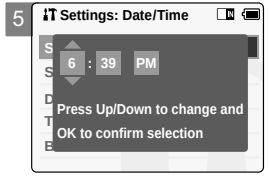
The built-in clock creates the time stamp. You can adjust the time you use.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *System Settings* and press the [OK] button.**
3. **Move the [▲/▼] switch to select <Date/Time> and press the [OK] button.**
4. **Move the [▲/▼] switch to select <Set Time> and press the [OK] button.**
5. **Move the [▲/▼] switch to set time and press the [OK] button.**
   ◆ Move the [▲/▼] switch to change the setting and press the [OK] button to confirm selection and move to the next setting.
6. **Press the [Menu] button to finish setting.**









Note

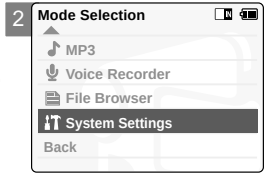
※ If you select <Back> in the menu, the previous menu appears.

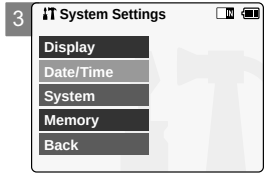
Setting the CAM : Adjusting Date/Time

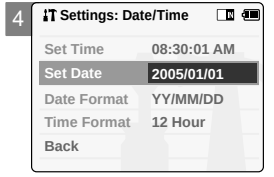
Setting Date

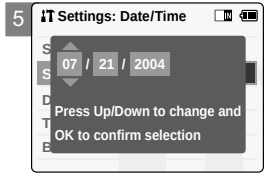
The built-in calendar creates the date stamp. You can adjust the date you use.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *System Settings* and press the [OK] button.**
3. **Move the [▲/▼] switch to select <Date/Time> and press the [OK] button.**
4. **Move the [▲/▼] switch to select <Set Date> and press the [OK] button.**
5. **Move the [▲/▼] switch to set date and press the [OK] button.**
   ◆ Move the [▲/▼] switch to change the setting and press the [OK] button to confirm selection and move to the next setting.
6. **Press the [Menu] button to finish setting.**









Note

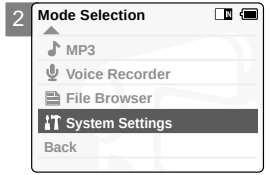
※ If you select <Back> in the menu, the previous menu appears.

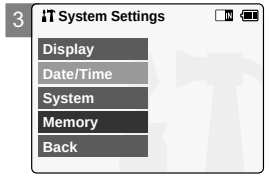
Setting the CAM : Adjusting Date/Time

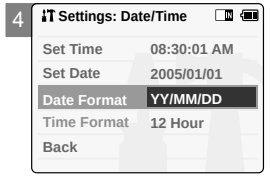
Setting Date Format

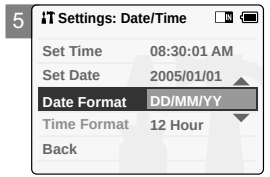
You can select the date format to display.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *System Settings* and press the [OK] button.**
3. **Move the [▲/▼] switch to select <Date/Time> and press the [OK] button.**
4. **Move the [▲/▼] switch to select <Date Format> and press the [OK] button.**
5. **Move the [▲/▼] switch to select desired format and press the [OK] button.**
   ◆ **YY/MM/DD**: The date is displayed in order as Year/Month/Date.
   ◆ **DD/MM/YY**: The date is displayed in order as Date/Month/Year.
   ◆ **MM/DD/YY**: The date is displayed in order as Month/Date/Year.
6. **Press the [Menu] button to finish setting.**









Note

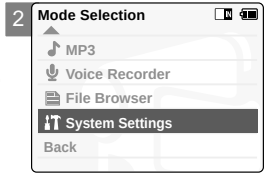
※ If you select <Back> in the menu, the previous menu appears.

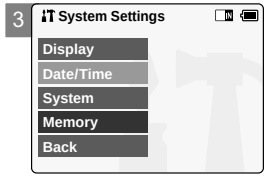
Setting the CAM : Adjusting Date/Time

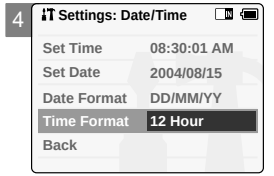
Setting Time Format

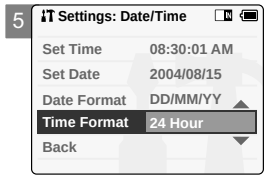
You can select the time format to display.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *System Settings* and press the [OK] button.**
3. **Move the [▲/▼] switch to select <Date/Time> and press the [OK] button.**
4. **Move the [▲/▼] switch to select <Time Format> and press the [OK] button.**
5. **Move the [▲/▼] switch to select desired format and press the [OK] button.**
   ◆ **12 Hour**: The time is displayed as the unit of 12 hours.
   ◆ **24 Hour**: The time is displayed as the unit of 24 hours.
6. **Press the [Menu] button to finish setting.**









Note

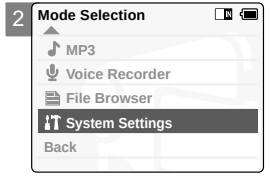
※ If you select <Back> in the menu, the previous menu appears.

Setting the CAM : Setting the System

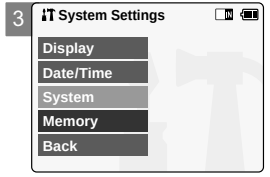
Setting the Auto Shut off

To save energy or battery, you can set the Auto Shut off function.

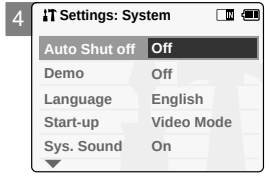
1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *System Settings* and press the [OK] button.**



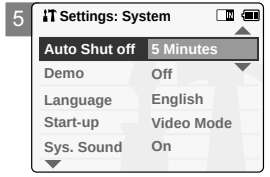
3. **Move the [▲/▼] switch to select <System> and press the [OK] button.**



4. **Move the [▲/▼] switch to select <Auto Shut off> and press the [OK] button.**



5. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
   ◆ **Off**: Cancel the Auto Shut off function.
   ◆ **5 Minutes**: the CAM turns off after 5 minutes.
6. **Press the [Menu] button to finish setting.**



Notes

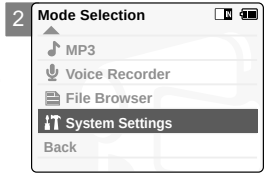
※ If you select <Back> in the menu, the previous menu appears.
※ If you touch the CAM or press any button during Auto Shut off, the LCD screen appears again.

Setting the CAM : Setting the System

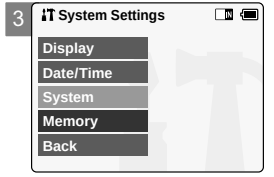
Setting the Demo Function

You can view the various functions for 5 minutes that are supported by the CAM if you set the Demo Function.

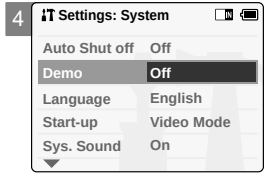
1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *System Settings* and press the [OK] button.**



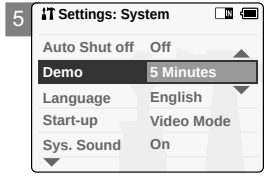
3. **Move the [▲/▼] switch to select <System> and press the [OK] button.**



4. **Move the [▲/▼] switch to select <Demo> and press the [OK] button.**



5. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
   ◆ **Off**: Cancel the Demo function.
   ◆ **5 Minutes**: Start the Demo function in 5 minutes.
   ◆ **Play Now**: Start the Demo function now.
6. **Press the [Menu] button to finish setting.**



Note

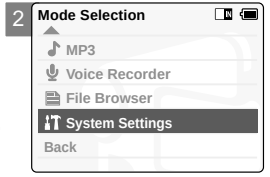
※ If you select <Back> in the menu, the previous menu appears.

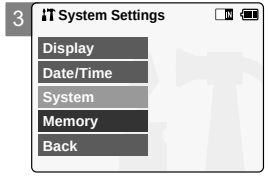
Setting the CAM : Setting the System

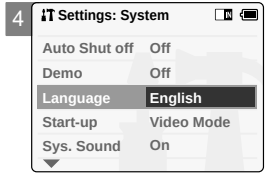
Selecting Language

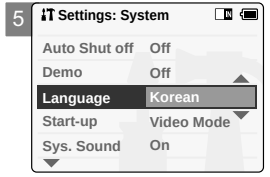
You can select a language for the OSD(On-screen Display) menu.
Menus and messages can be displayed in English and Korean. The selected language is displayed even if you turn on the CAM again.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *System Settings* and press the [OK] button.**
3. **Move the [▲/▼] switch to select <System> and press the [OK] button.**
4. **Move the [▲/▼] switch to select <Language> and press the [OK] button.**
5. **Move the [▲/▼] switch to select desired language and press the [OK] button.**
   ◆ **English**: The language is displayed in English.
   ◆ **Korean**: The language is displayed in Korean.
6. **Press the [Menu] button to finish setting.**









Note

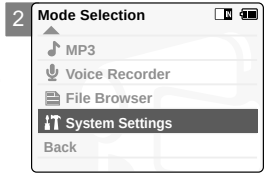
※ If you select <Back> in the menu, the previous menu appears.

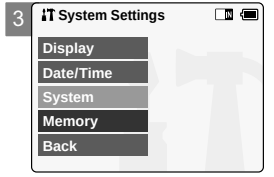
Setting the CAM : Setting the System

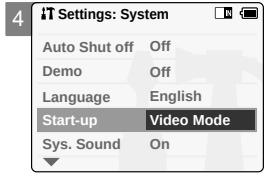
Setting Start-up Mode

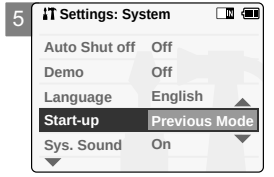
You can select the starting mode displayed when you turn the CAM on.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *System Settings* and press the [OK] button.**
3. **Move the [▲/▼] switch to select <System> and press the [OK] button.**
4. **Move the [▲/▼] switch to select <Start-up> and press the [OK] button.**
5. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
   ◆ **Video Mode**: The CAM starts up in the Video Mode.
   ◆ **Previous Mode**: The CAM starts up in the mode you used last.
6. **Press the [Menu] button to finish setting.**









Note

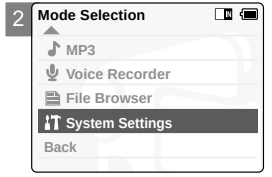
※ If you select <Back> in the menu, the previous menu appears.

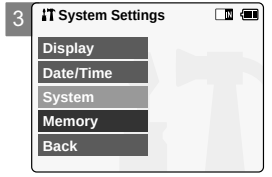
Setting the CAM : Setting the System

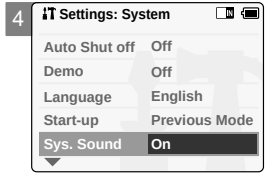
Setting the Sound

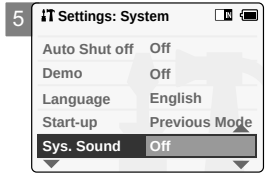
You can set the sound of the CAM as you want.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *System Settings* and press the [OK] button.**
3. **Move the [▲/▼] switch to select <System> and press the [OK] button.**
4. **Move the [▲/▼] switch to select <Sys. Sound> and press the [OK] button.**
5. **Move the [▲/▼] switch to select desired sound and press the [OK] button.**
   ◆ **On:** Turn the effect sound on.
   ◆ **Off:** Turn the effect sound off.
6. **Press the [Menu] button to finish setting.**









Note

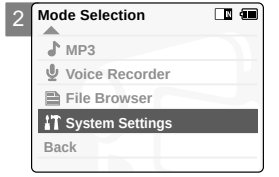
※ If you select <Back> in the menu, the previous menu appears.

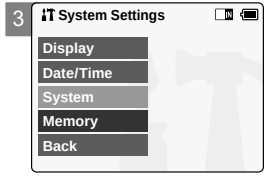
Setting the CAM : Setting the System

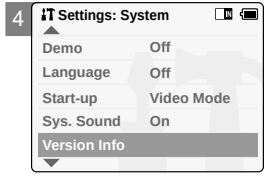
Viewing Version Information

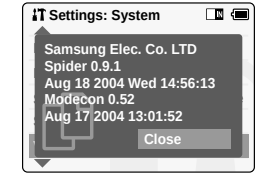
You can see the information of the version.

1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *System Settings* and press the [OK] button.**
3. **Move the [▲/▼] switch to select <System> and press the [OK] button.**
4. **Move the [▲/▼] switch to select <Version Info> and press the [OK] button.**
   ◆ The version of the CAM is displayed.
5. **Press the [Menu] button to finish viewing version information.**









Note

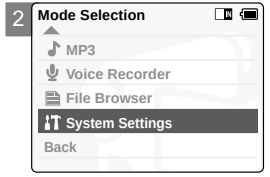
※ If you select <Back> in the menu, the previous menu appears.

Setting the CAM : Setting Memory

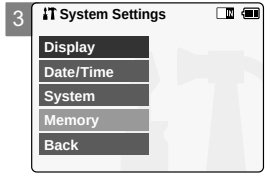
Selecting the Storage Type

Select the storage type(internal or Memory Stick, Memory Stick Pro) before recording or taking pictures.

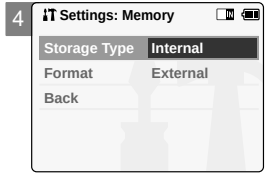
1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *System Settings* and press the [OK] button.**

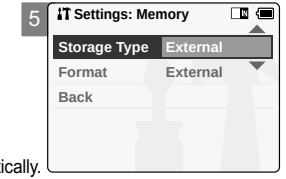


3. **Move the [▲/▼] switch to select <Memory> and press the [OK] button.**



4. **Move the [▲/▼] switch to select <Storage Type> and press the [OK] button.**
5. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
   ◆ **Internal**: The recorded file, video, photo, mp3 file and voice file is stored in internal memory.
   ◆ **External**: The recorded file, video, photo, mp3 file and voice file is stored in external memory(Memory stick or Memory stick pro).
6. **Press the [Menu] button to finish setting.**





Notes

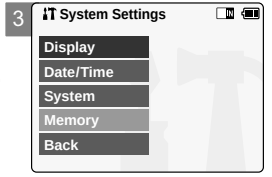
- If you select <Back> in the menu, the previous menu appears.
- 'Internal' is selected by default.
- If you insert the Memory Stick or Memory Stick Pro, the memory type selection screen appears automatically.

Setting the CAM : Setting Memory

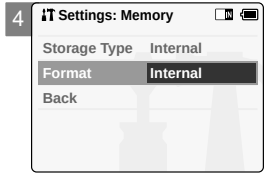
Formatting the Memory

You can format the internal memory, Memory Stick or the Memory Stick Pro to erase all files.

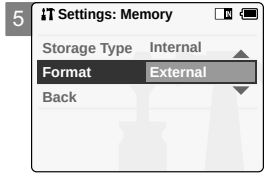
1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *System Settings* and press the [OK] button.**
3. **Move the [▲/▼] switch to select <Memory> and press the [OK] button.**



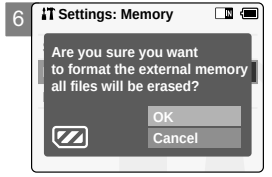
4. **Move the [▲/▼] switch to select <Format> and press the [OK] button.**



5. **Move the [▲/▼] switch to select desired setting and press the [OK] button.**
   ◆ **Internal**: Format the internal memory. If you select 'Internal', the message is displayed to confirm.
   ◆ **External**: Format the external memory. If you select 'External', the message is displayed to confirm.



6. **Press the [OK] button to format.**
   ◆ Select <Cancel> to cancel formatting.
7. **Press the [Menu] button to finish setting.**



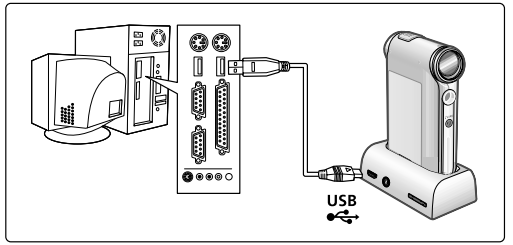
Note

- If you select <Back> in the menu, the previous menu appears.

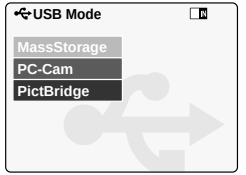
Setting the CAM : Using USB Mode

Storing Files to the External Memory

1. **Connect the CAM to the PC with the USB cable.**



2. **Move [Mode Selector] down to turn on the CAM.**
   ◆ USB menu screen appears automatically.
3. **Move the [▲/▼] switch to select <MassStorage> and press the [OK] button.**
   ◆ Your PC recognize the USB device automatically. You may install the USB Driver manually on Windows 98SE operating system.
4. **Disconnect the USB cable if you finish storing.**



Notes

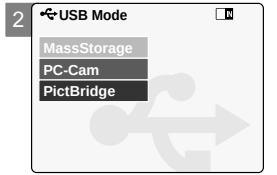
- If you disconnect the USB cable from the PC or the CAM during the data transfer, the data transfer will stop and the data may be damaged.
- If you connect the USB cable to a PC using a USB HUB or with other device at the same time, it might cause conflict and may not work properly. If this occurs, remove all other devices and try the connection again.
- Install the Windows 98SE Driver on Windows 98SE operating system using supplied CD. Refer to page 113 for further details.

Setting the CAM : Using USB Mode

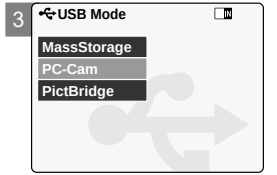
Using PC Cam

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

1. **Connect the CAM to the PC with the USB cable.**
2. **Move [Mode Selector] down to turn on the CAM.**
   ◆ USB mode screen appears automatically.



3. **Move the [▲/▼] switch to select <PC-Cam> and press the [OK] button.**



Notes

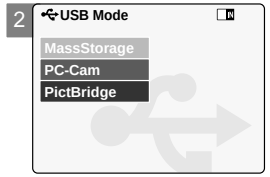
- This function requires the specified USB Streaming Driver and Software to be installed. Refer to page 112 for further details.
- The CAM can be used as a PC Camera for programs such as Windows Messenger. The use of the PC Cam varies depending on the Software. Refer ro the documentation of the repective software products.

Setting the CAM : Using USB Mode

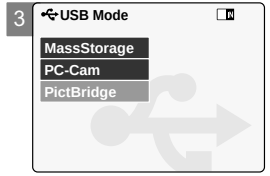
Connecting the CAM to a Printer

By connecting the CAM to printers with PictBridge support (sold separately), you can send images from the internal memory or external memory (Memory Stick or Memory Stick Pro) directly to the printer with a few simple operations.

1. **Connect the CAM to the printer with PictBridge support with the USB cable.**
2. **Move [Mode Selector] down to turn on the CAM.**
   ◆ USB mode screen appears automatically.



3. **Move the [▲/▼] switch to select <PictBridge> and press the [OK] button.**



4. **Move the [▲/▼] switch to select <Date> and press the [OK] button.**
5. **Move the [▲/▼] switch to select <On> or <Off> and press the [OK] button.**
6. **Move the [▲/▼] switch to select <Copies> and press the [OK] button.**
7. **Move the [▲/▼] switch to select desired number and press the [OK] button.**
   ◆ You can select the number of copy from 0 to 99.
8. **Move the [▲/▼] switch to select <Print> and press the [OK] button.**

Notes

- ※ If you select <Back> in the menu, the previous menu appears.
- ※ If you want to select the next or previous photo, select <Next> or <Previous> using [▲/▼] switch.

5 Miscellaneous Information

Selecting Line In/Out 106

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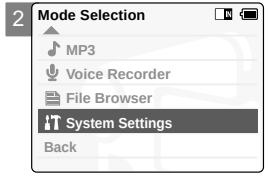
Miscellaneous Information

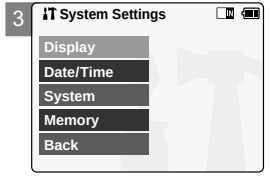
Selecting Line In/Out

If you want to play your recorded file on TV monitor, select Line Out. If you record TV program to the CAM, select Line In.

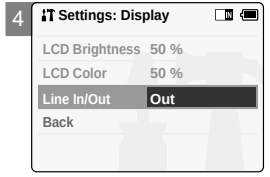
1. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
2. **Move the [▲/▼] switch to select *System Settings* and press the [OK] button.**



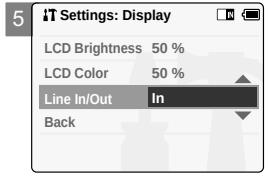
3. **Move the [▲/▼] switch to select <Display> and press the [OK] button.**



4. **Move the [▲/▼] switch to select <Line In/Out> and press the [OK] button.**



5. **Move the [▲/▼] switch to select <In> or <Out> and press the [OK] button.**
6. **Press the [Menu] button to finish setting.**



Notes

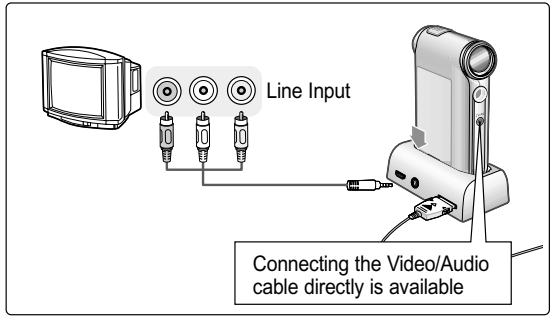
- ※ If you select <Back> in the menu, the previous menu appears.
- ※ 'Out' is selected by default.

Miscellaneous Information: Connecting the CAM with other Devices

Connecting the CAM to TV

You can connect the CAM to a TV set directly.

1. **Connect the AV Input/Output cable to the AV Input/Output Jack of the CAM.**
2. **Connect the Video/Audio cable to the external input terminal of your TV set by matching the colors of the terminals.**



Notes

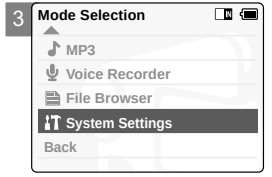
- ※ When connecting to the AV Input/Output Jack, you must connect the AC Power Adapter to the CAM.
- ※ If you select 'Line out', the CAM is set to 'Output mode' and if you select 'Line in', the CAM is set to 'Input mode'.

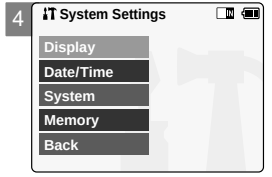
Miscellaneous Information: Connecting the CAM with other Devices

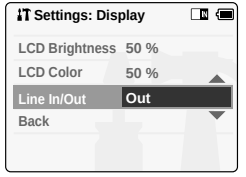
Playing Video files on a TV Monitor

You can view the recorded file on a TV Monitor using Video/Audio cable.
If you want to know about connecting the CAM to a TV set,
refer to page 107.

1. **Turn your TV on and select the external input source connected the CAM.**
   ◆ Select the external input source by pressing the button on the remote control or TV set.
2. **Move [Mode Selector] down to turn on the CAM.**
   ◆ The Video Record screen appears.
3. **Move the [▲/▼] switch to select <System Settings> and press the [OK] button.**
4. **Select <Out> in <Display> menu and press the [OK] button.**
   (Refer to page 106)
5. **Press the [Back] button to play the video file on the Video Record Mode.**
6. **Move the [▲/▼] switch to find the video file you want to play.**
7. **Press the [OK] button to play the video file.**







Notes

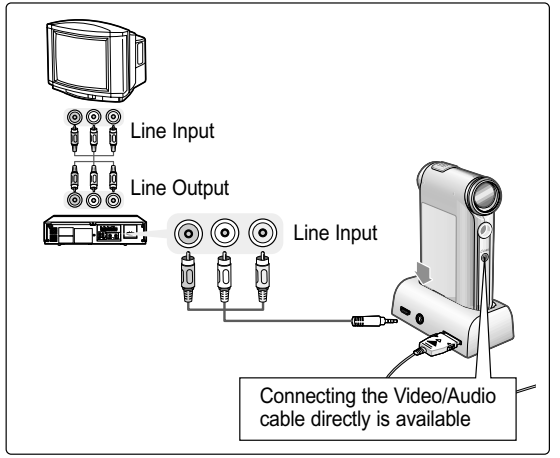
- Refer to operating instructions of your TV or VCR for detailed information on connecting external devices.
- You can playback and stop using the button same as Playing video file on the LCD Monitor.
  (Refer to page 36)

Miscellaneous Information: Connecting the CAM with other Devices

Connecting the CAM to VCR or DVD Recorder

You can connect the CAM to VCR to copy the recorded files to the video tape.

1. **Connect the Video/Audio cable to the AV Input/Output Jack of the CAM.**
2. **Connect the Video/Audio cable to the external input terminal of your VCR set by matching the colors of the terminals.**
3. **Connect the TV to the VCR with the Video/Audio cable.**
4. **Connect the Video/Audio cable to the Video line Output and TV line Input.**
5. **Select the 'Output' on the TV or the remote control of TV.**



Note

- If TV set has no Line Input, you cannot view the output screen of the CAM.

Miscellaneous Information: Connecting the CAM with other Devices

Copying Video files to a VCR Tape

You can copy your recorded files to a regular blank video tape. Connect the CAM to a VCR using the Audio/Video cable before recording.

1. **Insert the blank video tape to the VCR and select 'Line Input'.**
2. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
3. **Select <Out> in *System Setting* and press the [OK] button.** (Refer to page 106)
4. **Select <Play> in the *Video* mode to find the desired recorded file with the [▲/▼] switch.** (Refer to page 36)
5. **Move the [▲/▼] switch to find the video file you want to copy and press the [OK] button.**
6. **Press the [Record/Stop] button on the VCR to start recording.**

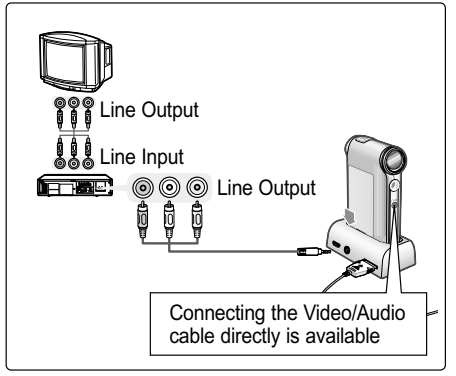
Notes

- Refer to operating instructions of your TV or VCR for detailed information on connecting external devices.
- You can playback and stop using the button same as Playing video file on the LCD Monitor. (Refer to page 36)

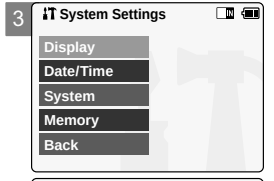
Miscellaneous Information: Connecting the CAM with other Devices

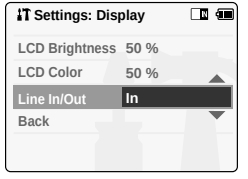
Recording TV program to the CAM

You can record the TV program to the CAM using Video/Audio cable.
If you want to know about connecting the CAM to a TV set,
refer to page 107.



1. **Turn your TV on and select the program to be recorded.**
2. **Move [Mode Selector] down to turn the CAM on.**
   ◆ The Mode Selection screen appears.
3. **Select <In> in <Display> menu and press the [OK] button.** (Refer to page 106)
   ◆ Press the [Menu] button to finish setting.
4. **Press the [Record/Stop] button in Video Record mode to start recording.**
   ◆ Press the [Record/Stop] button again to pause and press it again to start recording.





Note

- Refer to operating instructions of your TV or VCR for detailed information on connecting external devices.

Miscellaneous Information: Installing Programs

Installing Image Mixer

You can edit the video file with this program.

Windows

1. **Quit the file and folder you work.**
2. **Insert the program CD into the CD-ROM drive.**
   - ◆ The Setup screen appears automatically.
   - ◆ Open the CD-ROM Drive in 'My Computer' and double-click <Install Image Mixer>.
3. **Click <Image Mixer>.**
4. **Select the language.**
5. **Follow the steps appeared on the PC monitor.**
   - ◆ You can use the Image Mixer after restarting your PC.

Mac

1. **Quit the file and folder you work.**
2. **Insert the program CD into the CD-ROM drive.**
   - ◆ The Setup screen appears automatically.
   - ◆ Open the CD-ROM Drive in 'My Computer' and double-click <Install Image Mixer>.
3. **Click <Image Mixer>.**
4. **Select the language.**
5. **Follow the steps appeared on the PC monitor.**
   - ◆ You can use the Image Mixer after restarting your PC.

Notes

- ※ If Image Mixer is not installed, install it again after uninstalling. Uninstall Image Mixer in the 'Control Panel'.
- ※ Do not connect the USB cable before installing the USB Driver. If you click 'ImageMixer', all files in the Software are installed automatically.
- ※ You can install the programs except 'ImageMixer' separately.

Miscellaneous Information: Installing Programs

Installing Windows98SE Driver

To use the USB cable, you may need to install the Windows98SE Driver.

Before you begin!

- ※ Do not connect your device to a PC before installing the program.
- ※ The following instructions are based on Windows 98SE operating system.

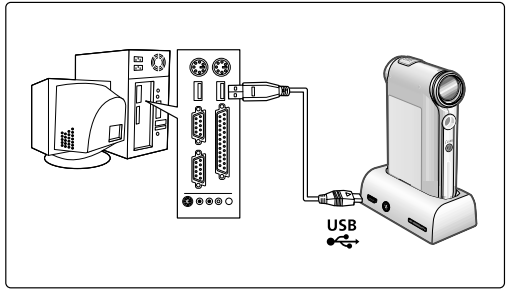
1. **Insert the Software CD provided with the CAM into the CD-ROM drive.**
   - ◆ The installation screen appears on your PC Monitor.
2. **If the installation screen does not automatically appear, click 'Run' on the Windows 'Start' menu and execute the SETUP.EXE file to begin the installation**.
   - ◆ If your CD-ROM drive is set to 'D:' drive, type 'D:\ setup.exe' in the RUN...dialog press 'Enter' on your keyboard.
3. **Follow the steps appeared on the PC monitor.**
   - ◆ You can use the USB Driver after restarting your PC.

Miscellaneous Information: Connecting the CAM with other Devices

Connecting the CAM to a PC using the USB cable

You can connect the CAM to a PC that supports USB connections.
Use the provided USB cable for connection to a PC.

1. **Insert the cradle into the CAM.**
2. **Connect the provided USB cable to USB port of the cradle.**
3. **Move [Mode Selector] down to turn on the CAM and move it down again.**
   ◆ The Mode Selection screen appears.
4. **Connect the other side of the USB cable to the USB port of your PC.**
   ◆ If your Operating System is Windows XP, a Removable Disk pop-up dialog will appear.



Disconnecting USB Connection

After completing the data transfer, you must disconnect the cable in the following way.
1. Select the removable disk icon and click the right mouse button to select 'Safely Remove Hardware'.
2. Select 'Stop' and disconnect the USB cable when the pop-up screen disappears.

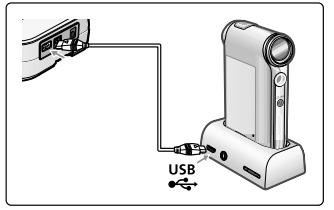
Notes

- If you disconnect the USB cable from the PC or the CAM during the data transfer, the data transfer will stop and the data may be damaged.
- If you connect the USB cable to a PC using a USB HUB or with other device at the same time, it might cause conflict and may not work properly. If this occurs, remove all other devices and try the connection again.

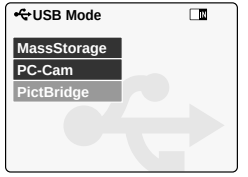
Miscellaneous Information: Printing Photos

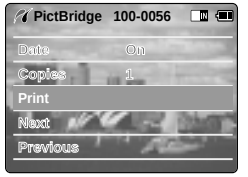
Printing with Pictbridge Function

With the Pictbridge Support, you can control the printer directly through the CAM in order to print out stored pictures.
For direct printing of your stored pictures using the PictBridge function, you must connect the CAM to a PictBridge printer using a USB cable.



1. **Connect the CAM to the PC with the USB cable.**
2. **Move [Mode Selector] down to turn on the CAM.**
   ◆ USB menu screen appears automatically.
3. **Move the [▲/▼] switch to select <PictBridge> and press the [OK] button.**
4. **Move the [▲/▼] switch to select <Copies> and press the [OK] button.**
5. **Move the [▲/▼] switch to select desired number and press the [OK] button.**
   ◆ You can select the number of copy from 0 to 99.
6. **Move the [▲/▼] switch to select <Print> and press the [OK] button.**





Notes

- If you select <Back> in the menu, the previous menu appears.
- If you want to select the next or previous photo, select <Next> or <Previous> using [▲/▼] switch.
- For further details about printing photos, refer to the User's manual of the printer.

Miscellaneous Information: Printing Photos

Printing Photos with DPOF Files

DPOF (Digital Printing Order Format) defines the print information for the specific photos and number of each photo on the internal memory, Memory Stick or Memory Stick Pro. You can easily make prints on a DPOF compatible printer or order copies. (Refer to page 115 about connecting the CAM to the photo printer)

Printing DPOF files of the Memory Stick

1. Set the print information for the photo you want to print. (Refer to page 57)
2. Insert the memory stick into the photo printer.
3. Follow the steps of the printer to print out photos.

Printing Printing DPOF of the CAM

1. Set the print information for the photo you want to print. (Refer to page 57)
2. Connect the CAM to the DPOF compatible printer with the USB cable.
3. Follow the steps of the printer to print out photos.

Note

- For further details about printing photos, refer to the User's manual of the printer.

Maintenance : Cleaning and Maintaining the CAM

After Using the CAM

- **For the safekeeping of the CAM, follow these steps.**
  - ✓ Turn the CAM off.
  - ✓ Remove the Battery Pack (refer to page 18).
  - ✓ Remove the Memory Stick (refer to page 30).
- **To prevent any damage to the LCD monitor, do not apply excessive force on its moving parts.**
- **Do not drop or in anyway shock the CAM.**
- **For prolonged use of the CAM, avoid using it in places subject to excessive humidity or dust.**
- **Do not leave the CAM in places subject to:**
  - ✓ Excessive humidity, steam, soot or dust
  - ✓ Excessive shock or vibration.
  - ✓ Extremely high (over 50°C or 122°F) or extremely low (under 0°C or 32°F) temperatures.
  - ✓ Strong electromagnetic fields.
  - ✓ Direct sunlight or in a closed car on a hot day.
- **For the safe use of the battery pack, follow these.**
  - ✓ To conserve battery power, be sure to turn off the CAM power when not in use.
  - ✓ Battery consumption may vary depending on the condition of use. Recording with many starts and stops, frequent zooming, and recording in low temperatures will shorten actual recording times.
  - ✓ Dispose of used battery packs promptly. Do not dispose of them in fire.
  - ✓ The battery pack will become warm during charging and use. This is not a malfunction.
  - ✓ The battery pack has a limited service life. If the period of use becomes noticeably shorter with a normal charge, the battery pack is at the end of its service life. Replace it with a new battery pack.
- **For the safe use of the Memory Stick, follow these.**
  - ✓ The Memory Stick shoud be strored away from heaters and other heat sources. Avoid storing Memory Sticks under direct sunlight and avoid electromagnetic fields.
  - ✓ Do not power off any devices while transferring data, as this may destroy the data.
  - ✓ Back up your image data often to a hard disk or other permanent storage media.
  - ✓ Format the Memory Stick periodically.

Maintenance : Cleaning and Maintaining the CAM

Cleaning the Body

- **To Clean the Exterior of the CAM**
  - ✓ To clean the exterior, use a soft dry cloth. Wipe the body gently.
    Do not apply excessive force when cleaning, gently rub the surface.
  - ✓ The LCD monitor surface should not be pressed. Use a soft dry cloth to clean the surface.
  - ✓ To clean the lens, use an optional air blower to blow out dirt and other small objects. Do not wipe the lens with cloths or your fingers. If necessary, use lens cleaning paper.
  - ✓ Do not use thinner, alcohol or benzene for cleaning. Otherwise, the finish may be damaged.
  - ✓ Cleaning should be done only after the battery pack has been removed, and other power sources have been disconnected.

Note

- If the lens look dimmer, turn off the CAM and leave it for about 1 hour.

Maintenance : Cleaning and Maintaining the CAM

Using the CAM Abroad

- Each country or region has its own electric and color systems.
- Before using the CAM abroad, check the following items:

Power Sources

- You can use the CAM in any country or area with the supplied AC Power Adapter where the power input range is 100V ~ 240V, 50/60Hz.
- Use a commercially available AC plug adapter if necessary, depending on the design of the local wall outlets.

Color System

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

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

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

Troubleshooting

Self Diagnosis Display

Display	Blinking	Informs that	Action
	Slow	The battery pack is almost discharged	Change to a charged one or connect to other power source
NO STICK!	Slow	No memory stick is inserted	Insert a memory stick
STICK FULL!	Slow	Not enough space for saving pictures	Change to a new memory stick or delete recorded images
NO IMAGE!	Slow	There are no images recorded to play	Record a new still image
FILE ERROR!	Slow	The image file has an error	Delete the image or format the memory stick
STICK ERROR!	Slow	Memory stick is formatted by other device or has error in system folder	Format the memory stick using the camera menu
NOT FORMATTED!	Slow	Memory stick needs to be formatted	Format the memory stick using the camera menu

※ If these instructions do not solve your problem, contact your nearest Samsung dealer or authorized service center/personnel.

Symptom	Possible Causes	Measure
No power is supplied	The power is not connected properly The battery is dead The battery is too cold	Connect the AC adapter properly, page 21 Replace the dead battery pack Warm up the battery or move to warmer place
LCD monitor is blank	Multi-AV cable is connected Display option is turned off	Remove the cable Press the DISPLAY button to bring back OSD
DATE/TIME is wrong	The DATE/TIME is not set	Set the DATE/TIME, pages 90~91
Focus does not adjust automatically	Focus is set to manual mode Recording was done in a dark place Lens is covered with condensation	Set focus to AUTO Use strobe or lit the place Clear the lens and check the focus
The stick will not load properly	Memory stick is in wrong position Something fills in the memory stick slot	Insert the memory stick properly, page 30 Clear the memory stick slot

Troubleshooting

Symptom	Possible Causes	Measure
Color balance of picture is not natural	White balance adjustment is required	Set proper white balance, page 63
Digital zoom does not work	Digital special effect is applied	Turn off the digital special effects, page 48
Files stored in the memory stick cannot be deleted	Memory stick is protected File is locked	Remove the protection tab of memory stick Remove the lock on the file, page 84
Images on the LCD monitor appear dark	Ambient is too bright Ambient temperature is too low	Adjust the brightness and angle of LCD Low temperatures might produce a dark LCD display This is not a malfunction
Rear of the LCD monitor is hot	Prolonged use of LCD monitor	Close the LCD monitor to turn if off, or turn your device off to cool down
Play, rewind and fast forwarding do not work	The Photo Mode is selected	Select 'Video Mode' and select 'Play'
Memory stick cannot be played back (Photo mode)	The Video Mode is selected	Select 'Photo Mode' and select 'View'
No picture is taken when is fully pressed	Not enough free memory space is remained Memory card is formatted by different devices	Delete files from the memory stick Format the memory stick
Built-in flash will fire	Flash is forced to cancel Focus is set to infinity	Select different flash mode, page 61 Select AUTO, page 61 Flash is not available for recording
Cannot Record a video	The Photo Mode is selected	Select 'Video Mode'

Using the Menu

Video

- 1. Record
- 2. Play
- 3. File Options
  - Delete
    - Selected
    - All
    - Cancel
  - Lock
    - Selected
    - All
    - Cancel
  - Copy To
    - Selected
    - All
    - Cancel
  - Back
- 4. Settings
  - Size
    - 720
    - 360
  - Quallity
    - Super Fine
    - Fine
    - Normal
  - Focus
    - AF
    - MF
  - EIS
    - On
    - Off
  - White Balance
    - Auto
    - Hold
    - Outdoor
    - Indoor
  - Program AE
    - Auto
    - Sports
    - Spotlight
    - Sand/Snow
    - HS Shutter
  - BLC
    - Off
    - On
  - Effect
    - Off
    - Art
    - Mosaic
    - Sepia
    - Negative
    - Mirror
    - B&W
    - Emboss
  - Digital Zoom
    - Off
    - On
  - Back
- 5. Back

Photo

- 1. Capture
- 2. View
- 3. File Options
  - Delete
    - Selected
    - All
    - Cancel
  - Lock
    - Selected
    - All
    - Cancel
  - Copy To
    - Selected
    - All
    - Cancel
  - DPOF
  - Back
- 4. Settings
  - Size
    - 800X600
    - 640X480
    - 1280X960
  - Flash
    - Auto
    - On
    - Off
  - Focus
    - AF
    - MF
  - EIS
    - On
    - Off
  - White Balance
    - Auto
    - Hold
    - Outdoor
    - Indoor
  - Program AE
    - Auto
    - Sports
    - Spotlight
    - Sand/Snow
    - HS Shutter
  - BLC
    - Off
    - On
  - Effect
    - Off
    - Art
    - Mosaic
    - Sepia
    - Negative
    - Mirror
    - B&W
    - Emboss
  - Digital Zoom
    - Off
    - On
  - Back
- 5. Back

MP3

- 1. Play Options
  - Random Play
    - Off
    - On
  - Repeat
    - All
    - Off
    - One
  - Back
- 2. File Options
  - Delete
    - Selected
    - All
    - Cancel
  - Lock
    - Selected
    - All
    - Cancel
  - Copy To
    - Selected
    - All
    - Cancel
  - Back
- 3. Back

Using the Menu

Voice Recorder

- 1. Record
- 2. Play
- 3. File Options
  - Delete
    - Selected
    - All
    - Cancel
  - Lock
    - Selected
    - All
    - Cancel
  - Copy To
    - Selected
    - All
    - Cancel
  - Back
- 4. Back

File Browser

- 1. Delete
  - Selected
  - All
  - Cancel
- 2. Lock
  - Selected
  - All
  - Cancel
- 3. Copy To
  - Selected
  - All
  - Cancel
- 4. File Info
  - Close
- 5. Back

System Settings

- 1. Display
  - LCD Brightness
    - 0%
    - ⋮
    - 100%
  - LCD Color
    - 0%
    - ⋮
    - 100%
  - Line In/Out
    - In
    - Out
  - Back
- 2. Date/Time
  - Set Time
  - Set Date
  - Date Format
    - YY/MM/DD
    - DD/MM/YY
    - MM/DD/YY
  - Time Format
    - 12 Hour
    - 24 Hour
  - Back
- 3. System
  - Auto Shutoff
    - Off
    - 5 Minutes
  - Demo
    - Off
    - 5 Minutes
  - Language
    - English
    - Korean
  - Start-up
    - Video Mode
    - Previous Mode
  - Sys. Sound
    - On
    - Off
  - Version Info
  - Back
- 4. Memory
  - Storage Type
    - Internal
    - External
  - Format
    - Internal
    - External
  - Back
- 5. Back

USB Mode

- 1. MassStorage
- 2. PC-Cam
- 3. PictBridge

Specifications

Model Name	SC-M102/SC-M105/SC-M110
the CAM System	
Video Recording System	MPEG4 AVI Format
Photo System	JPEG (DPOF, Exif 2.2)
MP3	Stereo Playing
Voice	WAVE file record/play (8KHz Sampling, 16 bit, Stereo)
Memory	Internal flash memory/Memory stick/Memory stick pro
Recording/Playing time	TBD (MPEG4)
Bit Rate	TBD (MPEG4)
CCD Pixel	1/6 inch CCD, 680K(Maximum)
Optical Zoom Ratio	10x
Focal Length	2.3~23mm, F: 1.8~2.0mm
Minimum Illumination	3.0 Lux
LCD Monitor	2.0" Trans Reflective, 210K
Cradle Connectors	
USB	USB 2.0 High Speed
The CAM Connector	Special 22Pin Connector
AV Input/Output	Video (1.0Vp_p), Audio (-7.5dBm 47KΩ, Stereo)
DC Power In Connector	Special 22Pin Connector
General	
Operating Temperature	0°C~40°C
Operating Humidity	10%~80%
Power Source	3.7V (Li-Polymer Battery pack), 4.8V (AC Adapter)
Power Consumption	2.9W (LCD ON)
Dimension(WxHxD)	58.8mm x 92.7mm x 26.3mm
Weight	170g (Including the Lithium Polymer Battery Pack)
Built-in Microphone	Omni-directional Stereo condenser microphone

Specifications

Model Name	SC-M102/SC-M105/SC-M110
The CAM Connectors	
AV Input/Output	3.5 Special Mini jack, Video (1.0Vp_p, 75Ω), Audio (-7.5dBm 47KΩ, Stereo)
Cradle Connector	Special 22Pin Connector
DC Power In Connector	Special 22Pin Connector
AV Adapter	
Power Requirement	AC 100~240V, 50/60Hz
DC Output	DC 4.8V, 1.0A
Dimensions	70mm x 30mm x 42mm
Weight	80g (Including DC cable)

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Warranty (SEA users only)

SAMSUNG LIMITED WARRANTY

SAMSUNG Electronics America Inc. (SEA), warrants that this product is free from defective material and workmanship. SEA further warrants that if product fails to operate properly within the specified warranty period and the failure is due to improper workmanship or defective material, SEA will repair or replace the product at its option.
All warranty repairs must be performed by a SEA authorized service center. The name and address of the location nearest you can be obtained by calling toll free: 1-800 SAMSUNG (1-800-726-7864).
Labor
90 days carry-in
Parts
1 year
On carry-in models, transportation to and from the service center is the customer s responsibility.
The original dated sales receipt must be retained by the customer and is the only acceptable proof of purchase.
It must be presented to the authorized service center.

EXCLUSIONS (WHAT IS NOT COVERED)

This warranty does not cover damage due to accident, fire, flood and/or other acts of God; misuse, incorrect line voltage, improper installation, improper or unauthorized repairs, commercial use, or damage that occurs in shipping.
Exterior and interior finish, lamps, and glass are not covered under this warranty.
Customer adjustments which are explained in the instruction manual are not covered under the terms of this warranty.
This warranty will automatically be voided for any unit found with a missing or altered serial number. This warranty is valid only on products purchased in the United States and Puerto Rico.
Some States do not allow the exclusions or limitations of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you.
This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

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