

SYSTEM REQUIREMENTS WINDOWS

- Windows®98/98 SE/Windows®2000 Prof./ Windows® Me / Windows®XP
- 32 MB RAM
- 110MB free memory capacity
- VGA colour monitor
- CD ROM drive
- USB

SYSTEM REQUIREMENTS

IMac,iBook,G3 blue&white series,G4 series

- MacOS 9.0~10.1.3
- 64 MB RAM or higher
- 110MB free memory capacity
- VGA colour monitor
- CD ROM drive
- USB

Thank you for purchasing the JD 5200Z3.

Please take the time to read through this instruction manual so you can enjoy all its features.



This mark on your camera certifies that this camera meets the requirements of the EU (European Union) concerning interference causing equipment regulations. CE stands for Conformité Européenne (European Conformity).



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

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

Do not remove the ferrite cores from the cables.

FOR PROPER AND SAFE USE

Read and understand all warnings and cautions before using this product.

This is a descriptive statement warning of the result if the instructions are ignored or not understood.

WARNING

Batteries may become hot or explode due to improper use.

- Use only the batteries specified in this instruction manual.
- Do not install the batteries with the polarity (+/-) reversed.
- Do not attempt to recharge, short, or disassemble.
- Do not mix batteries of different types, brands, ages or charge levels.
- Follow local regulations for battery disposal.

Use caution, accidents may occur when using this product near young children. Keep batteries or things that could be swallowed away from young children. Contact a doctor immediately if an object is swallowed. Immediately remove the batteries and discontinue use if...

- The camera is dropped or subjected to an impact in which the interior is exposed.
- The product emits a strange smell, heat, or smoke.

Do not walk while looking at the monitor.

Do not disassemble. Electric shock may occur if a high voltage circuit inside the camera is touched.

- Do not use the batteries which show wear or damaged.
- Do not expose batteries to fire, high temperature environment, water or moist places.
- Do not store the batteries nearby the metallic products.
- Never charge alkaline batteries.

-
- Do not use leaking batteries. If fluid from the batteries in your eyes, immediately rinse eyes with lots of fresh water and contact the doctor. If fluid from the batteries makes contact with your skin or clothing, please wash the area smoothly.
 - Only use the specified AC adapter within the voltage range described on the adapter unit. An specification unknown adapter may cause damage.
 - Immediately remove the batteries or unplug the AC adapter and discontinue use if the camera was dropped or shocked by an impact in which the interior, especially the flash part is exposed.
 - Do not fire the flash directly into the eyes or at vehicle operators. It may cause eyesight injury or blind or an accident in series.
 - Do not use the camera in a humid environment, or operate with wet hands, if any liquid flow into the camera, immediately remove the power supply (include batteries and adapter) and discontinue use. Or it may cause electric shock.
 - Do not use the camera near inflammable gases or liquids and use them to clean the camera like gasoline, benzine, or paint thinner. Or it may cause an explosion or fire.
 - Do not just pull on the power cord while unplugging from the outlet on the wall. Hold the adapter plug unit is recommend.
 - Do not damage, twist, modify, heat or place heavy objects on the power cord of the AC adapter. A damaged power cord may cause damage.
 - Do not continue to use if the camera has a odor, smoke or something strange. Immediately remove the power supply taking care not to burn yourself.

Take your camera to a JENOPTIK Service Facility when repairs are required.

 **CAUTION**

The heat of the camera rises with extended periods of use. Use cautiously when handling the camera or removing the batteries and compact flash card.

- Do not leave the camera in places subject to extremely high temperatures, like a sealed vehicle, direct sunlight or other places of high temperature.
- Exposure to high temperature may adversely affect the internal components of the camera.
- Do not cover the AC adapter plug unit with anything when in use. It may cause heat to build up and distort the camera case or cause fire.
- Always unplug the camera from power supply for safety purposes when the camera is not in use for long periods.
- Allowing dust to accumulate in the camera over a long period is hazardous as extreme circumstances may cause a fire. It is best to clean the camera prior to seasonal periods of high humidity.
- Consult your dealer or Jenoptik Camera Service Center for information on the cost of cleaning your camera.

BEFORE YOU BEGIN

Check the packing list before you begin. If some parts are missing, contact your camera dealer or a JENOPTIK Service Facility listed on the back cover of this manual.

- **JENOPTIK JD5200Z3 ZOOM camera (x 1)**

- **AA-size Alkaline Batteries (x 4)**

- **Video Cable (x 1)**

- **Hand Strap (x 1)**

- **Camera Case (x 1)**

- **USB Cable (x 1)**

- **32 MB CompactFlash Card (x 1)**

- **Software and Documentation on CD-ROM:**

USB Driver Software for Windows ® 98/Windows ® 98 SE / Windows ® 2000 / XP
and Mac OS 9.0~10.1.3

Instruction Manual (PDF) Windows ® /Macintosh

Photo Impression, Video Impression

- **Documentation (Printed)**

Warranty Card (x 1)

TABLE OF CONTENTS

FOR PROPER AND SAFE USE	4
BEFORE YOU BEGIN	7
TABLE OF CONTENTS	8
NAMES OF PARTS	12
CAMERA BODY	12
INSIDE THE TERMINAL COVER	14
BOTTOM OF BODY	14
DATA PANEL	15
VIEWFINDER	16

QUICK REFERENCES	18
GETTING STARTED	18
TAKING PICTURES	18
MONITORING THE CAPTURED IMAGES ..	20
DELETING IMAGES	21

PREPARATION

ATTACHING THE HAND STRAP	24
INSERTING THE BATTERIES	25
CHECKING THE BATTERY POWER ..	27

AUTO POWER OFF	28
USING THE DC ADAPTER (Sold Separately)	28
INSERTING/REMOVING THE COMPACT FLASH (CF) CARD	29
INSERTING THE CF CARD	29
REMOVING THE CF CARD	30

TAKING PICTURES

BASIC RECORDING PROCEDURE	33
THE RECORDING MODE DISPLAY ON THE LCD MONITOR	35
THE DISPLAY OF THE CAMERA SETTINGS ..	36
ADJUSTING THE FOCUS	37
FOCUS LAMP	37

FOCUS DISTANCE IN THE AUTOFOCUS

MODE (Minimum Focus Distance).....	37
THE SUBJECT THAT IS DIFFICULT TO FOCUS	

IN THE AUTOFOCUS MODE	38
WHEN THE SUBJECT IS NOT IN THE CENTER OF THE FRAME (Focus Lock Function)	39
ADJUSTING THE FOCUS DISTANCE ...	40
CLOSE UP	41
ADJUSTING THE FOCUS AREA	43
FLASH	44
FLASH RANGE	44
SELECTING THE FLASH MODE	45
FLASH LAMP	46

ADVANCED OPERATIONS

P/A/S/M EXPOSURE	
EXPOSURE MODES	48
DIGITAL ZOOM	50
BURST IMAGE CAPTURE	52
SELF-TIMER	54
ISO SETTING	56
EXPOSURE COMPENSATION	57
MOVIE CLIP SHOT	59

MOVIE CLIP PLAYBACK	60
MOVIE CLIP SETTING	60
VOICE RECORDING	61
VOICE PLAYBACK	62

SPECIFYING THE RECORDING MODE

SPECIFYING THE RECORDING MODE ...	64
THE RECORDING MODE MENU DISPLAY (LCD Monitor)	64
RECORDING MODE MENU ITEMS ...	64
SPECIFYING IMAGE QUALITY MODE ...	68
SPECIFYING THE IMAGE SIZE MODE ...	71
SPECIFYING WHITE BALANCE MODE ...	73
SPECIFYING THE SHARPNESS MODE ...	75
RESETTING TO THE RECORDING MODE DEFAULT SETTINGS	77

PLAYBACK MODE

SINGLE-FRAME PLAY	80
THE PLAYBACK MODE DISPLAY ON THE LCD MONITOR .....	.81
THE IMAGE INFORMATION DISPLAY IN THE PLAYBACKMODE .....	.82
INDEX PLAY	83
ZOOM PLAY	85
SLIDE SHOW	
TO START THE SLIDE SHOW .....	.87
TO STOP THE SLIDE SHOW .....	.88
THE SETTING IN THE SLIDE SHOW MODE MENU .....	.89

DELETING IMAGES

DELETING SELECTED IMAGE .....	.92
DELETING ALL IMAGES. ....	.95
DELETING FOLDERS .....	.97
ADJUSTING THE BRIGHTNESS OF THE LCD MONITOR .....	.99

SPECIFYING THE PLAYBACK MODE

THE PLAYBACK MODE MENU .....	.101
THE PLAYBACK MODE MENU (LCD Monitor) .....	.101
THE PLAYBACK MODE MENU ITEMS AND EACH SETTINGS .....	.101
SPECIFYING THE PRINT SETTINGS WITH THE DPOF .....	.103
SPECIFYING THE IMAGE AND THE NUMBER TO BE PRINTED .....	.104
SPECIFYING THE INDEX PRINT SETTINGS .....	.106
TO CANCEL THE PRINT SETTINGS WITH THE DPOF .....	.108
FOLDER NAME .....	.109
SELECTED AN FOLDER .....	.110
GIVE FOLDER A NEW NAME .....	.111
On DCF (Design rule for Camera File system)	
FORMAT .....	.113

SETUP

THE SETUP MODE MENU DISPLAY	115
THE SETUP MODE MENU DISPLAY ON THE LCD MONITOR	115
THE SETUP MODE MENU ITEMS AND EACH SETTINGS	115
SPECIFYING THE TIME FOR THE AUTO POWER OFF FUNCTION	117
FORMATTING THE CFCARD	119
SETTING THE DATE / TIME	121
SETTING THE BEEP SOUND	123
SWITCHING THE VIDEO SIGNAL FROM THE VIDEO OUTPUT TERMINAL	125
SWITCHING THE LANGUAGE DISPLAYED ON THE LCD MONITOR	127
RESETTING TO THE DEFAULT SETTINGS.	128

CONNECTING TO THE PERSONAL COMPUTER

CONNECT TO PERSONAL COMPUTER

For Windows® 98	131
For Macintosh	141

CAUTIONS WHEN CONNECTING TO

THE PERSONAL COMPUTER	146
---------------------------------	-----

INSTALLING Photo Impression & Video

Impression	135&141
----------------------	---------

APPENDIX

WATCHING THE CAPTURED IMAGES

ON TV	150
-----------------	-----

TROUBLESHOOTING	151
---------------------------	-----

NOTES ON THE HANDLING	155
---------------------------------	-----

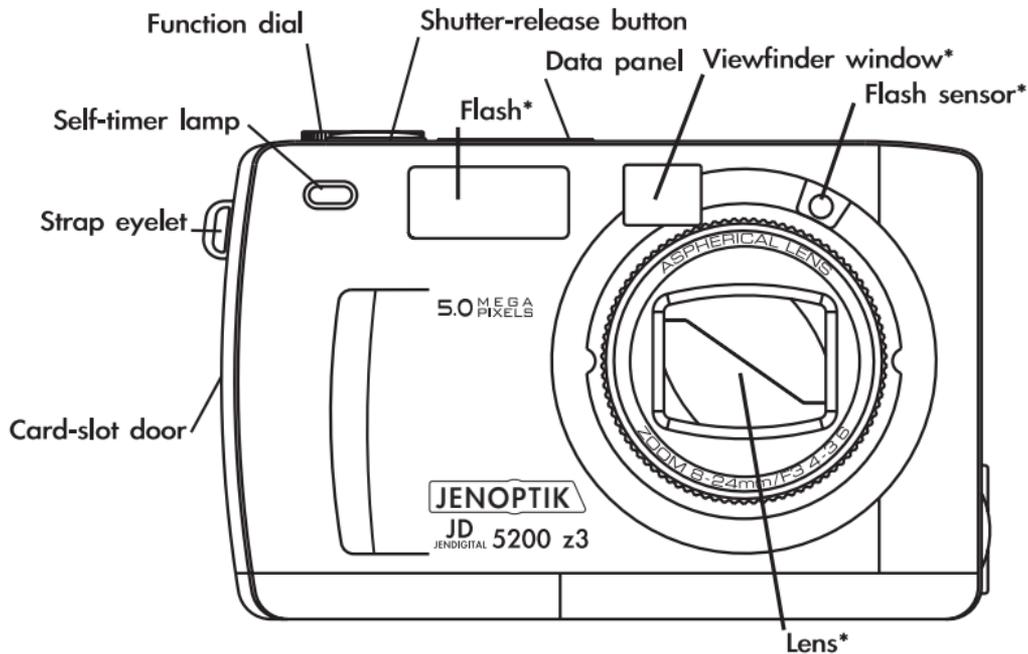
CARE AND STORAGE	159
----------------------------	-----

TECHNICAL DETAILS.	160
----------------------------	-----

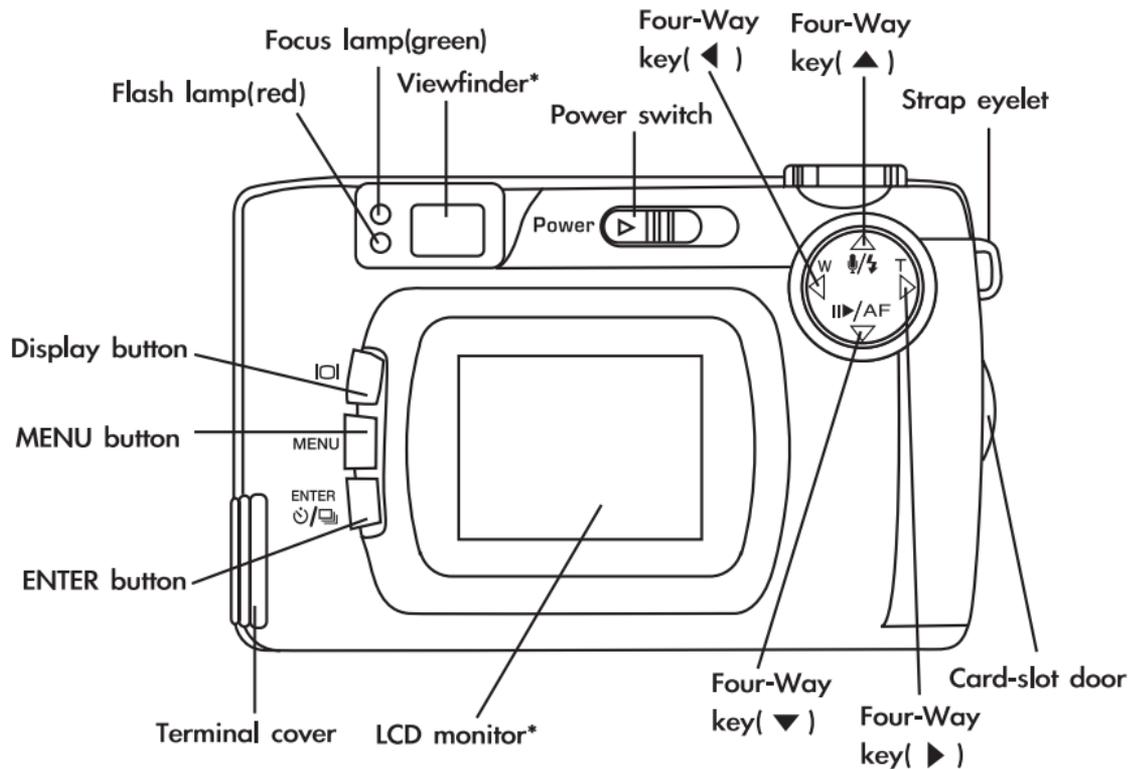
NAMES OF PARTS

CAMERA BODY FRON VIEW

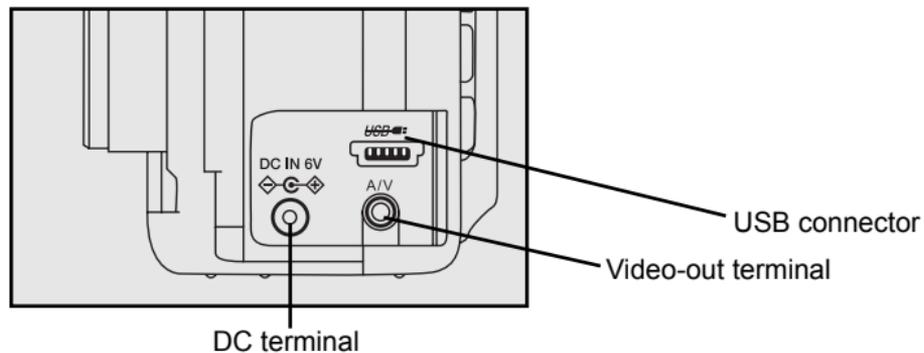
* Do not touch.



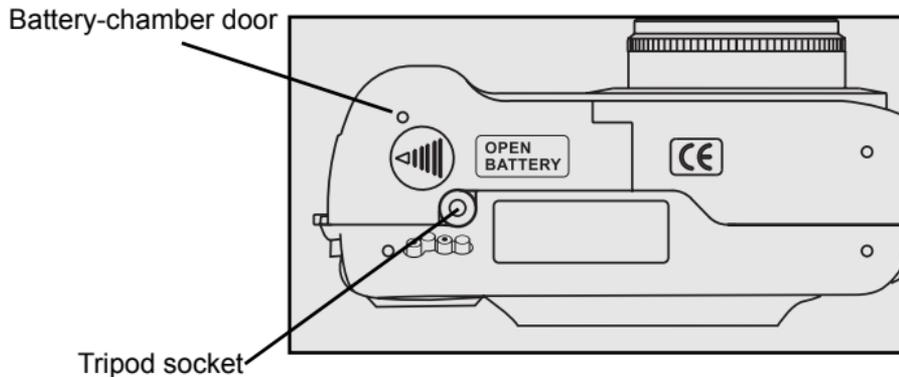
CAMERA BODY REAR VIEW



INSIDE THE TERMINAL COVER

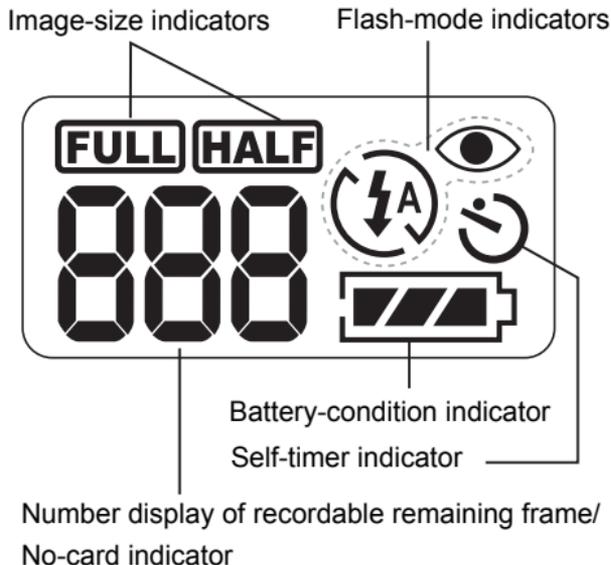


BOTTOM OF BODY



DATA PANEL

The following diagram shows all items displayed to aid the explanation.



* Refer to the number of recordable remaining frame as a guide.

The number changes depending on the scene or subject you record.

VIEWFINDER

Focus lamp
(green)



Flash lamp
(red)

Close-framing guide



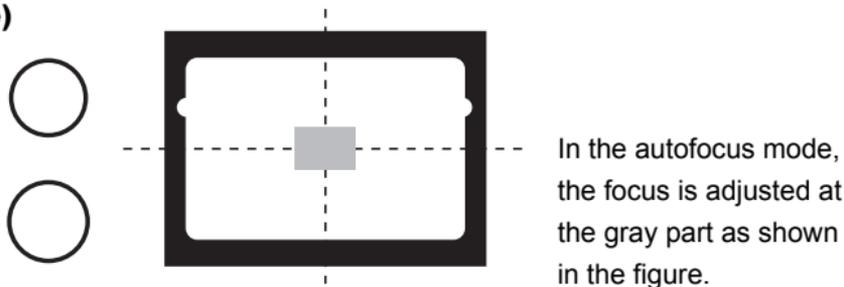
Close-framing guide

When you shoot a subject which is closer than 1m through the viewfinder, only the part under the close-framing guide is recorded. So, use the LCD monitor to check the image composition when you shoot a subject which is closer than 1m.

Focus Lamp (Green)

Lights.	The focus is determined and locked.
Blinks quickly (about 8 times in a second).	The focus is not determined. (The subject contrast is too low, the subject is too dark or too close. Or the subject is too far in the close up mode.)
Blinks slowly (about 2 times in a second).	The image is being recorded in the CF (Compact Flash) card. The camera reads out the image from the CF card.

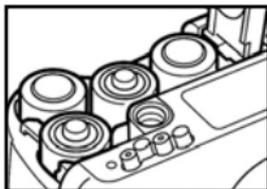
Focus Area (as a Guide)



Flash Lamp (Red)

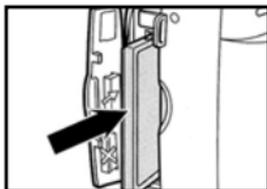
Lights.	The flash ready for fires.
Blinks quickly when the shutter-release button is pressed full-way down (about 8 times in a second).	The flash is being charged. The shutter-release button is not released.
(When the flash function is cancelled) Blinks slowly (about 2 times in a second).	The shutter speed becomes slow. Taking a picture in this mode may cause an image blurred.

QUICK REFERENCES



GETTING STARTED

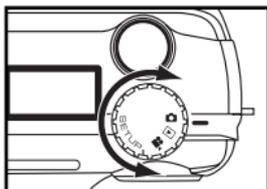
1 Insert the batteries (see page 25).



2 Insert the CF card (see page 29).

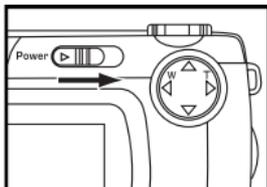
Caution:

We advised to use Sandisk® or Hitach® CF card.



TAKING PICTURES – See page 33 for details.

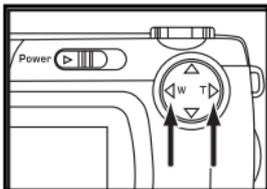
1 Rotate the function dial to  .



2 Slide the power switch to turn on the camera.

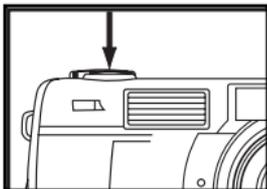


3 Determine the image composition while looking into LCD monitor or viewfinder.



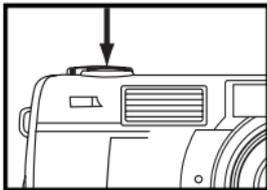
4 Adjust the image range and size with the four-way keys (◀ / ▶).

- When the ▶ key is pressed, the image size becomes large.
- When the ◀ key is pressed, the image range becomes wide.



5 Press the shutter-release button half-way down.

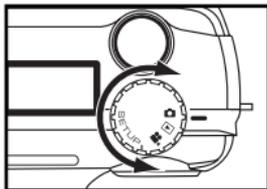
- When the image is focused, the focus lamp (green) lights up.



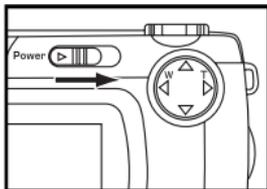
6 Press the shutter-release button full-way down to take the picture.

- The captured image is displayed on the LCD monitor.
- While the captured image is recorded in the CF card, the focus lamp (green) blinks slowly (about 2 times in a second).

MONITORING THE CAPTURED IMAGES – See page 82 for details.

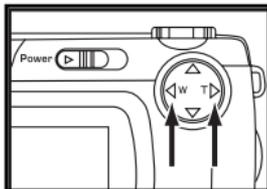


1 Rotate the function dial to  .



2 Slide the power switch to turn on the camera.

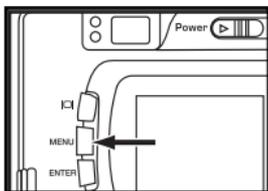
- The latest image (which was recorded last) is displayed on the LCD monitor.



3 When the  or  key is pressed, the image changes to the next or previous one respectively.

DELETING IMAGES – See page 92 for details.

1 Display the image to be deleted on the LCD monitor by performing from steps 1 to 3 of "MONITORING THE CAPTURED IMAGES" described on the previous page.

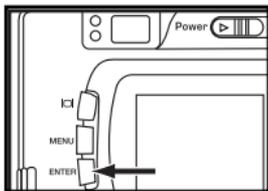


2 Press the MENU button.

- The playback mode menu is displayed on the LCD monitor.



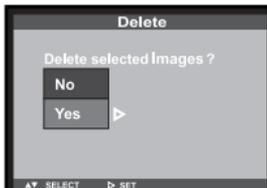
3 After confirming that [SELECTED IMAGE] is highlighted, press the ► key.



4 When the selected image is highlighted, press the ENTER button.

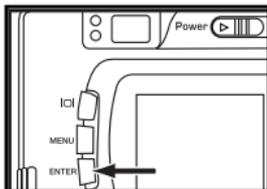


- The image to be deleted is displayed on the LCD monitor and the display to confirm whether you delete the image or not appears as shown in the figure.



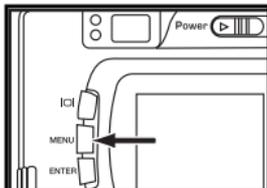
5 Press the \blacktriangledown key so that [YES] is highlighted and press the \blacktriangleright key.

- The image displayed on the LCD monitor in step 1 is deleted.



6 To complete the operation of deleting an image, after confirming that [NO] is highlighted in the display to confirm, press the \blacktriangleright key.

- The LCD monitor display returns to the playback mode menu.



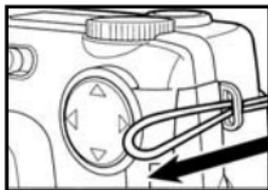
7 Press the MENU button.

- The LCD monitor display returns to the playback mode.

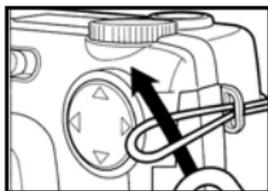


PREPARATION

ATTACHING THE HAND STRAP



- 1** Insert the smaller loop of the hand strap through the strap eyelet.

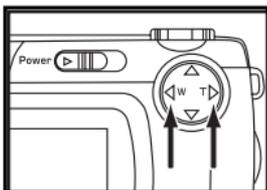


- 2** Insert the other end of the hand strap through the small loop.

INSERTING THE BATTERIES

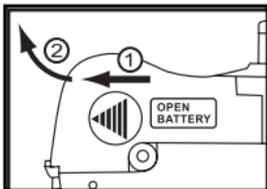
This camera uses four AA-size alkaline or Ni-MH batteries.

* When using AA-size Ni-MH batteries, fully recharge them with a vendor-endorsed battery charger.

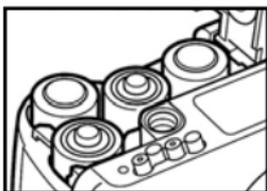


1 When replacing the batteries, slide the power switch to turn off the camera.

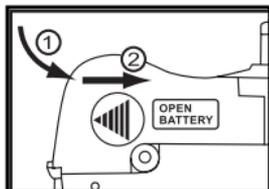
- You may skip this step when inserting the batteries for the first time after purchasing.



2 Slide the battery-chamber door slightly in the ① direction and open it in the ② direction.



3 Insert the batteries by following the +/- diagram indicated in front of the battery-chamber door.



4 Close the battery-chamber door in the direction of the arrow ① and slide it until it clicks ② .

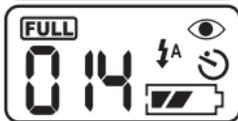
- After replacing the batteries, check that the built-in clock (date and time) works correctly (See page 121).
If neither AC adapter nor batteries are used more than 5 minutes, the built-in clock may delay or be reset to the default setting. In this case, set the date and time again by following the procedure described on page 121.
- Do not place the camera with the battery-chamber door facing down when the battery-chamber door is open. Doing so may damage the battery-chamber door.
- As the batteries become hot right after the camera is operated, be careful when replacing the batteries.

CHECKING THE BATTERY POWER

When the batteries are installed in the camera, the camera checks the battery power automatically and shows the result on the data panel.



 lights - The battery power is sufficient.



 Lights - Prepare the new batteries. Even in this status, the recording or playback can be performed.



All indicators go out and after that, blinks for 5 seconds and then, all indicators go out again.

- Perform the following either operation.

- Replace all batteries with new ones.
- Remove all batteries and use the AC adapter (sold separately) (see page 28).



Taking a picture or playing back cannot be executed.

* When nothing is displayed on the data panel, check that the batteries are installed with a correct polarity (+/-). When nothing is displayed even though the batteries are installed correctly, replace the batteries with new ones.

AUTO POWER OFF

To save the battery power, This camera will turned off automatically if it is not operated more than 3 minutes. (Auto Power Off function)

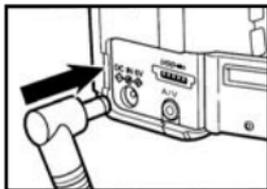
To operate the camera, slide the power switch to turn on the camera again.

- When using the batteries, the time for the auto power off function can be changed to 1 minute, 5 minutes, 10 minutes or 30 minutes. See page 117 for details.
- When using the AC adapter (sold separately), this camera will turn off automatically if it is not operated more than 30 minutes. The time for the auto power off function is fixed in 30 minutes.

USING THE AC adapter (Sold Separately)

We recommend you to use the AC adapter (sold separately) when using the camera indoor where the AC outlet supplies the power to the camera or when connecting the camera to the personal computer for editing the images.

Be sure to turn off the power of the camera when changing the power supply from the batteries to the AC adapter or vice versa. Do not change it when the power of the camera is turned on.



1 Connect the mini plug of the AC adapter to the DC terminal of the camera.

- The Shape of the mini plug may vary depending on the AC adapter.

2 Connect the power plug of the AC adapter to an AC outlet.

INSERTING/REMOVING THE COMPACT FLASH(CF) CARD

Be sure to **turn off the power of the camera** when inserting or removing the CF card into or from the camera. Otherwise, the data in the card may be lost or the card may be damaged.

If you insert or remove the CF card when the camera is turned on, re-format the CF card after transferring the data from the card to your computer if the data is safe.

INSERTING THE CF CARD



1 Open the card-slot door as shown in the figure.



2 Insert the CF card into the card slot.

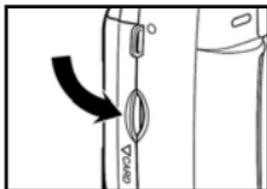
- Position the flat edge side of the card towards the camera lens and insert the card with the signal part facing down until the card stops.
- Insert the card straight. Do not insert it on the angle.
- If the card is stopped halfway, check the direction of the card. Forcing the card into the slot may damage the card or the camera.

INSERTING/REMOVING THE COMPACT FLASH(CF) CARD



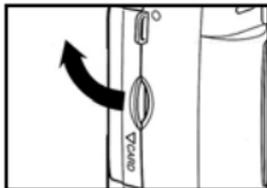
3 Fold the card-release lever down as shown in the figure.

- Be sure to fold the lever. Otherwise, the card-slot door cannot be closed.



4 Close the card-slot door until it clicks.

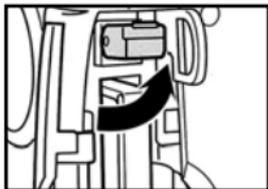
REMOVING THE CF CARD



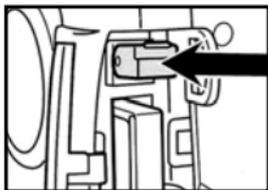
1 Confirm that the power of the camera is turned off.

2 Open the card-slot door as shown in the figure.

INSERTING/REMOVING THE COMPACT FLASH(CF) CARD

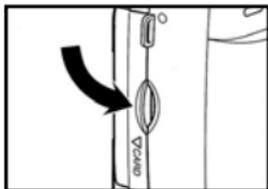


3 Lift the card-release lever up as shown in the figure.



4 Push in the card-release lever straight.

- As the CF card ejects slightly from the camera, pull out the card.
- Be careful with the card because it may be hot.
- Keep the CF card in the protection bag supplied with the card.

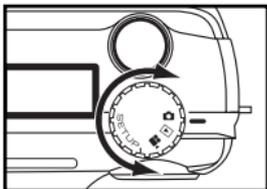


5 Close the card-slot door until it clicks.

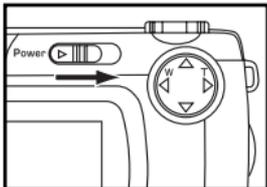


TAKING PICTURES

BASIC RECORDING PROCEDURE



1 Rotate the function dial to  .



2 Slide the power switch to turn on the camera.

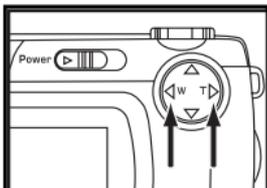
- The power switch returns to the initial position.

When the power switch on in the recording mode, the initial setup for LCD monitor is off, if you need to turn on the LCD, please press  once.



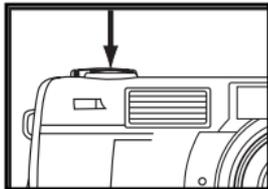
3 Determine the image composition while looking into LCD monitor or viewfinder.

- When holding the camera, be sure not to cover the lens with your fingers and so on.
- When the focus is not adjusted on the subject, use the focus lock function (see page 39).

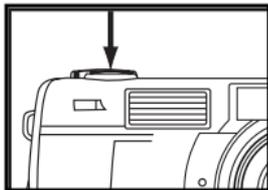


4 Adjust the image range and size with the  /  keys.

- When the  key is pressed, the image size becomes large (Telephoto mode). When the  key is pressed, the image range becomes wide (Wide-angle mode).



* When pressing the shutter-release button, there is a point where the button stops halfway. To press the shutter-release button to this point is described "Press half-way down" in this manual.



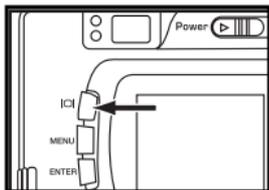
5 Press the shutter-release button half-way down.

- The camera adjusts the focus automatically. When the subject is focused, the focus lamp (green) lights up.
- When the focus lamp (green) blinks, follow the operation from step 3 again.
- When the flash will fire, the flash lamp (red) lights up.
- When the flash lamp (red) blinks slowly (about 2 times in a second), the shutter speed becomes slow. Taking a picture in this mode may cause an image blurred. We recommend you to take pictures after fixing the camera on the tripod.

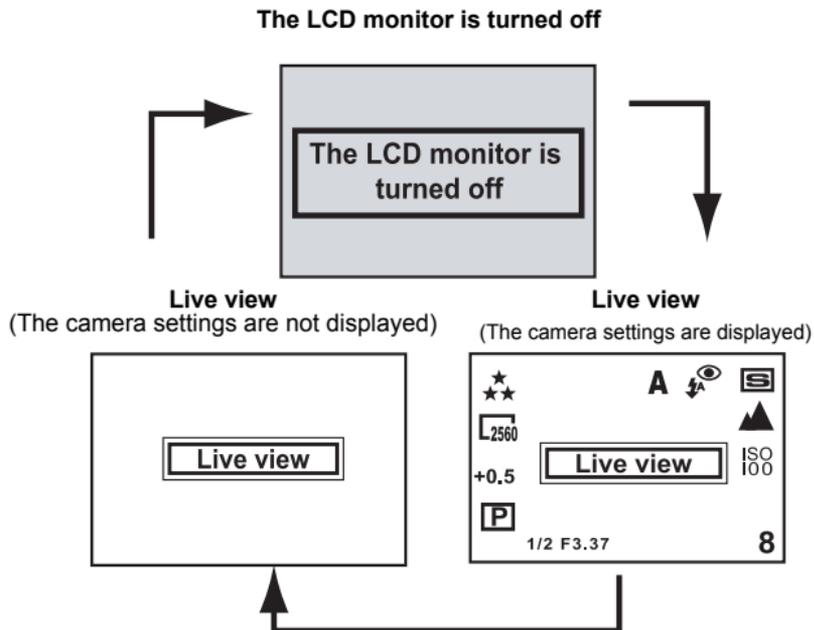
6 Press the shutter-release button the rest of the way down.

- If the flash lamp (red) blinks when the shutter-release button is pressed full-way down, the flash is being charged. When the shutter-release button is kept pressed in this status, the shutter is released at the same time when the flash is charged.
- The captured image is displayed on the LCD monitor and is recorded in the CF card. While the image is recorded, the focus lamp (green) blinks slowly (about 2 times in a second) and "RECORDING" blinks on the LCD monitor slowly. Be sure not to open the battery-chamber door, disconnect the plug of the AC adapter or remove the CF card until the recording in the CF card is completed (until the focus lamp (green) and "RECORDING" stops blinking). otherwise, The data in the CF card may be damaged or lost..

THE RECORDING MODE DISPLAY ON THE LCD MONITOR

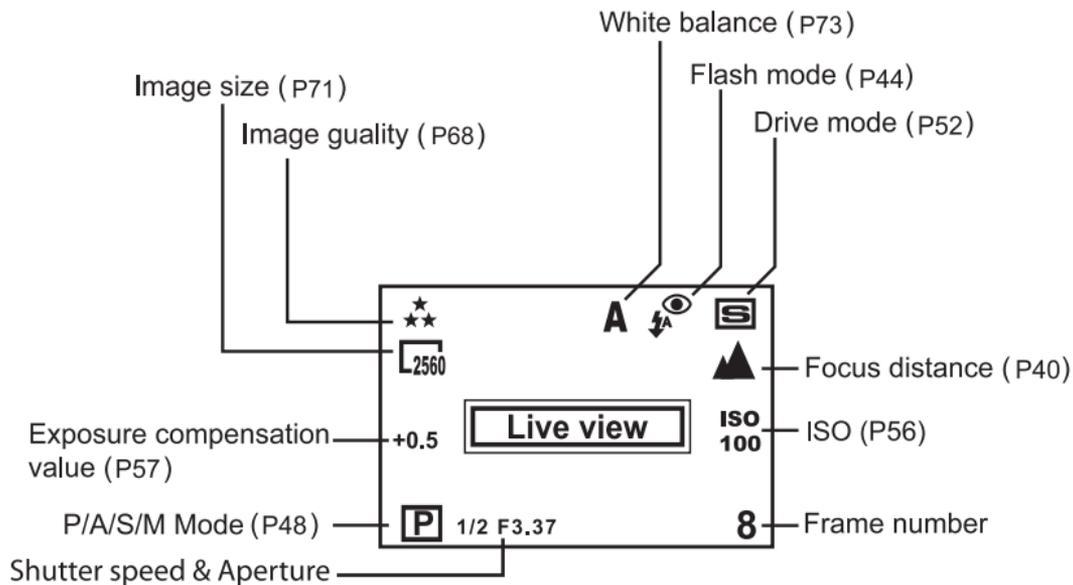


Each time the display button  is pressed, the display on the LCD monitor changes in the following order.



THE DISPLAY OF THE CAMERA SETTINGS

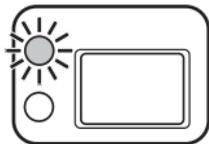
(For details, see the pages in parentheses)



ADJUSTING THE FOCUS

FOCUS LAMP

When the shutter-release button is pressed halfway, this camera adjusts the focus automatically and the focus lamp (green) shows the focus status (when the focus mode is set to the autofocus mode.)



Lights	The focus is determined and locked.
Blinks quickly	The focus is not determined.
(about 8 times in a second)	The shutter can be released.

When the focus lamp (green) blinks, check the following points:

- Do you attempt to adjust the focus on the subject which is difficult to focus in the autofocus mode?
(See page 38).
- Is the subject closer than the minimum focus distance (or farther than 40 cm in the close up mode)?
(Refer to the followings.)

FOCUS DISTANCE IN THE AUTOFOCUS MODE (Minimum Focus Distance)

The focus distance in the autofocus mode is described on the list below.

When the subject is closer than the minimum focus distance (0.4m) or farther than 40 cm in the close up mode, the focus lamp (green) blinks.

Standard mode	0.4m to ∞ (infinity)
Close up mode (Refer to the page 53)	8 cm to 40 cm

THE SUBJECT THAT IS DIFFICULT TO FOCUS IN THE AUTOFOCUS MODE

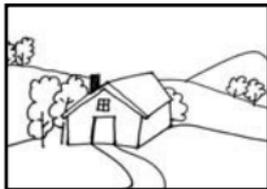
The autofocus mode uses the image contrast (the difference of light and dark parts) on the CCD (Charge Coupled Device) to focus on. Therefore, with the autofocus mode, the focus may not be adjusted correctly on the following subjects. In this case, use the focus lock function (see page 39), that you once focus on the other subject which is at the same distance as the subject you want to take the picture and change the image composition.



The subject is too dark.



Some subjects at different distances overlap in the focus range.



The subject has no contrast such as a blue sky or a white wall.



The subject is too bright such as a shining car body or a surface of water.

WHEN THE SUBJECT IS NOT IN THE CENTER OF THE FRAME

(Focus Lock Function)

When the subject is not in the center of the frame, the camera adjusts the focus on the background. In this case, take a picture with the focus lock function.



1 Aim the camera so that the subject is in the center of the frame and press the shutter-release button half-way down.

- The camera adjusts the focus automatically. When the focus is adjusted, the focus lamp (green) lights.

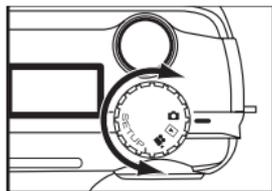


2 While you hold pressing the shutter-release button half-way down, change the camera position to obtain the desired image composition and press the button full-way down to take a picture..

ADJUSTING THE FOCUS DISTANCE

Keep pressing ▼ key allows you to adjust the Focus Distance to the best situations.

Auto focus (No icon)	The camera will automatically adjust the focus according to distance to subject.
▲ Landscape	The camera will adjust the focus to infinity. Flash was default to be disabled.
🌸 Close up	The camera will focus closely to subject from 8 cm to 40cm.
☞ Specified	The camera will focus to specified distance, there are 0.5m, 1.0m and 2.5m.



1 Rotate the function dial to 📷 .

- Be sure that camera is turned on.

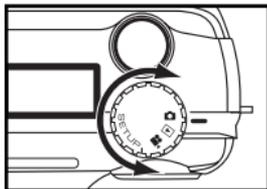
2 Press still press ▼ key to change the focus distance.

- The icons on upper-right side of the LCD monitor will be changeable.

3 Press the shutter release half-way down to adjust the focus.

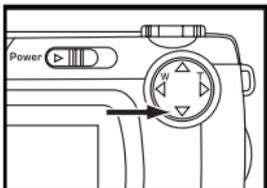
CLOSE UP

The close up function allows you to take a picture close to the subject up to 8 cm filling the frame with the subject in about 6 cm x 4 cm.



1 Rotate the function dial to .

- The recording mode menu is displayed on the LCD monitor.

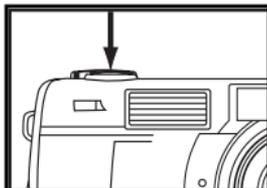


2 Press button to change the Focus distance to .

-  is displayed on the upper right side of the LCD monitor and it shows that the close up mode is selected.
- The flash mode is set to "FLASH CANCEL" () automatically. When the close up mode is selected, the flash does not fire.

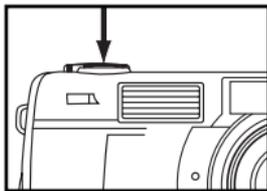
3 Determine the image composition while looking into the LCD monitor.

- There is a difference between the image range through the viewfinder and the actual one in the close up mode. We recommend you to use the LCD monitor when you determine the image composition.
- We recommend you to fix the camera on the stable or on the tripod.
- The LCD monitor cannot be turned off in the close up mode.



4 Press the shutter-release button half-way down.

- If the focus lamp (green) blinks, check that the subject is within the distance from 8 cm to 40 cm (is not apart more than 40 cm from the camera).

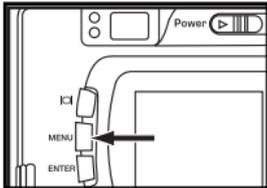


5 Press the shutter-release button full-way down to take the picture.

- Even after taking a picture, the close up mode is not cancelled. When the camera is turned off and on again, the camera enters autofocus mode.
- When the camera enters the autofocus mode, the flash mode is returned to "AUTOFLASH WITH RED-EYE REDUCTION".

ADJUSTING THE FOCUS AREA

Adjust the focus area while looking into the LCD monitor.

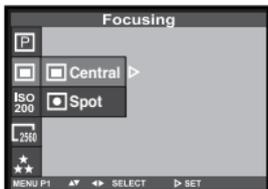


1 Rotate the function dial to  and press the MENU button.

- The recording mode menu is displayed on the LCD monitor



2 Press the ▲ or ▼ key so that [FOCUSING] is highlighted and press the ► key.



3 Press the ▲ or ▼ key to select desired focus area and press ► key to finish the setting.

FLASH

With this camera, the following 5 flash modes are available. You can select them according to your purpose or condition.

 AUTOFLASH	The flash fires automatically when the light level is low or the subject is backlit.
 FILL-FLASH	The flash fires every time a picture is taken regardless of the brightness. Select this mode to reduce the harsh shadows when you take the picture outdoor and the subject's face is shaded with a hat and so on.
 FLASH CANCEL	The flash does not fire. Select this mode when taking a picture in the place where the flash photography is prohibited such as in a museum, etc.
 AUTOFLASH WITH RED-EYE REDUCTION	The flash fires the short burst 2 times before the main flash burst for reducing the red-eye phenomenon. Select this mode when taking the picture of people or animals in the dark
 NIGHT MODE	*The flash fires even in long shutter night mode, to get satisfied exposure on subject and background.

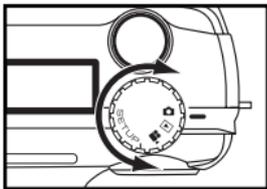
Flash Range

The flash range has the limit. Take pictures by referring to the flash range indicated below

The flash range:wide 0.5m~3m

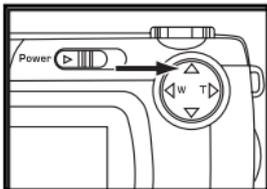
The flash range:Tele 0.5m~2.5m

SELECTING THE FLASH MODE



1 Rotate the function dial to  .

- The recording mode menu is displayed on the LCD monitor.



2 Press  key to change the Flash mode as follows :

 **A** **AUTOFLASH**



 **FILL-FLASH**



 **FLASH-CANCEL**



  **AUTOFLASH WITH RED-EYE
REDUCTION**



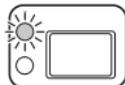
  **NIGHT MODE**

*The camera usually shows the icon  on the upper-left side of the LCD monitor when taking a shot with FLASH-CANCEL mode  to a darker subject. It hints you to hold your camera in stable.

- The selected flash mode is displayed with the icon shown on the previous page on the upper right side of the LCD monitor (see page 36).
- The flash mode returns to "AUTOFLASH WITH RED-EYE REDUCTION" when the camera is turned off and on again.

Flash Lamp

The flash lamp (red) shows the flash status.



Lights	The flash ready for fires.
Blinks quickly when the shutter-release button is pressed full-way down (about 8 times in a second).	The flash is being charged. The shutter-release button is not released.
Blinks slowly (when the flash function is cancelled). (about 2 times in a second).	The shutter speed becomes slow. Taking a picture in this mode may cause an image blurred. The flash function is cancelled when the flash mode is set to "FLASH CANCEL", when the drive mode is set to the burst image capture or, when the focus mode is set to the close-up mode.



ADVANCED OPERATIONS

P/A/S/M EXPOSURE

EXPOSURE MODES

These 4 exposure modes allow extensive control over general photo taking. Programmed Auto **P** gives carefree operation; Aperture Priority **A** and Shutter Priority **S** allow users to maximize exposures in different case; Manual Exposure **M** provides complete freedom in controlling.

Options	Purpose	When to use it
Programmed auto P	The camera will automatically set the shutter speed and aperture value for best state.	Recommended in most situations.
Aperture priority (F3.37-F15) A	the user selects the aperture and the camera sets the fit shutter speed.	Recommended in controlling the depth of field (makes the main subject standing out from surrounding).
Shutter priority (1/2600s-8s) S	the user selects the shutter speed and the camera sets the fit aperture.	Recommended in freeze the action of fast-moving subject or create a sense of motion of slower-moving subject.
Manual exposure M	the user selects both the shutter speed and aperture.	You can complete control anything of exposure.



In P/A/S/M menu:

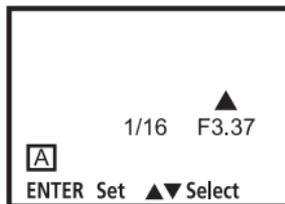
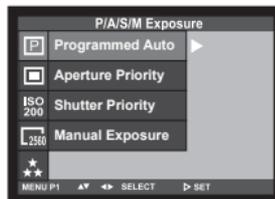
(Rotate the function dial to and press MENU button.)

1 Press the ▲ / ▼ key so that [P/A/S/M Exposures] is highlighted and press ► key.

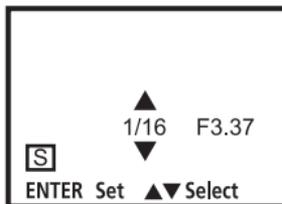
2 Select the desired mode by pressing ▲ / ▼ ,and Press ► key to confirm the settings.

In A/S/M mode:

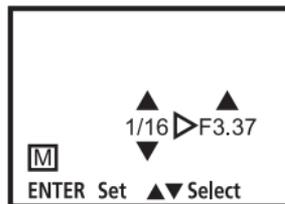
1. Press ▲ / ▼ key to change the desired value of aperture or shutter speed.



Aperture Priority



Shutter Priority



Manual Exposure

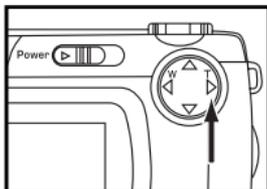
You can adjust both aperture and shutter speed in M mode.

2. Press shutter release button half-way down to adjust.

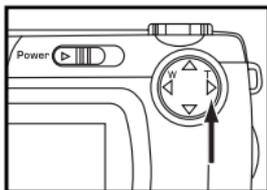
3 Press MENU button to quit the setting.

DIGITAL ZOOM

The digital zoom function can increase the maximum magnification (about 24 mm) of the optical zoom lens (102 mm in the 34 mm film format equivalent) up to 2 times.

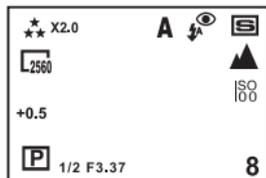


1 In the recording mode, press the ► key in the recording mode so that the image is zoomed to the maximum.

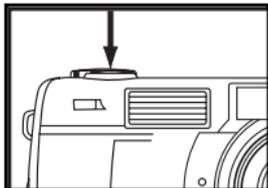


2 Press and hold the ► key for more than 2 seconds.

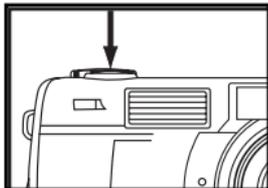
- The digital zoom function is set.
- The indicator that shows the image range appears on the LCD monitor as shown in the figure left below. When the indicator appears, remove your finger from the ► key.
- The digital zoom function cannot be set when the LCD monitor is turned off.



3 While looking into the LCD monitor, determine the image composition so that the desired image is positioned within the range of the indicator.



4 Press the shutter-release button half-way down.



5 Press the shutter-release button full-way down to take a picture.

- The focus lock function can be also used (see page 39).
- Even after taking a picture. The digital zoom is not cancelled. To cancel the digital zoom function, press and hold the ◀ key until the indicator disappears or turn off and on the camera again.

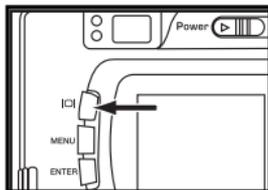
BURST IMAGE CAPTURE

This digital camera will continuously take pictures while the shutter-release button is held down. The maximum number of images that can be captured at a time in follows(with 32MB CF card):

Image quality	The maximum number of the pictures (as a guide)	
	2560 x 1920 size	1600X1200 size
FINE (Fine)	about 13 pictures	about 30 pictures
STD. (Standard)	about 26 pictures	about 60 pictures
ECON. (Economy)	about 52 pictures	about 90 pictures

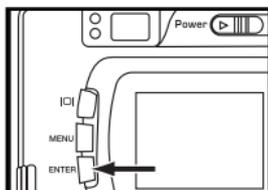
* See page 68 for the image quality and page 71 for the image size.

* The number of the picture you can take sequentially at a time describe on the list above can be referred as a guide. The number of the picture changes according to the scene or subject you record.



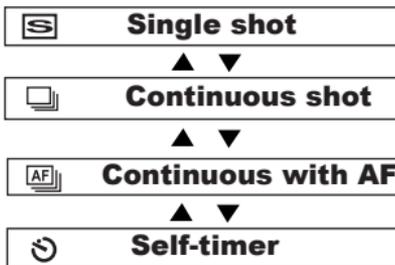
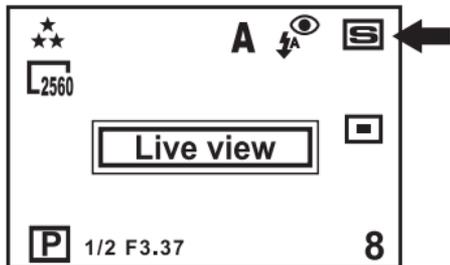
1 Rotate the function dial to  and press the  button.

- The camera settings should be displayed.



2 Press the ENTER button to select [DRIVE MODE] as follows:

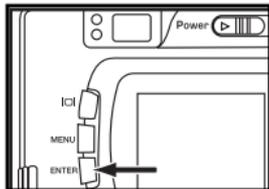
- The continuous icon  appears on the upper right side of the LCD monitor. (See page 36)



- When taking a continuous shot, The flash mode is set to "FLASH CANCEL" (🚫) automatically.
- When the single shot or the self-timer shot is selected, the flash mode returns to "AUTOFLASH WITH RED-EYE REDUCTION".

SELF-TIMER

The picture is taken about 10 seconds after the shutter-release button is pressed.



1 After fixing the camera on the tripod, rotate the function dial to  .

2 Press ENTER button to still change the [DRIVE MODE] to SELF-TIMER .

 **Single shot**

1 shot even keep pressing shutter release.



 **Continuous shot**

Continuous while still pressing shutter release.



 **Continuous with AF**

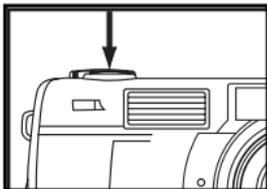


 **Self-timer**



3 Determine the image composition while looking into LCD monitor or viewfinder and adjust the image range and size with the  or  key.

- When the  key is pressed, the image size becomes large (Telephoto mode). When the  key is pressed, the image range becomes wide (Wide-angle mode).



4 Press the shutter-release button half-way down.

5 Press the shutter-release button full-way down to start timer.

- While the self-timer is functioning, the self-timer lamp in front of the camera blinks. As the time to take the picture is closer, the lamp blinks faster. And just before taking the picture, the lamp lights up to show the time to take a shot.
- The beep sounds at the time when the lamp blinks. (The beep can be cancelled with the menu in the SETUP mode.)
- When the subject is not in the center of the frame, use the focus lock function. (See page 39.)
- After taking the self-timer shot, the single-shot mode returns.

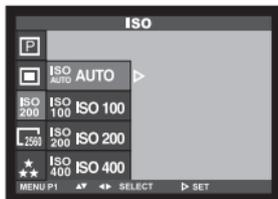
* Do not press the shutter-release button when standing in front of the camera. The camera cannot adjust the focus.

* To interrupt the self-timer shot, rotate the function dial to  ,  , or SETUP.

ISO SETTING

Select the camera's sensitivity to light.

ISO is the standard used to indicate film sensitivity. Raising the ISO sensitivity will mean that the camera needs less light in order to take an image. However, the higher the ISO value is, the grainier the image will be.



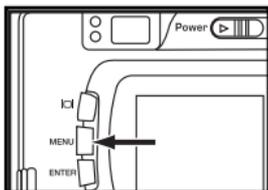
1 Turn on the camera, rotate the function dial to , and press MENU button.

2 Select the desired ISO value by pressing \blacktriangle / \blacktriangledown key. The default is AUTO.

3 Press \blacktriangleright key to confirm the setting and press MENU button to quit the setting.

EXPOSURE COMPENSATION

This function makes the image brighter or darker by adjusting the exposure compensation value for CCD. The bigger the exposure compensation value is, the brighter the image is and the smaller the exposure compensation value is, the darker the image is.

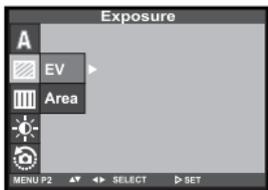


1 Rotate the function dial to  and press the MENU button.

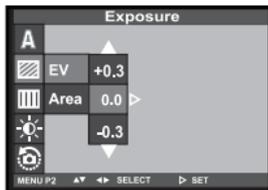
- The recording mode menu is displayed on the LCD monitor.



2 Press the ▲ or ▼ key so that [Exposure] is highlighted and press the ► key.

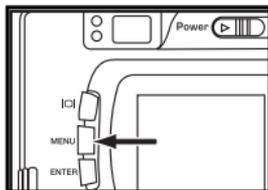


3 Press the ▲ or ▼ key so that [EV] is highlighted and press the ► key.



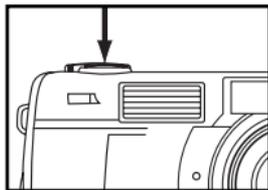
4 Press the ▲ or ▼ key that the desired exposure compensation value and press ► to finish the setting.

- The exposure compensation value from +2.0 to –2.0 can be specified by 1/3 step.



5 Press the MENU button.

- The exposure compensation value is specified and displayed on the upper right side of the LCD monitor (see page 36).



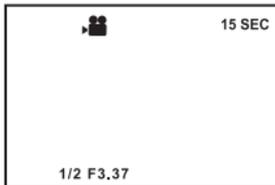
6 Press the shutter-release button full-way down to take picture.

- * To cancel the exposure compensation function, follow the operation steps described above and specify 0 for the exposure compensation value, or turn off and on the camera again.
- * When the image to be captured is whitish, increase the exposure compensation value so that the white part can be easily represented, on the other hand, when the image to be captured is blackish decrease the exposure compensation value so that the black part can be easily represented.

MOVIE CLIP SHOT

Movie clip shot

The extra function allow users to take Motion Pictures in the camera with 15fps.



1 Rotate the function dial to MOVIE CLIP mode  .

- The LCD monitor will be displayed as shown.

2 Press the shutter button once and movie clips are recorded for as long as the available recording time allows.

- Movies clips will still be recorded if the shutter button is released.

3 If you wish to stop recording, press the shutter button again.

4 Image size and type are listed below.

-Image size :QVGA (320X240)

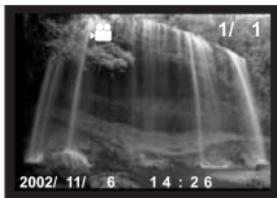
-File type : *.AVI

5 When the movie clip is being recorded to the CF CARD, the Green lamp blinks. [RECORDING] message will be displayed on the LCD monitor.

Note

- The recording may be suspended during the available recording time due to the CF CARD capacity

MOVIE CLIP PLAYBACK



1 Rotate the function dial to  .

- The image files (including movie clips) will be shown on LCD monitor.

2 Press  /  key to select the movie clip files.

- The movie clip shows the icon  on top of the LCD monitor.

3 Press  key to show the movie clip(PLAY&PAUSE).

MOVIE CLIP SETTING



1 Rotate the function dial to , and press MENU button.

- [REC.TIME](recording time)is adjustable.

2 Press  /  key so that [REC.TIME] is highlighted and press  key.

- You can select recording time from 5s~30s by 5s step.

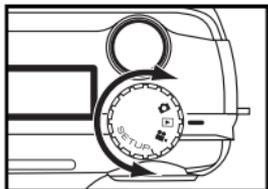
3 Press  /  key to select the desired value and press  key.

4 Press MENU button to finish the setting after confirming.

VOICE RECORDING

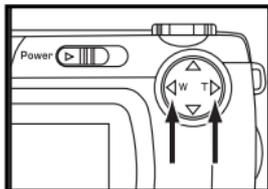
RECORDING VOICES FOR MEMORIAL PICTURES

The function allows user to record some voices in any picture which you like.

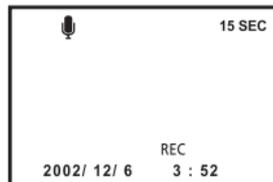


1 Rotate the function dial to  .

- The latest image is displayed on LCD monitor.



2 Press  or  key to select the desired image to record.



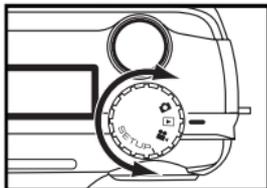
3 Press  key and the sound recording indicator  will be displayed.

- The sound is being recorded.

4 Press  key again to stop recording.

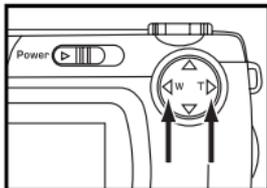
- The sound will record for 10 seconds.

VOICE PLAYBACK



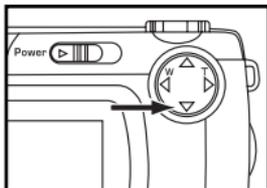
1 Rotate the function dial to .

- The last shot is displayed on LCD monitor.



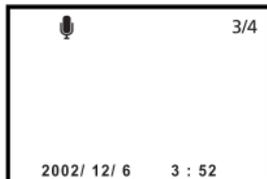
2 Press or key to select the image file with voice.

- The icon  of the image is displayed on LCD monitor.



3 Press key for PLAY & PAUSE.

- Press once: PLAY
Press once more: PAUSE

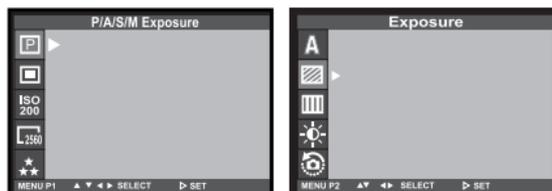




SPECIFYING THE RECORDING MODE

SPECIFYING THE RECORDING MODE

THE RECORDING MODE MENU DISPLAY (LCD Monitor)



THE RECORDING MODE MENU ITEMS

FLASH

(For the Flash mode, see page 44)

- _____  **(Auto-flash)**
- _____  **(Fill-flash)**
- _____  **(Flash cancel)**
- _____  **(Auto-flash with red-eye reduction)**
- _____  **(Night mode)**

FOCUSING

(For the Focus mode, see page 37)

- _____  **Central**
- _____  **Spot**

ISO

(For the ISO setting, see page 56)

- _____ **AUTO**
- _____ **ISO100**
- _____ **ISO200**
- _____ **ISO400**

DRIVE MODE

(For the Drive mode, see page 52)

-  **(Single shot)***
-  **(Continuous shot)**
-  **(Continuous with AF)**
-  **(Self-timer shot)**

IMAGE SIZE

(For the Image size ,see page 71)

- FULL (2560X1920)**
- LARGE (1600X1200)**
- HALF(1280X960)**
- VGA (640X480)**

QUALITY

(For the Image quality, see page 68)

- FINE (Fine mode)**
- STD. (Standard mode)**
- ECON. (Economy mode)**

WHITE BALANCE

(For the White Balance, see page 73)

- A (Auto setting)***
-  **(Daylight)**
-  **(Light bulb)**
-  **(Fluorescent)**
-  **(Cloudy)**
-  **(WB Preset)**

EXPOSURE (For the Exposure compensation see page 57)	EV		+2.0
			+1.7
			+1.3
	AREA	FULL	+1.0
		CENTRAL	+0.7
		SPOT	+0.3
SHARPNESS (For the Sharpness, see page 75)		HARD	0*
		NORMAL	-0.3
		SOFT	-0.7
			-1.0
			-1.3
			-1.7
			-2.0
LCD (For the LCD, see page 99)			9(bright)
			8
			7
			6
DEFAULT (For the Default, see page 77)		YES	5
		NO	4
			3
			2
			1
			0(dark)

MOVIE CLIP SHOT(For the MOVIE CLIP MODE,see page 59)

REC.TIME		30s
		25s
		20s
		15s
		10s
		5s

- * The settings indicated with mark are resumed when the power of the camera is turned off and on, or when the batteries are removed and inserted, For "QUALITY" and "IMAGE SIZE", the camera memorizes the last setting before the power of the camera is turned off or before the batteries are removed.

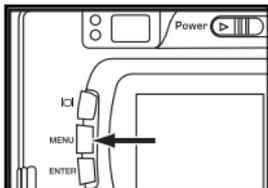
SPECIFYING THE IMAGE QUALITY MODE

This camera has 3 image quality modes; " ★ " (fine), " ★★ " (Standard) and " ★★ " (economy).

The image quality is related to the compression ratio of the image. The compression rate is higher in the order of " ★★ " → " ★★ " → " ★ ". The higher the compression rate is, the lower the image quality is. When you want high quality images, select " ★★ ". However, as the compression rate is low, the number of the images to be recorded in the CF card is less than that in the " ★★ " or " ★ " mode. When you want to record images in the card as much as possible, select " ★ " or " ★★ ". However, as the compression rate is high, the image quality is lower than in the " ★★ " mode. The compression rate, image recording format, image file size and the recordable number of the image using the CF card of 32 MB in each ★★, ★★ and ★ are as follows.

	★★ (Fine)	★★ (Standard)	★ (Economy)
The compression rate	about 1/4	about 1/8	about 1/12
The image recording format	Exif2.1-JPEG (DCF standards)		
The image file size	about 2400KB	about 1200 KB	about 600 KB
The recordable number of the image using the CF card of 32 MB	about 13	about 26	about 52

* Refer to the image file size and recordable number as a guide. These vary according to the scene or subject to be recorded. The numbers in parentheses are the values when the image size is set to 2560 x 1920.



1 Rotate the function dial to  and press the MENU button.

- The recording mode menu is displayed on the LCD monitor.



2 Press the ▲ or ▼ key so that [QUALITY] is highlighted and press the ► key.



3 Press the ▲ or ▼ key so that the desired image quality mode is highlighted and press ► key to finish the setting.

- The image quality mode changes in the following order.

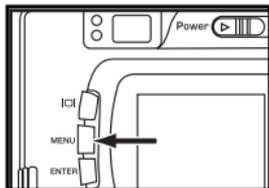
★★ (Fine mode)



★ (Standard mode)



★ (Economy mode)



5 Press the MENU button.

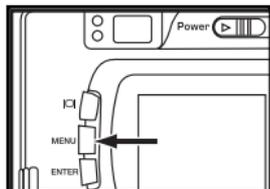
- The selected image quality mode is specified and displayed on the upper left side of the LCD monitor (see page 36).

- * It does not matter if there are images recorded in different image quality modes in one CF card.
- * The setting of the image quality mode is stored in the camera's memory even after the camera is turned off.
- * Changing the image quality mode affects the remaining number of images which can be recorded in the card. Selecting "★★", in particular, may considerably reduce the remaining number of image. We recommend you to check the number display of recordable remaining frame on the data panel.

SPECIFYING THE IMAGE SIZE MODE

Before taking pictures, select the image size. Changing the image size affects the number of the image which can be recorded in the CF card. The " FULL " " LARGE " " HALF " or VGA size can be selected.

Image Size	Number of Pixels (W x H)
FULL	2560X1920
LARGE	1600X1200
HALF	1280X960
VGA	640X480



1 Rotate the function dial to  and press the MENU button.

- The recording mode menu is display on the LCD monitor.



2 Press the ▲ or ▼ key so that [IMAGE SIZE] is highlighted and press the ► key.



3 Press the ▲ or ▼ key so that the desired image size mode is highlighted and press the ▶ key.

- The image size mode changes in the following order.

FULL (2560X1920)



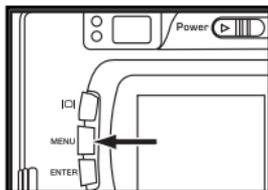
LARGE (1600X1200)



HALF (1280X960)



VGA (640X480)



5 Press the MENU button.

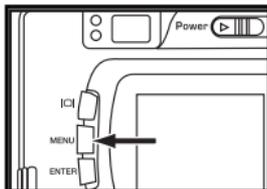
- The selected image size mode is specified and displayed under the image quality on the upper left side of the LCD monitor (see page 36).

- * The setting of the image size mode is stored in the camera's memory even after the camera is turned off.
- * Changing the image size mode affects the remaining number of images which can be recorded in the card. We recommend you to check the number display of recordable remaining frame on the data panel when you change the image size mode.

SPECIFYING THE WHITE BALANCE MODE

This camera has 6 white balance modes.

AUTO	Auto white balance It adjusts white balance according to light source incident on the CCD in normally.
	Daylight mode Select this mode when taking the picture of the subject illuminated by a sunlight.
	Light bulb mode Select this mode when taking the picture of the subject illuminated by an incandescent light or tungsten light.
	Fluorescent mode Select this mode when taking the picture of the subject illuminated by a fluorescent light.
	Cloudy mode Select this mode when taking the picture of the subject under cloud.
	WB Preset mode Select this mode by using the WB preset white balance setting.

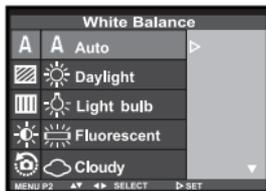


1 Rotate the function dial to  and press the MENU button.

- The recording mode menu is displayed on the LCD monitor.



2 Press the ▲ or ▼ key so that [White Balance] is highlighted and press the ► key.



3 Press the ▲ or ▼ key so that the desired white balance mode is highlighted, press ► key.

- The white balance mode changes in the following order.

A (Auto white balance)



 **Daylight mode**



 **Light bulb mode**



 **Fluorescent mode**



 **Cloudy mode**

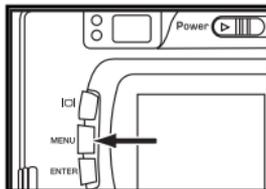


 **WB Preset mode**



4 Press the MENU button.

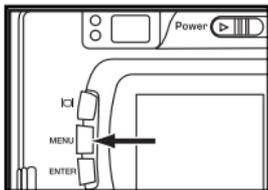
- The selected white balance mode is specified and the icon of the selected white balance mode is displayed on the left side of the flash mode on the upper right side of the LCD monitor (see page 36). However, when "AUTO" is selected, the icon **A** still appears on the LCD monitor.



SPECIFYING THE SHARPNESS MODE

This camera has three sharpness modes as described below.

HARD	This enhances the sharpness of image.
NORMAL	No effect of sharpness.
SOFT	This reduces the sharpness of image and makes an image soft.



1 Rotate the function dial to  and press the MENU button.

- The recording mode menu is displayed on the LCD monitor.

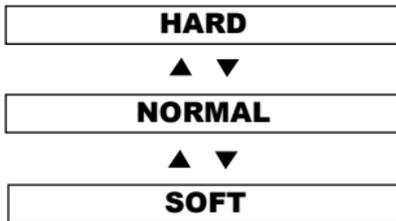


2 Press the ▲ or ▼ key so that [SHARPNESS] is highlighted and press the ► key.

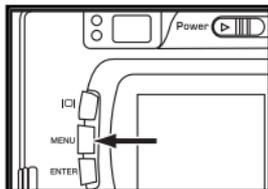


3 Press the ▲ or ▼ key so that the desired [sharpness] is highlighted.

- The sharpness mode changes in the following order.



4 Press the ► key.



5 Press the MENU button.

- The selected sharpness mode is specified and there would be no icon displayed on the LCD monitor. However, even if "HARD" or "SOFT" is selected.

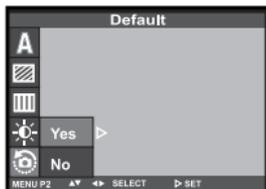
RESETING TO THE RECORDING MODE DEFAULT SETTINGS

This allows you reset this camera's **RECORDING MODE** to the default at a time.

The camera settings	The default settings
Flash	Autoflash with red-eye reduction
Focus-mode	Auto
Focus-Area	Central region
Drive Mode	Single
Image size	Full(2560x1920)
Quality	Standard
White Balance	Auto
Exposure-EV	0
Exposure-Area	Central region
Sharpness	Normal
LCD	5



1 Press the ▲ or ▼ key so that [DEFAULT] is highlighted and press ► key.



2 Press the ▼ key so that [YES] is highlighted and press ► key.

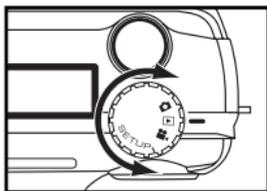
- The camera settings are reset to the default.
- The LCD monitor display return to the recording mode menu.



PALYBACK MODE

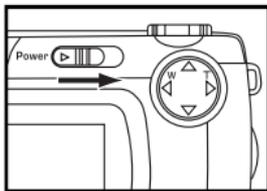
SINGLE-FRAME PLAY

The images recorded in the CF card can be displayed by one frame on the LCD monitor.



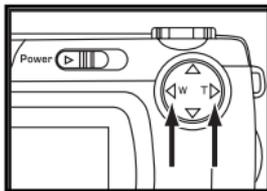
1 Rotate the function dial to .

- The function dial can be rotated even when the camera is turned on.



2 When the camera is not turned on, slide the power switch to turn on the camera.

- The power switch returns to the initial position.
- In a while , the latest image (last recorded) is displayed on the LCD monitor.

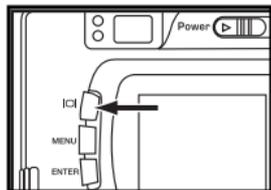


3 Press or key to display the desired image.

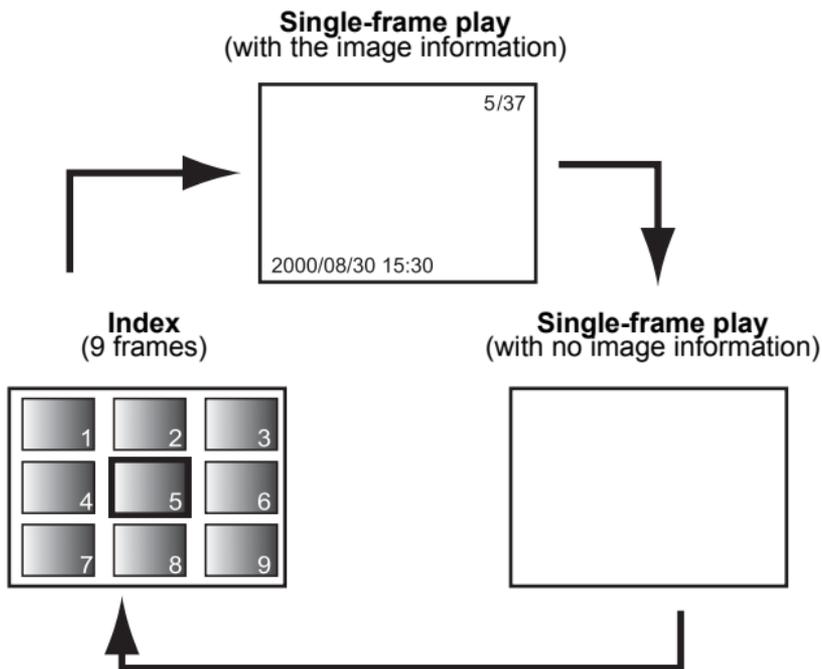
- When the  key is pressed, the following image is displayed. When the  key is pressed, the preceding image is displayed.
- When the latest image (last recorded) is displayed and the  key is pressed, the oldest image (first recorded) is displayed.
- When the oldest image (first recorded) is displayed and the  key is pressed, the latest image (last recorded) is displayed.

THE PLAYBACK MODE DISPLAY ON THE LCD MONITOR

THE PLAYBACK MODE DISPLAY ON THE LCD MONITOR

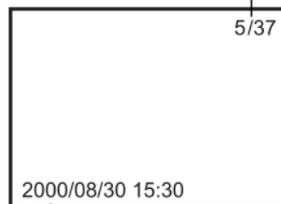


Each time the display button is pressed, the display on the LCD monitor changes in the following order.

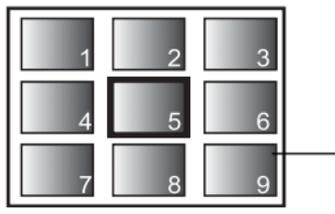


THE IMAGE INFORMATION DISPLAY IN THE PLABACK MODE

Frame number of the image/Total frame number recorded in the CF card



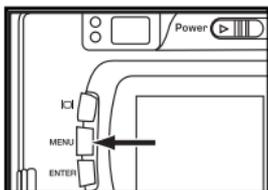
Recorded date and time of the image



When the camera enters the index play mode, the frame number of the image displayed last in the single-frame play mode is highlighted. (The ninth frame is the last displayed image in the figure above.)

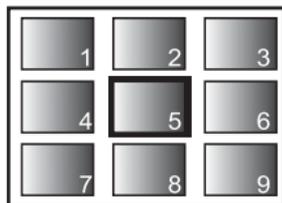
INDEX PLAY

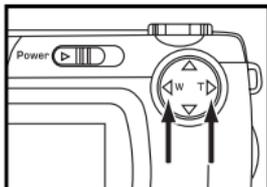
This mode allows you to display 9 frames at a time on the LCD monitor. It is convenient when you search the desired image quickly.



1 When the camera is set to the single-frame play mode, press the display button  once or twice (see page 81).

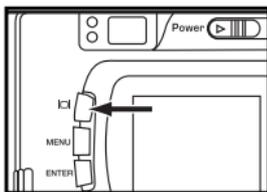
- When the image information is displayed in the single-frame play mode, press the display button  twice and when no information is displayed, press the display button once.
- The frame number of the image displayed last in the single-frame play mode right before switching to the index play mode is highlighted. The other frame numbers are displayed on the images.





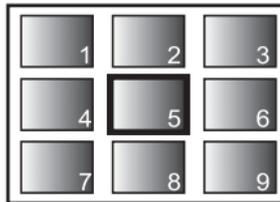
2 Press ▲、▼、◀、▶ key to select the desired image.

- When the ▶ key is pressed, the following image is selected and the frame number of the image is highlighted. When the ◀ key is pressed, the preceding imaged is selected and the frame number of the image is highlighted.
- When the ninth frame is selected (when the number 9 is highlighted) and the ▶ key is pressed, the following 9 frames are displayed.
- When the tenth frame is selected (when the number 10 is highlighted) and the ◀ key is pressed, the preceding 9 frames are displayed.



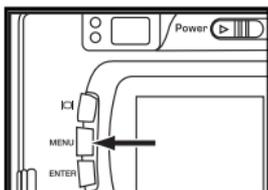
3 Press the display button  once (see page 81).

- The display on the LCD monitor switches to the single-frame play mode (with the image information) from the index play mode.
- Then selected index image (whose frame number is highlighted) is displayed in the single-frame play mode.



ZOOM PLAY

This mode allows you to increase the magnification of image around the center 2.5 times and display it on the LCD monitor. It is convenient when checking the details of the image.

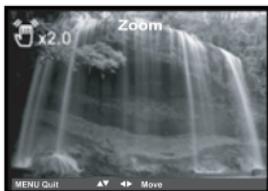


1 Rotate the function dial to  and press the MENU button.

- The playback mode menu is displayed on the LCD monitor

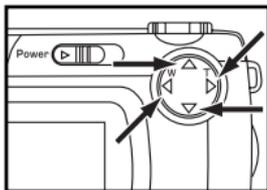


2 Press the  or  key so that "ZOOM" is highlighted.



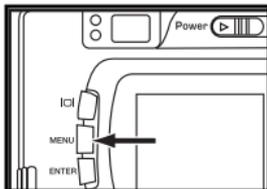
3 Press the  key.

- The center part of the image selected in the single-frame play or the index play mode is magnified 2.5 times.



4 Press the ▲ , ▼ , ◀ or ▶ key to scroll the magnified image.

- The image moves slightly in the direction of the key you press. The image keeps moving while the key is held and pressed.



5 To cancel the zoom play mode, press the MENU button.

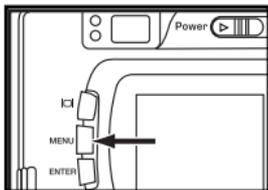
- When the zoom play mode is switched from the single-frame play mode, the single-frame play (with the image information) mode returns. When the zoom play mode is switched from the index play mode, the single-frame play (with no image information) mode returns when the display button is pressed and the index play mode returns when the button is pressed again.

* In the zoom play mode, the image around the center is displayed in 640 x480 pixels on the LCD monitor.

SLIDE SHOW

The images can be played back continuously on the LCD monitor like an automatic slide show.

TO START THE SLIDE SHOW



1 Rotate the function dial to  and press the MENU button.

- The play back mode menu is displayed on the LCD monitor.



2 Press the ▲ or ▼ key so that [SLIDE SHOW] is highlighted and press ► key.



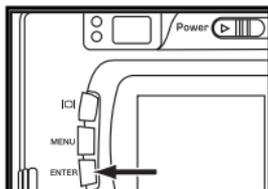
3 Press the ▲ or ▼ key so that [START] is highlighted, and press the ► key.

- The slide show starts according to the settings in the slide show mode menu (the settings of "TIME" and "DIRECTION").

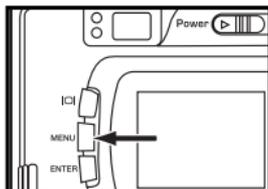
TO STOP THE SLIDE SHOW

Press one of the following buttons or keys while the slide show is performed. The slide show stops temporarily.

- **One of the ▲ , ▼ , ◀ and ▶ keys**
- **Display button**
- **MENU button**
- **ENTER button**

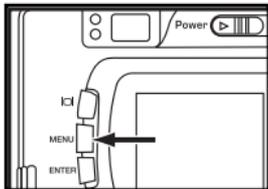


- When the ENTER button is pressed while the slide show stops temporarily, the slide show stop.



- When the MENU button is pressed while the slide show stops temporarily, the playback mode menu is displayed on the LCD monitor.

THE SETTING IN THE SLIDE SHOW MODE MENU



1 Rotate the function dial to  and press the MENU button.



2 Press the ▲ or ▼ key so that [SLIDE SHOW] is highlighted and press  key.



3 Press the ▲ or ▼ key so that [TIME] is highlighted, and press  key.



4 Press the ▲ or ▼ key so that the desired interval time is highlighted.



5 Press the ► key to finish the setting.



6 Press the ▲ or ▼ key so that [DIRECTION] is highlighted and press ► key.

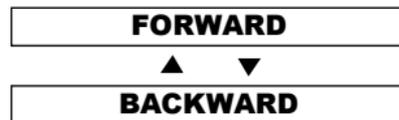


7 Press the ▲ or ▼ key so that the desired direction is highlighted and press ► to finish the setting.

• The direction changes in the following order.



8 Press the ► key to start slide show.





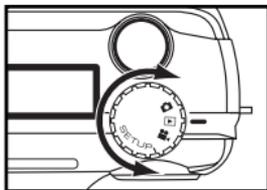
DELETING IMAGES

DELETING SELECTED IMAGES

The images recorded in the CF card can be deleted by an image while checking them displayed on the LCD monitor.

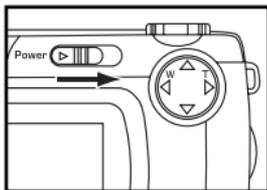
CAUTION

The deleted image cannot be recovered, BE CAREFUL when deleting an image.



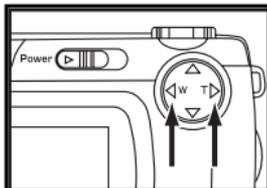
1 Rotate the function dial to .

- The function dial can be rotated even when the camera is turned on.



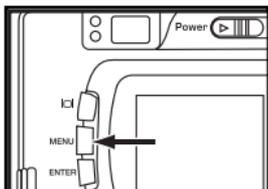
2 When the camera is not turned on, slide the power switch to turn on the camera.

- The power switch returns to the initial position.
- In a while, the latest image (recorded last) is displayed on the LCD monitor.



3 Press or key to select the image to be deleted.

- When the  key is pressed, the following image is selected. When the  key is pressed, the preceding image is selected.



4 Press the MENU button.

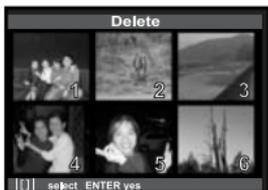
- The playback mode menu is displayed on the LCD monitor



5 Press the ▲ or ▼ key so that [DELETE] is highlighted, press the ► key.



6 Press the ▲ or ▼ key so that [SELECT IMAGE] is highlighted, press the ► key.



* The color of the background in the left figure is gray so that you can easily find out the contents of the display. However, the image to be deleted (the image displayed on the LCD monitor in step 1) is actually displayed in the background.



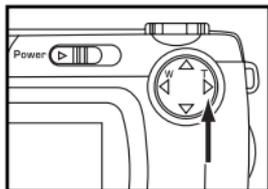
7 Press the DISPLAY button \square to determine the image to delete.

- After pressing the \square key it would show the sign that means the image will be delete.



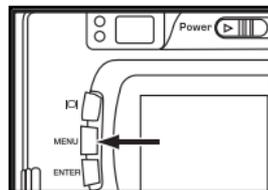
8 Press the ENTER button so that [YES] is highlighted, and press \blacktriangleright key to finish the Deleting.

- "Delete selected image?" is displayed on the lower of the monitor.



9 To complete the operation of deleting an image, after confirming that [NO] is highlighted in the display to confirm, press the \blacktriangleright key.

- The LCD monitor display returns to the playback menu.



10 Press the MENU button.

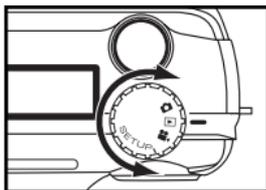
- The LCD monitor display returns to the playback mode.

DELETING ALL IMAGES

All images recorded in this folder can be deleted.

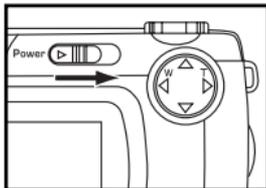
CAUTION

The deleted image cannot be recovered, be careful when deleting all images.



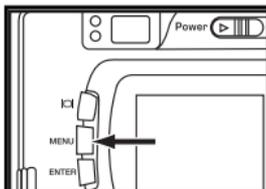
1 Rotate the function dial to .

- The function dial can be rotated even when the camera is turned on.



2 When the camera is not turned on, slide the power switch to turn on the camera.

- The power switch returns to the initial position.
- In a while, the latest image (recorded last) is displayed on the LCD monitor.



3 Press the MENU button.

- The playback mode menu is displayed on the LCD monitor.



4 After confirming that [DELETE] is highlighted, press the ► key.



5 Press the ▼ key so that [ALL IMAGES] is highlighted and press the ► key.

- The display to confirm whether you delete all images or not appears as shown in the figure.
- Only the images captured with this camera can be all deleted. Even if you insert the CF card in which the images captured with other camera is recorded, the images cannot be deleted.



6 Press ▼ key so that [YES] is highlighted and press ► key to finish the Deleting.

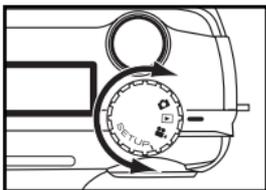
- All images recorded in the CF card are deleted.
- While all images are deleted, the focus lamp (green) blinks slowly (about two times a second).

DELETING FOLDERS

Delete the folder and all images in the folder

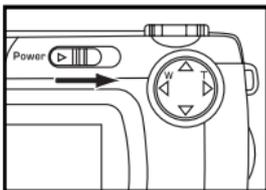
CAUTION

The deleted folder cannot be recovered, be careful when deleting any folder.



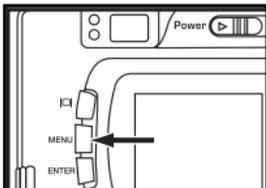
1 Rotate the function dial to .

- The function dial can be rotated even when the camera is turned on.



2 When the camera is not turned on, slide the power switch to turn on the camera.

- The power switch returns to the initial position.
- In a while, the latest image (recorded last) is displayed on the LCD monitor.



3 Press the MENU button.

- The playback mode menu is displayed on the LCD monitor.



4 After confirming that [DELETE] is highlighted, press the ► key.



5 Press the ▼ key so that [FOLDER] is highlighted and press the ► key.



6 Press ▲ / ▼ key to choose which Folder in the CF card want to delete, press ► key.

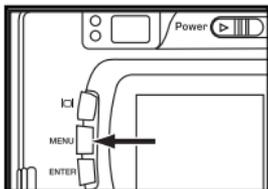


7 Press ▼ key so that [YES] is highlighted and press ► key to finish the Deleting.

- All images in the folder and the folder are deleted.
- While all images are deleted, the focus lamp (green) blinks slowly (about two times a second).
- Or select [NO] to quit the deleting.

ADJUSTING THE BRIGHTNESS OF THE LCD MONITOR

This allows you to adjust the brightness of the LCD monitor according to the angle at which you watch it or the brightness around the monitor so that the display on the LCD monitor can be seen clearly.



1 Rotate the function dial to  and press the MENU button.



2 After confirming that [LCD] is highlighted, press the  key.

- If the LCD monitor is turned off, the LCD monitor is automatically turned on the live view screen and display to change the brightness of the LCD monitor appear.



3 Press the  or  key so that the desired brightness is highlighted. press  key to set the value you changed.

- The brightness can be adjusted in the range from 0 to 9. The smaller number is darker and the larger number is brighter on the LCD monitor.
- * The color of the background in the left figure is gray so that you can easily find out the contents of the display. However, the live view screen is actually displayed in the background.



SPECIFYING THE PLAYBACK MODE

THE PLAYBACK MODE MENU

THE PLAYBACK MODE MENU (LCD Monitor)



THE PLAYBACK MODE MENU ITEMS AND EACH SETTINGS

DELETE

(For deleting images
see page 92)

SELECT IMAGE

YES
NO

DELETE ALL IMAGES

YES
NO

ZOOM

(For the zoom play
mode, see page 85)

FOLDER

YES
NO

SLIDE SHOW

(For the slide show
mode, see page 87)

START

DIRECTION

FORWARD
BACKWARD

TIME

2-10 SEC

PRINT

(For specifying the print settings with the DPOF, see page 103)

STD.**INDEX****CANCEL****FOLDER**

(see page 110)

NEW**SELECT****100SX520****Other folder name****LCD BRIGHT**

(For adjusting the brightness of the LCD monitor, see page 99)

9(bright)

8

7

6

5

4

3

2

1

0(dark)



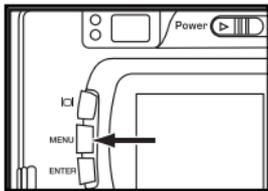
* For "DELETE" (deleting images), see page 92. For "ZOOM" (zoom play), see page 85. For "SLIDE SHOW" (auto play), see page 87 Only the 2 items of "PRINT" (Specifying the print setting with DPOF), "FOLDER" (Folder name) are described on the following pages.

SPECIFYING THE PRINT SETTINGS WITH THE DPOF

This camera supports the DPOF™ (Digital Print Order Format) Version 1.10 so that you can specify the images and the number of copies to be printed and the print type. So, the specified images can be printed at the specified number only by handing the CF card or the SmartMedia™, etc. in which not only the captured images but the DPOF data are recorded, to the photo finishing print service supporting the DPOF. You do not need to give them the file name or your password. Also, if you set the media including the DPOF data in the personal printer which supports the DPOF, you can print the specified images at the specified number automatically.

* The DPOF is jointly developed by Eastman Kodak Company, Canon Inc., Fuji Photo Film co., Ltd., and Matsushita Electric Industrial Co., Ltd. for direct printing from digital camera.

SPECIFYING THE IMAGE AND THE NUMBER TO BE PRINTED



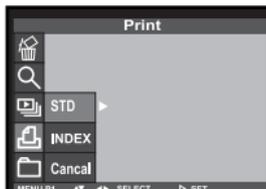
1 Rotate the function dial to  and press the MENU button.

- The playback mode menu is displayed on the LCD monitor.



2 Press the  or  key so that [PRINT] is highlighted and press  key.

SPECIFYING THE IMAGE AND THE NUMBER TO BE PRINT

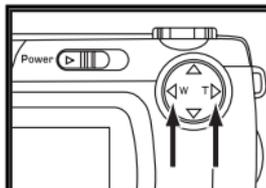


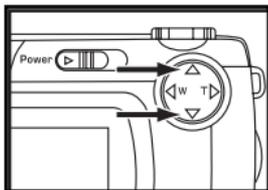
3 Press the ▲ or ▼ key so that [STD] is highlighted and press ► key.



4 Press ◀ or ▶ key to select the image to be printed.

- When the image to be printed is selected, the number to be printed is highlighted.
- The sixth frame is selected and the ► key is pressed, the following 6 frames are displayed.
- When the seventh frame is selected and the ◀ key is pressed, the preceding 6 frames are displayed.





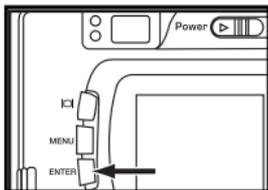
5 Press the ▲ or ▼ key to select the number to be printed.

- When the ▲ key is pressed, the number becomes large.
- When the ▼ key is pressed, the number becomes small.



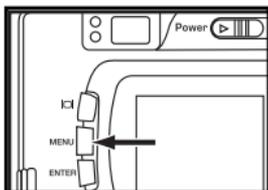
6 Repeat step 4 and 5 to specify the number to be printed for all images.

- For the image you do not want to print is specify 0.



7 Press the ENTER button to finish the setting.

- The DPOF file including data of the image and the number to be printed is recorded in the CF card.
- After the file is recorded, the LCD monitor display returns to the PLAYBACK mode menu.

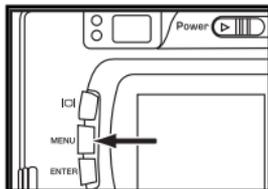


8 Press the MENU button.

- The LCD monitor display returns to the PLAYBACK mode.

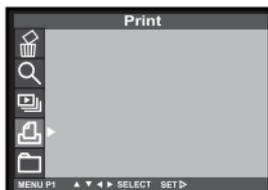
SPECIFYING THE INDEX PRINT SETTING

This setting allows you to print all images recorded in the CF card on one sheet as an index print. The illustration of index print as an image.

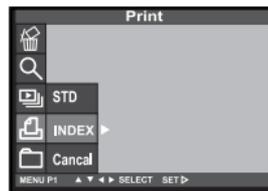


1 Rotate the function dial to  and press the MENU button.

- The playback mode menu is displayed on the LCD monitor.



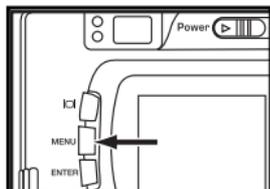
2 Press the ▲ or ▼ key so that [PRINT] is highlighted and press  key.



3 Press the ▼ key so that [INDEX] is highlighted and press  key to finish the setting.

- The display to confirm whether you print the images as an index print or not appears as shown in the figure.

-
- The DPOF file including data of the index print setting is recorded in the CF card.
 - After the file is recorded, the LCD monitor display returns to the playback mode menu.

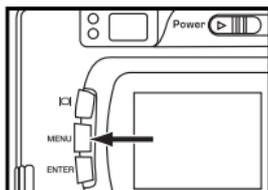


4 Press the MENU button.

- The LCD monitor display returns to the playback mode.

TO CANCEL THE PRINT SETTINGS WITH THE DPOF

All Print settings with the DPOF described on page 103 can be cancelled. The index print setting (see page 106) is also cancelled.

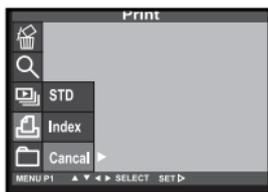


1 Rotate the function dial to  and press the MENU button.

- The playback mode menu is displayed on the LCD monitor.



2 Press the ▲ or ▼ key so that [PRINT] is highlighted and press  key.



3 Press the ▼ key twice so that [CANCEL] is highlighted and press the  key to finish the setting.

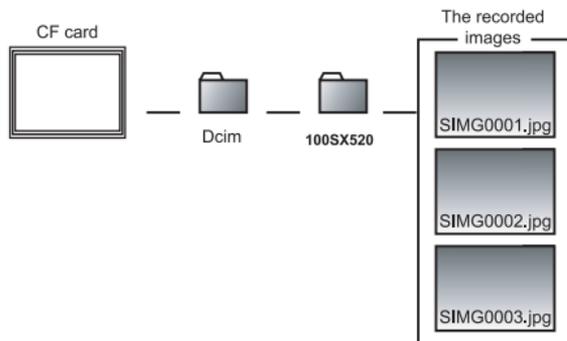
- The display to confirm whether you cancel all print settings or not appears as shown in the figure.

FOLDER NAME

The folder in the CF card is conformed with DCF (Design rule for Camera File system) format.

When taking a picture with this camera, the "Dcim" folder is made in the directory of the CF card and the "100SX520" folder is made in the "Dcim" folder. The first captured image is recorded with the file name of "SIMG001.jpg" in the "100SX520" folder. The name of the folder in which the captured images are recorded is displayed on the playback mode menu.

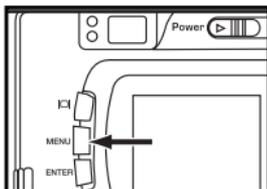
The file name of the image to be recorded consists of "SIMG", "4-digit number" and ".jpg". The files are recorded in the "100SX520" folder until the 4-digit number becomes 9999 (the file name of "SIMG9999.jpg"). When the 10000th file is recorded, the "101MX520" folder is newly made in the "Dcim" folder and the 10000th file is recorded with the file name of "SIMG0001.jpg" in the "101MX520" folder.



There will be two folders for the images in one CF card if you capture more than 10000 images. You can select the folder in which the image to be played back is recorded by the folder name displayed in the playback mode menu.

SELECTED A FOLDER

Even if other digital camera supporting the DCF format is used to record the captured images in the CF card, you can insert the CF card into this camera and play back the images by selecting the particular folder name of other digital camera in the playback mode menu.



1 Rotate the function dial to  and press the MENU button.

- The playback mode menu is displayed on the LCD monitor.



2 Press the  or  key so that [FOLDER] is highlighted and press  key.

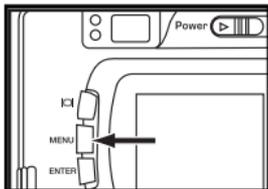


3 Press the  or  key so that [SELECT] is highlighted and press  key.

- The existence folder is displayed on the LCD monitor.
- After choosing the folder, the following images will be saved in the selected folder.

GIVE THE FOLDER A NEW NAME

You could give the folder a new name in the FOLDER-NEW mode, determine the last 5 character arbitrary.



1 Rotate the function dial to  and press the MENU button.

•The playback mode menu is displayed on the LCD monitor.



2 Press the ▲ or ▼ key so that[FOLDERS] is highlighted and press ► key.



3 Press the ▲ or ▼ key so that [New] is highlighted and press ► key.



4 Press ▲ or ▼ key select the character you like and press the ► key to determine.

- If you won't give a new name, press the menu button back to playback menu.



5 Press the ► key so that the folder name in which the image to be played back is recorded is highlighted and press the ENTER button.

- When only "100SX520" folder exists, the folder name does not change even the ▲ or ▼ key is pressed.

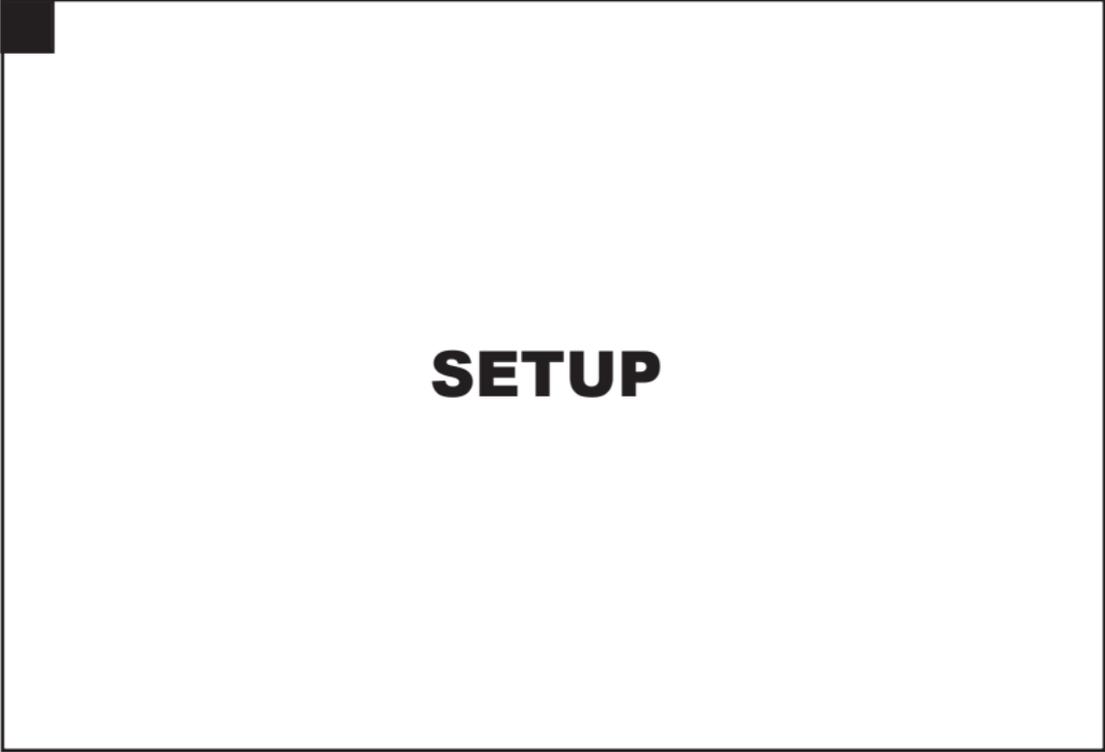
On DCF (Design rule for Camera File system) Format

DCF (Design rule for Camera File system) is the image format established by JEODA as the standard format of digital camera.

Through this format, the image files can be used between the digital equipment conformed to DCF.

The following operation can be available between the digital equipment conformed to DCF:

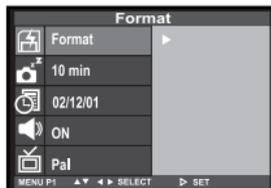
- The images captured with your digital camera can be played back on the LCD monitor of other digital camera.
- The images captured with some digital cameras can be printed out from a printer.
- A recording media (such as a CF card or SmartMedia™) can be used with any of the digital cameras.
- By using the computer conformed to DCF, even the image data recorded with some digital cameras can be easily sorted out.



SETUP

THE SETUP MODE MENU DISPLAY

THE SETUP MODE MENU DISPLAY ON THE LCD MONITOR



FORMAT _____ **NO**
(For formatting the CF card, see page 119) _____ **YES**

POWER SAVE _____
(For the time for the auto power off function, see page 117)

- _____ 1 min. (1 minute)
- _____ 3 min. (3 minutes)
- _____ 5 min. (5 minutes)
- _____ 10 min. (10 minutes)
- _____ 30 min. (30 minutes)

DATE/TIME _____ **DATE** _____ **YY/MM/DD**

(For setting or correcting
the date and time, see
page 121)

_____ **TIME** _____ **HH:MM**

BEEP _____ **ON (The beep sounds.)**

(For turning on or off the beep, see page 123)

_____ **OFF (The beep does not sound.)**

VIDEO OUT _____ **PAL**

(For switching the video signal from the video-out terminal, see page 125)

_____ **NTSC**

LANGUAGE _____ **ENGLISH**

(For switching the language displayed on the LCD monitor, see page 127)

_____ **GERMAN**

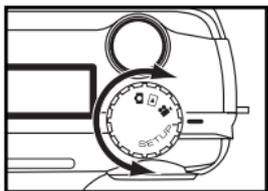
DEFAULT _____ **NO**

(For resetting the camera, see page 128)

_____ **YES**

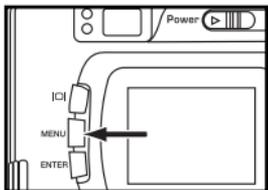
SPECIFYING THE TIME FOR THE AUTO POWER OFF FUNCTION

To save the battery power, this camera will be turned off automatically if it is not operated more than 3 minutes. (Auto Power Off function) The time for the auto power off function is set to 3 minutes unless you change the setting after you purchase this camera.



1 Rotate the function dial to "SETUP" and slide the power switch to turn on the camera.

- The power switch returns to the initial position.

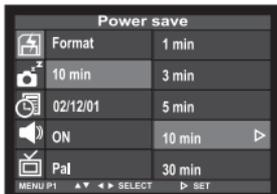


2 Press the  button.

- The setup mode menu is displayed on the LCD monitor as shown in the figure.



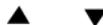
3 Press the  or  key so that [POWER SAVE] is highlighted and press the  key.



4 Press the ▲ or ▼ key so that the desired time for the auto power off function is highlighted.

- The time for the auto power off function changes in the following order.

1 min. (1minute)



3 min. (3 minutes)



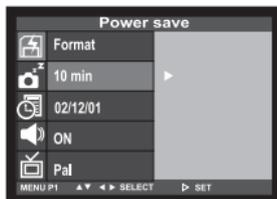
5 min. (5 minutes)



10 min. (10 minutes)



30 min. (30 minutes)



5 Press the ▶ key to finish the setting.

ˆOnly when using the batteries, the time for the auto power off function can be specified. When using the AC adapter (sold separately), the time for the auto power off function is fixed in 30 minutes and cannot be changed.

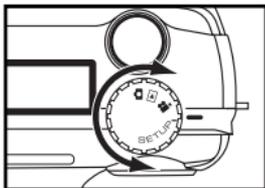
ˆWhen this camera is connected to the computer , the time for the auto power off function is fixed in 30 minutes automatically regardless of the setting or the power supply.

FORMATING THE CF CARD

This allows user to format the CF card.

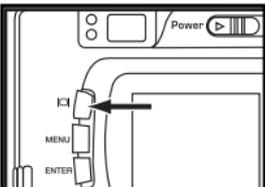
CAUTION

As all the images recorded in the CF card are deleted and cannot be recovered, be careful when formatting the CF card.



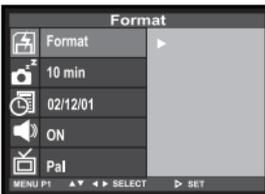
1 Rotate the function dial to "SETUP" and slide the power switch to turn on the camera.

- The power switch returns to the initial position.



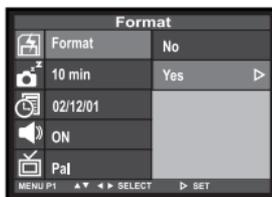
2 Press the  button .

- The setup mode menu is displayed on the LCD monitor as shown in the figure.



3 Press the ▲ or ▼ key so that [FORMAT] is highlighted and press ► key.

- The display to confirm whether you format the CF card or not appears.

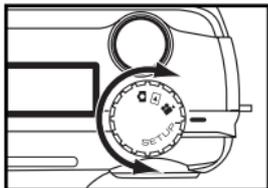


4 Press the ▼ key so that [YES] is highlighted and press the ► Key to finish the setting.

- The format of the CF card starts.
- After formatting the CF card, the LCD monitor returns to the setup mode menu display.

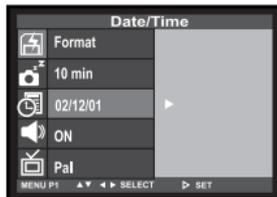
SETTING THE DATE / TIME

When taking a picture, the date and time are recorded as the part of the image information. If the built-in clock of this camera is not set correctly, the wrong date and time are recorded. Set the date and time correctly by performing the procedure below.



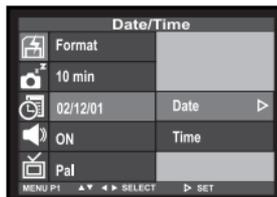
1 Rotate the function dial to "SETUP" and slide the power switch to turn on the camera.

- The power switch returns to the initial position.
- The setup mode menu is displayed on the LCD monitor as shown in the figure.



2 Press the ▲ or ▼ key so that [DATE/TIME] is highlighted and press the ► key.

- The display to set the date and time appears as shown in the figure.

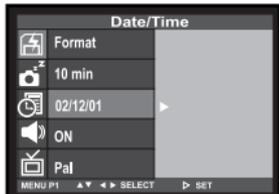


3 Press the ▲ or ▼ key so that [DATE] is highlighted and press the ► key.



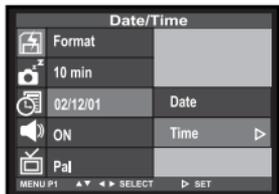
4 Press the ▲ or ▼ key to specify or correct the date and press ► key to finish the setting.

- When you press and hold the ▲ or ▼ key, the value goes fastforward or fastbackward.



5 Press the ▲ or ▼ key so that [DATE/TIME] is highlighted and press ► key.

- The display to set the date and time appears as shown in the figure.



6 Press the ▲ or ▼ key so that [TIME] is highlighted and press the ► key.



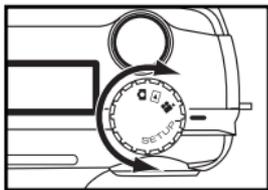
7 Press the ▲ or ▼ key to specify or correct the date and press the ► to finish the setting.

- When you press and hold the ▲ or ▼ key, the value goes fastforward or fastbackward.

SETTING THE STARTING MUSIC&BEEP SOUND

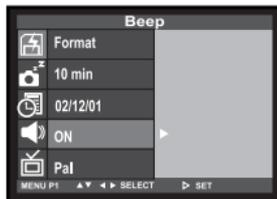
The starting music and beep sounds each time you operate this camera with the buttons or function dial and you can turn off or on the starting music&beep. The beep is turned on unless you change the setting after you purchase this camera.

When you use this camera in the situation you cannot make noise such as a wedding ceremony, etc., you can turn off the beep.

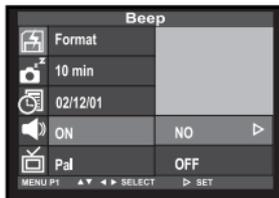


1 Rotate the function dial to "SETUP" and slide the power switch to turn on the camera.

- The power switch returns to the initial position.
- The setup mode menu is displayed on the LCD monitor as shown in the figure.



2 Press the ▲ or ▼ key so that [BEEP] is highlighted and press the ► key.



3 Select [ON] or [OFF] with the ▲ or ▼ key.

- The setting of the beep changes in the following order.

ON (The beep sounds.)



OFF (The beep does not sound.)



4 Press the ► key to finish the setting .

- When [OFF] is selected on step 4, the beep does not sound even when you operate with the buttons or the function dial.
- The volume of the beep cannot be changed.

SWITCHING THE VIDEO SIGNAL FROM THE VIDEO OUTPUT TERMINAL

As this camera has the video-out terminal, you can watch the captured images on TV by connecting this camera to your TV with the supplied video cable.

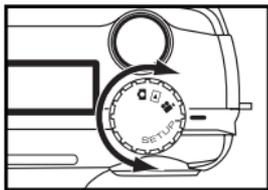
The video output signal can be switched between NTSC and PAL.

What is an NTSC system and a PAL system?

Both are the color television broadcast system. The NTSC system is mainly used in U.S.A., Japan, Canada, Mexico, the Philippines, Korea, etc. The PAL system is used in the western Europe such as Germany, England, Switzerland, Netherlands, Italy (except for France) and Australia, Singapore, Thailand, China, etc.

As these systems have no compatibility, you cannot watch the NTSC system based TV in the area where a PAL system is used.

This camera can switch the video output signal to both an NTSC system and a PAL system. So you can watch the images on TV not only in your country, but in other areas.



1 Rotate the function dial to "SETUP" and slide the power switch to turn on the camera.

- The power switch returns to the initial position.
- The setup mode menu is displayed on the LCD monitor.

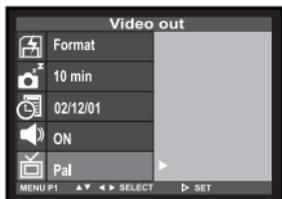
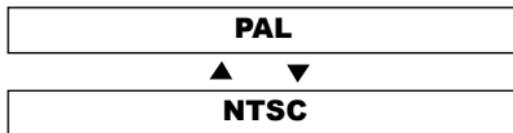


2 Press the ▲ or ▼ key so that [VIDEO OUT] is highlighted and press the ► key.



3 Select [PAL] or [NTSC] with the ▲ or ▼ key.

- The setting of the Video out changes in the following order.

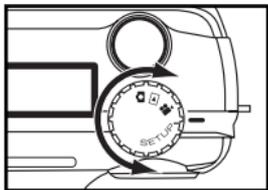


4 Press the ► key to finish the setting.

- The video signal system output from the video-out terminal is switched to the selected one.

SWITCHING THE LANGUAGE DISPLAYED ON THE LCD MONITOR

The language displayed on the LCD monitor can be switched to English.



1 Rotate the function dial to "SETUP" and slide the power switch to turn on the camera.

- The setup mode menu is displayed on the LCD monitor as shown in the figure.



2 Press the ▲ or ▼ key so that [LANGUAGE] is highlighted and press the ► key.



3 Select [ENGLISH] with the ▲ or ▼ key.

- The language changes in the following order.



4 Press the ► key to finish the setting.

- The language displayed on the LCD monitor is switched to the selected one.

RESETTING TO THE DEFAULT SETTINGS

This allows you reset all this camera's **PLAYBACK MODE**, **SETUP MODE**, **PC MODE** to the default at a time.

The camera playback settings	The default playback settings
Delete (see page 92)	Selected Image
Slide show-Time (see page 89)	2 sec
Slide show-Direction (see page 87)	Forward
Print(see page 103)	STD (standard)
Folders(see page 109)	100SX520
LCD(see page 99)	5
The Camera Setup settings	The default setup settings
Power save (see page 117)	3 minuets
Beep sound (see pages 123)	On
The Camera pc setting	The default pc settings
PC connection	Storage



1 Rotate the function dial to "SETUP" and slide the power switch to turn on the camera.

- The setup mode menu is displayed on the LCD monitor as shown in the figure.



2 Press the ▲ or ▼ key so that [DEFAULT] is highlighted and press the ► key.

- The display to confirm whether you reset the camera settings to the default or not appears as shown in the figure.



3 Press the ▲ or ▼ key so that [YES] is highlighted and press ► key to finish the setting.

- The camera settings are reset to the default.
- The LCD monitor display returns to the setup mode menu.



CONNECTING TO THE PERSONAL COMPUTER

INSTALLATION OF THE DRIVER AND APPLICATION SOFTWARE

INSTALLATION OF THE DRIVER SOFTWARE

The following operation is required for Windows®98 .



Can be used in Microsoft Windows series Operating System

**(Operating System must support USB device first.)
(For example: Windows 98/98 SE/ME/2000/ ...)**

- 1. Insert installation CD-ROM.**
- 2. Press "Driver" button.**

Caution:

Win 2000, Me, XP, don't need driver.



3. Press "Next".



4. Starting install driver.



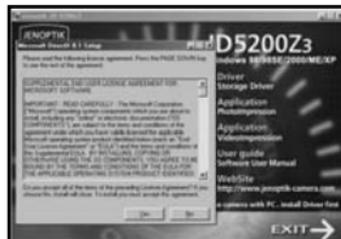
5. Press "Finish " to complete installation.



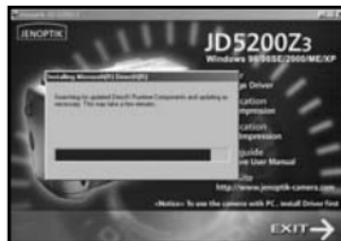
6. Press "Yes" to continue install DirectX 8.1.

Caution:

We suggest to install DirectX 8.1 for all Win OS.



7. Press "Yes".



8. Starting install DirectX 8.1.

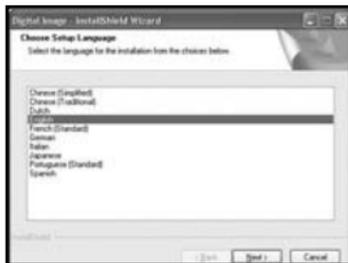


9. Press "Sure" to complete installation.

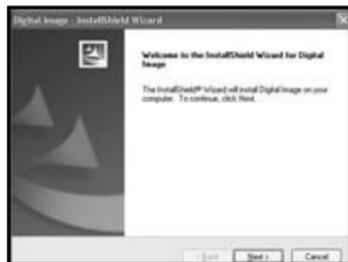
10. Restart your computer.

INSTALLATION DIGITAL IMAGE AND PHOTOIMPRESSION

For the IBM-PC/AT and the compatible unit.

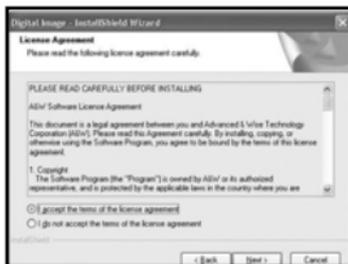


- 1. Insert installation CD-ROM.**
- 2. Press "Application" to install Digital Image and PhotoImpression.**
- 3. Choose setup language and press "Next".**

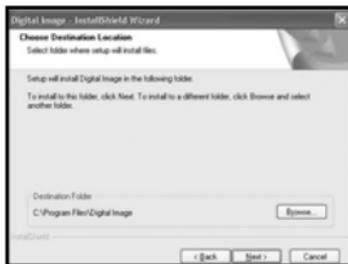


- 4. Press "Next".**

Caution: Digital Image is available in Win98SE/ 2000/ ME/ XP



5. Click "I accept the terms of the license agreement" then press "Next".



6. Press "Next".



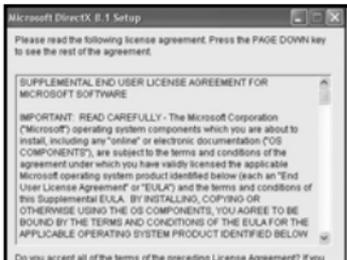
7. Press "Next".



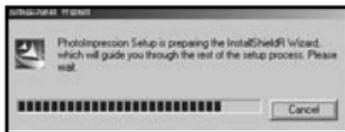
8. Starting installation.



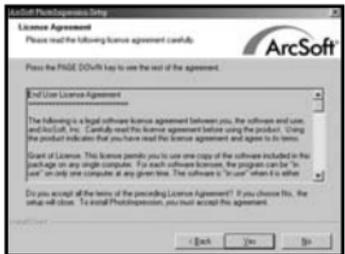
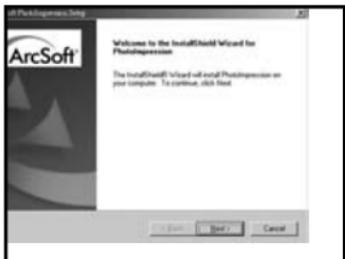
9. Press "Finish".



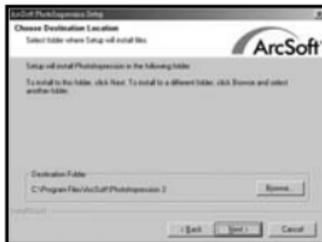
10. Press "Yes".



11. Press "Next " to continue install Photoimpression.



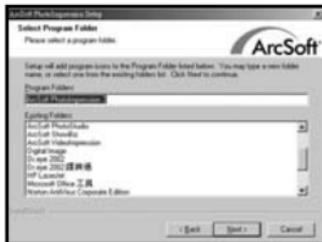
12. Press "Yes".



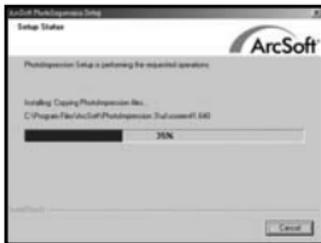
13. Press "Next".



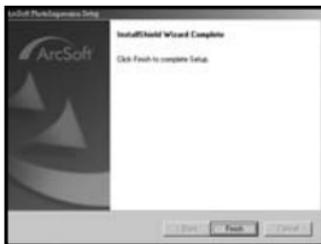
14. Press "Next".



15. Press "Next".

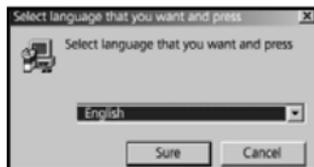


16. Starting set up.

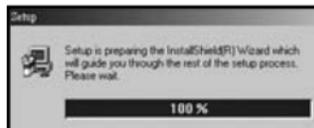


17. Press "Finish" to complete installation.

INSTALLATION VIDEOIMPRESSION1.6 FOR WIN



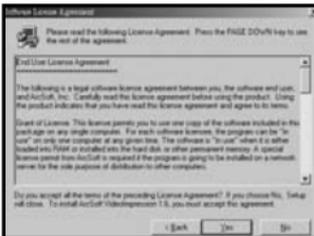
1. Press "Application" to install Video Impression
2. Select language that you want and press "sure"



3. Preparing set up.



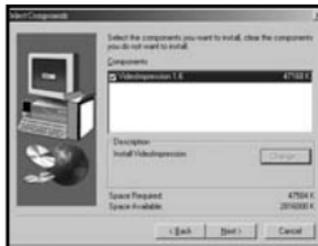
4. Press "Next".



5. Press "Yes".



6. Press "Next" to choose folder which you will save.



7. Press "Next".



8. Press "Next".



9. Starting install VideoImpression1.6.



10. Press "Finish" to complete installation.

For Apple Macintosh (OS9, OS10)

INSTALLATION DRIVER

Do not need to install driver.

INSTALLATION DIGITAL IMAGE



1. Insert installation CD-ROM.



2. Click "Digital Image Installer".



3. Click "Digital Image Installer".



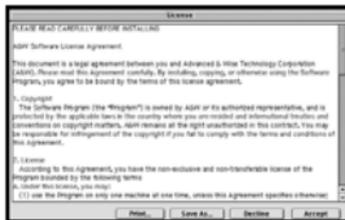
4. Press "Accept".



5. Press "install".



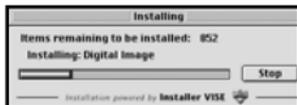
3. Click "Digital Image Installer".



4. Press "Accept".



5. Press "install".





Installation was successful. If you are finished, click **Quit** to leave the Installer. If you wish to perform additional installations, click **Continue**.

Continue

Quit

6. Press "Quit".

For Apple Macintosh (OS9, OS10)

INSTALLATION PHOTOIMPRESSION



- 1. Insert installation CD-ROM.**
- 2. Click "ARCSOFT" to install PhotoImpression.**



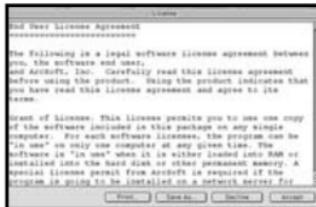
- 3. Click "PhotoImpression3" to set up software .**



4. Click language that you want.



5. It will show below screen and click "PhotoImpression Installer".



6. Press "Accept".



7. Press "Install" to start installation.

INSTALLATION VIDEOIMPRESSION1.6 FOR MAC



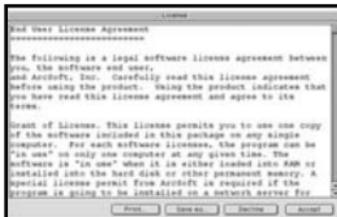
1. Click "Video Impression1.6" to set up software.



2. Select language that you want.



3. It will show the below screen and click "VideoImpression1.6 Installer".



4. Press "Accept".



5. Click "Install" to start installation.

CAUTIONS WHEN CONNECTING TO THE PERSONAL COMPUTER

- While this camera is connected to the computer or transferring the image data between this camera and the computer, do not perform the following operations. Otherwise, the error may occur, the camera and the computer may not function correctly, or the image data recorded in the CF card may be erased or damaged.
- Turn off the power of the camera
- Disconnect the USB cable
- Rotate the function dial
- Remove or insert the CF card
- When the camera is connected to the computer. The time for the auto power off function is fixed in 30 minutes automatically regardless of the power supply you use or the settings on the SETUP mode (see page 113).

CAUTIONS WHEN CONNECTING TO THE PERSONAL COMPUTER

- When connecting the camera to the computer and transferring the image data between them, be sure to check that the battery capacity is full. If the battery power is low, the power of the camera may be turned off while transferring data. If this happens, the error may occur, the camera and the computer may not function correctly, or the image data recorded in the CF card may be erased or damaged.

When the camera is connected to the computer, we recommend you to use new batteries with a full power capacity or the AC adapter (sold separately).

Requirements of Photo Impression & Video Impression

To use the supplied image editing application Photo Impression and Video Impression, the following systems are required.

For the IBM-PC/AT and the compatible unit

CPU	Intel Pentium II processor of 233 MHz or more, or the computer equipped with the fully compatible processor.
OS	Windows®98/98SE/ME/2000/XP Windows® NT 4.0 (Service Pack 5)
Memory	16 MB or more of built-in memory (For Windows® NT, 32 MB or more of built-in memory).
Hard disk space	110 MB or more of available hard disk space.
Monitor	Resolution 800 x 600/th color monitor for 16-bit color video display
CD-ROM drive	Necessary (when installing and using the software).

For Apple Macintosh

CPU	68040 or later processor or better, or Macintosh or Power Macintosh
OS	Mac OS9, OS10.1
Memory	32MB RAM or higher
Hard disk space	110 MB or more of available hard disk space.
Monitor	The color monitor capable of displaying 256 colors
CD-ROM drive	Necessary (when installing and using the software).



APPENDIX

WATCHING THE CAPTURED IMAGES ON TV

WATCHING THE CAPTURED IMAGES ON TV

By connecting this camera to your TV with the supplied video cable, you can watch the captured images on TV.

1. Confirm that the video out signal from the video-out terminal is set to NTSC or PAL according to the color system in your country. (see page 125).

2. Turn off the power of the this camera and TV.

3. Open the terminal cover on the left side of the camera and connect the mini plug of the supplied video cable to the video-out terminal of the camera.

- The LCD monitor is turned off.

4. Connect the other side of the video cable to the video input terminal on TV.

5. Turn on the power of TV.

6. Rotate the function dial to 

7. Slide the power switch to turn on the camera.

8. Switch the video input of TV according to the terminal to which the video cable is connected.

- The images recorded in the CF card can be displayed both on the LCD monitor and TV.

9. You can watch the images in the various play modes following the procedure .

- The images can be played back in the slide show mode (see page 82) , etc.

TROUBLESHOOTING

If you have any trouble with this camera, check the following items. Should the difficulty persist, contact the JENOPTIK Service Facility.

Problem	Check	Solution	Page
The focus cannot be adjusted in the autofocus mode The focus lamp (green) blinks quickly (about 8 times in a second) when the shutter-release button is pressed half-way down.	Do you attempt to adjust the focus on the subject, which is difficult to focus in the autofocus mode?	Take a picture with the focus lock function or in the manual focus mode.	39 40
	Do you attempt to take a picture when the subject is closer than the minimum focus distance (40 cm), or farther than 40 cm in the close up mode?	Take a picture when the subject is farther than 40 cm, or when the subject is within the distance from 8 cm to 40 cm (is not apart more than 40 cm from the camera) in the close mode.	41
The shutter-release button is not released.	Is the power of the camera turned off?	Rotate the function dial to  and slide the power switch to turn on the camera.	33
	Is the camera set to other mode except the recording mode?		
	Is the focus lamp (green) blinks slowly (about 2 times in a second) and "Recording" blinking on the LCD monitor?	The image is recorded in the CF card. Wait until the recording is completed and the focus lamp (green) and "Recording" stop blinking.	35

Problem	Check	Solution	Page
The shutter-release button is not released.	Is "CARD FULL" displayed on the LCD monitor?	The CF card is full. Delete unwanted images or transfer the image data to the computer and then delete all images, or use other CF card, which has a memory space.	92
The live view is not displayed on the LCD monitor.	Is the power of the camera turned off?	Rotate the function dial to  and slide the power switch to turn on the camera.	33
	Are the batteries exhausted?	Replace all four batteries or use the AC adapter (sold separately).	27 28
	Are the batteries inserted with the correct polarity?	Remove the batteries and then insert the batteries by following the +/- diagram indicated in front of the battery-chamber door.	25
	Is the LCD monitor turned off?	Press the display button to turn on the monitor.	35
	The auto power off function activates.	Slide the power switch to turn on the camera again.	25

Problem	Check	Solution	Page
The image cannot be played back on the LCD monitor.	Is the power of the camera turned off?	Rotate the function dial to  and slide the power switch to turn on the camera.	80
	Are the batteries exhausted?	Replace all four batteries or use the AC adapter (sold separately).	25
	Are the batteries inserted with the correct polarity?	Remove the batteries and then insert the batteries by following the +/- diagram indicated in front of the battery-chamber door.	28
	Is the CF card is inserted in the camera? (Is "NO CARD" displayed on the LCD monitor?)	When "NO CARD" is displayed on the LCD monitor and "CF" is displayed on the data panel, the CF card is not set. Insert the CF card.	25
	The auto power off function activates.	Slide the power switch to turn on the camera again.	25
	Is the focus lamp (green) blinks slowly (about 2 times in a second) and "PLAY BACK" blinks on the LCD monitor?	The camera reads out the image data from the CF card. Wait until the reading is completed and the focus lamp and "PLAY BACK" stop blinking.	29
The image recorded in the flash mode is dark.	Did you take a picture within the flash range?	Take a picture within the flash range (0.4 to 3 m) .	44

Problem	Check	Solution	Page
The zoom play cannot be performed.	Did you take a picture with the digital zoom function?	The picture captured with the digital zoom function cannot be played back in the zoom play mode.	50 85
The image is too dark or bright.	Is the exposure compensation value specified?	Specify 0 for the exposure compensation value.	99
Even when the lens comes out, the data panel is turned off and the camera can not function.	Has the  battery-condition indicator blinked (all the indicators disappeared after 5 seconds) ?	If the  battery-condition indicator blinks, all the indicators will disappear after 5 seconds while the lens is protruding.	25
The recorded image file is damaged.	Did you remove the CF card when the image data was recorded in or read out from the CF card?	The data is being recorded in or read out from the CF card while the focus lamp (green) blinks slowly (about 2 times in a second). Do not remove the CF card from the camera.	33
The camera does not function correctly due to the strong static electricity, etc.	<p>Remove the batteries and insert them again. When using the AC adapter (sold separately) , disconnect the plug of the AC adapter from the AC outlet and then connect it again.</p> <p>After that, turn on the power of the camera.</p> <p>* If the power of the camera cannot be turned off correctly, the CF card may be damaged. In this case, transfer the image data in the CF card to the computer and then format the CF card.</p>		-

NOTES ON THE HANDLING

Batteries

- Battery performance decreases with lower operating temperatures. In a cold place, we recommend you to prepare new batteries and keep the spare batteries in a warm place such as inside your coat. As the performance of Ni-MH battery less decreases, we recommend you to use the Ni-MH battery in a cold place. Even if the battery performance decreases due to a cold environment, the battery can recover its power when the battery warms up.
- Remove the batteries when they are not in use for an extended period. The battery leakage may damage the battery-chamber.
- Occasionally, when using alkaline batteries, the battery-condition indicator shows that the battery power is low even if there is enough power capacity. Continue to use the camera. The low-battery symbol will disappear.
- As the batteries heat up just after the camera is used, be careful when removing or replacing the batteries. Turn off the power of the camera and allow the batteries to cool down.

LCD Monitor Care

- The LCD monitor is manufactured using high precision technology. However, there may rarely be a lack of color or bright points on the LCD monitor.
- Do not apply pressure on the surface of the LCD monitor. Permanent damage may occur.
- In a cold environment, the LCD monitor may be temporarily dark. When the camera warms up, normal display will be restored.
- The LCD monitor may be slow to react in a low temperature or may be dark in a hot environment. When the camera warms up, normal display will be restored.
- If there are fingerprints on the LCD monitor surface, gently wipe it with a soft, clean, dry cloth.

Copyright

- TV program, films, video tapes, and other materials may be copy righted. Unauthorized recording of such materials may be contrary to the provision of the copyright laws. And in some performance and exhibition, etc. taking picture are prohibited. The image which has a copyright cannot be used except for the use within the copyright laws.

DPOF

- If the CF card including the DPOF data specified by other camera is set in this camera, the DPOF data will be cancelled.
- Even if you insert the CF card including the data recorded with other digital camera supporting the DCF format, the DPOF data for the images captured with other digital camera (the images in the folder made by other digital camera supporting the DCF format) cannot be specified in this camera.

Operating Temperatures and Conditions

- This camera has been designed for use in temperatures from 0°C to 40°C (32°F to 104°F).
- Never leave the camera exposed to extreme high temperatures, such as in a car parked in the sun, or to extreme humidity.
- To prevent condensation from forming, place the camera in a sealed, plastic bag when bringing it from a cold place to a warm place. Allow it to come to room temperature before removing it from the bag.

Safety and Handling for the CF card

- Read and follow the instructions manual supplied with the CF card.
- The following may cause data loss or damage. We have no responsibility for it. We recommend you to copy a backup data in other media such as ZIP disc, hard disk, CD-ROM, etc.
 - 1 Improper use of card.
 - 2 Static electrical discharge near card or electric noise.
 - 3 Removing the card or interrupting power supply while camera or equipment is accessing the caed (reading, writing, formatting etc.)
 - 4 Non-use of card for an extended period.
 - 5 Using the card over its life.
- When the card is formatted, the recorded data is deleted. Be sure to record a backup data if it is necessary.
- The storage capability of the CF card will diminish with extended use. In this case, buy a new card.
- Keep away from static electricity and electric noise.
- Do not bend, drop, or subject the card to impact.
- The strong static electricity or shock may damage the card so that recording or writing in the card cannot be performed. In this case, buy a new card.
- Do not touch the electrical contacts of the card with your fingers or a metal object.
- Keep away from heat, moisture, and direct sunlight.
- Keep away from small children.
- When not in use, return the card to its protective case.

Others

- Do not subject the camera to shock or impact.
- Turn off the power of the camera when transporting.
- This camera is neither waterproof nor splashproof.

Inserting or removing batteries and the CF card, or operating the camera with wet hands may damage the camera.

When using the camera at the beach or near water, take care not to drop water or sand on the camera. If water, sand, dust or salt content accumulates on the camera, it may cause the malfunction.

- Do not leave the camera under direct sunlight. Do not point the lens at direct sunlight. Doing so, CCD may be damaged.

CARE AND STORAGE

Cleaning

- If the camera or the outside of the lens is dirty, gently wipe it with a soft, clean, dry cloth. If the camera or lens comes in contact with sand, gently blow away loose particles. Wiping may scratch the surface.
- To clean the lens surface, first blow away any dust or sand, then, if necessary, moisten a lens tissue or soft cloth with lens cleaning fluid and gently wipe the lens.
- Never use organic solvents to clean the camera.
- Never touch the lens surface with your fingers.

Storage

- Store in cool, dry and well-ventilated place away from dust and chemicals.
For very long periods, store the camera in an airtight container with a silica gel drying agent.
- Remove the batteries or the CF card from the camera when not in use for an extended period.
- Do not store the camera in the closet with mothballs.
- We recommend you to press the shutter-release button sometimes during the storage. Also, check the camera's operation to make sure it is functioning properly before using.

Before Important Events such as a Wedding Ceremony, Overseas Travel

- We recommend you to check the camera's operation beforehand or take test pictures, and to prepare spare batteries.
- JENOPTIK has no responsibility for damages incurred by equipment malfunction.

Questions and Service

- If you have questions about your camera, contact your local camera dealer or write to the Jenoptik distributor in your area.
- Before shipping your camera for repair, please contact a JENOPTIK Service Facility for details.

TECHNICAL DETAILS

Camera Type

Recording media exchangeable 3X zoom digital camera with LCD monitor

CCD

Pickup elements: 1/1.8 inch-type inter line CCD, 5.24M pixels, with a base color filter

Pickup system: single

ISO sensitivity: AUTO ISO 100 200 400

Number of bit converted to A/D: 12 bit

Lens Unit

Focal length: 8 to 24 mm (34 to 102 mm in the 35 mm film format equivalent)

Aperture: Wide: F3.37 ,F4.86 ,F7.75 ,F15.03(4steps)

Tele :F3.56 ,F5.13 ,F8.2 ,F15.4(4steps)

Construction: 9 elements in 6 groups including 3 aspheric surfaces

Focusing range: 40 cm to infinity (The close up mode: 8 cm to 40 cm)

Digital zoom: maximum zoom in the telephoto mode X2

Image Storage

Recording medium: CF card (Type 1)

Image file format: Exit 2.1 (JPEG), DCF standards, DPOF 1.10

Number of pixels (W x H): 2560x1920 pixels (Full size) 1600x1200 pixels (Large size)

1280x960 pixels (Half size) 640x480 pixels (VGA size)

Storage capacity (Using a 32 M B CF card) :

	2560x1920 size	1600x1200 size	1280x960 size	VGA
FINE	approx. 13 images	approx. 30 images	approx. 50	175
STD.(Standard)	approx. 26 images	approx. 60 images	approx. 100	290
ECOn.(Economy)	approx. 52 images	approx. 90 images	approx. 175	340

The number of images to be recorded varies depending on the subject.

Other:

Delete function (Single image. All images) Format function for the CF Card

Autofocus

- System:** AF system by CCD
Focus locked when the shutter-release button is pressed halfway.
- Focus mode :** One shot AF
- Manual Focus :** Available (operated with ▲ , ▼ , ◀ and ▶ keys.)

Auto Exposure (AE) Control

- Exposure mode :** Programmed AE
AE Locked when the shutter-release button is pressed halfway.
- Metering :** Center weighted TTL metering
- Shutter:** CCD electrical shutter (with a Mechanical shutter)
Shutter speed:1/2600 sec. to 8sec.
- Exposure compensation:** ± 2EV in 1/3EV increments
- White balance :** Automatic, Manual setting available(outdoors,tungsten,fluorescent)

LCD Monitor

- Type :** 46mm (1.8-inch) TFT-LCD module
- Bright level :** 9 steps
- Language display :** English,German
- Display :** Single frame display, index display (9 frames), slide show, magnification display,
(the zoom play, X2, changing magnification area available)

Viewfinder

- Type :** Real image zoom finder
- Field of view (3 m) :** more than 80%
- Eye-relief :** 19 mm
- Magnification :** X 0.35 to X 0.902(Wide:0.350x,tele:0.902x)

Drive Mode

Mode: Single shot, continuous shot(approx.1 frame / sec.), self-timer shot

Self-timer: Approx. 10 second delayed release

Built-in Flash

Charge time: Approx. 8 second at fill flash

Flash modes: Autoflash, Fill-flash,Flash cancel, Autoflash with red-eye reduction,Fill-flash with (Flash cancel in the close up mode),night mode.

Flash intensity control: Adjusted automatically by an external light

Interface

Video output: Composite video signal,switchable between NTSC and PAL

PC interface: USB port

Power Supply

Batteries: AA-sized alkaline battery x 4 or AA+ sized Ni-MH battery x 4(AA-sized lithium battery is not available.)

External power: AC adapter (not supplied) (a DC terminal is provided on the camera body.)

Operating temperature: 0 to 40°C (32 to 104°F)

Dimensions Weight

Dimensions(WxHxD): 116x75x62mm(4.57x2.95x2.44 inches)(not including the projecting parts)

Weight: Approx.270.5g(9.54 oz.)(without batteries and the CF card)

Specifications are based on the latest information available at the time of printing and are subject to change without notice.

