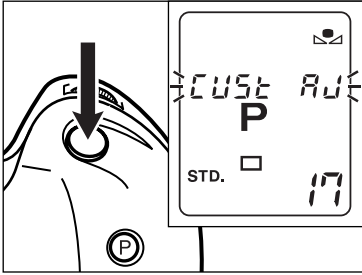
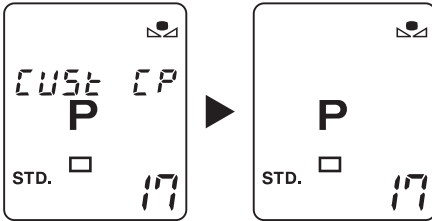


ADDITIONAL FEATURES

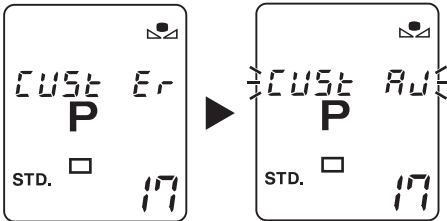


4 Press the shutter-release button all-the-way down.

- The shutter will release, but the camera does not record an image. *CUST RW* will appear briefly in the data panel and viewfinder.



CUST CP will appear on the data panel, and in the viewfinder, if the white balance custom setting is satisfactory, and then return to the normal photography display.



When the white balance cannot be set correctly, for example when the selected setting is outside the custom setting range for the camera, *CUST Er* will appear on the data panel, and in the viewfinder, and the system will then return to the condition prior to [4].

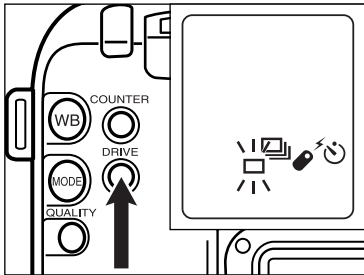
Reset to a new custom setting, or exit white balance setup by turning the dial while pressing the WB button.

- The display will change from *CUST RW* to *CUST CP* or *CUST Er* within 2 or 3 seconds. Do not make any other selections during this time.
- Custom setting is also possible for flash lighting.
- The correct white balance may not be obtainable with custom settings for subjects under bright florescent lighting.

ADDITIONAL FEATURES

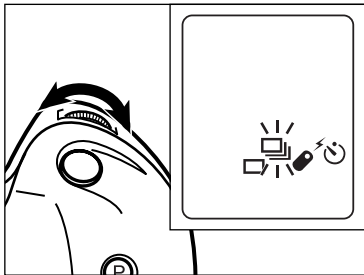
CONTINUOUS DRIVE MODE

In this mode, the camera continuously takes pictures as fast as 1.5 frames per second. Up to five frames can be captured with one press of the shutter-release button.

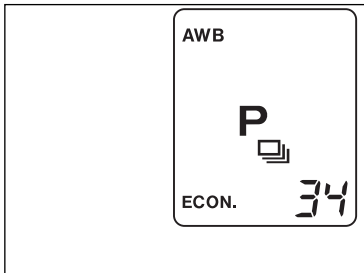


- 1 Press and hold the DRIVE (drive-mode) button.**

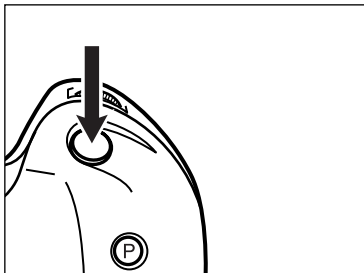
- The drive-mode icons will appear in the data panel.



- 2 Turn the front dial until  blinks.**



- 3 Release the DRIVE button.**





- 4 Press and hold the shutter-release button.**


- Up to five pictures may be taken while holding down the shutter-release button.



ADDITIONAL FEATURES

The camera has a 5-frame internal image memory in which images are temporarily saved until being transferred to the compact flash card in the order in which they were taken.

The  icon is lit in the viewfinder when this image memory is full to indicate that no more pictures may be taken. When images in the image memory are transferred to the compact flash card and space becomes available, the  icon is extinguished and more pictures may then be taken.



More pictures may be taken when the  icon is extinguished.

Note that since the  icon is extinguished when enough space becomes available for one frame in the image memory, even though the  icon is extinguished, it may not be possible to take five pictures in quick succession.

During continuous photography the speed at which images are saved from the image memory to the compact flash card may result in a delay between shutter operation and recording of the image taken.

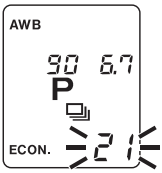
Note that the number blinking in the frame counter is the number of the frame currently being saved to the compact flash card, not the number of the frame currently being taken.

When the COUNTER button is pressed while images are being saved to the compact flash card, the number of images remaining in the image memory is shown in the shutter speed section of the data panel.

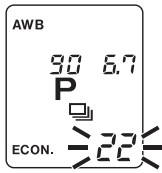
ADDITIONAL FEATURES



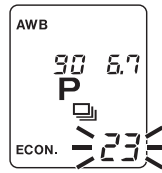
For example, if four successive frames are taken beginning from the status shown at left, the display will change as shown below.



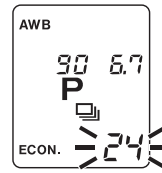
The 21st frame is being saved...



The 22nd frame is being saved...



The 23rd frame is being saved...





The 24th frame is being saved...



The 24th frame is saved.

When the COUNTER button is pressed the number of frames yet to be saved to the compact flash card from the image memory is shown in the shutter speed section of the data panel.

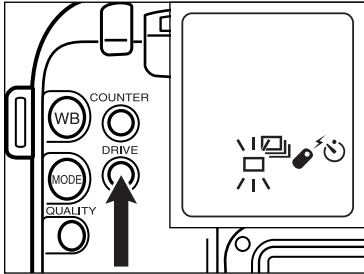
ADDITIONAL FEATURES

- Pictures cannot be taken continuously while  appears on the data panel.
- Either select the frame photography icon  with [1] to [3] on page 66, or press the Program-reset button, to clear continuous photography.
- When using the flash, pictures may be taken without waiting for the flash to finish charging.
- The focus is automatically adjusted (however the shutter is not released until the focus has been adjusted) if the distance to the subject changes while holding down the shutter button.

ADDITIONAL FEATURES

SELF-TIMER

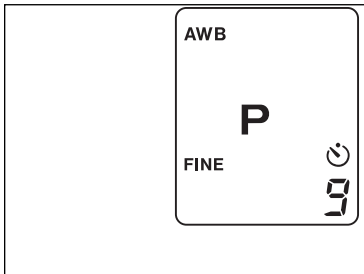
The self-timer will delay the release of the shutter for approximately 10 seconds after you press the shutter-release button.



- 1 Place the camera on a tripod, then press and hold the DRIVE (drive-mode) button.**
 - The drive-mode icons will appear in the data panel.



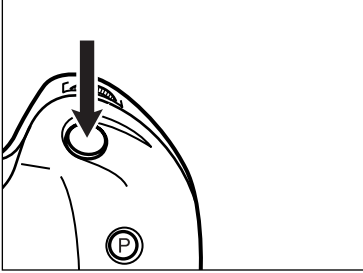
- 2 Turn the front dial until  blinks.**



- 3 Release the DRIVE button.**

- 4 Arrange the camera and subject positions, and compose your picture.**

ADDITIONAL FEATURES

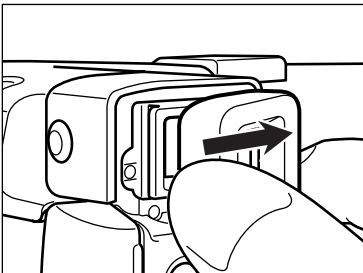


- 5 Press the shutter-release button all-the-way down to start the timer. The self-timer lamp on the front of the camera will blink, then glow just before the shutter releases.**

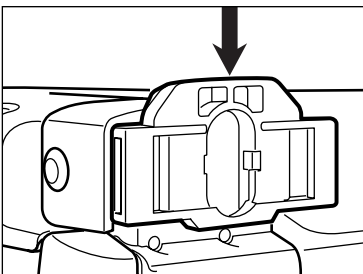
- The self-timer mode will automatically cancel after the exposure is made.
- Do not press the shutter-release button while standing in front of the camera.
- If you want to take a picture with your subject outside of the focus frame, use focus hold. See page 44.
- To stop the countdown, press the DRIVE button while turning the Front dial once. To cancel the self-timer before the shutter releases, turn the main switch to switch the camera off or press the program-reset button.

ATTACHING THE EYEPIECE CAP

Attach the eyepiece cap if there is a bright light source behind the camera. The eyepiece cap prevents exposure problems caused by stray light from entering the eyepiece.



- 1 Remove the eyepiece cup.**



- 2 Slide the eyepiece cap on.**

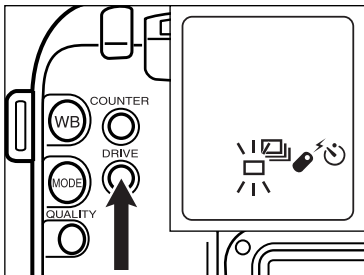
ADDITIONAL FEATURES

REMOTE CONTROL (SOLD SEPARATELY)

The IR Remote Control RC-3 allows remote camera operation up to 5m away.

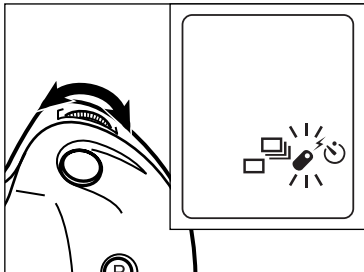
- The remote control may not operate with backlit subjects or under fluorescent light.
- Remote control is not cleared after a photograph is taken, and photography can therefore be continued.
- To save power, remote-control mode is canceled if the remote control is not operated for more than 8 minutes.

REMOTE CONTROL MODE

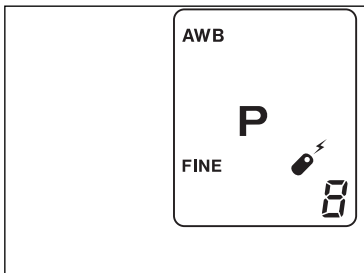


- 1 Place the camera on a tripod, then press and hold the DRIVE (drive-mode) button.**

- The drive-mode icons will appear in the data panel.

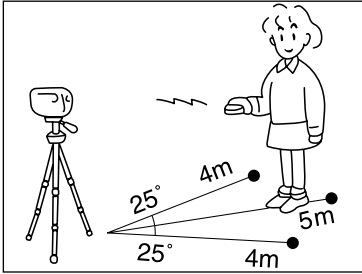


- 2 Turn the front dial until  blinks.**

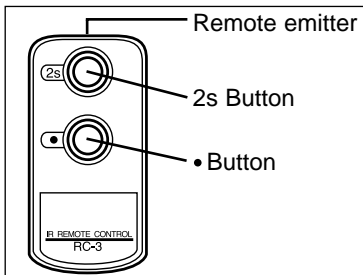


- 3 Release the DRIVE button.**

ADDITIONAL FEATURES



- 4** Arrange the camera and subject positions, and compose your picture.



- 5** Point the remote emitter toward the front of the camera and press the • or 2s button.

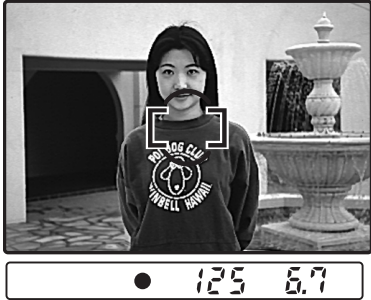
- If the • button is pressed, the lamp on the front of the camera will blink once and take the picture.
- If the 2s button is pressed, the lamp on the front of the camera will blink for two seconds before the picture is taken.
- To cancel, reset the drive-mode, press the program-reset button, or turn the camera off.

ADDITIONAL FEATURES

FOCUS HOLD IN REMOTE CONTROL MODE

When your subject is not centered in the focus frame, use manual focus or focus hold.

- 1 Set the camera to the remote-control mode.



- 2 Center your subject in the focus frame, then press the shutter-release button partway down.

- 3 Release the shutter button when the focus signal ● in the viewfinder is lit (i.e. focus has been adjusted).

- The focus icon is extinguished when the shutter button is released, however the focus remains set.



- 4 Recompose the picture.

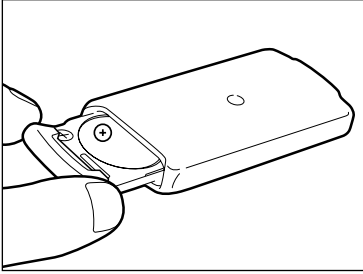
- 5 Point the remote toward the front of the camera and press the ● or 2s button.

- The focus remains set after photography is complete. It is cleared by any operation of the camera (eg pressing a button).
- Photography is also possible using manual focusing.

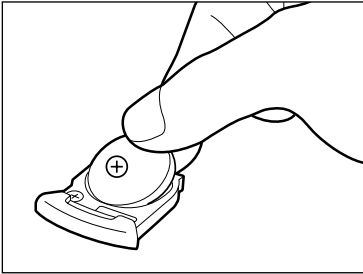
ADDITIONAL FEATURES

CHANGING THE REMOTE CONTROL BATTERY

The remote control uses a 3V lithium battery (CR2032). When pressing the remote-control buttons does not release the shutter, the battery must be replaced. A new battery should be sufficient for around ten years of operation.



- 1** Pull out the battery chamber and remove the old battery.



- 2** Insert a new battery into the battery chamber with its plus side up.

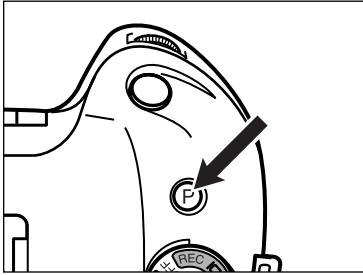
- 3** Slide the battery chamber back into the remote control.

 **WARNING**

KEEP BATTERIES THAT COULD BE SWALLOWED AWAY FROM YOUNG CHILDREN. CONTACT A DOCTOR IMMEDIATELY IF A BATTERY IS SWALLOWED.

ADDITIONAL FEATURES

PROGRAM-RESET BUTTON



Pressing the Program-reset button is a quick way to return the camera to fully automatic operation.

FUNCTION	P MODE SETTING	PAGE
Exposure Mode	P (Programmed Autoexposure)	51
Focus Mode	Auto Focus Mode	42
White Balance	AWB (Auto White Balance)	58
Drive-mode	Single-frame Advance	—
Self-timer	Cleared (both before and during)	66
Exposure Compensation	0.0	47
Flash Compensation	0.0	84

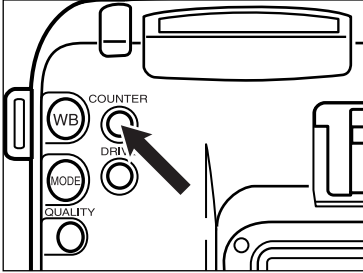
The following settings are unaffected by pressing the Program-reset button.

- Image quality
- ISO sensitivity

ADDITIONAL FEATURES

COUNTER BUTTON

This display allows the user to determine the space remaining in the compact flash card as a guide to the number of frames which may be saved.



1 Press and hold the COUNTER button.

- The following is displayed on the data panel.
- Release the COUNTER button to return to normal display.

When not saving to the compact flash card.



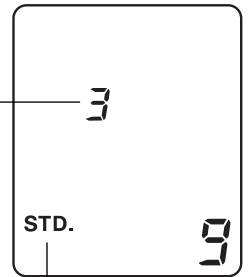
Space remaining in the compact flash card (approximately 7MB in the example at left).

Number of frames in the image memory yet to be saved to the compact flash card (three frames in the example at right).

Approximate number of remaining frames which may be taken in the currently selected mode (standard mode in the example at left).

Currently selected image quality mode (the standard mode in the example above).

When saving to the compact flash card.



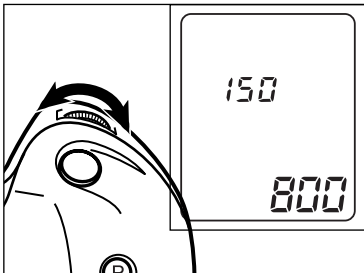
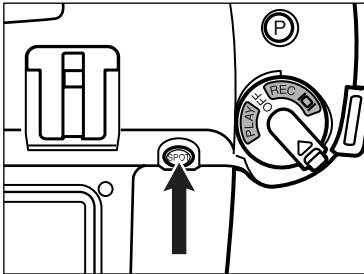
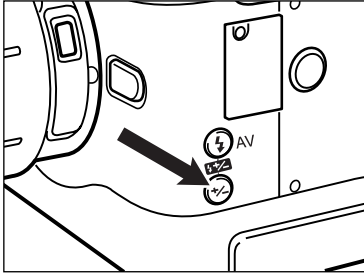
- The displayed value for the remaining number of frames which may be saved is only a guide. The actual number will depend on the scenes photographed.
- The remaining number of frames which may be saved changes with image quality. This number may change dramatically when the super-fine or fine mode is selected. Before using the camera, press the COUNTER button to check the remaining number of frames which may be saved.

ADDITIONAL FEATURES

CHANGING ISO SENSITIVITY

The CCD used in this camera has a sensitivity of ISO200 when shipped from the factory. It may be set to ISO800 if required.

This will improve camera performance by letting you use it in dark, indoor locations with high shutter speeds, thus eliminating camera shake, and in the A mode (aperture priority) with smaller apertures, thus ensuring a wider depth of field.



1 Press and hold the exposure compensation button, then press the SPOT button.

- The current ISO sensitivity will appear on the data panel.
- Continue pressing both the exposure compensation and SPOT buttons until setting is complete.

2 With both buttons held down, turn the dial to display '800' in the frame counter.

- The value in the frame counter alternates between 200 and 800 with each click of the dial.

3 Release both the exposure compensation and SPOT buttons.

- The ISO sensitivity selected in [2] is now set.
 - To return to the ISO200 value, display 200 in the frame counter in [2] and release both buttons.
-
- Changing to ISO800 sensitivity does not change the CCD, but rather amplifies the video signal electronically. As is the case with a gain up in a video camera, the noise component of the signal is also amplified. The image therefore assumes a speckled appearance, and image quality is degraded in comparison to that when ISO200 is selected.

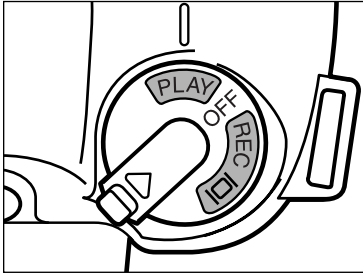
ADDITIONAL FEATURES

FORMATTING A COMPACT FLASH CARD

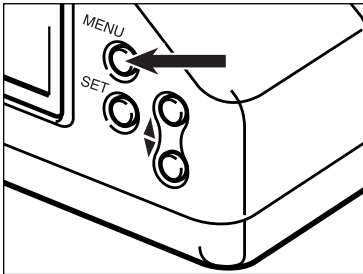
Formatting a Compact Flash card removes all protected and unprotected images from the card.

The standard accessory cards are pre-formatted. Compact Flash cards purchased separately may need formatting.

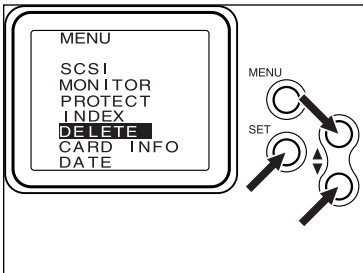
This deletes all write-protected images. Take extreme care when formatting.



1 Turn the Control dial to **PLAY**.

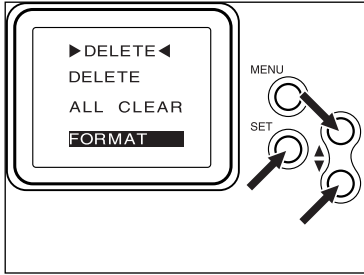


2 Press the **MENU** button.



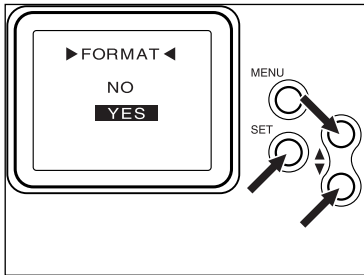
3 Press the **▼** button until **DELETE** is highlighted, then press the **SET** button.

ADDITIONAL FEATURES



- 4** Press the ▼ button until **FORMAT** is highlighted, then press the **SET** button.

- A confirmation screen will appear.



- 5** Press the ▼ button until **YES** is highlighted, then press the **SET** button.

- The LCD monitor will return to the PLAY screen after the card is formatted.

USING FLASH

Your camera has a Minolta standard accessory shoe for attaching dedicated flash units (Accessory Information p.114).

Flash units can also be attached to the camera using a sync cord via the PC terminal.

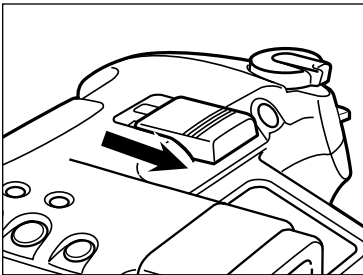
The accessory flash's AF illuminator will be activated when necessary.

Accessory Flash Notes

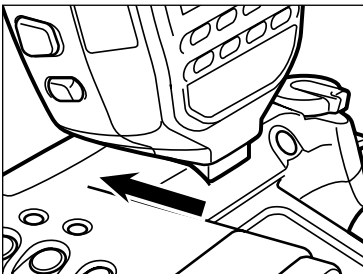
- To use a 1000 series AF flash unit, the Flash Shoe Adapter FS-1100 must be attached to the camera. When the flash is on, the flash will fire each time the shutter is released. At no time will the flash's AF illuminator activate.
- The 5400HS, 5400xi, 3500xi, 3200i, and 5200i flashes zoom according to the focal length of the lens.
- For the 5400HS, 5400xi, and 5200i flashes, the flash range and coverage angle displays on the flash may not display focal lengths accurately.
- The flash range diagrams in the 3500xi and 3200i flash units are applicable for focal lengths with this camera.

ATTACHING AN ACCESSORY FLASH

This camera has a Minolta standard accessory shoe.



- 1** Remove the cap from the accessory shoe.







- 2** Align the flash's mounting shoe with the camera's accessory shoe, then slide the flash forward until it locks firmly in place.

FLASH

FLASH SIGNALS

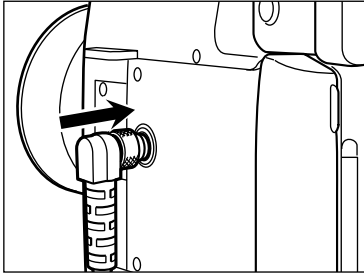
When the shutter-release button is pressed partway down, the necessary flash signals will appear.

Flash-on indicator , Flash signals 

 LIT	FLASH CHARGING.
 AND  LIT	FLASH CHARGED.
 BLINKING (AFTER TAKING PHOTO)	FLASH OUTPUT WAS SUFFICIENT TO PROVIDE CORRECT EXPOSURE.

PC TERMINAL

This camera is equipped with a PC connector which enables you to connect PC-capable flash units with a flash sync cord.



Set the exposure mode to M, then set the shutter to 1/125 or slower.

Manually set white balance to the flash mode (see page 58).

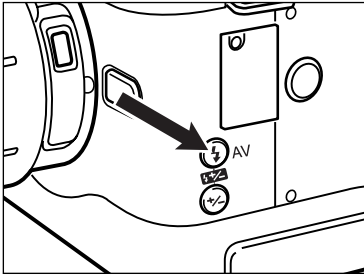
- Turn the flash unit off before connecting the sync cord to the PC terminal or the flash unit may fire unexpectedly while connecting.
- Your camera's PC terminal is compatible with both center-positive and center-negative flash units.
- Flash units with an extremely low trigger voltage may not work with the camera. If your flash has a low trigger voltage, contact a Minolta Service Facility.

USING FLASH IN P, A, S, AND M MODES

P Mode Flash

When a programmable flash is attached and power is ON it will fire automatically when flash becomes necessary. Shutter speed and aperture value are determined automatically.

The Flash-on indicator \square^{FE} is lit in the viewfinder when the flash is fired. The flash will not fire when the Flash-on indicator \square^{FE} is extinguished, or when the flash power supply is OFF.



If the flash is to be used with each picture, press the shutter button while holding down the manual fill-flash button.

A Mode Flash

When an attached accessory flash is on, it will fire each time a picture is taken. The attached accessory flash will not fire when OFF. The camera will automatically set the shutter to 1/125 (the flash sync speed). Refer to the accessory flash manual to determine the aperture and the flash range. While the aperture range differs with the lens selected, the maximum aperture is F6.7, and minimum aperture is F22.

S Mode Flash

When an attached accessory flash is ON, it will fire each time you take a picture. The attached accessory flash will not fire when OFF.

- Flash operation in the S mode is the same as P mode. The camera automatically sets the aperture and the shutter speed.

M Mode Flash

When an attached accessory flash is on, it will fire each time you take a picture. The attached accessory flash will not fire when OFF.

- Refer to the accessory flash manual to determine the aperture setting and the flash range.
- In manual mode, you select both the aperture and the shutter speed for each exposure. While the aperture range differs with the lens selected, the maximum aperture is F6.7, and minimum aperture is F22.
- The shutter speed can not be set faster than 1/125th of a second when using flash.

SLOW-SHUTTER SYNC

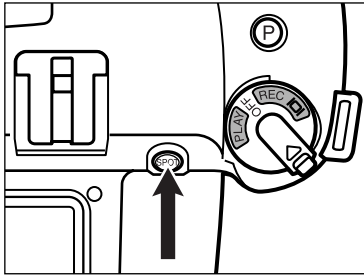
In P and A modes, slow-shutter sync sets a slower shutter speed to increase the background or ambient lighting exposure in a flash picture. Flash output will automatically be decreased to maintain a correct exposure of your subject.



With Slow-Shutter Sync



Without Slow-Shutter Sync



1 Frame your subject.

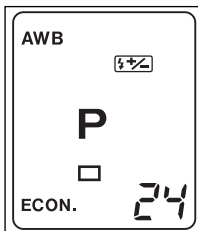
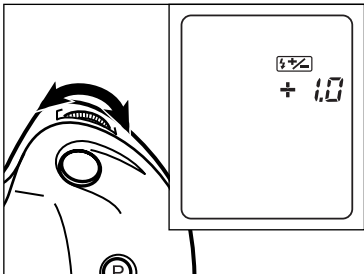
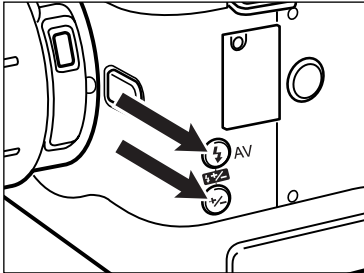
2 While pressing the **SPOT** button, press the shutter-release button all-the-way down to take the picture.



FLASH

- If the background is bright or a small aperture is set (in A mode), the shutter speed may not be reduced.
- Use a tripod if the shutter speed becomes too slow to allow sharp, hand-held pictures after you press the SPOT button.

FLASH COMPENSATION

This function enables you to bias the output of an accessory flash as much as + or – 3 EVs in 0.5 EV increments.



- 1 Press and hold the Exposure-compensation button and the manual fill-flash button.
- 2 Turn the Front dial until the desired compensation factor appears in the data panel and viewfinder, then release the buttons.
- 3
 -  will remain in the data panel.
 -  will remain in the viewfinder.
 - Flash compensation does not operate with flash units connected to the PC terminal.

- Check the compensation amount by pressing the flash-compensation and exposure-compensation buttons.
- Cancel flash compensation by resetting it to 0.0 or pressing the Program-reset button.
- Use exposure compensation when the exposure level for the overall image is to be compensated for both flash and normal illumination (see page 47). If flash compensation is also set in this case the light from the flash will be subject to dual compensation. The desired result will not be obtained if the sum of the exposure compensation and flash compensation values is less than -3.0 or greater than +3.0.

WIRELESS/REMOTE OFF-CAMERA FLASH

The separately available 5400HS or 5400xi programm flash units are necessary for Wireless/Remote off-camera flash photography.



Photo 1
Normal Flash

A flat, lifeless photograph may result when the flash is attached to the camera. In such cases, remove the flash from the camera and reposition it to provide shadows to provide a three-dimensional feel to the photograph (see Photo 2).

Photo 3 was taken using two programm flash units distant from the camera and providing flash illumination in a ratio of 2:1. This has resulted in gentle transitions from light to dark, with natural shadows.



Photo 2
Wireless/Remote Flash

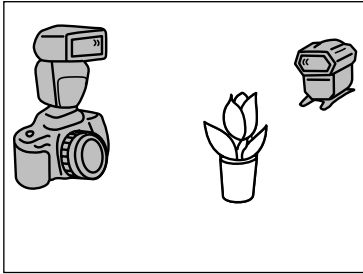
The camera and flash must normally be connected by cable in such cases. This camera permits transmission of signals to flash units using light from the flash rather than cables. The camera automatically determines the optimum exposure.



Photo 3
Wireless/Remote Ratio Flash

Wireless/Remote off-camera flash is used as follows:

1 Wireless/Remote off-camera flash photography with a program flash unit attached to the camera, and the camera supplying the flash signal.



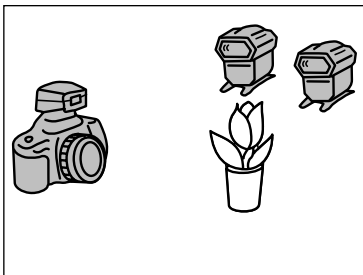
This illustration shows a single-lens reflex camera. The digital camera is used in exactly the same way.

The 5400HS or 5400xi programm flash units must be attached to the camera for Wireless/Remote off-camera flash photography (ie two program flash units are required).

See the 5400HS or 5400xi manual for details.

- The 5400xi manual shows the Dynax 9xi body, however it may also be used with this camera. The AE-lock button is used for test illumination with the Dynax 9xi, however the SPOT button is used for this purpose with this camera.

2 Wireless/Remote off-camera flash photography with the Wireless Remote Flash Controller (separately available) supplying the flash signal.



This illustration shows a single-lens reflex camera. The digital camera is used in exactly the same way.

The Wireless Remote Flash Controller may be attached to the camera in place of the built-in flash for Wireless/Remote off-camera flash photography. Using the Wireless Remote Flash Controller allows illumination with two or more distant programm flash units, and proportional illumination control of each.

See the Wireless Remote Flash Controller manual for details.

- The Wireless Remote Flash Controller is sold as a Dynax 9xi accessory, however it may also be attached to this camera. The AE-lock button is used for test illumination with the Dynax 9xi, however the SPOT button is used for this purpose with this camera.

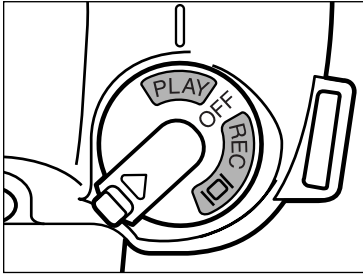
PLAY

VIEWING IMAGES

The captured images are displayed in the LCD monitor in Play mode. It is possible to view the images full-screen or view them in index form.

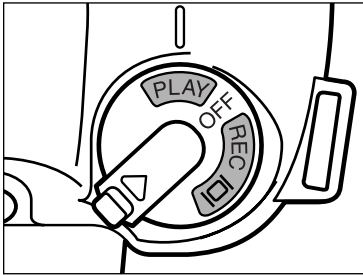
VIEWING FULL SCREEN

View one full-frame image at a time.



- 1 With the Control dial lock button pushed in the \triangle direction, turn the Control dial to the right to the PLAY position.**

- After a short wait the last image recorded is displayed on the LCD monitor.



- 2 Press the \blacktriangle and \blacktriangledown buttons to scroll through the images.**

- The \blacktriangle button scrolls forward, the \blacktriangledown button scrolls backward.
- The image appears on the LCD monitor, it will be rough while the camera is reading from memory, then a clear image will appear.

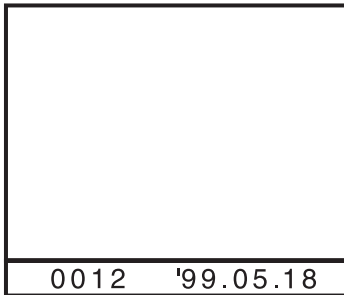
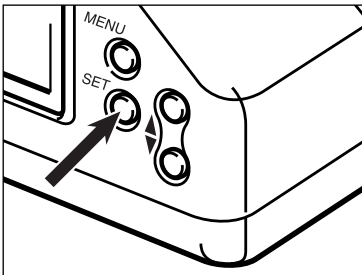
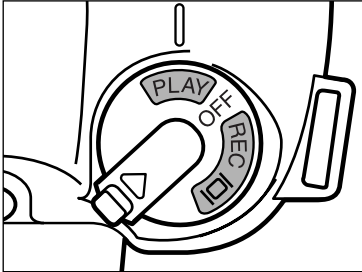


Image frame No.

Image record date

VIEWING AN IMAGE INDEX

This function displays four or nine frames on the LCD monitor simultaneously, and is therefore a convenient way to find the desired image.

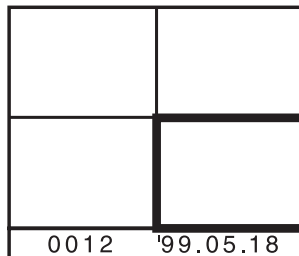
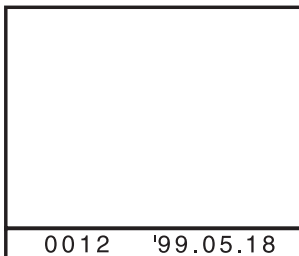


- 1 With the Control dial lock button pushed in the \triangle direction, turn the Control dial to the right to the PLAY position.**

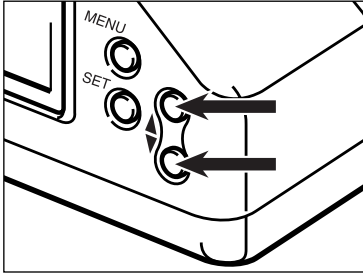
- After a short wait the last image recorded is displayed on the LCD monitor.

- 2 Press the SET button on the back of the camera.**

- The LCD monitor changes from single-frame play to index play. The monitor is divided into a four or nine-image index depending upon which was selected during previous index play.
- The red border appears around the image displayed before the SET button was pressed.
- When changing from single-frame play to index play, in addition to the image displayed before the SET button was pressed, three or eight images are transferred to the image memory one-by-one. A short wait is required before they are displayed. Once the images are in the image memory they may be selected immediately.

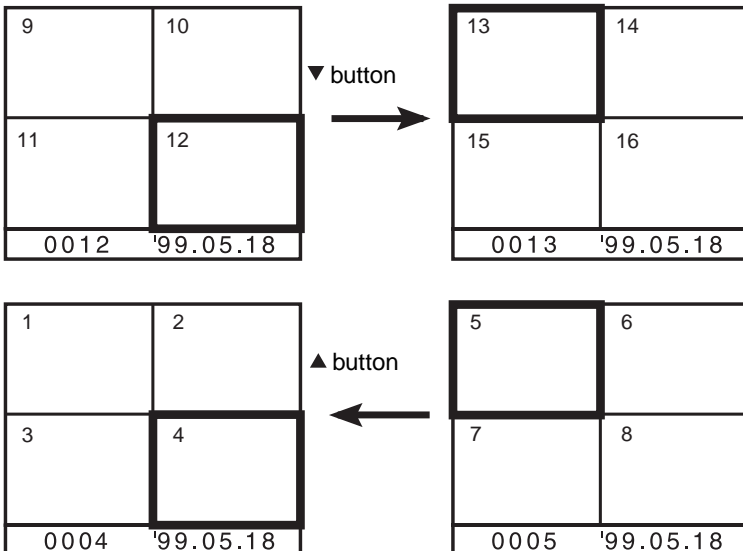


VIEWING IMAGES

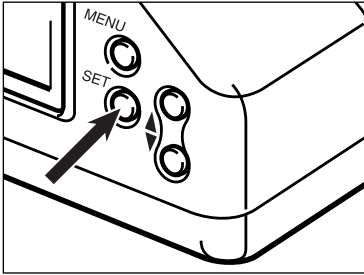


3 Use the ▲ or ▼ button on the back of the camera to move the border to the image to be viewed.

- Pressing the ▲ button moves the border to the previous image. Pressing the ▼ button moves the border to the next image.
 - The image will appear coarse immediately after it is selected, however it will gradually become clear as it is read from the memory.
-
- When the border is on the image at bottom-right, pressing the ▼ button displays the next four or nine frames.
 - When the border is on the image at top-left, pressing the ▲ button displays the previous four or nine frames.
 - When the next or previous four or nine frames are not already in the image memory they are read into it one-by-one. A short wait is required before they are displayed.
 - The diagram below includes frame numbers for the purposes of clarity in explaining the changes on the LCD monitor. These numbers do not appear during index play.

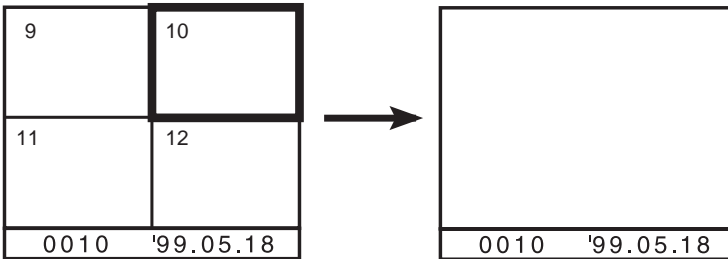


VIEWING IMAGES



4 Press the SET button on the back of the camera.

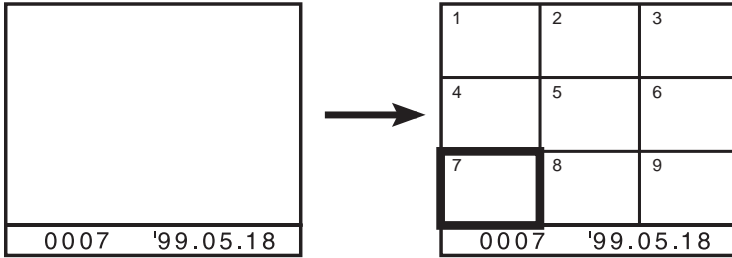
- The LCD monitor changes from index play to single-frame play.
- The image enclosed in the red border appears on the LCD monitor.
- The diagrams below, and on the next page, include frame numbers for the purposes of clarity in explaining index play. These numbers do not appear during index play.



VIEWING IMAGES

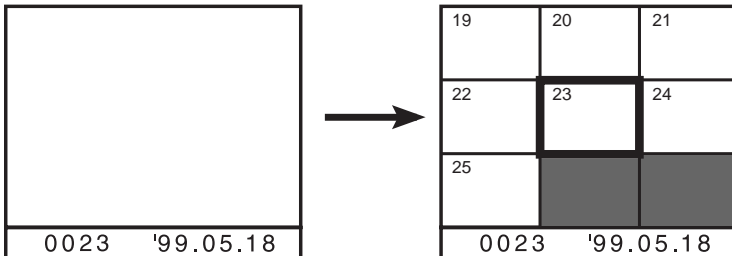
Index play displays pages of four or nine frames.

If, as shown in the example below, the nine-frame index play is selected when the seventh frame is displayed, the nine-frame page containing the seventh frame is displayed.



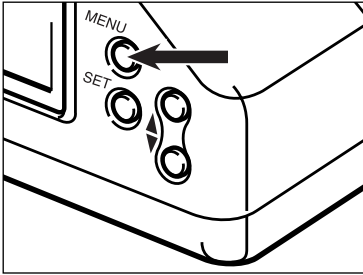
The LCD monitor is blank if there is no image data.

If, for example, only 25 frames have been saved in the compact flash card, the 26th and later frames will be displayed as black on the LCD monitor.



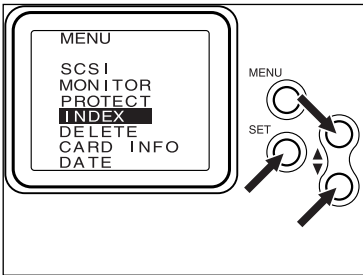
CHANGING THE INDEX DISPLAY

Set the index display to a 4-image index or 9-image index.



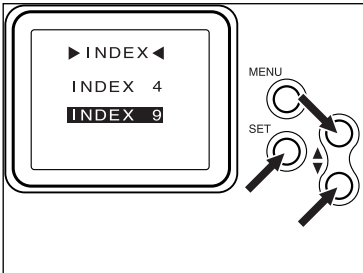
- 1 Press the MENU button on the back of the camera.**

- The top menu will appear.



- 2 Press the ▲ or ▼ button as required to move the highlight to INDEX, and then press the SET button.**

- The INDEX menu will appear.



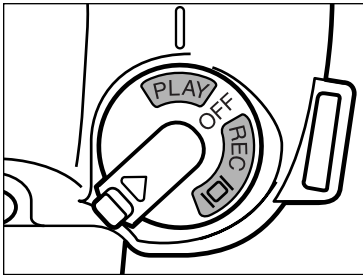
- 3 Press the ▲ or ▼ button as required to move the highlight to INDEX 4 (four-image index) or INDEX 9 (nine-image index), and then press the SET button.**

- Index play uses the selected setting. Press the SET button again to select single-frame play.

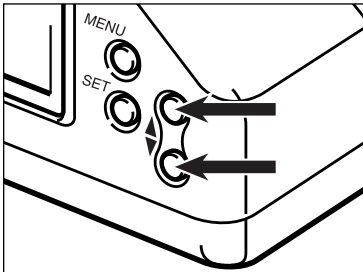
DELETING A SINGLE IMAGE

Delete a single, unprotected image from the compact flash card in the camera.

As a deleted image cannot be recovered, care is required when deleting images. Important images can be write-protected to prevent accidental deletion (see page 98).

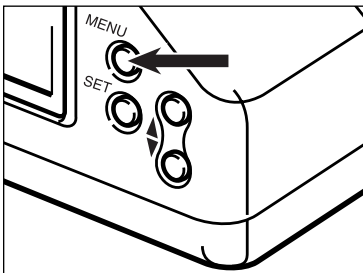


1 Turn the Control dial to **PLAY**.



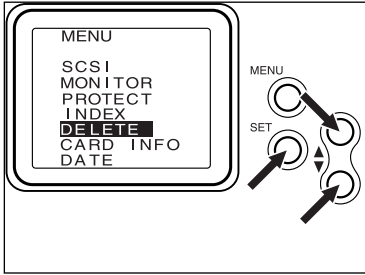
2 Select the desired image.

- Press the ▲ or ▼ button until the image appears in the LCD monitor. In Index display, press the ▲ or ▼ button until a border appears around the desired image.

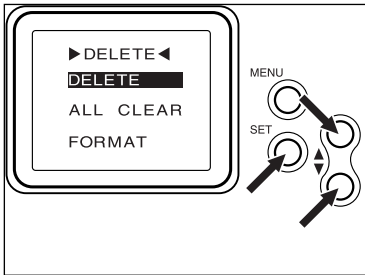


3 Press the **MENU** button.

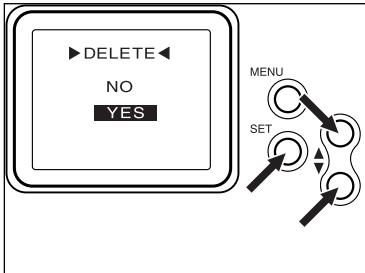
DELETING A SINGLE IMAGE



- 4** Press the ▼ button until **DELETE** is highlighted, then press the **SET** button.



- 5** Press the ▼ button until **DELETE** is highlighted, then press the **SET** button.
- A confirmation screen will appear.

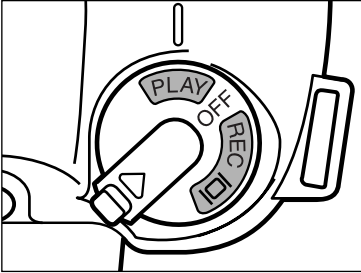


- 6** Press the ▼ button until **YES** is highlighted, then press the **SET** button.
- The LCD monitor will return to the **PLAY** screen after the image is deleted.
- 7** Repeat [2] to [6] if you have other images to be deleted.

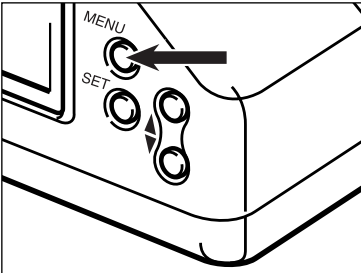
CLEARING UNPROTECTED IMAGES

Clearing removes all unprotected images from the compact flash card in the camera.

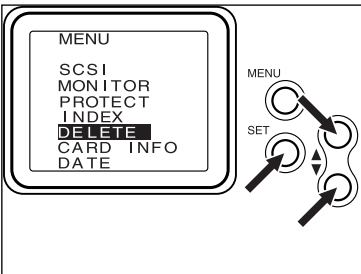
AS A DELETED IMAGE CANNOT BE RECOVERED, CARE IS REQUIRED WHEN DELETING IMAGES.



1 Turn the Control dial to PLAY.

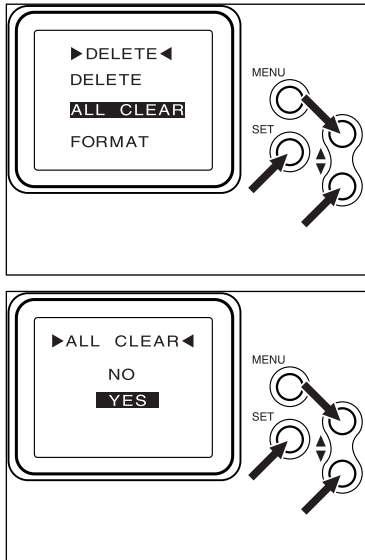


2 Press the MENU button.



3 Press the ▼ button until DELETE is highlighted, then press the SET button.

CLEARING UNPROTECTED IMAGES



- 4 Press the ▼ button until **ALL CLEAR** is highlighted, then press the **SET** button.

- A confirmation screen will appear.

- 5 Press the ▼ button until **YES** is highlighted, then press the **SET** button.

- The LCD monitor will return to the **PLAY** screen after the image is deleted.

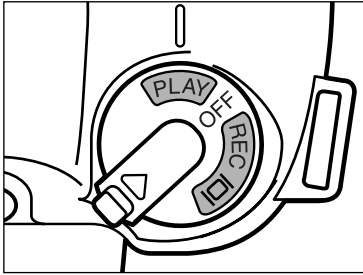
- Protected images will remain on the compact flash card after clearing.

PROTECTING IMAGES

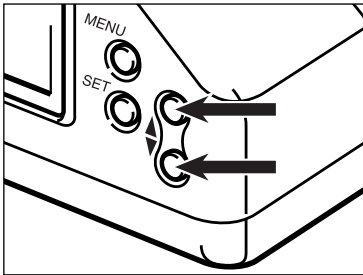
PROTECTING IMAGES

Important images can be write-protected to guard them from accidental deletion. Protected images cannot be removed from the CF card in the camera by Using the Delete or Clear All functions.

PROTECTED IMAGES WILL BE REMOVED WHEN THE FORMAT FUNCTION IS USED.

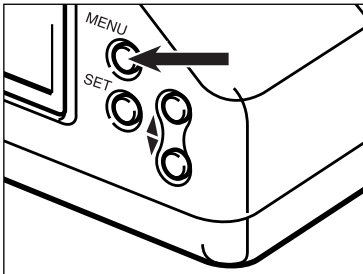


1 Turn the Control dial to PLAY.



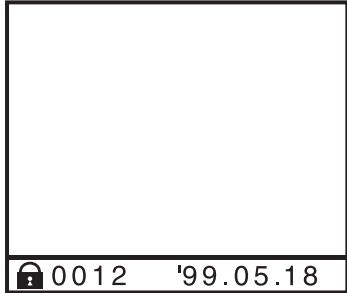
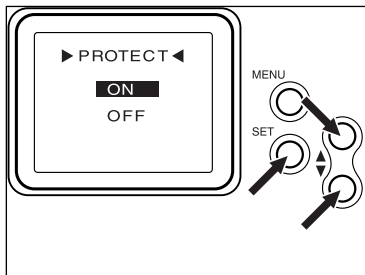
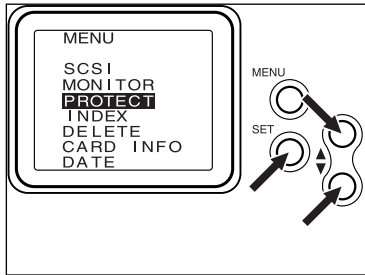
2 Select the desired image.

- Press the ▲ or ▼ button until the image appears in the LCD monitor. In Index display, press the ▲ and ▼ buttons until a border appears around the desired image.



3 Press the MENU button.

PROTECTING IMAGES




Protect icon

- 4 Press the ▼ button until **PROTECT** is highlighted, then press the **SET** button.

- The PROTECT menu will appear.

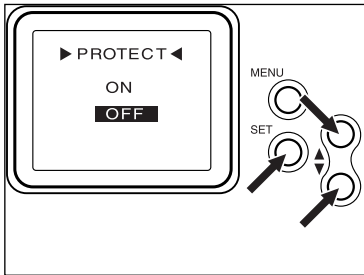
- 5 Press the ▼ button until **ON** is highlighted, then press the **SET** button.

- The camera will return to the Play screen and  will appear in the information bar when the image is selected.

- 6 Repeat steps [2] to [5] for any other images to be write-protected.

UNPROTECTING IMAGES

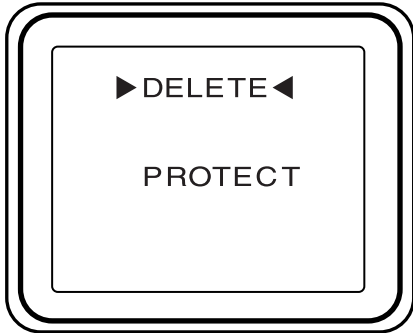
- 1** Display the images for which write-protect is to be cleared with steps [1] to [2] on page 98.



- 2** Select the Protect menu with steps [3] to [4] (see pages 98, 99), highlight OFF with step [5] , and press the SET button.
 - This clears write-protect for the displayed image.
 - The write-protect icon at the bottom left of the LCD monitor disappears.
- 3** Repeat [1] to [2] for any other images for which write-protect is to be cleared.

PROTECTING IMAGES

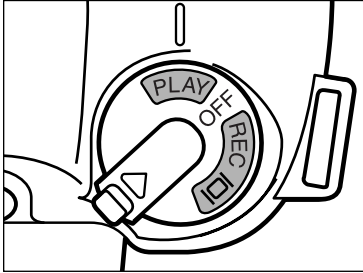
When an attempt is made to delete a write-protected image, PROTECT appears on the LCD monitor as shown below to indicate that the image cannot be deleted.



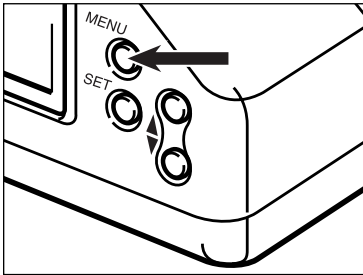
ADJUSTING THE LCD MONITOR BRIGHTNESS/CONTRAST

The camera's LCD monitor brightness and contrast can be adjusted to compensate for varying lighting conditions and viewing angles.

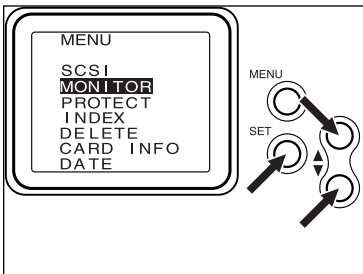
- Changing the LCD brightness/contrast does not affect the brightness/contrast of recorded images.



- 1** With the Control dial lock button pushed in the \triangle direction, turn the Control dial to the right to the PLAY position.

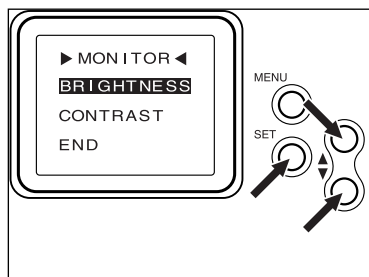


- 2** Press the MENU button on the back of the camera.
 - The top menu will appear.



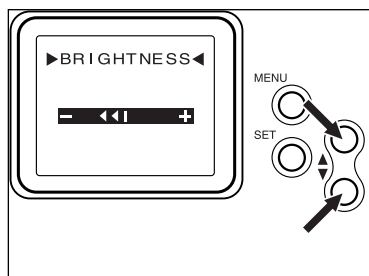
- 3** Press the \blacktriangle or \blacktriangledown button a number of times to highlight MONITOR, and press the SET button.
 - The LCD monitor BRIGHTNESS/CONTRAST menu will appear.

ADJUSTING THE LCD MONITOR BRIGHTNESS/CONTRAST



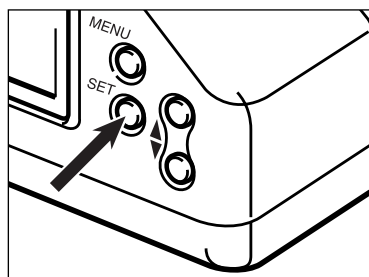
- 4** Press the ▲ or ▼ button to highlight **BRIGHTNESS** on the LCD monitor **BRIGHTNESS/CONTRAST** menu, and press the **SET** button.

- The **BRIGHTNESS** menu will appear.
- Skip this adjustment if brightness is satisfactory, and go directly to [7].



- 5** Press the ▲ or ▼ button to **adjust the brightness of the LCD monitor.**

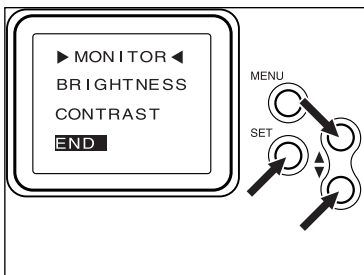
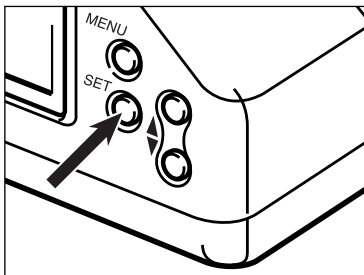
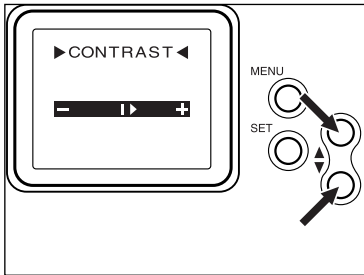
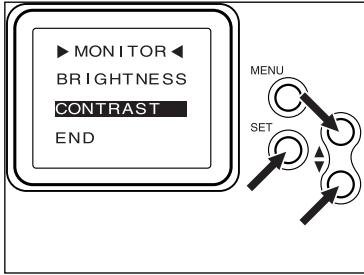
- Pressing the ▲ button increases the brightness of the LCD monitor. Pressing it once increases by one the number of ► symbols in the right of the bar.
- Pressing the ▼ button decreases the brightness of the LCD monitor. Pressing it once increases by one the number of ◀ symbols in the left of the bar.
- Brightness may be adjusted up to four ► or ◀ symbols.



- 6** Press the **SET** button when the **desired brightness is reached.**

- The system returns to the LCD monitor **BRIGHTNESS/CONTRAST** menu.

ADJUSTING THE LCD MONITOR BRIGHTNESS/CONTRAST



- 7** Press the ▲ or ▼ button a number of times to highlight CONTRAST, and press the SET button.
- The LCD monitor CONTRAST menu will appear.
 - Skip this adjustment if contrast is satisfactory, and go directly to [10].

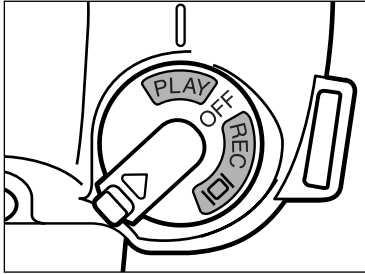
- 8** Press the ▲ or ▼ button to adjust the contrast of the LCD monitor.
- Pressing the ▲ button increases the contrast of the LCD monitor. Pressing it once increases by one the number of ► symbols in the right of the bar.
 - Pressing the ▼ button decreases the contrast of the LCD monitor. Pressing it once increases by one the number of ◀ symbols in the left of the bar.
 - Contrast may be adjusted up to four ► or ◀ symbols.

- 9** Press the SET button when the desired contrast is reached.
- The system returns to the LCD monitor BRIGHTNESS/CONTRAST menu.

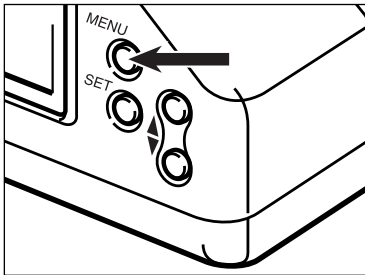
- 10** Press the ▲ or ▼ button to highlight END, and press the SET button.
- The LCD monitor returns to the menu on page 102.

CHECKING FLASH CARD STATUS

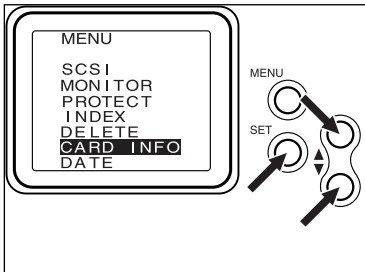
A CF card information screen is available to give information about the amount of card memory used, the amount available, and estimates on the number of images that can fit in the remaining space.



1 Turn the Control dial to **PLAY**.



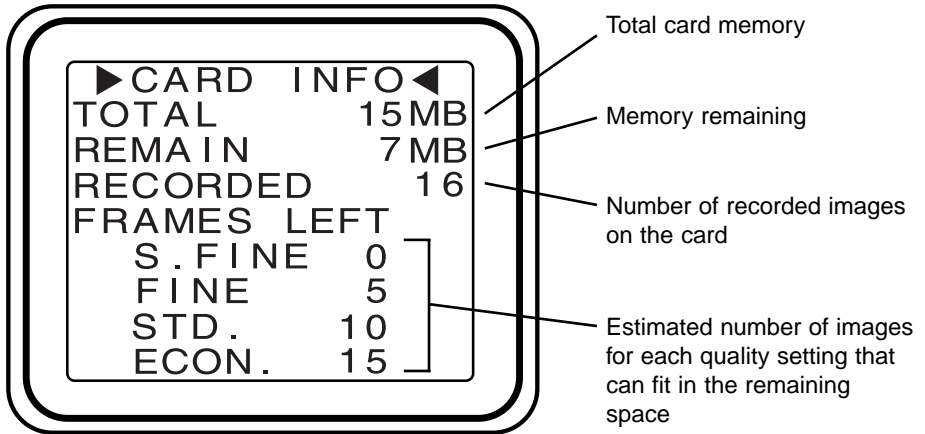
2 Press the **MENU** button.



3 Press the **▼** button until **CARD INFO** is highlighted, then press the **SET** button.

- The Card Info menu will appear.

CHECKING FLASH CARD STATUS



- The displayed value for the remaining number of frames which may be displayed is only a guide. Depending on the scenes photographed, it may not be possible to display this number of frames in practice.

4 Press the **SET** button on the back of the camera, or press the **MENU** button.

- The LCD monitor returns to the normal play screen when the SET button is pressed. The top menu screen appears when the MENU button is pressed.

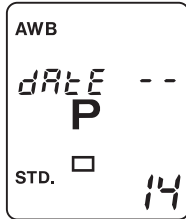
VIDEO OUT

It is possible to view images in the camera on your television. This camera has a video-out terminal which allows you to connect the camera to your television using the Video Cable VC-EX1.

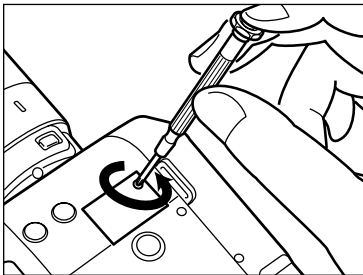
- 1 Turn off the television and the camera.**
 - 2 Open the terminal cover on the camera.**
 - 3 Insert the mini plug end of the Video Cable VC-EX1 into the camera's video out terminal.**
 - 4 Plug the other end of the video cable into the video input terminal on the television.**
 - 5 Turn the television and the camera on.**
 - 6 Turn the camera's Control dial to PLAY.**
 - 7 Change the television to the video channel.**
 - The camera's Play mode display will appear on the television screen.
 - 8 Scroll through the images as instructed in the Viewing Images section (see page 88).**
- The camera's LCD monitor turns off when the camera is attached to the television.

REPLACING THE CLOCK BACKUP BATTERY

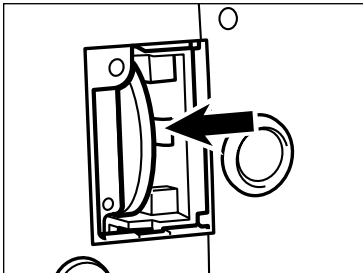
The clock in this camera uses a 3V lithium battery (CR2025). If this battery is exhausted the clock settings in the camera will be lost when the main camera batteries are removed.



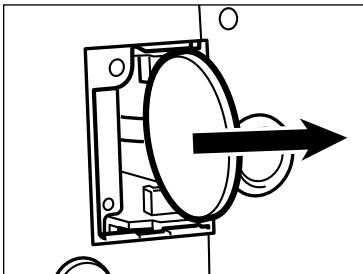
If this battery is exhausted the display at left appears on the data panel when camera power is switched on, or when the shutter button is lightly pressed. In this case, replace the clock backup battery as described below.



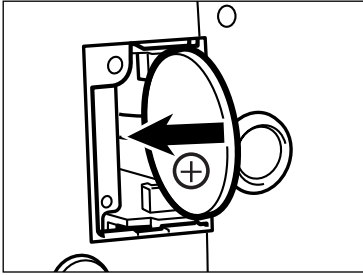
- 1 Remove the screw from the clock battery cover with a small Phillips screwdriver, and open it.**



- 2 Remove the old battery.**
 - Push the battery out of the recess slightly (diagram at top left) and remove it (diagram at bottom left).

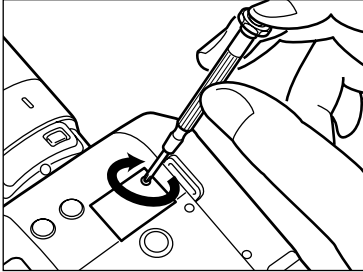
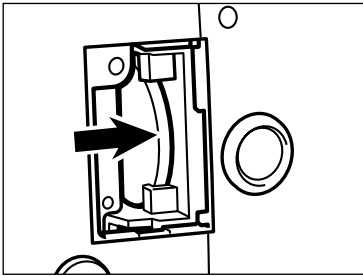


REPLACING THE CLOCK BACKUP BATTERY



3 Insert the new battery.

- Press the battery into the recess until a click is heard (diagram at bottom left), ensuring that the + sign is on the left (diagram at top left).



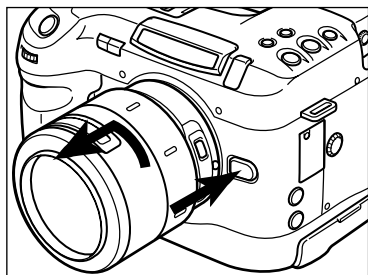
4 Close the clock battery cover.

- The date and time will need to be reset (see page 28).

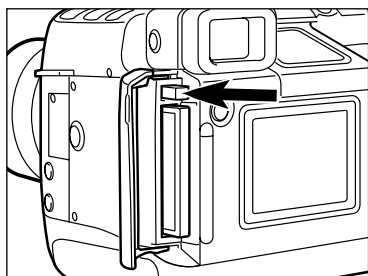
CLEANING THE LENS IN THE RELAY OPTICAL SYSTEM

If dirt appears on the image on the screen, clean the lens in the relay optical system with the following procedure.

- The *bulb* function of this camera is used to clean the lens in the relay optical system. It is not to be used for extra-long exposures.
- Use of the *bulb* function requires considerable power from the battery, and it is therefore recommended that the AC adaptor be used with the camera when cleaning the lens in the relay optical system.

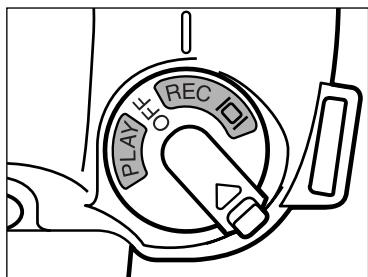


1 Remove the lens.



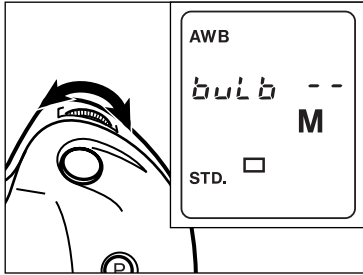
2 Press in the card removal lever and remove the compact flash card.

- The *bulb* function cannot be set in step [4] unless the card is removed from the camera.

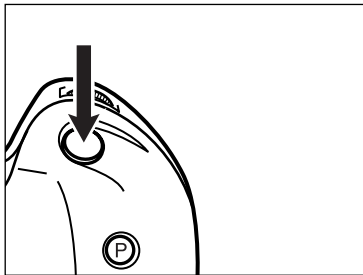


3 With the Control dial lock button pushed in the \triangle direction, turn the Control dial to the left to the REC or [] position.

CLEANING THE LENS IN THE RELAY OPTICAL SYSTEM



- 4 Select the M (Manual) mode (see page 56), turn the dial to display *bulb* in the shutter speed section of the data panel.

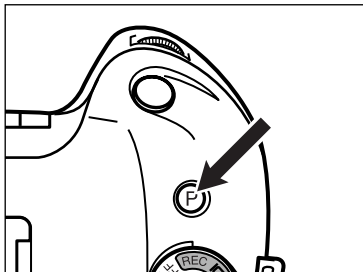


- 5 Gently press the shutter-release button and release it.

- The mirror remains raised, and the shutter curtain remains open, revealing the lens in the relay optical system.

- 6 Gently clean the lens with a blower or a cotton bud.

- Rub the lens gently.
- Do not use a blower powered with a gas bottle.
- Do not switch off the camera power supply, or remove the AC adaptor plug from the socket, when cleaning the lens.
- Do not use cleaners or organic solvents such as thinners or benzene under any circumstances.
- Do not touch the shutter curtain or mirror.
- If the dirt cannot be removed, or is difficult to remove, contact an authorized Minolta Service Facility listed on the back cover of this manual.



- 7 Press the program set button after cleaning is complete.

- The *bulb* function is cleared.

APPENDIX

ACCESSORY INFORMATION

This camera is designed to work specifically with lenses, flash units, and other accessories manufactured and distributed by Minolta. Using incompatible accessories with this camera may result in unsatisfactory performance or damage to the camera and accessories.

Lenses

* 35mm equivalents listed in parenthesis.

V Lens 22-80 f/4 - 5.6 (33-120mm)

V Lens 80-240 f/4.5 - 5.6 APO (120-360mm)

V Lens 28-56 f/4 - 5.6 (42-84mm)

V Lens 50mm f/3.5 Macro (75mm)

V Lens 25-150 f/4.5-6.3 (38-225mm)

V Lens 17mm f/3.5 RD (25mm) - incompatible with the Vectis S-1/S-100

Flashes

- All Minolta i, si, and HS series flash units, as well as the Vectis SF-1 flash, are compatible with this camera. With these flash units, the flash will fire only when necessary when it is on and the camera is in P mode.
- For AF series flash units (4000AF, 2800AF, 1800AF, and Macro flash 1200AF), the flash Shoe Adapter FS-1100 is required. When the flash is on, it will fire every time the shutter is released. The AF illuminator will not activate.
- X-series flash units can only be used when connected to the camera's PC terminal by a sync cord.

OTHER:

CompactFlash Cards RM-8C/RM-16C/RM-32C

PC Card Adapter CA-1C

This adapter allows Compact Flash card to be used in PCMCIA card drives (ATA PCMCIA Type II standard). This is convenient for quick data transfer.

PCMCIA Card Drive CD-10

The PCMCIA card drive is an external drive for your computer that reads and records PCMCIA cards. Compact Flash cards used in the camera can be used in this drive with the aid of the PC Card Adapter CA-1C. It is a convenient way to bring your images into your computer and it reduces wear on the camera.

Not Compatible

Close-up Diffuser CD-1000

Eyepiece Connector 1000

Wireless Controller IR-1N

FILE SIZE/CARD CAPACITY

The file size of the image is determined by the selected image Quality (see page 40). There are four image Quality (compression ratio) options; Super Fine, Fine, Standard, and Economy.

IMAGE QUALITY AND FILE SIZE


QUALITY	COMPRESSION RATIO	FILE SIZE (APPROXIMATE)
SUPER FINE	1:1	8000 KB
FINE	1:5	1500 KB
STANDARD	1:10	850 KB
ECONOMY	1:15	550 KB

CARD CAPACITY

QUALITY	Approximate Card Capacity 30MB CF Card
SUPER FINE	3 IMAGES
FINE	17 IMAGES
STANDARD	33 IMAGES
ECONOMY	52 IMAGES

- The file size and the card capacity for every image quality are approximate values only. The actual values will vary with the scenes photographed.

CAMERA WARNINGS

MODE	DISPLAY	CAUSE	ACTION	PAGE
P	Shutter speed and aperture blink	Light level is beyond the range of available shutter speeds and apertures.	In bright light, attach a neutral density (ND) filter, use film with lower film speed, or reduce the overall brightness of your surroundings. In low-light, use flash or another light source to increase the brightness of your surroundings	-
A	2000 or 2" blinks	Required shutter speed is beyond the range of the camera.	Select a larger/smaller aperture until the display stops blinking.	53
S	Maximum or Minimum aperture blinks	Required aperture is beyond the range of the lens	Select a faster/slower shutter speed until the display stops blinking.	55
SPOT	 blinks in the viewfinder	Light level is below the camera's minimum metering range.	Increase the brightness, cancel spot metering.	49
ALL	LEnS - - appears	Lens is not attached or is attached improperly.	Attach the lens, or disconnect and reattach the lens.	26

CAMERA WARNINGS

MODE	DISPLAY	CAUSE	ACTION	PAGE
ALL	CArd and the frame counter appears.	The compact flash card is full.	Use one of the following options to reclaim space: <ul style="list-style-type: none"> • Delete unwanted images. • Transfer images to a PC hard drive, then Clear or Format the card. • Clear or Format the card. • Use a new compact flash card. • Select a lower compression ratio. 	76 94 96
ALL	CArd appears and - - blinks in the frame counter.	The compact flash card is not formatted for this camera.	Format the compact flash card using this camera.	76
ALL	CArd appears and Er blinks in the frame counter.	Card error.	1. Turn the camera off. 2. Remove the compact flash card. 3. Wait a few minutes, then reinsert the compact flash card and close the card-chamber cover. 4. Turn the camera on. <ul style="list-style-type: none"> • If the icon still appears, turn the camera off and contact a Minolta Service Facility listed on the back cover of this manual. 	-
ALL	CArd appears with no frame counter.	There is no compact flash card in the camera.	Insert a compact flash card into the camera.	32

CAMERA WARNINGS

MODE	DISPLAY	CAUSE	ACTION	PAGE
ALL	CUSr Er appears	There was an error creating the custom White Balance setting.	Try again.	60
ALL	dAtE - - briefly appears	The clock battery power is low.	Change the clock battery.	108

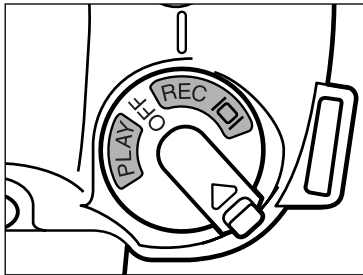
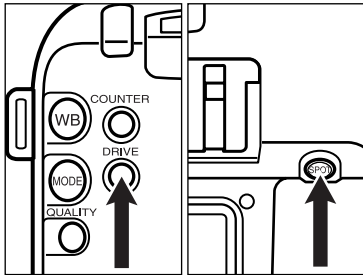
TROUBLESHOOTING

Refer to these pages to determine the cause of a problem you are experiencing with your camera. If the information does not cover the problem which you are experiencing or the condition continues, contact your nearest Minolta Service Facility.

PROBLEM	CAUSE	SOLUTION
NO DISPLAY APPEARS WHEN THE CAMERA IS SWITCHED ON	Batteries are loaded incorrectly	Remove and reinsert the batteries.
	Batteries are exhausted	If the camera battery is exhausted, install a new battery.
	Camera malfunction	Turn the camera off, then remove and reinsert the batteries. If normal operation does not resume or the camera malfunctions repeatedly, contact an authorized Minolta Service Facility.
AUTOFOCUS DOES NOT WORK WHEN SHUTTER-RELEASE BUTTON IS PRESSED PARTWAY DOWN	Situation is unsuitable for autofocus	Use focus hold or manual focus.
	Camera is set to the manual focus mode	Set to the autofocus mode by pressing the focus mode button.
	Subject is too close	Check the minimum focus distance for your lens.
SHUTTER CAN NOT BE RELEASED	Focus can not be confirmed	Use focus hold, or manual focus.
FLASH PICTURE IS TOO DARK	Subject is beyond flash range	Make sure the subject is within the flash range.

CLEARING THE RELEASE LOCK

This camera is designed so that, when the compact flash card is inserted in the camera, the shutter does not operate until the lens is attached. When a lens other than those noted on P114, for example the astronomical telescope, is fitted this function must be cleared.



- 1 With the **DRIVE** button and the **SPOT** button pressed, turn the dial to **REC** or **|◻|**.



- 2 Release the two buttons if **OFF** appears on the data panel.
 - The release lock is cleared when the compact flash card is inserted while the lens is not fitted.
- To activate the release lock with the compact flash card inserted and the lens not fitted, use the same operation to display **ON** in the data panel and release both buttons.

Cleaning

- If the camera or lens barrel is dirty, wipe it gently 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 brush away any dust or sand then, if necessary, moisten a lens tissue with lens cleaning fluid and gently wipe the lens in a circular motion, starting from the center.
- Never place lens fluid directly on the lens.
- Never touch the interior of the camera, especially the shutter and mirror.
Doing so may impair their alignment and movement. Dust on the mirror will not affect the picture quality.
- Never use compressed air to clean the camera's interior, it may cause damage to sensitive interior parts.
- Never use organic solvents to clean the camera.
- Never touch the lens surface with your fingers.

Storage

When storing your camera for extended periods, please follow these guidelines:

- Always attach the protective caps.
- Store in a cool, dry, and well-ventilated area away from dust and chemicals such as moth balls. For very long periods, place the camera in an airtight container with a silica gel drying agent.
- Periodically release the camera's shutter to keep it operating properly.
- Before using after prolonged storage, always check the camera's operation to make sure it is functioning properly.

Before Important Events

- Always check camera operation carefully, or take test photographs.
- Minolta is not responsible 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 Minolta distributor in your area.
- Before shipping your camera for repair, please contact an authorized Minolta Service Facility for details.

LCD Monitor Care

The LCD monitor is a precision device with a pixel efficiency of 99.98%. Less than 0.02% of the pixels are dysfunctional.

- Do not apply pressure on the surface of the LCD monitor. Permanent damage may occur.
- In low temperatures, the LCD monitor will temporarily darken. When the camera warms-up, normal display will be restored.
- If the ▲ or ▼ buttons are pressed rapidly during playback, images may appear to overlap. This is normal and the image data is not changed.
- If the LCD monitor surface is dirty, first blow away dust or sand, then gently wipe it with a soft, clean, dry cloth.
- If the LCD display blinks continuously or no longer works at all, it is time to replace the monitor. Take the camera to your dealer or contact a Minolta Service Facility listed on the back cover of this manual.

TECHNICAL DETAILS

TYPE

SLR type digital camera with interchangeable lenses.

CCDs

Two 1/2 inch 1.5 million pixel, progressive CCDs

Final Resolution: approx. 2.7 million

Filter: Primary colour, low-pass filter

Bit Depth: 24 bit colour

IMAGE SIZE

1984 x 1360 pixels, Aspect Ratio: 1: 1.45

AD CONVERSION

10 bit (8-bit output)

EXPOSURE

Metering: 14-segment honeycomb-pattern metering, Spot metering selectable

Range: 14-segment honeycomb-pattern metering: EV 3-20

Spot metering: EV 6-20 (ISO200, f/3.5 lens)

Exposure Compensation: +/- 3 EVs in 1/2 EV increments.

Flash compensation: +/- 3 EVs in 1/2 EV increments.

ISO Equivalent: approx. ISO200/800 selectable

SHUTTER

Type: CCD electronic shutter control and vertical traverse focal-plane shutter.

Range: P/A/S mode: 1/2000 - 2 sec.

M mode: 1/2000 - 30 sec.

Flash Sync: 1/125 sec. or slower

LENS MOUNT

Minolta V mount (not all Vectis lenses compatible)

AUTOFOCUS

Type: TTL phase-detection system

Sensor: One CCD line sensor

Focus Modes: Autofocus/Manual focus

WHITE BALANCE

Automatic white balance setting. Manual setting available (daylight, tungsten, flash, custom)

IMAGE STORAGE

Recording Media: CompactFlash Card

File Format: EXIF 2.0 (TIFF, JPEG)

Compression Ratio: SUPER FINE (TIFF 1:1), FINE (JPEG 1:5),
STANDARD (JPEG 1:10), ECONOMY (JPEG 1:15)

TECHNICAL DETAILS

VIEWFINDER

Type:	SLR type, TTL replay-optical finder with acute matte
Field of view:	approx. 94% x 95%
Magnification:	0.8x
Diopter:	-4 to +2 diopters
Eye relief:	high eyepoint, 25 mm from the eyepiece lens

DRIVE MODE

Single-frame advance, continuous advance (approximately 1.5 frames/second, up to 5 frames), Self-timer (approx. 10 second delayed release), Remote -control (Ir, RC-3 sold separately)

LCD MONITOR

Type:	2 inch, low temperature, poly-silicon, colour TFT LCD module.
Pixels:	approximately 110,000

FLASH

Accessory shoe:	Minolta standard shoe
Minolta dedicated units:	Dynax/Maxxum flash units, Vectis flash units

INTERFACE

Video Output:	NTSC
Digital:	SCSI 2

POWER

Battery:	Camera power – Four AA-size Ni-MH batteries, Internal clock – One CR2025 3V lithium battery
Battery Performance:	Approximately 130 frames (based on Minolta's standard test method)
AC Power:	AC Adapter AC-2

DIMENSIONS

(WxHxD)	150 x 117 x 101 mm
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WEIGHT	Body: 910 g
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Specifications and accessories are based on the latest information available at the time of printing and are subject to change without notice.

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MINOLTA

DIGITAL CAMERA

Dimâge
RD 3000

E

CAMERA INSTRUCTION MANUAL

