TOSHIBA

PDR-M1 DIGITAL STILL CAMERA



OWNER'S MANUAL

This manual will show you how to use your TOSHIBA DIGITAL STILL CAMERA PDR-M1 correctly. Please follow the instructions carefully.

To prevent fire or shock hazard, do not expose the unit to rain or moisture.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK.

DO NOT REMOVE COVER (OR BACK).

NO USER-SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The graphical symbols are located on the bottom of the case.



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



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

For customers in the U.S.A.

FCC Notice "Declaration of Conformity Information"

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two Conditions:

This device may not cause harmful interference, and

2. This device must accept any interference received, including interference that may cause undesired operation.

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

- Change the direction of the radio or TV antenna.
- Move the computer or the radio or TV. For example, if the computer is to the right of the TV, move it to the left of the TV. Or, move the computer farther away from the radio or TV.
- Plug the computer into a different outlet. Don't plug your radio or TV into the same circuit as your computer.
- Ensure that all expansion slots (on the back or side of the computer) are covered. Also, ensure that all metal retaining brackets are tightly attached to the computer.

If these suggestions don't help, consult your computer dealer or experienced radio/TV technician for help.

If you modify the camera in any way, without getting approval from Toshiba Corporation, your camera may violate FCC regulations. Violation of FCC regulations may cause the FCC to void your right to use the modified camera. Only peripherals (computer input/output devices, terminals, printers, etc.) certified to comply with the Class B limits may be attached to the computer containing the camera. Operations with non-certified peripherals are likely to result in interference with radio and TV reception.

TOSHIBA AMERICA INFORMATION SYSTEMS, INC. Imaging Systems Division

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(949) 583-3000 (800) 829-8318 Toll-Free Within The U.S.

For customers in Canada CAUTION

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

Please read the Safety Notes (→P.65) and make sure you understand them before using the camara.

■ Liquid Crystal

- •If the LCD monitor or LCD panel is damaged, take particular care with the liquid crystal in the monitor or panel. If any of the following situations arise, take the urgent action indicated.
- If liquid crystal comes in contact with your skin
 Wipe the area with a cloth and then wash thoroughly with running water and soap.
- If liquid crystal gets into your eye
 Flush the affected eye with clean water for at least 15 minutes and then seek medical assistance.
- If liquid crystal is swallowed
 Flush your mouth thoroughly with water. Drink large quantities of water and induce vomiting. Then seek medical assistance.

■ Trademark Information

- ●IBM PC/AT is a registered trademark of International Business Machines Corp. of the USA.
- •Macintosh is a trademark of Apple Computer, Inc.
- MS-DOS and Windows are registered trademarks of the Microsoft Corporation of the U.S. registered in the USA and other countries.
 - Windows is an abbreviated term referring to the Microsoft Windows Operating System.
- Other company or product names are trademarks or registered trademarks of the respective companies.

■ Explanation of Color Television System

NTSC: National Television System Committee, color television telecasting

specifications adopted mainly in the U.S.A., Canada and Japan.

PAL: Phase Alternation by Line,a color television system adopted mainly by European countries and China

■ Notes on Electrical Interference

Do not use this device in aircraft or hospitals.

The use of this device in an aircraft or hospital can cause malfunctions in the control devices used in the aircraft or hospital.

Centents

Contents4 Features7 Accessories8 Nomenclature9 Using the Hand Strap10 Attaching the Hand Strap......10 Using the Hand Strap.....10 Loading the Batteries11 Using the AC Adapter.....12 SmartMedia13 Compatible SmartMedia......13 Write-Protection......13 Using a New SmartMedia......13 Notes on Using SmartMedia14 Switching On and Switching Off15 How to Hold the Camera.....17 Pressing the Shutter Button.....18 Mode Dial and DISP Button.....19 Adjusting the LCD Monitor Brightness.....21

Normal (AUTO) Mode		23
Taking Pictures Using the	Viewfinder	24
Taking Pictures Using the	ELCD Monitor	25
		27
Macro (Close-Up) Photogra	phy	28
Taking Pictures and Viewin	g Images on a TV	29
	unctions)	30
		32
Multi-Frame Playback		33
4. TUTB		35
Erasing Single-Frame		35
		37
		38
, see		

Viewfinder LED22

	Setup Mode	40
	FLASH	
	QUALITY	42
	FILE SIZE	42
	SHARPNESS	43
	FRAME NO	43
•	BEEP	44
3	DATE/TIME	45
7	RESET	45
8	Self-Timer Mode	46
7	Manual Mode	
Ē.	Setting the White Balance	48
8	Setting the Brightness (Adjusting the Exposure)	
	Setting the Flash Power	52
	Synchro Mode Setting	
	Protecting Images	54
	Applying and Pemoving Single Frame Protection	54
	Removing Protection for All Frames	56
	PC-Mode (Downloading Images to a PC)	
ne (Se		

Batteries	60
Number of Available Frames	
Notes on Handing the Batteries	60
Notes on Using the Batteries	
Accessories Guide	
Warning Displays	
Notes on Using Your Camera Correctly	
Safety Notes	
Troubleshooting	
Specifications	

Preface

■ Test Shots Prior to Photography

For particularly important photographs (such as weddings and overseas trips), always take a test photograph to check that the camera is functioning normally.

 Toshiba Corporation cannot accept liability for any incidental losses (such as the costs of photography or the loss of income from photography) incurred as a result of faults with this product.

■ Notes on Copyright

Images recorded using your digital camera system cannot be used in ways that infringe copyright laws without the consent of the owner, unless intended only for personal use. Note that some restrictions apply to the photographing of stage performances, entertainments and exhibits, even when intended purely for personal use. Users are also asked to note that the transfer of memory cards containing images or data protected under copyright laws is only permissible within the restrictions imposed by those copyright laws.

■ Power Supply

In order to use this camera, you will need 4 AA-size long-life Ni-Cd or alkaline batteries or the PDR-ACM1 Adapter (sold separately). Do not use manganese batteries.

■ AC Adapter

Use only the PDR-ACM1 AC Adapter (sold separately) with your PDR-M1 Digital Still Camera. The use of an AC adapter other than the PDR-ACM1 may result in damage to your PDR-M1 Digital Still Camera.

To select the proper AC adapter for your country please refer to P.62.

■ SmartMedia

Use only Toshiba's SmartMedia memory cards. Either 3.3-volt SmartMedia can be used with the PDR-M1.

■ Handling Your Digital Camera

This camera contains precision electronic components. To ensure that images are recorded correctly, do not subject the camera to impacts or shocks while an image is being recorded.

■ Cleaning the Lens Surface

For optimum digital camera performance, make sure that the lens surface is free from dust, fingerprints, and other foreign particles. Gently wipe the lens surface clean with a soft dry cloth.

■ Data that Can Be Played Back on Your Camera

The PDR-M1 Digital Still Camera can be used to play back recorded image data or image data transferred from a personal computer (file names AAAAXXXX.JPG by Exif-JPEG format) with file sizes up to 1280 × 1024 pixels).

[NOTE]: "A" refers to alphabets or numerals "X" refers to numerals only.

LCD Monitor

The LCD monitor is manufactured using advanced high-precision technology. Even so, very small dots may appear on the screen. This is not a fault and in no way affects the operation of the monitor.

High Quality Images

1.5 million pixels primary-color CCD gives high-quality, high-resolution (1280 × 1024 pixels) images and a horizontal resolution of over 480 lines for video playback.

● 1.8-inch LCD (liquid-crystal display)

The camera's LCD allows you to check the picture you have taken and show it to your friends immediately.

Compact and Light weight

Size: $82 \times 123 \times 36 \text{ mm (Approx. } 3^{1}/4^{"} \times 4^{7}/8^{"} \times 1^{3}/8^{"})$

Weight: 230g (8oz.) (not including accessories, battery or SmartMedia)

Extensive Focusing Range (with macro function)

• Normal: Approx 50 cm (20inches) to infinity

Macro: Approx. 9 cm (3¹/₂inches) to 50 cm (20inches)

● Easy-to-Use Fixed-Focus Lens with Auto-Focus

Equivalent to 35mm lens on a 35mm camera Automatic aperture selection (F3.2/F8)

Flash

Auto-flash with flash control sensor.

Flash modes: Auto (in low light), Red-Eye Reduction, Fill-in and Flash off.

Support for SmartMedia

Uses compact, lightweight, fast and low-cost SmartMedia.

Choice of Quality/File Size

• Image Quality: FINE, NORMAL or BASIC

• File Size: 1280×1024 pixels or 640×480 pixels

● PC-Mode

The Interface Set for Windows and Macintosh (supplied) allows image data to be transferred to a personal computer.

Date and Time Recording/Playback Function

The date and time of shooting are automatically recorded and displayed on the LCD monitor.

Unparalleled ease of operation

• Exif R98

Standardization of image data is planned for products complying with the Exif R98 compatibility stipulations laid down by the Japan Electronic Industry Development Association (JEIDA).

Check the items shown below before using your camera.

AA-size alkaline batteries (4)



Image Memory Card (SmartMedia) (1) (4MB)



Accessories

- Smart Media case (1)
- Index labels (2 sheets)
- Write-protect seals (4)

Hand Strap (1)



Video Cable (approx. 1.5m (4.9 ft.), mini-plug (3.5mm dia.) to pin-plug cable) (1)



Interface Set (1)

- CD-ROM (Image Expert for Windows Data Transfer Software PICTURE SHUTTLE. /EZtoutch for Mac) (1)
- Serial Cable for IBM PC/AT Compatible Computer (1)
- Serial Cable for Macintosh Computer (1)
- Installation Manual for Windows and Macintosh (1 set)
- Noise suppression core (1)

Owner's Manual (1)

■ Explanation of Terms

ATA Card:

A PC card (type II) that conforms to the ATA PC Card Standard.

JPEG (Joint Photographics Experts Group) format:

A file format used for compressing and saving color images. The compression ratio can be selected, but the higher the compression ratio, the poorer the quality of the expanded image.

Exif:

Exif is a JPEG-compatible file format and can be used on most PC image processing applications with no need for conversion. Images can be accessed even more conveniently from a PC using the PDR-FLP1 Floppy Disk Adapter.

JEIDA:

Japan Electronic Industry Development Association

NTSC:

National Television System Committee, color television telecasting specifications adoped mainly in the U.S.A., Canada

and Japan.

PAL:

Phase Alternation by Line, a color television system adopted mainly by European and Asian countries and China.

PC Card:

A generic term for cards that meet the PC Card Standard. PC Card Standard: A standard for PC cards determined by the PCMCIA.

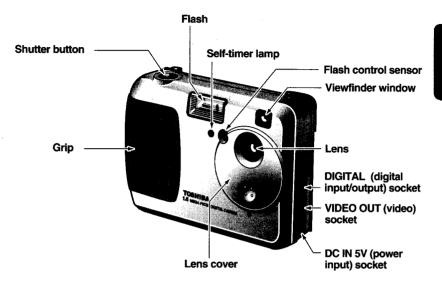
PCMCIA:

Personal Computer Memory Card International Association (US).

SmartMedia:

The name given to a new recording format determined by the

SSFDC forum. By using a PC Card adapter or Toshiba's FlashPath adapter PDR-FLP1, a SmartMedia card can be used as a PC card (Type II) or as a high-capacity floppy disk.





Using the Hand Strap

Use the hand strap to avoid dropping the camera during shooting.

Attaching the Hand Strap

Pass the end of the strap through the strap mount on the camera.



Pull the end of the strap back through the strap fastener.



Using the Hand Strap



Wear the strap around your wrist.

To avoid dropping the camera while shooting, loop the hand strap over your wrist and then hold the camera by the grip.



Loading the Batteries

Use 4 long-life Ni-Cd or alkaline batteries.



Slide the battery cover towards the front of the camera and lift it up.



2

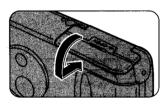
Load the batteries in the direction indicated.



3

Press down on the center of the battery cover to close the cover.

Check that the battery cover is securely closed.



CAUTIONS

- When replacing the batteries, ensure that all four batteries are new and of the same type.
- · Always switch the camera off before replacing the batteries.
- Check the date and time settings after you replace the batteries. See P.45 for information on resetting the date and time.

Number of Consecutive Shots Using New Batteries

See P.60.

To Obtain Maximum Use from Your Batteries

Always switch the camera off as promptly as possible.

When to replace the batteries

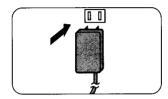
When the batteries are exhausted, the battery icon appears on the LCD. This indicates that the batteries need to be replaced. If you are using Ni-Cd batteries, recharge the batteries.

Using the AC Adapter

In locations where a power outlet is accessible (usually indoors), the PDR-ACM1 AC Adapter (please refer to P.62 for the correct model of your country) provided especially for the PDR-M1 will allow you to take pictures for extended periods. You should also use the AC adapter when you connect your PDR-M1 to a personal computer to avoid data transfer interruptions caused by exhausted batteries.

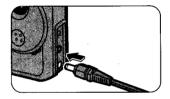
Plug the adapter into the power outlet.

The shapes of the plug and socket-outlet depends on the country of use.



2

Insert the AC adapter plug into the DC IN 5V socket on the camera.



CAUTIONS

- Ensure that you do not touch the AC adapter connector against any other metal object. This may cause a short circuit.
- Do not plug the AC adapter pin into the DIGITAL (digital input/output) socket. This may damage your camera.
- Removing the batteries or disconnecting the AC power adapter while the camera is switched on can reset the Setup and Manual mode settings and could cause camera malfunctions. Always switch the camera off first.

AC Adapter

Use only the PDR-ACM1 AC Adapter (sold separately) with your PDR-M1 Digital Still Camera.

The use of an AC adapter other than the PDR-ACM1 could result in damage to your PDR-M1 Digital Still Camera.

Compatible SmartMedia

You can use the following SmareMedia:

2MB (3.3V), 4 MB (3.3V), 8 MB (3.3V), and 16 MB (3.3V)

With Toshiba's FlashPath Adapter PDR-FLP1 (sold separately), you can use the above SmartMedia as a high capacity floppy disk.

CAUTIONS

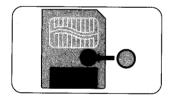
- Always refer to "SmartMedia" in this manual (⇒P.14).
- Operation of this camera is only guaranteed when Toshiba products are used.

Write Protection

To prevent the inadvertent erasing of important data, stick a write-protect seal over the write-protect area on the SmartMedia card. This seal makes it impossible to record data to or erase data from the card. To record or erase data, remove the seal.

CAUTION

The write protection may not function if the seal is stained or covered with foreign particles. Use a soft, dry cloth to wipe away the foreign particles.



Using a New SmartMedia

Formatting (Initializing) the SmartMedia

To record data on a new SmartMedia, you must first initialize the SmartMedia using the PDR-M1 (→P.38).

Formatting

Formatting a SmartMedia refers to the process of overlaying a format on the SmartMedia so that data can be recorded (written) onto the SmartMedia.

Notes on Using SmartMedia

■ Storing Data

- In the situations listed below, recorded data may be erased (destroyed). Please note that Toshiba accepts no responsibility whatsoever for the loss (destruction) of recorded data
 - * When the SmartMedia is used incorrectly by the owner or a third party
 - * When the SmartMedia is exposed to static electricity or electrical noise
 - * When the SmartMedia cover is opened or the SmartMedia removed and the camera is then switched off during data recording, during data erasing (SmartMedia formatting) or during frame advance when images are being played back.
- Back up important data onto another medium (MO disk, floppy disk, hard disk, etc.).

■ Notes on Handling SmartMedia

- Never remove the SmartMedia or switch the camera off during data recording, during data erasing (SmartMedia formatting) or during frame advance when images are being played back. These actions could result in damage to the SmartMedia.
- Use only the SmartMedia specified for use with the PDR-M1. The use of other SmartMedia could damage the camera.
- SmartMedia are precision electronic devices. Do not bend, drop, or subject SmartMedia to excessive shocks.
- Do not use or store SmartMedia in environments likely to be affected by strong static electricity or electrical noise.
- Do not use or store SmartMedia in very hot, humid or corrosive environments.
- Take care not to touch the SmartMedia's contact area or allow the area to be covered with dust or any other foreign particles. Use a dry lint-free cloth to wipe away any foreign particles.
- To avoid damage caused by static electricity, always use the special static-free case provided during transportation or storage, or keep the SmartMedia in a storage case if available.
- Do not carry SmartMedia in locations such as a trouser pocket. This could subject the SmartMedia to excessive force when you sit down, thereby damaging the SmartMedia.
- The SmartMedia may feel warm when it is removed from the camera after extended periods of picture taking or image viewing. This is normal and does not indicate a fault.
- Inserting a SmartMedia that is charged with static electricity into your camera may result in a camera malfunction. If this occurs, switch the camera off and then on again.

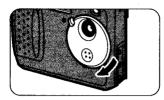
Switching On and Switching Off

Switching On



Open the lens cover.

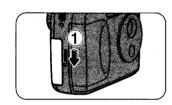
Slide the lens cover in the direction of the arrow [] to open it.



2

Load the SmartMedia.

Slide the SmartMedia button in the direction of the arrow [♣] to open the SmartMedia cover.



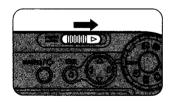
- 2 Load the SmartMedia. Slide the SmartMedia slowly so that the contact area faces the gold line on the SmartMedia holder (towards the front of the camara) and push the SmartMedia in fully.
- 3 Close the SmartMedia cover





Switch the camera on.

Slide the switch in the direction of the arrow until the camera beeps.

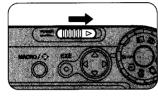


Switching Off

Check that the camera is not recording an image.

Switch the camera off.

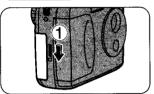
Slide the POWER button all the way in the direction of the arrow and then release it.



2

Remove the SmartMedia.

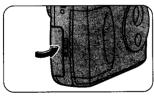
Slide the SmartMedia release knob to open the SmartMedia cover.



2 Grip the SmartMedia with your fingertips and pull it out.



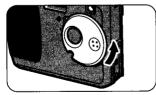
3 Close the SmartMedia cover.



3

Close the lens cover.

Slide the lens cover in the direction of the arrow [*) to close it.



CAUTIONS

- · Always switch off the camera before removing or loading a SmartMedia.
- Opening the SmartMedia cover automatically switches the camera off.
- Never open the SmartMedia cover or attempt to remove the SmartMedia while data is being recorded onto or read from the SmartMedia. This could damage the data stored on the SmartMedia or damage the SmartMedia itself.

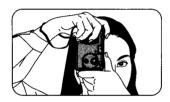
How to Hold the Camera

To prevent camera movement (shake), hold the camera with both hands and brace your elbows firmly against your sides.





If you are holding the camera vertically (portrait mode), hold the camera so that the viewfinder is at the bottom.



⊕ CAUTION

Take care that your fingers or the hand strap do not obscure the lens or flash.



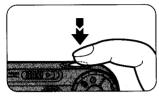
Pressing the Shutter Button

The shutter button on the PDR-M1 has two positions. If you press the shutter button lightly, it stops half way down. Pressing the button beyond this point activates the shutter and takes a picture.



Pressing half way (pressing lightly):

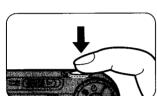
- AF (auto focus) and AE (auto exposure) begins to operate.
- The AF and AE settings are locked.
- When the AF and AE are set and locked, the viewfinder LED turns green.





Pressing fully (pressing the button further down from the halfway position):

- The shutter is released and the image is captured.
- While the image data is being recorded onto the SmartMedia, the viewfinder lamp turns orange. You cannot take pictures while the lamp is orange.



CAUTIONS

- Moving the camera as you press the shutter button will result in a blurred image.
 Hold the camera firmly in both hands.
- If you press the shutter button down fully without stopping halfway, the camera sometimes does not take a picture. If this occurs, release the shutter button and repeat steps 1 and 2 to take the picture.

AF and AE Lock

On the PDR-M1 the focus and exposure settings are locked (AF and AE lock) when you press the shutter button down half way. If you want to focus on a subject that is not centered in the frame or change the picture composition after the exposure is set (to photograph a backlit subject, for example), you can obtain good results by changing the composition after the AF and AE settings are locked.

Subjects Not Suitable for Autofocus

The PDR-M1 uses an accurate auto focus mechanism. However, the PDR-M1 may have difficulty focusing or not be able to focus at all for subjects and situations such as the following:

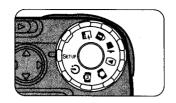
- Subjects moving at high speed.
- Very shiny subjects such as a mirror or car body.
- When there is very little contrast.
- Subjects that do not reflect well, such as hair or fur.
- Subjects with no solidity, such as smoke or flames.
- · Subjects viewed through glass.

- Subjects that merge into the background (such as white walls or subjects dressed in the same color as the background).
- When the subject is distant and dark.
- When there are objects in front of or behind the subject (such as an animal in a cage or a person in front of a tree).

Mode Dial and DISP Button



Overview of the Mode Dial



[SET-UP]: Setup Mode (⇒P.40)

Allows you to set the flash mode, quality, file size, sharpness, frame number memory, buzzer tone, date and time.

- [⊗]: Self-timer mode (⇒P.46)
 - Allows you to use a 10-second timer for self-timer shooting.
- [๗]: Manual Mode (⇒P.47)

Allows you to check the photographed image before it is recorded. This mode also allows you to select the white balance, brightness and flash brightness settings. The Manual mode also allows you to shoot in Synchro mode.

[O]: Auto mode (→P.23)

This is a simple and convenient photography mode in which the camera automatically selects the exposure (a combination of shutter speed and aperture setting) and the focus to suit the shooting conditions. This mode is ideal for general photography where you are not trying to achieve any particular effect.

[▶]: Playback Mode (⇒P.30)

Allows normal single-frame playback, multi-frame playback, automatic playback, playback zoom.

[¥]: Erase mode (⇒P.35)

Allows you to erase one frame, erase all frames or initialize a SmartMedia card from which all the frames have been erased.

[û]: Protect mode (⇒P.54)

Allows you to protect one frame, or to remove the protection from one frame or all the frames.

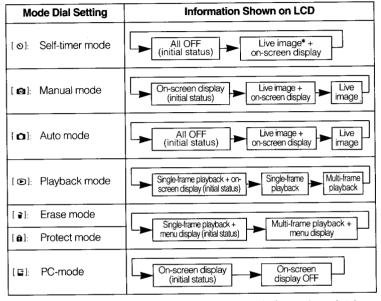
[월]: PC mode (➡P.57)

Allows you transfer your images to a personal computer or to operate your camera from a personal computer.

2

Information Displayed by the [DISP] Button

The table below shows the information displayed on the LCD by the DISP button for different Mode dial settings.



 $\boldsymbol{\ast}$ Live image refers to the video image shown before a picture is taken.

NOTE

To avoid draining the batteries unnecessarily, switch the display off while you are taking pictures and use the viewfinder.

Adjusting the LCD Monitor Brightness

The LCD monitor brightness can only be adjusted in Auto mode, Manual mode and Playback mode.

- Auto mode: When an image is on the screen
- Manual mode: When on-screen display is used in live image mode.
- Playback mode: When on-screen display is used during single-frame playback.

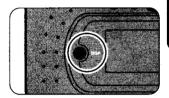
♠ NOTE

Adjustments to the LCD monitor brightness do not affect the brightness of recorded images.



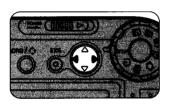
Hold down the [DISP] button (approx. 2 seconds).

The brightness adjustment mode screen appears on the LCD monitor.



2

Use the [◀] and [▶] buttons to adjust the brightness.

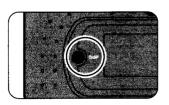


PLAY 01 − 0001



Press the [DISP] button again to complete the changes.

When you exit the brightness adjustment mode screen, you return to the screen you were in previously.



Viewfinder LED

Viewfinder LED		Meaning
Color	Status	meaning
	On	Ready to shoot
Green	Flashing (Shutter button pressed down half way)	AE in progress or camera shake warning
Orange	On	Image being recorded onto the SmartMedia
Clarige	Flashing	Flash charging
Red	Flashing (Shutter button pressed down half way)	 SmartMedia not loaded. SmartMedia not formatted. Incorrect format. SmartMedia write-protected. No free space. SmartMedia faulty Error details can be checked on the LCD.

NOTE

The viewfinder may flash orange for a few seconds when you press the shutter button. This does not affect the photograph.

Auto Power-Off Function

- To prevent the depletion of the batteries and the waste of power when the AC adapter is used, the camera automatically switches itself off if it is not used for two minutes or more.
- The Auto Power Off function does not operate in automatic playback mode or PC mode.
- To disable the Auto Power Off function, hold down the [EXE] button when you switch the camera on.

Note that if the camera is left unused for 2 minutes or more, the flash may not operate when a photograph is taken and you may not obtain the correct image.

Switching the camera off and then on again re-activates the Auto Power Off function.

Auto Mode

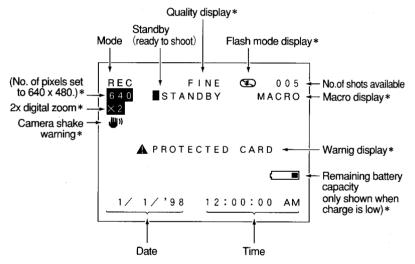
Auto mode is a simple and convenient photography mode in which the camera automatically selects the exposure (a combination of shutter speed and aperture setting) and the focus to suit the shooting conditions. This mode is ideal for general photography where you are not trying to achieve any particular effect.

To avoid depleting the battery, you should use the viewfinder rather than the LCD monitor when taking pictures.

However, note that the field of view in the image seen through the viewfinder may not match that of the image photographed. To precisely determine the actual field of view, use the LCD monitor when you take the picture.

It may be necessary to format the SmartMedia (>P.38) before you take any pictures.

Example of LCD Monitor Text Display



The above screen shows the NTSC model. The date order differs in the PAL model (day. month. year).

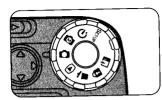
Asterisks indicate items that may not be displayed depending on the camera mode and photography conditions.

The on-screen display may be distorted after you record an image or switch modes. This does not affect the picture taken.

Taking Pictures Using the Viewfinder

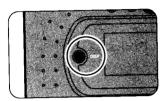


Set the Mode dial to [].



If the LCD monitor is switched on, press the [DISP] button to switch the monitor off.

* See P.20 for more information on using the [DISP] button.



9

Look through the viewfinder to compose the picture.

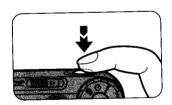


3

Press the shutter button half way.

The camera automatically adjusts the focus and exposure.

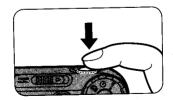
* See P.18 for more information on using the shutter button.



4

Without lifting your finger off, press the shutter button down fully.

- The shutter is released and the image is captured.
- While the image data is being recorded onto the SmartMedia, the viewfinder lamp turns orange. You cannot take pictures while the lamp is orange.



✓ NOTE

The amount of image data recorded is not fixed and varies depending on factors such as the level of detail in the image. As a result, in some cases the number of shots available may not decrease, or may decrease by 2 when recording ends.

CAUTIONS

- Always switch off the camera before removing or loading a SmartMedia.
- Opening the SmartMedia cover automatically switches the camera off.
- Never open the SmartMedia cover or attempt to remove the SmartMedia while data is being recorded onto or read from the SmartMedia. This could damage the data stored on the SmartMedia or damage the SmartMedia itself.

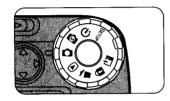
Taking Pictures Using the LCD Monitor



Set the mode dial to [].

If the LCD monitor is switched off, press the [DISP] button to switch the monitor on.

* See P.20 for more information on using the [DISP] button.

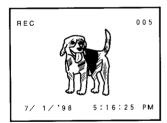




Look at the LCD monitor to compose the picture.

∧ NOTES

- If the image on the LCD monitor is difficult to see, you can adjust the brightness of the monitor. See P.21 for details.
- Adjusting the monitor brightness does not affect the brightness of the recorded image.

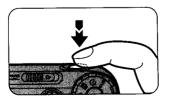




Press the shutter button down half way.

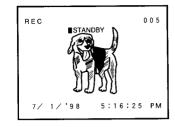
The camera automatically adjusts the focus and exposure.

* See P.18 for more information on using the shutter button.



∧ NOTES

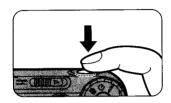
- The image is not displayed while the exposure and focus are being adjusted.
- Once the exposure is set, "STANDBY" appears on the LCD monitor.





Without lifting your finger off, press the shutter button down fully.

- The camera takes a picture.
- Because the resolution of the still image displayed immediately after you shoot the picture is low, details are not shown clearly. To check the image details, view the image in playback mode.
- While the image data is being recorded onto the SmartMedia, the viewfinder lamp turns orange. You cannot take pictures while the lamp is orange.



- Using the viewfinder to take pictures uses less battery power and allows you to take pictures for longer periods.
- Look directry into the LCD monitor, not at an angle.
- Hold the camera firmly to avoid shaking.
- Depending on the subject of the photo (the width of the image, etc.) the number of available shots may not decrease after the image is recorded or may decrease by 2. This is because the amount of data recorded varies from image to image.

CAUTIONS

- Always switch off the camera before removing or loading a SmartMedia.
- Opening the SmartMedia cover automatically switches the camera off.
- Never open the SmartMedia cover or attempt to remove the SmartMedia while data is being recorded onto or read from the SmartMedia. This could damage the data stored on the SmartMedia or damage the SmartMedia itself.
- Some dots on the LCD monitor may be permanently bright or dark or may be the same color all the time. This is not a fault and does not affect the quality of the recorded image.

Digital imes 2 function

By using the digital × 2 function, you can enlarge the central area of the image to twice its normal size and thereby double the apparent focal length of the lens (to the equivalent of roughly 70mm on a 35mm camera).

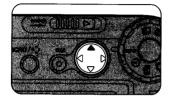
✓ NOTE

The digital × 2 function is only available when you are using the LCD monitor to take pictures (→P.25).



Press the [▲] button.

" appears on the LCD monitor and the central part of the image doubles in size.



2

Look at the image on the LCD monitor to compose the shot, and then take the picture.

See P.25 for information on how to take the picture.



To Exit the digital \times 2 Mode

Press the [▼] button.

△ NOTES

- The file size is fixed at 640 x 480 pixels. Because the central part of the image is enlarged, the image quality is lower. However, the file size (number of pixels) displayed on the LCD panel does not change.
- The digital x 2 function is automatically switched off when you switch the camera off, or if the Auto Power Off function is triggered.

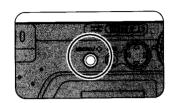
Macro (Close-Up) Photography

Using the Macro (close-up) function, you can take pictures of subjects at distances of between 9cm (31/2inches) and 50cm (20inches) from the camera. When you shoot subjects close up, the field of view you see through the viewfinder does not match the actual image photographed. Use the LCD monitor to compose close-up shots since the monitor shows you the actual field of view for the shot. You should also use Manual mode so that you can check the image before recording it. See P.47 for more information on shooting in Manual mode.



Press the [MACRO / 🗘] (Macro) button.

The live image (the video image shown before a picture is taken) appears on the LCD monitor.



2

Look at the image on the LCD monitor to compose the shot, and then take the picture.

See P.25 for information on how to take the picture.



To Exit Macro Mode.

Press the [MACRO/] (Macro) button.

MOTES

- The flash only operates when Fill-in flash photography (→P.41) is specified.
- The Macro function is automatically switched off when you switch the camera off, or if the Auto Power Off function is triggered.

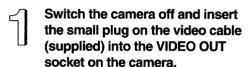
lating Pictures and Hawing United Society

To use a television to take pictures and view images, first connect the camera (NTSC or PAL model) to the television (NTSC or PAL model).

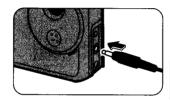
Use the PDR-ACM1 AC Adapter with the camera if you have access to a power outlet (usually indoors).

CAUTIONS

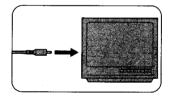
- · Always switch all devices off before connecting them together.
- If you connect the camera to another device while the camera is switched on, the image may not be displayed normally (screen distortion, etc.). Always switch the camera off before connecting the camera to another device.



Always switch devices off before connecting them together.



Plug the other end of the video cable into the video input socket on the TV.



3

Take a picture (or view an image).

See P.23 for information on how to take pictures and P.30 for information on how to view images.

✓ NOTE

No image appears on the LCD monitor if the video cable is connected to the camera.

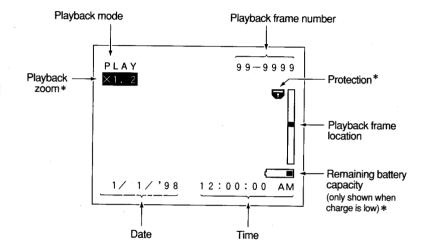
The live image (the video image shown before a picture is taken) is not as clear as the image shown in playback mode (The resolution is lower).

Playback Mode (Playback Functions)

Use the PDR-ACM1 AC Adapter with the camera if you have access to a power outlet (usually indoors).

See P.29 for information on how to view images on a TV.

Example of LCD Monitor Text Display



The above screen shows the NTSC model. The date order differs in the PAL model (day. month. year).

∠ NOTES

- Asterisks indicate items that may not be displayed depending on the camera mode and photography conditions.
- When you are playing back images recorded on another camera, the playback mode display and playback frame number may differ from the characters in the example shown here.

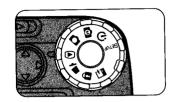
Single-Frame Playback

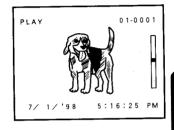


Set the mode dial to [▶]. The last recorded frame appears on the LCD.

NOTES

- If the image on the LCD monitor is difficult to see, you can adjust the brightness of the monitor. See P.21 for details.
- Adjusting the monitor brightness does not affect the brightness of the recorded image.







Use the [◀] and [▶] buttons to move to other frames.

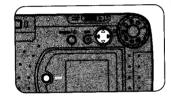
Hold down the cursor movement key to automatically scroll forward or backward through the frames.

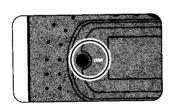
[▶]: Scroll forward

[◀]: Scroll backward



To switch off the on-screen display, press the [DISP] button.



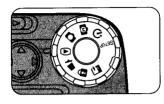


Playback Zoom: Displaying the Image on the LCD Monitor Enlarged up to 400%

Playback zoom allows you to enlarge images up to 400% and can be used during single-frame playback.

1

Set the mode dial to []. The last recorded frame appears on the LCD.



2

Use the [◀] and [▶] buttons to select the frame to be enlarged.

Press the [DISP] button to select frames in the same way as in 9-shot multi-frame playback.

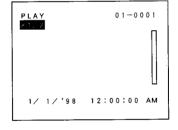
3

Use the [▲] or [▼] button to set the zoom scale.

The zoom scale is displayed.

4

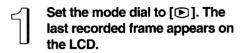
You can then move the zoom position by holding down the [MACRO / ♣] button and pressing the [◀], [▶], [▲] and [▼] buttons.

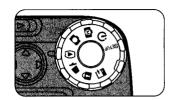


5

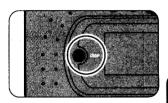
Press the [◀] or [▶] button to move to the previous or next frame and cancel the zoom settings.

Multi-Frame Playback: 9-Shot Multi-Image Playback





Press the [DISP] button (2 times). The 9-shot multi-frame playback screen appears.



You can now use the [◀], [▶], [▲] and [▼] buttons to move the pointer to the desired frame.

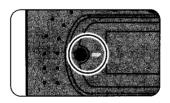
The frame number is only shown while the cursor is moving.

cursor is moving.

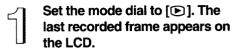
Hold down the cursor movement key to move the cursor more quickly.

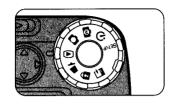


Press the [DISP] button again to playback the selected frame and display the image on the LCD.



AUTO PLAY: Playback with automatic frame advance

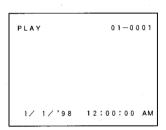




Press the [EXE] button. The menu screen appears.



Press the [EXE] button to begin automatic playback.



If you press the [EXE] again, the automatic playback screen reappears.



To stop automatic playback

Press the [▼] button.

✓ NOTES

- The Auto Power Off function does not operate during automatic playback.
- Pressing the [DISP] button during automatic playback switches frame number and date display on and off.

Erasing Images

You can use the PDR-M1 Digital Still Camera to erase single frames, to erase all the frames on a SmartMedia, or to format a SmartMedia.

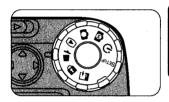
CAUTIONS

- Protected frames cannot be erased using the procedure to erase a single frame or all the frames ⇒ P.54
- Formatting a SmartMedia erases all the frames on the card, regardless of whether they are protected.
- You cannot erase images from or format a write-protected SmartMedia. ⇒ P.13

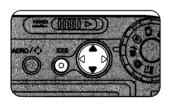
ERASE FRAME

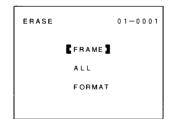
This feature erases the selected frame.

Set the Mode dial to $[\ \overrightarrow{\bullet}\]$. The menu screen appears.



Use the [♠] or [♥] button to select [FRAME] and press the [EXE] button.







Use the [◀] and [▶] buttons to select the image to be erased and press the [EXE] button.

Press the [DISP] button to select frames in the same way as in 9-shot multi-frame playback.

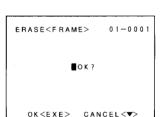


ERASE<FRAME> 01-0001

FRAME<**4**▶> → <EXE>



A confirmation message appears.





To erase the selected image, press [EXE]. To cancel, press the [▼] button.





To erase another frame, repeat the procedure from step 3.

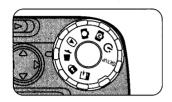
CAUTION

If [⚠ PROTECTED FRAME] is displayed, the image cannot be erased. Switch to Protect mode (⇒P.54) to remove the protection.

Erasing All Frames

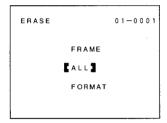
This operation erases all the unprotected frames (Protect Mode →P.64) on a SmartMedia.

Set the Mode dial to $\left[\begin{smallmatrix}\mathbf{\dot{z}}\end{smallmatrix}\right]$. The menu screen appears.

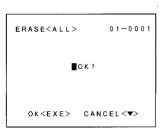


Use the [▲] or [▼] button to select "ALL" and press the [EXE] button.





A confirmation message appears.



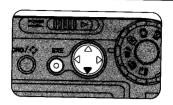
Erasing Images



To erase the images, press [EXE]. To cancel, press the [▼] button.

✓ NOTE

If you erase all the frames, the directory number (➡P.43) is retained. Images shot subsequently are recorded under the highest directory number.



FORMAT (Initialization)

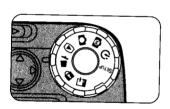
This feature format (initializes) the SmartMedia and erases all the frames on the card, including all protected images.

G CAUTION

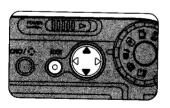
Always use the camera to format a SmartMedia.

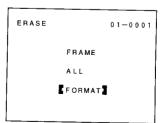
 \int

Set the Mode dial to [📦]. The menu screen appears.



Use the [♠] or [♥] button to select "FORMAT" and press the [EXE] button.







A confirmation message appears.

ERASE<FORMAT> 01-0001

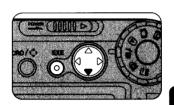
■OK?

OK<EXE> CANCEL<▼>



To format the SmartMedia, press [EXE] . To cancel, press the [▼] button.

If you format a SmartMedia, the directory number (➡P.43) is reset. Images shot subsequently are recorded under directory number 1.



The ◆ icon indicates the default setting.

The settings are retained when the camera is switched off.

1. FLASH

5. FRAME NO. 6. BFÉP

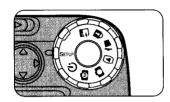
2. QUALITY 3. FILE SIZE

- 7. DATE/TIME
- 4. SHARPNESS
- 8. RESET

 \int

Set the Mode dial to [SET-UP].

The SETUP screen appears.



2

Use the [▲] and [▼] buttons to move to the setting you want to change.

• The highlight [_____] moves.



ADVANCED FEATURES

Use the [◀] or [▶] button to change the setting.

Each time you press the button, the setting in field (A) changes. For the [DATE/TIME] and [RESET] settings, press the [EXE] button to move to the respective setup screen. Select the appropriate settings for the shooting conditions.





To confirm the settings, use the [♠] and [♥] buttons to move the cursor to the next setting or switch the Mode dial to another setting.

CAUTION

Removing the batteries or disconnecting the AC power adapter while the camera is switched on can reset the settings and could cause camera malfunctions. Always switch the camera off first.

FLASH

Sets the flash operation mode.

[LCD Monitor Display Sequence]

[AUTO] ◆ : Flash operates automatically in dark conditions.

[**③**]

: Flash operates automatically in red-eye reduction mode.

: Flash operates in forced flash mode.

: Flash operation is suppressed.

■ AUTO

In this mode, the flash operates automatically according to the shooting conditions.

This mode is ideal for general photography where you are not trying to achieve any particular effect.

⊕ CAUTION

The flash does not operate in macro photography.

■ [③] Red-Eye Reduction

Use this mode to avoid the "red-eye effect" when photographing people in low-light conditions.

The flash emits a flash just before the picture is taken and then flashes again to take the actual picture.

Red-Eye Effect

When you use the flash to photograph people in low-light conditions, their eyes sometimes appear red in the picture. This is caused by the light of the flash reflecting off the inside of the eye. To minimize the likelihood of the red-eye effect, take the following precautions when you take the picture:

- ①Use Red-Eye Reduction mode.
- ②Have the subjects look diectly at the camara.
- 3Get as close as possible to the subjects.

■[∮]Fill-in

In this mode, the flash always operates.

Use Forced Flash to shoot pictures in artificial light (fluorescent lighting, etc.). The flash also operates during macro photography.

■ [3] Flash Off

Use Suppressed Flash mode when you are taking pictures in indoor lighting at distances too great for the flash to have any effect, such as theater performances or indoor sporting events.

This mode stops the flash from operating.

* If you use Flash Off mode when you are taking a picture in low-light conditions, use a tripod to prevent camera shake.

OUALITY

You can select any of 3 kinds of quality (image compression ratios), on the type of shot. The number of shots available (→P.68) varies on the image quality you select, or [FINE] appears on the LCD panel to indicate the image quality setting.

Select [FINE] when you want better image quality and [BASIC] when you want to fit more images on the SmartMedia.

[LCD Monitor Display Sequence]



FILE SIZE

You can select either of two file size (number of pixels) settings depending on the type of shot. The number of shots available (→P.68) varies on the file size setting you select. [1280] or [640] appears on the LCD panel to indicate the file size.

[LCD Monitor Display Sequence]

[1280 × 1024] ◆ : 1280 × 1024 pixels ‡ [640 × 480] : 640 × 480 pixels

SHARPNESS

The Sharpness setting allows you to sharpen or soften the outlines in an image to suit the subject.

[LCD Monitor Display Sequence]

[SOFT] : The outlines in the image are softened.

[HARD]: The outlines in the image are sharpened.

FRAME NO.

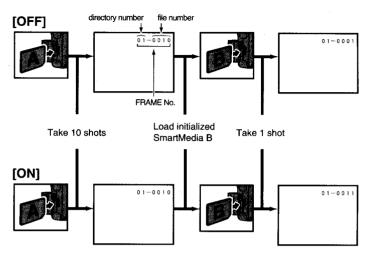
Set the type of increment for recorded image frame numbers (file numbers). Switching the frame number memory option on is useful for organizing your image files since it prevents the duplication of file names when images are downloaded to a personal computer.

[LCD Monitor Display Sequence]

[OFF] • : New frames are numbered consecutively from the last frame number in the loaded SmartMedia.

[ON] : Frame numbers continue after the last frame of the previous SmartMedia, if the SmartMedia has been replaced.

However, if the already stored frame number on the newly inserted SmartMedia is greater than the last frame number, the numbering begins after the highest frame number on the SmartMedia



- * The first 2 digits of the frame number indicate the directory number while the remaining 4 digits are the file number.
- The highest file number is 9999.
- When file number 9999 is reached, the directory number increases by 1 and filing of images shot restarts from file number 0001.
- * The highest directory number is 99. When frame number 99-9999 is reached, set FRAME NO. to OFF and erase some of the recorded images on the SmartMedia before using frame number memory again.

BEEP

This setting allows you to switch the camera buzzer on or off when necessary.

[LCD Monitor Display Sequence]

[ON] ◆ : The buzzer sounds (beeps) to indicate the camera status and specific camera operations.

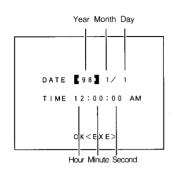
[OFF] : The buzzer emits no sound regardless of the camera status.

DATE/TIME

This setting specifies the date and time.

The date and time are displayed with the year digits flashing.

Each time you press the [▶] button, the flashing digits change as follows: Year → Month → Day → Hour → Minute.



2

Use the [▲] and [▼] buttons to set the numbers and then press the [EXE] button to move to the SETUP screen.



- * The seconds display changes to "00" and starts running when you press the [EXE] button.
- *Check the date and time settings after you replace the batteries.

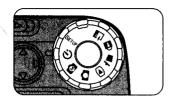
The date and time settings are retained for 5 minutes. Ensure that you load the new batteries within 5 minutes when replacing them.

RESET

This function resets the settings to the default values (indicated by \spadesuit) when you press the [EXE] button.

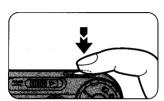
Note that the date and time are not reset.

Set the mode dial to [3].

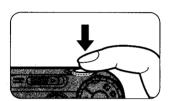


Compose the picture and press the shutter button down half way.

The camera automatically sets the exposure.

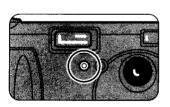


Press the shutter button down fully.



The self-timer lamp lights and then flashes.

The shutter releases after 10 seconds.



MOTES

- To interrupt the self-timer, press the [▼] button or set the Mode dial to another mode.
- When you are using the LCD monitor to shoot the picture, a countdown from 10 is displayed on the monitor.

Menual Mode

Manual mode allows you to specify all the photography settings and then check the photographed image on the LCD monitor before you decide whether or not to record the image onto the SmartMedia.

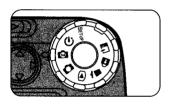
The settings are retained when the camera is switched off.

CAUTION

- The white balance, brightness (exposure compensation) and flash brightness settings are only available in [☑]: Manual mode. Synchro mode are also only available in Manual mode. Note also that if you switch the camera off, the Manual mode settings are retained and are valid when you switch the camera back on.
- Removing the batteries or disconnecting the AC power adapter while the camera is switched on can reset the settings and could cause camera malfunctions. Always switch the camera off first.

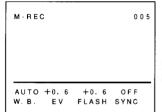
Set the Mode dial to [1].

When the menu screen is not shown on the LCD monitor, press the [DISP] button.



MOTES

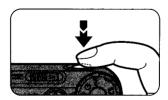
- If the image on the LCD monitor is difficult to see, you can adjust the brightness of the monitor. See P.21 for details.
- Adjusting the monitor brightness does not affect the brightness of the recorded image.





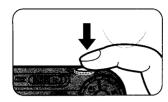
Compose the picture and press the shutter button down half way.

The camera automatically sets the exposure.



3

Press the shutter button down fully.



The preview (thumbnail) image appears on the LCD monitor.

Use the preview image to check the composition and brightness of the image shot. Because the resolution of the preview image is low, details may not appear clearly on the LCD monitor. To check the image details and the focusing, record the image onto a SmartMedia and then view the image in playback mode.

5

To record the image onto the SmartMedia, press the [EXE] button.

To discard the image, press the [▼] button.

What are Thumbnails?

A thumbnail image is a small image created by displaying the photographed image with a reduced number of pixels.

CAUTIONS

- Always switch off the camera before removing or loading a SmartMedia.
- Opening the SmartMedia cover automatically switches the camera off.
- Never open the SmartMedia cover or attempt to remove the SmartMedia while data is being recorded onto or read from the SmartMedia. This could damage the data stored on the SmartMedia or damage the SmartMedia itself.

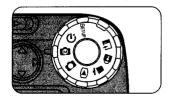
Setting the White Balance

You can select any of 5 white balance settings: Outdoor, Shade, Fluorescent 1, Fluorescent 2 and Incandescent. The AUTO setting is normally used. Use the other settings to set the white balance when you are shooting in shadow or in special lighting.



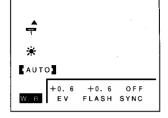
Set the Mode dial to [].

• If the LCD monitor is switched off, press the [DISP] button.





Use the [◀] or [▶] button to select "W.B.".





Use the [▲] or [▼] button to select the white balance setting.

[AUTO]: Automatic

[*]: Shooting outdoors (in fine weather)

[]: Shooting in fluorescent light (in bluish light)
[]: Shooting in fluorescent light (in reddish light)

[- ?]: Shooting in incandescent light



Use the [EXE] button to confirm the setting.

- The default setting is "AUTO".
- This setting does not apply when the flash is used.

What is White Balance?

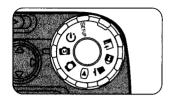
When the brightness of the light changes, the human eye adapts so that a white object still looks white. On the other hand, devices such as digital still cameras see a white subject as white by first adjusting the balance to suit the color of the ambient light around the subject. This adjustment is called matching the white balance.

Setting the Brightness (Adjusting the Exposure)

Use this setting to achieve the optimum image brightness (exposure) when the subject is very small in the picture or when the subject is much brighter or darker than the background.

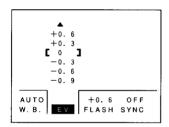
Set the Mode dial to [].

If the LCD monitor is switched off, press the [DISP] button.



2

Use the [◀] or [▶] button to select "EV".



3

Use the [▲] or [▼] button to select the brightness (exposure compensation).

[] : Brightens the image.

[▼] Darkens the image.

There are 9 compensation levels (-0.9 to +1.5EV in approx. 0.3EV steps).

CAUTION

In low-light conditions, pressing the [▲] button may not make the image brighter.



Use the [EXE] button to execute the setting.

• The default setting is "0".

• If the subject is dark, the brightness of the live video image (preview image) does not change. Press the shutter button and check the brightness of the preview image (photographed still image).

Exposure compensation is useful for the types of subject listed below.

Positive (+) Compensation

- Copying of printed text (black characters on white paper) (+1.5 EV)
- Backlit portraits (+0.6 to +1.5 EV)
- Very bright scenes (such as snowfields) and highly reflective subjects (+0.9 EV)
- When the sky makes up a large portion of the image. (+0.9 EV)

Negative (-) Compensation

- Spotlit subjects, particularly against dark backgrounds (-0.6 EV)
- Copying of printed text (white characters on black paper) (-0.6 EV)
- Scenes with low reflectivity, such as shots of green or dark foliage (-0.6 EV)

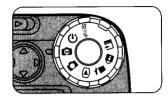
Setting the Flash Power

Use flash power adjustment to achieve the optimum flash brightness when the subject is very small in the picture or when you are using close-up flash photography for subjects such as a flower or business card.



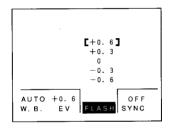
Set the Mode dial to [1].

If the LCD monitor is switched off, press the [DISP] button.





Use the [◀] or [▶] button to select "FLASH".





Use the [▲] or [▼] button to set the flash brightness.

[]: Increases the flash brightness.

□ : Decreases the flash brightness.

There are 5 compensation levels (-0.6 to +0.6EV in approx. 0.3EV steps).

⊕ CAUTION

If you are shooting in dark conditions or if the subject is too far, pressing the [▲] button may not give a brighter picture.



Use the [EXE] button to confirm the setting.

✓ NOTES

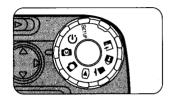
- The default setting is "0".
- The brightness of the live video image (video image prior to shooting) does not change.
- To check the flash brightness, press the shutter button and view the preview image (photographed still image).

Synchro Mode Setting

This mode changes the shutter speed to suit the subject and uses forced flash. Use this mode when you are shooting under artificial lighting (fluorescent lamps, etc.), in backlit conditions or at night and you want to photograph both the subject and the background.

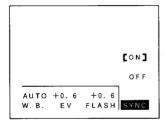
Set the Mode dial to [].

If the LCD monitor is switched off, press the [DISP] button.



2

Use the [◀] or [▶] button to select "SYNCHRO".



3

Use the [▲] or [▼] button to select "ON".



Use the [EXE] button to confirm the setting.

∠ NOTES

The default setting is "OFF".

 If Synchro mode is set to "ON", the flash mode settings specified in "SETUP" are disabled. The only exception to this is Red-Eye Reduction mode, which remains enabled in Synchro mode.

• When you shoot a portrait in Forced Flash mode against a night scene, the shutter speed is slower (Slow Synchro mode) and a camera shake warning appears. The viewfinder lamp flashes green when you press the shutter button. If the LCD monitor is switched on, the camera shake icon "\underwar" is displayed. A tripod should be used to prevent camera shake.

Protecting Images

This feature prevents the accidental erasing of image.

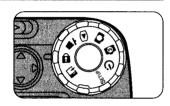
⊕ CAUTIONS

- When you format a SmartMedia card, all the images on the SmartMedia are erased, regardless of whether they are protected.
- To protect the entire card, refer to Write Protection. / P.13

Applying and Removing Single-Frame Protection

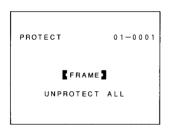


Set the Mode dial to [$\widehat{\Omega}$]. The menu screen appears.



2

Use the [▲] or [▼] button to select "FRAME" and press the [EXE] button.



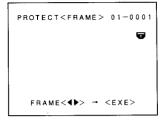
3

Use the [◀] and [▶] buttons to select the frames to be protected and then press the [EXE] button.

Press the [DISP] button to select frames in the same way as in 9-shot multi-frame playback.



The protection icon appears next to the frame number to indicate that the frame is protected.





To remove the protection, perform steps \P to $\ensuremath{\mathbb{S}}$ to select the image and then press the [EXE] button.



The protection icon no longer appears next to the frame number, indicating that the frame is not protected.



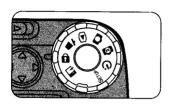
To apply or remove protection to another frame or frames, repeat the above procedure from step \mathsection .

Removing Protection from All Frames

This function removes the protection from all protected frames.

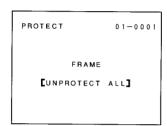


Set the Mode dial to [$\hat{\Omega}$]. The menu screen appears.



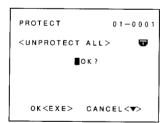
2

Use the [▲] or [▼] button to select "UNPROTECT ALL" and press the [EXE] button.



3

A confirmation message appears.



4

To remove the protection, press [EXE]. To cancel, press the [lacksquare] button.

PC-Made (bereateraling images to a PE

In PC-mode, you can connect the camera to a personal computer and download images using a supplied serial cable.

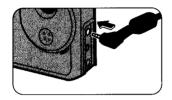
In this mode, you should also use the PDR-ACM1 AC Adapter with the PDR-M1 to avoid data transfer interruption caused by an exhausted battery.

CAUTIONS

- Install the software on your personal computer before you connect the camera and computer together.
- · Switch the camera and personal computer off before you connect them together.
- The Auto Power Off function does not operate in PC mode.



Switch the camera off and plug one end of the connection cable into the DIGITAL socket on the camera.



CAUTION

Do not plug anything other than the special connection cable into the DIGITAL socket. This could cause a fault. Check also that the plug is inserted fully into the socket.



Connect the other end of the connection cable to the personal computer.

Windows Any of the COM1 to COM4 ports Macintosh Modem or printer port

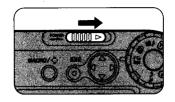


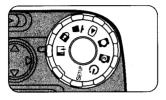
Switch on the personal computer.

PC-Mode (Downloading Images to a PC)



Switch on the camera and set the Mode dial to [달].

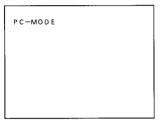






Operate the camera from the PC.

Start up the application. For information on how to use the software, refer to the user manual for the respective application.



CAUTIONS

 Image data can only be exchanged between PDR-M1 and a personal computer using files with the file names AAAAXXXX.JPG (Exif-JPEG format).

[NOTE]: "A" refers to alphabets or numerals

"X" refers to numerals only.

- The Auto Power Off function does not operate in PC-mode.
- If the power is switched off during data transmission, the image data will not be received correctly.
- To switch the camera to another mode after using PC-mode, switch the camera
 off, select the new mode and then switch the camera back on.
- · If you are taking pictures remotely, check that the lens cover is open.

Notes On Using Smarthledia With Personal Computers

- Initialize the SmartMedia in the camera.
- When a SmartMedia is initialized in the camera, a folder (directory) called "IM01TOSH" is automatically created. Image data is then recorded in this folder. Do not change or delete the folder (directory) names or file names on the SmartMedia with a personal computer as this will make it impossible to use the SmartMedia in the camera.
- Always use the camera to delete image data on a SmartMedia.
- •To edit image data, copy the image data to the computer's hard disk and then edit the copied data.

Note the points listed below when using batteries. Read the instructions and especially the safety notes for conventional and rechargeable batteries carefully to ensure that you use the batteries correctly.

Number of Available Frames

■ Reference

Number of Available Consecutive Shots

	LCD On	LCD Off
Long-life(1,000 mAh)Ni-Cd batteries	Approx.120 frames	Approx.300.frames
Alkaline batteries	Approx.200 frames	Approx.500.frames

- The above figures are a guide to the number of consecutive shots that can be taken when the flash is used 50% of the time at room temperature. However, the actual number of available shots varies depending on the ambient temperature when the camera is used and the amount of charge in the battery.
- To avoid wasting battery charge, switch the camera off promptly when it is not being used.
- To increase the time for which your battery can be used in cold locations, warm
 the battery by placing it in your pocket and then load it into the camera just before
 you take pictures. If you are using a heating pad, take care not to place the battery
 directly against the pad.

Notes on Handling the Batteries

- Use only AA-size long-life Ni-Cd or alkaline batteries.
- Because batteries use a chemical reaction to generate voltage, low ambient temperatures can lower the voltage generated and shorten the life of the batteries.
 This is particularly true of alkaline batteries.
- The capacity of alkaline batteries varies depending on the brand. The life of some batteries may be considerably shorter than that of the batteries provided with the PDR-M1.
- Do not use manganese batteries.
 Manganese batteries have an extremely low capacity, and will either be unusable from the outset or have only a fraction of the life of conventional batteries.
- When replacing the batteries, always replace them with four new ones.
 In the case of Ni-Cd batteries, 'new batteries' refers to batteries recently charged at the same time. In the case of alkaline batteries, it refers to batteries purchased recently in the same package.
- Do not use new batteries together with used batteries and do not use batteries of different types together.

- Remove the batteries from the camera if it will not be used for a long period.
- If any liquid leaks from the batteries, wipe the battery compartment thoroughly and then load new batteries.
- Always keep the contact terminals clean.
 Unclean terminals shorten the life of the batteries. If the batteries have not been used for a long period or if the terminals are not clean, load and remove the batteries several times to improve the terminal contact.
- Store the batteries in a cool dry place. If left for long periods in a hot location, the batteries will discharge and the battery life will be shortened.

Notes on Using the Batteries

It is normal for the camara grip and the batteries to get warm, when the camara is
used for a lengthy period of time while running on battery power. To take pictures
over a long period, use the AC Adapter PDR-ACM1 (sold separately).

Accessories Guide

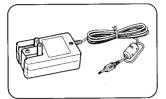
The optional accessories (sold separately) can make taking pictures with the PDR-M1 even easier. For information on how to attach and use the accessories, refer to the instructions provided with the accessory used.

AC Adapter PDR-ACM1

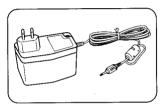
The following AC adapters are available for the PDR-M1. Please select the proper model for the country (region) where you are going to use it.

⊗ NOTE

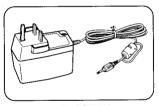
The AC adapters available may be limited to only one model per country.



PDR-ACM1A



PDR-ACM1E



PDR-ACM1U

TOSHIBA FlashPath PDR-FLP1

The PDR-FLP1 adapter is a SmartMedia adapter that is the same size as a 3.5-inch floppy disk. You can upload images on a SmartMedia onto your personal computer simply by loading the SmartMedia into the PDR-FLP1 and inserting the PDR-FLP1 into your floppy disk drive.

- PDR-FLP1 Floppy Disk Adapter Compatible Operating Systems
 - Windows 95 for IBM PC/ATcompatible PCs

The table below lists the warnings that are displayed on the LCD.

Warning Displayed	Explanation
4	The camera battery is low on charge. If Ni-Cd batteries are being used, power will fail soon.
NO CARD	SmartMedia is not loaded, or it is loaded incorrectly.
CARD NOT INITIALIZED	The SmartMedia is not formatted.
CARD ERROR	The SmartMedia is damaged. The SmartMedia format is incorrect.
CARD FULL	The SmartMedia does not have any empty space available.
PROTECTED CARD	The SmartMedia is write-protected.
FRAME ERROR	An attempt was made to playback incorrectly recorded data.
READ ERROR	An attempt was made to playback a frame not recorded by a digital still camera.
FILE LIMIT	The frame number has reached 99-9999.
\#)>	Because the flash is set to Flash Off mode and the shutter speed is slow, there is a strong likelihood of the camara shaking.
PROTECTED FRAME	An attempt was made to erase a protected frame.
LENS COVER	The lens cover is closed.
<u></u> AF	The Auto Focus does not work properly.

Notes on Using Your Camera Correctly

Be sure to read this information in conjunction with "Before You Use This Product (Safety Notes)" (→P.65) to ensure that you use your camera correctly.

Places to Avoid

Do not store or use the camera in the following types of locations:

- Very humid, dirty or dusty places
- In direct sunlight or in places subject to extreme temperature rises, such as in a closed car in summer.
- Extremely cold places
- Places subject to strong vibrations
- Places affected by smoke or steam
- Places subject to strong magnetic fields (such as places near motors, transformers or magnets)
- For long periods in contact with chemicals such as pesticides or next to rubber or vinyl products

Do not expose the camera to sand.

The PDR-M1 is particularly adversely affected by sand. In sandy locations such as beaches or deserts, or in locations where there is windborne sand, ensure that the camera is not exposed. This can cause faults that may be irreparable.

Notes on Condensation

If the camera is carried suddenly from a cold location into a warm place, water droplets (condensation) may form on the inside of the camera or on the lens. When this occurs, switch the camera off and wait an hour before using the camera. Condensation may also form on the SmartMedia card. In this event, remove the SmartMedia and wait a short time before using it again.

When the Camera is Unused for Long Periods

If you do not intend to use the camera for a long period, remove the batteries and the SmartMedia card before storing the camera.

Cleaning Your Camera

- Use a blower brush to remove dust from the lens and LCD surface and then wipe lightly with a soft, dry cloth.
 If persistant, apply a small amount of lens cleaning liquid to a piece of lens cleaning paper and wipe gently.
- Do not scrape the lens, LCD or viewfinder with hard objects as the surface scratches easily.
- Clean the body of the camera with a soft dry cloth. Do not use volatile substances such as thinners, benzine or insecticide, as these may react with camera body and cause deformation or remove the coating.

Using the Camera Overseas

When travelling overseas, do not place your camera in the check-in baggage. Baggage handling at airports may subject baggage to violent shocks, and the camera may be damaged internally even when no external damage is visible.

Silet Antes

- Ensure that you read this Owner's Manual carefully before you use your PDR-M1 camera so that you use your camera correctly.
 - Also, always read the Owner's Manual, and particularly the Safety Notes, for any connected devices, such as the AC adapter or other accessories, to ensure that you also use these devices correctly.
- After reading this Owner's Manual, always keep it close at hand for easy reference.

About the Icons

A number of icons are displayed both in this Owner's Manual and on the product. These icons are intended to facilitate safe and correct use of the product, to prevent injury to yourself or anyone else, and to prevent damage to equipment or other objects. These icons and their meanings are explained below. Ensure that you fully understand these warnings before you read this manual.



WARNING

Indicates that, if this warning is ignored, improper handling of the product may cause death or serious injury.



CAUTION

indicates that, if this warning is ignored, improper handling of the product may cause personal injury or material damage.

Examples of Icons



Triangular icons notify the user of information requiring attention. Specific details of the information are indicated graphically inside the icon. (The icon at left indicates that the user must beware of electric shocks.)



Circular icons with a diagonal bar notify the user that the action indicated is prohibited. Specific details of the prohibited action are indicated graphically in or beside the icon. (The icon at left indicates that the device must not be disassembled.)



Filled circles notify the user that an action must be performed. Specific details of the required action are indicated graphically in the icon. (The icon at left indicates that the device must be unplugged from the power socket.) Always observe these instructions.



Bij dit produkt zijn batterijen geleverd. Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA

WARNING

● Do not use this camera when it is emitting smoke, is unusually hot to the touch, is emitting any unusual odor or noise, or is in any other abnormal state. Use of the camera in any of these situations may cause a fire or electric shock. Stop using the camera immediately, switch the camera off, and then disconnect the power source (batteries or AC adapter). (If you are using the AC adapter, unplug the adapter from the AC outlet after you have disconnected the camera.) After checking that smoke is no longer being emitted, contact your local Toshiba dealer or your local Toshiba service facility and request repairs. Never attempt to repair this camera yourself as this is dangerous.



Unplug from power socket.

● Do not use the camera if any water has entered the camera. Switch the camera off, and then disconnect the power source (batteries or AC adapter). (If you are using the AC adapter, unplug the adapter from the AC outlet after you have disconnected the camera.) Then contact your local Toshiba dealer or your local Toshiba service facility. Do not continue to use the camera as this may cause a fire or electric shock



● Do not use the camera if any foreign objects have entered the camera. Switch the camera off, and then disconnect the power source (batteries or AC adapter). (If you are using the AC adapter, unplug the adapter from the AC outlet after you have disconnected the camera.) Then contact your local Toshiba dealer or your local Toshiba service facility. Do not continue to use the camera as this may cause a fire or electric shock.



MARNING

• If the camera has been dropped or the camera case has been damaged, switch the camera off, and then disconnect the power source (batteries or AC adapter). (If you are using the AC adapter, unplug the adapter from the AC outlet after you have disconnected the camera.) Then contact your local Toshiba dealer or your local Toshiba service facility. Do not continue to use the camera as this may cause a fire or electric shock



 Do not place the camera on unstable locations such as on a unbalanced table or sloping surface where the camera may fall or tip over and cause injury.



• Take care that the camera is not exposed to moisture and that water does not get into the camera. Take particular care when it is raining or snowing or when you are using the camera at the beach or near water. Water in the camera may cause a fire or electric shock.



 Do not insert or drop metallic or inflammable foreign objects into the camera through access points such as the SmartMedia card slot.
 This may cause a fire or electric shock.



 Do not attempt to modify this camera. This may cause a fire or electric shock.



 Do not remove the camera casing. This may cause an electric shock. Internal inspection, maintenance and repairs should be carried out by your local Toshiba dealer or local Toshiba service facility.



 Do not use this camera in the bathroom. This may cause a fire or electric shock.



Do not use in wet areas.

fire or injury.

MARNING

 Do not touch the power plug during a thunderstorm if you are using the AC adapter.
 This may cause an electric shock.



 Never use this camera, look through the viewfinder, or watch the LCD (liquid crystal display) while you are operating a moving car, motorcycle or bicycle.
 This may cause a traffic accident.



 Do not attempt to charge the alkaline battery.
 This may cause the battery to split or leak, causing fire or injury.



 Do not carry or store a battery with objects such as metal pens, necklaces, coins or hairpins. This could short circuit the positive + and negative - poles of the battery.
 This may cause the battery to split or leak, resulting in



 Do not heat or attempt to disassemble a battery, and do not place a battery in water or in a fire.
 Any of these may cause the battery to split or leak, cause fire or injury.



 Do not subject a battery to strong impacts, such as hitting it with a hammer, stepping on it or dropping it.
 Any of these may cause the battery to split or leak, cause fire or injury.



 Use only the specified batteries or AC adapter specified for use with this camera.
 The use of other power sources may cause a fire.



Do not place this camera in a damp or dusty location. This may cause a fire or electric shock. Do not place this camera in a location affected by oil fumes or steam, such as near a cooking stove or humidifier. This may cause a fire or electric shock. • Do not leave this camera in places subject to extremely high temperatures, such as in a sealed vehicle or in direct sunlight. Exposure to high temperatures may adversely affect the camera case and internal components and cause a fire. Do not look at the sun through the camera finder. This may cause soreness of the eyes. Do not attempt to playback the attached CD-ROM using a standard CD player. There exists the danger of damage of the

headphone or speakers or injury of the ears.

CAUTION

 Do not cover or wrap the camera or the AC adapter with a cloth or quilt. This may cause heat to build up and distort the case or cause a fire. Always use the camera and its accessories in well-ventilated locations.



Do not move the camera while it is switched on. (If you are using the AC adapter, unplug the adapter from the AC outlet after you have switched off the camera.) Then ensure that any connector cords or cables to other devices are disconnected before moving the camera. Failure to do so may damage the cords or cables and cause a fire or electric shock



 Take care that the camera is not bumped when it is being moved. This may cause the camera to malfunction.



• When handling the camera, always unplug it from the power source (batteries or AC adapter) for safety. (If you are using the AC adapter, unplug the adapter from the AC outlet after you have disconnected the camera.) Failure to do so could result in an electric shock.



 When leaving the camera unused for long periods, such as during a vacation, always unplug the camera from the power source (batteries or AC adapter) for safety.



(If you are using the AC adapter, unplug the adapter from the AC outlet after you have disconnected the camera.)

Failure to do so could result in a fire.

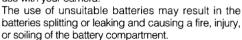
CAUTION

Contact your local Toshiba dealer or local Toshiba service facility to request cleaning of the interior of the camera every two years. Allowing dust to accumulate in the camera for long periods without cleaning the camera interior may cause a fire or electric shock. Cleaning is best performed prior to seasonal periods of high humidity.



Consult with your local Toshiba dealer or local Toshiba service facility for information on the cost of cleaning your camera.

 Do not use batteries other than those specified for use with your camera.
 The use of unsuitable batteries may result in

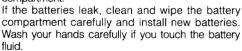




• When fitting a battery into the camera, check the polarity markings on the battery (+ and -) to ensure that you insert the battery correctly. Incorrect battery polarity may result in the batteries splitting or leaking and causing a fire, injury, or soiling of the battery compartment.



 Remove the batteries if the camera will not be used for an extended period of time. The batteries may leak and cause a fire, injury or soiling of the battery compartment.
 If the batteries leak, clean and wipe the batter





Troubleshooting

• Before you decide the camera is faulty, check the following once more:

Problem	Cause	Remody
No power.	The battery is exhausted. The AC adapter plug has come out of the power outlet.	Load new batteries. Plug the adapter back in.
	The Mode dial is not correctly set.	Set the Mode dial to the correct setting.
Power turns off prematurely	The battery is exhausted. You are using the camera in hot conditions and the camera's safety mechanism has been triggered.	Load new batteries. Wait until the camera has cooled down and then switch it back on.
Battery runs out quickly.	You are using the camera in extremely cold conditions.	Put the batteries in your pocket or another warm place to heat them and then load them into the camera just before you take a picture.
	Manganese batteries are being used.	Use AA-size long-life Ni-Cd or alkaline batteries. Alkaline batteries are recommended. (➡ P.60)
	New and used batteries or batteries of different types are being used together.	Load four new batteries of the same type.
	The terminals are not clean.	Wipe the battery terminals with a clean, dry cloth.
No photograph is taken when the shutter button is pressed.	The SmartMedia is not loaded. The SmartMedia is loaded the wrong way or upside down.	Load a SmartMedia. Load the SmartMedia correctly.
	The SmartMedia is full.	Load a new SmartMedia or erase a frame.
	The SmartMedia is write- protected.	Remove the write- protection.
	The SmartMedia is not formatted.	Format the SmartMedia.
	The SmartMedia is damaged. The Auto Power Off function has switched the camera off.	Load a new SmartMedia. Switch the camera on.

Problem	Causie	Remedy	
No photograph is taken when the shutter button is pressed.	The batteries are depleted. The Mode dial has been moved to another setting.	Replace the batteries. Set the Mode dial to the correct setting.	
You can't use the flash to take pictures.	The flash is set to Flash Off mode.	Set the flash to Auto, Red- Eye Reduction or Fill-in mode.	
The flash will not charge.	No compatible SmartMedia is loaded. The camera is set to Flash Off mode.	Load a new SmartMedia, erase a frame, or remove the write-protection. Set the flash to Auto, Red- Eye Reduction or Fill-in	
	• The battery is exhausted.	mode. • Load a new battery.	
The playback image is too dark even when the flash was used.	•The subject is too far away.	Move closer to the subject.	
The playback image is blurred.	The lens is dirty.	Clean the lens.	
I cannot format the SmartMedia.	The SmartMedia is write- protected.	Remove the write-protect seal.	
You cannot erase all the frames.	The frame is protected.	Remove the frame protection.	
Nothing happens when I use the camera buttons and switches.	Camera malfunction. The Mode dial has been	Remove the power source (batteries) and then reinsert them and try again. Set the Mode dial to the	
No image appears when I press the [DISP] button.	The video cable is being used for video output.	correct setting. • Disconnect the video cable.	
The flash operates even though I have selected Flash Off mode.	Synchro is set to ON in Manual mode.	• Set Synchro to OFF.	

Specifications

System

Model
Pickup Elements
Resolution
File format
Storage media
Number of frames
recorded
(Number of shots
available)
*Number of frames
recorded may vary
depending on the type
of subject in the images.

Digital Still Camera PDR-M1 1/2-inch square-pixel CCD (1.5 million pixels) 1280 × 1024 or 640 × 480 pixels JPEG-compliant (Exif Ver. 2.1) SmartMedia (3.3V or 5V)

Quality Mode	Compression Ratio	File Size*		2MB	4MB	8MB	1 6 MB
FINE 1/4	Approx.	650KB	2	5	12	24	
	Approx.	160KB	12	24	49	98	
NORMAL 1/8	Approx.	330KB	5	11	23	47	
	Approx.	85KB	22	45	91	183	
BASIC 1/16	Approx.	170KB	11	22	46	92	
	1/10	Approx.	50KB	39	80	160	322

* Top: 1280 × 1024 pixels * Bottom: 640 × 480 pixels

Viewfinder Lens Apertures Focus distance

Exposure control

Sensitivity White balance Electronic shutter Flash

LCD monitor Video output Self-Timer Erase modes Approx. 80%

f = 7.6mm (equivalent to 35mm on a 35mm camera)

F3.2/F8 (auto-selected)

Normal: 50cm (20inches) to infinity

Macro: 9cm (3¹/2inch) to 50cm (20inches) TTL 64-zone metering, program AE (exposure

compensation available in Manual mode)

Equivalent to ISO 100

Auto-selected (selectable in Manual mode)

Variable-speed, 1/4 to 1/1000 sec.

Auto-flash using flash control sensor

Effective range: Approx. 3m (Approx. 10feet)
Flash modes: Auto, Red-Eye Reduction, Fill-in, Flash Off

1.8-inch, D-TFD 70,000 pixels

NTSC (US/Canada model)/PAL (Europe model)

10 sec. timer

Single-frame erase; all-frame erase; SmartMedia formatting

Input / Output Terminals

Video Output Mini pin-jack (3.5mm dia.) (1), 1 Vp-p, 75Ω, unbalanced, synchronized negative (NTSC/PAL)

Digital (RS-232C/RS-422) Stereo mini-jack (2.5 mm dia.) (1) for image data transfer to and from a personal computer

DC Input Socket for connecting specified PDR-M1 AC adapter

Power Supply and Others

Power supply

No. of available frames Operating conditions

Camera dimensions (W/H/D) Camera mass (Weight)

Accessories Optional Accessories (sold separately) 4 AA-size long-life Minimum 1000 mAh Ni-Cd or alkaline batteries Or specified AC Power Adapter (sold separately) See P.60.

Temperature: 0° C to $+40^{\circ}$ C ($+32^{\circ}$ F to $+104^{\circ}$ F),

80% humidity or less (no condensation)

 $123 \times 82 \times 36$ mm $(4^{7}/8 \times 3^{1}/4 \times 1^{3}/8$ in.) (not including accessories and attachments)

Approx. 230 g (8.6oz.) (not including accessories, battery or SmartMedia)

See P.8. See P.62.

* These specifications are subject to change without notice.

✓ NOTE

Static electricity or strong raido interface (strong electric fields) may cause operation error (power on or off etc.). This is not a malfunction of the PDR-M1.