TOSHIBA

INSTRUCTION MANUAL MODE D'EMPLOI



DIGITAL STILL CAMERA PDR-M81

TOSHIBA INSTRUCTION MANUAL

To ensure that you use the Toshiba PDR-M81 Digital Still Camera safely and correctly, read this Instruction Manual carefully before you start using the camera. Once you have finished reading this Instruction Manual, keep it handy at all times.

DIGITAL STILL CAMERA

PDR-M81

In the space provided below, please record the m	lodel and Serial No. of your camera.
Model No. PDR-M81	Serial No
Please retain this information for future reference.	

For customers in the U.S.A.

DIGITAL STILL CAMERA PDR-M81



Tested To Comply With FCC Standards

FOR HOME OR OFFICE USE

FCC Statement

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

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

CAUTION

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.

TOSHIBA AMERICA INFORMATION SYSTEMS, INC.

Imaging Systems Division 9740 Irvine Boulevard, Irvine, California 92618-1697 Phone Number: (800)288-1354

For customers in Canada CAUTION

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Before Reading This Manual

Thank you for purchasing the Toshiba PDR-M81 Digital Still Camera.

To ensure that you use this camera safely and correctly, read this Instruction Manual carefully before you start using the camera. Once you have finished reading this Instruction Manual, keep it handy at all times.

Trademark Information

- Macintosh and QuickTime are trademarks 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.
- SmartMedia[™] is a trademark of Toshiba Corporation.
- Other companies or product names are trademarks or registered trademarks of the respective companies.

Conventions Used In This Manual

IMPORTANT

 Indicates items or details that you should observe to prevent loss of data, malfunction and impaired performance. Also indicates information relating to specifications and functions.

Memo

- Indicates extra useful information.
- Indicates another page to refer to for extra information.

There are various ways you can take photographs on the PDR-M81, by using the settings provided by the camera itself or by adjusting the settings to suit your particular photographic requirements.

In addition to photographic functions, the PDR-M81 is provided with other handy functions. We suggest that you look at the function map below before you start using the PDR-M81.

Read these pages first.

Let's get ready to use the PDR-M81. (P.19 to P. 38)

Let's learn about basic operation.

- Turning the Power ON (P. 38)
- Photography (P. 41)
- Playing Back Photographed Images (P. 80)
- Erasing Images (P. 87)

Taking photographs.

STEP1 – Taking photographs. (P. 41)

STEP2 – Leaving camera settings up to your camera. (P. 46)

- The camera automatically adjusts the focus and exposure settings. (P. 47, P. 49)
- Taking Portrait Shots (P. 47, P. 49)
- Taking Landscape Shots (P. 47, P. 49)
- Taking Shots of Moving Objects (P. 47, P. 50)
- Taking Shots of Portraits at Night (P. 47, P. 50)
- Taking Continuous Shots of Moving Objects (P. 47, P. 51)

STEP3 – Utilizing the various photography modes.

- Zoom Photography (P. 52)
- Focus Photography (P. 54)
- Photography Using the Self-timer (P. 55)
- · Photography Using the Flash (P. 56)
- Making Movies (P. 75)

STEP4 – Setting the modes in more detail to make your photographs turn out more as you intended.

- Setting Image Size and Quality (P. 44)
- Taking Shots with the Priority Given to Aperture (P. 58, P.63)
- Taking Shots with the Priority Given to Shutter Speed (P. 58, P.65)
- Extended Exposure Photography (P. 58, P.68)
- Compensating Exposure (P. 58, P.69)
- Automatic Exposure Bracketing (AEB Photography) (P. 58, P.71)
- Taking Photos Continuously (P. 58, P.72)
- Setting White Balance (P. 58, P. 60)

STEP1 - Let's play back some images. (P. 80)

STEP2 — Selecting the various ways to play back images.

- Plaving Back Movies (P. 81)
- Enlarging Photographed Images (P. 84)
- Auto Playback (P. 85)
- Simple Movie Playback (P. 86)
- Displaying a List of Images (P. 83)
- Displaying Detailed Information of Images (P. 116)

Setting the basic camera settings

- Setting the Date and Time (P. 111)
- Formatting SmartMedia™ (P. 91)
- Adjusting the LCD Monitor Brightness (P. 115)
- Switching LCD Monitor Display (P. 117)
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- Switching the Folder (P. 92)
- Setting the Color of Images (Color/Black and White/Sepia) (P. 77)
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- Changing the LCD Monitor Display Language (P. 112)

Erasing images

STEP1 - Erasing Images (P. 87)

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- Erasing All Images in a Folder (P. 89)
- Erasing All Image Folders (P. 89)
- Formatting SmartMedia™ (P. 91)

You can also do this

-The PDR-M81 also has lots of other features.-

- Protecting Images (P. 106)
- Changing the size of Images (P. 94)
- Compressing Images (P. 96)
- Copying Images to another SmartMedia[™] (P. 98)
- Print Information (P. 102)
- Displaying Detailed Information of Images (P. 116)
- Switching LCD Monitor Display (P. 117)
- Taking and Playing Back Photographs on a TV (P. 119)

Loading images on a personal computer

Loading Images on a Personal Computer (P. 121), separate "Software Manual"

Taking otographs

Playing k Images

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Safety Precautions

Setting Ready

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Playing ack Imag

Erasing Images

Handy

Omer Application:

Additional nformation Read these safety precautions carefully before using the PDR-M81. These instructions contain valuable information on safe and proper use that will prevent harm and damage to the operator and other persons. Make sure that you fully understand the following details (indications) before proceeding to the main descriptions in this manual.

Indication definitions

Indication	Meaning	
△ DANGER	This indicates the existence of a hazard that could result in death or serious bodily injury, if the safety instruction is not observed.	
△ WARNING	This indicates the existence of a hazard that could result in bodily injury, if the safety instruction is not observed.	
△ CAUTION	This indicates the existence of a hazard that could result in bodily injury 1 or property damage 2.	

- *1: "Bodily injury" means injuries, burns, and shock which does not require hospitalization or prolonged treatment.
- *2: "Property damage" means extended harm to home, household effects, domesticated animals, and pets.

Graphic symbol definitions

Graphic symbol	Meaning
\Diamond	Indicates a prohibited action that must not be carried out. The actual prohibited action is indicated in the symbol or nearby graphically or described in text.
	Indicates a necessary action that must be carried out. The actual necessary action is indicated in the symbol or nearby graphically or described in text.

Exemption Clauses

- Toshiba Corporation bears no responsibility in the case of damages arising from earthquakes, fire not liable to Toshiba Corporation, operating by third parties, other accidents, or use under abnormal conditions including erroneous or improper operation and other problems.
- Toshiba Corporation bears no responsibility for incidental damages (lost profit, work interruption, corruption or loss of the memory contents, etc.) arising from the use of or the inability to use this unit.
- Toshiba Corporation accepts no liability whatsoever for any damages arising from not having followed the descriptions in this Instruction Manual.
- Toshiba Corporation accepts no liability whatsoever for any damages arising from malfunctions arising from combination with equipment or software that is not related to Toshiba Corporation.

Do not heat, disassemble or throw the batteries into fire or water.

Doing might cause them to rupture, ignite or heat up, resulting in fire or major injury.



Do not strike the batteries with a hammer. or step on, drop or subject the batteries to strong impact.



Doing so might cause them to rupture, ignite or heat up, resulting in fire or major injury.

Use the batteries only for its originally intended purpose.



Using the batteries for any other purpose might cause it to rupture, ignite or heat up, resulting in fire or major injury.



Safety Precautions (continued)

Setting Ready

Taking

ack Imag

Erasing

Handy nctions

Other Application

Additional Information

WARNING

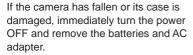
Should you ever notice smoke, a strange odor or excessive heat coming from the camera, immediately turn OFF the power and remove the batteries and AC adapter.



Continued use in this state might cause fire, electric shock or burns. For details on repair, consult the store of purchase, or please contact the technical support number.

If foreign objects or water have entered the camera, immediately turn the power OFF and remove the batteries and AC adapter.

Continued use in this state might cause fire or electric shock. For details on repair, consult the store of purchase, or please contact the technical support number.



Continued use in this state might cause fire or electric shock. For details on repair, consult the store of purchase, or please contact the technical support number.

WARNING (continued)

Do not place the camera on inclined or unstable surfaces.



This might cause the camera to fall or tilt over.





This might cause fire or electric shock. Take special care during rain, snow, on the beach or near the shore.



Do not use the camera in the bath or shower.



This might cause a fire or electric shock.

Do not allow metallic objects or other flammable foreign matter inside the camera.



This might cause a fire or electric shock. Do not open the SmartMedia™ cover, and insert or allow such objects to fall inside.



This might cause fire or electric shock. For details on repair and internal inspection, consult the store of purchase, or please contact the technical support number.



children. If a child swallows a battery, this might result in poisoning. If a child swallows a battery,

Keep the batteries out of the reach of

immediately consult a physician.

If battery fluid enters the eyes,



Do not touch power or TV antenna cords during a thunderstorm.

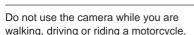
This might cause electric shock.



treatment. If left untreated, damage to the eye could be permanent.

immediately rinse with fresh water and

consult with a physician to receive



This might cause you to fall over or result in a traffic accident.



Use the AC adapter only with the indicated power supply voltage (USA: 100-120V, Europe: 230V AC)



Use only the specified batteries or the specified AC adapter.

Use of a battery or AC adapter other than specified, might cause fire, defects or malfunctions.



Use with any other power supply voltage might cause fire or electric shock.



Safety Precautions (continued)

ACAUTION

CAUTION (continued)

If you want to use the camera on an airplane, consult with the airline and follow their instructions.



Before you move the camera, disconnect cords and cables.



Use of this camera is sometimes restricted due to potential radio interference.

Do not use the camera in humid, steamy,



Failure to do this might damage cords and cables, resulting in fire or electric shock. Do not drop or subject the camera to



This might cause fire or electric shock.

smoky or dusty places.



This might cause fire, electric shock or malfunctions



Do not leave the camera in places where the temperature may rise significantly, such as inside a car.



Before you carry out maintenance on the camera, remove the battery and AC adapter.



This might adversely affect the case or the parts inside, resulting in fire.



Leaving these attached might cause electric shock.



Do not wrap the camera or place it in cloth or blankets.



Remove the batteries and AC adapter if you plan not to use the camera for a long time.



This might cause fire.

strong impact.

This might cause heat to build up and deform the case, resulting in fire. Use the camera in a well-ventilated place.

Insert the batteries paying careful attention to the polarity (+ or -) of the terminals.



Inserting the batteries with its polarities inverted might cause fire and injury, or damage the surrounding areas.

CAUTION (continued)

CAUTION (continued)

Do not charge the supplied batteries.

Doing so might cause them to rupture, ignite or heat up, resulting in fire or major injury.



Do not look at the sun through the camera viewfinder.

This may cause injury of the eyes.



Do not leave dead or exhausted batteries in the camera.

Doing so might cause them to rupture, ignite or heat up, resulting in fire, major injury or damaging the camera.



Do not use the flash close to anvone's eves.

This might cause damage to the person's eyesiaht.



Do not use different types of batteries together, or mix old and new batteries.

Doing so might cause them to rupture, ignite or heat up, resulting in fire or major injury or damaging the camera.



Do not subject the LCD monitor to impact.

If the LCD monitor is impacted, the glass on the screen may be broken and internal fluid may leak



If the internal fluid enters your eyes or comes into contact with your body or clothes. immediately rinse with fresh water. If the internal fluid enters your eyes, immediately consult a physician to receive treatment.



Do not walk around with the camera swinging from the shoulder strap.

If you walk around with the camera hanging from your hand through the shoulder strap, the camera might come into contact to other people and cause injury, or damage to the camera or other objects.



Consult your dealer regarding the internal cleaning of the camera once every two vears.

If dust is allowed to accumulate inside the camera for a long time, this might result in fire or defects. Consult your dealer regarding the cleaning costs.



Notes On Handling Your Camera

When you use your camera, carefully read and strictly observe the Safety Precautions from page 8 onwards and the notes described below.

• Avoid using or storing the camera in the following places:

- · Places subject to humidity, dust and dirt
- Places subject to direct sunlight
- · Places subject to high or low temperature
- · Places filled with highly flammable gas
- · Places near gasoline, benzene or paint thinner
- · Places subject to strong vibrations
- · Places subject to smoke or steam
- · Places subject to strong magnetic fields (such as electric motors, transformers or magnets)
- Places contacting chemicals such as pesticides or next to rubber or vinyl products for long periods

Do not expose the camera to sand or dust.

The PDR-M81 is particularly sensitive to sand and dust. If the camera comes into contact with sand or dust, not only will the camera become damaged, it will also no longer be repairable.

Pay special attention when using the camera at the beach or where sand or dust is likely to be present.

Notes On Condensation

Due to a sudden change in temperature, such as when you move the camera from a cold location to a warm one, 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 $^{\text{TM}}$ card. If this happens, remove the SmartMedia $^{\text{TM}}$, wipe off any condensation and wait a short time before using it again.

Using Your Camera Correctly (continued)

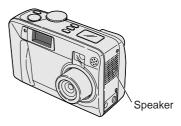
Carrying Out Maintenance on Your Camera

- To prevent the lens, surface of the LCD monitor or viewfinder from being scratched, blow off any dust from these parts with a blower brush and lightly wipe with a soft dry cloth.
- Clean the body of the camera with a soft dry cloth. Do not use volatile liquids such as paint thinner, benzene or insecticide, as these may react with the camera body and cause deformation or remove the coating.

Cautions on Magnetism

 Please note that credit cards, cash cards, magnetic commutation tickets, floppy disks and the like are susceptible to magnetism.

Do not bring them close to the speaker of the camera. Failure to do so may cause damage to data, which could make the camera unserviceable.



Notes On Batteries

- To extend the use of the camera, we strongly recommend that you only use the following types of batteries:
 - Nickel Metal Hydride [NiMh] (Extended Life, Rechargeable)
 - Lithium (Extended Life, Not Rechargeable)
- Battery performance in general (especially Alkaline) may vary depending on individual brand, length of storage since manufacture, temperature, and operating mode of the digital camera, such as play back using LCD and strobe. Low temperatures (50 degrees Fahrenheit/10 degrees Celsius or below) can also affect the performance of the battery and decrease the number of pictures taken when compared to picture taking in warmer conditions.
- The supplied Alkaline batteries are only for operation check when you buy your camera, so the battery life may be short.
- The use of manganese type batteries is not suitable for this product due to the low number of pictures that can be taken with this type of battery.
- When the camera is not in use for an extended period, please remove the batteries from the camera to extend battery life, and to prevent damage such as battery leakage. (Once the batteries have been removed from the camera, you will need to re-set the date and time within the SETUP MENU.)

Notes On Handling Batteries

↑ WARNING

When you use the battery, carefully read and strictly observe the warnings and cautions indicated on the battery.

Failure to do this might cause battery to rupture, ignite or heat up, resulting in fire, major injury or damaging the camera.

■ About Battery Use

- · Do not use batteries other than that specified.
- · Do not insert batteries in the wrong direction.
- · Do not charge, heat, open, or short-circuit the batteries. Do not throw batteries into fire.
- Do not charge the supplied batteries.
- When using rechargeable batteries, follow the instructions for the batteries and the charger for safe handling. (This camera can not charge the rechargeable batteries.)
- Do not leave dead or exhausted batteries in the camera.

Neglecting the above may cause battery leakage and corrosion, resulting in burns or injury. If your fingers or clothes come into contact with the battery acid, wash them immediately. If your eyes come in contact with battery acid, wash them and immediately consult your doctor.

Notes On Handling the AC Adapter

Be sure to use only the specified AC adapter (PDR-ACM1A for the US/Canada, PDR-ACM1E for Europe, PDR-ACM1U for the UK) (sold separately). Using a different AC adapter might cause the camera to malfunction. When you use the AC adapter, carefully read and strictly observe the Safety Precautions from page 8 onwards and the notes described below.

- Be sure that you do not allow the AC adapter to contact any other metal object as this might cause a short circuit.
- To connect the AC adapter, firmly insert the plug on the end of the cable into the DC IN 5V terminal.
 Do not insert the plug into other terminals. This might cause the camera to malfunction.
- Before you disconnect the connector cable, turn the camera OFF and then disconnect the cable
 holding it by its plug. Do not disconnect the connector cable by pulling the actual cable.
- · Do not drop the AC adapter or subject it to strong impacts.
- · Do not use the AC adapter in very hot and humid locations.
- Do not plug in the AC adapter while you are using the battery. Switch the camera OFF first.
- · The AC adapter is for indoor use only.
- · Use only the specified AC adapter. Do not use other AC adapters.
- The AC adapter may sometimes become warm during use. This is normal and not a malfunction.
- Buzzing or whirring noises may come from inside the camera. This is normal and not a malfunction.
- Do not use the AC adapter near a radio as it could interfere with radio signal reception.
- If you remove the battery or AC adapter while the camera is in operation, the date may be lost from memory. If this happens, reset the date. (Page 111)

Accessories

Make sure that you have all of the items below before you start using your camera.

Alkaline batteries (4) (size AA)



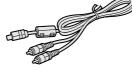
AV cable (1)



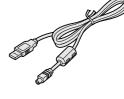
USB cable (1)



Shoulder strap (1)



Camera case (1)



Lens cap (1)





SmartMedia[™] (8MB) (1)

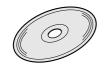




• Instruction Manual (this manual)

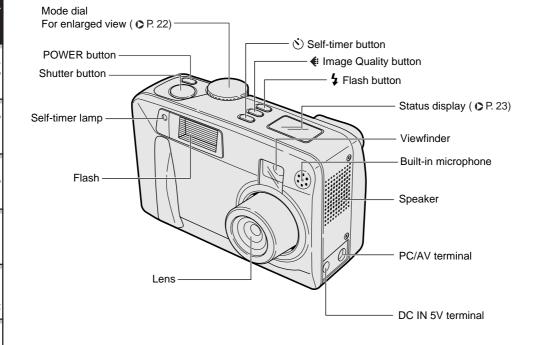




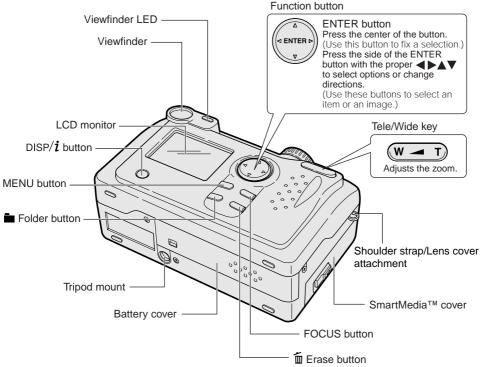




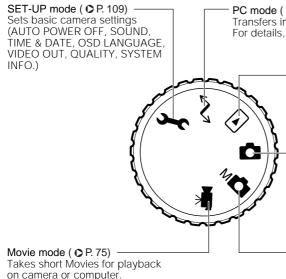




Names of Parts (continued)



Mode dial



PC mode (P. 121)

Transfers images to a PC. For details, refer to the Software Manual.

Playback mode (P. 80)

In this mode, yoù can sélect image playback, copy, size change, compression, protect mode, and writing of development (printing) information.

Auto Photography mode (P. 41, 46)

This mode enables automatic photography in accordance with the photographic conditions

In this mode, the exposure (combination of shutter speed and aperture) is automatically controlled to facilitate photography.

Manual Photography mode (P. 58)

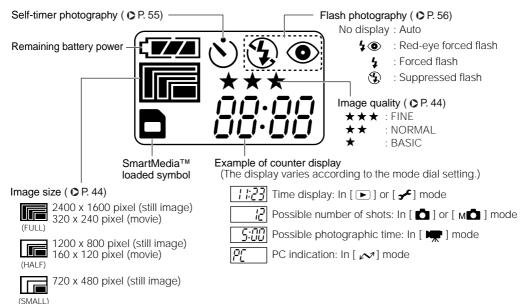
Manually sets white balance, exposure. aperture value, shutter speed and AE (auto-exposure) position.

Names of Parts (continued)

Status display

This display indicates the camera's status. You can verify the camera's status even if the LCD monitor is not on.

The text, numbers and icons that are displayed in the status display vary according to the setting.



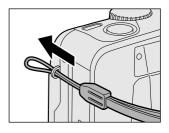
Attaching the Shoulder Strap

This shoulder strap is handy for carrying your camera around.

To prevent your camera from dropping during photography, hang the shoulder strap around your neck.

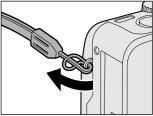


Pass the end of the shoulder strap through the strap attachment on the camera.





Pass the shoulder strap through the loop and pull.



IMPORTANT

- When the camera is not in use, be sure to attach the lens cap provided with your camera.
- The lens cap can also be attached to the strap attachment following the above steps to prevent it's being lost.
- Turn off the power to retract the lens unit, and then attach the lens cap.
- Do not turn the power on with the lens cap attached.

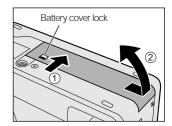
Installing the batteries

This camera uses four size AA batteries. For details on handling batteries, be sure to read page 16.

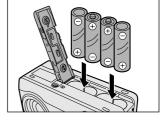
Loading the Batteries

IMPORTANT

- Before you load or remove the batteries, be sure to turn the camera off. If the battery is loaded or removed with the power on, the date setting may return to its default or the camera settings may be reset. (SET-UP ◆ Page 109, Manual Photography ◆ Page 58)
- Unlock the battery cover ①, slide it, and open ②.



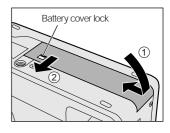
Load the batteries in the battery compartment making sure that it is loaded in the correct direction as shown in the figure on the right.





Close the battery cover, slide it $\textcircled{\scriptsize 1}$, and lock $\textcircled{\scriptsize 2}$.

Make sure that the battery cover is firmly closed.



Removing the Batteries

Reverse the procedure for "Loading the Batteries" and remove the batteries.

Installing the batteries (continued)

Battery Wear

When the power is ON, the remaining battery power is displayed on the LCD monitor and the status display.

LCD Monitor	Status Display	Remaining Battery Power
		Sufficient battery power
		Batteries are partially used.
		Battery power is nearing exhaustion. Replace with new batteries.
	C	Batteries completely exhausted. (Camera will not turn on.) Replace with new batteries.

Memo

- When you use the camera for the first time or if you have left the camera for a long time without the battery loaded, set the date (**○** Page 111).
- If the batteries are exhausted and need replacement, do not connect the AC adapter. It may cause an incorrect display of remaining battery power.
- Battery power measure is based on amount of power required for camera LCD, flash, photography
 and playback. Status Display may show batteries exhausted if there is not enough power required for
 normal operation, even if there is some small power left in the batteries.
- · About the battery duration time

The following shows the number of frames/time capable of continuous photographing and playback on condition of using new alkaline batteries.

The battery duration time may vary depending on environmental temperature, image size, image quality or using frequency of zoom.

In photography mode (using strobe every time in a normal temperature)

When LCD monitor is ON approx. 240 frames

When LCD monitor is OFF approx. 300 frames

In playback mode (slideshow continuous playback time)

approx. 110 min.

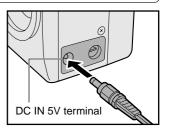
If you use the AC adapter (sold separately: PDR-ACM1A for the US/Canada, PDR-ACM1E for Europe, PDR-ACM1U for the UK) in a room with a power outlet, you can take photographs for an extended period of time. This also prevents failed photographs due to battery wear or failed transfer of data to a PC. For details on handling the AC adapter, be sure to read page 18.

IMPORTANT

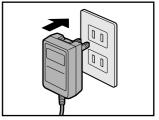
 Before you connect or disconnect the AC adapter, be sure to turn the camera OFF. If the AC adapter is connected or disconnected with the power ON, camera settings may be reset (SET-UP ◆ Page 109, Manual Settings ◆ Page 58) or the camera may malfunction.



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



Insert the AC adapter power plug into the power outlet.



* The above AC adapter is US/Canada type. European and UK type AC adapters differ in shape.

Using the Power Outlet (continued)

Memo

- When the AC adapter is connected after the batteries have been installed, the camera lens unit automatically retracts and the power turns off. Please turn on the power again to resume operation.
- Batteries can be installed while the AC adapter is connected. However, if the AC adapter is disconnected after the batteries have been loaded, the camera power is automatically turned off but the lens will remain extended. If this happens, please turn on the power to resume operation.

"SmartMedia™" is a storage medium for saving images that you have photographed. Even if the camera's power is turned OFF, the images saved on the SmartMedia™ will not be erased. SmartMedia™ can be repeatedly erased and reused.

SmartMedia[™] having the following storage capacity can be used on your camera.

2MB /4MB/8MB/16MB/32MB/64MB/128MB (all 3.3 V types)

You can also connect the PC card adapter and floppy disk adapter (\mathbf{O} Page 123) sold separately to transfer images to a PC.

Notes on SmartMedia™

- Remove and insert SmartMedia[™] with the camera's power turned off.
- Recorded data may be erased (destroyed) in the situations listed below. Note that Toshiba Corporation accepts no responsibility whatsoever for the loss (destruction) of recorded data in these situations:
 - When the SmartMedia™ is used incorrectly by the user or a third party
 - When the SmartMedia™ is exposed to static electricity or electrical noise
 - When the SmartMedia[™] is removed or the camera is turned off while recording data, erasing data, frame advance when images are being played back or during formatting of the SmartMedia[™].
- We recommend copying and saving important data onto another storage medium (floppy disk, hard disk, MO disk, etc.).
- Never remove the SmartMedia[™] or turn the camera off while recording data or while erasing data (SmartMedia[™] formatting). These actions might damage the SmartMedia[™].
- Use only the SmartMedia[™] specified for use with the PDR-M81. The use of other SmartMedia[™] could damage the camera.
- SmartMedia[™] is a precision electronic device. Do not bend, drop, or subject SmartMedia[™] to
 excessive shocks. Also, do not carry SmartMedia[™] in the pocket of trousers. This might subject the
 SmartMedia[™] to excessive force when you sit down, damaging the SmartMedia[™].
- Do not use or store SmartMedia[™] in environments likely to be affected by static electricity or electrical noise.
- Do not use or store SmartMedia™ in very hot, humid or corrosive environments.

About SmartMedia™ (continued)

- Take care not to touch the SmartMedia™'s electrodes (metal contacts) or allow the electrodes to become soiled. Use a dry lint-free cloth to wipe away any dirt.
- To avoid damage caused by static electricity during transportation or storage, always use the special static-free case provided.
- If you are not using the camera for a long period of time, remove the SmartMedia[™] and store it in a safe place.
- Inserting a SmartMedia[™] that is charged with static electricity into your camera may cause it to malfunction. If this occurs, switch the camera OFF and then ON again.
- The SmartMedia[™] may feel warm when it is removed from the camera after the camera is used for a long time. This is normal and not a malfunction.
- The SmartMedia[™] has a limited service life. If images can no longer be written or erased, buy a new SmartMedia[™].
- Use the index labels provided with the camera. If you attach a commercially available label, it may
 cause a malfunction when the SmartMedia™ is loaded or removed.

Loading SmartMedia™



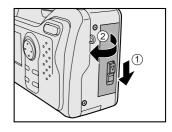
Press the POWER button to turn the power off.

□ Turning the Power Off Page 38

2)

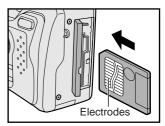
Slide the SmartMedia™ cover release knob in the direction of the arrow ① to open the cover ②.

The cover opens (2)



Gently insert the SmartMedia[™] as far as it can go with the SmartMedia[™] electrodes (metal contacts) facing the rear of the camera.

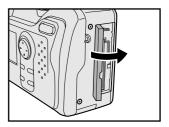
Firmly insert the SmartMedia[™] as far as it can go.



4)

Close the SmartMedia™ cover.

Before you use a new SmartMediaTM for the first time, be sure to format the SmartMediaTM (\mathbf{O} Page 91).



About SmartMedia™ (continued)

Removing SmartMedia™

IMPORTANT

 Never open the SmartMedia[™] cover or remove the SmartMedia[™] while data is being recorded to the SmartMedia[™] (viewfinder LED is lit red). This might damage the SmartMedia[™] or corrupt the data on the SmartMedia[™]



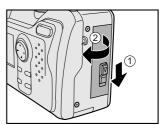
Press the POWER button to turn the power off.

Turning the Power Off ▶ Page 38



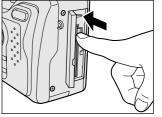
Slide the SmartMedia[™] cover release knob in the direction of the arrow ① to open the cover ②.

The cover opens 2.



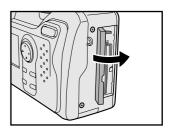


If you push $SmartMedia^{TM}$ once in as far as it can go, it will protrude slightly. Pull it out with your fingers.



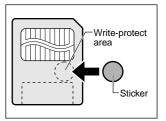
4 Close the S

Close the SmartMedia™ cover.



Write Protection

To prevent valuable data from being erased, attach the write-protect sticker at the write-protect area. Data can no longer be recorded or erased from SmartMedia $^{\text{TM}}$. To write or erase data from SmartMedia $^{\text{TM}}$, peel off the sticker.



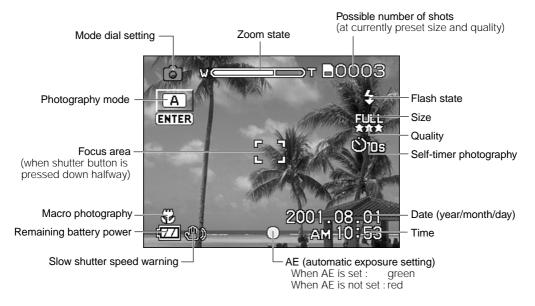
IMPORTANT

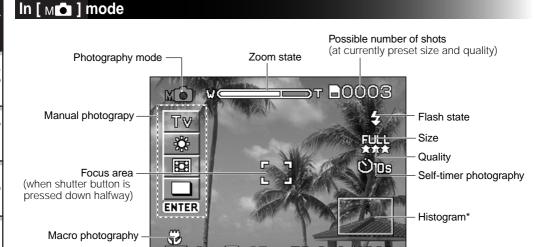
• The write protection may not function if the write-protect sticker becomes dirty. Use a soft dry cloth to wipe away any dirt. Once a sticker is peeled off, do not reuse it.

LCD Monitor Display (during photography)

The text, numbers and icons that are displayed on the LCD monitor vary according to the current settings. The LCD monitor automatically turns ON if necessary even if it is set to OFF. For details on the [] playback mode, see page 116.

In [🗖] mode





* Histogram

Slow shutter speed warning -

Exposure compensation -

Remaining battery power

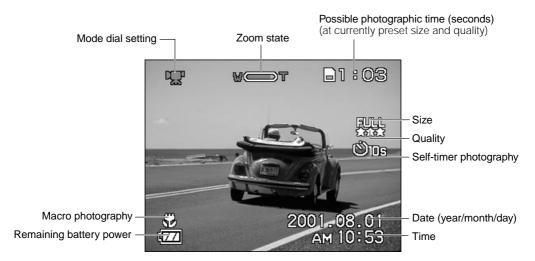
A histogram is a graphic representation of the tones of the subject. The horizontal axis of the histogram shows the brightness (increasing brightness from left to right) and the vertical axis shows the number of pixels at each brightness level.

Aperture

Shutter speed

LCD Monitor Display (during photography) (continued)

In [🖛] mode



- The size of the data to be recorded varies according to the amount of detail in the subject image. So, the number of images that can be photographed after an image is recorded sometimes doesn't decrease.
- The display is momentarily interrupted after recording an image or the mode is switched. This does not affect photography.

Turning the Power On



Make sure that the SmartMedia™ is correctly loaded. (○ Page 31)

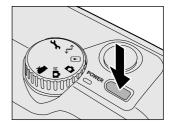


Press the POWER button to turn the power on.

When the camera is turned on, set the mode dial to the desired mode.

Before photography, make sure that the lens cap has been removed from the camera.

When the camera is turned on, the Auto Power OFF function becomes operational.



IMPORTANT

If no operation is carried out for a fixed amount of time (default: about 1 minute), the power is turned
off to preserve battery life. This is called "Auto Power OFF". To return to the normal state, press the
POWER button again.

About the Auto Power OFF Function • Additional Information, "AUTO POWER OFF (page 110)"

Turning the Power Off



Press the POWER button to turn the power off.

The power turns off.

Attach the lens cap when you are not using the camera.

How to Hold Your Camera

When taking a photograph, hold the camera firmly and prevent your finger or shoulder strap from covering the lens, flash or flash sensor.

Right

Camera held with both hands with your arms firmly held against the sides of your chest



Wrong

Fingers held over the lens



The shutter button can be pressed down in two stages: halfway down and fully down. When pressed halfway down, AF (auto-focus) and AE (auto exposure) are set. When pressed fully down, the camera takes a picture.



Press the shutter button down halfway 1.

AF (auto-focus) and AE (auto exposure) (Additional Information, Glossary) start to function.

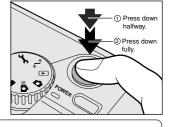
When AF or AE are locked, the beep tone (O Page 111) sounds and the viewfinder LED turns green.



Press the shutter button down fully 2.

The camera takes a picture.

The viewfinder LED turns red while image data is being recorded onto the SmartMedia $^{\rm TM}$.



IMPORTANT

Never open the SmartMedia[™] cover or remove the SmartMedia[™] while an image is being recorded. This
may corrupt the data on the SmartMedia[™] or damage the SmartMedia[™] itself.

- The image in the LCD monitor sometimes darkens from the time that the shutter button is pressed down halfway until the image becomes focused.
- To set the focus or exposure for a subject outside the center of the intended image, point the camera directly
 at the subject or desired exposure (lighting), press and hold the shutter button halfway. Now, with the shutter
 button still held halfway down, you can turn the direction of the camera and frame your image with the focus
 and exposure locked. Press the shutter button down fully to complete capturing of the image.
- · Moving the camera as you press the shutter button will result in a blurred image.
- The PDR-M81 uses an accurate auto focus mechanism. However, the PDR-M81 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
 - Extremely low contrast subjects
 - Subjects that have low contrast and 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)
- Subjects with little reflection, such as hair or fur
- Subjects with no solidity, such as smoke or flames
- Subjects viewed through glass
- If the image cannot be focused, the focus is automatically fixed to infinity. (When the flash is necessary at this time, it is simultaneously fixed to illuminate objects 1.5 meters (five feet) away. During macro photography, the flash is aligned with the wide position.)

Photography (Auto Photography)

This is the most commonly used photography mode.

In this mode, exposure (combination of shutter speed and aperture) is automatically controlled to facilitate photography. There are two ways of taking photographs in this mode: using the viewfinder and using the LCD monitor.

Using the Viewfinder



Get ready to take the photograph.

Loading the batteries (${\color{red} o}$ Page 25) and the SmartMedia $^{\!\scriptscriptstyle TM}$ (${\color{red} o}$ Page 31) into the camera.



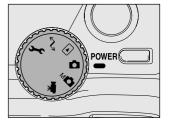
Press the POWER button to turn the power on.

Turning the Power On Page 38



Set the mode dial to [🗖].

Remove the lens cap beforehand. If not, an error message will be displayed. (• 129)





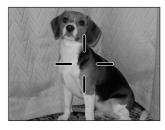
Turn the LCD monitor OFF. (C) Page 117)

To reduce the amount of battery wear, we recommend turning the LCD monitor display OFF, and using the viewfinder to take photographs.

5 Lool

Look through the viewfinder to compose the picture.

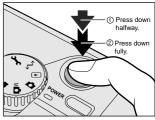
If you use the viewfinder to take photographs, the photography range may differ from the actual image. In this case, use the LCD monitor for photography.





Press the shutter button down halfway 1, and press it down fully 2.

- Pressing the shutter button down halfway adjusts the exposure, and pressing the shutter button down fully takes the shot.
- If you shoot a still picture, when preview is set to ON (OP Page 77), the recorded image is displayed on screen for about two seconds.
- The viewfinder LED turns red while image data is being recorded onto the SmartMedia™.



Using the LCD Monitor



Get ready to take the photograph.

Loading the batteries (◆ Page 25) and the SmartMedia™ (◆ Page 31) into the camera.



Press the POWER button to turn the power on.



Look at the image on the LCD monitor to compose the picture.

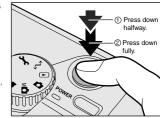
To adjust the brightness of the LCD monitor • Page 115





Press the shutter button down halfway ①, and press it down fully ②.

- Pressing the shutter button down halfway adjusts the exposure, and pressing the shutter button down fully takes the shot.
- When the focus and exposure are correctly adjusted, the viewfinder lamp lights (green), and the AF icon turns green.
- If you shoot a still picture, when preview is set to ON (Page 77), the recorded image is displayed on screen for about two seconds.
- The viewfinder LED turns red while image data is being recorded onto the SmartMedia™.



Memo

• The LCD monitor sometimes displays bright, dark or colored spots at all times. This is not a malfunction. These spots do not appear in the photographed image.

Set the size (number of pixels) and quality (compression ratio) of the image to be photographed. Change the setting according to how the image is to be used and the remaining amount of space in the SmartMedia $^{\text{TM}}$



Set the mode dial to [🗖] or [M🗖].

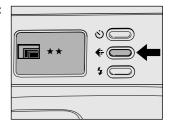
Press the

image quality button to select the preset quality and size, while viewing the indication on the status display.

To set the quality and size O Page 112

Pressing the \P image quality button switches the quality and size settings in the following order.





Default setting:

Setting 1 : $\star\star$ (FULL $\star\star$)

Setting 2 : $\star\star$ (HALF $\star\star$)

Setting 3: $\star\star$ (SMALL $\star\star$)

When the above settings are made, they are displayed in the following order.



Setting the Image Size and Quality (continued)

<Quality>

[★★★] FINE : 1/5 (JPEG) compression [★★] NORMAL: 1/7.5 (JPEG) compression [★] BASIC : 1/15 (JPEG) compression

(still image)

The more stars there are, the better image quality becomes. Higher quality images, however, take up more memory space, reducing the number of images that can be taken or the possible photographic time.

<Size>

[] FULL : 2400 x 1600 pixel (still image), 320 x 240 pixel (movie)

[] SMALL : 720 x 480 pixel (still image)

The larger size improves the quality of the image. Higher quality images, however, take up more space, reducing the number of images that can be taken or the possible photographic time.



Take the photograph.

For details on how to take photographs • Photograph

- To make the image smaller, it is more effective to reduce the size first and then reduce image quality.
- After you have taken a photograph, you can reduce its size (Page 94) and quality (Page 96).
- The memory size of the image varies according to the subject.
- The compression ratio is given for reference only.

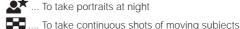


This mode enables automatic photography according to the photographic conditions. Photographs can be taken easily in this mode as the camera automatically makes the setting suitable to the conditions.

The Auto Select mode has the following options. Choose the option to suit the image you want to photograph. For a detailed description of each option, refer to page 47 through page 51:



The camera automatically adjusts the focus and exposure settings.



... To take portraits at night

saved as a single image.

The 16 shots that you take in this mode are



.... To take portraits



... To take landscape shots



... To take photographs of fast-moving subjects

In the Auto Select mode, there are some settings that cannot be changed as the camera makes the settings automatically. These settings vary according to the mode.

Focus photography



Exposure compensation



About flash photography

Flash can be set as required in this mode. Automatically fixed to red-eye auto Automatically fixed to slow synchro

About burst photography



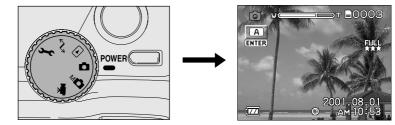
. Flash photography is not possible.

Taking Photographs in a Variety of Modes ([SCENE▶] Mode)

Set the appropriate scene mode from: [A] automatically adjusts the focus and exposure settings, [A] portrait, [A] landscape, [X] sports, [X] night, [A] multi photography mode options.



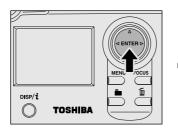
Set the mode dial to [🗖].





Press ENTER.

[$\textbf{SCENE} \blacktriangleright$] is displayed on the LCD monitor.





Press ► to display option menu, press ▲ or ▼ to select options and press ENTER.

Pressing ENTER selects the setting. To cancel, press ◀.

[A] Automatically adjusts the focus and exposure settings • Page 49

[A] Portrait • Page 49

[🛕] Landscape 🗘 Page 49

[💸] Sports 🕻 Page 50 [🎎] Night 🌣 Page 50

] 16-frame multi • Page 51





Press ENTER.

The icon of the selected mode is displayed on the upper left side of the LCD monitor. The camera is ready to take photographs.



Compose the picture, press the shutter button down halfway, and press it down fully. O Page 41

The camera takes the picture.

- Optimum print effect for a selected scene is available by using a PRINT Image Matching compatible printer.
 - PRINT Image Matching Additional Information, Glossary (page 134)

[🚨] Portrait

Select this option to make people stand out with the background out-of-focus.



[🛕] Landscape

Select this option to take photographs of distant scenery or landscapes.



[🤻] Sports

Select this option to take photographs of fast-moving subjects.



[🚁] Night

Select this option to take photographs of people against a dusk or night-time background.

- When the Night mode is selected, the flash mode is fixed to Slow Synchro (the flash is fired at a slower shutter speed.)
- If you take a photograph with a dark background or at a dark place, the shutter speed slows down, and the slow shutter speed warning is displayed. (When the shutter is pressed halfway down, the viewfinder LED blinks green and the slow shutter speed mark [[™]]) is displayed in the LCD monitor.) To prevent distorted image, we recommend using a tripod to keep the camera stable.



This mode takes 16 shots continuously at 0.13 second intervals (7.5 frames/second). The 16 photographed images are saved as one image (FULL size: 2400 x 1600 pixels).

This mode is effective for continuously photographing moving subjects.



- Though zoom playback is not possible, playback of multi image pictures (Page 86) is possible.
- · Digital zoom photography is not possible.
- Photographs cannot be taken at HALF size or SMALL size. When HALF size or SMALL size is set before you select multi photography, the setting is automatically changed to FULL size. When multi photography is canceled, the setting returns to HALF size or SMALL size.

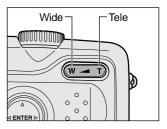
Zoom photography allows you to take zoom shots up to 2.8 times the size or wide-angle photography depending on the distance up to the subject. You can also enlarge the center of the screen and take photographs in the digital zoom mode with the focal distance increased by a factor of 2.2.



Set the mode dial to [🗖] or [M🗖].

Compose the picture using the Zoom switch key.

- Pressing the Zoom switch towards the "T" zooms in on the subject, and enlarges the subject on the LCD monitor.
- Pressing the Zoom switch towards the "W" provides a wider angle picture.
- The lens position moves according to the Zoom switch setting.



Memo

• In movie mode, only the 2.2X digital zoom photography is possible.

Zoom Photography (continued)

Digital Zoom Photography

To set the digital zoom:

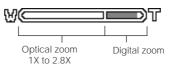
- Press the MENU button.
- ② Use ▲ or ▼ to select [DIGITAL ZOOM] and press ▶.
- ③ Use ▲ or ▼ to select [APPROVED] and press ENTER.
- 4 Press the MENU button.
- ⑤ To activate digital zoom, press the Zoom switch completely towards the "T" and hold it until the image on the LCD expands.



Press the shutter button down halfway, and press it down fully. © Page 40

Memo

- The digital zoom photography is canceled by pressing the pisp/i button to turn the LCD monitor off. On the LCD monitor display off status, the digital zoom photography is not possible as well.
- The digital zoom photography is not possible in the 16-frame multi mode.
- The Zoom switch setting is automatically canceled by either turning the camera OFF or by activation
 of the Auto Power OFF function.
- · You can check the zoom status in the LCD monitor.



• In movie mode, only the 2.2X digital zoom photography is possible.

The macro photography mode is used when the distance to the subject is between 10 cm (0.33 ft) (WIDE side setting) to 80 cm (2.62 ft).

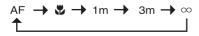
This camera cannot focus on subjects within 10 cm (0.33 ft) (WIDE side setting) to 80 cm (2.62 ft) unless in the macro photography mode. Though photographs can be taken even at a distance of about 80cm (2.62 ft) or more in the macro photography mode, it may take time for the camera to focus.

In the macro photography mode, you can not turn the LCD monitor off.

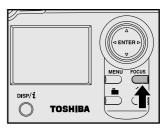


Press the FOCUS button.

When you press the FOCUS button, the focus modes are displayed in the following order on the LCD monitor.



When "1m" or "3m" is set, the camera will focus on subjects in a distance of 1m (3.28 ft) or 3m (9.84 ft) to take photos.





Press the FOCUS button repeatedly until the [🖏] icon appears.



Look at the image on the LCD monitor to compose the picture.

Solution Street S



Press the shutter button down halfway, and press it down fully. ${\tt C}$ Page 40

Memo

 Macro photography is not canceled even if the camera is turned off or the Auto Power OFF function is activated.

Self-timer Photography

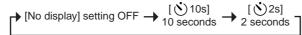
When the self-timer is used, the camera automatically takes a picture after the preset time (2 or 10 seconds).

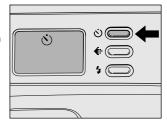


Set the mode dial to [♣] [M ♠] or [♣].

Press the 🖒 self-timer button while viewing the status display area.

When you press the self-timer button, the following are displayed in order on the LCD monitor







Compose the picture.

The self-timer LED lights red, and then flashes. The photograph is then taken after the preset time (2 or 10 seconds).

Press the shutter button down halfway, and press it down fully. © Page 40

When photographs are taken using the LCD monitor, the count down is displayed.

To cancel photography midway, press ▼.

Memo

- Burst photography is not possible.
- In movie mode, press the shutter button down fully to stop recording.

 If this operation is not performed, photography is automatically stops.

If this operation is not performed, photography is automatically stopped when the SmartMedia $^{\text{\tiny{M}}}$ runs out of free space or when the size of a single picture has reached the maximum recordable size.

In the default setting, the flash will be automatically set to function in dark places. No special setting is needed to set off the flash. The flash firing mode can be set to suit the conditions where the flash is to be used. The effective firing distance of the flash is approximately 0.8 m (2.62 ft) to 3.0 m (9.84 ft) (WIDE side setting, ISO setting: [2X]).



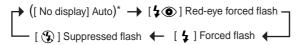
Set the mode dial to [or [M].

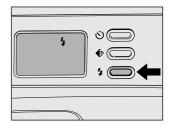


Press the 4 flash button to set to the desired mode while viewing the LCD monitor or the status display.

When you press the \P flash button, the available flash modes are displayed in the following order.

The icon for the mode that you selected is displayed in the LCD monitor or the status display.





* [No display] Auto can be set when [A] is selected in the [1 mode. It can not be set in the [M 1 mode.



Compose the picture.



Press the shutter button down halfway, and press it down fully. © Page 40

When you are using the flash, the flash icons on the LCD monitor are displayed in yellow when the shutter button is pressed halfway down.

Photography Using the Flash (continued)

[No display] Auto

In this mode, the flash fires automatically according to the photography conditions. This mode is ideal for general photography where you are not trying to achieve any particular effect.

[4] Red-Eye Forced Flash

Use this mode to avoid the red-eye effect (**O** Additional Information, Glossary) when photographing people in low-light conditions.

Red-eye is reduced more effectively if the subject looks directly towards the camera. Effectiveness is also increased if the distance between the subject and camera is kept as short as possible.

[4] Forced Flash

In this mode, the flash always fires. Use the Forced Flash mode when the subject is backlit, or in artificial light (fluorescent lighting, etc.).

The flash also fires during macro photography.

[(§)] Suppressed Flash

Use the 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.

- In [], [] or [] mode, flash photography is not possible.
- In [] mode, flash photography is fixed to red-eye auto.
- In [*] mode, flash photography is fixed to slow synchro.
- In the flash photography mode, the flash always fires twice. A picture is taken at the second firing.

You can manually adjust settings such as exposure control, white balance, metering system, continuous photography mode, and take photographs at these settings. These are called "Manual settings", which are saved even if the camera is turned off.

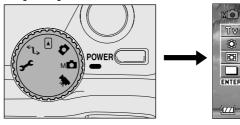
IMPORTANT

• Do not remove or load the batteries or disconnect or connect the AC adapter while the camera is on. This might return the manual settings to their defaults. If this happens, manually set the conditions again.



Set the mode dial to [M].

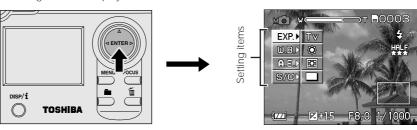
The manual setting values are displayed on the left of the LCD monitor screen.





Press ENTER.

The manual setting items are displayed.



4)

Press ▶ to display option menu, press ▲ or ▼ to select options and press ENTER.

Pressing ENTER selects the setting. To cancel, press ◀.

② [EXP.] Exposure control ◆ Page 60
 [W.B.] White balance ◆ Page 60
 [A.E.] Metering system ◆ Page 61
 [S/C] Single, continuous or AEB photography mode ◆ Page 61



Set values



Press ENTER.

The camera is ready to take photographs.



Compose the picture, press the shutter button down halfway, and press it down fully. O Page $40\,$

The camera takes the picture.

Exposure control (EXP.)

[PRG] : Photography in program mode (default) (○ Page 62)
 [Av] : Photography in aperture-priority mode (○ Page 63)
 [Tv] : Photography in shutter speed-priority mode (○ Page 65)

[M] : Photography in full manual mode (Page 67)

White Balance (W.B.)

The camera determines the white balance by averaging the various kinds of light that actually enters the lens. This setting allows you to set in advance the white balance when taking photographs under specific lighting conditions.

[AW] : Automatic adjustment (default)

[*] : Photography outdoors

Manual Settings (continued)

Metering system (A.E.)

The camera calculates the exposure level before a photograph is taken.

: Multi metering (default)

The exposure is measured and calculated for the entire area of the screen. By dividing the entire area of the screen, the exposure level for each unit is calculated. A well balanced exposure can be obtained.

[•] : Spot metering

The exposure is measured in a very small area at the center of the screen. It is possible to calculate the exposure of a subject without being affected by the surrounding environment.

Single, continuous or AEB photography mode (S/C)

[] : Photography in 1-shot mode (default)

[🔁] : Photography in burst mode (O Page 72)

[AEB] : Photography with the Automatic Exposure Bracketing (Page 71)

- Carry out steps 1 to 2 in "Manual Settings" (page 58).
- Press ▲ or ▼ to select [EXP.].
- Press ► to display option menu, press ▲ or ▼ to select [PRG] and press ENTER.

Pressing ENTER selects the setting.

Press ENTER.

The camera is ready to take photographs.

Compose the picture, press the shutter button down halfway, and press it down fully. O Page 40

The camera takes the picture.



Memo

Difference between [PRG] and [A] [PRG] and [A] are the same as to combinations of the automatically determined shutter speeds and aperture values. However, their operation capability is different as shown in the right table.

Function	[PRG]	[A]
Continuous photography	0	~
Exposure Compensation	0	~
AEB	0	~
Spot metering	0	~
White balance setting	0	~

(O: possible X: not possible)

Photography in the Aperture-priority Mode

In this mode, photographs are taken with the priority given to aperture. The camera automatically sets the shutter speed according to the aperture.

A small aperture value produces a portrait photo with an out-of-focus background. The smaller the aperture value, the more out-of-focus the background becomes.

A large aperture value produces sharp images on both close objects and distant objects like landscapes. The larger the aperture value, the larger the area for sharp images.

- Carry out steps 1 to 2 in "Manual Settings" (page 58).
- Press ▲ or ▼ to select [EXP.].
- Press ▶ to display option menu, press ▲ or ▼ to select [Av] and press ENTER.

Pressing ENTER selects the setting.





The camera is ready to take photographs.

5)

Press ▲ or ▼ to adjust the aperture value.

The setting range is as follows:

The aperture value and the shutter speed corresponding to that value are displayed on the LCD monitor. If the appropriate combination cannot be set even if the shutter speed is adjusted to its limit, the shutter speed is displayed in red. Photography, however, is possible in this state.

Press \blacktriangle to reduce aperture size. Press \blacktriangledown to increase aperture size.

Note: The larger the F value, the smaller the aperture size become and vice versa.

Aperture value Shutter speed

Exposure compensation (◆ Page 69) using ◀ or ▶, and manual setting (◆ Page 58) or film speed setting (◆ Page 78) using ENTER are also possible.



Compose the picture, press the shutter button down halfway, and press it down fully. © Page 40

The camera takes the picture.

- If the aperture value is set to F2.9 (maximum aperture size), the increased shutter speed is restricted to 1/750 second.
- The aperture value set differ to the actual value according to the position of the zoom lens.

Photography in the Shutter Speed-priority Mode

In this mode, photographs are taken with the priority given to shutter speed. The camera automatically sets the aperture value according to the shutter speed.

A fast shutter speed produces a photograph that looks as if a moving subject is still. A slow shutter speed produces as photograph that makes you feel that it is flowing.

- 1 Carry out steps 1 to 2 in "Manual Settings" (page 58).
- Press ▲ or ▼ to select [EXP.].
- Press ► to display option menu, press ▲ or ▼ to select [Tv] and press ENTER.

Pressing ENTER selects the setting.



Press ENTER.

The camera is ready to take photographs.

¶ Press ▲ or ▼ to adjust the shutter speed.

The setting range is as follows:

1/1000, 1/750, 1/500, 1/350, 1/250, 1/180, 1/125, 1/90,

1/60, 1/45, 1/30, 1/20, 1/15, 1/10, 1/8, 1/6, 1/4, 1/3, 1/2,

0"7. 1". 1"5. 2". 3". 4". 6". 8". 10". 15"

The shutter speed and the aperture value corresponding to the shutter speed are displayed on the LCD monitor. If the appropriate combination cannot be set even if the aperture is adjusted to its limit, the aperture value is displayed in red. Photography, however, is possible in this state.



Aperture value

Shutter speed

Press ▲ to increase shutter speed. Press ▼ to decrease shutter speed.

Exposure compensation (◆ Page 69) using ◀ or ▶, and manual setting (◆ Page 58) or film speed setting (◆ Page 78) using ENTER are also possible.



Compose the picture, press the shutter button down halfway, and press it down fully. O Page 40

The camera takes the picture.

- When the shutter speed is set to a speed of 0.7 second or slower, photographs are taken as extended exposures (Page 68).
- In AEB photography (▶ Page 71) or burst photography, the shutter speed cannot be set to 0.7 second or longer.
- If a mode other than [**⑤**] suppressed flash mode is set in flash photography, the shutter speed is limited to between 1/2 second and 1/250 second
- If the shutter speed is set to 1/350 second or less, the shutter speed is automatically changed to 1/250 second if the flash setting is changed to the [4] forced flash mode or [4] red-eye forced flash mode.
- If the [4] forced flash or [4 @] red-eye forced flash mode is set in flash photography when the shutter speed is set to a speed of 0.7 second or more, the shutter speed is automatically changed to 1/2 second.
- If the shutter speed value is set to 1/1000 second, the aperture value is limited to between F8 and F3.4.

Photography in the Full Manual Mode

Set the aperture and shutter speed values separately before taking a photograph.





Press ▲ or ▼ to select [EXP.].

Press ► to display option menu, press ▲ or ▼ to select [M] and press ENTER.

Pressing ENTER selects the setting.



Press ENTER.

The camera is ready to take photographs.



- Pressing ▲ or ▼ to set the aperture value (○ Page 64), and pressing ▲ or ▼ to set the shutter speed value (○ Page 66) separately are also possible.
- Compose the picture, press the shutter button down halfway, and press it down fully. © Page 40

The camera takes the picture.

- When pressing ▲ or ▼ in the full manual mode, the shutter speed is adjusted, but the exposure
 compensation setting is not possible. However the exposure value is displayed on the LCD monitor.
 When the exposure value is displayed in red, it shows over- or under-exposure.
 - It is recommended that the shutter speed and the aperture value be adjusted to obtain the proper level of exposure.
- If the aperture value is set to F2.9 (increased aperture size), the shutter speed 1/1000 second is not available.

Extended Exposure Photography (Bulb Photography)

This mode is used for taking subjects that require several seconds to photograph such as firework displays at night. When using this mode, be sure to use a tripod to keep the camera stable and prevent distortion of images.

- Carry out steps 1 to 4 either in "Photography in the Shutter speed-priority Mode" (page 65) or in "Photography in the Full Manual Mode" (page 67).
- Press ▲ or ▼ in the [Tv] mode, or press ▲ or ▼ in the [M] mode to set the shutter speed to 0.7 second or longer.
 - [] is displayed on the LCD monitor.



Compose the picture, press the shutter button down halfway, and press it down fully. O Page 40

The camera takes the picture at the set exposure time.

During the exposure, the viewfinder LED turns orange.

It takes about twice the set time to complete taking the photograph due to processing of the captured image.

- · Flash photography and burst photography are not possible.
- The image taken in the exposure photography mode may be blurred.

Exposure Compensation

This setting allows you to intentionally lighten or darken the entire image. Use this setting when the optimum brightness (exposure) cannot be obtained, for example, when the brightness between the subject and the background is not balanced or when the subject to photograph occupies only an extremely small part of the screen.



Set the mode dial to [M].



Press ◀ or ▶ to adjust the exposure.

The setting range is as follows. A larger value lightens the exposure, and a smaller value darkens the exposure. The value that you set is displayed on the LCD monitor. Press ▶ to increase (brighten) exposure, and ◀ to decrease (darken) exposure.



Exposure Setting Value



Compose the picture, press the shutter button down halfway, and press it down fully. © Page 40

The ideal brightness sometimes cannot be obtained even if a large exposure value is set in dark photographic conditions.

In this case, press the shutter button, and check the brightness in the preview image (photographed still image). (PREVIEW • Page 77)

Effective Subjects and Set Values

- Positive (+) Compensation
 - · Copying of printed text (black characters on white paper)
 - · Backlit portraits
 - · Very bright scenes (such as snowfields) and highly reflective subjects
 - · Shots made up predominantly of sky
- Negative (–) Compensation
 - · Spotlit subjects, particularly against dark backgrounds
 - · Copying of printed text (white characters on black paper)
 - · Scenes with low reflectivity, such as shots of green or dark foliage

Memo

Taking Shots With the Automatic Exposure Bracketing (AEB Photography)

When it is difficult to determine the necessary exposure compensation, this mode will automatically set the camera to photograph three consecutive pictures in -0.5, 0, and +0.5 compensation.

1

Carry out steps 1 to 2 in "Manual Settings" (page 58).



Press ▲ or ▼ to select [S/C].

3)

Press ▶ to display option menu, press ▲ or ▼ to select [AEB] and press ENTER.

Pressing ENTER selects the setting.





Press ENTER.

The camera is ready to take photographs.



Compose the picture, press the shutter button down halfway, and press it down fully. © Page 40

The camera will automatically take a picture in -0.5 compensation, 0 compensation, and \pm 0.5 compensation.

Memo

- If burst photography is selected when the shutter speed is set to a speed of 0.7 second or longer, the shutter speed is automatically changed to 1/2 second.
- The camera takes three consecutive pictures in the order of standard exposure, overexposure (+0.5) and underexposure (-0.5) compensation.

Taking Photographs Continuously (Burst Photography)

setting Ready

> laking hotographs

Flaying Back Image

Erasing

In this mode, photographs are taken continuously at a maximum speed of 0.8 second intervals. The maximum number of photographs that can be taken continuously is three photographs. Images are not recorded directly to SmartMedia™ but are stored temporarily within the buffer memory. After photography is finished, check the images and record the selected ones to SmartMedia™.







Pressing ENTER selects the setting.





Press ENTER.

[] is displayed on the LCD monitor. The camera is ready for burst photography.

If burst photography is set when the shutter speed is set to a speed of 0.7 second or more in the [Tv] mode, the shutter speed is automatically changed to 1/2 second.

Taking Photographs Continuously (Burst Photography) (continued)



Compose the picture, press the shutter button down halfway, and press it down fully. O Page 40

The maximum number of photography that can be taken continuously is three.

If you release the shutter button before the camera captures three images, the camera will stop taking pictures at that point.

After photography is finished, the LCD monitor automatically turns ON.



Press ◀ or ▶ to verify the image.

You will be allowed to choose which image to save before it is recorded to the SmartMedia™.

The number of photographs stored in the memory is displayed at the bottom right of the screen, and the number in green is the image currently displayed.

The green indication also moves as you move the image to be displayed.





Use ▲ or ▼ to select the recording method.

The camera is set to erase all images immediately after photography.

(1) This setting is for saving and erasing the selected image.

Press ◀ or ▶ to select the image, and press ENTER.

The red ✓ mark appears under the selected image. To cancel selection of the image, press ENTER again.

②[□√]: This setting is for saving all images.

Press FNTFR

All images are selected, and all images with turns into a red ✓. This item cannot be selected if there is not enough space on the SmartMedia™.

③[中前]: This setting is for erasing all images.

Press FNTFR

(1) to (3) can be combined regardless of their order to set saving and erasing of images.

Taking Photographs Continuously (Burst Photography) (continued)

etting Ready

Photogr

sing ages

Functions

Application

Additional

Use ▼ to select [→ 📄] and press ENTER.

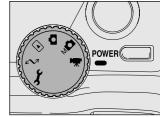
The image is saved or erased, and the camera is then ready to take photographs.

Memo

- You can also carry out step 8 while verifying the image in step 7.
- Even if photography is terminated midway before capturing three images by releasing the shutter button, images already photographed can be saved and erased by the above method.
- The length of time to capture images varies according to the photographic conditions.
- Self-timer photography and flash photography are not possible.



Set the mode dial to [🐙].





Compose the picture, press the shutter button down halfway, and press it down fully. O Page 40

Photography begins.

The maximum photography time (seconds) appears on the LCD monitor and on the status display.



To stop making movies, press the shutter button down fully again.

If you do not do this, photography is automatically stopped when there is no more free space on the SmartMedia™, or when the maximum size that a single movie can be recorded is reached. (Maximum photography time ♥ Page 124)

Memo

- Flash photography is not possible.
- The image size displayed on the LCD monitor becomes FULL (320 x 240) or HALF (160 x 120). The
 movie made in FULL size is displayed on the entire LCD monitor, and that made in HALF size is
 displayed in the center of the screen.
- · When making a movie, there's a risk of lens motor noises being recorded on the sound track.
- When making a movie, only digital zoom photography is available.

This menu is for setting the basic settings to be used for photography in the [, , [, , ,]] or [, ,] photography modes.

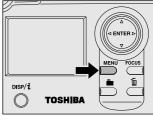


Set the mode dial to [🗖], [M 🗖] or [🐙].



Press the MENU button.

The RECORDING MENU is displayed.



Use ▲ or ▼ to select the desired item ① and press ▶.

The options ② are displayed.

Note: The image appearing through the lens will be displayed for [LCD \divideontimes].

PREVIEW → Page 77

COLOR → Page 77

ISO → Page 78

SHARPNESS → Page 79

CONTRAST → Page 79

DIGITAL ZOOM → Page 79

LCD ★ → Page 79



* The above menu is the RECORDING MENU in the [] mode.



Use \blacktriangle or \blacktriangledown to select the desired setting from the tab menu ②, and press ENTER.

This saves the settings, and returns the display to the RECORDING MENU.

5)

To quit the RECORDING MENU, press the MENU button.

The camera is now ready to take photographs.

PREVIEW

This setting allows you to display a photographed image on the LCD monitor for two seconds immediately after you have taken the shot.

This allows you to check the composition and brightness of the photographed image.

Note, however, that detailed areas are sometimes lacking detail as the resolution of preview images is low. To check detailed areas and focus, check it in the [] playback mode (Page 80).

To cancel preview, press the shutter button halfway down again.

The three images that you took are displayed for about two seconds each in the AEB photography mode (\mathbf{o} Page 71)

[OFF] : Do not display preview (default)

[ON] : Display preview

COLOR

Set the color of the image to be photographed.

[STANDARD] : Standard color (default)

[VIVID] : Vivid color

[MONOCHROME] : Black and white

[SEPIA] : Sepia

Changing the Preset Conditions (RECORDING MENU) (continued)

ISO [🗖]

Sets the color mode and photographic sensitivity at which the image is to be recorded. Warning: Noise increases when the ISO is changed to higher settings.

[NORMAL] : Equivalent to color ISO100

[2X] : High-sensitive photography equivalent to color ISO200 (default)

[4X] : High-sensitive photography equivalent to color ISO400

In the [a] mode:

During [2X], the ISO will be automatically set between ISO100 and ISO200. During [4X], ISO will be automatically set between ISO100 and ISO400.

ISO [M 🗖]

Sets the color mode and photographic sensitivity at which the image is to be recorded. Warning: Noise increases when the ISO is changed to higher settings.

[NORMAL] : Equivalent to color ISO100 (default)

[2X] : High-sensitive photography equivalent to color ISO200 [4X] : High-sensitive photography equivalent to color ISO400

In the [M] mode:

During [2X], the ISO will be automatically set to ISO200. During [4X], ISO will be automatically set to ISO400.

Memo

• In movie mode, ISO will be automatically set between ISO100 and ISO400 regardless of its setting.

Getting Ready

Playing Back Images

> Erasing Images

Handy Functions

Other Application

Additional nformation

SHARPNESS

Sets the sharpness at which the image is to be recorded.

[NORMAL] : Normal sharpness (default)

[SOFT] : Soft effect [HARD] : Hard effect

CONTRAST

Sets the contrast of the image to be photographed.

[NORMAL] : Automatic (standard) setting (default)

[STRONG] : Strong contrast [SOFT] : Soft contrast

DIGITAL ZOOM

Enlarges the center of the screen and takes photographs with apparent effect that the focal distance is set to twice the distance.

Zoom Photography Page 52

[ON] : Enables digital zoom photography. (default)

[OFF] : Disables digital zoom photography.

LCD 🔆

Adjusts the brightness of the LCD monitor. This adjustment does not adjust the brightness of the image to be recorded.

[-5] to [+5]

To adjust the brightness of the LCD monitor Page 115

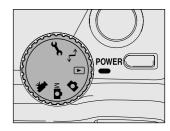
Play back photographed still images one image at a time.



Set the mode dial to [].

The last recorded image appears on the LCD monitor.

To adjust the brightness of the LCD monitor ◆ Page 115
Changing the LCD monitor display ◆ Page 116





Press ◀ or ▶ to move forward and reverse.

▶ to advance to next frame/ d to go back one frame Holding down d or ▶ moves forward or reverse continuously.

Press ENTER, nine images are displayed simultaneously.

Thumbnail Display • Page 83

Memo

- Images can be rotated by pressing ▲ or ▼ during playback.
 Pressing ▲ rotates an image counterclockwise, and pressing ▼ rotates it clockwise.

Playing Back Movies

Play back movies that you have recorded. Audio can also be played back.

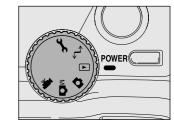


Set the mode dial to [].

The last recorded image appears on the LCD monitor.

To adjust the brightness of the LCD monitor ♠ Page 115

Changing the LCD monitor display ♠ Page 116





Press ◀ or ▶ to select the movie to play back.



Press .

Playback of the selected movie begins.

The user can control playback as shown on the table of the next page by pressing various buttons during playback, a pause or stopping.



	During playback	During pause	During stopping
•	2x-speed playback • 2x-speed playback is performed for the duration that ▶ is held down.	1-frame feed Each press of ▶ feeds the image by one frame. 1-frame feed is continued for the duration that ▶ is held down.	
•	Reverse playback, 2x-speed playback • The press of ◀ starts a reverse playback. • Playback becomes 2x-speed reverse playback for the duration that ◀ is held down.	Reverse 1-frame feed • Each press of ◀ feeds the image in reverse by one frame. • 1-frame feed is continued for the duration that ◀ is held down.	
•	Pause • Playback is paused.	Canceling pause • After pause is cancelled, playback resumes at the last state that was active before the pause.	Play back
▼	Stop Playback returns to the start of the movie.		
ENTER	Stop The display returns to thumbnail playback.		
Pressing the Zoom switch to "T"	Increases the volume.		
Pressing the Zoom switch to "W"	Decreases the volume.		

Memo

The image size displayed on the LCD monitor becomes FULL (320 x 240) or HALF (160 x 120). The
movies made in FULL size is displayed on the entire LCD monitor, and those made in HALF size is
displayed in the center of the screen.

Displaying a List of Images (Thumbnail Display)

Nine reduced images are simultaneously displayed on the LCD monitor. This manual calls this display "thumbnail display."

This feature is useful, for example, when there are many images recorded in the SmartMedia™. After you have displayed the thumbnail display, you can select the desired image and display it in the regular display.



Set the mode dial to [].

The last image frame appears on the LCD monitor.



Press ENTER.

Nine images are displayed simultaneously.



Use \blacktriangle , \blacktriangledown , \blacktriangleleft or \blacktriangleright to move the cursor to select the image to be displayed at regular size.

The cursor selected image is displayed with green frame. Pressing the buttons continuously moves the cursor continuously.



4)

Press ENTER.

The selected image is displayed at its regular size.

In the thumbnail display mode, [| in j icon is displayed for the movie data.

Memo

Enlarging Photographed Images (Zoom Playback)

Enlarges selected portions of images being played back at two levels. Images can be displayed enlarged when being played back one image at a time.

Movies and images photographed in the multi mode (Page 51) cannot be displayed using the zoom playback feature.



Set the mode dial to [🕒].

The last image frame appears on the LCD monitor.



Use **◄** or **▶** to select the frame you want to enlarge.

You can also select the image by the same operation as for thumbnail playback (Page 83).



Adjust the zoom ratio by the Zoom switch. (Zoom switch © Page 21)

Pressing the Zoom switch to the "T" will enlarge the image. To return to normal magnification, press the Zoom switch towards "W".

The image is displayed enlarged, and a white frame and green frame are displayed on the LCD monitor.

The white frame indicates the entire image, while the green frame shows the location of the currently enlarged area.



Entire image

Current position of enlargement



Use \blacktriangle , \blacktriangledown , \blacktriangleleft or \blacktriangleright to select the area to enlarge.

Adjust the display area to enlarge while viewing the white and green frames.



To return to the regular display, press ENTER.

ther Hand cations Function

Additional nformation

Auto Playback (Slideshow)

Automatically play back one image at a time in order. This feature is not supported in the movie mode.



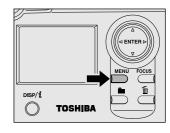
Set the mode dial to [].

The last image frame appears on the LCD monitor.



Press the MENU button.

The PLAYBACK MENU is displayed.



3)

Use ▲ or ▼ to select [SLIDE SHOW] and press ▶.

The slideshow begins and [____] is displayed on the LCD monitor. The next image is displayed every three seconds.





To quit the slideshow, press ENTER.

The LCD monitor displays the image when ENTER is pressed. The slideshow is repeated until ENTER is pressed.

Memo

- The Auto Power OFF function does not operate during automatic playback.
- Auto playback is only available for images in the same folder.
- · When movies are stored in the same folder, they are not played back during automatic playback.

Automatically plays back the 16 images photographed in the multi photography mode in quick succession.



Set the mode dial to [].

The last image frame appears on the LCD monitor.



Use ◀ or ▶ to select the images photographed in the multi photography mode. You can also select the image by the same operation as for thumbnail display (o Page 83).



Press the Zoom switch (© Page 21) towards "T" to begin playback. Automatic playback begins.

Erasing Images (Erase Frame)

Erases images one image at a time.

Note: Images cannot be erased when they are protected (▶ Page 106) or the SmartMedia™ is write-protected (▶ Page 34).



Set the mode dial to $[\triangleright]$, $[\triangle]$, $[M \triangle]$ or $[\clubsuit]$.

When [] is selected, the last image frame or the thumbnail display appears on the LCD monitor.



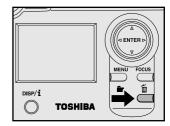
When [▶] is selected, use ◀ or ▶ to select the image to be erased.

When [▶], M♠ or ▶ is selected, only the last recorded image can be erased.



Press the merase button.

The erase icon is displayed at the left of the screen.



4)

Use ▲ or ▼ to select [☐], and press ENTER.

This erases the image and returns to the previous mode. To cancel erasing of image data, select [\nearrow] and press ENTER.



5)

To continue erasing images, repeat the above procedure from step 2.

Memo

- When [PROTECTED] is displayed on the LCD monitor, cancel the protection (♠ Page 108) or remove DPOF write-protection (♠ Page 102).
- If you take a photograph after erasing an image, a number continuing from the last photographed image is assigned as the image number.
- Images can also be erased in the thumbnail mode. In this case, the camera enters the single frame playback (frame playback) mode, and enters the thumbnail playback mode after the image is erased.

Erasing Folders (All Images in a Folder/All Folders)

Erases selected folders and all contents currently recorded to the SmartMedia™ loaded on your camera. There are two ways of erasing images, by individual folders or by all folders.

Note: Images cannot be erased when they are protected (\bigcirc Page 106) or when the SmartMediaTM is write-protected (\bigcirc Page 34).

The folder to be erased differs according to the position of the mode dial.

: Folder of images currently being played back

[], [M] or []: Folder of images currently being photographed About Folders Page 92



Set the mode dial to [▶], [♠], [м♠] or [♥].

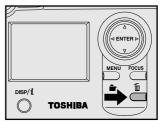
Set the mode dial to the type of folder you want to erase.

When [] is selected, the last image frame or the thumbnail display appears on the LCD monitor.



Hold down the $\tilde{\mathbb{I}}$ erase button for two seconds.

The erase icon is displayed at the left of the screen.



Erasing Folders (All Images in a Folder/All Folders) (continued)

etting Ready

> naking hotographs

Use ▲ or ▼ to select [☐] or [☐] and press ENTER.

[□]: Erases images in the currently selected folder and folders. [□]: Erases all folders recorded on the SmartMedia™.

The images or folders are erased, and the camera returns to the respective mode.

To cancel erasing of image data, select $[\begin{cases} \begin{cases} \$



Memo

• When all images in a folder are erased, that folder itself is also erased.

Formatting the SmartMedia™

Formatting erases all images and reformats the SmartMedia[™] loaded in your camera. Protected images (♠ Page 106) are also erased. SmartMedia[™] cannot be formatted if it is write-protected (♠ Page 34).

IMPORTANT

The SmartMedia[™] must be formatted on the camera before use.



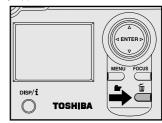
Set the mode dial to $[\triangleright]$, $[\triangle]$, $[\land \triangle]$ or $[\blacktriangleleft]$.

When [▶] is selected, the last image frame or the thumbnail display appears on the LCD monitor.



Hold down the we erase button for two seconds.

The erase icon is displayed at the left of the screen.





Use ▲ or ▼ to select [], and press ENTER.

To cancel formatting, select [□] and press ENTER.



To reset the image number, use \triangle or \blacktriangledown to select [EXECUTE], and press ENTER.

To cancel resetting of image numbers, select [CANCEL].



Memo

SmartMedia must be formatted before using for the first time. Also, it is recommended to periodically
reformat the SmartMedia card to remove any miscellaneous files and ensure maximum storage
capacity.

When playing back the photographed images (still images and movies), you can select any image in any folder as you like by the ■ folder button.

How to select the folder



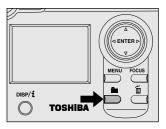
Set the mode dial to [].

The last image frame appears on the LCD monitor.



Press the folder button.

The FOLDER menu is displayed.





Use \blacktriangle or \blacktriangledown to select desired folder and press ENTER.

The folder is selected.

When more than 6 folders exist, move the cursor by \triangle or ∇ to the $[\nabla]$ mark under of the list of folder numbers. The next page appears. Select a desired folder by moving the cursor in the same manner.



About Folders (continued)

Memo

- When taking photographs, it is not possible to select a folder for recording images. Pressing the folder button will create a new folder. The subsequently photographed images are recorded in that new folder.
- When a new folder is created, the frame No. is assigned from 0001.
- To play back images photographed by another camera
 - Proper playback may not be possible for some image size.
- Images cannot be played back unless the file name and folder name are set correctly.

Changes FULL size (2400 x 1600 pixels) images to HALF size (1200 x 800 pixels), and further to SMALL size (720 x 480 pixels), and overwrites an old FULL size image with the new size image. This is called "resizing" in this manual.

Resizing a previously saved image when the SmartMedia[™] has run out of storage space during photography increases space on SmartMedia[™] so that you can continue taking photographs.

The following images cannot be resized:

- SMALL size images
- · Images taken with another camera
- · Images taken in the multi photography mode
- Protected images (Page 106)
- Movies
- Images cannot be resized when the SmartMedia[™] is write-protected.



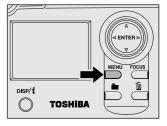
Set the mode dial to [].

The last image frame appears on the LCD monitor.



Press the MENU button.

The PLAYBACK MENU is displayed.



Memo

• It is possible to reduce the size of an image. It is not possible to increase the size of an image, or to restore size after it has been decreased.

Use ▲ or ▼ to select [RESIZE] and press ▶.

The RESIZE menu is displayed.

If there are no images that can be resized, or if a movie folder is selected, a message appears on screen and the screen returns to the PLAYBACK MENU.

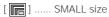




Use ◀ or ▶ to select the image and press ENTER to set image size.

The current image size is displayed under the image. Each press of ENTER changes the icons as follows:





For details of image size (Page 44)

To cancel the selection, press ENTER again.

If you want to resize two or more images, repeat the procedure for the necessary number of images.

When the Zoom switch is pressed toward "T" during image selection, the image is displayed to fit the entire screen. To redisplay the original image, move the Zoom switch towards the "W". (Zoom switch o Page 21)



Use ▲ or ▼ to select [EXECUTE], and press ENTER.

The screen indicating that the image is being resized appears. To guit resizing, select [CANCEL] and press ENTER. When resizing ends, the screen returns to the PLAYBACK MENU. To guit the PLAYBACK MENU, press the MENU button.

Memo

 It is possible to play back any images in any folders by pressing

or

during playback. About Folders Page 92





formation

Compresses images down to half of their size or more, and overwrites an old size image with a newly compressed image.

Compressing a previously saved image when the SmartMedia[™] has run out of storage space during photography increases space on SmartMedia[™] so that you can continue taking photographs.

The following images cannot be compressed:

- . [★] (BASIC) image quality images
- · Images taken with another camera
- Protected images (Page 106)
- Movies
- Images cannot be compressed either when the SmartMedia™ is write-protected.



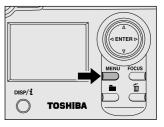
Set the mode dial to [].

The last image frame appears on the LCD monitor.



Press the MENU button.

The PLAYBACK MENU is displayed.



Memo

 It is possible to compress an image and decrease quality. It is not possible to uncompress an image to increase quality, or to restore an image after it has been compressed.

Use ▲ or ▼ to select [QUALITY], and press ▶.

The SET-UP menu is displayed.

If there are no images that can be compressed, or if a movie folder is selected, a message appears on screen and the screen returns to the PLAYBACK MENU.



Use ◀ or ▶ to select the image, and press ENTER to set the compression ratio.

The current compression ratio (quality) is displayed under the image.

Each press of ENTER changes the number of stars as follows:

[NORMAL]

[BASIC]

If you want to compress two or more images, repeat the procedure

for the necessary number of images.



When the Zoom switch is pressed toward "T" during image selection, the image is displayed to fit the entire screen. To redisplay the original image, move the Zoom switch towards the "W". (Zoom switch page 21)

Memo

 It is possible to play back any images in any folders by pressing

or

during playback. About Folders Page 92



Use ▲ or ▼ to select [EXECUTE], and press ENTER.

The screen indicating that the image is being compressed appears. To guit compression, select [CANCEL] and press ENTER.. When compression ends, the screen returns to the PLAYBACK MENU. To guit the PLAYBACK MENU, press the MENU button.

Copies images stored on the SmartMedia $^{\text{TM}}$. This feature is useful when you want to copy an image from one SmartMedia $^{\text{TM}}$ to another.



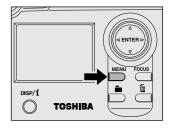
Set the mode dial to [].

The last image frame appears on the LCD monitor.



Press the MENU button.

The PLAYBACK MENU is displayed.



3 Use ▲ or ▼ to select [COPY], and press ▶.

The COPY menu is displayed.



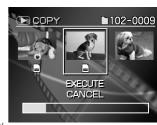
Use ◀ or ▶ to select the desired image, and press ENTER.

This selects the image to be copied, and [] is displayed under the image.

To cancel a selection, press ENTER again.

If you want to copy two or more images, repeat the procedure for the necessary number of images.

The bar at the bottom of the screen indicates the amount of buffer memory used to store the date of the images which have been selected, and the remaining memory space. The amount of memory space consumed is indicated in green.



When the Zoom switch is pressed toward "T" during image selection, the image is displayed to fit the entire screen. To redisplay the original image, move the Zoom switch towards the "W". (Zoom switch open 21)

Memo

 It is possible to play back any images in any folders by pressing

✓ or

during playback.



Use ▲ or ▼ to select [EXECUTE], and press ENTER.

The screen indicating that the image is being read appears.



Load the SmartMedia[™] for copying the image to.

The message [EXCHANGE CARD] is displayed.

- Remove the SmartMedia™.
- ② Replace it with another SmartMedia™.

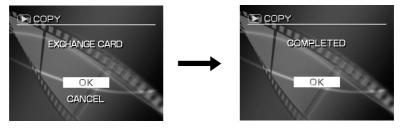
7

Use ▲ or ▼ to select [OK], and press ENTER.

The screen indicating that the image is being copied appears.

To quit copying, select [CANCEL], and press ENTER.

If the SmartMedia[™] has insufficient memory space, [CARD FULL] appears on the screen. Replace the SmartMedia[™] with another one.



When copying is completed, the above screen is displayed.

When this screen is displayed, you can replace the SmartMedia $^{\text{TM}}$ with the original one. The camera need not be turned off for this operation.

IMPORTANT

 Do not remove the SmartMedia[™] or turn the camera off while images are being copied until EXCHANGE CARD appears on the screen. This might damage the SmartMedia[™].



Press ENTER.

The screen returns to the PLAYBACK MENU.
To quit the PLAYBACK MENU, press the MENU button.

Copy Images (continued)

The image No. for copying

When images are copied, the frame No. is not copied. The frame No. becomes:

Still images:

When the SmartMedia[™] at the copy destination contains the folder [xxxTOSHI], a folder having the largest number of "xxx" incremented by 1 is created. Example: When there are folders [101TOSHI] and [102TOSHI], the folder

[103TOSHI] is created.

When there is no [xxx TOSHI] folder, a new folder is created.

In each case, the frame No. is assigned from 0001.

The number of prints or the image date can be set in a DPOF (Digital Print Order Format) file for images to be printed (developed). (♠ Additional Information, Glossary.) This feature applies to still images only. Printing can be done easily if you just take the SmartMedia[™] containing the images and DPOF file to the photo lab.



Set the mode dial to [].



Press the MENU button.

The PLAYBACK MENU is displayed.



Press \blacktriangle or \blacktriangledown to select [DPOF] and press \blacktriangleright .



4)

Press ▲ or ▼ to select [SELECT IMAGE], and press ENTER.



Press ▲ or ▼ to select [SELECT] or [ALL], and press ENTER.

[SELECT]: Sets one image at a time.
[ALL]: Sets all images at once.



Set the number of prints and date.

① Press

or

to select the image, and press

or

to set the number of copies.

Up to 99 copies can be set for a single image. When the Zoom switch is pressed toward "T" during image selection, the image is displayed to fit the entire screen. To redisplay the original image, move the Zoom switch towards the "W". (Zoom switch • Page 21)

②When you have finished this setting, press ENTER. The DATE screen is displayed. The date of the image can be printed in the lower right corner of the picture.

③ Press ▲ or ▼ to select [YES] or [NO], and press ENTER. If you want to print the date, select [YES] and press ENTER. If you do not want to print the date, select [NO] and press ENTER. The message "CREATE DPOF FILE?" is displayed.

Memo

- It is possible to play back any images in any folders by pressing

 or

 during playback.

 About Folders

 Page 92
- The date printed in the picture will depend on the date set into the camera. For the correct date to be printed onto the picture, please check the date set into your camera before the image is photographed. (To correctly set the time and date • Page111)







Getting Ready

Taking hotograpl

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dditional formation

7

Press ▲ or ▼ to select [EXECUTE], and press ENTER.

The DPOF information file is created, and the screen returns to the initial display when the operation ends.

To continue setting, select [CHANGE SETTINGS]. To quit setting without creating a DPOF file, select [CANCEL] and press ENTER.





To end setting, press \blacktriangle or \blacktriangledown to select [END], and press ENTER.

To cancel confirmation of settings, proceed to step 9.



Print Information (continued)



Select the desired operation.

- [CONFIRM]: Press this to confirm the settings.
- 1) Press ▲ or ▼ to select [CONFIRM], and press ENTER.
- 2) After confirming the settings, press ENTER.
- ③ Select [END] and press ENTER.

[CLEAR ALL]: Press this button to clear all settings.

- ① Press ▲ or ▼ to select [CLEAR ALL], and press ENTER.
- ②To clear all settings, select [EXECUTE] and press ENTER.
- To cancel [CLEAR ALL], select [CANCEL] and press ENTER.
- ③To remove the write-protection, select [YES] and press ENTER.
- (4) Select [END] and press ENTER.

Memo

- When the SmartMedia™ already contains a DPOF information file, the message "RECREATE DPOF FILE?" is sometimes displayed. Note that if you select [YES], the file is overwritten, and the information of the existing DPOF information file is erased. The same also applies when the DPOF information file is overwritten on a personal computer and values not supported by this camera were set.
- Images set in the DPOF format are automatically protected. Write-protection cannot be removed by regular methods (Page 108)
- You can specify up to 99 prints or up to 999 frames in a single SmartMedia[™]. The maximum number
 of prints you can specify in a single SmartMedia[™] is limited to 10000.

This feature prevents images from being erased.

IMPORTANT

- Formatting erases all the images on a SmartMedia[™], regardless of whether they are protected or not.
- To protect the entire SmartMedia™, see "Write Protection" (▶ Page 34).

Protecting an Image



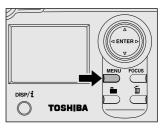
Set the mode dial to [].

The last image frame or the thumbnail display appears on the LCD monitor.



Press the MENU button.

The PLAYBACK MENU is displayed.



Use ▲ or ▼ to select [PROTECT] and press ▶.

The PROTECT menu is displayed.

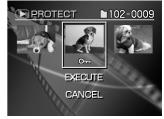


Use ▲ or ▼ to select the desired image to protect, and press ENTER.

This fixes the image to be protected, and [\mathbf{O} \mathbf{n}] is displayed under the image. To cancel the selection, press ENTER again.

To write-protect two or more images, repeat this procedure for the necessary number of images.

When the Zoom switch is pressed toward "T" during image selection, the image is displayed to fit the entire screen. To redisplay the original image, move the Zoom switch towards the "W". (Zoom switch • Page 21)



Memo

It is possible to play back any images in any folders by pressing

or

during playback.

(For details of folder

Page 92)



Use ▲ or ▼ to select [EXECUTE], and press ENTER.

To quit write-protection, select [CANCEL] and press ENTER. When write-protection ends, the screen returns to the PLAYBACK MENU. To quit the PLAYBACK MENU, press the MENU button.

Memo

- When the PROTECT setup screen is displayed again, [] is displayed under protected images.
- To cancel write-protection for an image, write-protection is simultaneously canceled if set at step 4.

Removing the Protection



Carry out steps 1 to 3 in "Protecting An Image" (© Page 106).



Use ◀ or ▶ to select the image to unprotect, and press ENTER.

This fixes the images whose protection is to be removed, and [om] under the image changes to [om].

To unprotect an image, press ENTER again.

To remove the protection from two or more images, repeat this procedure for the necessary number of images.



Memo

It is possible to play back any images in any folders by pressing

or

during playback.

 About Folders
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Carry out step 5 in "Protecting An Image" (© Page 107).

Memo

- To write-protect another image, write-protection can be simultaneously carried out if set at step 2.
- [<u>b</u>] is displayed for images that are specified in the DPOF format, and write-protection cannot be removed. To remove write-protection, cancel the DPOF format setting (Page 102.)

Basic Settings (mode)

This feature allows you to set up the default settings for using your camera in addition to image-related settings. This is called "setup". The following items can be changed in the SET-UP mode:

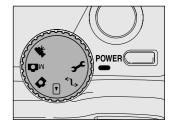
AUTO POWER OFF/SOUND/TIME & DATE/OSD LANGUAGE/VIDEO OUT/QUALITY/SYSTEM INFO.

The details set here are held in memory even if the camera is turned OFF.



Set the mode dial to [🦟].

The SETUP MENU appears.





Use ▲ or ▼ to select the item you want to set.

SOUND ${\color{red} \bullet}$ Turns on and off the sound (P. 111)

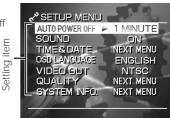
TIME & DATE Setting the Time and Date (P. 111)

OSD LANGUAGE • Selecting the Monitor Display Language (P. 112)

VIDEO OUT • Setting Video Output (P. 112)

QUALITY Setting image quality and size (P. 112)

SYSTEM INFO. Returning Settings to the Defaults (P. 114)



3)

Press ▶.

The tab menu is displayed.

How to set the time (Page 114)



Use ▲ or ▼ to change the setting in the tab menu, and press ENTER.

To cancel changing of settings, press ◀.



5)

To quit the SETUP MENU, change the mode dial setting.

AUTO POWER OFF

If no operation is carried out for a fixed amount of time (default: about one minute), power consumption is set to its minimum state (power almost turned off) to prevent battery wear. This is called the Auto Power OFF. This setting allows you to set the time when the camera turns off automatically. This function is not activated during automatic playback (Page 85) or in the [] PC mode.

To return to the normal state after the Auto Power OFF has been executed, press the POWER button to turn the power on again.

[1 MINUTE] (default)

[2 MINUTES]

[3 MINUTES]

Basic Settings (mode) (continued)

SOUND

Sets whether or not to sound the beep tone.

[ON] : Sounds the beep tone according to the operating state or operation. (default)

[OFF] : Does not sound the beep tone in any state.

TIME & DATE

Sets the date and time. Seconds cannot be set.



Using \triangleleft or \triangleright to select the item you want to set, and use \blacktriangle or \blacktriangledown to set the value for each item.

Pressing > advances the selection in the following order:

 $YEAR \xrightarrow{\hspace{-3pt}\rightarrow\hspace{-3pt}} MONTH \xrightarrow{\hspace{-3pt}\rightarrow\hspace{-3pt}\rightarrow\hspace{-3pt}} DAY \xrightarrow{\hspace{-3pt}\rightarrow\hspace{-3pt}\rightarrow\hspace{-3pt}} Hour \xrightarrow{\hspace{-3pt}\rightarrow\hspace{-3pt}\rightarrow\hspace{-3pt}} Minute \xrightarrow{\hspace{-3pt}\rightarrow\hspace{-3pt}\rightarrow\hspace{-3pt}} OK \xrightarrow{\hspace{-3pt}\rightarrow\hspace{-3pt}\rightarrow\hspace{-3pt}} CANCEL$





Select [OK] and press ENTER.

To quit setting, select the [CANCEL] button and press $\ensuremath{\mathsf{ENTER}}.$

Getting Ready

Taking Photographs

Playing Back Images

OSD LANGUAGE

Set the display language of menus displayed on the LCD monitor.

[English] : English (default)
[日本語] : Japanese

All descriptions in this Instruction Manual are for when the display language is set to [ENGLISH].

VIDEO OUT

Sets the video output system according to the country in which your camera is used.

[NTSC] : NTSC system (♠ Additional Information, Glossary)
[PAL] : PAL system (♠ Additional Information, Glossary)

The default setting is different depending on the destination country/area.

QUALITY

The default size and quality of the image can be reset to the desired combination.



Carry out steps 1 to 2 in "Basic Photographic Settings (≠ mode)" (page 109). Select [QUALITY] on the SETUP MENU and press ►.

The QUALITY menu is displayed.



Press \triangle or ∇ to select the number you desired to set, and press \triangleright or ENTER.

The SIZE item is reversely displayed in white.

SIZE QUALITY

SIZE QUALITY

SMALL **

SMALL **

GK CANCEL

Press ▲ or ▼ to select the size you desired, and press ▶ or ENTER.

The QUALITY item is reversely displayed in white.



Press ▲ or ▼ to select the quality you desired, and press ▶ or ENTER.

The display returns to the Step 2 screen.

Handy Functions

Taking Photographs

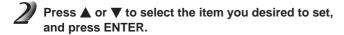
Playing Back Images

SYSTEM INFO.

Sets whether or not to return the settings in the SETUP MENU to the original factory settings. TIME&DATE, OSD LANGUAGE will not be reset.

Carry out steps 1 to 2 on page 109. Select [SYSTEM INFO.] on the SETUP MENU and press ▶.

The SYSTEM INFO. menu is displayed.



[FIRMWARE VER.] : Displays the firmware version of this camera.

[CARD INFO.] : Displays the SmartMedia™ information.

[RESET] : Returns settings to their defaults.



Adjusting the LCD Monitor Brightness

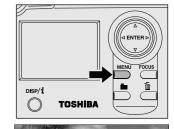
This adjustment adjusts the brightness of the LCD monitor and not the brightness of the recorded image.



Set the mode dial to [▶], [♣], [M ☐] or [▶].

Press the MENU button.

The RECORDING MENU or PLAYBACK MENU is displayed. You can set the LCD monitor brightness in either of these menus.





Use \triangle or ∇ to select [LCD \circledast] and press \triangleright . The image and the LCD menu are displayed.



Use **◄** or **▶** to adjust the brightness.

Press \blacktriangleleft to darken (–) the LCD monitor, or \blacktriangleright to lighten (+) the LCD monitor.

The LCD monitor can be adjusted within the range [–5] to [+5]. (Default is 0.)





Press ENTER.

This returns the camera to the previous mode.

DISP/iButton and LCD Monitor Display (In Playback Mode)

This item switches the display on the LCD monitor when playing back photographed images. You can switch the display to show a list of detailed information (size, compression ratio, shutter speed, aperture, etc.) or you can display histograms, etc.



Set the mode dial to [].

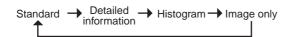


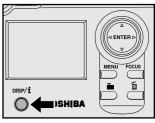
Press ◀ or ▶ to select the image.

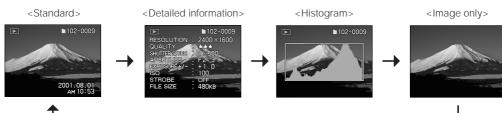


Press the DISP/i display/info button.

Each press of the DISP/i display/info button switches the display format as follows:







Memo

• When playing back movie images, switching is between standard and image only.

Setting Ready

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Additional

This item switches the display on the LCD monitor when taking photographs.



Set the mode dial to [🗖], [M🗖] or [🐙].

Press the DISP/i display/info button.

Each press of the DISP/i display/info button switches the display format as follows:

OSD full display

OSD display off

LCD monitor off



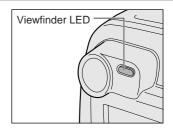


Memo

- When any button is pressed while OSD display is off, the monitor displays the alteration on the screen for two seconds.
- When the LCD monitor is off, the digital zoom function is forcibly canceled.
- In the movie mode or macro photography mode, the LCD monitor can not be turned off.
- When the LCD monitor is off, any setting for manual, exposure compensation, aperture value, shutter speed value or focus is not possible.

Definitions of the Color of the Viewfinder LED

The color of the viewfinder LED indicates the state of the camera. The meaning of the LED color may differ according to the mode dial setting.



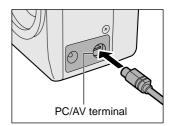
Viewfin	der LED	Meaning
Color	State	wearing
Green	ON	[▲], [м] or [🐙] AE or AF are locked with the shutter button held half down. [🖍] Standby mode
		[🗖], [м🗖] or [🐙] Self-timer in operation at a handshake alarm ௰).
Red	ON	[Power ON] Writing to SmartMedia™ in progress Photographs can be taken, however, do not turn the power OFF. [✓] Accessing of SmartMedia™ in progress
Flashing [[🗖], [M🗖] When the image is not in focus.
Orange ON Orange ON Orange ON Orange ON Orange ON Orange ON ON ORANGE ON ON ORANGE ON		Charging of flash in progress
	Flashing	Hardware malfunction

Taking and Playing Back Photographs on a TV

Television sets can be used to compose images for photography or playback. To do this, the camera must first be connected to the TV. We recommend using the AC adapter on an indoor power outlet when available.

IMPORTANT

- Before you connect your camera to other equipment, be sure to turn all other connected equipment OFF. If you connect your camera to other equipment with the power still ON, the screen may flicker or the image may not be displayed normally.
- Connect the plug of the AV cable (provided) to the PC/AV terminal on the camera.





Connect the plug of the AV cable to the video input terminal on the TV.

Memo

 Switch to the video output system, NTSC or PAL, according to the TV or country in which your camera is used.

For details on how to switch the system • Page 112

Take photographs or play them back.

Details of operation are the same as taking photographs and playing them back on the LCD monitor.

How to play back images Page 80

Memo

- The image before the photograph is taken is slightly less clear than playback images. (This is because television displays images at a lower resolution.)
- The display unit varies according to the output system.
- With the NTSC system, images can be displayed simultaneously on the LCD monitor and TV during photography and playback.
- With the PAL system, images cannot be displayed simultaneously. When a cable is connected, only TV display is available.
- · With the PAL system, images are played back with a black frame surrounded.

Transferring Images to a PC

You can transfer images photographed on your camera to a PC using the packaged CD-ROM and USB cable. Images recorded on SmartMedia™ can also be transferred to a PC using the PC card adapter (sold separately) or floppy disk adapter (sold separately). (♠ Page 122)

To transfer images to a PC, software must be installed and special cables connected.

For details, refer to the User's Guides for your PC and the Software Manual.

Using SmartMedia™ on a PC

- When you use SmartMedia[™], do not change or erase folders or file names (image data) on the SmartMedia[™]. Doing so might prevent the SmartMedia[™] from being used on the camera.
- Format the SmartMedia[™] only on your camera.
- To edit image data, copy the image data to hard disk on the PC, and edit the copied image data.

The following items are also available as separately sold items.

Relationship between your camera and accessories

Connecting to Other Devices (page 123)

For details on these accessories, refer to the Instruction Manual for the accessory you are using. (information current as of March 2000)

- SmartMedia™ (3.3 V)
 16MB (SM-M1600D)/32MB (SM-M3200D)/64MB (SM-M6400D)/128M (SM-M1280D)
- Floppy Disk Adapter (FlashPath)
 This adapter allows SmartMedia™ to be used as 3.5" floppy disk.
 This adapter is inserted into the floppy disk drive on your PC, allowing images recorded on the SmartMedia™ to be transferred to the PC.



AC Adapter

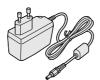
For the US/Canada: PDR-ACM1A For Europe: PDR-ACM1E

For the UK: PDR-ACM1U

For details, refer to the specifications of AC adapter • Page 127.



PDR-ACM1A (for the US and Canada)

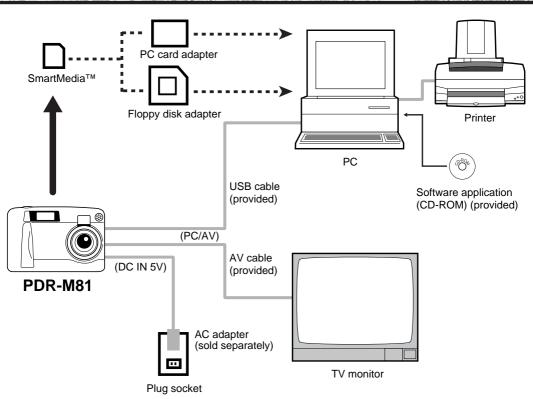


PDR-ACM1E (for European Continent)



PDR-ACM1U (for the UK)

Connecting to Other Devices



Getting Ready

Taking Photographs

Playing Back Images

> Erasing Images

> Handy Function

Other Applications

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Camera Body

Recording medium	SmartMod	ia TM (2 2\/\ 1	///Q/14	/22/6//120	RMR ~	omnatil	hlo			
		SmartMedia™ (3.3V) 2/4/8/16/32/64/128MB compatible								
Compression system	JPEG-com	pliant								
Image file format	Exif Ver. 2.	1-compliant								
<still frames="" full="" image="" mode="" number="" of="" size:<="" td=""><td>Quality Mode</td><td>Compression Ratio</td><td>Image Size</td><td>File Size</td><td>(max.)</td><td>8MB</td><td>16MB</td><td>32MB</td><td>64MB</td><td>128MB</td></still>	Quality Mode	Compression Ratio	Image Size	File Size	(max.)	8MB	16MB	32MB	64MB	128MB
	FINE	1/5	FULL	1536H	KB	5	10	20	41	83
2400 x 1600 pixels	***	1/4	HALF	480K	(B	16	33	66	133	266
HALF size: 1200 x800 pixels SMALL size 720 x 480 pixels	^^^	1/3.5	SMALL	192K	ίB	41	82	166	332	666
	NORMAL ★★	1/7.5	FULL	10241	KB	7	15	31	62	124
		1/6	HALF	320K	(B	24	49	99	199	399
		1/5	SMALL	128K	ίB	62	124	249	499	999
	BASIC	1/15	FULL	512K	(B	15	31	62	124	249
		1/12	HALF	160K	(B	49	99	199	399	799
	*	1/10.5	SMALL	64K	В	124	248	498	998	1998
<movie image="" mode=""> Standard movie</movie>	Quality Mode	Compres Ratio		lmage Size	Fram	e Size	Photo	graphy (ma	Time (:	secs)
photography time	FINE	1/10		FULL	16	KB		3	0	
FULL size:	***	1/7		HALF	6	KB		9	0	
320 x 240 pixels	NORMAL	1/14 1/10		FULL	11	1KB 45				
HALF size:	**			HALF	4.5	5KB 120		20		
160 x 120 pixels	BASIC	1/19		FULL	8	KB		6	0	
· '	*	1/14		HALF	3	KB		18	30	
Conversion rules	DCF Ver. 1	.0-complian	t							

Specifications (continued)

Pickup el	ements	1/1.8" CCD sensor (total number of pixels: approx. 4.2 million)	
Sensitivity	y	Equivalent to ISO 100/200/400	
Lens		2.8X optical zoom lens F2.9 – F4.8	
Focal len	gth	f=7.25 mm - 20.3 mm (equivalent to 35 mm - 98 mm on a 35 mm camera)	
Viewfinde	er	Real image type zoom finder	
Auto-focu		TTL system AF, focus adjusting range: approximately 0.10 m (0.33 ft) to infinity (WIDE side setting) Detection system: Contrast detection system (frame rate during detection: 30 Hz)	
_	Metering system	Spot metering, multi metering	
Exposure	Control system	Program AE, aperture-priority AE, shutter-priority AE	
Control	Exposure compensation	-2.0 EV to +2.0 EV (in 0.5 EV increments)	
Aperture		F2.9 to F8 automatic selection, manual selection possible	
Shutter sp	peed	1/2 to 1/1,000 sec. (electronic shutter and mechanical shutter)	
·		Maximum 15 sec. for extended exposure photography	
White bal	ance	Auto selected Manual setting possible (5 modes)	
	Standard	Approx. 80 cm (31") to infinity	
Focal ran	ge Macro	Approx. 10 cm (4") to infinity (WIDE side setting) Approx. 25 cm (10") to infinity (TELE side setting)	
Self-Time	r	2 seconds/10 seconds selectable	
Mc	odes	Auto, Red-eye reduction forced flash, Forced Flash, Suppressed Flash	
Built-in Eff	ective range	Approx. 0.8 m (2.6 ft) – 3.0 m (9.8 ft) (WIDE side setting, ISO setting: [2X])	

Date/Time		Simultaneously recorded to image data (Exif file format)
Automatic ca	alendar function	Automatically adjusted until the year 2030
LCD monitor	· (*1)	1.5" low-temperature polysilicon TFT (117,600 pixels)
I/O terminal	DC IN 5V terminal	DC 5 V
PC/AV terminal Selecta		Selectable Audio/Video cable or USB cable connections.
Power supply		4 x AA (Alkaline, Nickel Metal Hydride or Lithium) battery
		or AC adapter (PDR-ACM1A) (sold separately)
Operating	Temperature	+5°C (+41°F) to +40°C (+104°F) (during operation)/–20°C (-4°F) to +60°C (+140°F) (during storage)
conditions Humidity		, , , , , ,
		30 to 80% (during operation) no condensation
Camera dim	ensions	107 mm (4.2") (W) x 71 mm (2.8") (H) x 47 mm (1.8") (D)
		(excluding protrusions)
Weight		Approx. 240 g (8.5 oz) (excluding accessories, battery and SmartMedia™)

The LCD monitor on your digital camera is manufactured using advanced high-precision technology. Though fine spots may appear on the LCD monitor, this is not a malfunction. The LCD monitor can be used as it is.

Power supply	AC120V 50/60Hz
Rated Input Capacity	18VA
Rated Output	DC5V 1.5A
Operating temperature	0°C (+32°F) ~ +40°C (+104°F)
Storage temperature	-10°C (+14°F) ~ +70°C (158°F)
Dimensions	48 mm (1-8/9") (W) x 26 mm (1-1/4") (H) x 70 mm (2-3/4") (D)
Weight	Approx. 100 g (3.5 oz)
Connector Cable Length	Approx. 2 m (6.6 ft)

AC adapter (PDR-ACM1E)

Power supply	AC230V 50Hz
Rated Input Capacity	120 mA
Rated Output	DC5.0V 1.5A
Operating temperature	0°C ~ +40°C
Storage temperature	-10°C ~ +70°C
Dimensions	49.5 mm (1.9") (W) x 66.5 mm (2.6") (H) x 76 mm (3.0") (D)
Weight	Approx. 130 g (4.5 oz)
Connector Cable Length	Approx. 2 m (6.6 ft)

AC adapter (PDR-ACM1U)

Power supply	AC230V 50Hz
Rated Input Capacity	120 mA
Rated Output	DC5.0V 1.5A
Operating temperature	0°C ~ +40°C
Storage temperature	-10°C ~ +70°C
Dimensions	49.5 mm (1.9") (W) x 60.5 mm (2.4") (H) x 76 mm (3.0") (D)
Weight	Approx. 130 g (4.5 oz)
Connector Cable Length	Approx. 2 m (6.6 ft)

These specifications are subject to change without notice.

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Playing Back Image

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Handy Function:

Other pplications

Additional nformation

Warnings and Messages Displayed on LCD Monitor

The following warnings, messages and icons are displayed on the LCD monitor and the status display.

D	isplay	Meaning
LCD monitor	Status display	- Wearing
		Batteries are partially used.
	□	Battery power is nearing exhaustion.
	<u>_</u>	Batteries are completely exhausted. Camera
		will not turn on.
CARD ERROR	Flashing	The SmartMedia™ is damaged.
		An unsupported SmartMedia™ is loaded.
CARD LID OPEN		The SmartMedia™ cover is open.
CARD FULL	Display 0	No more space on the SmartMedia™.
		Recording is not possible.
NO CARD		No SmartMedia™ is loaded
		SmartMedia™ is loaded incorrectly
CARD ISN'T FORMATED		The SmartMedia™ is not initialized.
		The SmartMedia™ format is incorrect.
FORMAT CARD?		The SmartMedia™ is not formatted (initialized).
		The SmartMedia™ format is incorrect.
FRAME NUMBER FULL		The frame number has reached 999-9999.
PROTECTED		The image is write-protected.
NO IMAGE		The image to apply the resize, quality or other
		function does not exist.
CARD FULL		There is not enough space on the
		SmartMedia™ to copy image data to.
FORMAT ERROR		The format of the SmartMedia™ to copy image
		data to is incorrect.
CARD PROTECTED		The SmartMedia™ is write-protected.

Photogra

ages

unctions

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Display		Meaning		
LCD monitor	Status display	Wearing		
FOLDER ERROR		There are no free folders on the SmartMedia™ to copy image data to.		
RECREATE DPOF FILE?		There is a parameter that is not supported in the DPOF setting file.		
CLOSE THE CARD LID		The SmartMedia™ cover must be closed.		
FRAME NUMBER FULL		The maximum number of images (999 frames) that can be set is exceeded when setting DPOF setting files.		
NO IMAGE AVAILABLE		No images are recorded to the SmartMedia™.		
DPOF ERROR		There is a parameter that is not supported in the DPOF setting file.		
DPOF PROTECT OFF		This is a confirmation for checking whether or not to remove DPOF write-protection when clearing DPOF settings.		
LENS COVER		The zoom lens cannot be correctly set up. Is the lens cap still attached to the lens? Check the lens cap, and turn the power ON again.		
\boxtimes		You tried to play back an image not supported on this camera.		
ERROR***		A camera problem has occurred. Contact a Support Center.		
(h)		Poor lighting conditions. Image will be vulnerable to vibrations.		

Warnings and Messages Displayed on LCD Monitor (continued)

First check the warning displayed on the LCD monitor (Page 128) and the color of the viewfinder LED (Page 118). Then check the following items.

Problem	Causes	Remedy	See Page
No power supply	The batteries are exhausted.	Replace with new batteries.	P.25
	The AC adapter plug has come out of the power outlet.	Plug the adapter back in.	P.28
The camera turns OFF during operation.	The batteries are exhausted.	Replace with new batteries.	P.25
The battery runs out quickly.	You are using the camera in extremely cold conditions.	Put the battery in your pocket or another warm place to heat it and then load it into the camera just before you take a picture.	P.16
	The terminals are dirty.	Wipe the battery terminals with a clean, dry cloth.	-
	The battery has reached its effective life.	Replace with new batteries.	P.25
No photograph is taken	No SmartMedia™ is loaded.	Load a SmartMedia™.	P.31
when the shutter button is pressed.	The SmartMedia™ is loaded incorrectly.	Load the SmartMedia™ correctly.	P.32
	Not enough space on the SmartMedia™	Load a new SmartMedia™. Erase photographed images or change the size and quality to increase space on the SmartMedia™.	P.31 P.87 P.94 P.96
	The SmartMedia™ is write- protected.	Remove the write-protection or replace with a new SmartMedia [™] .	P.34
	The SmartMedia™ is not formatted.	Format the SmartMedia™.	P.91
	The SmartMedia™ is damaged.	Load a new SmartMedia™.	P.31
	The Auto Power OFF function is activated.	Turn the power on again.	P.110

Troubleshooting (continued)

Problem	Causes	Remedy	See Page
I cannot use the flash to take pictures.	The mode dial has been changed to another setting.	Set the mode dial to the correct setting.	-
	The flash is set to Suppressed Flash mode.	Set the flash to Auto, Red-Eye Reduction or Forced Flash mode.	P.56
	You pressed the shutter button while the flash was charging.	Wait until charging is completed before pressing the shutter button.	P.118
The flash will not charge.	The camera is set to Suppressed Flash mode.	Set the flash to Auto, Red-Eye Reduction or Forced Flash mode.	P.57
	The batteries are exhausted.	Replace with new batteries.	P.25
The playback image is too dark even though I used the flash.	The subject is too far away.	Move closer to the subject. (about 2.6 ft (0.8 m) ~ 9.7 ft (3.0 m) (WIDE side setting))	P.92
Images cannot be played back.	No image saved in the folder	Select the folder containing images to play back.	P.56
The playback image is	The lens is not clean.	Clean the lens.	-
blurred.	The image is out of focus.	Set the FOCUS photography according to the distance up to the subject.	P.54
I cannot format the SmartMedia™.	The SmartMedia™ is write-protected.	Remove the write-protection.	P.34
I cannot erase all the frames.	The frame is protected.	Remove the write-protection. Cancel the DPOF setting.	P.108 P.102
	The SmartMedia™ is write-protected	Remove the write-protection.	P.34
Nothing happens when I use the buttons and	Camera malfunction.	Turn the power off and remove the batteries once, and try again.	-
switches.	The mode dial is not at the correct position.	Set the mode dial to the correct setting.	-
	The camera is in the Auto Power OFF mode.	Press the POWER button again to turn the camera on.	P.110

Problem	Causes	Remedy	See Page
Nothing is displayed even through the LCD monitor is set to ON.	The camera is in the PC mode.	Change the camera to the photography or playback mode.	P.41 P.58 P.75 P.80
The set date and time disappears.	Both the battery and AC adapter are removed with the power still on.	Set the date and time again.	P.111

Glossary

AF/AF

AF (auto-focus) ··· A function for automatically focusing your camera.

AE ... A function for automatically setting your camera's exposure.

AF/AE lock $\stackrel{\dots}{\dots}$ Locking of the focus and exposure settings.

DPOF (Digital Print Order Format)

A standard for directly writing print information to the SmartMedia $^{\text{TM}}$. Files in this format can be printed easily by printers or photo print service bureaus that support this format.

DCF (Design rule for Camera File System)

A file system standard defined by the JEIDA (Japan Electronic Industry Development Association) that is required for exchanging data between digital still cameras or a digital camera and a printer. This standard defines the hierarchy and file names used when storing image files on memory cards or other recording medium.

• Exif File Format (Exchangeable Image File Format) A color still image format for digital still cameras approved by the JEIDA (Japan Electronic Industry Development Association). JPEG-compliant, this format is compatible with TIFF and JPEG and can be used in image processing software for most personal computers.

JPFG

A file format used for compressing and saving color images. The compression ratio can be selected, but the higher the compression ratio, the worse image quality becomes. This format is widely used in the paint software for PCs and on the Internet.

 NTSC (National Television System Committee)
 Method of television transmission in use in Japan and North America

● PAL (Phase Alternate Line)

Method of television transmission in use in the United Kingdom, Germany and other western European countries

PC Card

A generic term for cards that meet the PC Card Standard.

Red-Eye Effect

The phenomenon where people's eyes sometimes appear red in the picture when you use a flash to photograph them in low-light conditions. This is caused by the light of the flash reflecting off the inside of the eye.

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 process is referred to as matching the white balance.

Additional Information ■ SmartMedia[™]

Name of a recording medium defined by the SSFDC Forum. This recording medium can be used over and over again.

Formatting

Transforming the contents of the SmartMedia $^{\text{TM}}$ to a recordable state. (This is sometimes called "initialization".)

Exposure Compensation

When the screen contains an extremely bright or dark object, the camera automatically adjusts the brightness, resulting in the subject being reproduced darker or lighter. Exposure compensation adjusts for this.

PRINT Image Matching

The **PRINT Image Matching** system prints the image of a digital still camera (with

PRINT Image Matching function) in high quality using a **PRINT Image Matching** compatible printer.

When taking a photograph, the image data is added with **PRINT Image Matching** print command which enable the printer to print in an optimum color.

MEMO

MEMO

Global Contacts

Country/Region	Company name	Phone number	e-mail	Website
Canada	Toshiba America Information	(800) 829-8318	dsc.support@tais.toshiba.com	www.toshiba.com/taisisd
	Systems, Inc.			
China Hong Kong	Toshiba Hong Kong Ltd.	2956-0222	NA	www.toshiba.com.hk
France	Toshiba Systems (France)	01 47 28 28 50	consommateur@toshiba-tsf.com	www.toshiba.fr/produits/video/index.htm
Germany	Toshiba Europe Gmbh	(02131) 158 01	consumer@toshiba-teg.com	www.toshiba.de/consumer
Italy	Toshiba Consumer Products (Italia)	(039) 6099342	toshiba.italia@toshiba-tuk.com	www.toshiba.it/
Singapore	Toshiba Singapore Pte.	270-7776	NA	www.cp.toshiba.com.sg
Switzerland	Toshiba Europe Gmbh Swiss	01-946 07 77	info@toshiba.ch	www.toshiba.ch/
	Branch			
United Kingdom	Toshiba (UK) Ltd.	(01932) 828828	enquiries@toshiba-tuk.com	www.toshiba.co.uk
United States	Toshiba America Information	(800) 829-8318	dsc.support@tais.toshiba.com	www.toshiba.com/taisisd
	Systems, Inc.			

For customers in the U.K.

Website for digital cameras: www.toshiba.co.uk Technical support is available on-line, or by calling (0115) 9766958.

9.00am to 5.00pm Monday to Friday except bank holidays, or e-mail us at: enquiries@toshiba-tuk.com

Toshiba European Service Centre Units 6&7 Admiralty Way, Camberley, Surret, GU15 3DT, U.K.

For customers in the U.S.A. and Canada

Register your product on-line at www.toshiba.com/taisisd Technical support is available on-line, or by calling (800) 829-8318.

8:00 a.m. to 5:00 p.m. EST, Monday to Friday except holidays, or e-mail us at: dsc.support@tais.toshiba.com

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^{*} Address and telephone number are subject to change without notice.

^{*} For customers outside of Canada, U.K. and the U.S.A., please refer to the "Global Contacts" before this page and contact the nearest Toshiba company for assistance.