

2.0 Mega-Pixel Slim Card-Sized Digital Camera (DS6638)

USER MANUAL

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INTRODUCTION

BRIEF DESCRIPTION

Thank you for selecting the Oregon Scientific™ 2.0 Mega-Pixel Slim Card-Size Digital Camera as your personal product of choice. Your digital camera is designed to give you many years of reliable service. It includes the following features:

- **Slim Card-Size Design**
No bigger than a credit card and only 16mm thick, this digital camera is light and portable.
- **LCD Screen Display**
State-of-the-art LCD display lets you review pictures taken and informs you of the status of the various operations and functions.
- **Great Image Quality**
With 2.0 Mega-Pixel resolution, you are assured of clear, natural-looking images every time you take a photo.
- **Multimedia Features**
You can record movie clips that can be played back on your personal computer.
- **Advanced Camera Functions**
In addition to the Auto Flash and 2x Zooming functions, you can take advantage of advanced functions such as White Balancing, Manual Exposure Compensation, and Metering Setting.
- **Connection to External Devices**
Your digital camera can be connected to external devices such as your PC or TV.

IMPORTANT NOTICE

Statement of Responsibility

Oregon Scientific assumes no responsibility for any incidental losses (such as the costs of photography or the loss of income from photography) incurred as a result of faults with this product.

Notes on Copyright

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

SAFETY NOTES

To ensure that you use your camera correctly, read these Safety Notes and your User Manual carefully beforehand. The warnings given here provide important safety information and should be observed at all times.

△ GENERAL WARNINGS

- The enclosed disc is a computer CD-ROM disc. Never attempt to play this disc on an ordinary music CD player, as it can produce extremely high noise levels that could damage your hearing or your audio system.
- Do not immerse the device in water or subject the camera to impact or shock.
- Do not, under any circumstances, touch the exposed electronic circuitry of the device, as there is a danger of electric shock.
- Take special care when handling a damaged LCD display, as the liquid crystals can be harmful to your health.
- Do not use or store the device in locations that may adversely affect the product such as rain, snow, desert, and magnetic fields.
- Check all major functions when the device is unused for a long period of time. This is to ensure its full operation. Maintain regular testing and cleaning of your device.
- Do not look through the viewfinder at the sun or other strong lights. This could damage your eyesight.
- Avoid leaving the camera exposed to direct sunlight, as the action of the lens could cause fires.
- Remove the batteries and memory card before storing the camera for long periods of time. Then, keep it in a well-ventilated place in order to prevent moulding.

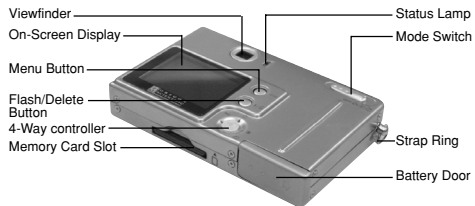
NOTES ON THE DIGITAL CAMERA**Cleaning your Camera**

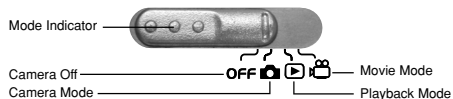
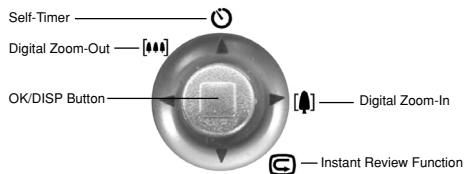
Lens / Viewfinder	Use a blower or a lens brush to remove dirt or dust. Wipe carefully with a soft cloth to remove fingerprints and other stains. Do not touch with fingers.
Body	Clean with a damp cloth; dry immediately.

- Do not use benzene, thinner, or similar cleaning agents to clean your camera, as these may cause permanent damage not covered by the warranty.
- Do not scratch hard objects against the lens, LCD or viewfinder as these surfaces are easily damaged.

Handling your Camera

- For important photographs (such as weddings and overseas trips), always take a test photograph and view the image to make sure that the camera is functioning normally.
- Do not use the camera while you are walking, running, driving or operating machinery. This can result in serious accidents.
- Do not use this device in aircrafts or hospitals. It can cause malfunctions in the control devices of other equipment.
- If the camera is carried suddenly from a cold location into a warm place, condensation may form inside the device. Switch the camera off in such cases and wait an hour before using it again.

KEY FEATURES**FRONT VIEW****BACK VIEW**

MODE SWITCH**4-WAY CONTROLLER****GETTING STARTED****PACKAGE CONTENTS**

When you unpack your Digital Camera, make sure to keep all the packing materials in a safe place, in case you need to later transport the device or return it for servicing.

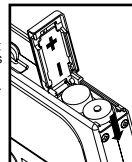
In the box, you will find:

- Digital Camera (DS6638)
- Two Batteries (AAA x 2)
- Hand Strap
- Quick Start Guide
- Video Cable
- USB Cable
- Software CD-ROM
- User Manual

Installing the Batteries

Your camera is shipped with two AAA-sized batteries. Insert the batteries as shown on the compartment lid.

(NOTE) You may damage your camera if the batteries are installed incorrectly.

**Attaching the Strap**

1. Pass the short, thin loop of the strap through the camera's strap ring.

2. Pass the other end of the strap through the loop.

3. Tighten by pulling the loop.

**SECURE DIGITAL (SD) AND MULTI-MEDIA CARD (MMC)**

The Secure Digital (SD) and Multi-Media Card (MMC) are external memory cards that can be plugged into your Digital Camera to extend the memory capacity. Please refer to (→ p.29) for the list of memory cards compatible with this digital camera. The type of memory currently used by the camera is indicated on the OSD (On-Screen Display):

Icon	Memory Type	Description
	Internal	Files are stored in the camera's internal memory.
	External	Either a Secure Digital card or a Multi-Media card has been installed. Files are stored on the card's memory.

NOTE It is recommended that all memory cards are formatted using the Format option (→ p.14) before using them with this digital camera. Memory cards formatted using other devices may be incompatible.

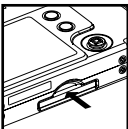
NOTE When the SD card is installed, all images and movies taken are automatically stored on the card. Images and movies in the internal memory cannot be accessed until the card is removed.

⚠ The SD card will not insert fully into the slot if it is facing the wrong way. Be careful not to apply undue force to the card.

Installing the SD / Multi-Media Card

1. Turn off the camera.

2. Slide the card into the slot until it clicks into position.

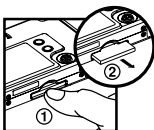


Removing the SD / Multi-Media Card

1. Turn off the camera.

2. Push on the card still lodged inside.

3. The card automatically ejects itself out of the slot.



BASIC PHOTOGRAPHY

QUICK START

Preparing the Camera

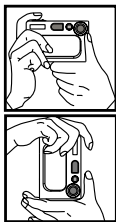
- Slide the Mode Switch to Camera Mode.
- Check the battery indicator, making sure there is enough power.

Icon	Description
	Adequate power remains
	Battery is running low
	Battery is running very low.
	Battery is exhausted.

- Loop the strap over your wrist.

Holding the Camera

- Hold the camera firmly.
- Avoid blocking the lens and flash.
- Do not move nor remain in motion while taking pictures.



Taking Basic Pictures

- Frame your subject in the viewfinder. You can also view the subject on the OSD.
- Press the Shutter Release Button.
- The image taken is displayed on the OSD for approximately a second (Auto Review).
- Once the Auto Review has finished, you may proceed to take the next picture.

NOTE When memory is full, no more images can be stored. The camera will beep and the words "Internal Memory Full" will appear on the LCD if you press the Shutter Release Button.

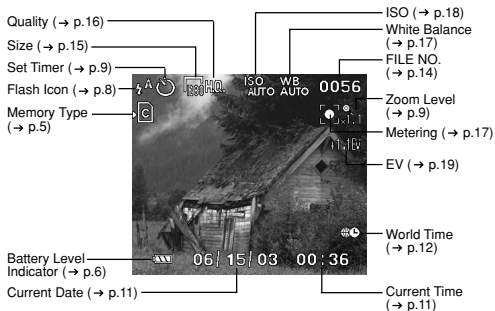
- When you have finished taking your pictures, slide the Mode Switch to Off.

BASIC FUNCTIONS AND SETTINGS

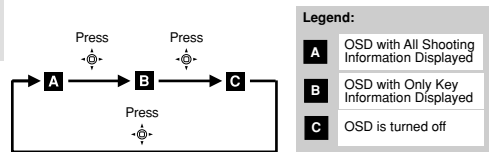
Toggling On-Screen Display Information

When you slide the Mode Switch to any modes, the On-Screen Display (OSD) is automatically switched on.

Camera Mode On-Screen Display



Toggling Between On-Screen Display Settings



Selecting a Flash Mode

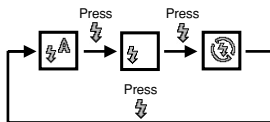
To toggle between Flash Modes, press the button on the camera and observe the Flash Icon on the On-Screen Display. When a picture with flash has been taken, the Status Lamp will blink while the flash is recharging. Once it stops blinking, you can resume taking pictures again.

Initial Flash Settings

When you turn on your camera, the initial flash setting will vary depending on the level of your battery.

Battery Status	Initial Flash Setting
or	The flash setting is always on Auto at these battery levels when the mode switch changes to camera mode.
or	The initial flash setting is . However, you can manually set the flash to other settings.

Toggling Between Flash Modes



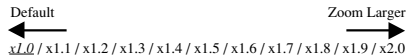
Flash Mode Options Table

Icon	Function	Description
	Auto	The flash may discharge automatically, depending on the light conditions.
	Flash On	The flash discharges regardless of lighting condition.
	Flash Off	The flash will not discharge.

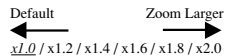
Zooming

Your digital camera comes with a x2 zooming function. By default, the zooming is not enabled. In Camera, or Movie mode, increase zooming by pressing (→ p.4). The Digital Zoom Icon on the OSD, , indicates the current zoom level. To decrease the zooming, press (→ p.4).

Camera Mode Zooming Options



Movie Mode Zooming Options



(NOTE) In movie mode, once the shutter button is pressed and recording starts, zooming cannot be further adjusted for the duration of the recording.

Using the Self-Timer

The Self-Timer function counts down before the camera automatically takes a picture by itself. This is useful when you want to be in the picture, and there is no one else to press the Shutter Release Button.

- Slide the Mode Switch to Camera Mode.
- Press (→ p.4). The Self-Timer will engage. The front blue Self-Timer Lamp lights up.
- Press the Shutter Release Button. Audible beeps can be heard, and the front blue Self-Timer Lamp will start blinking. The number displayed next to the OSD's Self-Timer icon will appear and start counting down.

(NOTE) To hasten the countdown to 3 seconds, press the Shutter Release Button once again.

- To pause / unpause the Self-Timer, press the Shutter Release Button once more after the 3-second countdown.
- Once the picture has been taken, the Self-Timer will be disabled.

NOTE The Self-Timer cannot be used while the Continuous Shooting function (→ p.18) is enabled.

Playing Back Last Picture Taken

You can display the last still picture taken by pressing (→ p.4). When viewing the last image, you may choose to delete it by pressing and confirm. Press again to return to shooting.

INTRODUCTION TO CAMERA MODES

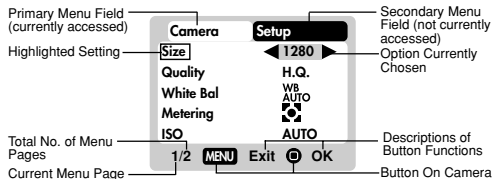
GUIDE TO MENUS

Press **MENU** to access the menu screens, where settings can be specified. To switch between Primary and Secondary Menus, highlight the top menu fields.

Mode	Primary Menu	Secondary Menu	Description
	Camera Menu	Setup Menu	Photography mode with adjustable settings.
	Playback Menu	Setup Menu	Lets you play back all images & movies recorded onto the camera's internal or external memory card.
	Movie Menu	Setup Menu	Allows you to shoot movies with the camera.

NOTE Use to navigate the menu screen (→ p.4). Press directly onto to confirm setting changes.

Example of a Menu Screen



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Setup Menu

Under the Setup Menu, which is available in all modes, the basic settings of the camera can be adjusted.

Setup Menu Settings and Options

NOTE The options underlined and in italics are initial defaults.

Settings	Page	Options
P.Counter	→ p.11	<i>Down</i> / Up
Set Clock	→ p.11	Adjust date and time settings
Set City	→ p.12	Toggles between Home or World City time
Show Time	→ p.13	<i>Home City</i> / World City
Language	→ p.13	<i>English</i> / Français / Deutsch / Español / Italiano / Português
Beep Tone	→ p.13	<i>On</i> / Off
Auto Off	→ p.13	None / 1 min. / <i>3 min.</i> / 5 min.
TV Out	→ p.13	<i>PAL</i> / NTSC
File No.	→ p.14	<i>Continue</i> / New
Format	→ p.14	Format internal memory or memory card
Reset	→ p.15	<i>Cancel</i> / Reset

P. Counter (Picture Counter)

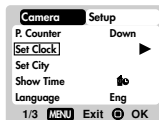
The Picture Counter can count the number of images already taken (count up) or available to be saved onto memory (count down).



Set Clock

This sets the Date and Home Time of the camera. When accessed, a new Set Clock configuration screen will appear.

Use to press or and adjust the values of each field below.



11

A Current Date Field

Adjust the current date of the camera.

B Date Format

Choose from the following date formats:

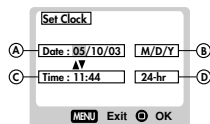
- DD/MM/YY (date, month, year)
- MM/DD/YY (month, date, year)
- YY/MM/DD (year, month, date)

C Current Time Field

Adjust the current time of the camera.

D Time Format

Choose between 12-hr (AM/PM) or 24-hr display.

**Set City**

You can choose to display the current time in two different time zones. Configure your Home and World Cities' time zone from a list of city names.

NOTE The World Time cannot be directly set. It automatically adjusts itself via the time zone offset, using the Home Time values specified in the Set Clock setting.

Icon	Function	Description
	World Time	Select the time zone for another location across the world.
	Home Time	Select the time zone where your residence is located.

NOTE If your city is not selectable, choose another city within your time zone instead.

**Show Time**

You can choose to display either the Home Time or World Time on your camera.

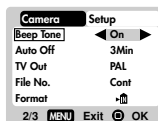
NOTE icon is shown on the OSD if World Time is selected. However, no Icon is displayed if Home time is selected.

**Language**

Choose your menu language: English, French, German, Spanish, Italian, and Portuguese. The default language is English.

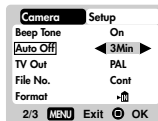
**Beep Tone**

The camera will make "beeping" sounds during certain functions, such as the Set Timer function's countdown. This "beeping" sound can be turned on or off.

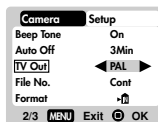
**Auto Off (Auto Power-Off)**

You can set the camera to turn off automatically when no operation is performed. The period of time before shut-down can be adjusted.

NOTE Auto Off is not available in slideshow mode or when the camera is connected to a PC.

**TV Out**

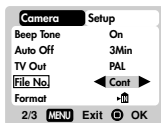
If connecting the camera to a TV, you can set the camera's TV output system to either the PAL (Europe) or NTSC (North America) standards.



File No.

Your camera keeps an internal file counter for every image and movie taken that can be reset. The setting options are Continue and New.

(NOTE) All files are stored within a designated folder. The initial folder is always numbered at 100.

**Continue**

Under this default option, the internal file counter is first set to "0001". Every subsequent picture is assigned an incremental File Number.

(NOTE) The internal file counter increments by 1 regardless of the media type, unless it is reset.



New

Under this option, the internal file counter to "0001" for new media only. But in case there are picture files already present inside the storage media, it will start counting from the highest file number of the media.

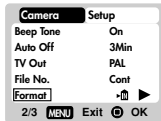
(NOTE) It is advisable to set the **File Number** setting to **New** only in the following cases:


- Either the internal memory or SD card has been newly formatted (→ p.14).
- A completely new SD card has been installed.

Format

This option will format all data in either the internal memory  or the external card , including all protected image files.

Caution: Do not eject the SD card while the card is being formatted, as this may damage the card.



 Formatting deletes all data from the memory device chosen. The images and files will not be recoverable.

Reset

You can reset all the settings to factory default. Refer to the Setup Menu table to see the defaults for each setting (→ p.11).

(NOTE) The reset function can reset all the settings to factory default except for the current time and date.

**Camera Menu****Camera Menu Settings and Options**

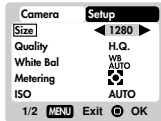
(NOTE) The options underlined and in *italics* are initial defaults.





Settings	Page	Options
Size	→ p.15	Super Fine 2048 (software-interpolated 3.0 Mega-Pixel) / <u>Fine 1600</u> (2.0 Mega-Pixel) / Normal 1280 (2.0 Mega-Pixel) / Basic 640 (VGA)
Quality	→ p.16	ECO (Economy) / STD (Standard) / <u>HQ</u> (High Quality)
White Bal	→ p.17	<u>Auto</u> / Sunlight / Shade/ Yellow F.L. (Fluorescent Lamp) / White F.L. (Fluorescent Lamp) / Tungsten
Metering	→ p.17	<u>Central</u> / Spot / Matrix
ISO	→ p.18	<u>Auto</u> / 50 / 100 / 200
Con.Shoot	→ p.18	<u>Off</u> / On
EV	→ p.19	+2.0 / + 1.7 / +1.3 / +1.0 / +0.7 / +0.3 / <u>0.0</u> / -0.3 / -0.7 / -1.0 / -1.3 / -1.7 / -2.0

Size (Image Size)

Image size represents the resolution of the picture. The resolution is, in turn, directly related to the number of pixels of the camera. As such, 2.0 Mega-pixel can be arranged as 1600 x 1200 pixels or lower.

(NOTE) The higher the resolution size of an image, the larger the memory space it occupies. Please refer to "Memory Capacity, Size and Quality" section for more details (→ p.29).



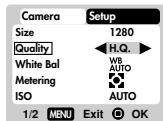
Icon	Type of Media	Descriptions
	Super Fine Image	Highest detail and resolution (2048 x 1536 3.0 Mega-Pixel) (output by software interpolation)
	Fine Image	Very good detail and resolution (1600x1200 2.0 Mega-Pixel).
	Normal Image	Good clarity and resolution (1280x1024 1.3 Mega-Pixel).
	Basic Image	Basic quality and resolution (640x480 VGA).

- The DS6638 comes with a 2.0 Mega-pixel sensor with true 1600 x 1200 pixels output. When you choose 2048 on the menu, the software interpolation is enabled automatically. This enhances the image output to 3 Mega-pixel.




Quality (Picture Quality)

The picture quality represents the compression rate of the images taken. For images with higher quality, the memory space it takes is also higher. Conversely, images with low quality take up less space.

NOTE The higher the resolution size of an image, the larger the memory space it occupies.



Picture Quality Options







Name	Option	Description
	High Quality	Good image quality, high amount of image data.
	Standard	Standard quality, medium amount of image data.
	Economy	Lowest quality, taking up the least memory space.

White Bal. (White Balance)

You can take pictures according to the light conditions by setting the white balance. By using this, the images will have the correct balance of colour.

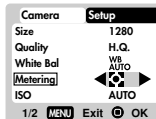


White Balance Options

Icon	Settings	Options
	<u>Auto</u>	Adjusts the white balance automatically.
	Sunlight	Use outside in sunlight.
	Shade	Use outside in the shade.
	Yellow F.L. (Fluorescent Lamp)	Use under yellow fluorescent lamp.
	White F.L. (Fluorescent Lamp)	Use under white fluorescent lamp.
	Tungsten	Use under electric or other tungsten light.

Metering

Metering is a setting that determines your subject's correct exposure. The camera will compute the brightness levels, contrast, and amount of bright to dark parts in the scene automatically.



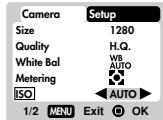
Metering Options

Icon	Settings	Options
	Matrix (Multi-segment)	Evaluated by splitting the scene into multiple zones, then calculate each zone's exposure via the camera's computations. Ideal for general picture-taking.
	Central (Centre-Weighted)	Averages the exposure of the entire scene but gives extra weight to the centre. Use for backlit subjects.
	Spot	Only the small area at the centre of the screen determines the exposure. Ideal for highlighting the main subject.

ISO

The ISO setting affects the camera's sensitivity to light.

NOTE An image taken at higher ISO speeds may contain more "noise" or graininess than an image taken at lower speeds.

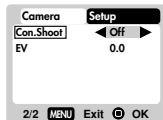
ISO Options

Speed	Description
	The camera sets the speed automatically.
	ISO rating 50. Use for very brightly lit scenes.
	ISO rating 100. Use for brightly lit scenes.
	ISO rating 200. Use for normally lit scenes.

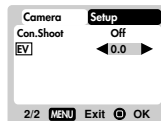
Con.Shoot (Continuous Shooting)

With this setting, pictures can be taken continuously when you press the Shutter Release button. The icon will appear on-screen. A maximum of 2 continuous pictures can be taken, with brief 0.5-second pauses between each shot.

NOTE Continuous Shooting cannot be used with flash or when the Self-Timer is set. Moreover, it may not be suitable for night time or dark scenes because flash is disabled. 18

**EV (Exposure Compensation Setting)**

Exposure compensation is required when there is an extreme difference in brightness between the background and the subject. Use this setting to manually brighten or darken an image.

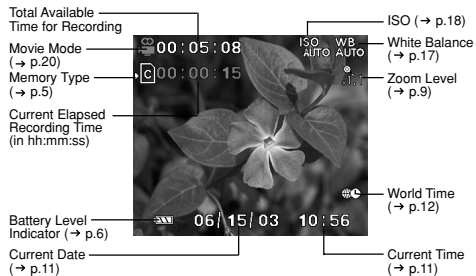
EV Options

Brighter ← Default → Darker

+2.0 / +1.7 / +1.3 / +1.0 / +0.7 / +0.3 / 0.0 / -0.3 / -0.7 / -1.0 / -1.3 / -1.7 / -2.0

SHOOTING MOVIESBASIC FUNCTIONS

The Movie Mode enables you to take moving images. The length of the movie that can be taken depends on the amount of memory available within your camera's current memory storage.

Movie Mode On-Screen Display

Movie Mode Functions

Function	Page	Description
Toggling OSD Information	→ p.8	Identical procedures to Camera Modes
Zooming	→ p.9	Identical procedures to Camera Modes
Begin Recording Movie	N/A	Press the Shutter Release Button
Stop Recording Movie	N/A	Press the Shutter Release Button again after recording has started.

MOVIE MENU

Press **MENU** to access the Movie Menu.

[NOTE] Use \leftarrow to navigate the menu screen (→ p.4). Press directly onto \rightarrow to confirm setting changes.

Movies Settings and Options

[NOTE] The options underlined and in italics are initial defaults.

Settings	Page	Options
White Balance	→ p.17	<i>Auto</i> / Sun light/ Shade/ Yellow F.L. (Fluorescent Lamp) / White F.L. (Fluorescent Lamp) / Tungsten
ISO	→ p.18	<i>Auto</i> / 50 / 100 / 200
EV	→ p.19	+2.0 / + 1.7 / +1.3 / +1.0 / +0.7 / +0.3 / <u>0.0</u> / -0.3 / -0.7 / -1.0 / -1.3 / -1.7 / -2.0

PLAYBACK FUNCTIONS

In Playback Mode, you can review the images and movies stored within your current active storage memory. The last image or movie taken is displayed on the OSD in Playback Mode. Use \leftarrow and press \blacktriangle or \blacktriangledown to view through the images and movies taken.

[NOTE] If the Secure Digital card / Multi-Media Card is installed, the Playback Mode will only show the images and movies stored on the card. To access the data stored within the internal memory, the SD card must first be removed (→ p.5).

PLAYBACK OF IMAGES

Image Playback Mode On-Screen Display



ZOOMING FUNCTIONS

Zooming into Pictures

The zooming function can magnify images up to x5.0 on the On-Screen Display: x1.0 / x1.5 / x2.0 / x2.5 / x3.0 / x3.5 / x4.0 / x4.5 / x5.0

1. Wait until the icons disappear from the playback image.
2. Press \leftarrow (→ p.4) to zoom in. The \leftarrow icon appears, as well as the current magnification level.
3. To zoom out, press \rightarrow (→ p.4).
4. Press directly onto \rightarrow to exit zooming mode.


Scrolling a Magnified Image


While an image is magnified, only a portion of the image will be visible. Press the Shutter Release Button to enable/disable scrolling, then use \leftarrow to scroll to other parts of the image.

[NOTE] All zooming functions are disabled while the Scrolling Mode is enabled.



Deleting Playback Image

To delete the image currently being viewed during playback, press  and confirm.



(NOTE) Protected images (indicated with ) cannot be deleted and must be unprotected first (→ p.24).

PLAYBACK OF MOVIES

Movie Playback Mode On-Screen Display





To playback movies:

- Wait until the icons disappear from the playback movie.
The  icon will then appear.
- Press the Shutter Release Button to start playback.
- Press directly onto the  to hide the Progress Bar.
Press again to restore the Progress Bar.
- Press the Shutter Release Button again to stop the playback. The movie will return to Movie Playback OSD screen.



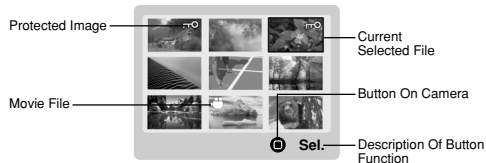
(NOTE) All zooming functions are disabled during Movie Playback mode.




Deleting Playback Movie

To delete the movie currently being viewed, stop the playback, press  and confirm.
Protected movies (indicated with ) cannot be deleted and must be unprotected first (→ p.24).

MULTI-FRAME REVIEW



The Multi-Frame Review shows, as thumbnails, up to nine recorded images and movies on the OSD. For movies, the first frame is displayed.



- In playback mode, press directly onto . Thumbnails of images will appear on the OSD.
- Use  to navigate. Press directly onto  to view a chosen image or movie fully.

PLAYBACK MENU


Press the **MENU** button to access the Playback Menu.

(NOTE) Use  to navigate the menu screen (→ p.4). Press directly onto  to confirm setting changes.





Function	Options
Delete	Cancel / Select Images / All Images
Protect	Select Images / All Images
DPOF (Digital Print Order Format)	Select Images / All Images
Slide	Start / Interval / Repeat

Delete

The Delete options within the Playback Menu can delete multiple or all images and movies.

(NOTE) Protected images and movies (indicated with ) cannot be deleted and must be unprotected first (→ p.24).

Deleting Selected Images and Movies

1. When “Select Images” is selected, the OSD displays up to nine thumbnail images similar to the Multi-Frame Review setting (→ p.23). Use  to navigate.
2. Highlight an image, then press directly onto  to confirm your selection. The  icon will then appear to indicate that the image is set for deletion. To cancel the deletion, press directly onto  again.
3. Repeat Step 2 to set multiple images or movies for deletion.
4. Follow the rest of the on-screen options to confirm deletion.

Deleting All





When “All Images” is selected, follow the rest of the options to confirm the deletion of all images and movies.

Protect (Protecting Images)

This option can be used to protect images and movies from deletion.

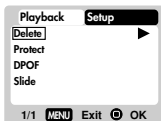
(NOTE) Protected files will still be erased if the memory is formatted.

Protecting / Unprotecting Selected Images and Movies

1. When “Select Images” is selected, the OSD displays up to nine thumbnail images similar to the Multi-Frame Review setting (→ p.23). Use  to navigate.
2. Highlight an image, then press directly onto  to confirm your selection. The  icon will then appear to indicate that the image is set for protection. To cancel the protection, press directly onto  again.
3. Repeat Step 2 to set multiple images or movies for protection.
4. Follow the rest of the on-screen options to confirm protection.

Protecting / Unprotecting All

- When “All Images” is selected, select the “Set Protect All” to **On** to confirm the protection of all images and movies.
- To unprotect all images and movies, select the “Set Protect All” to **Off**.







**DPOF (Specifying Digital Print Order Format)**

The DPOF option in the Playback Menu is used to specify the quantity of each image for printing from the SD Card. When used, the SD card can then be used in printers or taken to specialists in order to print the images.



(NOTE) This function is only used for still pictures. Movies cannot be transferred to digital prints.

(NOTE) You can only specify the DPOF of the internal memory by transferring the images to a blank SD/MMC Card via a Secure Digital card / Multi-Media card reader (sold separately).

DPOF of Selected Images

1. When “Select Images” is selected, the OSD displays up to nine thumbnail images similar to the Multi-Frame Review setting (→ p.23). Use  to navigate.
2. Highlight an image, then press directly onto  to confirm your selection. Press  or  to set the number of prints for the selected image (up to a maximum of 9 copies). When done, press directly onto  once again.
3. Repeat Step 2 to select more images for printing or change the previously specified numbers.
4. Press directly onto  and follow the rest of the on-screen options to confirm the DPOF setting.

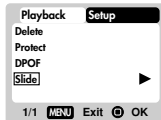
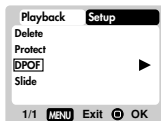
DPOF of All Images

1. When “All Images” is selected, all images will be set to the same specified printing number.
2. Press  or  to set the number of prints of all stored images in the SD card, for up to a maximum of 9 copies.
3. Follow the rest of the options to confirm the DPOF setting.

Slide (Slideshow)

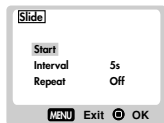
You can play back all the images and movies in a slideshow format. The interval between images can be specified.

During the slideshow, press **MENU** to stop. From here, you may choose to continue or exit the current slideshow.



Slideshow Options

Settings	Descriptions
Start	Start Slideshow according to the specified Interval and Repeat options.
Interval	Specifies the amount of time the camera will display an image before moving on to the next image. The options are 3 sec. , 5 sec. , and 10 sec.
Repeat	When set to On , the slideshow immediately replays when the final image is displayed.

**CONNECTING TO EXTERNAL DEVICES**CONNECTING TO A TV

You can playback the images and movies you have recorded on your TV. Connect your digital camera to the TV via the video cable included in the camera's gift box.

(NOTE) Be sure to adjust the TV Out setting (→ p.13) to correspond with your country's system (PAL or NTSC) before connecting the camera to the TV.

Caution: Turn off the TV and digital camera before connecting the video cable.

1. Plug the video cable into the Video Socket of the camera (→ p.3).
2. Connect the video cable's yellow connector to the yellow AV input terminal of your TV. Refer to your TV's manual for more information.
3. Turn the TV and camera on. Make sure to switch the TV to the appropriate AV channel display.

(NOTE) The OSD is automatically off when the camera is connected to a TV.

CONNECTING TO A WINDOWS-BASED PC

Use the USB cable included to connect to your Windows PC. This enables you to upload, download, edit, and playback pictures and movies onto your PC. However, the software must be installed first.

Pre-Installation Checklist

- Pentium 66MHz
- 64MBytes RAM
- 350MBytes Hard disk space
- CD-ROM drive
- 16-bit colour display at 800x600
- USB 1.1 interface
- Windows 98/98SE/ME/2000/XP

Installing Drivers and Software

1. Insert the CD labelled "DS6638" into your CD-ROM drive. The installation will start automatically.

(NOTE) If the "autorun" feature is disabled on your PC, start the installation by running [x:\setup.exe] where "x:" is the drive letter of the CD-ROM drive.
2. Follow the on-screen instruction to complete the installation of the camera drivers and software. When done, click on the [Finish] button on-screen to restart the PC.

Connecting the Camera to the PC

(NOTE) Only the images and movies stored in the camera's current memory device (SD card or internal memory) will be visible on the PC.

(NOTE) The OSD is automatically off when the camera is connected to the PC.

1. Turn on your PC and allow your system's Windows operating system to boot up.
2. Turn off your digital camera. Connect the camera and your PC via the USB cable. Refer to your PC's manual to locate the USB connection on the PC.
3. Turn on your digital camera to any Mode. The device's LCD screen will display "PC Camera". The camera will then appear as Removable Disk drive on your system's [My Computer].
4. Double-click on the [Removable Disk] drive. Two folders, [DCIM] and [MISC], are now visible. Ignore the [MISC] file (it contains DPOF information) and double-click on the [DCIM] folder.
5. New subfolder is now visible - [100DSHOT]. The [100DSHOT] subfolder contains all the Economy, Standard, and High Quality images stored as JPG files. Movie clips are also stored here as .AVI files which can be played using Windows Media Player.
6. You can double-click on the images and movies to view them (provided the appropriate Picture Viewer and Movie Player are installed). These files can also be deleted, copied, or moved like normal computer files.

Disconnecting from the PC (Windows ME, 2000, and XP users only)

For PC users with Windows ME, 2000, or XP operating systems, the camera device driver should be stopped before disconnecting the USB cable.

1. Find the "Unplug or Eject Hardware" icon in your Windows system tray.
2. Right-click on the icon. The "Stop USB Disk" option will pop up. Highlight and left-click on the option.
3. Wait for a second. A pop-up window will inform you that the USB Device can now be safely removed.
4. Disconnect the USB cable from the camera and/or from the PC.

CONNECTING TO A MACINTOSH

Use the USB cable included to connect to your Macintosh. Your Macintosh will treat the camera as a mass-storage device. The images and movies within the camera can then be uploaded and downloaded.

Pre-Installation Checklist

- Power PC
- 350 MB free hard disk space
- 64 MB RAM
- CD-ROM drive
- 16-bit colour display at 800x600
- USB 1.1 interface
- MAC OS 9.x or higher

Connecting the Camera to the Macintosh

(NOTE) Only the images and movies stored in the camera's current memory device (SD card or internal memory) will be visible on the Macintosh.

(NOTE) The OSD is automatically off when the camera is connected to the Macintosh.

1. Turn on your Macintosh and allow MAC OS operating system to boot up.
2. Turn off your digital camera. Connect the camera and your Macintosh via the USB cable. Refer to your Macintosh's manual to locate the USB connection on the Macintosh.
3. Turn on your digital camera to any Mode. The Green LED blinks.
4. A camera icon will appear on your Macintosh's screen. Click on it to access the images and movies that are stored on your camera.
5. You can double-click on the images and movies to view them (provided the appropriate Picture Viewer and Movie Player are installed). These files can also be deleted, copied, or moved just like normal computer files.

ADDENDUM**LIST OF COMPATIBLE MEMORY CARDS**

The following Secure Digital cards have been tested and are verified to be compatible for use with the DS6638:

SanDisk:	64MB, 128MB, 256MB
Panasonic:	32MB, 64MB, 128MB, 256MB
Toshiba:	32MB, 64MB, 128MB, 256MB

Operation is not guaranteed for other, unlisted memory cards. For more details on the above cards, please contact the manufacturer directly.


MEMORY CAPACITY, SIZE AND QUALITY

The table below indicates the number of images that can be stored when using a 8MB Secure Digital / Multi-Media card.

Resolution	Approximate Number of Pictures Stored under the Following Picture Quality Selections		
	High Quality	Standard Quality	Economy Quality
Super Fine (2048 x 1536)	7	9	15
Fine (1600x1200)	9	15	22
Normal (1280x1024)	15	22	39
Basic (640x480)	52	78	112

(NOTE) The above table is based on standard shooting conditions tested by Oregon Scientific and may vary depending on the subject, shooting conditions, capture modes, and SD card memory capacity.

TROUBLESHOOTING

Problem	Symptom	Check This	Remedy
No Power	Power will not turn on.	Batteries are exhausted.	Replace with new batteries.
		Batteries are inserted incorrectly.	Insert the batteries correctly (→ p.5).
	Power turns off after turning on.	Battery level is too low.	Replace with new batteries
		Auto Off Function is enabled.	Disable the Auto Off Function (→ p.13).
Taking Pictures	Cannot take pictures when the Shutter Release Button is pressed.	Camera not turned on.	Turn on the camera.
		No space on the Secure Digital card/Multi-Media card / internal Memory.	Delete unwanted files (→ p.22) or insert a new Secure Digital card/Multi-Media card.
		Mode Switch is set to Playback mode.	Change the Mode Switch to Camera or Movie Mode.
	Flash does not go off as expected.	Flash is set to  (no flash)	Enable flash by changing it to another setting (→ p.8).
		Mode Switch is set to Playback or Movie Mode.	Change the Mode Switch to Camera Mode.
		Flash has not finished charging.	Wait until the Status Lamp stops blinking (→ p.8).
	Image taken appears too dark or blurred.	Check your Flash Mode.	Turn on the flash by changing the Flash Mode (→ p.8).
		The subject is too far away.	Move closer to the subject.
		The lens is dirty.	Clean the lens with a soft cloth (→ p.2).

Continued:

Problem	Symptom	Check This	Remedy
Playback	Cannot play back images or movies.	Mode Switch is not set to Playback Mode.	Set Mode Switch to Playback Mode.
		No images or movies are recorded.	Images located in internal memory instead. Remove Secure Digital card/Multi-Media card (→ p.5)
	Cannot delete images or movies.	Images or movies are protected.	Unprotect the images or movies (→ p.24).
Connecting with External Devices	Picture not shown on TV when connected.	Check cable connection.	Make sure yellow video cable is plugged into the TV's AV terminal.
		Check channel on TV.	TV channel should be switched to the appropriate AV channel.
	Camera does not appear as Removable Disk when connected to a PC.	Camera or TV is not turned on.	Turn on the camera and TV.
Check the USB cable connection.		Make sure both ends of the USB cable are connected.	
	Camera is not turned on.	Turn the camera on.	

SPECIFICATIONS

Type	Description
Sensor	1 / 3" high-density CMOS Total number of pixels: 2 million
Image size	Selectable from: 2048 x 1536 pixels (*Output resolution by software interpolation) 1600 x 1200 pixels 1280 x 1024 pixels 640 x 480 pixels (VGA)
File Format	DCF-compliant (Exif ver.2.1 JPEG-compliant)
Lens	F = 2.8
Digital zoom	2x
Shooting distance	Normal 1.5m to ∞
Flashlight Distance	Approx. 1m ~ 3m
Operation Environment	Temperature: Approx. 0°C ~ 40°C
Monitor	1.6" DTFD LCD
Internal Memory	8MB
Digital Video Recording	320 x 240 pixels
TV Video Output	NTSC / PAL compatible
Storage Media	Secure Digital memory card / Multi-Media Card
Digital Output	USB1.1 interface to PC
Software	ArcSoft PhotoImpression 3.0
Product Dimension	86.2 x 56.2 x 15 mm
Unit Weight	Approx. 100g
Battery Specification	2 AAA-sized batteries (LR03)

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ADDITIONAL RESOURCES

Visit our website (www.oregonscientific.com) to learn more about your digital camera and other Oregon Scientific products such as hand-held organizers, alarm clocks, and weather stations. The website also includes contact information for our customer service department, in case you need to reach us.

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FCC NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

Changes or modifications not expressly approved by Oregon Scientific for compliance could void the warranty and your authority to use this equipment.

