Slideshow

This setting allows you to view all the stored images as a slideshow.

1. Press the ⊡ button to enter playback screen.

2. Rotate the zoom lever counter clockwise to the **w Q** position to display thumbnails 3x3 and then press the ⊜ button to select the index mode.

Slide show

⊞:Back
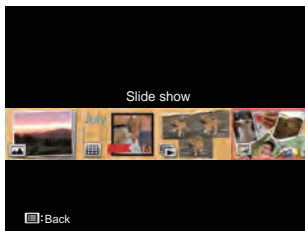
3. Press the [◀ ♨]/[▶ ⚡] button to select slideshow playing and then press the (SET) button to confirm.

4. Press the [◀ ♨]/[▶ ⚡] button to select play effect and then press the (SET) button to confirm.

Exit

- ⊗ Exit

- 🔲 Type 1: Slow-in and slow-out

- 🔲 Type 2: Separate in middle and move off to the left and right

- 🔲 Type 3: Separate into blocks and spin in

Photos and Video Deletion

In playback mode, press the [▼ 📷 ⏱] button to delete your photos and videos.

To delete photos or videos:

1. Press the ▶ button to switch to playback mode.
2. Press the [◀ ❀]/[▶ ⚡] button to select the photos and videos to be deleted.
3. Press the [▼ 📷 ⏱] button and the deletion screen is displayed.
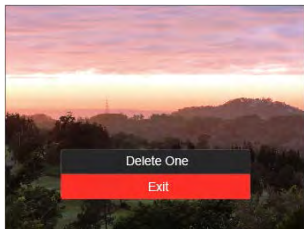
4. Press the [▲ AF]/[▼ 📷 ⏱] button to select 「Delete One」 or 「Exit」 and press the (SET) button to confirm.

⚠ Erased photos/video clips cannot be recovered.

▤ Please refer to page 98 for instructions on deleting more than one image at a time.

USING THE MENUS

Shooting Menu

Mode: ◎ P S A M ⁺🐦 SCN CS ➡

1. In shooting mode, press the ⊜ button to enter the shooting menu.

   12 options in [Shooting Menu]:

   • Continuous Shot Mode (refer to P62)
   • Expo Metering
   • AF (Auto Focus) Area (refer to P55)
   • WB (White Balance) Mode (refer to P60)
   • Macro Mode (refer to P56)
   • Color (refer to P67)
   • Flash mode (refer to P58)
   • OIS (Optical Image Stabilization)
   • Self-Timer Mode (refer to P57)
   • Beautifier
   • Select Scene
   • Menu

   ⊜ Functions that can be enabled are different under each mode.

2. Press the [▲ AF]/[▼ 🗑 ☼] button to select the shooting menu to be set.

3. Press the [◀ 🌷]/[▶ 🗲] button or rolling the ⊙ jog dial to select options of the shooting menu to be set and then press the ⒮ button to confirm.

Refer to the following pages for more details about each setting.

Expo Metering

Use this setting to select the "target" size of the camera's field of view to be metered.

Expo Metering: AiAE
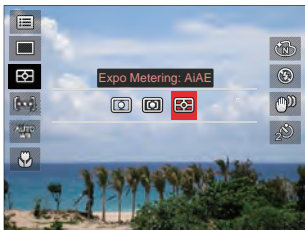
- 🔘 Spot
  For metering targets a small area in the center of the camera's field of view.

- 🔘 Center
  For metering the object in the center of the screen.

- 🔘 AiAE (Artificial Intelligence AE)
  For automatically selecting the central and surrounding metering to weight a proper metering value..

OIS (Optical Image Stabilization)

This mode can help reduce photo blur caused by unintentional hand shake.
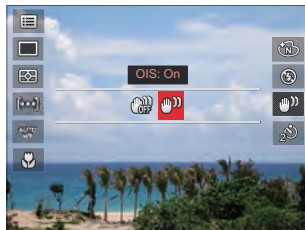
OIS: On

- 🤚 OIS: Off
- 🤚 OIS: On

📋 Use this image stabilization mode in dark environments.

📋 Shooting in a windy or unstable environment (such as a moving vehicle) may cause blurred images.

Beautifier

Set the effect of the beautifier mode.
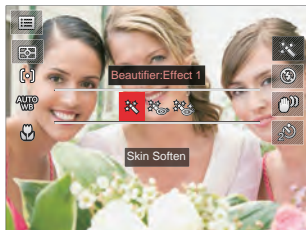
- ❄ Effect 1: Skin Soften

- ❄ Effect 2: Skin Soften
                + Eye Brightening

- ❄ Effect 3: Skin Soften
                + Eye Brightening
                + Eye Enlargement

Select Scene

Select the scene mode under the SCN mode.
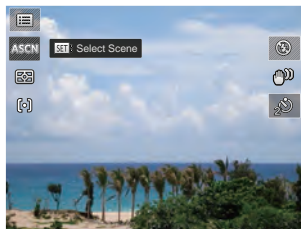
Shoot Setting1

Mode: ◯ P S A M ⁺❄ SCN CS ▣ ▶

1. Press the ⊞ button, press the [▲ AF]/ [▼ ☷ ➅] button to select ☰ .
2. Press the ⓢⓔⓣ button to enter the menu.
3. Press [◀ ♨]/[▶ ⚡] button to select ▣1 . 6 options in [Shoot Settings 1]:
   • Image Size
   • Movie Size
   • Quality
   • MF Assist
   • AF Assist Beam
   • Digital Zoom

   Functions that can be enabled are different under each mode.

4. Press the [▲ AF]/[▼ ☷ ➅] button to select the item to be set and press the ⓢⓔⓣ button to enter the menu.
5. Press the [▲ AF]/[▼ ☷ ➅] button to select an option and press the ⓢⓔⓣ button to confirm.

Image Size

The size setting refers to the image resolution in pixels. A higher image resolution allows you to print that image in larger sizes without degrading the image quality.

• 20M: High quality printing

• 18M-3:2: Full size printing

• 15M-16:9: display

• 10M: Poster printing

• 5M: A3 printing

• 3M: A4 printing

• 2M-16:9: 4"x 6" printing

• VGA: E-Mail

The larger the number of recorded pixels, the larger the file size and the fewer files that can be saved on your memory card.

Movie Size

Set the image resolution used during video recording.
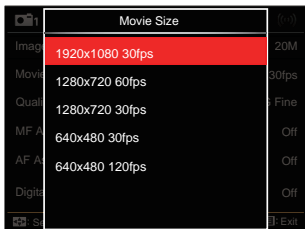
Total time of video recorded for each setting:

No.	Image Pixel	Frame (fps)	Recommendation	Recording time (approximate) (4GB)
1	1920x1080	30	Class 6	20 minutes
2	1280x720	60	Class 6	25 minutes
3	1280x720	30	Class 4	45 minutes
4	640x480	30	Class 4	105 minutes
5	640x480	120	Class 6	40 minutes

Recording time limit above 1280x720
30 fps format is under 29 minutes.

When recording in higher pixel
resolutions for extended periods of
time, this can cause the camera to
generate heat. This is not a camera
malfunction.

When the video format is set as
640x480 (120fps), shooting time is 30
seconds, playback time is 2 minutes.

Sound recording is disabled when
640x480 120fps is chosen.

Quality

The quality setting can be used to adjust the
image compression ratio.
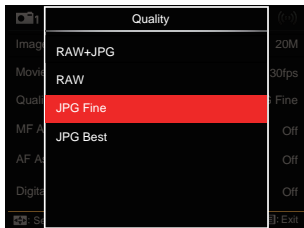
• RAW+JPG
  Creates two images: one in RAW and
  the other in JPG best.

• RAW
  The image file will contain more data
  that can be used for the purpose of
  editing on a computer.

• JPG Fine

• JPG Best

If RAW or RAW+JPG is selected, the settings of Colour Effect, Continuous Shot, Cont.Shot-High Speed, HDR and AE Bracketing cannot be adjusted.
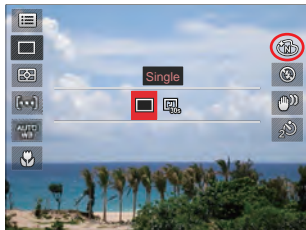
RAW is a format of lossless compression, which is a raw data file not processed by the camera. You may use the image processing software PhotoStudio Darkroom (in CD-ROM of the component) we provide to process the image effect. PhotoStudio Darkroom supports windows vista /7/8 and iOS (v10.6.8-v10.8).

MF (Manual Focus) Assist

Enables an enlarged focus window during the use of manual focus to provide the user better visibility for focus control.
(Adjustable in P S A M mode)

• Off

• On

AF Assist Beam

In a darker environment, AF assist beam can be turned on for better focus.

- Off

- On

Digital Zoom

This setting is for adjusting digital zoom. If this function is disabled, only optical zoom can be used.

- Off

- On

Shoot Setting 2

Mode: ○ P S A M ⁺⚡ SCN CS 📷 ▶

1. Press the ⊟ button, press the [▲ AF]/
   [▼ 🗑 ⟳] button to select 📋 .

2. Press the (SET) button to enter the menu.

3. Press [◀ ✿]/[▶ ⚡] button to select 📷2 .

   6 options in [Shoot Settings 2]:

   • Date Imprint

   • Quick Review

   • Cont. AF

   • Face Detection

   • Custom Settings

   • Function Ring (Smart)

   ⊟ Functions that can be enabled are
   different under each mode.

4. Press the [▲ AF]/[▼ 🗑 ⟳] button to
   select the item to be set and press the (SET)
   button to enter the menu.

5. Press the [▲ AF]/[▼ 🗑 ⟳] button to
   select an option and press the (SET) button
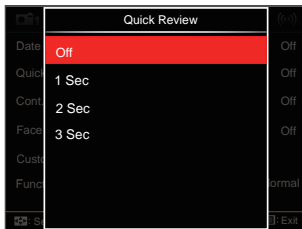   to confirm.

Date Imprint

Include a Date/Time stamp on the photo image.

• Off
• Date
• Date / Time

Quick Review

This option enables a brief review of images immediately after capture. Each picture will be displayed on the LCD screen per the selections below.

• Off
• 1 sec
• 2 sec
• 3 sec

Cont. AF

Enable the continuous AF to be able to continuously focus automatically when taking pictures.

	Cont. AF	
Date	Off	Off
Quic	On	Off
Cont		Off
Face		Off
Cust		
Func		ormal

• Off

• On

Face Detection

For detecting and focusing on faces to make all faces as clear as possible in photo mode.

	Face Detection	
Date	Off	Off
Quic	On	Off
Cont		Off
Face		Off
Cust		
Func		ormal

1. Hold the camera steadily and then focus on the object to detect its face. A focus frame will appear at the face on the screen when a face is detected.

2. Press the shutter button half-way down to focus. The LCD screen will show a green focus frame when the subject is in focus.
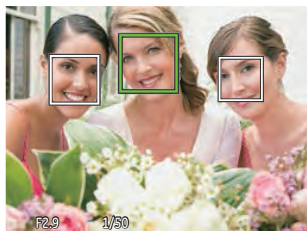

3. Press the shutter button all the way down to take pictures.

The closed eyes detection is usually on. If the camera detects in the course of quick review there is a face with eyes closed, a prompt of closed eyes will appear 👁.
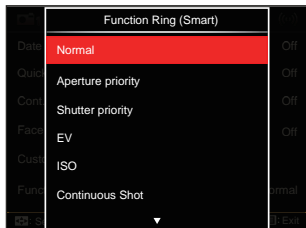
Custom Settings

Custom Settings stores the current photo shooting mode and its parameters. The stored mode and parameters are directly invoked in Custom Settings mode.
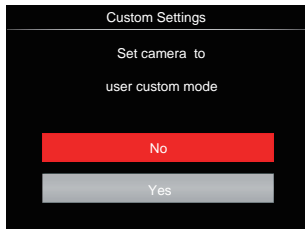
- No
- Yes

Function Ring (Smart)

Any option could be set as Function Ring (Smart) Custom. The setting of this parameter could be quickly adjusted through operating the lens function ring in shooting.

- Nomal
- Aperture priority
- Shutter priority
- EV
- ISO

- Continuous Shot
- Color
- White Blance
- Image Size
- Expo Metering
- Flash
- AF Area

Playback Menu

Mode: ▶

1. Press the ▶ button to display the playback screen and press the ▤ button to enter the menu.
2. Press the [▲ AF]/[▼ 🗑 ⏱] button to select the playback to be set and press the (SET) button to enter.

   7 options in [Playback Menu]:
   - ▤ Menu
   - ▶ Display Mode
   - ↻ Rotate
   - 🎨 Color
   - HDR HDR
   - 🖼 Touch-up
   - ⬚ Resize
3. Press the [◀ 🌷]/[▶ ⚡] button to select an option and press the (SET) button to confirm.

Refer to the following pages for more details about each setting.

Menu ▤

7 options in [Menu]

- Shoot Settings 1 **◯1**
  (See P81 for details)

- Shoot Settings 2 **◯2**
  (See P87 for details)

- Playback Settings ▶
  (See P97 for details)

- General Settings 🔧
  (See P101 for details)

- File Settings 📁
  (See P104 for details)

- Connection Settings 〜

  (See P108 for details)

- Wi-Fi Settings (((•)))
  (See P42 for details)

Display Mode ▶

Date Folder

Date Mode: Arranged by date.

▤ : Back
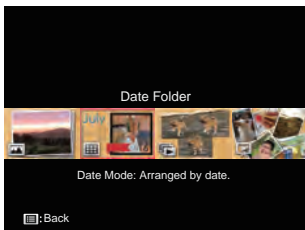
▨ Normal Mode: Display all images.

▦ Date Mode: Arranged by date.

▣ Cont. Photo Mode: Arranged by Cont. Photo Group.

▨ Slide Show

The Date Folder is displayed in date order based on photo shooting date/time.

If there is no any continuous shot image file in the memory, continuous shot playback mode cannot be enabled!

Rotate ↺

You can use this setting to change the orientation of the picture.

Exit

✕ ↺ ↻
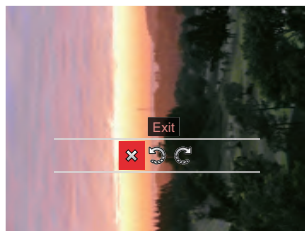
✕ : Cancel

↺ : Turn Left

↻ : Turn Right

Videos and panoramic pictures cannot be rotated.

The rotated picture file will replace the original photo.

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Color 🎨

This setting allows you to change the picture color effect. The file is saved as a new photo and stored in memory together with the original photo.
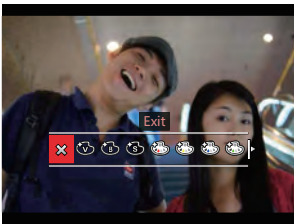
- ✕ Exit
- 🎨 Vivid
- 🎨 Black and White
- 🎨 Sepia
- 🎨 Partial Color-Red
- 🎨 Partial Color-Yellow
- 🎨 Partial Color-Blue
- 🎨 Partial Color-Green
- 🎨 Dreamy

- 🎨 Vignetting
- 🎨 Salon
- 🎨 Punk (4M)
- 🎨 Negative (8M)
- 🐟 Fish Eye
- ⬥ Reflection
- ▦ 4 Grids - Stylish (2M)

> In playing back single photos, press the ⓘ button to enter the color effect setting menu.

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HDR [HDR]

With the HDR function, pictures that are overexposed may be corrected to optimize the highlights and lowlights captured to more accurately represent the actual scene.

⊗ : Cancel

[HDR] : HDR
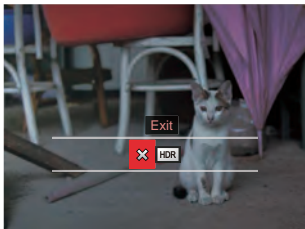
Select [HDR] with HDR :
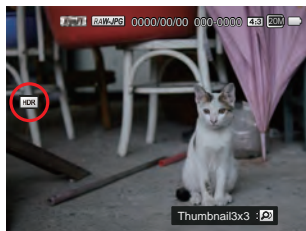
After using the HDR function, the image will be saved as a new file and the original file is still stored in the memory.

Touch-up

The playback beauty feature allows for beautification using three individual effects.

Select with touch-up:
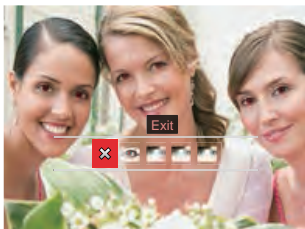
⊗ : Cancel

👁 : Red-Eye Reduction

🙂 : Skin Soften

👁 : Eye Brightening

👁 : Eye Enlargement

> Using the face beautifier mode allows you to select from single, two, or all three effects combined.

Resize 🗗

This setting allows you to resize a picture to a particular resolution and saves it as a new picture.
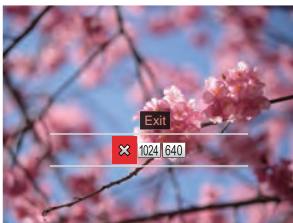
🗙 : Exit

1024 : Resize to 1024x768

640 : Resize to 640X480

> Only for adjusting pictures with high resolution to those with low resolution.

> Sizes of photos taken in panorama mode or rotated cannot be adjusted.

Playback Settings

Mode: ○ P S A M ⁺🌣 SCN CS ▣ ▶

1. Press the 🗐 button, press the [▲ AF]/ [▼ 🗑 ⏱] button to select ▤ .
2. Press the (SET) button to enter the menu.
3. Press [◀ ♣]/[▶ 🗲] button to select ▶

   5 options in [Playback Settings]:
   • Protect
   • Delete
   • DPOF
   • Trim
   • Play Slide Show
4. Press the [▲ AF]/[▼ 🗑 ⏱] button to select the item to be set and press the (SET) button to enter the menu.
5. Press the [▲ AF]/[▼ 🗑 ⏱] button to select an option and press the (SET) button to confirm.

Refer to the following pages for more details about each setting.

Protect

To prevent any pictures or videos from being accidentally erased, use this setting to lock one or all of the files.
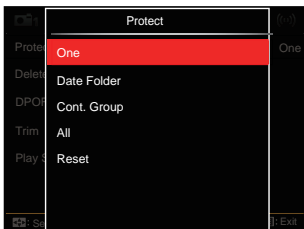
- One
  Lock the selected photo or video if they are unprotected; unlock the selected photo or video if they are protected.
- Date Folder
  Protect all photos in the Date Folder.
- Cont. Group
  Protect all photos in the Cont. Group.
- All
  Lock all photos or videos.
- Reset
  Cancel all locked photos or videos.

Delete

You can delete one or all photo/video files.
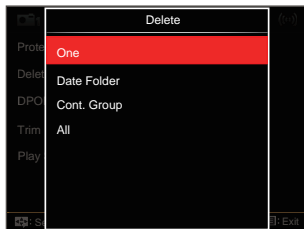
- One
  Delete one photo or video.
- Date Folder
  Delete all photos in the Date Folder.
- Cont. Group
  Delete all photos in the Cont. Group.
- All
  Delete all photos or videos.

The "⊙ⁿ" indicator means a file is protected. File protection must be removed first before a file can be deleted.

Deleting files will cause DPOF settings to be reset.

When one photo in the Cont. Group and Date Folders is protected, it will be kept but any other photos will be deleted.

DPOF (Digital Print Order Format)

The DPOF feature allows you to compile and select a group of pictures that you would like to print and will save your selection on the memory card so that you can use the memory card to print without having to individually specify the photos you want to print.
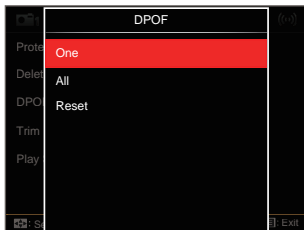
- One

- All

- Reset

The printer that supports DPOF is needed for printing.

Trim

The Trim setting allows you to crop photos and save them as new pictures.

1. Select 「Yes」 to confirm trim. Toggle the zoom lever or rolling the ⊙ jog dial to select the aspect ratio and press the [▲ AF]/ [▼ 🖥 ⏱]/ [◀ 🌷]/[▶ 🔆] button to adjust the part you want to trim.
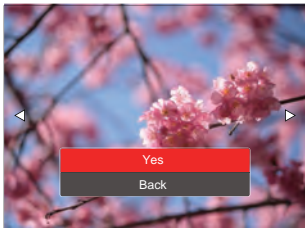
2. Press the (SET) button and the 「Save change?」 prompt appears. Select 「✂」 to change and save the picture. Select 「✗」 to cancel changes and return to the trim prompt screen.

> The image cannot be clipped/trimmed again once it has been clipped to 640X480.

> Videos, RAW files cannot be trimmed.

> The picture after trimming cannot be trimmed again.

Play Slide Show

This setting allows you to view all the stored images as a slideshow.
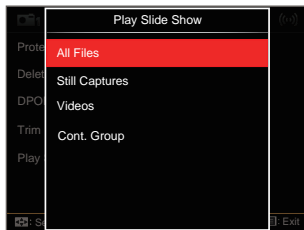
• All Files
  To display and play back all images in memory card.

• Still Captures
  To display and play back images of photo files in memory card.

• Videos
  To play back movies on memory card.

• Cont. Group
  To only play back images arranged by cont. group in memory card.

General Settings

Mode : ◌ P S A M ⁺� SCN ▭▪ ▶

1. Press the ⊜ button, press the [▲ AF]/
   [▼ 🖥 ♻] button to select ▤ .
2. Press the ⊛ button to enter the menu.
3. Press [◀ 🌷]/[▶ ⚡] button to select 🔧 .

   6 options in [General Settings] :
   • Sound Settings
   • Power Saver
   • Language
   • World Time
   • Date & Time
   • LCD Brightness

4. Press the [▲ AF]/[▼ 🖥 ♻] button to
   select the item to be set and press the ⊛
   button to enter the menu.
5. Press the [▲ AF]/[▼ 🖥 ♻] button to
   select an option and press the ⊛ button
   to confirm.

Refer to the following pages for more details
about each setting.

Sound Settings

With this setting you may adjust the sound volume.

Press the [◀ ♥]/[▶ ⚡] button to select an option and press the (SET) button to confirm our setting.
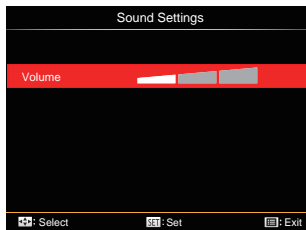
Power Saver

This setting allows you to save power and get the maximum possible running time for your camera's batteries. Follow the steps below to turn the LCD screen and camera off automatically after a consecutive period of inactivity.
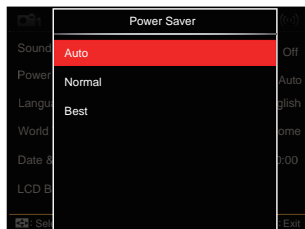
- Auto
- Normal
- Best

Power Saver	LCD power off time	Turn off time
Auto	3 min	5 min
Normal	1 min	3 min
Best	30 s	1 min

Language

Refer to the "Reset your language" section on page 25.

Zone

The Zone setting is a useful function for your overseas trips. This feature enables you to display the local time on the LCD screen while you are abroad.

1. Press the [▲ AF]/[▼ 🗑 ☉] button to select the departure place (🏠) and destination (🌐) fields.
2. Press the [◀ 🌷]/[▶ 🔆] button to select a city located in the same time zone as that of the field. Press the (SET) button to confirm settings.

World Time

🏠
🌐

Trindade, Martim Vaz
London, Iceland

Date/Time

Refer to the "Reset Date/Time" section on page 26.

LCD Brightness

Use this setting to adjust the brightness of your LCD screen.

Press the [◀ 🌷]/[▶ 🔆] button to select an option and press the (SET) button to confirm.

LCD Brightness

◀▶: Select   SET: Set   ▤: Exit
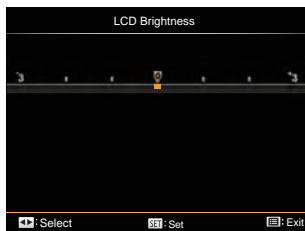
File Settings

Mode : ◻ P S A M ⁺⊅ SCN ➡ ▶

1. Press the ⊜ button, press the [▲ AF]/ [▼ 🗑 ⏱] button to select ☰ .
2. Press the ⏭ button to enter the menu.
3. Press [◀ ✿]/[▶ ⚡] button to select ▦ . 5 options in [File Settings] :
   • Format
   • Copy to Card
   • File Numbering
   • Reset Settings
   • Version

4. Press the [▲ AF]/[▼ 🗑 ⏱] button to select the item to be set and press the ⏭ button to enter the menu.
5. Press the [▲ AF]/[▼ 🗑 ⏱] button to select 「Yes」 or 「No」 and press the ⏭ button to confirm.

Refer to the following pages for more details about each setting.

Format

Please note: formatting enables you to delete all contents in the memory card and built-in memory, including protected photo and movie files.

Format
Doing so will clear all data.
No
Yes
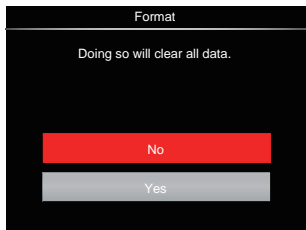
If you select 「Yes」 the camera formats its memory.

If there is no memory card in the camera, the built-in memory will be formatted; if there is a memory card, it will be formatted only.

Copy to Card

Use this setting to copy the files stored in the internal memory to a memory card.

Copy to Card

Copy files from built-in memory to

the memory card.

No

Yes
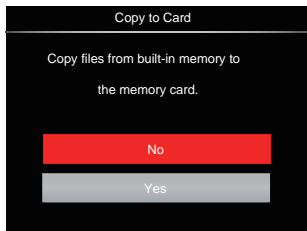
If there is no card available in the camera, this function will not be displayed.

File Numbering

After you take a picture or video clip, the camera will save it with a sequential number. You can use this to reset the file numbering to 1.

File Numbering

Create a new directory and

reset the file number.

No

Yes
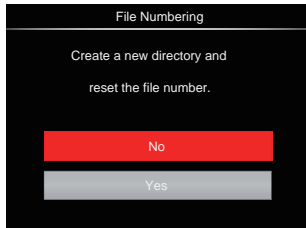
Reset settings

Use this setting to restore the camera to its original default settings.

```
Reset Settings
Reset camera settings to
factory defaults.

          No
          Yes
```
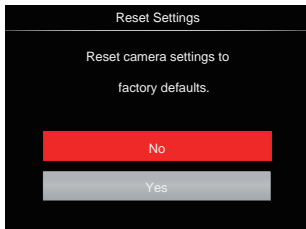
Version

Use this setting to view the current camera firmware version.

```
FW Version
FW Version: X.XX
```

When there is a new firmware version in the memory card, select 「Yes」 to update.

```
Version
Current Ver:        X.XX
New Ver:            X.XX
Update Fireware?

          No
          Yes
```

CONNECTION SETTINGS

Connecting to a Computer

You can use a Micro USB cable to connect the camera and copy (transmit) photos to a computer, printer or other device.

Setting the USB Mode

The camera's Micro USB port can be set to connect with either a computer or a printer. The following steps will allow you to ensure that the camera is correctly configured to connect with a PC.

1. Press the 🗐 button, press the [▲ AF]/ [▼ 🗑 ৩] button to select 🗐 and press the (SET) button to enter the menu.

2. Press [◀ 💥]/[▶ ⚡] button to select 📐 .

3. Press the [▲ AF]/[▼ 🗑 ৩] button to select 「USB」 and press the (SET) button to enter the menu.

4. Press the [▲ AF]/[▼ 🗑 ৩] button to select 「PC」 and press the (SET) button to confirm.
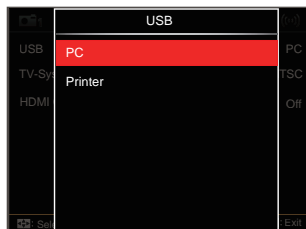
Transferring files to your computer

The computer will automatically detect the camera as a removable drive. Double-click the my computer icon on the desktop to locate the removable drive and to copy folders and files in the drive to a directory on your PC as you would copy any typical folder or file.

Follow the steps below to connect the camera to a computer.

1. Make sure the computer is turned on.
2. Connect one end of the supplied Micro USB cable to the Micro USB port on your camera.
3. Connect the other end of the cable to an available USB port on your computer.
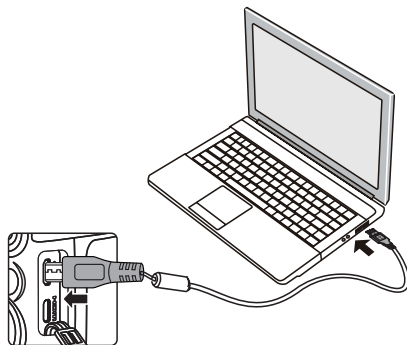
4. After the transmission is complete, disconnect the Micro USB cable according to the instructions specifying how to safely remove USB devices.

Connecting to a PictBridge Compatible Printer

PictBridge technology allows printing of the photos saved in the memory card by the printer.

PictBridge To find out if a printer is PictBridge compatible, simply look for the PictBridge logo on the packaging or check the owner's manual for specifications. With the PictBridge function on your camera, you can print the captured photos directly to a PictBridge compatible printer using the supplied Micro USB cable, without the need for a PC.

Setting the USB Mode

The camera's Micro USB port can be set to connect with either a PC or a Printer, the following steps will ensure that the camera is correctly configured to connect with a Printer.

1. Press the ⊜ button, press the [▲ AF]/ [▼ 🗑 ☉] button to select ▤ and press the (SET) button to enter the menu.

2. Press [◀ 🌺]/[▶ 🗲] button to select 〰 .

3. Press the [▲ AF]/[▼ 🗑 ☉] button to select「USB」and press the (SET) button to enter the menu.

4. Press the [▲ AF]/[▼ 🗑 ☉] button to select「Printer」and press the (SET) button to confirm.

	USB	
USB	PC	
TV-Sy	Printer	
HDMI		
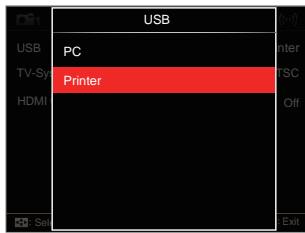
After the camera is reset, it will switch to PC mode automatically from USB mode.

Connecting to your Printer

1. Make sure the printer is turned on.
2. Connect one end of the supplied Micro USB cable to the Micro USB port on your camera.
3. Connect the other end of the cable to the USB port on the printer.
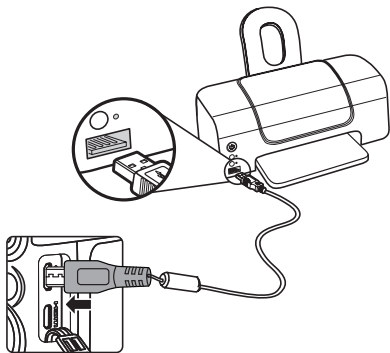
If the camera is not connected to a PictBridge compatible printer, the following error message will appear on the LCD screen.

Connect failed
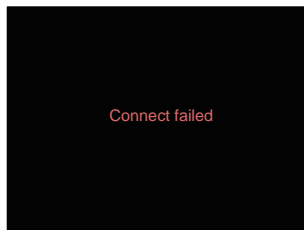
The error message above will also appear if the USB mode is set incorrectly, in which case you should disconnect the Micro USB cable, check the USB mode settings, ensure that the printer is turned on, and then try connecting the USB cable again.

Using the PictBridge Menu

After setting the USB mode to printer, the PictBridge menu will appear.
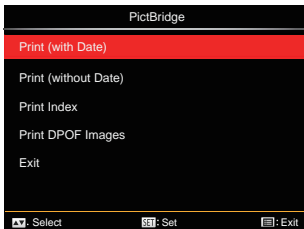
Press the [▲ AF]/[▼ 🗑 ♻] button to select a menu item and press the (SET) button to enter the item.

Refer to the following sections for more detailed information on each setting.

Print (with Date)

If you have set the date and time on your camera, the date and time will be recorded and saved with each photo you take.

1. In the PictBridge menu, select 「Print (with Date)」 and the screen as shown below appears.
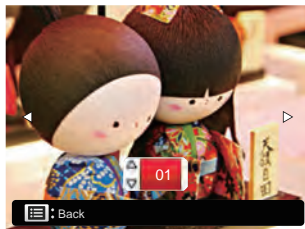
2. Press the [◀ ✿]/[▶ 𝄞] button to select a photo to be printed.

3. Press the [▲ AF]/[▼ 🗑 ⏱] button to select the number of copies for the currently displayed photo.

4. Press the ⒮ⒺⓉ button and the following screen will appear.

PictBridge

Print (With Date)

Yes
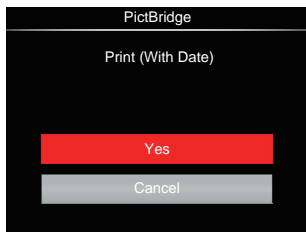
Cancel

5. Select 「Yes」 and press the ⒮ⒺⓉ button to confirm; select 「Cancel」 to cancel printing.

Print (without Date)

Use this setting to print the photos without dates on them.

1. In the PictBridge menu, select 「Print (without Date)」 and the screen as shown below appears.
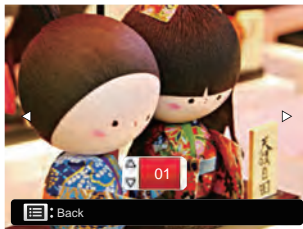
01

▤: Back

2. Press the [◀ ✿]/[▶ ⚡] button to select a photo to be printed.

3. Press the [▲ AF]/[▼ 🗑 ⏱] button to select the number of copies for the currently displayed photo.

4. Press the ⒮ⒺⓉ button and the following screen will appear.

PictBridge

Print (Without Date)

Yes
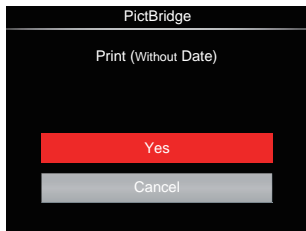
Cancel

5. Select「Yes」and press the (SET) button to confirm; select「Cancel」to cancel printing.

Print Index

You can print all photos in the camera via this function.

1. In the PictBridge menu, select「Print Index」and the screen as shown below appears.

PictBridge

Print Index

Yes
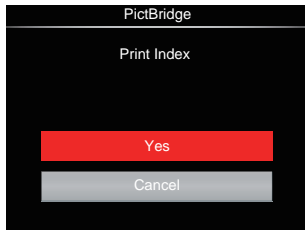
Cancel

2. Select「Yes」and press the (SET) button to confirm; select「Cancel」to cancel printing.

Print DPOF Images

To use DPOF printing, you must select your photos for printing using the DPOF settings beforehand. See "DPOF" section on page 100.

1. In the PictBridge menu, select 「Print DPOF Images」 and the screen as shown below appears.

PictBridge
Print DPOF Images
Yes
Cancel
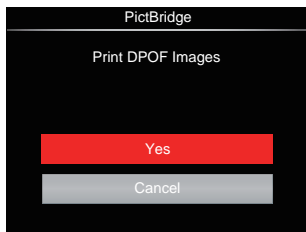
2. Select 「Yes」 and press the (SET) button to confirm; select 「Cancel」 to cancel printing.

Exit

Select 「Exit」 to exit the PictBridge menu. At this time, the message 「Remove USB Cable!」 appears on the screen.

Remove USB Cable!
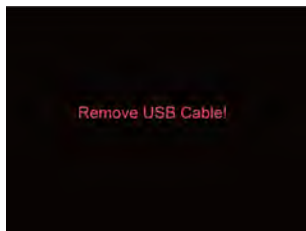
Disconnect the Micro USB cable from the camera and printer.

Video System

You can use the AV cable (which should be purchased separately) to connect the camera and the television for realizing the video output. Connect one end of the AV cable to AV port of the camera, connect the other end to AV-OUT port of the television. Adjust the format of the video output system according to your requirements, and the steps are as follows:

1. Press the ⓔ button, press the [▲ AF]/ [▼ ♥ ⚲] button to select 🔲 and press the (ser) button to enter the menu.
2. Press [◀ ♥]/[▶ ⚡] button to select ⤳ .
3. Press the [▲ AF]/[▼ ♥ ⚲] button to select「TV-System」and press the (ser) button to enter the menu.
4. Press the [▲ AF]/[▼ ♥ ⚲] button to select「NTSC」or「PAL」and press the (ser) button to confirm.
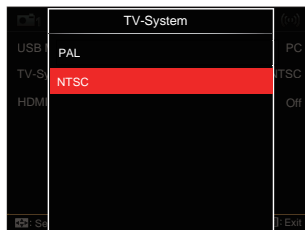
NTSC: English, Chinese (Traditional), Japanese, French, Korean, Russian, Vietnamese, Greek, Hungarian

PAL: German, Spanish, Italian, Chinese (Simplified), Portuguese, Swedish, Danish, Finnish, Indonesia, Norwegian, Dutch, Turkish, Polish, Thai, Croatian, Czech, Arabic, Hindi

The video output system would change accordingly based upon the changes of the selected language.

Supported HDMI Connections

HDMI (High Definition Multimedia Interface), is a fully digital audio/video transmission interface, through which uncompressed audio and video signals are transmitted.
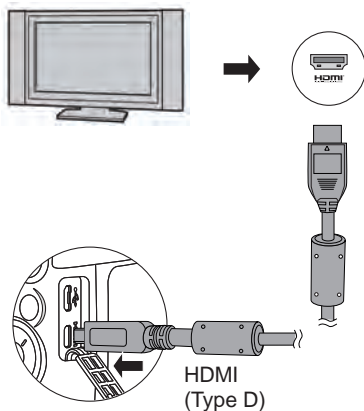
HDMI
(Type D)

Connecting HDMI-Ready TV

1. Use the cable with high resolution output terminal (which should be purchased separately) to connect the camera to the television which meets HDMI standard.

2. The camera will be automatically detected by the TV.

3. After connecting via HDMI, the camera enters Playback Mode.

Make sure the camera and the TV are both turned on before connecting.

HDMI CEC Control

After connecting the camera with TV-System, you may view pictures taken with the camera on the TV screen and operate the camera with your TV remote control to view and edit all images.

	HDMI CEC Control	
USB	Off	PC
TV-S	On	NTSC
HDM		Off

It is required that the TV-System supports HDMI CEC.

After the camera is successfully connected with TV-System, other buttons of the camera except the Power button cannot work, with the LCD screen staying dark.

Please refer to TV manual for relative settings of TV-System.

Introduction on Icons

1. ![Info] Info Hiding/Display

2. ![Zoom] Zoom-in
   ![Zoom in] : Zoom in Images
   ![Zoom out] : Zoom out Images

3. Rotate Images
   ![Turn] : Only Turn Left

4. ![Index] Image Index
   ![5*3] : 5*3 Index Playback
   ![10*5] : 10*5 Index Playback
   ![3*1] : 3*1 Date Folder Index
   ![5*3 Cont] : 5*3 Cont. Group Index

5. ![Back] Back

6. ![Slide] Play Slide Show

7. ◁ ▷ Button for Switching Between Previous and Next Images

8. ⬜ Videos

9. Movie Length:00:00:00

10. ⬜ Cont. Group File

11. ⚑ First Image Mark

12. 000/000:Current Sorting/Total Number of Images in Group

13. ✅ :Confirm Effect

14. ✖ :No Change

The following operations are available during HDMI CEC playback:

• 1:1 Single Playback

• Zoom-in Playback

• Rotate

• Index Playback

• Cont. Group Playback

• Slide Show Playback

• Video Play

• Time-lapse Movie Play

• Panoramic File Play

• Image Edit

📖 Pressing the four-color button on remote control can enable relative functions displayed on the TV-System screen.

Remote control 🔴 🟢 🟡 🔵

TV-System 🔍 ⊞ ℹ️ ↻
Red Green Yellow Blue
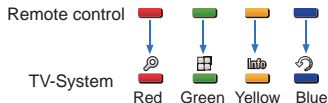
1:1 Single Playback:

Pressing the left and right arrow buttons can switch among images.

Zoom-in Playback:

Under the 1:1 single playback mode, press the red button to zoom in images; press the red and green buttons on remote control to zoom out images.

Rotate:

Under the 1:1 single playback mode, press the blue button to rotate single picture.

Index Playback:

Under the 1:1 playback mode, press the green button to enter index playback; press the central button to enter image selection and then the arrow buttons to select files you want and finally press the central button again to back to the 1:1 single playback.

Under the 5*3 index playback mode, press the green button to enter index selection and then the left and right arrow buttons to select 🔲 , 🔲 , 🔳 , and 🔲 , and finally press the central button again to confirm your selection.

Cont. Group Playback:

Under the 1:1 single playback mode, press the central button to start playing images in continuous group.

If no images in the camera's cont. group, there will appear a prompt of no pictures if you select 🔲 on the index playback interface.

Slide Show Playback:

Under the 1:1 single playback mode, press the down arrow button to enter slide show playback. While playing, you may press the left and right arrow buttons to directly switch between previous and next images and the central button to end playing.

Video Play:

Under the 1:1 single playback mode, select a video and then press the central button to start playing. While playing, you may use the arrow buttons and the central button to perform operations such as fast forward/backward, pause, frame forward/backward, back to play, etc. according to prompts on the screen.

Time-lapse Movie Play:

Same play mode as that of images. There is no volume in playing time-lapse files.

Panoramic File Play:

Under the 1:1 single playback mode, select a panoramic file and then press the central button to begin playing.

Image Edit:

Multiple edit can be repeated under image edit mode. Only one picture is saved finally.

Under the 1:1 single playback mode, select a picture and then press the up arrow button to enter image edit and start detecting face.

Press the up arrow button to do HDR editing.

Press the down arrow button to delete one picture.

Press the left and right arrow buttons to edit the color. 12 effects in total for selection.

The following beautifier touch-up functions cannot be enabled until a face is detected. You may press relative color buttons to edit.

🐾 : Skin Soften

🐾 : Eye Enlargement

🐾 : Eye Brightening

Edit tings corresponding to each type of files can be tabled.(O : Available; X : Non-available

	HDR	Color	Beautifier	Delete
Normal (face)	O	O	O	O
Normal (no face)	O	O	X	O
Panorama	X	X	X	O
Video	X	X	X	O

HDMI CEC Connection

Function	Full Size Playback	Zoom-in Playback	Index Playback	Video Play	Cont. Group Play	Panoramic File Play
Zoom In	O	O (Movable to four directions during zoom-in)	X	X	X	X
Zoom Out	X	O	X	X	X	X
Rotate	O (turn left only)	X	X	X	X	X
Play Slide Show	O	X	X	O	O	O
Edit Image	O^{*1}	X	X	O	O	O
Info Hiding/Display	O	O	X	O^{*2}	O^{*2}	O^{*2}
Delete	O	X	X	O^{*3}	O^{*3}	O^{*3}

*1 After entering the image edit, relative operation of the beautifier cannot appear until a face is detected.

*2 It is available before and in playing and during pause.

*3 The function of delete one cannot work until the camera enters image edit mode.

Set Eye-Fi SD Card Connection Mode

This camera supports the wireless connection for Eye-Fi memory card, Enable Eye-Fi connection by following below steps.

1. Press the ⊜ button, press the [▲ AF]/[▼ ⅰ ⅾ] button to select ☰ and press the (SET) button to enter the menu.
2. Press [◄ ⅋]/[► ⅎ] button to select ⅇ.
3. Press the [▲ AF]/[▼ ⅰ ⅾ] button to select 「Eye-Fi」 and press the (SET) button to enter the menu.
4. Press the [▲ AF]/[▼ ⅰ ⅾ] button to select 「On」 or 「Off」 and press the (SET) button to confirm.

If the Eye-Fi card is not available in the camera, this feature is not displayed.

APPENDICES

Product Specifications

📝 Design and specifications are subject to change without notice.

Image Sensor		Type	1/2.3" BSI CMOS
		Effective Pixels	20.68 Megapixels
		Total Pixels	21.14 Megapixels
Lens	Focal Length		4.3mm (Wide) — 279.5mm (Tele)
	35mm film equivalent		24mm (Wide) — 1560mm (Tele)
	F number		F2.9 (Wide) — F6.9 (Tele)
	Lens Construction		14 groups 18 elements
	Optical Zoom		65x
	Focusing Range		Normal: (Wide) 60cm ~ ∞, (Tele) 600cm ~ ∞; Macro: 3cm ~ ∞ (Wide Only)
Autofocus System			TTL Autofocus
Electronic Viewfinder			Yes
Anti-Handshake			Optical Image Stabilization
Digital Zoom			4x Digital Zoom (Combined Zoom: 260x)

Number of Recording Pixels	Still Image	(4:3) 20MP: 5184×3888 10MP: 3648×2736 5MP: 2592×1944 3MP: 2048×1536 0.3MP: 640×480	(3:2) 18MP: 5184×3456	(16:9) 15MP: 5184×2916 2MP: 1920×1080
	Movie	1920×1080 (30fps), 1280×720 (60fps), 1280×720 (30fps), 640×480 (30fps), High-Speed Movie: 640×480 (120fps)		
Image Compression		Best, Fine, Normal		
DCF, DPOF (Ver1.1) Support		Yes		
File Format	Still Image	JPEG (Fine, Standard), RAW, RAW+ JPEG (Fine)		
	Movie	MOV [Image: H.264; Audio: Linear PCM (Stereo)]		
Shooting Modes		Auto Mode, Program AE, Shutter Priority, Aperture priority, Manual Mode, Face Beautifier, Wi-Fi Mode, Scene Mode Movie Mode, Custom Settings		
Scene Mode		Auto Scene, Panorama Mode,Handheld Night, Multi Exposure, Cat/Dog, Snow, Party , Sport, Night Portrait, Portrait, Children, Landscape, Sunset, Fireworks		
Detection Features		Face, Smile, Blink, Cat, Dog		
Photo Touch-up		Red-Eye Reduction, Skin Soften, Eye Brightening, Eye Enlargement		

HDR		Yes
Scan Panorama		Up to 360°
LCD	Display	3.0 inch (460k Pixels)
	Angle Adjustment	Yes
Image Auto Rotation		Yes
ISO Sensitivity		Auto, ISO100/200/400/800/1600/3200
Focus Mode		Center AF, Continuous AF, Object Tracking ,Manual Focus
Focusing Area Selection		Single Area Focusing, 25-Area-Focusing, Face Detection, Manual Area Focusing
Exposure Metering Method		Artificial Intelligence AE (AiAE), Center-Weighted Average, Spot (Fixed to Center of Frame), Face AE
Exposure Control Method		Program AE (AE-Lock Available), Shutter Prior AE, Aperture Prior AE
Exposure Compensation		±3EV in 1/3 Step Increments
Shutter Speed		1/2000 ~ 30 Seconds
Continuous Shooting		Yes

Playback Modes		Single, Index (9/16 Thumbnails), Slide Show, Date, Burst Shooting, Zoom (Approx. ×2 ~ ×8)
White Balance Control		AWB, Daylight, Cloudy, Fluorescent, Fluorescent CWF, Incandescent, Manual WB, Color Temp. (1900K ~ 10000K)
Flash	Flash Method	Pop-up (Auto)
	Flash Modes	Force Off, Flash Auto, Fill Flash, Red-Eye Reduction, Slow Sync., Slow Sync. + Red-Eye Reduction,
Recording Media		Internal Memory: Approx. 8MB
		SD/SDHC Card (Up to 32GB Support) [MMC Card Not Supported]
PictBridge, ExifPrint Support		Yes
Multi-Language Support		27 Languages

Jacks	AV-OUT/USB 2.0 (Micro 5 pin USB), HDMI (Type D)
Eye-Fi Support	Yes
Wi-Fi	Yes (802.11 b/g/n)
Remote Viewfinder	Yes (via Smartphone)
Power	Rechargeable Li-ion Battery LB-070, 7.4V 1000mAh, In-Camera Charging
Shooting Capability (Battery Performance)	Approx. 400 Shots (Based on CIPA Standards)
Operation Environment	Temperature: 0 ~ 40oC, Humidity: 0 ~ 90%
Dimensions (W×H×D)	Approx. 124.7×89.0×113.8mm (Based on CIPA Standards)
Weight	Approx. 604g (Body only)

Prompts and Warning Messages

Message	Description	Action
Warning! Battery exhausted.	Warning before power off when the camera battery is exhausted.	Displaying that it will power off after 2 seconds.
Built-in memory error!	In the case of built-in memory error.	Disappear after 2 seconds and return to shooting.
Warning! Do not turn off your camera during update!	The message appears during the firmware update process.	The message disappears after the camera update and restart.
Battery temperature is too high.	Battery temperature is too high	Let the battery cool before attempting to use the camera again. The message will disappear after 2 seconds
Cannot change settings under this mode.	If this setting in shoot mode appears through rotating the function ring after setting functions of function ring (Smart), it cannot be set.	Remove the message after 2 seconds and return to shooting.

Message	Description	Action
Improper alignment. Please try again.	The offset is too big for panorama shooting.	Remove the message after 2 seconds and return to shooting.
Connection Failed!	Failure to connect to your PC, printer, TV (with HDMI).	Remove cable and retry connection
The color effects can not be used in the video.	In shooting mode, select Dreamy, Vignetting, Kodacolor, Salon, Fish Eye and 4 Grids - Stylish effects under color effect, this restriction description will be displayed below the options.	Remains displaying below the options without hiding.
In this capture ******** Still size limited to ** M	Choose the image size in the Function Ring (Smart), then encountering the option of limiting Still size, rotating the lens function ring .	Remove the message after 2 seconds and return to shooting.
Capture reached maximum limit	Press the shutter to capture images in recording a video. If the number of images captured exceeds 15, there will be a prompt if you press the shutter again.	The message will disappear in 2 seconds with no influence to video recording.

Message	Description	Action
Write Protect !	In the case that there is lock protection for the card when saving the image.	Disappear after 2 seconds and return to the previous image.
Card Full !	In the case that the camera detects the card capacity is insufficient when turning on or pressing the shutter.	Disappear after 2 seconds and return to the previous image.
Memory Full !	In the case that the camera detects the memory capacity is insufficient when turning on or pressing the shutter.	Disappear after 2 seconds and return to the previous image.
Exceeded maximum folder number.	When the folder number in the card exceeds the maximum folder number (999), the time for turning on and reading will be too long, it will prompt the message until the reading is completed.	The message will end after the camera processing is complete.
Card Error !	The card cannot be recognized after being formatted.	Normal display.
Card is not formatted.	When the card reading error occurs,the message of not formatted will be displayed.	Disappear after 2 seconds and enter the formatting process.

Message	Description	Action
Slow access	When a card lower than Class 4 is recording movie above HD, it may be accessed slowly and the recording cannot be continued. The operation image may appear after 2 seconds (it may need to wait up to 9 seconds for the built-in memory).	Remove the message after 2 seconds and return to the shooting image.
Cannot write to SD card.	The recording cannot be continued if there are problems which may cause interruption of the recording during writing to the card or recording in the process of shooting or recording.	Disappear after 2 seconds and return to shooting.
No Picture!	When pressing the button there is no image in the camera or the card.	Disappear after 2 seconds and return to shooting.
No continuous group file.	When it switches from playback mode to Cont. playback mode, if there is no continuous group file in the files, this prompt message will display.	Remove the message after 2 seconds and return to Thumbnail 3x3 mode.
No Red-Eye Detected!	No red-eye detected when pressing for red-eye removing in playback touch-up.	Disappear after 2 seconds and return to the touch-up menu.

Message	Description	Action
Too many pictures for quick processing.	The image may be unable to enter the date playback if the image exceeds the specification in the case of date playback. (when the image number in the card exceed 5000)	Remove the message after 2 seconds and return to Thumbnail 3x3 mode.
Unable to recognize files.	When the format of the file viewed is not supported or the file is damaged and cannot be recognized properly.	This image message disappears only after the file is deleted.
Protected! Undeletable!	This message will be displayed on the image immediately when executing delete action to the protected files.	Disappear after 2 seconds and return to the previous image.
This image cannot be edited.	When pressing (SET) to play back the bad files.	Remove the message after 2 seconds and return to the original image..
Cannot edit because no face detected!	No face image entered into the touch-up menu.	Remove the message after 2 seconds and return to the touch-up menu..

Troubleshooting

Problem	Possible causes	Solution
Camera does not turn on	■ The battery has been depleted. ■ The battery is not inserted correctly.	■ Recharge the battery. ■ Correctly reinstall the battery.
Camera turns off suddenly during operation	■ The batteries have been depleted.	■ Recharge the battery.
The picture is blurred	■ Camera shakes while taking a picture.	■ Turn on OIS feature. ■ Please use tripod for high magnification (above 15X) optical zoom.
Images and video files cannot be saved	■ The memory card is full. ■ The memory card is locked.	■ Use another memory card or delete unnecessary files. ■ Unlock the memory card.
Images will not print from the connected printer	■ The camera is not connected to the printer correctly. ■ The printer is not PictBridge compatible. ■ The printer is out of paper or ink. ■ The printer paper is jammed.	■ Check the connection between the camera and printer. ■ Use a PictBridge compatible printer. ■ Load paper into the printer or replace the ink cartridge in the printer. ■ Remove the jammed paper.

Problem	Possible Causes	Solution
Saving data to memory card is slow	■ Using a memory card below Class 4 may result in slower recording times.	■ Use a memory card with write Class 4 or higher than 4 to improve performance.
Cannot write to the memory card	■ The memory card has been locked.	■ Release the write lock of the memory card or replace with another card.
Too many movies to process	■ The number of pictures or folders in the memory card exceed the specifications, so the playback of data folder can not be displayed.	■ Delete unwanted files.

When shooting with stacked filters attached, the corners of the photo may turn dark (vignetting effect) because the filter holder blocks light from reaching the camera image sensor; especially, at wide angle zoom control settings. Please take test shots and review the results when using stacked filters.

Ver. 1