

Transferring Images

Select images to transfer to a communication device and set the transfer reservation. When the camera is connected to a communication device via wireless LAN, the file transfer automatically starts.

1 Select [File Transfer] in the **■ 1** menu or on the playback functions setting screen.

2 Select [Transfer 1 image].

Use **◀▶** to select an image.

For images taken with [File Format] set to [RAW+JPEG], you can select file formats to transfer by pressing **Fn**.



3 Press **OK**.

The transfer reservation is set for the image.

To transfer another image, repeat Steps 2 and 3.



Memo

- To cancel the transfer reservation, set [File Transfer] again.
- Refer to "Using the Camera with a Communication Device" (p.111) for how to connect the camera and a communication device.



Editing and Processing Images

You can edit and process taken images and then save them as new images.



Caution

- Only JPEG images taken with this camera can be edited and processed (only RAW images in [RAW Development]). Still images saved from movies cannot be edited and processed. If you edit and process images repeatedly, image quality will deteriorate.

Developing RAW Images

You can convert RAW images into JPEG format and then save them as new files. Various settings such as [White Balance] and [Image Control] can be configured and saved.

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Playback Functions

- Select [RAW Development] in the **■ 2** menu or on the playback functions setting screen, and press **OK**.

RAW files are searched for, and the [RAW Development] screen appears.

- Use **▲▼** to select a parameter.



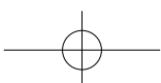
The following settings are available.

- JPEG Recorded Pixels
- Aspect Ratio
- Color Space
- White Balance
- Image Control
- Peripheral Illumin. Corr.
- Sensitivity
- High-ISO Noise Reduction
- Shadow Correction

The settings that were set at the time of shooting are initially selected.

	Shows the previous/next image.
	Displays the original image before editing.
	Displays the preview.

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3 Press **▶**.

The detailed setting screen appears.

**4** Use **▲▼** to select a setting.

The detailed setting screen appears when **[Fn]** is pressed for [White Balance] or [Image Control].

5 Press **OK**.

The parameter setting screen reappears.

6 When you have finished configuring all of the settings, press **OK**.

A new JPEG image is saved.

7 Select [Continue] or [Finish], and press **OK**.

Select [Continue] to develop another RAW image.

**Memo** -----

- The functions that can be selected vary depending on the shooting settings.



Changing the Image Size

Changing the Number of Recorded Pixels (Resize)

In [Resize] of the **■ 2** menu, JPEG files can be reduced in size. The smaller size than the [JPEG Recorded Pixels] setting for shooting can be selected.



Cropping Images

You can crop the edges of JPEG images and then save the images.

1 Select [Cropping] in the **■ 2** menu or on the playback functions setting screen, and press **►**.

2 Specify the range to crop.



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Playback Functions

▲▼◀▶	Moves the cropping frame.
Press ADJ	Changes the aspect ratio of the cropping frame (3:2 or 1:1).
Fn	Changes the cropping size.
DISP	Rotates the cropping frame.
	Displays the preview.

3 Press **OK**.

The cropped image is saved as a new image.

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Correcting Highlight/Shadow Areas (Levels Adjustment)

You can correct the brightness and contrast of the highlight, mid-tone, and shadow areas in JPEG images.

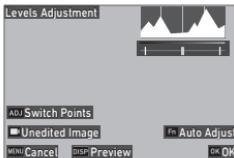
- 1 Select [Levels Adjustment] in the **■ 2** menu or on the playback functions setting screen, and press **►**.

The [Levels Adjustment] screen appears.

- 2 Adjust the value.

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Playback Functions



Press ADJ	Switches the adjustment points.
◀▶ / ADJ to the left or right	Adjusts the value.
Fn	Performs the auto correction.
■	Displays the original image before editing.
DISP	Displays the preview.

- 3 Press **OK**.

A message appears to indicate processing is being performed, and the image is saved as a new image.



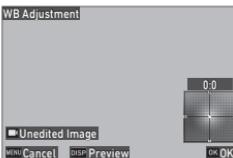
Correcting the White Balance

You can correct the white balance of JPEG images.

- 1 Select [WB Adjustment] in the **■ 2** menu or on the playback functions setting screen, and press **▶**.

The [WB Adjustment] screen appears.

- 2 Adjust the value.



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Playback Functions

▲▼◀▶	Moves the adjustment points.
□	Displays the original image before editing.
DISP	Displays the preview.

- 3 Press **OK**.

A message appears to indicate processing is being performed, and the image is saved as a new image.



Correcting Color Moiré

You can reduce color interference caused by regular overlapping patterns in JPEG images.

- 1 Select [Color Moiré Correction] in the 2 menu or on the playback functions setting screen, and press .

The [Color Moiré Correction] screen appears.

- 2 Adjust the value.

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	Selects the correction level.
	Displays the original image before editing.
	Displays the preview.

- 3 Press .

A message appears to indicate processing is being performed, and the image is saved as a new image.

- Caution**

- Some images may not be corrected properly.
- If you perform [Color Moiré Correction], color loss or color bleeding may occur.



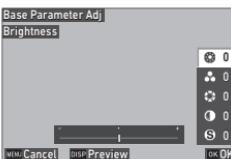
Adjusting the Image Quality

You can adjust the quality level of JPEG images.

- 1 Select [Base Parameter Adj] in the **2** menu or on the playback functions setting screen, and press **▶**.

The [Base Parameter Adj] screen appears.

- 2 Adjust the value.



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Playback Functions

▲▼	Selects [Brightness], [Saturation], [Hue], [Contrast], or [Sharpness].
◀▶	Selects a value (± 4).
DISP	Displays the preview.

- 3 Press **OK**.

A message appears to indicate processing is being performed, and the image is saved as a new image.

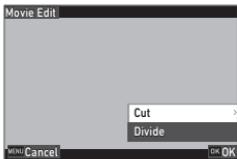
Editing Movies

You can clip or divide a movie file into multiple segments and save as new files.

- 1 Select [Movie Edit] in the **■ 2** menu or on the playback functions setting screen, and press **►**.

The [Movie Edit] screen appears.

- 2 Select [Cut] or [Divide], and press **OK**.



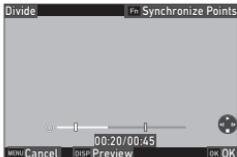
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Playback Functions

Cut	Saves a range specified with the starting and ending points as a new movie file.
Divide	Divides a movie into two files at the specified devision point and saves as new files.

- 3 Specify the starting and ending points or division point.

You can play or pause the movie in the same manner as when viewing a movie in the playback mode.





The following operations are also available.

Press ADJ	[Cut]: Switches between the starting and ending points.
	[Cut]: Moves the starting or ending point. [Divide]: Moves the division point.
Fn	[Cut] during playback: Moves the starting or ending point to the playback point. [Divide] during playback: Moves the division point to the playback point.
DISP	Displays the preview.

4 Press **OK**.

The movie file is saved as a new file.

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Sharing Images

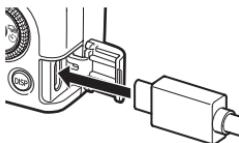
Using the Camera with a Computer

Connect the camera to a computer using the provided USB cable.

- 1 Turn the camera off.**
- 2 Open the terminal cover of the camera, and connect the USB cable to the USB terminal.**
- 3 Connect the USB cable to the USB port of the computer.**

The camera turns on and enters the playback mode.
The camera is recognized as a device by the computer.
When a memory card is inserted, the files on the memory card are displayed.
When a memory card is not inserted, the files in the internal memory are displayed.
- 4 Copy the captured images to the computer.**
- 5 Disconnect the camera from the computer when the copy is complete.**
- 6 Remove the USB cable from the camera.**

The camera turns off automatically.



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Sharing Images

- Caution**
- Do not remove the USB cable while copying images.
 - If the battery level is low, it may take some time until the camera is recognized by the computer.
 - The camera cannot be operated while it is connected to a computer. To operate the camera, terminate the USB connection on the computer first, then turn off the camera and remove the USB cable.

- Memo**
- The battery is charged when the camera is connected to the computer.
 - Refer to "Operating Environment" (p.154) for system requirements to connect the camera to a computer and to use the provided software.
 - If you intend to use the camera continuously for a long period, the use of the optional AC adapter (D-AC166) is recommended.



Using the Camera with a Communication Device

The camera can be operated from a communication device and the images saved in the camera can be displayed on/imported to the communication device by connecting both the devices via Bluetooth® or wireless LAN and using the dedicated app "Image Sync".



Memo

- The captured images can be transferred to the communication device by specifying them in [File Transfer] of the 1 menu. (p.100) The images can also be transferred automatically after shooting. (p.116) When transferring the captured images, connect the camera to the communication device via a wireless LAN.
- The Bluetooth® connection and the wireless LAN connection can be switched using the "Image Sync".
- For details on how to operate the communication device, refer to the operating manual of the device.



Caution

- The Bluetooth® function and wireless LAN function are disabled in the following cases.
 - mode
 - During the USB connection
 - When the camera is connected to an AV device





Connecting to a Communication Device via Bluetooth®

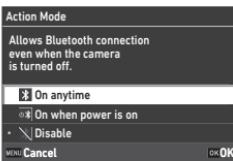
- 1 Turn on the Bluetooth® function of the communication device.
- 2 Select [Bluetooth Setting] in the 6 menu, and press . The [Bluetooth Setting] screen appears.
- 3 Select [Action Mode], and press .
- 4 Select [On anytime] or [On when power is on], and press .

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Sharing Images

- 5 Select [Pairing], and press .
- 6 Select [Execute Pairing], and press .

The camera enters a pairing standby state, and the camera's [Device Name] and [Password] are displayed.



- 7 In the device list displayed on the communication device, select the device name of the camera and enter the authentication code.

The camera and the communication device are paired.

The icon is displayed on the screen when the camera is connected to the communication device via Bluetooth®.





Memo

- Once the pairing is established, the camera can be connected to the communication device via Bluetooth® only by the operations in Steps 1 to 4 from next time.
- Select [Paired Devices] on the screen in Step 6 to display the names of paired communication devices. Press **Fn** on this screen to cancel the pairing. The pairing can be established with up to six communication devices.
- Select [Communication Info.] in Step 3 to display the camera's [Device Name].
- When the pairing cannot be established from the camera, execute the pairing from the communication device.
- When [On anytime] is set in Step 4, you can set whether to transfer images while the power is off in [Image Transfer while Off] of [Smartphone Link] in the 6 menu. (p.116)





Enabling the Wireless LAN Function

The wireless LAN function is off when the camera is turned on. Turn on the function using one of the following methods.

- Setting from the menus (p.114)
- Pressing and holding (p.115)
- Pressing and holding (p.115)

Memo

- When the wireless LAN function is turned on, the icon indicating the wireless LAN status appears on the screen, and the status lamp blinks.
- Even after the wireless LAN function is turned on, it turns off when the camera is turned off and on again.



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Caution

- Do not attempt to use the wireless LAN function in a location where the use of wireless LAN devices is restricted or prohibited, such as on airplanes.
- When using the wireless LAN function, observe local laws and regulations governing radio communication.

Setting from the Menus

- 1 Select [Wireless LAN Setting] in the 6 menu, and press .
- 2 Select [Action Mode], and press .
- 3 Select [On], and press .



Memo

- Select [Communication Info.] in Step 2 to display the camera's [SSID], [Password], and [MAC Address]. To reset the SSID and password to the default settings, press .
- The certification marks of the wireless LAN can be displayed in [Certification Marks] of the 8 menu. (p.2)

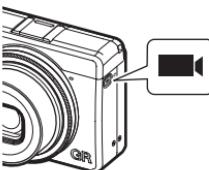


Pressing and Holding the Movie/Wireless Button

1 Press and hold .

A beep sounds and the wireless LAN icon appears on the shooting screen.

Press and hold  again to turn off the wireless LAN function.

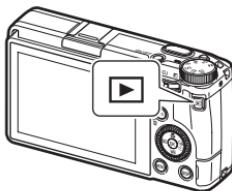


Pressing and Holding the Playback Button

The wireless LAN function can be turned on in the playback mode from the power-off state of the camera.

1 Press and hold with the camera turned off until a beep sounds.

The camera is turned on in the playback mode and the wireless LAN function is turned on.



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Sharing Images



Caution

- When the wireless LAN function is turned on using , the camera does not enter the shooting mode even if the shutter release button is pressed. When performing shooting or other operations, press  to turn the camera off and press the power button to turn the camera back on.

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Operating the Camera with a Communication Device

The following functions can be used by connecting the camera to a communication device via a wireless LAN and using the dedicated app "Image Sync".

Remote Capture	Displays the shooting screen of the camera on the communication device, and enables controlling exposure settings and shooting by operating the communication device.
Image View	Displays the images saved in the camera on the communication device and imports them to the communication device.
Time Synchronization	Synchronizes the date and time displayed on the camera with the date and time settings of the communication device.

"Image Sync" supports iOS and Android™, and can be downloaded from the App Store or Google Play™. For the supported operating system and other details, refer to the download site.

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Sharing Images

Memo

- For how to connect the camera to a communication device and details on the "Image Sync", refer to the following website.
<http://www.ricoh-imaging.co.jp/english/products/app/image-sync2/>
- You can use the "Image Sync" installed on the communication device to operate the camera and adjust the camera's date and time.
- You can make the following settings in [Smartphone Link] of the 6 menu.

Store Location Info.	Records the location information of the communication device in captured images.
Auto Image Transfer	Automatically transfers captured images to the communication device after shooting. The format of transferred files can be selected.
Image Transfer while Off	Sets whether to continue to transfer images while the power is off in the case where [On anytime] is set in [Action Mode] of [Bluetooth Setting] in the 6 menu.

Changing the Settings

Saving Frequently Used Settings

You can save up to six frequently used settings and assign the settings to the mode dial **U1**, **U2**, and **U3** so that you can easily recall the settings for shooting.

The following settings can be saved.

- Exposure mode
- Exposure compensation
- menu settings (with exceptions)
- **C** 2 menu settings and the [Grid Style] setting of the **C** 3 menu
- 3/ 4/ 5 menu settings

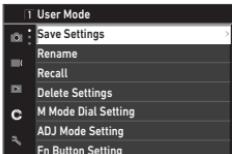
Saving the Settings

Up to six settings can be saved.

1 Set the exposure mode and all the necessary settings to save.

2 Select [Save Settings] in the **C** 1 menu, and press **►**.

The [Save Settings] screen appears.



3 Select from [BOX1] to [BOX6], and press **OK**.



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Changing the Settings

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4 Select whether to enter a Box name, and press **OK**.

When [Cancel] is selected, proceed to Step 7.

When [Enter Name] is selected, the text-entry screen appears.

5 Enter a Box name.

Up to 32 single-byte alphanumeric characters and symbols can be entered.



The following operations are available.

	Moves the text selection cursor.
	Moves the text selection cursor up and down.
	Enters a character selected with the text selection cursor.

You can use the touch panel for the operations.

6 After entering the text, move the text selection cursor to , and press **OK**.

The confirmation screen appears.

7 After checking the setting, press **OK**.

The **C 1** menu reappears.

Memo

- If a name is not entered, the registration date and time will be the name.
- To change the name, select [Rename] in the **C 1** menu.
- To delete the setting, select [Delete Settings] in the **C 1** menu.



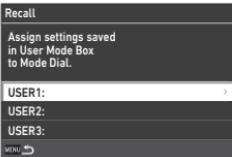
Assigning Settings to the Mode Dial

You can assign the saved settings to the mode dial.

- 1 Select [Recall] in the **C 1** menu, and press **►**.

The [Recall] screen appears.

- 2 Select the mode dial to register the saved setting to from **USER1 (U1)**, **USER2 (U2)**, or **USER3 (U3)**, and press **►**.



- 3 Select from **[BOX1]** to **[BOX6]**, and press **OK**.

The selected setting is assigned to the mode dial.

The screen in Step 2 reappears.

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Changing the Settings

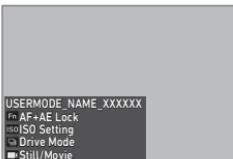
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Using the Saved User Mode

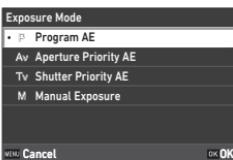
1 Set the mode dial to U1, U2, or U3 in the shooting mode.

The user mode guide appears on the shooting screen.



2 Change the setting as necessary.

To change the exposure mode, set [Exposure Mode] in the 2 menu.



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Changing the Settings



Memo

- The setting changed in Step 2 is not saved in the camera. If the mode dial is turned, the setting is reset to the saved setting. To change the saved setting, save a setting in [Save Settings] again.
- If the Box settings assigned to the mode dial are changed, the settings applied to the mode dial are also changed.



Customizing the Button Functions

Registering Functions to the ADJ. Mode

You can change the settings for “ADJ. mode” of which functions can be easily used by pressing **ADJ.**.

Five functions in the following shooting functions can be registered. (The functions indicated with a square-bracketed item are the default settings for the item.)

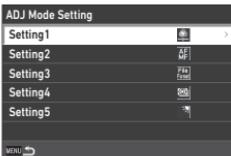
- Off
- Focus [Setting2]
- Snap Focus Distance
- File Format [Setting3]
- Aspect Ratio
- JPEG Recorded Pixels
- AE Metering [Setting4]
- ISO Setting
- Flash Mode
- Flash Exposure Comp.
- Drive
- Self-timer
- Image Control [Setting1]
- One Push AE in M Mode
- Outdoor View Setting [Setting5]

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Changing the Settings

1 Select [ADJ Mode Setting] in the **C 2** menu, and press **▶**.
The [ADJ Mode Setting] screen appears.

2 Select from [Setting1] to [Setting5], and press **▶**.

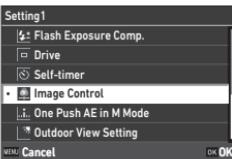


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3 Select the function to register, and press **OK**.

The function for the ADJ. mode is changed.



Caution

- The settings changed in [ADJ. Mode Setting] are enabled in the still picture mode only. [Image Control], [Focus], [Framerate], [AE Metering], and [Outdoor View Setting] are registered for the **REC** mode, and they cannot be changed.

Memo

- Refer to "Using the ADJ. Lever" (p.23) for how to use the ADJ. mode.

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Changing the Functions of the Fn Button

You can change the functions for when **Fn**, **◀**, **▶**, or **□** is pressed.

The following functions can be registered to each button. (The functions indicated with a square-bracketed item are the default settings for the item.)

Pressing **Fn**, **◀**, **▶**, or **□**

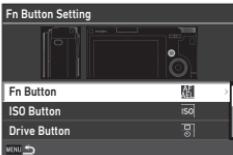
- Off
- Focus
- Set MF
- Set Snap
- Set Tracking AF
- Enable AF
- AF+AE Lock [Fn Button]
- AE Lock
- Face Detection
- Snap Focus Distance
- File Format
- JPEG → RAW
- JPEG → RAW+
- Aspect Ratio
- Crop
- JPEG Recorded Pixels
- Framerate
- Still/Movie [Movie/Wireless Button]
- AE Metering
- ISO Setting [ISO Button]
- Flash Mode
- Flash Exposure Comp.
- ND Filter
- Drive Mode [Drive Button]
- Drive
- Continuous Shooting
- Self-timer
- Image Control
- Shake Reduction
- One Push AE in M Mode
- 4-way Controller Action
- Outdoor View Setting

Pressing and holding **□**

- Wireless LAN Setting [Hold Movie/
Wireless Btn.]
- Preview

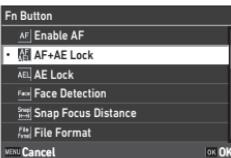
1 Select [Fn Button Setting] in the **C 2** menu, and press **▶**.
The [Fn Button Setting] screen appears.

2 Select the button to change the setting of, and press **▶**.



3 Select the function to register, and press **OK**.

The button function is changed.



Memo

- On the [Fn Button Setting] screen, you can set the button functions for when the functions corresponding to the following operations are assigned.

Focus Settings	Select the button function from [Same as Shutter Button], [Auto-area AF], [Select AF], [Pinpoint AF], [Tracking AF], or [Continuous AF].
Keep AE Lock	When set to [On], AE lock is turned on and off each time the button is pressed. When set to [Off], AE lock is only enabled while the button is pressed.
One Push AE in M Mode	If the button is pressed in the M mode, the exposure is automatically adjusted to the correct exposure. Select the mode to adjust from [Program AE], [Aperture Priority AE], or [Shutter Priority AE].

- When the power is turned on or the mode dial is turned, the current function of the button is displayed. If [Guide Display] is set to [Off] in the 2 menu, the function is not displayed.

Caution

- The function of **Fn** is enabled in the shooting mode only. It is not available in the playback mode.
- [Enable AF], [AF+AE Lock], [AE Lock], and [One Push AE in M Mode] cannot be assigned to .



Setting the Function of the Shutter Release Button

You can set the function for when **SHUTTER** is pressed in the **C 2** menu.

Shutter Button Setting	Sets whether to perform autofocus and AE Lock, or only AE lock when SHUTTER is pressed halfway.
Shutter Btn. Confirmation	Sets whether to complete the setting by pressing SHUTTER halfway when setting functions on the Live View screen such as in the ADJ. mode. This setting is also applied to when autofocus is activated using Fn . [On]: Completes settings by pressing SHUTTER halfway. [Off]: Returns to the setting screen after SHUTTER is pressed halfway.





Display and Sound Settings

Setting the Information Displayed During Shooting/ Playback

You can set the information displayed when the display is switched using **DISP** in the shooting mode or playback mode.

- 1 Select [Shooting Info. Display] or [Playback Info. Display] in the **C 3** menu, and press **►**.

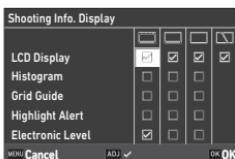
The [Shooting Info. Display] or [Playback Info. Display] screen appears.

For [Playback Info. Display], proceed to Step 3.

- 2 Use **◀▶** to select [LCD Display], and press **ADJ** to set each display mode on/off.

[Standard Info. Display], [Simplified Info. Display], [No Information Display], and [Display Off] can be set.

Display modes without a check mark are not displayed when **DISP** is pressed during shooting. Select at least one display mode.

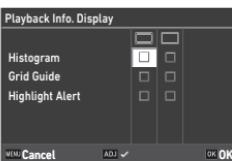


- 3 Use **▲▼◀▶** to select a display item, and press **ADJ** to set it on/off.

[Shooting Info. Display]

Histogram	Displays a histogram.
Grid Guide	Displays guidelines.
Highlight Alert	Blinks areas expected to be overexposed in red during shooting.
Electronic Level	Displays an indicator for confirming camera tilt.

[Playback Info. Display]



Histogram	Displays a histogram for the image.
Grid Guide	Displays guidelines.
Highlight Alert	Blinks overexposed areas in red.

4 Press **OK**.

Setting the Instant Review Display

You can set the information displayed in "Instant Review" that displays the captured image immediately after shooting in [Instant Review] of the **C 3** menu.



Display Time	Sets the display time of Instant Review. When set to [Hold], the image is displayed until SHUTTER is pressed halfway or the mode dial is turned.
Zoom Review	Magnifies the image by turning W/T during Instant Review.
Delete	Deletes the image by pressing DISP during Instant Review.

The initial magnification when magnifying images by pressing **ADJ** in Instant Review or the single image display of playback mode can be set in [Quick Zoom] in the **C 3** menu.

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Changing the Settings

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Setting the Live View Display

You can set the following settings for the Live View display in the **C 3** menu.

3 Display Customization	
Playback Info. Display	
Instant Review	0.5sec.
Quick Zoom	100%
Focus Magnification	On
C Grid Style	[3x3 Grid] [4x4 Grid]
Electronic Level Type	Horizontal Only / Horizontal & Tilt
Flicker Reduction	50Hz

Grid Style	Select the grid style from [3x3 Grid] or [4x4 Grid].
Electronic Level Type	Select whether to display the horizontal level only, or horizontal level and tilt (vertical direction).
Flicker Reduction	Cuts down flickers on the Live View screen by setting the power frequency.

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Changing the Settings

Setting the Brightness and Tone of the Monitor

LCD Setting

You can set [Brightness], [Saturation], [Adjust: Blue-Amber], and [Adjust: Green-Magenta] in [LCD Setting] of the **C 3** menu.



Caution

- [LCD Setting] cannot be set when [Outdoor View Setting] is set in the **C 3** menu.

Outdoor View Setting

If the monitor display is difficult to see when you take pictures outdoors or in other situations, adjust the brightness of the monitor in [Outdoor View Setting] of the  3 menu.

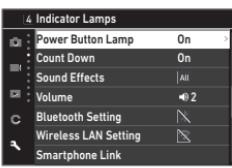


Memo

- [Outdoor View Setting] can be registered to [ADJ Mode Setting] of the  2 menu to use the function with the ADJ. lever. (p.121)

Setting the Lamp

You can set the lamp illumination setting in the  4 menu.

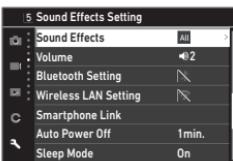


Power Button Lamp	Sets whether to turn the power button lamp on when the power is turned on.
Count Down	Sets whether to blink the AF assist light when shooting using [Self-timer] of [Drive Mode].



Setting the Sound Effects

You can set the sound effects in the 5 menu.



Sound Effects	[All]: Outputs shutter sound, in-focus sound, timer countdown sound, and switching sound of turning the wireless LAN on and off. [Shutter Sound Only]: Outputs shutter sound only.
Volume	Sets the sound volume. When set to [0], all sound effects are turned off.

6

Power Saving Settings

Automatically Turning the Power Off

The camera turns off automatically if no operations are made for a certain period of time. You can set [1min.], [3min.], [5min.], [10min.], [30min.], or [Off] in [Auto Power Off] in the 7 menu.

To resume operation, turn the camera on again.



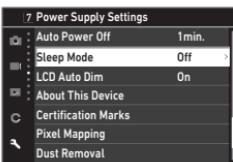
Memo

- [Auto Power Off] is not available in the following cases.
 - During movie recording
 - During shooting with [Interval Shooting] of [Drive Mode]
 - During movie playback
 - During data processing
 - During wireless LAN connection
 - While the camera is connected to a computer



Dimming the Display

The camera dims the display automatically if no operations are performed during the set time. The following settings can be set in the 7 menu.



Sleep Mode	Dims the display automatically if no operations are performed during the set time. The status lamp lights in the sleep mode. [1min.], [3min.], [5min.], [10min.], [30min.], or [Off] can be set.
LCD Auto Dim	Dims the display automatically if the camera is not moved within five seconds. [On] or [Off] can be set.

If the camera is operated, the original brightness is restored.

Memo

- [Sleep Mode] is not available in the following cases.
 - During shooting with [Interval Shooting] of [Drive Mode]
 - During movie playback
 - While an AV device is connected to the camera
 - While the wireless LAN function is enabled
- [LCD Auto Dim] is not available in the following cases.
 - During Instant Review
 - In the playback mode
 - While an AV device is connected to the camera

6





File Management Settings

Specifying the Folder/File Settings

By default, files and folders are automatically named as follows.

File Name	R000001.JPG to R099999.JPG
Folder Name	100 to 999

When the file number exceeds R0999999, the next folder is created and the file number becomes R0000001. If the file number exceeds R0999999 when the folder number is 999, no more files can be stored on the memory card currently inserted.

The file and folder names can be changed.

Create New Folder

6

Changing the Settings

When [Create New Folder] is selected in the 1 menu, a folder is created with a new number when the next image is saved.



Caution

- You cannot successively create multiple folders.



Memo

- A new folder is automatically created in the following cases.
 - During shooting with [Interval Shooting] of [Drive Mode]
 - While converting to JPEG format in [RAW Development] of the 2 menu.



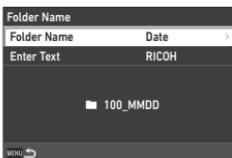
Folder Name

When images are captured with this camera, a folder is automatically created and the captured images are stored in it. Each folder name consists of a sequential number from 100 to 999 and a string of five characters. The character string in the folder name can be changed.

- 1 Select [Folder Name] in the 1 menu, and press .

The [Folder Name] screen appears.

- 2 Select [Date] or [Optional] in [Folder Name].



Date	Assigns four digits of the month and day of the shooting date after the folder number. The month and day appear according to the date format set in [Date Adjustment] of the 10 menu. Example) 101_0125: Images taken on January 25th
Optional	Assigns a freely defined string of five characters after the folder number. (Default: RICOH) Example) 101RICOH

Proceed to Step 7 if you select [Date] or do not need to change the character string.

- 3 Press to select [Enter Text], and press .

The text-entry screen appears.

- 4 Enter a folder name.

Up to five single-byte alphanumeric characters can be entered.



6

Changing the Settings

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The following operations are available.

	Moves the text selection cursor.
	Moves the text selection cursor up and down.
	Enters a character selected with the text selection cursor.

You can use the touch panel for the operations.

- 5** After entering the text, move the text selection cursor to and press .

The confirmation screen appears.

- 6** After checking the setting, press .

The [Folder Name] screen reappears.



Memo

- A folder with a new number is created when the folder name is changed.



Caution

- The maximum folder number is 999. If the folder name is changed or a new folder is created after the folder number reaches 999, you cannot capture new images. Also, you cannot capture new images when the file name number reaches 9999.

6

File Name

One of the following string of characters is used as the file name prefix depending on the [Color Space] (p.85) setting of the **1** menu.

Color Space	File Name
sRGB	(Still image) R0*****.JPG (Movie) M0*****.JPG
AdobeRGB	(Still image) _R*****.JPG (Movie) M0*****.JPG

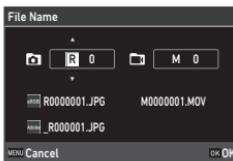
You can change the first two characters of file names from "R0".

- 1** Select [File Name] in the **1** menu, and press **▶**.

The [File Name] screen appears.

- 2** Use **◀▶** to select **1** or **2**, and use **▲▼** to select a character to enter.

Uppercase alphanumeric characters and “_” can be entered.



- 3** Press **OK**.

Memo -----

- When [Color Space] is set to [AdobeRGB], the file name prefix is “_” and first character of the entered character string is used as the file name.

6

Changing the Settings

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Sequential Numbering

In [Sequential Numbering] of the 1 menu, you can set whether to continue the sequential numbering for folder and file names even when memory cards are replaced.



File	Resets folder number and continues the sequential numbering for file name after memory cards are replaced.
Folder & File	Continues the sequential numbering for folder and file names even after memory cards are replaced.
Off	Resets folder and file numbers after memory cards are replaced.

6

Changing the Settings

Reset Numbering

If [Reset Numbering] of the 1 menu is performed, a new folder is created and file number starts from 0001.



Memo

- When the file number reaches 9999, a new folder is created and the file number is reset.
- When a memory card is not inserted, the file number in the internal memory is reset.



Caution

- If the memory card or internal memory to be reset contains images, you cannot reset file numbers. Perform the file number reset after initializing the memory card or internal memory.

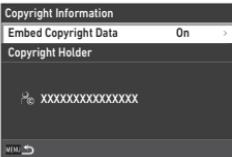




Setting the Copyright Information

You can set the copyright information embedded in the Exif data.

- 1 Select [Copyright Information] in the 1 menu, and press ►. The [Copyright Information] screen appears.
- 2 Select [On] or [Off] in [Embed Copyright Data], and press OK.



- 3 Press ► in [Copyright Holder].

The text-entry screen appears.

- 4 Enter the copyright holder.

Up to 32 single-byte alphanumeric characters and symbols can be entered.



6

Changing the Settings

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The following operations are available.

	Moves the text selection cursor.
	Moves the text selection cursor up and down.
	Changes the character type.
	Enters a character selected with the text selection cursor.

You can use the touch panel for the operations.

- 5** After entering the text, move the text selection cursor to and press .

The confirmation screen appears.

- 6** After checking the setting, press .

The [Copyright Information] screen reappears.



Memo -----

- You can check the Exif information in [Detailed Info. Display] (p.21) in the playback mode.

6

Appendix

Attaching Optional Accessories

Conversion Lens/Lens Adapter

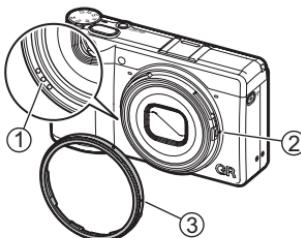
Remove the ring cap before using the wide conversion lens (GW-4) and conversion lens adapter (GA-1).

For details on handling the wide conversion lens and conversion lens adapter, refer to the User's Manual provided with the products.

Removing the Ring Cap

Turn the camera off and rotate the cap counterclockwise until it can be removed. Do not touch the converter pins (①).

For removing the lens adapter, turn it counterclockwise.



Attaching the Ring Cap

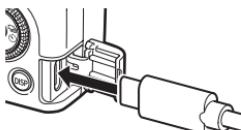
With the camera turned off, align the marking on the ring cap (③) with the marking on the camera body (②), and turn the ring cap clockwise until it clicks.

AC Adapter

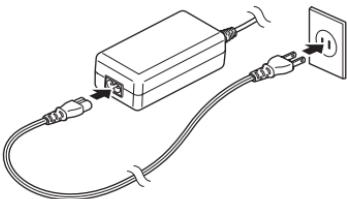
If you intend to use the camera continuously for a long period or connect the camera to a computer, the use of the AC adapter (D-AC166) is recommended.

1 Make sure that the camera is turned off, and open the terminal cover.

2 Connect the USB cable (Type-C) of the AC adapter to the USB terminal of the camera.



3 Connect the AC plug cord to the AC adapter, and plug the cord into the power outlet.



Caution

- Securely connect the power plug and AC plug cord.
- When the camera is not used, unplug the AC adapter from the power outlet and disconnect it from the camera.
- If the AC adapter is disconnected from the camera or the power plug is unplugged from the power outlet during use of the camera, the data may be lost.
- Do not move the camera by holding the AC adapter cable while the AC adapter is used.
- The AC adapter may not be usable depending on the country and region.



Troubleshooting

Power Supply

Problem	Cause	Solution	Page
The camera does not turn on.	The battery is not inserted.	Charge the battery and correctly insert it into the camera.	p.38
	The battery is exhausted.		
	The battery is not inserted in the correct orientation.		
	The battery is incompatible.	Use the battery DB-110 exclusively developed for this camera.	
	The AC adapter is not correctly connected.	Connect the AC adapter correctly.	
The camera turns off during use.	The [Auto Power Off] function has been activated because the camera was not operated for a certain period of time.	Turn the camera back on.	p.40
	The battery is exhausted.	Charge the battery.	
The camera does not turn off.	The camera is malfunctioning.	Take the battery out and insert it again.	p.37
The low battery indicator is displayed or the camera turns off even when a fully charged battery is installed.	The battery is incompatible.	Use the battery DB-110 exclusively developed for this camera.	—
The battery cannot be charged.	The battery has reached the end of its service life.	Replace the battery with a new one.	—
The battery is quickly exhausted.	Ambient temperature is very high or very low.	—	—



Shooting

Problem	Cause	Solution	Page
Shooting cannot be performed by pressing SHUTTER .	The battery is exhausted. The camera is turned off or not in the shooting mode. The memory card is not formatted. The memory card is full. The memory card has reached end of its service life. The memory card is locked. The memory card contacts are dirty.	Charge the battery. Turn the camera on or press SHUTTER to switch the camera to the shooting mode. Perform [Format] in the 2 1 menu. Insert a new card, or delete unwanted files. Insert a new memory card. Unlock the card. Clean with soft, dry cloth.	p.38 p.40 p.42 p.97 — — —
Images cannot be checked after shooting.	Confirmation time is too short.	Change the [Display Time] setting of [Instant Review] in the C 3 menu.	p.127
The monitor is blank.	The monitor brightness is dark. The monitor is off. An AV device is connected to the camera.	Adjust the brightness of the monitor in the 2 3 menu. Press DISP to turn the monitor on. Remove the cable from the camera.	p.128 p.20 p.96
The camera is unable to focus in autofocus mode.	The lens is dirty. The subject is not at center of frame. The subject is not suitable for autofocus. The subject is too close.	Clean with soft, dry cloth. Lock the focus for shooting. Lock the focus or set the focus mode to [MF] for shooting. Use the macro mode or move away from the subject.	— — p.60 p.61
Images are blurred.	The camera was moved when SHUTTER is pressed. When shooting in a dark place, the shutter speed slows down and pictures become easily blurred.	Hold the camera with your elbows pressed against your body, or use a tripod. Use a flash, or set [ISO Setting] to a high ISO sensitivity.	— p.65 p.63
The flash does not discharge. The flash is not charged.	A function preventing flash operation is selected. The battery is exhausted.	Check the settings and mode. Charge the battery.	— p.38

Problem	Cause	Solution	Page
The flash does not illuminate the subject.	The subject is dark. Flash output is not appropriate.	Adjust the flash output.	p.66
Images are too bright.	Flash output is not appropriate.	Adjust the flash output, move away from the subject, or use a different light source.	p.66
	The monitor brightness is not appropriate.	Adjust the brightness of the monitor in the 3 menu.	p.128
Images are too dark.	The monitor brightness is not appropriate.	Adjust the brightness of the monitor in the 3 menu.	p.128
The colors of images are unnatural.	The camera is unable to adjust white balance for shooting conditions using auto white balance.	Include a white object with the subject or select the settings other than [Auto White Balance] for [White Balance].	p.69
The monitor brightness changes during autofocus.	Ambient lighting is poor or differs from that used for autofocus.	This is normal and does not indicate a malfunction.	—
Electronic level indicators are not displayed.	Electronic level indicators are hidden.	Check the [Shooting Info. Display] setting in the 3 menu.	p.126
	The camera is upside down.	Hold the camera in the correct orientation.	—
The image is not level although level indicator showed that the camera was level.	The camera was moving during shooting because you were on a moving object or due to other causes.	Do not move the camera during shooting.	—
	The subject is not level.	Check the subject.	—

Playback/Deletion

Problem	Cause	Solution	Page
Shooting information is not displayed.	Information display is set to [No Information Display].	Press DISP to switch the information displayed on the screen.	p.20
Dust or dirt particles appear in images.	The sensor is dirty or dusty.	Perform [Dust Removal] in the 9 menu. The Dust Removal function can be activated every time the camera is turned on and off.	—
Pixel defects such as bright spots and dark spots appear in the image.	There are defective pixels in the sensor.	Perform [Pixel Mapping] in the 9 menu. It takes about 30 seconds to correct the defective pixels, so be sure to install a fully charged battery.	—
The images cannot be played back. The images are not displayed on the monitor.	The AV device is not correctly connected with the camera.	Connect the cable correctly.	p.96
Images are not displayed on an AV device.	The cable is not correctly connected.	Connect the cable correctly.	p.96
	The input setting of the AV device is incorrect.	Check the AV device settings.	—
	The inserted memory card is not formatted with this camera.	Insert a memory card formatted using [Format] of the 1 menu in this camera.	p.42
The images on the memory card cannot be played back. The images are not displayed on the monitor.	The memory card contacts are dirty.	Clean with soft, dry cloth.	—
	The card is malfunctioning.	There is no problem with the camera if images in another memory card can be played back with this camera. Do not use a memory card that has a problem.	—
	The monitor turned off.	Charge the battery.	p.38
File(s) cannot be deleted.	The [Auto Power Off] function has been activated because the camera was not operated for a certain period of time.	Turn the camera back on.	p.40
	[Protect] is set for the image(s).	Cancel the protection in [Protect] of the 1 menu.	p.98
	The memory card is locked.	Unlock the card.	—
The memory card cannot be formatted.	The memory card is locked.	Unlock the card.	—



Others

Problem	Cause	Solution	Page
The memory card cannot be inserted.	The card is not in the correct orientation.	Insert the memory card in the correct orientation.	p.37
Camera controls have no effect.	The battery is exhausted.	Charge the battery.	p.38
	The camera is malfunctioning.	Turn the camera back on. Take the battery out and insert it again. When the AC adapter is used, reconnect it.	p.40 p.37
Date is not set correctly.	Date and time are not set correctly.	Set date and time correctly in the 10 menu.	p.41
The date setting has been reset.	The battery was removed.	If the battery is removed for more than about five days, the date setting will be lost. Set date and time in the 10 menu.	p.41

Error Messages

Error Message	Description
Memory card full.	The memory card is full and no more images can be saved. Insert a new memory card or delete unwanted files. (p.97)
No image.	There are no images that can be played back on the memory card.
This image cannot be displayed.	You are trying to play back an image in a format not supported by this camera. You may be able to play it back on a computer.
No card in the camera.	There is no memory card inserted in the camera.
Memory card error.	The memory card has a problem, and shooting and playback are impossible. You may be able to play it back on a computer.
Card is not formatted.	The memory card you have inserted is unformatted or has been previously used on another device. Use the card after formatting it with this camera. (p.42)
Card is locked.	The write-protect switch on the memory card inserted is locked.
Cannot use this card.	A memory card not compatible with this camera is inserted.
This image cannot be magnified.	You are trying to magnify an image that cannot be magnified.



Error Message	Description
Not enough battery power remaining to activate Pixel Mapping.	These messages appear if you try to perform the pixel mapping or firmware update when the battery level is insufficient. Install a fully charged battery.
Not enough battery power remaining to update the firmware.	
Image folder cannot be created.	The maximum folder number (999) has been reached, and no more images can be saved. Insert a new memory card or format the card. (p.42)
Unable to store image.	The image could not be saved because of a memory card error.
No image can be processed.	There are no images that can be processed using [RAW Development] of the 2 menu.
This image cannot be processed.	This message appears when you try to perform [RAW Development], [Resize], [Cropping] or [Movie Edit] of the 2 menu for the images captured using other cameras, or [Resize] or [Cropping] for the minimum-sized images.
The camera will turn off to prevent damage from overheating.	The camera will turn off because its internal temperature is too high. Leave the camera turned off until it has had time to cool down before turning on the camera again.
Update failed.	The update could not be performed correctly. Turn the camera off and on, and then perform the update again.
Unable to update firmware. There is a problem with the firmware update file.	There is a problem with the firmware update file. Download the update file again, and then perform the update.



Main Specifications

Camera

Lens	<p>Lens Construction</p> <p>6 elements in 4 groups (2 aspherical lens elements)</p>
Focal Length / Aperture	18.3 mm (approx. 28 mm in 35 mm equivalent focal length) / F2.8 to F16
Image Capture Unit	<p>Type: Primary color filter CMOS</p> <p>Size: 23.5 mm × 15.6 mm</p>
	Effective Pixels Approx. 24.24 megapixels
	Sensitivity (standard output) Auto (ISO Auto Lower/Upper Limit and Minimum Shutter Speed can be set), Manual: ISO 100 to ISO 25600
	Image Stabilization 3-axis sensor-shift shake reduction (SR)
	Anti-Aliasing Filter Simulator Moiré reduction using SR unit (Off, Low, High)
	Dust Removal Image sensor cleaning using ultrasonic vibrations "DR II"
File Format	<p>Still Image</p> <p>File format: RAW (DNG) 14-bit, JPEG (Exif 2.3), DCF 2.0 compliant</p> <p>Color space: sRGB, AdobeRGB</p> <p>Recorded pixels: [3:2] L (24M: 6000×4000), M (15M: 4800×3200), S (7M: 3360×2240), XS (2M: 1920×1280)</p> <p>[1:1] L (16M: 4000×4000), M (10M: 3200×3200), S (5M: 2240×2240), XS (1.6M: 1280×1280)</p>
	<p>Movie</p> <p>File format: MPEG4 AVC/H.264 (MOV)</p> <p>Recorded pixels: Full HD (1920×1080, 60p/30p/24p)</p> <p>Sound recording: Built-in stereo microphone</p> <p>Recording time: Up to 25 minutes or 4 GB; automatically stops recording if the internal temperature of the camera becomes high.</p>
	<p>Storage Medium</p> <p>Internal memory (approx. 2 GB), SD/SDHC*/SDXC* memory card</p> <p>* UHS-I compatible</p>
Focus	<p>Type</p> <p>Hybrid AF (image plane phase-matching and contrast detection)</p>
	<p>Focus Mode</p> <p>Auto-area AF, Select AF, Pinpoint AF, Tracking AF, Continuous AF, MF, Snap, ∞</p>
	<p>Face Detection</p> <p>On, Use only in Auto-area AF, Off</p>
	<p>Focus Range (from lens face)</p> <p>Normal: Approx. 0.1 m to ∞, Macro mode: Approx. 0.06 to 0.12 m</p>

Exposure Control	Exposure Mode	Program AE, Aperture Priority AE, Shutter Priority AE, Manual Exposure
	Metering Mode	Multi-segment, Center-weighted, Spot, Highlight-weighted
	Shutter Speed	1/4000 to 30 seconds (limitation by the aperture: 1/2500 seconds at F2.8; 1/4000 seconds at F5.6 or greater) Bulb timer (10 seconds to 20 minutes), Bulb, Time
	EV Compensation	Still image: ±5 EV (1/3 EV steps), Movie: ±2 EV (1/3 EV steps)
	ND Filter (2 EV)	Auto, On, Off
White Balance		Auto White Balance, Multi Auto White Balance, Daylight, Shade, Cloudy, Fl. - Daylight Color, Fl. - Daylight White, Fl. - Cool White, Fl. - Warm White, Tungsten, CTE, Manual White Balance, Color Temperature
Fine Adjustment		Adjustable ±14 steps on A-B axis and G-M axis
Drive Mode	Drive	Single Frame Shooting, Continuous Shooting, Bracketing, Multi-exposure, Interval Shooting, Interval Composite
	Self-timer	10 seconds, 2 seconds, Off
Shooting Functions	Crop	35 mm, 50 mm, Off
	Image Control	Standard, Vivid, Monotone, Soft Monotone, Hard Monotone, Hi-Contrast B&W, Positive Film, Bleach Bypass, Retro, HDR Tone, Custom1, Custom2 Adjustment parameter: Saturation, Hue, High/Low Key Adjustment, Contrast, Contrast (Highlight), Contrast (Shadow), Sharpness, Shading, Clarity, Toning, Filter Effect, Grain Effect, HDR Tone Level (available parameters vary depending on the selected image)
	Dynamic Range Correction	Highlight Correction, Shadow Correction
	Noise Reduction	Slow Shutter Speed Noise Reduction, High-ISO Noise Reduction
	Display	Display magnification (4×, 16×), Grid display (3×3 Grid, 4×4 Grid), Histogram, Highlight Alert, Electronic Level Display

Playback Functions	Playback View	Single image display, Multiple image display (20 thumbnails, 48 thumbnails), Display magnification (up to 16×, 100% view and Quick Zoom view available), Histogram (Y histogram, RGB histogram), Grid display (3×3 Grid, 4×4 Grid), Highlight Alert, Auto Image Rotation
	Base Parameter Adjustment	Brightness, Saturation, Hue, Contrast, Sharpness
	RAW Development	JPEG Recorded Pixels, Aspect Ratio, Color Space, White Balance, Image Control, Peripheral Illumination Correction, Sensitivity, High-ISO Noise Reduction, Shadow Correction
	Edit	Resize, Cropping, Levels Adjustment, White Balance Adjustment, Color Moiré Correction, Movie Edit (Cut, Divide)
LCD Monitor	Type	3.0 inch TFT color LCD (aspect ratio 3:2), Approx. 1037K dots, Wide viewing angle, Air-gapless tempered glass
	Touch Panel	Capacitive sensing method
	Adjustment	Brightness, Saturation, Blue/Amber, Green/Magenta, Outdoor View Setting: ±2 steps
Wireless LAN	Standards	IEEE 802.11b/g/n (HT20) (standard wireless LAN protocol)
	Frequency (center frequency)	2412 to 2462 MHz (Ch 1 to Ch 11)
	Security	Authentication: WPA2, Encryption: AES
Bluetooth	Standards	Bluetooth® v4.2 BLE (Bluetooth Low Energy)
	Frequency (center frequency)	2402 to 2480 MHz (Ch 0 to Ch 39)
Interfaces	USB Type-C	Battery recharge and camera power supply (optional AC adapter required), Data transfer: MTP, Video output: DisplayPort over USB-C (DisplayPort alternative mode)
	Hot Shoe	Compatible with P-TTL auto flash Flash mode: Flash On, Flash On+Red-eye, Slow-speed Sync, Slow Sync+Red-eye Flash Exposure Compensation: -2.0 to +1.0
	Lens Adapter Pin	Available
Power Supply	Battery Type	Rechargeable battery DB-110
	AC Adapter	AC adapter kit K-AC166 (optional)
	Battery Life	Number of recordable images: Approx. 320 images Playback time: Approx. 190 minutes * Tested in compliance with CIPA standard using a fully charged lithium-ion battery at a temperature of 23°C (73°F). Actual results may vary depending on the shooting conditions/circumstances.

Dimensions and Weight	Dimensions	Approx. 109.4 mm (W) × 61.9 mm (H) × 33.2 mm (D) (excluding operating controls and protrusions)
	Weight	Approx. 257 g (including the dedicated battery and an SD memory card) Approx. 227 g (body only)
Included Accessories		Rechargeable battery DB-110, USB power adapter, Power plug, USB cable I-USB166, Hand strap
Language		English, French, Germany, Spanish, Portuguese, Italy, Dutch, Danish, Swedish, Finnish, Polish, Czech, Hungarian, Turkey, Greek, Russian, Thai, Korean, Simplified Chinese, Traditional Chinese, Japanese



USB Power Adapter AC-U1

Power Supply	100 to 240 V (50/60 Hz), 0.2 A AC
Output Voltage	5.0 V, 1000 mA
Operating Temperature	10 to 40°C (50 to 104°F)
Dimensions	42.5 mm (W) × 22 mm (H) × 66.5 mm (D) (excluding the power plug)
Weight	Approx. 40 g (excluding the power plug)

Rechargeable Lithium-ion Battery DB-110

Nominal Voltage	3.6 V
Rated Capacity	1350 mAh, 4.9 Wh
Operating Temperature	0 to 40°C (32 to 104°F)
Storage Temperature	-10 to 45°C (14 to 104°F)
Dimensions	39.8 mm (W) × 34.2 mm (H) × 8.5 mm (D)
Weight	Approx. 26 g

Image Storage Capacity

The following table shows the approximate number of images and recording time (in seconds) of movies that can be saved in the internal memory and a memory card in various formats.

	File Format/JPEG Recorded Pixels	Aspect Ratio	Focal Length ^{*1}	Number of Recorded Pixels	Internal Memory	Memory Card 8 GB
Still image	RAW	3:2	28 mm	6000 × 4000	40	150
			35 mm	4800 × 3200	40	150
			50 mm	3360 × 2240	40	150
		1:1	28 mm	4000 × 4000	40	150
			35 mm	3200 × 3200	40	150
			50 mm	2240 × 2240	40	150
	RAW+	3:2	28 mm	6000 × 4000	31	117
			35 mm	4800 × 3200	34	127
			50 mm	3360 × 2240	36	138
		1:1	28 mm	4000 × 4000	33	126
			35 mm	3200 × 3200	35	134
			50 mm	2240 × 2240	37	142
	L	3:2	—	6000 × 4000	140	528
		1:1	—	4000 × 4000	210	789
	M	3:2	—	4800 × 3200	219	821
		1:1	—	3200 × 3200	325	1221
	S	3:2	—	3360 × 2240	439	1648
		1:1	—	2240 × 2240	648	2431
	XS	3:2	—	1920 × 1280	1259	4723
		1:1	—	1280 × 1280	1819	6822

*1 35 mm equivalent focal length



	Resolution	Aspect Ratio	Framerate	Number of Recorded Pixels	Internal Memory	Memory Card 8 GB
Movie	Full HD	16:9	60p	1920 × 1080	3:03	12:14
		16:9	30p		6:01	24:02
		16:9	24p		7:27	29:47



Memo

- The figures for movies are the total time length that can be recorded. The maximum recording time per shooting is 25 minutes or the equivalent of 4 GB.
- The number of images that can be taken may differ from the number of storable images displayed on the monitor.
- The storage capacity varies depending on the shooting conditions and the capacity of the memory.
- The image quality of movies recorded to the internal memory is lower than that of movies recorded to a memory card.



Operating Environment

We recommend the following system requirements for USB connection with this camera.

Windows®

OS	Windows® 10 (FCU, CU) (32-bit, 64-bit), Windows® 8.1 (32-bit, 64-bit), Windows® 8 (32-bit, 64-bit), or Windows® 7 (32-bit, 64-bit)
CPU	Intel® Core™ 2 Duo or higher
RAM	4 GB or more
HDD	For installing and starting up the program: Approx. 100 MB or more of available space For saving image files: Approx. 15 MB/file (JPEG), Approx. 50 MB/file (RAW)
Monitor	1280×1024 dots, 24-bit full color or higher

Macintosh

OS	macOS 10.13 High Sierra, macOS 10.12 Sierra, OS X 10.11 El Capitan, OS X 10.10 Yosemite
CPU	Intel® Core™ 2 Duo or higher
RAM	4 GB or more
HDD	For installing and starting up the program: Approx. 100 MB or more of available space For saving image files: Approx. 15 MB/file (JPEG), Approx. 50 MB/file (RAW)
Monitor	1280×1024 dots, 24-bit full color or higher





Using the Camera Abroad

USB Power Adapter (AC-U1), AC Adapter (D-AC166), and Battery Charger (BJ-11)

These products are for use with currents of 100 to 240 V and 50 or 60 Hz. Before traveling, purchase a travel adapter for connection to the type of outlets used at your destination.

Do not use these products with electrical transformers, as this could damage the camera.

Television Playback

Captured images can be played back on the televisions and monitors equipped with a video input terminal. Use a commercially available Display-Port cable.

When using the camera abroad, check the video output format used at your destination in advance.



Precautions for Use

Camera

- Do not drop the camera or subject it to physical shocks.
- When carrying the camera, be careful that it does not strike other objects. Particular care is required to protect the lens and monitor.
- Battery may become hot with extended use. Wait for the battery to cool before removing it from the camera.
- The monitor may be difficult to read in direct sunlight.
- You may notice that monitor varies in brightness or contains pixels that do not light or that are always lit. This is common to all LCD monitors and does not indicate a malfunction.
- Do not apply force to the monitor.
- Abrupt changes in temperature may cause condensation, resulting in visible condensation inside the lens or camera malfunction. This can be avoided by placing the camera in a plastic bag to slow the temperature change, and removing it only after the air in the bag has reached the same temperature of its surroundings.
- To prevent damage to the product, do not insert objects into the holes in the microphone and speaker coverings.
- Do not allow the camera to get wet. In addition, do not operate it with wet hands. Failure to observe this precaution could result in product malfunction or electric shock.
- Take a test shot to ensure that the camera is functioning properly before using it on important occasions such as travel or weddings. We recommend that you keep this manual and spare batteries at hand.



Conditions that May Cause Condensation

- If you move to an area with a sharply different temperature
- If humidity is high
- In a cold room after the heater has come on, or where the camera is exposed to cold air from an air conditioner or other device



USB Power Adapter AC-U1

- Use the USB cable contained in the package.
- Do not subject the power adapter to severe impact or force.
- Do not use in extreme high or low temperatures or areas subject to vibration.
- Do not use in an area subject to direct sunlight or high temperature.
- Unplug the power plug from the power outlet after charging. Failure to observe this precaution could result in fire.
- Do not allow other metallic objects to come in contact with the connectors, or contacts of the rechargeable battery as this can result in a short circuit.
- The operating temperature range is 10 to 40°C (50 to 104°F). Charging takes longer at temperatures below 10°C (50°F).

Caution

- Use of other batteries can cause explosion.

Rechargeable Battery DB-110

- This is a lithium-ion battery.
- The battery is not fully charged at the time of purchase, so be sure to charge the battery before use.
- Do not open or damage the battery as this can result in fire or injury. In addition, do not heat the battery above 60°C (140°F) or expose the battery to fire.
- Due to the battery characteristics, the battery usage time may be shortened when used in a cold environment, even if the battery is fully charged. Keep the battery warm by placing it in a pocket or have a backup battery ready.
- When not in use, be sure to remove the battery from the camera or the battery charger. A small amount of current can leak from the battery even when the power is off, creating excessive discharge and making the battery unusable. If the battery is removed for more than five days, the date and time settings will be lost. In this case, reset the date and time.
- If the battery is not used for a long time, charge the battery for 15 minutes once a year before storing.
- Store in a dry, cool place with an ambient temperature between 15°C and 25°C (59°F and 77°F). Avoid storing in extreme high or low temperatures.
- After charging the battery, do not immediately charge it again.
- Charge the battery at an ambient temperature between 10°C and 40°C (50°F and 104°F). Charging the battery at a high temperature can deteriorate the battery. Charging at a low temperature may prevent full charging.
- If the battery usage time becomes very short even when fully charged, the battery has reached the end of its service life. Replace with a new battery. Be sure to use a replacement battery recommended by RICOH IMAGING.
- The charging time with the AC-U1 is approximately 3 hours (at 25°C (77°F)).





Camera Care and Storage

Caring for the Camera

- Image quality can be affected by fingerprints and other foreign matter on the lens.
Avoid touching the lens with your fingers.
- Remove dust or lint on the lens with a commercially available blower, or gently clean the lens with a soft, dry cloth.
- Clean the camera thoroughly after using it at the beach in a place where chemicals are handled.
- In the unlikely event of malfunction, consult your nearest repair center.
- The camera contains high-voltage circuits. Do not disassemble it.
- Do not expose the camera to volatile substances such as thinner, benzine, or pesticides. Failure to observe this precaution could result in damage to the camera or its coatings.
- The monitor is easily scratched. Avoid touching it with hard objects.
- Clean the monitor by wiping it with a soft cloth dampened with a small amount of any monitor cleaner that does not contain organic solvents.

Storage

- Do not store the camera where it will be exposed to:
 - Extreme heat or humidity, large changes in temperature or humidity
 - Dust, dirt, sand
 - Severe vibration
 - Prolonged contact with chemicals including pesticides, or with vinyl or rubber products
 - Strong magnetic fields (for example, in the vicinity of a monitor, transformer, or magnet)
- Remove the battery if the product is left unused for a long period of time.

Before Cleaning

- Be sure to turn the camera off.
- Remove the battery and AC adapter from the camera.



Warranty Policy

All our cameras purchased through authorized bona fide photographic distribution channels are guaranteed against defects of material or workmanship for a period of twelve months from the date of your purchase. Service will be rendered, and defective parts will be replaced without cost to you within that period, provided the camera does not show evidence of impact, sand or liquid damage, mishandling, tampering, battery or chemical corrosion, operation contrary to operating instructions, or modification by an unauthorized repair shop. The manufacturer or its authorized representatives shall not be liable for any repair or alterations except those made with its written consent and shall not be liable for damages from delay or loss of use or from other indirect or consequential damages of any kind, whether caused by defective material or workmanship or otherwise; and it is expressly agreed that the liability of the manufacturer or its representatives under all guarantees or warranties, whether expressed or implied, is strictly limited to the replacement of parts as hereinbefore provided. No refunds will be made on repairs by non-authorized service facilities.

Procedure During 12-month Warranty Period

Any camera which proves defective during the 12-month warranty period should be returned to the dealer from whom you purchased the camera or to the manufacturer. If there are no representatives of the manufacturer in your country, send the camera to the manufacturer, with postage prepaid. In this case, it will take a considerable length of time before the camera can be returned to you owing to the complicated customs procedures required. If the camera is covered by warranty, repairs will be made and parts replaced free of charge, and the camera will be returned to you upon completion of servicing. If the camera is not covered by warranty, regular charges of the manufacturer or of its representatives will apply. Shipping charges are to be borne by the owner. If your camera was purchased outside of the country where you wish to have it serviced during the warranty period, regular handling and servicing fees may be charged by the manufacturer's representatives in that country. Notwithstanding this, your camera returned to the manufacturer will be serviced free of charge according to this procedure and warranty policy. In any case, however, shipping charges and customs clearance fees to be borne by the sender. To prove the date of your purchase when required, please keep the receipt or bills covering the purchase of your camera for at least a year. Before sending your camera for servicing, please make sure that you are sending it to the manufacturer's authorized representatives or their approved repair shops, unless you are sending it directly to the manufacturer. Always obtain a quotation for the service charge, and only after you accept the quoted service charge, instruct the service station to proceed with the servicing.

- **This warranty policy does not affect the customer's statutory rights.**
- **The local warranty policies available from our distributors in some countries can supersede this warranty policy. Therefore, we recommend that you review the warranty card supplied with your product at the time of purchase, or contact our distributor in your country for more information and to receive a copy of the warranty policy.**





Regulatory Compliance Statements

For Customers in USA

STATEMENT OF FCC COMPLIANCE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- * Consult the dealer or an experienced radio/TV technician for help.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

The available scientific evidence does not show that any health problems are associated with using low power wireless devices. There is no proof, however, that these low power wireless devices are absolutely safe. Low power Wireless devices emit low levels of radio frequency energy (RF) in the microwave range while being used. Whereas high levels of RF can produce health effects (by heating tissue), exposure of low-level RF that does not produce heating effects causes no known adverse health effects. Many studies of low-level RF exposures have not found any biological effects. Some studies have suggested that some biological effects might occur, but such findings have not been confirmed by additional research. R02010 has been tested and found to comply with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines.



Declaration of Conformity
According to 47CFR, Parts 2 and 15 for
Class B Personal Computers and Peripherals

We: RICOH IMAGING AMERICAS CORPORATION
Located at: 5 Dedrick Place, West Caldwell,
New Jersey 07006, U.S.A.
Phone: 800-877-0155
FAX: 973-882-2008

Declare under sole responsibility that the product identified herein complies with 47CFR Parts 2 and 15 of the FCC rules as a Class B digital device. Each product marketed is identical to the representative unit tested and found to be compliant with the standards. Records maintained continue to reflect the equipment being produced can be expected to be within the variation accepted, due to quantity production and testing on the statistical basis as required by 47CFR §2.909. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. The above named party is responsible for ensuring that the equipment complies with the standards of 47CFR §15.101 to §15.109.

Product Name: Digital Camera
Model Number: R02010
Contact person: Customer Service Manager
Date and Place: October, 2018 West Caldwell



For Customers in Canada

Innovation, Science and Economic Development Canada (ISED)

Regulatory Compliance Notice

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

This device complies with Innovation, Science and Economic Development Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

The available scientific evidence does not show that any health problems are associated with using low power wireless devices. There is no proof, however, that these low power wireless devices are absolutely safe. Low power wireless devices emit low levels of radio frequency energy (RF) in the microwave range while being used. Whereas high levels of RF can produce health effects (by heating tissue), exposure of low-level RF that does not produce heating effects causes no known adverse health effects. Many studies of low-level RF exposures have not found any biological effects. Some studies have suggested that some biological effects might occur, but such findings have not been confirmed by additional research. The GR III has been tested and found to comply with ISED radiation exposure limits set forth for an uncontrolled environment and meets RSS-102 of the ISED radio frequency (RF) Exposure rules.

Pour les utilisateurs au Canada

Avis de conformité à la réglementation d'Innovation, Sciences et Développement économique Canada (ISDE)

Cet appareil numérique de la classe B est conforme à la norme NMB-003 (B) du Canada.

Le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Les connaissances scientifiques dont nous disposons n'ont mis en évidence aucun problème de santé associé à l'usage des appareils sans fil à faible puissance. Nous ne sommes cependant pas en mesure de prouver que ces appareils sans fil à faible puissance sont entièrement sans danger. Les appareils sans fil à faible puissance émettent une énergie fréquence radioélectrique (RF) très faible dans le spectre des micro-ondes lorsqu'ils sont utilisés. Alors qu'une dose élevée de RF peut avoir des effets sur la santé (en chauffant les tissus), l'exposition à de faibles RF qui ne produisent pas de chaleur n'a pas de mauvais effets connus sur la santé. De nombreuses études ont été menées sur les expositions aux RF faibles et n'ont découvert aucun effet biologique. Certaines études ont suggéré qu'il pouvait y avoir certains effets biologiques, mais ces résultats n'ont pas été confirmés par des recherches supplémentaires. Le GR III a été testé et jugé conforme aux limites d'exposition aux rayonnements ISDE énoncées pour un environnement non contrôlé et respecte les règles d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'ISDE.



For Customers in Europe

Information for Users on Collection and Disposal of Old Equipment and Used Batteries



1. In the European Union

These symbols on the products, packaging and/or accompanying documents mean that used electrical and electronic equipment and batteries should not be mixed with general household waste.



Used electrical/electronic equipment and batteries must be treated separately and in accordance with legislation that requires proper treatment, recovery and recycling of these products.

By disposing of these products correctly you will help ensure that the waste undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health which could otherwise arise due to inappropriate waste handling.

If a chemical symbol is added beneath the symbol shown above, in accordance with the Battery Directive, this indicates that a heavy metal (Hg = Mercury, Cd = Cadmium, Pb = Lead) is present in the battery at a concentration above an applicable threshold specified in the Battery Directive.

For more information about collection and recycling of used products, please contact your local authorities, your waste disposal service or the point of sale where you purchased the products.

2. In other countries outside the EU

These symbols are only valid in the European Union. If you wish to discard used products, please contact your local authorities or dealer and ask for the correct method of disposal.

For Switzerland: Used electrical/electronic equipment can be returned free of charge to the dealer, even when you don't purchase a new product. Further collection facilities are listed on the home page of www.swico.ch or www.sens.ch.





Notice to Users in EEA Countries

This product complies with the essential requirements and provisions of RE Directive 2014/53/EU.

The CE Declaration of Conformity is available by accessing the URL:
http://www.ricoh-imaging.co.jp/english/support/declaration_of_conformity.html
and selecting the product applicable.

Operating frequency band: 2400 MHz - 2483.5 MHz

Maximum radio-frequency power: 8.22 dBm EIRP

European importer: RICOH IMAGING EUROPE S.A.S.

Parc Tertiaire SILIC 7-9, avenue Robert Schuman - B.P. 70102, 94513 Rungis Cedex,
FRANCE

Manufacturer: RICOH IMAGING COMPANY, LTD.

1-3-6, Nakamagome, Ohta-ku, Tokyo 143-8555, JAPAN

7

Appendix



The CE Mark is a Directive conformity mark of the European Union.



For Customers in Thai

This telecommunication equipment is in compliance with NTC requirements.

7

Appendix

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notice. Please check the latest information on our
websites.

RICOH IMAGING COMPANY, LTD.
October, 2018

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EN GB AE
Printed in China