

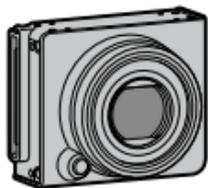
**RICOH**

**RICOH LENS**  
**S10 24-72mm F2.5-4.4 VC**  
**Instruction Manual**

The serial number may be found on the bottom of the lens.

## Package Contents

Before using your Ricoh lens, confirm that the package contains the items listed below.



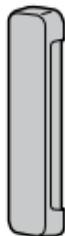
### Camera unit

The serial number may be found on the bottom.



### Lens cap

Comes attached to the camera unit.



### Connector cap

Comes attached to the camera unit.



### Soft case

- Instruction manual (this manual)
- Warranty

## Introduction

To use this lens, you need to attach it to a compatible camera body.

Refer to the Camera Body User Guide for details about how to operate shooting and playback functions and change settings and to read important precautions for use. This instruction manual will refer to this lens as the “camera unit” and will explain functions and operating procedures that are available only when this camera unit is used with a compatible camera body. **See also the GXR Camera Body User Guide.**

To make the best use of this product’s functions, read this manual thoroughly before use. Please keep this manual handy for ease of reference.

Ricoh Co., Ltd.

|                          |  |
|--------------------------|--|
| Safety precautions       | Read all safety precautions thoroughly to ensure safe use.   |
| Test shots               | Take test shots to ensure that the camera is working properly before taking photos on important occasions.   |
| Copyright                | Reproduction or alteration of copyrighted documents, magazines, and other materials, other than for personal, home, or other similarly limited purposes, without the consent of the copyright holder, is prohibited.   |
| Exemption from liability | Ricoh Co., Ltd. assumes no liability for failure to record or display images as a result of product malfunction.   |
| Warranty                 | The warranty supplied with this product is only valid within the country of purchase. The manufacturer assumes no responsibility for servicing the product in other countries or bearing any expense thereby incurred.   |
| Radio interference       | Operating this product in the vicinity of other electronic equipment may adversely affect both the camera and the other device. Interference is particularly likely if the camera is used in close proximity to a radio or television. This can be resolved by moving the camera as far as possible from the other device, reorienting the radio or television antenna, or plugging the radio or television into a different outlet. |

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Every effort has been made to ensure the accuracy of the information in this document. Should you nevertheless notice any errors or omissions, we would be grateful if you would notify us at the address listed on the back cover of this booklet.

## Safety Precautions

### Warning Symbols

Various symbols are used throughout this instruction manual and on the product to prevent physical harm to you or other people and damage to property. The symbols and their meanings are explained below.

|  |  |
|--|--|
|  <b>Danger</b>  | This symbol indicates matters that may lead to imminent risk of death or serious injury if ignored or incorrectly handled. |
|  <b>Warning</b> | This symbol indicates matters that may lead to death or serious injury if ignored or incorrectly handled.                  |
|  <b>Caution</b> | This symbol indicates matters that may lead to injury or physical damage if ignored or incorrectly handled.                |

## Sample Warnings



The  symbol alerts you to actions that must be performed.



The  symbol alerts you to prohibited actions.

The  symbol may be combined with other symbols to indicate that a specific action is prohibited.

### Examples

 = Do not touch

 = Do not disassemble

Observe the following precautions to ensure safe use of this unit.

## Danger



Do not attempt to disassemble, repair or alter the equipment yourself. The high-voltage circuitry in the equipment poses significant electrical hazard.

## **Warning**



Keep the equipment out of the reach of children.



Do not touch the internal components of the equipment if they become exposed as a result of being dropped or damaged. The high-voltage circuitry in the equipment could lead to an electric shock. Remove the battery as soon as possible, being careful to avoid electric shocks or burns. Take the equipment to your nearest dealer or service center if it is damaged.



Do not use the equipment in wet areas as this could result in fire or electric shock.



Do not use the equipment near flammable gases, gasoline, benzene, thinner or similar substances to avoid the risk of explosion, fire or burns.

- Do not use the equipment in locations where usage is restricted or prohibited as this may lead to disasters or accidents.



## Caution



Do not allow the equipment to get wet. In addition, do not operate it with wet hands. Both pose the risk of electric shock.

### Safety Precautions for Accessories

When using optional products, carefully read the instructions provided with the product before using that product.

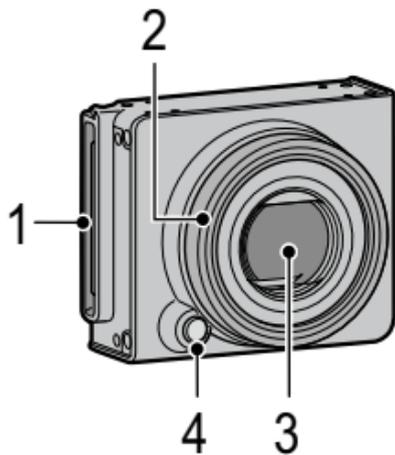
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## Parts of the Lens



- 1 Connector
- 2 Ring cap
- 3 Lens
- 4 Ring cap removal button

## Shooting

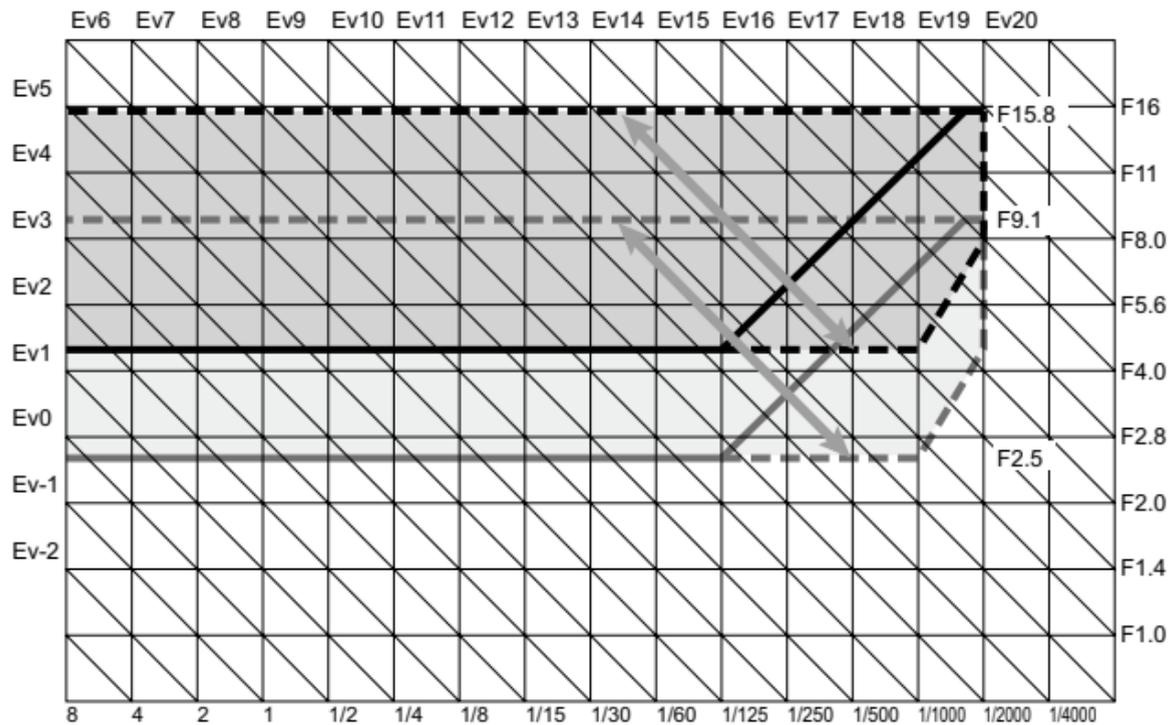
### Mode P: Program Shift

The following shows the approximate ranges available for shutter speed and aperture combinations. The actual values may vary depending on EV (exposure value).

In these examples, the flash mode is set to [Flash Off], and the ISO setting is set to [ISO100].

—— : Wide

—— : Tele



## **Mode M: Manual Exposure**

If [Auto] or [Auto-Hi] is selected for ISO Setting, ISO will be fixed at 100 while the camera is in manual exposure mode.

## **The Zoom Macro Scene Mode**

When the mode dial is set to SCENE, selecting the [Zoom Macro] mode will automatically optimize the zoom position, allowing you to shoot the subject at a larger size than with normal macro shooting. In zoom macro mode, the optical zoom cannot be used. For zoom shooting methods, refer to the “Camera Body User Guide”.



### Caution

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- You can shoot close-ups using the zoom macro within the following distances.

|  |  |
|--|--|
| Approx. 1 cm<br>(from the front of the lens) | Shooting range: Approx. 17 × 13 mm<br>(when digital zoom is not used)    |
|  | Shooting range: Approx. 4.4 × 3.3 mm<br>(when 4.0× digital zoom is used) |

- When [Picture Quality/Size] is set to 4:3 for [L], you can also set [Digital Zoom Image] to [Auto Resize], and auto resize zoom will be activated. (👉 P. 24)

## Settings

### Shooting Menu Settings in [Zoom Macro] Mode

When [Zoom Macro] is selected, items from the shooting menu that can be set and default values are as follows.

| Item                        | Default setting |
|-----------------------------|-----------------|
| Picture Quality/Size        | L 4:3 NORMAL    |
| Focus                       | AF              |
| Pre-AF                      | Off             |
| Exposure Metering           | Multi           |
| Image Settings              | Standard        |
| Continuous Mode             | Off             |
| Auto Bracket                | Off             |
| Flash Exposure Compensation | 0.0             |

| Item                    | Default setting   |
|-------------------------|-------------------|
| Manual Flash Amount     | 1/2               |
| Flash Synchro Settings  | 1st Curtain       |
| Noise Reduction         | Off               |
| Noise Reduction ISO     | Over ISO 401      |
| Distortion Correction   | Off               |
| Custom Self-Timer       | 2 Pics, 5 seconds |
| Date Imprint            | Off               |
| Exposure Compensation   | 0.0               |
| White Balance           | Multi-P AUTO      |
| ISO Setting             | Auto              |
| Camera Shake Correction | On                |

## **[Picture Quality/Size] Setting (Shooting Menu)**

The following picture quality, image size and aspect ratio options are available for the [Picture Quality/Size] setting in the shooting menu.

A photograph's file size will depend on the combination of picture quality and image size used. When recording movies, you can select the movie size.

## Photographs

| Item       | Aspect ratio       | Compression                   | Image size (pixels) |
|------------|--------------------|-------------------------------|---------------------|
| RAW        | 16:9 <sup>*2</sup> | FINE/NORMAL/VGA <sup>*1</sup> | 3648 × 2048         |
|            | 4:3                | FINE/NORMAL/VGA <sup>*1</sup> | 3648 × 2736         |
|            | 3:2 <sup>*2</sup>  | FINE/NORMAL/VGA <sup>*1</sup> | 3648 × 2432         |
|            | 1:1 <sup>*3</sup>  | FINE/NORMAL/VGA <sup>*1</sup> | 2736 × 2736         |
| L (Large)  | 16:9 <sup>*2</sup> | FINE/NORMAL                   | 3648 × 2048         |
|            | 4:3                | FINE/NORMAL                   | 3648 × 2736         |
|            | 3:2 <sup>*2</sup>  | FINE/NORMAL                   | 3648 × 2432         |
|            | 1:1 <sup>*3</sup>  | FINE/NORMAL                   | 2736 × 2736         |
| M (Middle) | 16:9 <sup>*2</sup> | FINE/NORMAL                   | 3264 × 1840         |
|            | 4:3                | FINE/NORMAL                   | 3264 × 2448         |
|            | 3:2 <sup>*2</sup>  | FINE/NORMAL                   | 3264 × 2176         |
|            | 1:1 <sup>*3</sup>  | FINE/NORMAL                   | 2448 × 2448         |

| Item | Aspect ratio | Compression | Image size (pixels) |
|------|--------------|-------------|---------------------|
| 5M   | 4:3          | FINE        | 2592×1944           |
| 3M   | 4:3          | FINE        | 2048×1536           |
| 1M   | 4:3          | FINE        | 1280×960            |
| VGA  | 4:3          | FINE        | 640×480             |

- \*1 When [RAW] is selected, this is the setting used for the JPEG copy.
- \*2 Depending on the area photographed, black bands may appear on the top and bottom of the picture display.
- \*3 Depending on the area photographed, black bands may appear at the right and left sides of the picture display.

## Movies

| Item    | Movie size |
|---------|------------|
| VGA640  | 640×480    |
| QVGA320 | 320×240    |

## [ISO Setting] Setting (Shooting Menu)

- When [Auto] is selected and the flash is used, the sensitivity used will gain up to ISO400 equivalent.
- When [Auto] is selected and the flash is not used, the range of the sensitivity used will be as follows.

| Picture size (pixels) | Default | Minimum | Maximum |
|-----------------------|---------|---------|---------|
| RAW                   | 100     | 100     | 200     |
| L                     | 100     | 100     | 200     |
| M                     | 100     | 100     | 200     |
| 5M                    | 100     | 100     | 200     |
| 3M                    | 100     | 100     | 200     |
| 1M                    | 100     | 100     | 238     |
| VGA                   | 100     | 100     | 283     |

## **[Camera Shake Correction] Setting (Shooting Menu)**

Turning ON [Camera Shake Correction] minimizes blurring due to camera shake.

When camera shake correction is activated, the  symbol appears on the screen.

## **[Reg. My Settings] (Key Custom Options)**

In [Reg. My Settings], you can also set [Step Zoom] options in the setup tab. For other options available, refer to the “Camera Body User Guide”.

## [Set Fn1 Button]/[Set Fn2 Button] (Key Custom Options)

- [Step Zoom] can be assigned to the Fn1/Fn2 buttons.
- [AF/Snap], [WB Correction], and [Step Zoom] is not available by pressing the Fn1/Fn2 buttons if the scene mode is set to [Zoom Macro].

## [Digital Zoom Image] Setting (Setup)

The size of the recorded image varies depending on the auto resize zoom, as follows.

| Zoom ratio   | Image size (pixels) | Zoom ratio   | Image size (pixels) |
|--------------|---------------------|--------------|---------------------|
| Approx. 1.0× | L                   | Approx. 1.8× | 3M                  |
| Approx. 1.1× | M                   | Approx. 2.9× | 1M                  |
| Approx. 1.4× | 5M                  | Approx. 5.7× | VGA                 |

## [Step Zoom] Setting (Setup)

If [Step Zoom] is set to ON, the focal length for zoom is fixed at five steps (equivalent to 24 mm, 28 mm, 35 mm, 50 mm, and 72 mm\*). \* Equivalent to that on a 35-mm camera.



### Notes

---

- Zoom focal lengths for when a wide conversion lens is attached to the camera are equivalent to 19 mm, 22 mm, 27 mm, 39 mm, and 57 mm.
- Zoom focal lengths for when a tele conversion lens is attached to the camera are equivalent to 45 mm, 53 mm, 65 mm, 93 mm, and 135 mm. However, if zooming is performed at a focal length other than 135 mm (telephoto side), mechanical vignetting (a phenomenon in which the four corners of an image become dark) may occur in the periphery of the image.

## [Conversion Lens] Setting (Setup)

In [Conversion Lens] settings, you can set whether to use either of an optional wide conversion lens (DW-6) or tele conversion lens (TC-1).

| Available Settings | Description  |
|--------------------|--|
| Off                | Even when a conversion lens is attached to the camera, the camera will not be recognize it as an attached conversion lens. |
| WIDE [DW-6]        | When a conversion lens is attached to the camera, it will be recognized as a wide conversion lens (DW-6).                  |
| TELE [TC-1]        | When a conversion lens is attached to the camera, it will be recognized as a tele conversion lens (TC-1).                  |

| Available Settings                 | Description   |
|------------------------------------|---|
| Lens Attached<br>* Default setting | The conversion lens type selection screen always appears at the following times. This is useful when frequently using both the DW-6 and TC-1 lenses. <ul style="list-style-type: none"> <li>• When the camera is turned on with a conversion lens attached</li> <li>• When the conversion lens is attached to the camera</li> </ul> |

**When [WIDE[DW-6]] or [TELE[TC-1]] is selected:**

When the power is turned on with a conversion lens attached, or when a conversion lens is attached, a symbol indicating the conversion lens type is displayed momentarily at the center of the picture display, and then a smaller symbol is displayed at the lower right of the picture display.

## **When [Lens Attached] is selected:**

When the power is turned on with a conversion lens attached, or when a conversion lens is attached, the conversion lens type selection screen will display. Press the Fn1/Fn2 buttons to select the desired setting and then press the MENU/OK button. A symbol indicating the conversion lens type is displayed momentarily at the center of the picture display, and then a smaller symbol is displayed at the lower right of the picture display.



### **Caution** -----

- When [Conversion Lens] is set to [TELE[TC-1]], even if the wide conversion lens (DW-6) is attached, the camera will recognize the attached lens as the tele conversion lens (TC-1). In addition, the opposite will be the same.
- When a lens with a different [Conversion Lens] setting is attached, shooting functions will not operate properly.

## Specifications

Specifications are given for the camera unit mounted on a GXR body.

|                  |   |  |
|------------------|---|--|
| Effective pixels | Approximately 10.0 million  |  |
| Image sensor     | 1/1.7" CCD (total pixels: approx. 10.4 million)   |  |
| Lens             | Focal length  | 5.1 mm to 15.3 mm (35-mm format equivalent: 24 mm to 72 mm)  |
|                  | Aperture (f-number)   | f/2.5 – f/4.4  |
|                  | Focus range (from lens)   | Normal shooting: Approx. 30 cm to $\infty$ (wide angle/telephoto end)                                      |
|                  |   | Macro shooting: Approx. 1 cm to $\infty$ (wide angle/zoom macro); approx. 4 cm to $\infty$ (telephoto end) |
| Construction     | 11 elements in 7 groups (4 aspherical lens elements with 4 surfaces)                              |  |
| Zoom             | 3.0 $\times$ optical zoom; 4.0 $\times$ digital zoom; approx. 5.7 $\times$ auto resize zoom (VGA) |  |

|  |                       |  |
|--|-----------------------|--|
| Focus mode                                       |                       | CCD-based multi and spot AF; MF; Snap; ∞ (focus lock and AF-assist)  |
| Shutter speed                                    | Photographs           | 1/2000 – 180s (upper and lower limits vary according to shooting and flash mode)   |
|  | Movies                | 1/30 – 1/2000 s  |
| Exposure control                                 | Metering              | TTL-CCD metering in multi (256-segment), center-weighted, and spot modes with autoexposure lock                              |
|  | Mode                  | Program AE, aperture priority AE, manual exposure, shutter priority AE, move target function                                 |
|  | Exposure compensation | Manual (+4.0 to -4.0 EV in increments 1/3 EV or 1/2 EV), auto bracketing (-2 EV to +2 EV in increments 1/3 EV or 1/2 EV)     |
| ISO sensitivity<br>(Standard Output Sensitivity) |                       | Auto, Auto-Hi, ISO 100, ISO 200, ISO 400, ISO 800, ISO 1600, ISO 3200  |
| White balance                                    |                       | Auto, Multi-P AUTO, Outdoors, Cloudy, Incandescent Lamp, Fluorescent Lamp, Manual Settings, Detail; white balance bracketing |
| Flash  | Range                 | Approx. 20 cm – 4.5 m (wide-angle),  |
|  | (built-in flash)      | Approx. 15 cm – 2.7 m (telephoto)  |

|                     |   |  |
|---------------------|---|--|
| Shooting mode       |   | Auto, program shift, aperture priority, shutter priority, manual, scene (movie, portrait, sports, landscape, nightscape, skew correction, zoom macro), "My Settings"   |
| Continuous mode     | Number of pictures shot in Continuous (Picture Size: RAW) | Noise Reduction off: 5 pictures,<br>Noise Reduction off: 4 pictures, (ISO sensitivity: ISO 800, ISO 1600, ISO 3200)<br>Noise Reduction on (Weak or Strong): 4 pictures |
|                     | Number of pictures shot in M-Cont Plus (1 set)            | HI (640×480) : 30 pictures (30 Frames/Sec),<br>LO (3648×2736) : 15 pictures (1.6 Frames/Sec)   |
| Compression *1      |   | FINE, NORMAL, RAW (DNG) *2   |
| Image size (pixels) | Photographs   | 3648×2048, 3648×2736, 3648×2432, 2736×2736,<br>3264×1840, 3264×2448, 3264×2176, 2448×2448,<br>2592×1944, 2048×1536, 1280×960, 640×480                                  |
|                     | Movies  | 640×480, 320×240   |

|                        |     |      |   |
|------------------------|-----|------|---|
| File size<br>(approx.) | RAW | 16:9 | NORMAL: 12,923 KB/frame, FINE: 14,160 KB/frame,<br>VGA: 11,347 KB/frame |
|                        |     | 4:3  | NORMAL: 17,202 KB/frame, FINE: 18,854 KB/frame,<br>VGA: 15,096 KB/frame |
|                        |     | 3:2  | NORMAL: 15,311 KB/frame, FINE: 16,779 KB/frame,<br>VGA: 13,439 KB/frame |
|                        |     | 1:1  | NORMAL: 12,956 KB/frame, FINE: 14,195 KB/frame,<br>VGA: 11,377 KB/frame |

|  |     |  |  |
|--|-----|--|--|
| File size<br>(approx.)                   | L   | 16:9   | NORMAL: 1,630 KB/frame, FINE: 2,779 KB/frame |
|  |     | 4:3  | NORMAL: 2,169 KB/frame, FINE: 3,704 KB/frame |
|  |     | 3:2  | NORMAL: 1,930 KB/frame, FINE: 3,295 KB/frame |
|  |     | 1:1  | NORMAL: 1,633 KB/frame, FINE: 2,784 KB/frame |
|  | M   | 16:9   | NORMAL: 1,329 KB/frame, FINE: 2,253 KB/frame |
|  |     | 4:3  | NORMAL: 1,761 KB/frame, FINE: 2,990 KB/frame |
|  |     | 3:2  | NORMAL: 1,567 KB/frame, FINE: 2,660 KB/frame |
|  |     | 1:1  | NORMAL: 1,327 KB/frame, FINE: 2,248 KB/frame |
|  | 5M  | 4:3  | FINE: 2,287 KB/frame                         |
|  | 3M  | 4:3  | FINE: 1,474 KB/frame                         |
|  | 1M  | 4:3  | FINE: 812 KB/frame                           |
|  | VGA | 4:3  | FINE: 197 KB/frame                           |
| Battery life<br>(based on CIPA standard) |     | DB-90: approx. 410 shots *3  |  |
| Dimensions (W×H×D)                       |     | Camera unit only:<br>68.7 mm × 57.9 mm × 38.6 mm (excluding projections)<br>When mounted on the camera body:<br>113.9 mm × 70.2 mm × 44.4 mm (excluding projections) |  |

|                       |  |
|-----------------------|--|
| Weight (approx.)      | Camera unit only: 161 g (not including the lens cap or connector cap)<br>When mounted on the camera body: 325 g (not including the battery, memory card, neck strap, connector cap, or lens cap) |
| Operating temperature | 0°C to 40°C  |
| Operating humidity    | 85% or less  |
| Storage temperature   | -20°C to 60°C  |

- \*1 The options available vary with image size.
- \*2 A JPEG file is also recorded (the JPEG file may be a FINE- or NORMAL-quality file with the dimensions as the RAW file or a VGA file 640×480 pixels in size). RAW files use the standard DNG format promoted by Adobe Systems, Inc.
- \*3 For reference only; actual number of shots varies greatly according to how camera is used. We recommend that you carry spare batteries when in use for extended periods.

## Internal Memory/Memory Card Capacity

The following values are given as a reference of the storage capacity of the internal memory and memory cards of various sizes, by picture quality and image size, when using the FINE picture quality.

### Photographs

| Compression | Image size (pixels) | Internal memory | 1 GB | 2 GB | 4 GB | 8 GB | 16 GB | 32 GB |
|-------------|---------------------|-----------------|------|------|------|------|-------|-------|
| RAW*        | 3648×2048           | 6               | 68   | 138  | 272  | 556  | 1115  | 2237  |
| FINE        | 3648×2736           | 4               | 51   | 104  | 204  | 418  | 837   | 1680  |
|             | 3648×2432           | 5               | 57   | 117  | 229  | 469  | 941   | 1888  |
|             | 2736×2736           | 6               | 68   | 138  | 271  | 555  | 1113  | 2232  |
|             | L                   | 3648×2048       | 29   | 323  | 653  | 1284 | 2624  | 5257  |
| FINE        | 3648×2736           | 22              | 242  | 497  | 965  | 1973 | 3953  | 7930  |
|             | 3648×2432           | 24              | 272  | 553  | 1087 | 2222 | 4452  | 8930  |
|             | 2736×2736           | 29              | 323  | 653  | 1284 | 2624 | 5257  | 10546 |

| Compression | Image size (pixels) | Internal memory | 1 GB | 2 GB | 4 GB  | 8 GB  | 16 GB | 32 GB  |
|-------------|---------------------|-----------------|------|------|-------|-------|-------|--------|
| M<br>FINE   | 3264×1840           | 36              | 397  | 808  | 1588  | 3245  | 6502  | 13043  |
|             | 3264×2448           | 27              | 300  | 608  | 1195  | 2442  | 4893  | 9815   |
|             | 3264×2176           | 30              | 337  | 683  | 1341  | 2741  | 5491  | 11014  |
|             | 2448×2448           | 36              | 400  | 808  | 1588  | 3245  | 6502  | 13043  |
| 5M/FINE     | 2592×1944           | 34              | 373  | 758  | 1490  | 3045  | 6101  | 12238  |
| 3M/FINE     | 2048×1536           | 53              | 581  | 1182 | 2321  | 4744  | 9503  | 19063  |
| 1M/FINE     | 1280×960            | 96              | 1059 | 2118 | 4160  | 8505  | 17039 | 34181  |
| VGA/FINE    | 640×480             | 395             | 4316 | 8778 | 17237 | 35231 | 70579 | 141581 |

\* When [RAW] is selected, this is the compression used for the JPEG copy.

## Movies

| Image size (pixels)         | Internal memory | 1 GB             | 2 GB            | 4 GB             | 8 GB              | 16 GB             | 32 GB             |
|-----------------------------|-----------------|------------------|-----------------|------------------|-------------------|-------------------|-------------------|
| 640×480<br>30 frames/second | 49sec.          | 8min.<br>55sec.  | 18min.<br>8sec. | 37min.<br>18sec. | 72min.<br>50sec.  | 145min.<br>54sec. | 292min.<br>41sec. |
| 320×240<br>30 frames/second | 1min.<br>59sec. | 21min.<br>39sec. | 44min.<br>2sec. | 90min.<br>33sec. | 176min.<br>44sec. | 354min.<br>3sec.  | 710min.<br>13sec. |

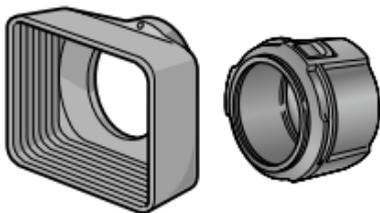
## Appendices

### Optional Accessories

The RICOH LENS can be used with the items (sold separately) listed below.



Lens Cap (LC-2)



Hood & Adapter (HA-3)

Includes a hood to protect the lens from sunlight and an adapter for  $\phi 43$ -mm general-use filters. These can be used to enhance the shooting quality when the subject is backlit.



### Wide Conversion Lens (DW-6)

A wide conversion lens that enables wide-angle shooting at a lens magnification of  $0.79\times$  (equivalent to a 19-mm wide-angle lens on a 35-mm camera). Use with the hood and adapter (case included).



### Tele Conversion Lens (TC-1)

A tele conversion lens that enables telephoto shooting at a lens magnification of  $1.88\times$  (equivalent to a 135-mm telephoto lens on a 35-mm camera). Use with the hood and adapter (case included).

- Before using an optional accessory, see the documentation that came with the product.
- The built-in flash of the camera body can not be used with wide conversion lenses or lens hoods.
- For the latest information on optional accessories, visit the Ricoh website (<http://www.ricohpmmc.com/>).



## **Removing/attaching the ring cap** -----

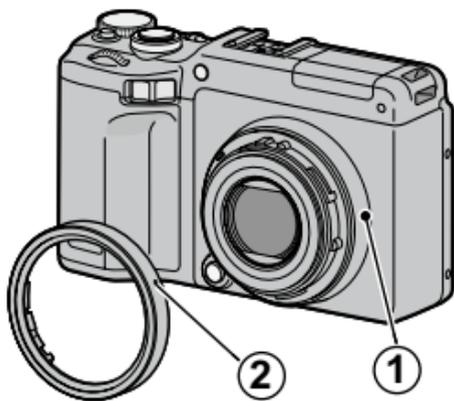
Remove the ring cap when using the wide conversion lens, tele conversion lens, self retaining lens cap or hood & adapter.

### **Removing the ring cap**

With the ring cap removal button pressed, turn the ring cap counterclockwise while the camera is turned off and remove from the camera body.

### **Attaching the ring cap**

With the camera turned off, align the marking on the ring cap (②) with the marking on the camera body (①) and turn the ring cap clockwise until it clicks.



## Precautions for Use

- The warranty supplied with this product is only valid within the country of purchase.
- Should the product fail or malfunction while out of the country, the manufacturer assumes no responsibility for servicing the product locally or bearing any expenditure incurred thereby.
- Do not drop the equipment or subject it to physical shocks.
- When carrying the equipment, be careful that it does not strike other objects. Particular care is required to protect the lens.
- Abrupt changes in temperature may cause condensation, resulting in visible condensation inside the lens or malfunction of the equipment. This can be avoided by placing the equipment in a plastic bag to slow the temperature change, and removing it only after the air in the bag has reached the same temperature its surroundings.
- Keep the equipment dry and avoid handling it with wet hands. Failure to observe these precautions could result in malfunction of the equipment or electric shock.
- Keep the connector clean.



### ***Tip: Avoiding Condensation*** -----

Condensation is particularly likely to occur 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.

## Equipment Care and Storage

### Caring for the Equipment

- Photographs can be affected by fingerprints and other foreign matter on the lens. Avoid touching the lens with your fingers. Remove dust or lint with a blower from a camera supply store, or gently clean the lens with a soft, dry cloth.
- Clean the equipment thoroughly after using it at the beach or handling cosmetics. Do not expose the equipment to volatile substances such as thinner, benzene, or pesticides. Failure to observe this precaution could result in damage to the equipment or its finish.
- In the unlikely event of malfunction, visit a Ricoh Repair Center.
- This equipment is a high precision device. Do not disassemble.

## Storage

Do not store the camera where it will be exposed to: extreme heat or humidity; large changes in temperature or humidity; dust, dirt, or sand; severe vibration; prolonged contact with chemicals, including mothballs and other insect repellent, or with vinyl or rubber products; strong magnetic fields (for example, in the vicinity of a monitor, transformer, or magnet).

## Warranty and Servicing

1. This product is backed by a limited warranty. During the warranty period mentioned in the Warranty supplied with your equipment, any defective parts will be repaired free of charge. In the event of equipment malfunction, contact the dealer from which you purchased the equipment or your nearest Ricoh Repair Center. Please note that you will not be reimbursed for the cost of bringing the equipment to the Ricoh Repair Center.
2. This warranty does not cover any damage resulting from:
  - 1 failure to follow the instructions in the instruction manual;
  - 2 repair, modification or overhaul not conducted by an authorized service center listed in the instruction manual;
  - 3 fire, natural disaster, act of God, lightning, abnormal voltage, etc.;

- 4 improper storage (noted in the "Camera Body User Guide"), leaking of battery and other fluids, mold, or otherwise insufficient care of the equipment.
- 5 submergence in water (flooding), exposure to alcohol or other beverages, infiltration of sand or mud, physical shock, dropping of the equipment, or pressure on the equipment, and other unnatural causes.
3. After the warranty period has passed, you will be liable for all repair fees, including those incurred at an authorized service center.
4. You will be liable for all repair fees, even within the warranty period, if the warranty card is not attached or if the distributor's name or the purchase date have been changed or are not indicated on the card.
5. Expenses for overhaul and thorough inspection by special request of the customer will be charged to the customer, whether or not they are incurred during the warranty period.
6. Any consequential damages arising from failure of the equipment, such as expenses incurred in taking pictures or loss of expected profit, will not be reimbursed whether they occur during the warranty period or not.

7. The warranty is only valid in the country in which the equipment was purchased.
  - \* The above provisions refer to repairs offered free of charge, and do not limit your legal rights.
  - \* The intention of the above provisions is also described in the warranty card provided with this equipment.
8. Parts essential to the servicing of the equipment (that is, components required to maintain the functions and quality of the equipment) will be available for a period of five years after the equipment is discontinued.
9. Please note that if the equipment is seriously damaged by flooding, submergence, infiltration of sand or mud, violent shocks or dropping, it may not be repairable, and restoration to its original condition may be impossible.



#### **Notes** -----

- Before sending the camera in for repair, check the camera body and read the instruction manual again to ensure proper operation.
- Some repairs require a significant amount of time to complete.
- When sending the equipment to a service center, please include a note which describes the defective part and the problem as precisely as possible.
- Remove all accessories not related to the problem before sending the camera to the service center.

## ***If You Encounter a Problem with This Product***

| <b>Ricoh offices</b>              |  |
|-----------------------------------|--|
| RICOH COMPANY, LTD.               | 3-2-3, Shin-Yokohama Kouhoku-ku, Yokohama City, Kanagawa 222-8530,<br>Japan<br><a href="http://www.ricoh.com/r_dc">http://www.ricoh.com/r_dc</a>   |
| RICOH AMERICAS CORPORATION        | 5 Dedrick Place, West Caldwell, New Jersey 07006, U.S.A.<br>1-800-22RICOH<br><a href="http://www.ricoh-usa.com/">http://www.ricoh-usa.com/</a>   |
| RICOH INTERNATIONAL B.V. (EPMCC)  | Oberrather Str. 6, 40472 Düsseldorf, GERMANY<br>(innerhalb Deutschlands) 06331 268 438<br>(außerhalb Deutschlands) +49 6331 268 438<br><a href="http://www.ricohpmmc.com/">http://www.ricohpmmc.com/</a> |
| RICOH UK LTD. (PMMC UK)           | (from within the UK) 02073 656 580<br>(from outside of the UK) +44 2073 656 580  |
| RICOH FRANCE S.A.S. (PMMC FRANCE) | (à partir de la France) 0800 88 18 70<br>(en dehors de la France) +33 1 60 60 19 94  |
| RICOH ESPANA, S.A. (PMMC SPAIN)   | (desde España) 91 406 9148<br>(desde fuera de España) +34 91 406 9148  |
| RICOH ITALIA S.p.A. (PMMC ITALY)  | (dall'Italia) 02 696 33 451<br>(dall'estero) +39 02 696 33 451   |

**Ricoh offices**RICOH ASIA PACIFIC OPERATIONS  
LIMITED

21/F, One Kowloon, 1 Wang Yuen Street, Kowloon Bay, Hong Kong

Ricoh Company, Ltd.  
Ricoh Building, 8-13-1, Ginza, Chuo-ku, Tokyo  
104-8222, Japan  
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