

**Canon**

**RF-S**

**7.8mm F4 STM DUAL**

**Instructions**

**ENG**

# Thank you for purchasing a Canon product.

Canon RF-S7.8mm F4 STM DUAL is a 3D image production lens for use with EOS R series cameras compatible with RF-S lenses.

- To get the most from your lens, we recommend using it under the following conditions.
  - Use Live View
  - Use a tripod
- Images can be captured with two lenses, left and right. These images can be converted to a 3D image using a camera application that supports the captured images.
- “STM” stands for Stepping Motor.

## Conventions used in these instructions



Warning to prevent lens or camera malfunction or damage.



Supplementary notes on using the lens and taking pictures.

## Camera Firmware and Camera Applications

Please use the latest versions of firmware and applications with the camera in use. For details on whether the firmware and applications in use are the latest version or not, and for details on updating them, please check the Canon website.



This lens can be used with some cameras\* in the EOS R series. If the camera does not support it, or the camera's firmware is not a compatible version, there may be issues with the camera operation.

\* For supported cameras, please check the Canon website.

# Safety Precautions

Precautions to ensure that the camera is used safely. Read these precautions thoroughly. Make sure all details are observed in order to prevent risks and injury to the user and other people.

**Be sure to follow the instructions carefully when using the lens.**



## Warning

Details pertaining to risks that may result in death or serious injury.

- **Do not look directly at the sun or other strong light sources through a lens.** This may result in loss of sight.
- **Do not leave a lens in the sun without the lens cap attached.** The lens may concentrate entering sunlight and cause a malfunction or fire.



## Caution

Details pertaining to risks that may result in injury or damage to other objects.

- **Do not leave the product in places exposed to extremely high or low temperatures.** The product may cause burns or injury when touched.
- **Do not shoot movies with extreme movement.** Viewing such movies may result in motion sickness-like symptoms.
- **Avoid shaking while shooting.** Viewing 3D images taken while riding a vehicle or walking may result in feelings of fatigue or discomfort. When shooting such images, use of a tripod is recommended. Use the tripod to create a level view before shooting.

## Safety Precautions

Be sure to follow the instructions carefully when viewing 3D images.



### Warning

Details pertaining to risks that may result in death or serious injury.

- **Those with an eye or heart condition or high blood pressure, pregnant women, and those with a history of spine disorders should consult with a doctor before viewing.** Viewing such images may cause symptoms to worsen.
- **Some individuals may experience muscle spasms, loss of consciousness, seizures, or other such symptoms while being subjected to stimuli such as bright lights or repeatedly blinking images. If you have ever experienced these sorts of problems, be sure to consult with a doctor before viewing.** Viewing such images may cause symptoms to worsen.
- **Extended continuous viewing the images by a person who has not yet finished developing may adversely affect the eyes or body.** Please pay attention to user's condition when viewing by anyone age 15 or younger. If you notice that the person has an abnormal physical condition, immediately stop using this device and see a doctor. Please use this device continuously for no longer than 3 minutes.



### Caution

Details pertaining to risks that may result in injury or damage to other objects.

- **Those who cannot see the images clearly should refrain from viewing.**  
This may adversely affect the eyes or body.
- **Viewing the images by those who are unwell is not recommended.** This may cause feelings of nausea.
- **Those who are susceptible to motion sickness should consult with a doctor before viewing.**  
Viewing may cause the same symptoms to occur.
- **Do not view continuously for more than 30 minutes and allow your eyes and body to rest periodically.** Extended continuous viewing may adversely affect the eyes or body.
- **If you start to feel fatigued, discomfort, or any abnormality while viewing, discontinue viewing.** Continued viewing may affect your health.
- **Do not view images with either left or right display blocked, or while otherwise viewing drastically different images in left and right sides.** This may have a negative effect on the eyes or body.

# General Precautions

## Handling Precautions

- Do not leave the product in excessive heat such as in a car in direct sunlight. High temperatures can cause the product to malfunction.
- If the lens is taken from a cold environment into a warm one, condensation may develop on the lens surface and internal parts. To prevent condensation in this case, first put the lens into an airtight plastic bag before taking it from a cold to warm environment. Then take out the lens after it has warmed gradually. Do the same when taking the lens from a warm environment into a cold one.
- Please also read any lens related handling precautions listed in your camera's instruction manual.

## Shooting Precautions

- Focus again after recovering from the auto power off status.
- To maintain the focus position in the shooting-ready status, set [Auto power off] to [Disable] on the camera.
- This lens has a short focal length, which means dirt or dust on the surface of the lens will show up easily.  
Use a commercially-available blower to remove dirt or dust from the lens surface or mount opening.
- This lens is comprised of two lenses, and both the left and right lenses are read by one sensor. Depending on the camera, the image of the left lens is displayed on right side of the monitor, and the image of the right lens is displayed on the left side of the monitor.  
Please refer to the camera's instructions for details.

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.

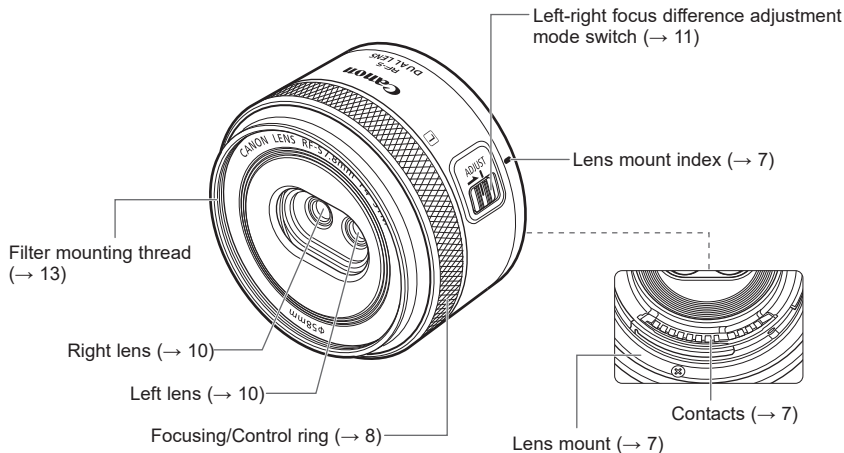
Do not make any changes or modifications to the equipment unless otherwise specified in the instructions. If such changes or modifications should be made, you could be required to stop operation of the equipment.

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:

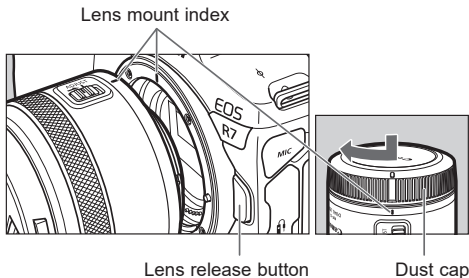
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

# Nomenclature



- For detailed information, reference page numbers are provided in parentheses (→ \*\*).

# 1. Attaching and Detaching the Lens



- Set the camera's power switch to OFF when attaching or detaching the lens.
- Attach the lens cap before detaching the lens from the camera.
- After detaching the lens, place the lens with the rear end up and attach the dust cap to prevent the lens surface and contacts from getting scratched. Make sure the lens and dust cap mount indexes are aligned when attaching the dust cap.
- Contacts that are scratched, soiled, or have fingerprints on them may result in faulty connections or corrosion, which may lead to malfunctions. If the contacts get soiled, clean them with a soft cloth.

## Attaching the Lens

Align the lens mount indexes of the lens and camera, and turn the lens clockwise until you hear a click.

## Detaching the Lens

Turn the lens counterclockwise while pressing the camera's lens release button. Detach the lens once it has stopped turning.

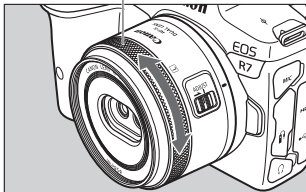
Please refer to the camera's instructions for details.



## 2. Focusing/Control ring

The focusing/control ring can be used as either a focusing ring or a control ring.

Focusing/Control ring



Switching between the focusing ring and control ring is performed on the camera.

Please refer to the camera's instructions for details.

### Use as a Focusing Ring

Set the focus mode (AF/MF) on the camera.

To shoot in autofocus (AF) mode, set the camera's focus mode to [AF].

To use only manual focusing (MF), set the camera's focus mode to [MF], and focus by turning the focusing ring (focusing/control ring).

### Use as a Control Ring

Set the control ring function using the camera's menu. The control ring can be assigned the functions that are commonly used with cameras, such as shutter speed and aperture settings.

Please refer to the camera's instructions for details on how to use the control ring.

## Focusing/Control ring



- The lens does not have a focus mode switch or a focusing/control selector switch.
- Delayed focus may occur if the focusing ring (focusing/control ring) is quickly turned.
- Adjust for any difference in focus between the left and right lenses. For details, see 3. Checking/Adjusting Left and Right Focus.
- This lens does not support Servo AF.



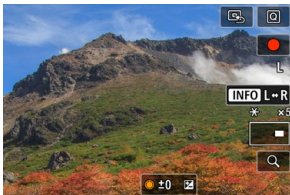
- This lens' focusing/control ring is electronic.
- It is possible to set cameras that support electronic fulltime manual focusing to manual focusing when the camera is in the operational mode. However, the camera settings need to be changed.
- When AF operation is set to One-Shot AF, manual focus is possible after autofocus has been completed by continuing to press the shutter button halfway (electronic manual focus function). However, the camera settings need to be changed.
- When movie recording, the AF speed will be slower than the still photo shooting mode. It is possible to adjust the AF speed on the camera by setting Movie Servo AF to [Enable].

Please refer to the camera's instructions for details.

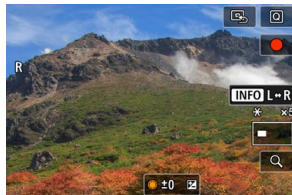
### 3. Checking/adjusting left and right focus

#### Checking Left and Right Focus

When first mounting this lens on the camera, or when using it after being transported for an extended period, use the following steps to check the difference between left and right focus.



- 1 Display an enlarged image from the left lens, then either use the camera's autofocus (AF) or turn the focusing ring (focusing/control ring) to focus the lens.



- 2 Switch to an enlarged image from the right lens.
  - If the focus in the enlarged image from the right lens is correct after switching, adjustment is not needed. Only adjust the focus, using the steps on the following page, if the focus is not correct.



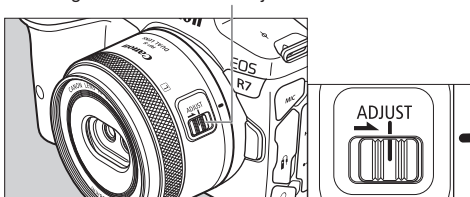
- For information on how to display an enlarged image from the left lens and how to switch display of enlarged images between the left and right lenses, refer to the “Shooting and Recording/Focusing” section in the VR Recording Guide.

## Checking/adjusting left and right focus

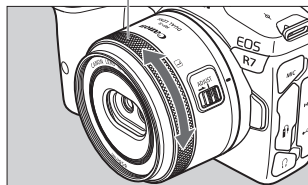
### Adjusting left and right focus

Leaving the enlarged image from the right lens showing, adjust using the following steps.

Left-right focus difference adjustment mode switch



Focusing/Control ring



- 1 Slide the left-right focus difference adjustment mode switch to the ADJUST side.
  - Sliding the switch will reset the focus lens position for the right lens.  
Recheck that the focus in the enlarged image from the right lens is correct.

- 2 Turn the focusing/control ring to adjust.
  - Turning the focusing/control ring only adjusts the focus of the right lens.
  - Adjustment is complete once the focus in the enlarged image from the right lens is correct.
  - After adjustment, return the left-right focus difference adjustment mode switch back to its original position (the opposite side to ADJUST).

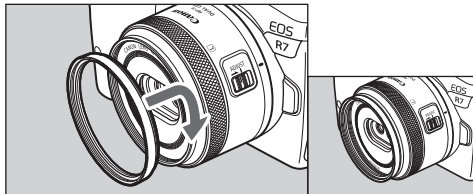
## Checking/adjusting left and right focus



- If the right lens focus goes notably out of range while correcting for focus differences in the left and right lenses, slide the left-right focus difference adjustment mode switch back and forth three times within 6 seconds, starting from the ADJUST side. This will reset the right lens position to its initial setting. After that, check and adjust the left and right focus again.
- When the left-right focus difference adjustment mode switch is set to the ADJUST side, the AF mode cannot be used. In addition, you cannot shoot still images and movies.

## 4. Filters (Sold separately)

You can attach filters (Φ58) to the filter mounting thread on the front of the lens.



- Only one filter may be attached.
- If you need a polarizing filter, use the Canon Circular Polarizing Filter PL-C B.

## 5. Exposure

Photographing with AE (auto exposure) is possible at all focusing distances even with this lens attached.

- AE metering range is restricted to within the image circle in the left lens.
- Using this lens for flash photography on close-up subjects can cause very inaccurate AE exposure measurements. In that case, either use a separate light meter or check your images after capture.

# Specifications

<b>Focal Length/Aperture</b>	7.8mm f/4
<b>Lens Construction</b>	7 groups, 9 elements (per optical system)
<b>Maximum Aperture</b>	f/4
<b>Minimum Aperture</b>	f/16
<b>Angle of View</b>	Horizontal: 63°, Vertical: 63°, Diagonal: 63°
<b>Min. Focusing Distance</b>	0.15 m/0.49 ft.
<b>Max. Magnification</b>	0.07x
<b>Baseline Length (Central point between left and right lenses)</b>	Approx. 11.8 mm/0.46 in.
<b>Filter Diameter</b>	58mm
<b>Max. Diameter and Length</b>	Approx. 69.2 x 41.5 mm/2.72 x 1.63 in.
<b>Weight</b>	Approx. 131 g/4.62 oz.
<b>Lens Cap</b>	E-58 II*
<b>Lens Dust Cap</b>	Lens Dust Cap RF*
<b>Case</b>	LP1014 (Sold separately)

\* This comes included with the lens, but can also be purchased separately.



## Specifications

- The lens length is measured from the lens mount surface to the front end of the lens.  
Add 24.2 mm/0.95 in. when including the lens cap and dust cap.
- The maximum diameter, length and weight listed are for the lens itself only.
- Close-up Lens 250D/500D cannot be attached because there is no size that fits the lens.
- You cannot use extenders.
- All data listed is measured according to Canon standards.
- Product specifications and appearance are subject to change without notice.

