

Lens for Digital Single Lens Reflex Camera

Operating Instructions

70-200mm F2.8 G

SAL70200G

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<http://www.sony.net/>

This lens is designed for Sony **α** cameras.

WARNING

To reduce fire or shock hazard, do not expose the unit to rain or moisture.
Do not directly look at the sun through this lens.
Doing so might harm your eyes or cause loss of eyesight.
Keep the lens out of reach of small children.
There is danger of accident or injury.



Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

For the customers in the U.S.A.

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 UNDESIRE OPERATION.

CAUTION

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

NOTE:

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.

For the customers in Canada

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

Notes on use

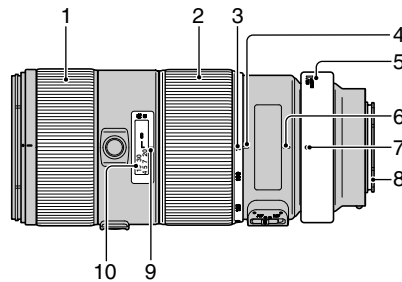
- Do not leave the lens in direct sunlight. If sunlight is focused onto a nearby object, it may cause a fire. If circumstances necessitate leaving the lens in direct sunlight, be sure to attach the lens cap.
- Be careful not to subject the lens to mechanical shock while attaching it.
- Always place the lens caps on the lens when storing.

- Do not keep the lens in a very humid place for a long period of time to prevent mold.
- Hold both the camera and lens, when you carry the camera with the lens attached.
- Do not touch the lens contacts. If dirt, etc., gets on the lens contacts, it may interfere or prevent the sending and receiving of signals between the lens and the camera, resulting in operational malfunction.

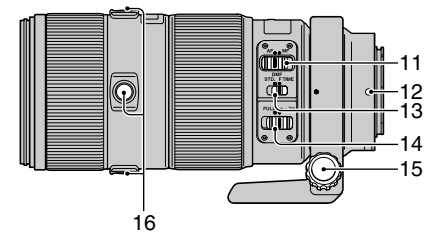
Vignetting

When you use lens, the corners of the screen become darker than the center. To reduce this phenomena (called vignetting), close the aperture by 1 to 2 stops.

A Names of parts



1...Focusing ring 2...Zooming ring 3...Focal-length scale
4...Focal-length index 5...Collar mounting index (red)
6...Lens index (gray) 7...Collar index (gray) 8...Lens contacts
9...Distance index 10...Distance scale

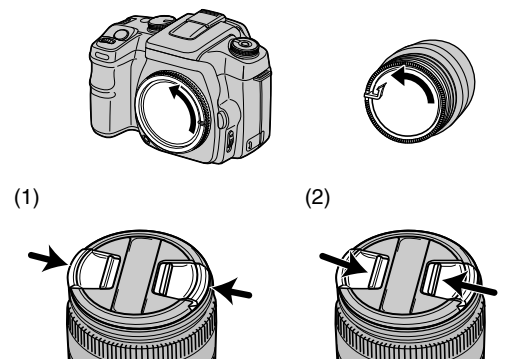


11...Focus-mode switch 12...Lens mounting index
13...DMF-mode switch 14...Focus-range limiter
15...Collar-locking knob 16...Focus-hold button

B Attaching/detaching the lens

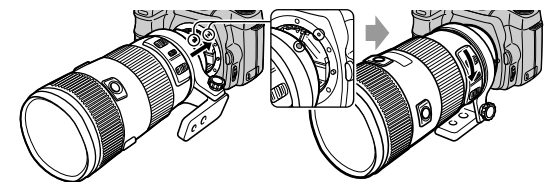
To attach the lens

- 1 Remove the rear and front lens caps and the camera body cap.
 - You can attach/detach the front lens cap in two ways, (1) and (2). When you attach/detach the lens cap with the lens hood attached, use method (2).



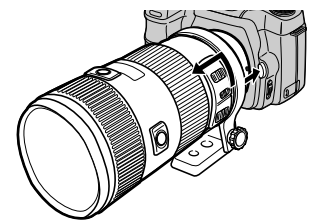
- 2 Align the orange index on the lens barrel with the orange index on the camera (mounting index), then insert the lens into the camera mount and rotate it clockwise until it locks.

- Do not press the lens release button on the camera when mounting the lens.
- Do not mount the lens at an angle.



To remove the lens

While pressing and holding the lens release button on the camera, rotate the lens counterclockwise until it stops, then detach the lens.



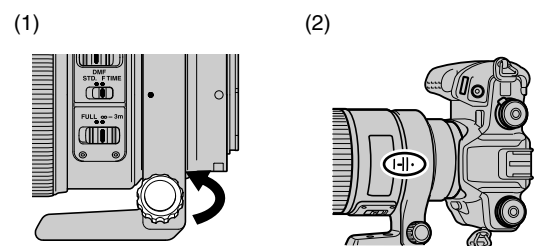
C Attaching a tripod

Attach the tripod to the lens, not to the camera.

To change vertical/horizontal position

Loosen the collar-locking knob on the tripod-mounting collar (1) and rotate the camera either direction. The camera can be quickly switched between vertical and horizontal positions while maintaining stability when using a tripod.

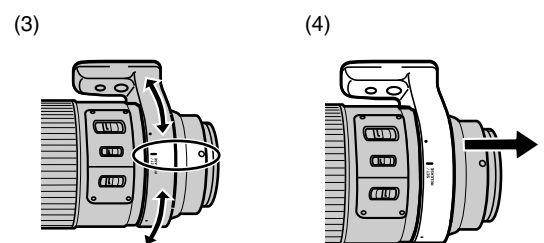
- Gray indexes (collar indexes) are located at 90° intervals on the tripod-mounting collar. Align a gray index on the tripod-mounting collar with the gray index (collar index) on the lens to adjust the camera position precisely (2).
- Tighten the collar-locking knob firmly after the camera position is set.



To detach the tripod-mounting collar

The tripod-mounting collar can be detached.

- 1 Remove the lens from the camera.
 - See "B Attaching/detaching the lens" for details.
- 2 Loosen the collar-locking knob (1).
- 3 Rotate the tripod-mounting collar to align the red index on the tripod-mounting collar (collar mounting index next to SET/RELEASE) with the orange index on the lens (mounting index) (3).
- 4 Move the tripod-mounting collar towards the lens mount and detach the tripod-mounting collar from the lens (4).

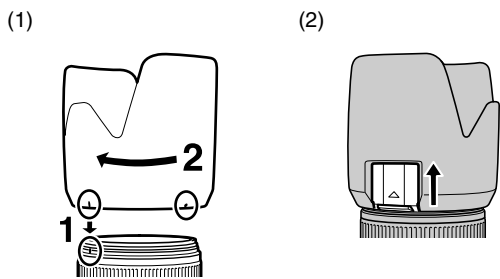


D Attaching the lens hood

It is recommended that you use a lens hood to reduce flare and ensure maximum image quality.

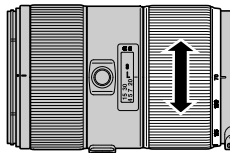
Align the red lines on the lens hood and the lens. Turn the lens hood clockwise until the red line on the lens meets the red dot on the lens hood and it clicks into place (1).

- The polarizing-filter window can be opened (2) to allow the rotation of the polarizing filter without having to remove the lens hood. Close the window when shooting.
- When using a built-in camera flash, make sure to remove the lens hood to avoid blockage of the flash light.
- Attach the lens hood properly. Otherwise, the lens hood may interfere with the desired effect or may appear in pictures.
- When storing, turn over the lens hood and place it onto the lens backwards.



E Zooming

Rotate the zooming ring to the desired focal length.



F Focusing

To switch AF (auto focus)/MF (manual focus)

The focus mode can be switched between AF and MF on the lens.

For AF photography, both the camera and lens should be set to AF. For MF photography, either or both the camera or lens should be set to MF.

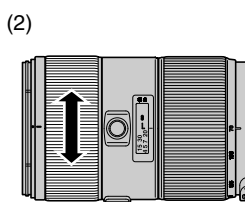
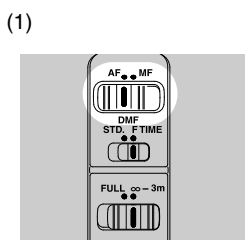
To set the focus mode on the lens

Slide the focus-mode switch to the appropriate mode, AF or MF (1).

- In MF, turn the focusing ring to adjust the focus (2) while looking through the viewfinder. The focus signal in the viewfinder indicates the current condition of the focus.

To use a camera equipped with an AF/MF control button

- Press the AF/MF control button to switch AF to MF when both the camera and lens are set to AF.
- Press the AF/MF control button to switch MF to AF when the camera is set to MF and the lens is set to AF.



Direct manual focus (DMF)

Even when AF is set, the setting is switched to MF automatically if you rotate the focusing ring while pressing the shutter button halfway. This provides quick fine adjustment of focusing (DMF). Select the mode for correct DMF from the following. Set the DMF-mode switch to whichever you prefer.

Standard DMF (STD.)

Rotate the focusing ring to set correct DMF when the focus is locked in AF-A (automatic auto focus) or AF-S (single-shot auto focus). Using this mode is recommended for normal subjects.

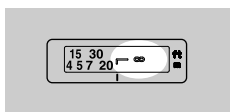
- DMF is not available in AF-C (continuous auto focus), when out of focus, or with continuous advance in AF-A after the second focus is confirmed.

Full-time DMF (F TIME)

In any AF mode (AF-A/S/C), rotate the focusing ring while pressing the shutter button halfway to set correct DMF. This is useful to catch a fast-moving subject.

Shooting at infinity in MF

The focusing mechanism turns slightly past infinity to provide accurate focusing under various operating temperatures. Always confirm the image sharpness through the viewfinder, especially when the lens is focused near infinity.

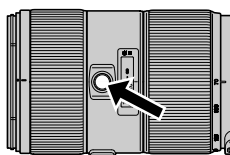


G Using focus-hold buttons

This lens has 3 focus-hold buttons.

Press the focus-hold button in AF to cancel AF. The focus is fixed and you can release the shutter on the fixed focus. Release the focus-hold button while pressing the shutter button halfway to start AF again.

- The function of the focus-hold button can be changed on cameras with custom function capability. Refer to the camera manuals for details.

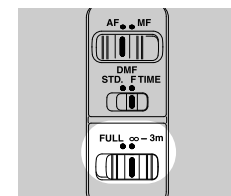


H Switching focus range (AF range)

The focus-range limiter enables you to reduce the auto focusing time. This is useful when the subject distance is definite. You can also set the desired focus range and select it.

Slide the focus-range limiter to select the focus range.

- FULL: AF is set to the minimum focusing distance to infinity.
- ∞ - 3m: AF is set to 3 m (9.8 feet) to infinity.



Depth-of-field table

The sets of three numbers, upper, middle, and bottom, are for 70 mm, 105 mm, and 200 mm focal length respectively, in meters.

	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32
∞	55.4- ∞ 117- ∞ 407- ∞	39.2- ∞ 82.6- ∞ 288- ∞	27.8- ∞ 58.4- ∞ 204- ∞	19.7- ∞ 41.3- ∞ 144- ∞	14.0- ∞ 29.3- ∞ 102- ∞	9.89- ∞ 20.7- ∞ 72.1- ∞	7.03- ∞ 14.7- ∞ 51.0- ∞	5.00- ∞ 10.4- ∞ 36.1- ∞
30m	19.6-64.4 24.0-40.1 28.0-32.4	17.1-123 22.1-46.7 27.2-33.4	14.6- ∞ 20.0-60.7 26.2-35.0	12.0- ∞ 17.5-105 24.9-37.7	9.64- ∞ 15.0- ∞ 23.3-42.1	7.54- ∞ 12.4- ∞ 21.3-50.7	5.78- ∞ 9.97- ∞ 19.1-71.0	4.35- ∞ 7.83- ∞ 16.6-164
15m	11.9-20.3 13.3-17.1 14.5-15.6	11.0-23.8 12.8-18.2 14.3-15.8	9.86-31.6 12.0-19.9 14.0-16.1	8.64-58.6 11.1-23.1 13.7-16.7	7.36- ∞ 10.0-29.8 13.2-17.5	6.09- ∞ 8.84-50.5 12.5-18.7	4.90- ∞ 7.56- ∞ 11.7-20.9	3.85- ∞ 6.28- ∞ 10.7-25.0
10m	8.54-12.1 9.25-10.9 9.77-10.2	8.06-13.2 8.97-11.3 9.69-10.3	7.46-15.2 8.61-11.9 9.56-10.5	6.75-19.5 8.14-13.0 9.39-10.7	5.96-32.3 7.56-14.8 9.16-11.0	5.11-48.2 6.87-18.5 8.86-11.5	4.26- ∞ 6.08-28.7 8.46-12.2	3.46- ∞ 5.24-130 7.95-13.5
7m	6.27-7.93 6.63-7.41 6.89-7.12	6.01-8.39 6.49-7.59 6.85-7.16	5.68-9.15 6.30-7.87 6.79-7.22	5.27-10.5 6.06-8.30 6.71-7.32	4.78-13.2 5.74-8.99 6.59-7.46	4.23-21.1 5.34-10.2 6.44-7.67	3.64-14.2 4.86-12.6 6.23-7.99	3.05- ∞ 4.32-18.9 5.96-8.49
5m	4.63-5.44 4.82-5.20 4.94-5.06	4.49-5.65 4.74-5.29 4.93-5.08	4.31-5.97 4.65-5.41 4.90-5.11	4.07-6.49 4.51-5.61 4.86-5.16	3.79-7.42 4.34-5.90 4.80-5.22	3.44-9.30 4.12-6.38 4.72-5.32	3.05-14.6 3.84-7.21 4.61-5.46	2.64-76.4 3.50-8.85 4.47-5.68
4m	3.76-4.27 3.89-4.12 3.96-4.04	3.67-4.39 3.84-4.18 3.95-4.05	3.56-4.58 3.78-4.25 3.94-4.07	3.40-4.87 3.69-4.37 3.91-4.09	3.20-5.36 3.58-4.54 3.87-4.14	2.96-6.24 3.43-4.81 3.82-4.19	2.68-8.17 3.24-5.25 3.76-4.28	2.36-14.6 3.00-6.04 3.66-4.41
3m	2.87-3.14 2.94-3.07 2.98-3.02	2.82-3.20 2.91-3.09 2.98-3.02	2.75-3.30 2.88-3.13 2.97-3.04	2.66-3.44 2.83-3.19 2.95-3.05	2.55-3.66 2.77-3.28 2.93-3.07	2.40-4.03 2.68-3.41 2.91-3.10	2.22-4.72 2.57-3.61 2.87-3.14	2.00-6.21 2.43-3.95 2.82-3.21
2.5m	2.41-2.59 2.46-2.54 2.49-2.51	2.38-2.63 2.44-2.56 2.48-2.52	2.33-2.69 2.42-2.59 2.48-2.52	2.27-2.78 2.39-2.63 2.47-2.53	2.19-2.92 2.34-2.68 2.46-2.55	2.08-3.14 2.28-2.76 2.44-2.57	1.95-3.52 2.21-2.89 2.41-2.59	1.79-4.26 2.10-3.09 2.38-2.63
2m	1.95-2.06 1.98-2.03 1.99-2.01	1.93-2.08 1.97-2.04 1.99-2.01	1.90-2.11 1.95-2.05 1.99-2.01	1.86-2.17 1.93-2.07 1.98-2.02	1.81-2.24 1.90-2.11 1.97-2.03	1.74-2.36 1.87-2.15 1.96-2.04	1.65-2.56 1.82-2.23 1.95-2.05	1.54-2.90 1.75-2.33 1.93-2.08
1.7m	1.66-1.74 1.68-1.72 1.69-1.71	1.65-1.75 1.68-1.72 1.69-1.71	1.63-1.78 1.67-1.74 1.69-1.71	1.60-1.81 1.65-1.75 1.69-1.71	1.57-1.86 1.64-1.77 1.68-1.72	1.52-1.94 1.61-1.80 1.68-1.73	1.45-2.06 1.57-1.85 1.67-1.74	1.37-2.26 1.53-1.92 1.65-1.75
1.5m	1.47-1.53 1.49-1.51 1.496-1.504	1.50-1.54 1.48-1.52 1.496-1.504	1.45-1.56 1.48-1.53 1.49-1.51	1.43-1.58 1.47-1.54 1.49-1.51	1.40-1.62 1.45-1.55 1.49-1.51	1.36-1.67 1.43-1.58 1.48-1.52	1.31-1.76 1.41-1.61 1.48-1.53	1.25-1.90 1.37-1.66 1.47-1.54
1.3m	1.28-1.32 1.29-1.31 1.297-1.303	1.27-1.33 1.29-1.31 1.297-1.303	1.26-1.34 1.28-1.32 1.296-1.304	1.25-1.36 1.28-1.34 1.29-1.31	1.23-1.38 1.27-1.34 1.29-1.31	1.20-1.42 1.25-1.35 1.29-1.31	1.17-1.47 1.23-1.37 1.28-1.32	1.12-1.56 1.21-1.41 1.28-1.32
1.2m	1.19-1.22 1.19-1.21 1.197-1.203	1.18-1.22 1.19-1.21 1.197-1.203	1.17-1.23 1.18-1.22 1.197-1.203	1.16-1.25 1.18-1.22 1.20-1.21	1.14-1.27 1.17-1.23 1.19-1.21	1.12-1.29 1.16-1.24 1.19-1.21	1.09-1.34 1.15-1.26 1.19-1.21	1.05-1.41 1.13-1.29 1.18-1.22

The depth-of-field table is for 35mm-format cameras. The depth-of-field is shallower when you use Digital Single Lens Reflex Cameras equipped with an APS-C sized image sensor.

Specifications

Name (Model name)	Equivalent 35mm-format focal length*1 (mm)	Lens groups- elements	Angle of view 1*2	Angle of view 2*2	Minimum focus*3 (m (feet))	Maximum magnification (x)	Minimum f-stop	Filter diameter (mm)	Dimensions (maximum diameter x height) (mm (in.))	Mass (g (oz.)) (excluding tripod- mounting collar)
70-200mm F2.8 G (SAL70200G)	105-300	16-19	34°- 12°30'	23°-8°	1.2 (4.0)	0.21	f/32	77	Approx. 87x196.5 (3 1/2x7 3/4)	Approx. 1,340 (47 1/4)

*1 The value for equivalent 35mm-format focal length is based on Digital Single Lens Reflex Cameras equipped with an APS-C sized image sensor.

*2 The value of angle of view 1 is based on 35mm-format cameras, and that of angle of view 2 is based on Digital Single Lens Reflex Cameras equipped with an APS-C sized image sensor.

*3 Minimum focus is the shortest distance from the image sensor to the subject.

- This lens is equipped with a distance encoder. The distance encoder allows more accurate measurement (ADI) by using a flash for ADI.
- Depending on the lens mechanism, the focal length may change with any change of the shooting distance. The focal length assumes the lens is focused at infinity.

Included items: Lens (1), Front lens cap (1), Rear lens cap (1), Lens hood (1), Exclusive case (1), Set of printed documentation

Designs and specifications are subject to change without notice.

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