

Canon EF LENS

EF300mm F2.8L IS USM

EF400mm F2.8L IS USM

EF500mm F4L IS USM

EF600mm F4L IS USM

Instructions



IMAGE STABILIZER

Thank you for purchasing this Canon IS USM lens.

Canon's EF300mm f/2.8L IS USM, EF400mm f/2.8L IS USM, EF500mm f/4L IS USM and EF600mm f/4L IS USM are high-performance super-telephoto lenses, for use with EOS cameras. They are equipped with an image stabilizer effective for hand-held shooting at slow shutter speeds.

- "IS" stands for Image Stabilizer.
- "USM" stands for Ultrasonic Motor.

Handling Cautions

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.

Features

1. Use of fluorite and UD lens elements giving highly superior definition.
2. Dual mode image stabilizer with up to two-stop shutter speed conversion.
3. USM for fast, quiet focusing.
4. Manual focusing available in autofocus mode.
5. Can be used with EF1.4× II or EF2× II extenders.
6. An AF stop button to pause AF functions whenever desired.
7. A focus preset function for advance storage of focusing positions in memory to allow instantaneous focusing.
8. Tight seal structure ensures excellent dust-proof and drip-proof performance.
9. Lightweight design using magnesium alloy for the main casing components.

Conventions used in this instruction



Warning to prevent lens or camera malfunction or damage.



Supplementary notes on using the lens and taking pictures.

Safety Precautions

Safety Precautions

1. **Do not look at the sun or a bright light source through the lens or camera.** Doing so could result in loss of vision. Looking at the sun directly through the lens is especially hazardous.
2. **Whether it is attached to the camera or not, do not leave the lens under the sun without the lens cap attached.** This is to prevent the lens from concentrating the sun's rays, which could cause a fire.

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.

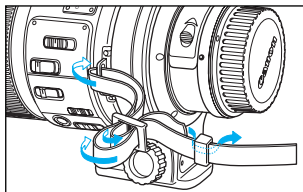
This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate 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.
- Consult the dealer or an experienced radio/TV technician for help.

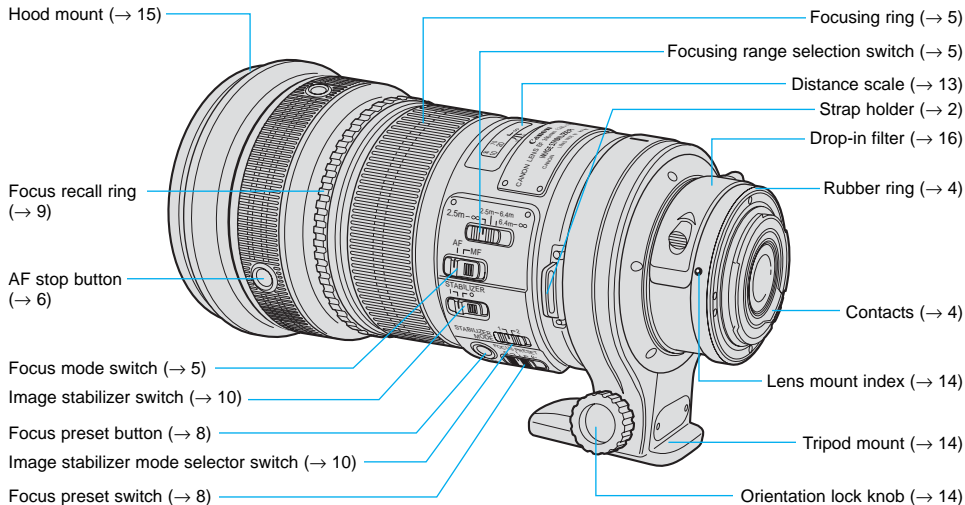
This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the Industry Canada.

Attaching the strap



Thread the end of the strap through the strap holder on the lens and then back through the buckle on the strap. Pull the strap tight and check that there is no slack in the buckle.

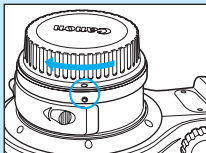
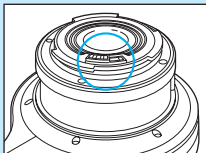
Nomenclature



- The illustrations used in the explanations in this manual show the EF300mm f/2.8L IS USM, but the EF400mm f/2.8L IS USM, the EF500mm f/4L IS USM, and the EF600mm f/4L IS USM are all used in the same way.
- For detailed information, reference page numbers are provided in parentheses (→ **).

1. Mounting and Detaching the Lens

See your camera's instructions for details on mounting and detaching the lens.

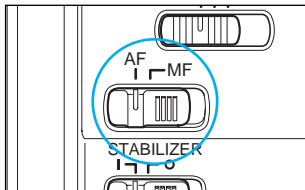


- After detaching the lens, place the lens with the rear end up to prevent the lens surface and contacts from getting scratched.
- If the contacts get soiled, scratched, or have fingerprints on them, corrosion or faulty connections can result. The camera and lens may not operate properly.
- If the contacts get soiled or have fingerprints on them, clean them with a soft cloth.
- If you remove the lens, cover it with the dust cap. To attach it properly, align the lens mount index and the ○ index of the dust cap as shown in the diagram, and turn clockwise. To remove it, reverse the order.



The lens mount has a rubber ring for enhanced water- and dust-resistance. The rubber ring may cause slight abrasions around the camera's lens mount, but this will not cause any problems. If the rubber ring becomes worn, it is replaceable by a Canon Service Center at cost.

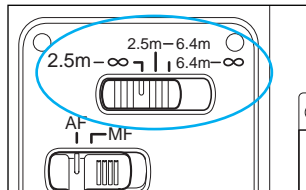
2. Setting the Focus Mode



To shoot in autofocus mode, set the focus mode switch to AF.

To use only manual focusing, set the focus mode switch to MF, and focus by turning the focusing ring.

3. Switching the Focusing Range



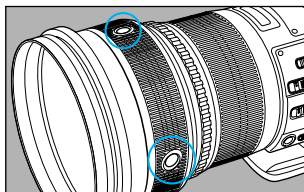
The focusing range can be selected by this switch to suit the shooting situation. This can reduce the time needed for autofocus.

Lens	Ranges
EF300mm f/2.8L IS USM	2.5 m/8.2 ft. – ∞
	2.5 m/8.2 ft. – 6.4 m/21.0 ft.
	6.4 m/21.0 ft. – ∞
EF400mm f/2.8L IS USM	3 m/9.8 ft. – ∞
	3 m/9.8 ft. – 10 m/32.8 ft.
	10 m/32.8 ft. – ∞
EF500mm f/4L IS USM	4.5 m/14.8 ft. – ∞
	4.5 m/14.8 ft. – 10 m/32.8 ft.
	10 m/32.8 ft. – ∞
EF600mm f/4L IS USM	5.5 m/18.0 ft. – ∞
	5.5 m/18.0 ft. – 16.2 m/53.2 ft.
	16.2 m/53.2 ft. – ∞

Switching the focusing range

- Before switching the focusing range, turn the focusing ring to select a focusing distance somewhere within the desired range.
- If you do not set the lens to a focusing distance that is within the selected focusing range, autofocus may stop when it reaches the range boundary. This is not a fault. If it happens, press the shutter button halfway down again.

4. AF Stop Button



During autofocus operation, you can press the AF stop button to temporarily pause autofocus.

If the shutter button is still pressed halfway when the AF stop button is released, autofocus will continue as before.

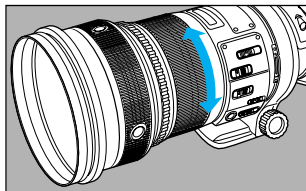


The AF stop function also works in AI SERVO AF mode.

AF Stop Button

- The AF stop function cannot be used with the EOS EF-M on manual focus cameras.
- On the EOS 630/600, EOS RT, EOS A2/A2E/5 or EOS10S/10, if the AF mode is set to AI SERVO AF and film winding is set for continuous shooting, autofocusing will not resume when you release the AF stop button. To resume autofocusing, release the shutter button and then press it halfway down again.
- When sport mode is selected on the EOS A2/A2E/5 or EOS10S/10, autofocus will not work when the AF stop button is released. Release the shutter button and press it halfway down again to resume autofocus.

5. Focusing Ring



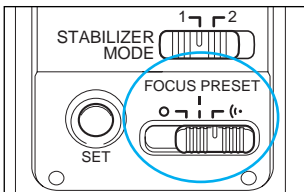
The focusing ring always works, regardless of the focus mode.

- After autofocusing in ONE SHOT AF mode, focus manually by pressing the shutter button halfway and turning the focusing ring. (Full-time manual focusing)

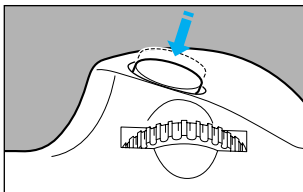
6. Focus Preset

If a particular focusing position is stored in the lens's memory, the focus can be set instantly to the stored position, even when pictures are being taken of other subjects. This feature can be used in both AF and MF focus modes.

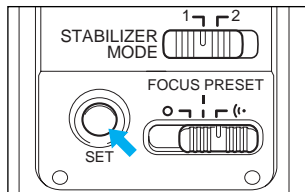
< Storing a Focus Position >



- 1 Set the focus preset switch to 1 or (•).



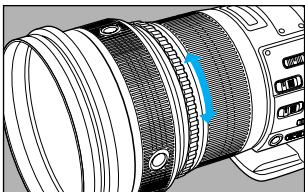
- 2 Press the shutter button halfway and set the focus to the position you want to store in the lens's memory.



- 3 Press the focus preset button. The focusing position is now stored in the memory.

- If the focus preset switch is set to (•), the electronic tone, "pip" will sound.


< Recalling a focus Position >



4 Rotate the focus recall ring right or left and then press the shutter button fully to take the picture.

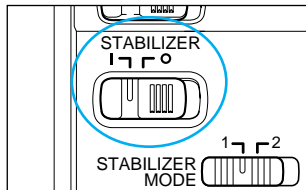
- The focus is set to the preset position.
- If the focus preset switch is set to (L), the camera emits two short beeps when it has focussed.

- Release the shutter button when you turn the focus recall ring. If the AF mode is set to ONE SHOT AF, the exposure setting locks when you press the shutter button halfway. Consequently, the exposure may not be set correctly if you are holding the shutter button halfway down as you turn the focus recall ring.
- If you are not going to use the focus preset, set the focus preset switch to (O).

-  In the following situations, the distance scale may move slightly left or right for a moment. This will not affect the photographed image.
- When you press the focus preset button.
 - When you turn the focus recall ring.

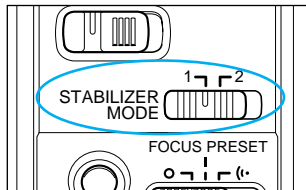
7. Image Stabilizer

You can use the image stabilizer in AF or MF mode.



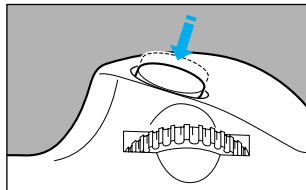
1 Set the image stabilizer switch to **I** (on).

- If you are not going to use the image stabilizer function, set the switch to **O** (off).



2 Select the stabilizer mode.

- Select MODE 1 for standard photography. MODE 1 corrects all vibrations no matter whether the camera is being held horizontally, vertically, or at an angle.
- To pan a moving subject, select MODE 2. MODE 2 corrects vibrations and shaking only in the direction at right angles to the camera's panning movement.



3 Press the shutter button down halfway to check the stabilization.

- Make sure the image in the viewfinder is stable, then press the shutter button all the way down to take pictures.

8. Tips on Using the Image Stabilizer

The image stabilizer is particularly effective for hand-held shots in the following conditions.

● MODE 1



- ① In semi-darkened areas such as indoors or outdoors at night.
- ② In locations where flash photography is prohibited, such as art museums and theater stages.
- ③ In situations where fast shutter settings cannot be used.
- ④ In situations where your footing is uncertain.

● MODE 2



- ① When panning subjects in motion.
- ② When following subjects that are moving erratically.

* We recommend MODE 1 for all other situations.

Tips on Using the Image Stabilizer

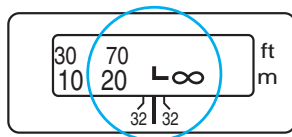
- ❗ ● Set the image stabilizer switch to **○** (off) when you are taking pictures with a tripod.
 - * Even if the image stabilizer switch is set to **I** (on), the IS function does not operate because the electronic circuits in the lens automatically detect that a tripod is being used. However, because electrical power is still being supplied to the image stabilizer unit, the number of available shots is roughly 20% fewer than it would be with the switch set to **○** (off).
- The image stabilizer is equally effective for hand-held photography and photography with a monopod.
- Set the image stabilizer switch to **○** (off) when you are taking pictures using the Bulb setting (long exposures). If the image stabilizer switch is set to **I** (on), the image stabilizer function may introduce errors.
- The image stabilizer may not be fully effective in the following situations:
 - Panning with large camera movements in MODE 1.
 - Taking pictures from a moving object such as a vehicle in MODE 1.
 - Taking pictures other than panning shots in MODE 2.
- ❗ ● The image stabilizer function operates normally with EOS cameras launched since the fall of 1993 (EOS REBEL XS/500, EOS-1N/DP/HS/RS, EOS ELAN IIE/50E, EOS REBEL G/500 N, EOS 5000/888, EOS IX, EOS IX Lite/IX 7 and EOS-3) when the extender EF2× II is used in conjunction with the EF500mm f/4L IS USM or the EF600mm f/4L IS USM, but not with EOS cameras launched before that time (EOS650, EOS620, EOS 630/600, EOS RT, EOS 700, EOS750, EOS850, EOS-1, EOS A2/A2E/5, EOS10S/10, EOS ELAN/100, EOS REBEL S/REBEL/1000F/1000, EOS REBEL SII/REBEL II/1000FN/1000N).
- The image stabilizer function will not operate in self-timer photography with the EOS-1V/HS, EOS-3, EOS ELAN 7E/7/EOS 30/33, EOS ELAN7NE/ELAN7N/EOS30V/33V, EOS ELAN IIE/50E, EOS REBEL 2000/300, EOS IX and EOS D30.
- The image stabilizer operates for about two seconds even when your finger is off the shutter button. Do not remove the lens while the stabilizer is in operation. This will cause a malfunction.

Tips on Using the Image Stabilizer



- The image stabilizer function also operates when the lens is used with an EF12 II or EF25 II extension tube.
- If you set the camera's Custom Function to change the assigned button to operate the AF, the image stabilizer will operate when you press the newly assigned AF button.

9. Infinity Distance Mark



To compensate for shifting of the infinity focus point that results from changes in temperature. The infinity position at normal temperature is the point at which the vertical line of the L mark is aligned with the distance indicator on the distance scale.



For accurate manual focusing on subjects at infinity distance, look through the viewfinder while rotating the focusing ring.



The numbers on each side of the focusing distance indicator show the depth of field if the aperture is set to f/32.

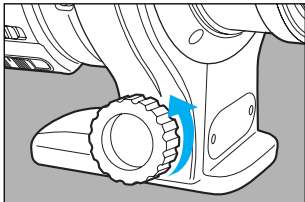
10. Using the Tripod Mount

Adjusting the Tripod Mount

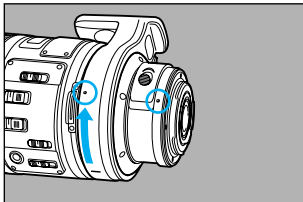
Loosening the orientation lock knob on the tripod mount allows you to turn the lens and camera freely. This is useful when you want to switch the camera between landscape and portrait positions while it is mounted on a tripod. Once you have set the camera to the desired position, tighten the lock knob firmly.

Detaching the Tripod Mount (EF300mm f/2.8L IS USM only)

First remove the lens from the camera and then remove the tripod mount from the lens as shown below. To attach the tripod mount, reverse the procedure.

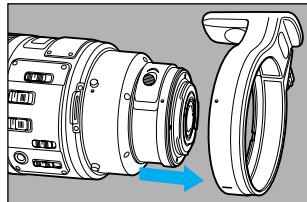


- 1 Loosen the orientation lock knob.



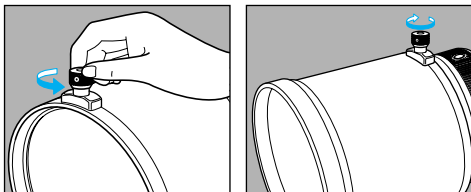
- 2 Align the red mark on the tripod mount with the lens mount index.

- Rotate the tripod mount to align the red marks.



- 3 Move the tripod mount towards the back of the lens.

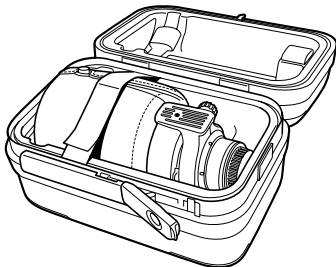
11. Hood



The special hoods that come with all these lenses cut out unwanted light and protect the front of the lens from rain, snow, and dust.

To attach the hood, loosen the hood lock knob by turning it counterclockwise. Fit the hood onto the lens's hood mount, and tighten the lock knob to fix it in place. Use the same procedure, in reverse, to remove the hood.

12. Case



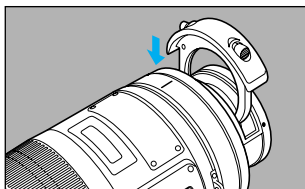
When putting the lens into its case, reverse the lens hood, slip it over the lens, and attach the lens cap. Then position the tripod mount straight upwards and lay the lens into the case so that it fits snugly into the compartment.



When carrying the lens, fasten the black straps inside the case to hold the lens in place, and lock the case.

13. Drop-In Filters

A 52-series drop-in gelatin filter holder with a glass filter is installed as standard equipment on each lens. The drop-in filter is used fitted with a gelatin filter (sold separately).



<Removing and Installing the Drop-in Filter>

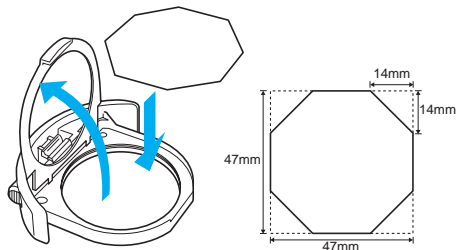
To remove the drop-in filter, press in the left and right lock buttons and pull the filter holder straight up out of the slot.

To install the drop-in filter, push the filter holder straight down into the slot until it clicks into place.

- The filter holder can be installed facing either forwards or backwards.

⚠ Because the lens optics are designed to include a glass filter, you must always install the filter holder, even if no gelatin filter is fitted.

<Fitting the Gelatin Filter>



- 1 Trim the gelatin filter as shown in the figure above.
- 2 Lift up the holder's retaining plate.
- 3 Mount the gelatin filter in the holder.
- 4 Return the retaining plate to its closed position.

📖 The Drop-In Screw-Type Filter Holder 52 and Drop-In Circular Polarizing Filter PL-C52 are also available (sold separately).

14. Extenders (sold separately)

The tables below show the specifications for each lens when it is used with an EF1.4× II or EF2× II extender.

		EF300mm f/2.8L IS USM		EF400mm f/2.8L IS USM	
		EF1.4× II	EF2× II	EF1.4× II	EF2× II
Focal length (mm)		420	600	560	800
Aperture		f/4 – 45	f/5.6 – 64	f/4 – 45	f/5.6 – 64
Angle of view	Diagonal	6° 10'	4° 10'	4° 25'	3° 5'
	Vertical	3° 20'	2° 20'	2° 25'	1° 40'
	Horizontal	5°	3°30'	3° 40'	2° 35'
Max. magnification (×)		0.19	0.28	0.22	0.31


		EF500mm f/4L IS USM		EF600mm f/4L IS USM	
		EF1.4× II	EF2× II	EF1.4× II	EF2× II
Focal length (mm)		700	1000	840	1200
Aperture		f/5.6 – 45	f/8 – 64	f/5.6 – 45	f/8 – 64
Angle of view	Diagonal	3° 30'	2° 30'	3°	2°
	Vertical	2°	1° 20'	1° 40'	1° 10'
	Horizontal	3°	2°	2° 30'	1° 40'
Max. magnification (×)		0.17	0.25	0.17	0.24

Extenders (sold separately)

- When using the EF500mm f/4L IS USM or the EF600mm f/4L IS USM with the EF2× II extender, set the focus mode to MF. With the EOS-1V/HS, EOS-3, EOS-1Ds Mark II, EOS-1Ds, EOS-1D Mark II N, EOS-1D Mark II or EOS-1D cameras, auto-focusing is only effective for the central focusing point.
- When taking pictures on an EOS 5 using an EF1.4× II or EF2× II extender with the EF500mm f/4L IS USM or the EF600mm f/4L IS USM lens, use the exposure compensation values shown in the table below.

	EF1.4× II	EF2× II
Evaluative metering	-0.5 step	-1 step
Center-weighted average metering	-0.5 step	-1 step
Spot metering	—	-0.5 step

- Extenders cannot be used more than one at a time.

 Autofocusing slows down when the lens is used with an extender, in order to maintain the precision of autofocus control.

15. Extension tube (sold separately)

The tables below show the photographic range and magnification when each lens is used with an EF12 II or EF25 II extension tube.

Photographic range (mm)		Magnification (×)	
Close distance	Long distance	Close distance	Long distance

EF300mm f/2.8L IS USM

EF12 II	2016	7561	0.18	0.04
EF25 II	1687	3731	0.24	0.09

EF400mm f/2.8L IS USM

EF12 II	2602	13633	0.19	0.03
EF25 II	2314	6974	0.23	0.06

EF500mm f/4L IS USM

EF12 II	3856	21193	0.15	0.03
EF25 II	3391	10778	0.18	0.05

EF600mm f/4L IS USM

EF12 II	4777	29195	0.14	0.02
EF25 II	4182	13944	0.17	0.05

Specifications

	EF300mm f/2.8L IS USM	EF400mm f/2.8L IS USM
Image Size	24 × 36 mm	
Focal Length/Aperture	300 mm f/2.8	400 mm f/2.8
Lens Construction	13 groups, 17 elements	13 groups, 17 elements
Minimum Aperture	f/32	f/32
Angle of View	Diagonal: 8° 15' Vertical: 4° 35' Horizontal: 6° 50'	Diagonal: 6° 10' Vertical: 3° 30' Horizontal: 5° 10'
Min. Focusing Distance	2.5 m/8.2 ft.	3 m/9.8 ft.
Max. Magnification	0.13×	0.15×
Field of View	Approx. 176 × 264 mm/ 6.9 × 10.4 inch (at 2.5 m/8.2 ft.)	Approx. 155 × 233 mm/ 6.1 × 9.2 inch (at 3 m/9.8 ft.)
Filter	Any 52-series drop-in filter	
Max. Diameter and Length	128 × 252 mm/5.0 × 9.9 inch	163 × 349 mm/6.4 × 13.7 inch
Weight	2550 g/90.0 oz*	5370 g/189.4 oz
Hood	ET-120	ET-155
Lens Cap	E-145	E-180C
Case	Lens case 300	Lens case 400

* Without removable tripod mount. (2690 g/94.9 oz including tripod mount)

- The lens length is measured from the mount surface to the front end of the lens. Add 26.5 mm when including the lens cap and dust cap.
- The size and weight listed are for the lens only, except as indicated.
- Aperture settings are specified on the camera.
- All data listed is measured according to Canon standards.
- Product specifications and appearance are subject to change without notice.

Specifications

	EF500mm f/4L IS USM	EF600mm f/4L IS USM
Image Size	24 × 36 mm	
Focal Length/Aperture	500 mm f/4	600 mm f/4
Lens Construction	13 groups, 17 elements	13 groups, 17 elements
Minimum Aperture	f/32	f/32
Angle of View	Diagonal: 5° Vertical: 2° 45' Horizontal: 4°	Diagonal: 4° 10' Vertical: 2° 20' Horizontal: 3° 30'
Min. Focusing Distance	4.5 m/14.8 ft.	5.5 m/18.0 ft.
Max. Magnification	0.12×	0.12×
Field of View	Approx. 197 × 297 mm/ 7.8 × 11.7 inch (at 4.5 m/14.8 ft.)	Approx. 204 × 306 mm/ 8.0 × 12.1 inch (at 5.5 m/18.0 ft.)
Filter	Any 52-series drop-in filter	
Max. Diameter and Length	146 × 387 mm/5.8 × 15.2 inch	168 × 456 mm/6.6 × 18.0 inch
Weight	3870 g/136.5 oz	5360 g/189.0 oz
Hood	ET-138	ET-160
Lens Cap	E-163	E-185
Case	Lens case 500	Lens case 600

