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TAMRON CO.,LTD.

Manufacturers of lenses for photographic, industrial, laboratory, video, and scientific applications.

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Model **01A**

TAMRON·SP

35-80mmF/2.8-3.8

HIGH SPEED CF MACRO COMPACT ZOOM

OWNER'S MANUAL

ADAPTALL-2 MOUNT SYSTEM

Thank you for selecting the new Tamron SP 35-80mm F/2.8-3.8 zoom lens as the latest addition to your photographic equipment. Before using your new lens, please read the contents of this Owner's Manual thoroughly to become fully acquainted with the proper techniques that will give you the best results possible.
With proper handling and care your Tamron SP lens will give you many years of beautiful and exciting pictures.

CONTENTS

1. NAMES OF PARTS

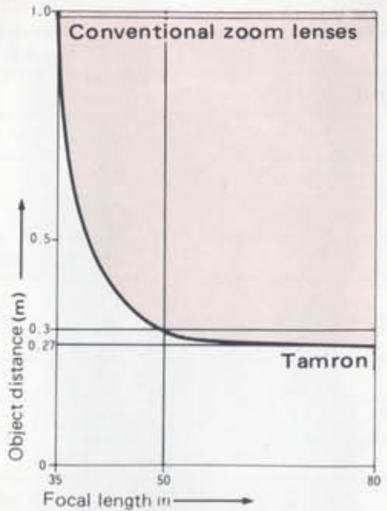
2. SPECIFICATION

Focal length	35-80mm
Aperture range	f/2.8~3.8-32, AE (w/half stops)
Lens construction (Groups/Elements)	8/9
Coating	BBAR multi-layer coating
Angle of view	64° – 30°
Minimum focus from film plane	1.0m at f=35mm 0.27m (10.6 in.) at f=80mm
Focusing ring roration	67° 52′ at f=35mm 324° 56′ at f=80mm
Max macro magnification	1:2.5
Zooming system	Rotation system
Lens accessory size	62mm
Length (at inf.)	76.5mm (3.0 in.)
Diameter	64.5mm (2.5 in.)
Weight	386 grams (13.6 oz.)
Lens hood	Screw-in type
Optional accessory	SP flat-field 2X tele-converter

3. FEATURES

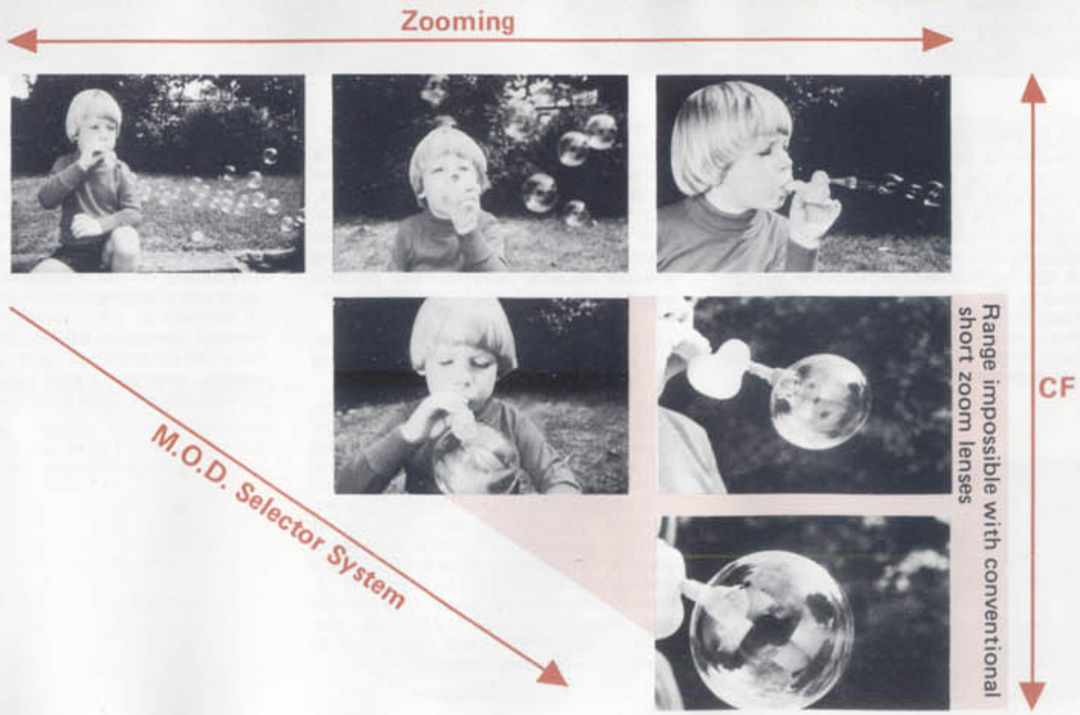
(1) Minimum Object Distance (M.O.D.) Selector System

This system makes possible the closest possible minimum object distance at all focal lengths in the zoom range (M.O.D. =Minimum Object Distance) by a new type of coupling between the zoom and focusing rings developed by Tamron. Conventional zoom lenses covering the wide-angle to medium telephoto range were limited to a minimum object distance of about 1 meter at either wide-angle or telephoto settings. With this new lens, however, the minumum object distance is 1 meter at the wide-angle end but only 0.27 meter (10.6 in.) at the telephoto position for a maximum magnification ratio of 1:2.5X at f=80mm.



Relationship between focal length and minimum object distance with the M.O.D. Selector System

For example, when the lens is focused at the closest possible distance of 0.27m (10.6 in.), the zoom range is f=60-80 mm. This system also makes possible macro photography at a magnification ratio of 1:2.5 at the 80mm focal length position.



(2) Continuous Focusing (CF)

Continuous focusing is possible from infinity to the minimum possible object distance of 0.27m(10.6 in.) in the macro range. There is no need for a macro button as with previous macro lenses. When focusing with this lens at the focal length of 35mm, the M.O.D. Selector System couples the zoom ring when the minimum object distance becomes less than that possible at 35mm and shifts to a focal length at which that minimum object distance is possible.

(3) Fast F/2.8 Aperture

With a maximum aperture of F/2.8, this lens is approximately 50% faster than conventional F/3.5 lenses of this class. This permits photography in relatively dark places and the use of high shutter speeds for fast moving subjects. Focusing is easier because the viewfinder remains bright.

(4) Four-lens Function with Wide-angle, Standard, Medium Telephoto and Macro

This lens covers the most frequently used focal lengths, from 35mm wide-angle with its perspective effects to standard for a wide range of applications and 80mm medium telephoto for portraits and other subjects where modeling is important. The field of view can be varied without moving in a wide range of applications. Perspective can be altered at will and different focusing effects utilized.
Macro photography with a maximum magnification ratio of 1:2.5 is also possible at the 80mm focal length due to the M.O.D. Selector System.

(5) High Performance With Superb Color Rendition

Resolution is extremely high with little astigmatism, and there is little fluctuation of aberration while zooming or focusing. Because of this, night photographs are beautiful, describing even the fine details of the subject in both highlights and shadows.
In addition to the inherent high performance, Tamron's BBAR (Broad Band Anti-Reflection) multi-layer coating increases spectral transmission for extremely natural color rendition.

(6) A Lightweight, Compact Zoom for Easy Portability

Extremely light and compact with an overall length of 76.5mm (3.0 in.), maximum diameter of 64.5mm (2.5 in.) and total weight of only 386 grams (13.6 oz.), this lens is as easy to handle as an ordinary standard lens. Great for a wide range of fast shooting situations.

(7) Minimum Aperture of F/32 for Greater Depth-of-Field

The minimum aperture of F/32 enables a wider range of expression in either the wide-angle, standard, medium telephoto or macro ranges. Also highly useful with ASA400 films in bright lighting.

(8) Adaptall/Adaptall-2 Interchangeable Mount System

This lens uses the Adaptall/Adaptall-2 mount system so use is possible with any popular 35mm SLR camera. With the Adaptall-2 mount system, one mount is sufficient even with shutter-speed priority AE cameras, regardless of the maximum aperture of the lens.

(9) Intermediate Click Stops on Aperture Ring Enable Precise Exposure Control

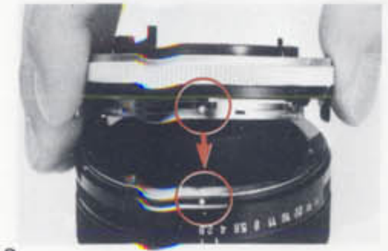
Intermediate click stops are provided in the aperture ring from F/3.5 to F/16 to enable a wider range of expression through precise exposure control. (There is no click stops between F/22 and F/32.)

4. FITTING AND REMOVING THE ADAPTALL CUSTOM MOUNT

(1) Align the green dot on the bayonet of the custom mount with the matching green dot on the lens barrel and turn the mount clockwise for approximately 2cm until the mount is locked into the proper position.

(2) The custom mounts for cameras featuring TTL light-metering AE and automatic diaphragm control are provided with a meter coupling lever ☞ which activates the control ring. After fitting the custom mount, move the meter coupling lever ☞ so that it engages in the slot ⊐ provided on the lens, and the exposure control mechanism of the lens will crosscouple to the camera's system.

Notes: The method of fitting custom mounts for Canon FD, Minolta MD and Nikon AI is the same as described in Steps (1) and (2) above. However, the custom mounts for Canon FD, Minolta MD and Nikon AI each have two coupling levers ☞ Therefore, when the mount is fitted, engage the two coupling levers in the corresponding slots ⊐ on both sides of the lens.



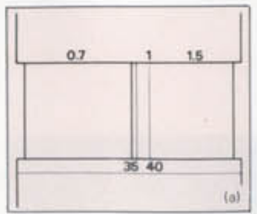
(3) Your Tamron lens with the Adaptall custom mount can be fitted to Your camera in the same manner as the camera manufacturer's lenses.
When fitting the lens and adapter onto a Canon FTb or AT-1 camera, be sure to move the aperture ring to a position other than AE.

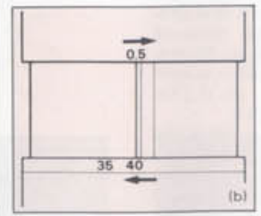
(4) Removing the custom mount:
Before removing the custom mount, be sure to move the aperture ring to the maximum opening. (However, with the Canon or Konica mount aperture ring is set at the AE position. Depress the AE lock button to release the AE setting, and then move the aperture ring to the maximum opening.)
An L-shaped mount release lever is provided directly opposite the aperture indicator window which, when depressed, releases the mount. Therefore, while keeping the L-shaped mount release lever depressed, turn the custom mount counterclockwise all the way until it stops and then lift the mount off the lens.

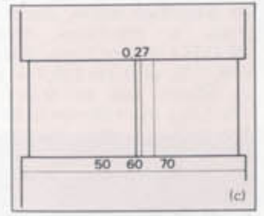
5. OPERATING INSTRUCTIONS

(1) Focusing

Focus by rotating the focusing ring until the subject appears sharp in the viewfinder. Focusing is continuous from infinity to the macro range with its minimum object distance of 0.27m (10.6 in.). Due to the use of the M.O.D. Selector System, however, the zoom ring couples when the minimum object distance for any zoom focal length is exceeded and sets the lens to a focal length at which focusing is possible at that distance.







(a) Minimum object distance is 1 m at the 35mm focal length (zooming is possible from 35mm to 80mm.

(b) When the focusing ring is moved to the 0.5m position (19.7 in.), the zoom ring starts to move (zooming is possible from 40mm to 80mm with the focusing ring at 0.5m.

(c) At the minimum object distance of 0.27m (10.6 in.), the shortest possible focal length is 60mm (zooming is possible from 60mm to 80 mm).

Focal Length	Minimum Object Distance	Usable Zoom Range
35mm	1m	35mm~80mm
50mm	0.5m	40mm~80mm
80mm	0.27m	60mm~80mm

Note: The relationship between the focusing and zoom rings

As described above, this zoom lens provides a minimum object distance (M.O.D.) of 1m from 35mm to 80mm, a M.O.D. of 0.5m (19.7 in.) from 40mm to 80mm and an M.O.D. of 0.27m (10.6 in.) from 60mm to 80mm.

For example, when the lens is set at the 35mm position the zoom ring will shift to the 60mm position if the lens is focused at 0.27m (10.6 in.). The zoom range will then be 60-80mm and the zoom ring cannot be moved beyond the 60mm position toward the wide-angle range.

Thus, when using a short focal length it is necessary to move the focusing ring to a distance farther away than the subject. In other words, if we reverse the relationship between focal length and minimum object distance (M.O.D.) given above, the usable zoom range will be 50-80mm at a distance of 0.3m (11.8 in.), 35-80mm at a distance of 1m (39.3 in.).

(2) Zooming

(a) The focal length is increased steplessly when the zoom ring is rotated to the left, increasing the apparent subject size. Select the desired subject size, focus effect and perspective while looking through the viewfinder.

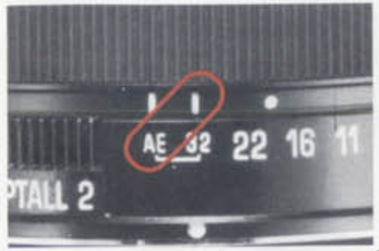
(b) When the zoom ring is set at the 35mm wide-angle position, zooming is unrestricted at any minimum object distance above 1m (39.3 in.). But when the lens is focused closer than 1m., the M.O.D. Selector System couples the zoom ring to the focusing ring to set a longer focal length at which that minimum object distance is possible. This also serves to prevent the distortion which otherwise would appear when close-ups are taken with a wide-angle lens.

(3) Aperture Control

(a) Set the required aperture by rotating the aperture ring until the desired f-stop is aligned with the index mark. Intermediate click stops are provided from F/2.8 to F/16. (There is no click stops between F/22 and F/32.)

(b) AE setting

When using your lens on cameras which incorporate a shutter priority automatic mode, turn the aperture control ring on your lens to the AE position which also serves as F/32 when the lens is used on other cameras.



(4) Infra-red Indices

Since the focal point shifts in infra-red photography, it is necessary to correct the focus using the focusing scale graduations. After focusing in the normal manner, shift the indicated distance to the blue index mark when using the 35mm position. When using the 80mm position, shift the indicated distance to the right to the yellow index mark.

(5) Lens Hood

A screw-in type lens hood is available. The lens hood is always advantageous since it prevents unwanted light from striking the lens causing image degrading flare giving poor print quality.

(6) Magnification Scale for Macro Photography

The magnification scale is located to the left of the index mark for the distance/aperture scales. It is possible to focus by aligning with the macro magnification ratio scale. On the right side of the index mark for the focusing scale is found the magnification scale for when the SP 2X tele-converter is used.

(7) Checking Depth-of-Field

The depth-of-field can be checked using the depth-of-field preview button provided on your camera. (In the case of Olympus, the mount has a built-in depth-of-field lever.)

(8) Depth-of-Field Tables

To ascertain the depth-of-field for example when you shoot at a distance of 1.0meter (3.3ft.) with the lens whose aperture is set to f/11, read where the figures show in the f/11 horizontal row intersect with the 1.0meter (3.3ft.)value shown on the vertical distance column. (In this case the depth-of-field is from 0.8 to 1.3meters or 1.3 to 4.3 feet.)

6. DEPTH OF FIELD TABLE

Focal Length	Aperture (f) / Distance (m)	2.8	4.0	5.6	8.0	11.0	16.0	22.0	32.0
F=35mm	1.00	0.94 1.07	0.92 1.10	0.89 1.14	0.85 1.22	0.81 1.34	0.75 1.59	0.68 2.07	0.60 4.39
	1.50	1.37 1.66	1.32 1.75	1.26 1.87	1.18 2.10	1.09 2.49	0.97 3.61	0.87 8.21	0.74 ∞
	2.00	1.76 2.31	1.68 2.48	1.58 2.75	1.45 3.29	1.32 4.37	1.15 9.99	0.94 ∞	0.83 ∞
	3.00	2.49 3.79	2.32 4.27	2.13 5.16	1.90 7.53	1.68 18.1	1.41 ∞	1.18 ∞	0.94 ∞
	4.00	3.13 5.56	2.87 6.69	2.58 9.19	2.25 21.3	1.94 ∞	1.58 ∞	1.30 ∞	1.01 ∞
	5.00	3.71 7.73	3.34 10.1	2.96 17.1	2.52 ∞	2.14 ∞	1.71 ∞	1.39 ∞	1.06 ∞
	10.00	5.86 35.2	4.99 ∞	4.16 ∞	3.34 ∞	2.69 ∞	2.04 ∞	1.59 ∞	1.17 ∞
	20.00	8.26 ∞	6.61 ∞	5.23 ∞	3.99 ∞	3.09 ∞	2.26 ∞	1.72 ∞	1.24 ∞
	50.00	11.0 ∞	8.22 ∞	6.19 ∞	4.52 ∞	3.39 ∞	2.41 ∞	1.80 ∞	1.28 ∞
	∞	13.9 ∞	9.73 ∞	6.95 ∞	4.87 ∞	3.54 ∞	2.44 ∞	1.78 ∞	1.23 ∞

Focal Length	Aperture (f) / Distance (m)	2.8	4.0	5.6	8.0	11.0	16.0	22.0	32.0
F=50mm	0.30	0.30 0.30	0.30 0.30	0.30 0.30	0.30 0.31	0.29 0.31	0.29 0.31	0.29 0.31	0.28 0.32
	0.50	0.49 0.51	0.49 0.51	0.49 0.51	0.48 0.52	0.48 0.53	0.47 0.54	0.46 0.56	0.44 0.59
	1.00	0.97 1.04	0.96 1.04	0.94 1.06	0.92 1.09	0.90 1.13	0.86 1.21	0.81 1.32	0.75 1.55
	2.00	1.86 2.16	1.83 2.20	1.78 2.29	1.70 2.45	1.61 2.67	1.48 3.15	1.35 4.08	1.18 7.98
	4.00	3.47 4.73	3.38 4.92	3.18 5.42	2.92 6.40	2.66 8.28	2.31 16.4	2.00 ∞	1.64 ∞
	5.00	4.19 6.20	4.06 6.53	3.77 7.45	3.42 9.45	3.06 14.3	2.61 101	2.22 ∞	1.78 ∞
	10.00	7.21 16.4	6.80 19.0	6.04 29.8	5.17 208	4.38 ∞	3.50 ∞	2.83 ∞	2.15 ∞
	20.00	11.2 93.2	10.3 422	8.62 ∞	6.94 ∞	5.59 ∞	4.23 ∞	3.28 ∞	2.40 ∞
	50.00	16.9 ∞	14.8 ∞	11.6 ∞	8.75 ∞	6.70 ∞	4.83 ∞	3.63 ∞	2.58 ∞
	∞	25.4 ∞	21.0 ∞	15.0 ∞	10.5 ∞	7.64 ∞	5.25 ∞	3.82 ∞	2.63 ∞

6. DEPTH OF FIELD TABLE

Focal Length	Aperture (f) / Distance (m)	2.8	4.0	5.6	8.0	11.0	16.0	22.0	32.0
F=80mm	0.27	0.27~ 0.27	0.27~ 0.27	0.27~ 0.27	0.27~ 0.27	0.27~ 0.27	0.27~ 0.27	0.27~ 0.27	0.26~ 0.28
	0.30	0.30~ 0.30	0.30~ 0.30	0.30~ 0.30	0.30~ 0.30	0.30~ 0.30	0.30~ 0.30	0.29~ 0.31	0.29~ 0.31
	0.50	0.50~ 0.50	0.50~ 0.50	0.49~ 0.51	0.49~ 0.51	0.49~ 0.51	0.48~ 0.52	0.48~ 0.53	0.47~ 0.54
	1.00	0.98~ 1.02	0.98~ 1.02	0.97~ 1.03	0.96~ 1.04	0.95~ 1.06	0.95~ 1.09	0.93~ 1.12	0.87~ 1.19
	2.00	1.92~ 2.08	1.92~ 2.09	1.89~ 2.13	1.85~ 2.18	1.79~ 2.26	1.71~ 2.41	1.63~ 2.61	1.50~ 3.04
	4.00	3.70~ 4.36	3.68~ 4.38	3.57~ 4.55	3.41~ 4.84	3.24~ 5.25	2.98~ 6.13	2.72~ 7.69	2.38~ 13.4
	5.00	4.53~ 5.57	4.51~ 5.61	4.34~ 5.90	4.11~ 6.39	3.86~ 7.14	3.50~ 8.88	3.15~ 12.6	2.70~ 42.1
	10.00	8.28~ 12.6	8.21~ 12.8	7.66~ 14.4	6.97~ 17.8	6.26~ 25.3	5.35~ 85.0	4.57~ ∞	3.68~ ∞
	20.00	14.1~ 34.4	13.9~ 35.8	12.4~ 52.3	10.7~ 171	9.08~ ∞	7.29~ ∞	5.90~ ∞	4.49~ ∞
	∞	47.7~ ∞	45.3~ ∞	32.4~ ∞	22.7~ ∞	16.5~ ∞	11.3~ ∞	8.24~ ∞	5.66~ ∞

7. TAMRON ADAPTALL/ADAPTALL-2 MOUNT SYSTEM

Adaptall Mounts	Adaptall Lenses	SP/Adaptall-2 Lenses
For Pentax K	Yes	Yes
For Pentax ES ◇	Yes	Yes ◇
For Pentax Universal	Yes	Yes
For Nikon A1†	Yes	Yes†
For Fujica ST	Yes	Yes
For Mamiya SX	Yes	Yes
For Topcon RE ◇	Yes	Yes ◇
For Rollei/Voigtlander	Yes	Yes
For Canon FL	Yes	Yes
For Minolta	Yes	Yes
For Olympus OM	Yes	(•)
For Contax/Yashica*	Yes	Yes*
For Canon FD (6 mounts) ▼ f/2.5, f/2.8, f/3.5, f/3.8, f/4.5, f/5.6	Yes	–
For Konica AR (6 mounts) ▼ f/2.5, f/2.8, f/3.5, f/3.8, f/4.5, f/5.6	Yes	–
For Minolta MD (4 mounts) f/2.5/4.5; f/2.8/5.6, f/3.5, f/3.8.	Yes	–
SP/Adaptall-2 Mounts	**Adaptall Lenses**	**SP/Adaptall-2 Lenses**
For Olympus OM	Yes	Yes
For Canon FD	–	Yes
For Minolta MD	–	Yes
For Konica AR*	–	Yes*
For Contax/Yashica	–	Yes
For "C" mount for CCTV/VTR cameras and 16mm movie cameras	Yes	Yes
For "MS" mount for CCTV/VTR cameras	Yes	Yes

◇ Due to small rear aperture, this mount will not accept the SP 70—210mm f/3.5—4, SP 90mm f/2.5, SP Flat Field 2X Converter, and Adaptall-2 80—210mm f/3.8—4.

† Some early Nikon A1 Adaptall mounts cannot be used with the above lenses. Please check with your dealer.

• Mount requires initial maximum aperture adjustment.

(•) Does not have aperture stop down control on mounts. SP lenses do not have Auto/Manual selector switch.

▼ Will not accept the SP Flat Field 2X Converter, due to its small inside diameter.

Note: The Tamron SP Flat Field Tele-Converter is compatible with most Tamron Interchangeable Lenses, except wide angle lenses. However, be sure to use the appropriate mount.

8. TAMRON SP SERIES LENSES

70~210mm F/3.5-4
52 A

500mm F/8
55 B

300mm F/5.6
54 B

90mm F/2.5
52 B

2X TELE CONVERTER
01F

17mm F/3.5
51 B

35~80mm F/2.8-3.8
01A

9. SPECIFICATIONS OF TAMRON SP SERIES LENSES

Specifications \ Model No.	52A	55B	52B	54B	01F	51B	01A
Focal Length/Aperture	70~210mm F/3.5-4	500mm F/8	90mm F/2.5	300mm F/5.6	2X the focal length of master lens	17mm F/3.5	35~80mm F/2.8-3.8
Angle of View	34°~11°	5°	27°	8°	–	104°	64°~30°
Construction	16 elements in 15 groups	7 elements in 4 groups	8 elements in 6 groups	6 elements in 5 groups	6 elements in 5 groups	12 elements in 10 groups	9 elements in 8 groups
Coating	BBAR and Green multiple layer coating	BBAR multiple layer coating					
Minimum focus from Film Plane	0.75m (30 inches)	1.7m (66.9 inches)	0.39m (15.4 inches)	1.4m (55.1 inches)	Same as that of master lens	0.25m (9.8 inches)	0.27m (10.6 inches)
Max. Magnification Ratio	1 : 2	1 : 3	1 : 2	1 : 3.3	2X the magnification ratio of master lens	–	1 : 2.5
Focusing Ring Rotation	∞–2m 72° 44' 2m–0.75m 224° 32' (297° 16')	∞–4m 126° 4m–1.7m 201° (327°)	∞–1.5m 44° 56' 1.5m–0.39m 293° 06' (338° 02')	∞–2.5m 129° 51' 2.5m–1.4m 148° 53' (278° 44')	–	∞–2m 9° 41' 2m–0.25m 97° 35' (107° 16')	∞–1m 67° 52' ∞–0.27m 324° 56'
Lens Accessory Size	58mm	30.5mm (82mm front)	49mm	58mm	–	4-piece filters built-in (82mm front)	62mm
Length (at infinity)	165mm (6.5 inches)	87mm (3.4 inches)	66mm (2.6 inches)	163.5mm (6.4 inches)	42.5mm (1.7 inches)	43mm (1.7 inches)	76.5mm (3.0 inches)
Diameter	64.5mm (2.5 inches)	84mm (3.3 inches)	64.5mm (2.5 inches)	64.5mm (2.5 inches)	64.5mm (2.5 inches)	70mm (2.8 inches)	64.5mm (2.5 inches)
Weight	750g (26.5 ounces)	575g (20.2 ounces)	420g (14.8 ounces)	610g (21.5 ounces)	250g (8.8 ounces)	290g (10.2 ounces)	386g (13.6 ounces)
Lens Hood	Built-in, retractable	Screw-in type, detachable	Screw-in type available as optional	Built-in, retractable	–	Push-on type, available as optional extra	Screw-in type, available as optional
Accessory	Tripod mount ring, available as optional	w/Tripod mount ring & 5-piece filter set		Tripod mount ring, available as optional		Push-on type lens hood which takes 82mm front filters	

10. CARING FOR YOUR NEW LENS

1. Avoid touching the surface of your lens. When not using your lens, be sure to put the lens cap on for protection.

2. Cleaning your lens:
   a. Use a photographic lens brush to remove dust or dirt from the surface.
   b. Moisten a lens cleaning tissue with one drop of cleaning solution and clean the surface gently.
   c. Remove excess moisture from the lens surface with a dry tissue.

3. When carrying a zoom lens mounted on your camera, hang it from your shoulder with the lens towards your body to protect it from objects that it might hit.

4. Fine photographic equipment can be delicate. Protect it from any avoidable impact.

5. Always store your lens in a cool, dry place. During humid or wet weather it is an especially good idea to store it with the silica gel packet that was supplied with your lens.

Memo