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TAMRON CO.,LTD.

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

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805EM058 Printed in Japan

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Model **09A**

TAMRON

ADAPTALL-2

35-70mm F3.5-4.5

CF MACRO

COMPACT ZOOM

OWNER'S MANUAL

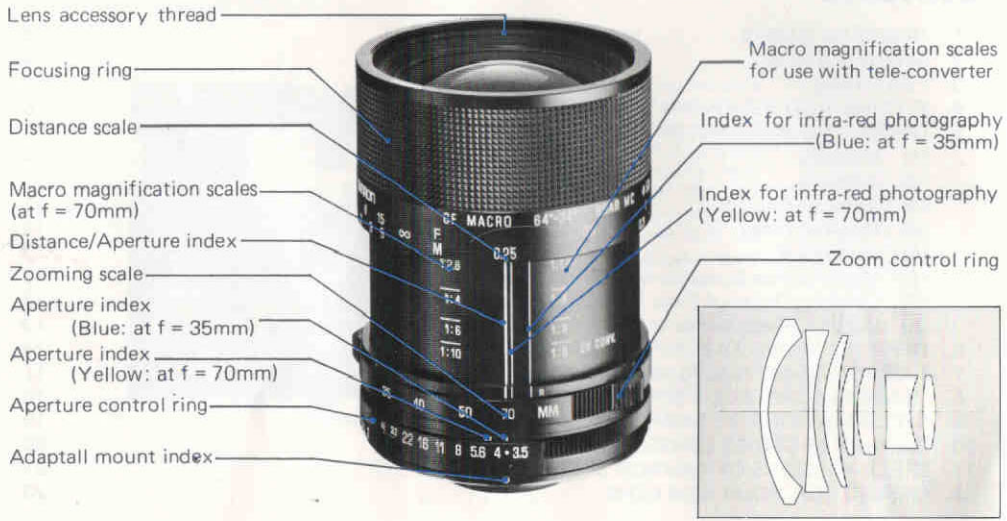
ADAPTALL-2 MOUNT SYSTEM

Thank you for selecting the new Tamron Adaptall-2 35-70 F/3.5-4.5 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 Adaptall-2 lens will give you many years of beautiful and exciting pictures.

CONTENTS

1. NAMES OF PARTS



2. SPECIFICATION

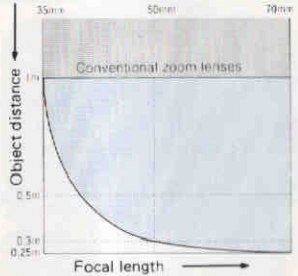
Focal length	35-70mm
Aperture range	f/3.5-4.5 – 32, AE (w/half stops)
Lens construction (Groups/Elements)	7/7
Coating	BBAR multiple layer coating
Angle of View	64° – 34°
Minimum focus from film plane	1.0m (39.4 in.) at f = 35mm 0.25m (9.8 in.) at f = 70mm
Focusing ring rotation	65°38′ at f = 35mm 320°19′ at f = 70mm
Max. Magnification	1:2.8 (f = 70mm)
Zooming system	Rotation system
Lens accessory size	58mm
Length (at inf.)	61.0mm (2.4 in.) (w/Nikon mount)
Diameter	64.5mm (2.5 in.)
Weight	322 grams (11.4 oz.)
Lens hood	Screw-in type

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 standard range were limited to a minimum object distance of about 1.0 meter at either wide-angle or telephoto setting. With this new lens, however, the minimum object distance is 1.0 meter at the wide-angle end but only 0.25 meter (9.8 in.) at the telephoto position for a maximum magnification ratio of 1:2.8 at f = 70mm.

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



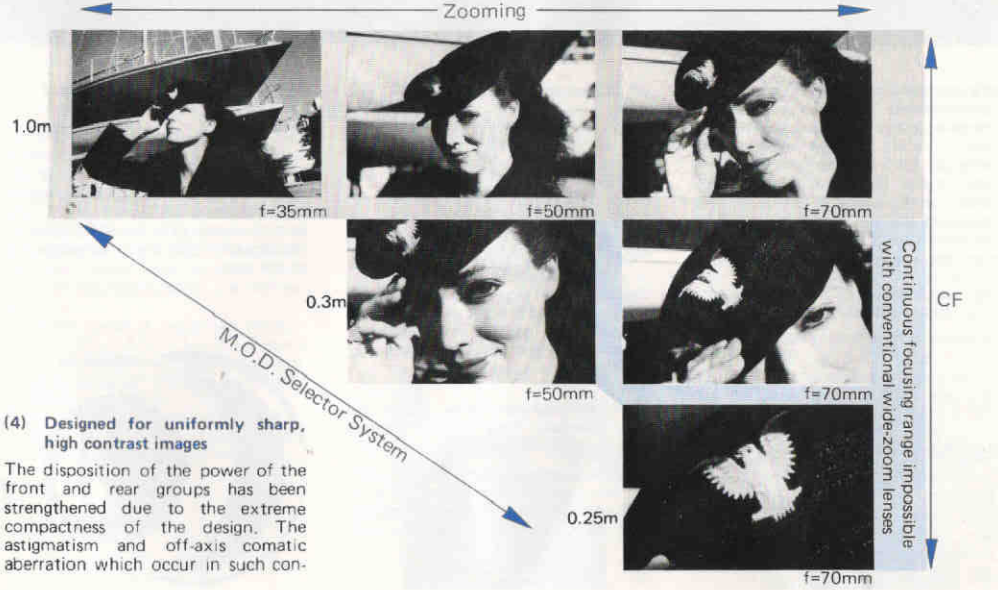
For example, when the lens is focused at the closest possible distance of 0.25m (9.8 in.), the focal length is set to 70mm. This system also makes possible macro photography at a magnification ratio of 1:2.8 at the 70mm focal length position.

(2) Continuous Focusing (CF)

Continuous focusing is possible from infinity to the minimum possible object distance of 0.25m (9.8 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) Versatile zoom lens combining the functions of four different lenses

The Adaptall-2 35-70mm is a versatile zoom lens combining the functions of four different lenses (a 35mm wide-angle suitable for a wide range of applications, 50mm standard, a medium telephoto of 70mm suitable for portraiture and a macro lens providing a maximum magnification ratio of 1:2.8) in a compact package.



(4) Designed for uniformly sharp, high contrast images

The disposition of the power of the front and rear groups has been strengthened due to the extreme compactness of the design. The astigmatism and off-axis comatic aberration which occur in such con-

figurations have been completely compensated by using a new type concave element in the front group and a convex element made of glass with a high refractive index in the rear group. By the employment of these sophisticated technology for reducing aberrations to the absolute minimum, uniformly sharp and high contrast images can be obtained.

(5) Lightweight, Comapct Zoom for Easy Portability

Extremely light and compact with an overall length of 61mm (2.4 in.) and a maximum diameter of 64.5mm (2.5 in.) and total weight of 322 grams (11.4 oz.).

(6) Fast Enough

Now that 400 ASA color films are available, the maximum aperture of f/3.5 is fast enough since it is equivalent to a standard lens with f/1.4 maximum aperture at the age of ASA 100 films.

(7) Constant F/Number

The constant f/number feature means that f-values are exactly the same from infinity to the macro range. Exposures are correct without any need for compensation even for electronic flash photography.

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

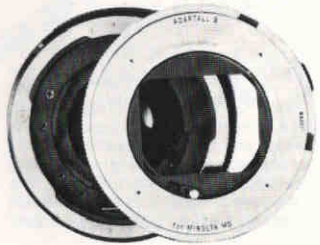
The minimum aperture of f/32 enables a wide range of expression in either the wide-angle, standard or macro range. Also highly useful with ASA400 films in bright lighting.

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

Intermediate click stops are provided in the aperture ring from f/3.5 to f/16 to enable a wide range of expression through precise exposure control.

(10) Adaptall/Adaptall-2 Interchangeable Mount System

This lens uses the Adaptall/Adaptall-2 mount system so use is possible with any popular 35mm 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.



(11) Expanded vistas of photography with the SP flat-field 2X tele-converter

Tamron's SP 2X tele-converter is a high performance converter specially designed for use with the telephoto and zoom lenses in the SP and Adaptall-2 series. Combining the tele-converter with your Adaptall-2 35-70mm zoom lens expands your range of photography in the following ways:

a) Macro range is expanded from a ratio of 1:2.8 to 1:1.4.(f = 70mm)
b) Focal length is doubled, giving a total range of focal length from 35mm to 140mm.
c) An effective aperture of f/64 is made available for greater depth of field and for special effects.

4. FITTING AND REMOVING THE ADAPTALL CUSTOM MOUNT

(1) Aligh 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 exposue control mechanism of the lens will crosscouple to the camera's system.

①

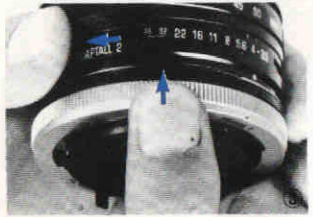
Note: The method of fitting custom mounts for Canon FD, Minolta MD and Nikon AI is the same as described in Steps (1) and (2) above. However, the custom mounts for Canon FD, Minolta MD and Nikon AI each have two coupling levers . Therefore, when the mount is fitted, engage the two coupling levers in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

②

FITTING AND REMOVING THE ADAPTALL CUSTOM MOUNT

(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.



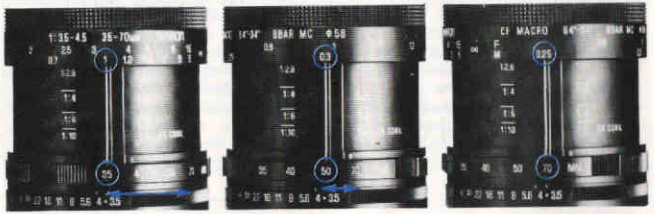
④

5. OPERATING

(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 0.25m (9.8 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.

INSTRUCTIONS



(a) Minimum object distance is 1m at the 35mm focal length (zooming is possible from 35mm to 70mm).

(b) When the focusing ring is moved to the 0.3m position (11.8 in.), the zoom ring starts to move (zooming is possible from 50mm to 70mm with the focusing ring at 0.3m).

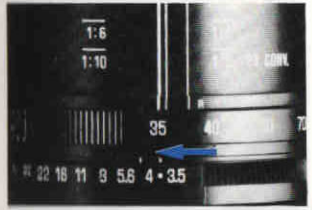
(c) At the minimum object distance of 0.25m (9.8 in.), the zoom control ring is set to f=70mm.

Note: The relatiohship 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 70mm, a M.O.D. of 0.3m (11.8 in.) from 50mm to 70mm and a M.O.D. of 0.25m (9.8 in.) at 70mm.
For example, when the lens is set at the 35mm position the zoom ring will shift to the 70mm position if the lens is focused at 0.25m (9.8 in.) In this case, the zoom ring cannot be moved beyond the 70mm 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 legth and minimum object distance (M.O.D.) given above, the usable focal length range will be 70mm at a distance of 0.25m (9.8 in.), 35-70mm at a distance of 1m (39.4 in.).

(2) Zooming

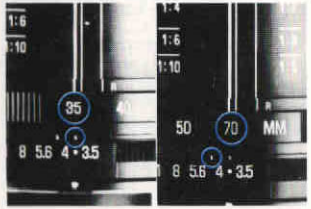
(a) The focal length is increased steplessly when the zoom ring is rotated to the left, increasing the apparent subject size. Select the desired subject size, focus effect and perspective while looking through the viewfinder.



(b) When the zoom ring is set at the 35mm wide-angle position, zooming is unrestricted at any minimum object distance above 1m (39.4 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 line. Aligh the desired f-stop to the blue index line at the wide-angle position (f=35mm) and to the yellow index line at the telephoto position (f=70mm). Intermediate click stops are provided from f/3.5 to f/16 for precise exposure control.

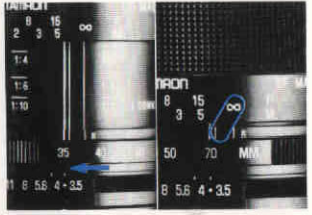


Note: When setting a desired f-stop by using the exposure meter built in your camera, be sure to align the aperture scale to the blue index line provided for the wide-angle photography even when taking photographs at the telephoto position.

(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 70mm position, shift the indicated distance to the right to the yellow index mark.

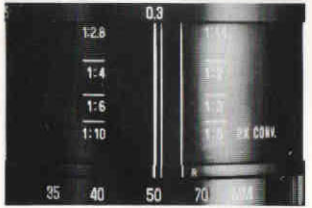


(5) Lens Hood

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 point quality.

(6) Magnification Scale for Macro Photography

Macro magnification ratios (at f=70mm) changing with variations in object distance are shown 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 meter (3.3 ft.) with the 35-70mm lens whose aperture and focal length are set to F/8 and f=35mm, read where the figures shown on the f/8 horizontal row intersect with the 1 meter (3.3 ft.) value shown on the vertical distance column. In this case, the depth-of-field is from 0.85 meters (2.8 feet) to 1.23 meters (4.0 ft.).

Focal Length	Aperture / Distance(m)	3.5	4.0	4.5	5.6	8.0	11.0	16.0	22.0	32.0
F=35mm	1.00	0.93~1.09	0.92~1.10	0.91~1.12	0.89~1.15	0.85~1.22	0.80~1.35	0.74~1.62	0.68~2.13	0.59~4.82
	1.50	1.33~1.72	1.32~1.75	1.29~1.79	1.25~1.88	1.17~2.12	1.08~2.52	0.97~3.71	0.86~8.87	0.73~∞
	2.00	1.71~2.42	1.68~2.47	1.64~2.57	1.58~2.76	1.58~3.32	1.45~4.45	1.31~10.5	0.99~∞	0.82~∞
	3.00	2.38~4.07	2.33~4.24	2.25~4.54	2.12~5.20	1.89~7.64	1.67~18.8	1.40~∞	1.17~∞	0.93~∞
	5.00	3.48~8.00	3.36~9.91	3.20~11.7	2.95~17.5	2.51~∞	2.13~∞	1.70~∞	1.37~∞	1.05~∞
	10.00	5.31~98.2	5.04~∞	4.69~∞	4.15~∞	3.33~∞	2.68~∞	2.03~∞	1.58~∞	1.16~∞
	20.00	7.20~∞	6.71~∞	6.10~∞	5.22~∞	3.98~∞	3.08~∞	2.25~∞	1.71~∞	1.23~∞
	∞	11.1~∞	9.98~∞	8.65~∞	6.95~∞	4.87~∞	3.54~∞	2.44~∞	1.78~∞	1.23~∞

DEPTH OF FIELD TABLES

Focal Length	Distance(m) \ Aperture	4.0	4.5	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	0.29~0.31	0.29~0.31	0.29~0.31	0.28~0.32	0.28~0.32
	0.50	0.49~0.51	0.49~0.51	0.49~0.52	0.48~0.52	0.47~0.53	0.46~0.55	0.45~0.57	0.43 0.61
	1.00	0.95~1.05	0.95~1.06	0.94~1.08	0.91~1.11	0.88~1.16	0.84~1.25	0.79~1.39	0.72~1.70
	1.50	1.40~1.62	1.38~1.64	1.36~1.68	1.30~1.78	1.24~1.91	1.15~2.18	1.06~2.65	0.94~4.14
	2.00	1.82~2.23	1.79~2.27	1.75~2.34	1.66~2.53	1.56~2.81	1.42~3.47	1.28~4.83	1.11 14.5
	3.00	2.60~3.55	2.55~3.65	2.46~3.86	2.28~4.40	2.10~5.36	1.85~8.41	1.62~27.5	1.35~∞
	5.00	3.97~6.76	3.85~7.15	3.65~7.00	3.27~10.8	2.90~19.3	2.44~∞	2.06~∞	1.64~∞
	10.00	6.58~21.1	6.25~25.4	5.73~40.8	4.85~∞	4.07~∞	3.22~∞	2.58~∞	1.94~∞
	20.00	9.78~∞	9.07~∞	8.01~∞	6.38~∞	5.10~∞	3.82~∞	2.95~∞	2.15~∞
	∞	19.0~∞	16.5~∞	13.2~∞	9.27~∞	6.74~∞	4.64~∞	3.38~∞	2.32~∞

Focal Length	Distance(m) \ Aperture	4.5	5.6	8.0	11.0	16.0	22.0	32.0
F=70mm	0.25	0.25~0.25	0.25~0.25	0.25~0.25	0.25~0.25	0.25~0.25	0.24~0.26	0.24~0.26
	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	0.29~0.32
	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	0.46~0.55
	1.00	0.97~1.03	0.96~1.04	0.95~1.06	0.93~1.08	0.91~1.12	0.87~1.17	0.83~1.27
	1.50	1.43~1.57	1.42~1.59	1.39~1.63	1.35~1.69	1.29~1.79	1.23~1.94	1.14~2.24
	2.00	1.88~2.13	1.86~2.17	1.80~2.25	1.74~2.36	1.64~2.57	1.54~2.88	1.40~3.62
	3.00	2.74~3.31	2.69~3.40	2.57~3.60	2.44~3.90	2.26~4.52	2.07~5.60	1.81~9.35
	5.00	4.32~5.94	4.18~6.22	3.91~6.96	3.62~3.62	3.22~11.5	2.84~22.7	2.38~∞
	10.00	7.60~14.7	7.18~16.6	6.41~23.0	5.65~45.4	4.73~∞	3.95~∞	3.11~∞
	20.00	12.2~55.2	11.2~97.0	9.41~∞	7.86~∞	6.18~∞	4.92~∞	3.68~∞
	∞	31.4~∞	25.2~∞	17.7~∞	12.8~∞	8.83~∞	6.42~∞	4.42~∞

7. TAMRON ADAPTALL-2 SERIES LENSES

8. SPECIFICATIONS OF TAMRON ADAPTALL-2 SERIES LENSES

Specification \ Model No.	01B	02B	03B	04B	20A	03A	04A	05A	06A	07A	09A
Focal Length/ Aperture	24mm f/2.5	28mm f/2.5	135mm f/2.5	200mm f/3.5	70-150mm f/3.5	80-210mm f/3.8-4	75-250mm f/3.8-4.5	70-350mm f/4.5	200-500mm f/6.9	28-50mm f/3.5-4.5	35-70mm f/3.5-4.5
Construction (Groups/Elements)	9/10	7/7	4/4	5/5	11/13	10/12	11/13	13/15	8/14	9/9	7/7
Coating	BBAR Multiple Layer Coating										
Angle of View	84°	75°	18°	12°	34°-16°	30°-11.3°	32°-10°	34°-7°	12°-5°	75°-47°	64°-34°
Minimum Focus from Film Plane	0.25m (9.8 in.)	0.25m (9.8 in.)	1.2m (47.2 in.)	1.7m (66.9 in.)	0.7m (27.5 in.)	0.9m (35.4 in.)	1.2m (47.2 in.)	2.5m (47.2 in.)	3.0m (118 in.)	0.25m (9.8 in.)	0.25m (9.8 in.)
Focusing Method	Straight helicoid-extension system				Rotation system						
Max. Magnification	–	1:5.8	1:7.0	1:5.9	1:3	1:2.8	1:3.5	–	–	1:4	1:2.8
Aperture Range	2.5-22, AE	2.5-32, AE	2.5-32, AE	3.5-32, AE	3.5-32, AE	3.8-32, AE	3.8-32, AE	4.5-32, AE	6.9-32	3.5-32, AE	3.5-32, AE
Accessory Size	55mm	49mm	58mm	58mm	49mm	58mm	62mm	82mm	82mm	58mm	58mm
Length mm (in.)	38 (1.5)	33 (1.3)	79.5 (3.1)	108 (4.3)	103.5 (4.1)	146.5 (5.8)	178.5 (7.0)	274 (10.8)	370 (14.6)	50.7 (2.0)	61.0mm(2.4)
Diameter mm (in.)	64.5 (2.5)	64.5 (2.5)	64.5 (2.5)	68 (2.7)	64.5 (2.5)	64.5 (2.5)	72 (2.8)	90 (3.5)	90 (3.5)	64.7 (2.5)	64.5mm(2.5)
Weight gram (oz.)	230 (8.1)	180 (6.3)	410 (14.5)	540 (19.0)	459g (16.2)	610 (21.5)	870 (30.7)	2170 (76.5)	2770 7.7)	297 (10.5)	322 (11.4)
Lens Hood	Screw-in Optional		Built-in, retractable							Screw-in Optional	

9. TAMRON SP SERIES LENSES

70~210mm F/3.5-4 52A | 500mm F/8 55B | 300mm F/5.6 54B | 90mm F/2.5 52B | 2X TELE CONVERTER 01F | 17mm F/3.5 51B | 35~80mm F/2.8-3.8 01A | 70~150mm F/2.8 51A

10. SPECIFICATIONS OF TAMRON SP SERIES LENSES

Specifications \ Model No.	52A	55B	52B	54B	01F	51B	01A	51A
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	70~150mm F/2.8
Angle of View	34° – 11°	5°	27°	8°	–	104°	64° – 30°	34° – 16°
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	14 elements in 10 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)	0.98m (inches)
Max. Magnification Ratio	1 : 2	1 : 3	1 : 2	1 : 3.3	2X the magnification ratio of master lens	–	1 : 2.5	1 : 4.6
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'	∞–2m 76° 55' 2m–0.9m 118° (194°)
Lens Accessory Size	58mm	30.5mm (82mm front)	49mm	58mm	–	4-piece filters built-in (82mm front)	62mm	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)	147mm (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)	67.5mm (inches)
Weight	750 g (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)	760g (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	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		

11. 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.

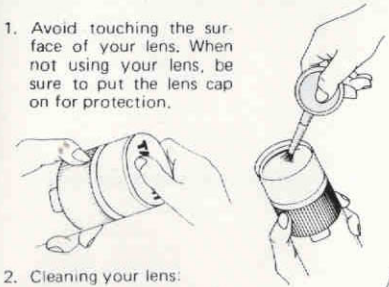
(●) Does not have aperture stop down control on mounts. SP lenses do not have Auto/Manual selector switch.

▼ 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.

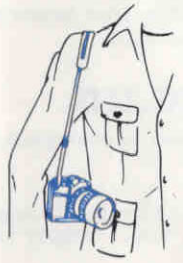
12. CARING FOR YOUR NEW LENS

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.