TAMRON

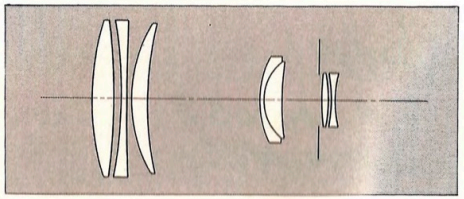
SP 300mm F/2.8 LD.

Model 107B

OWNER'S MANUAL

5/20/84
Ser # 300137
Adorama, NYC.

Thank you for selecting the Tamron 300mm F/2.8 LD 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 lens will give you many years of beautiful and exciting pictures.



CONTENTS

1. NAMES OF PARTS AND FEATURES

The Tamron SP 300mm F/2.8 LD is a fast, high-performance ultra-telephoto lens using anomolous dispersion glass in two lens elements in the front group. As a result, chromatic aberration, as well as other aberrations such as spherical aberration, astigmatism and image field curvature are reduced to the absolute minimum, providing high optical performance even at its maximum aperture.

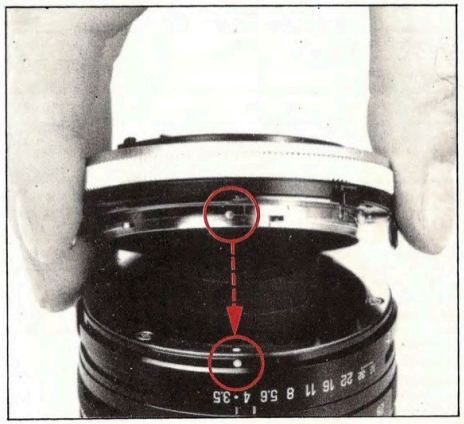
The lens consists of 7 elements in 6 groups and features Tamron's original OAC (Optical Aberration Compensator) system. The amount of helicoid extention for focusing is confined to the minimum, enhancing stability when hand-holding the camera during shooting. A rear 43mm drop-in filter system is employed for easy filter control.

2. SPECIFICATIONS

Focal Length:	300mm
Aperture Range:	F/2.8 – 32, AE
Lens Construction:	6 groups, 7 elements
Coating:	BBAR multiple-layer coating
Angle of View:	8°
Minimum Focus from Film Plane:	3.0m (9.8 ft.)
Filter Size:	112mm (front) 43mm (rear)
Ovarall Length:	203.5mm (8.0 in.) with Nikon mount
Maximum Diameter:	117.5mm (4.6 in.)
Weight:	2,071 grams (73.0 oz.)
Lens Hood:	Bayonet-type, detachable
Optional Accessories:	Flat-field 2X tele-converter, tele-viewer, 43mm rear and 112mm front filters (one 43mm rear normal filter supplied with the lens)

* Specifications and availability are subject to change without notice.

3. FITTING/REMOVING THE ADAPTALL-2 MOUNT AND MOUNTING THE LENS TO YOUR CAMERA



This lens employs the Tamron Adaptall Interchangeable Mount system. The lens can be fitted to most of the SLR cameras on the market. Please read the instruction manual enclosed with the Adaptall Interchangeable Mount, so that the proper fitting is made.

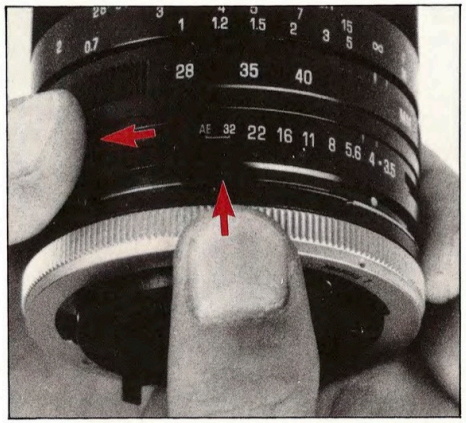
1. Fitting the Mount to Your Lens

(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.

NOTE: Some mounts have two coupling levers on both sides, so when fitting the mount of the lens, engage the two coupling levers in the corresponding slots on both sides of the lens.

FITTING/REMOVING THE ADAPTALL-2 MOUNT AND MOUNTING



2. Removing the Mount from Your Lens

(1) Before removing the custom mount, be sure to move the aperture ring to the maximum opening. When the aperture ring is set at the AE position, depress the AE lock button to release the AE setting and then move the aperture control ring to the maximum opening.

(2) An L-shaped mount release lever is provided directly opposite the aperture indicator which, when depressed, will release the mount. Therefore, while keeping the L-shaped mount release lever depressed, turn the custom mount counter-clockwise all the way until it stops and then lift the mount off the lens.

THE LENS TO YOUR CAMERA

3. Mounting the Lens to Your Camera

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 camera, be sure to move the aperture control ring of the lens to the maximum opening.

4. TAMRON ADAPTALL-2 CUSTOM MOUNTS

Mount	Mount Type	Adaptall lenses	SP/ Adaptall-2 lenses
For Canon	Bayonet type	X	○
For Minolta MD	Bayonet type	X	○
For Konica AR	Bayonet type	X	○*
For Contax/Yashica	Bayonet type	X	○
For Olympus	Bayonet type	○	○
For Pentax K	Bayonet type	○	○
For Pentax ES	Screw-in type	○	○◈
For Pentax Universal	Screw-in type	○	○
For Nikon AI/E	Bayonet type	X	○
For Nikon AI	Bayonet type	○▲1	○▲1
For Fujica AX	Bayonet type	X	○
For Fujica ST	Screw-in type	○	○
For Mamiya SX	Screw-in type	○	○
For Rollei	Bayonet type	○	○
For Topcon	Bayonet type	○	○◈
For Praktica-B	Bayonet type	○▲2	○
For Praktica-LLC	Screw-in type	○	○
For "C" mount for CCTV/VTR cameras and 16mm movie cameras		○	○
For "MS" mount for CCTV/VTR cameras		○	○

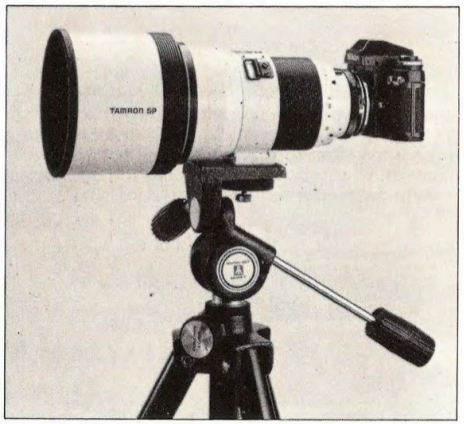
* Mount requires initial maximum aperture adjustment.

◈ Due to small rear aperture, this mount will not accept the SP 70-210mm F/3.5-4 (52A), SP 90mm F/2.5 (52B), SP flat-field 2X tele-converter (01F), Adaptall-2 80-210mm F/3.8-4 (03A) and Adaptall-2 75-250mm F/3.8-4.5 (04A & 104A).

▲1 Will not synchronize with Auto Mode of designated speed light of Nikon EM.

▲2 Program AE system and AE system of shutter speed priority will not work.

5. OPERATING INSTRUCTIONS

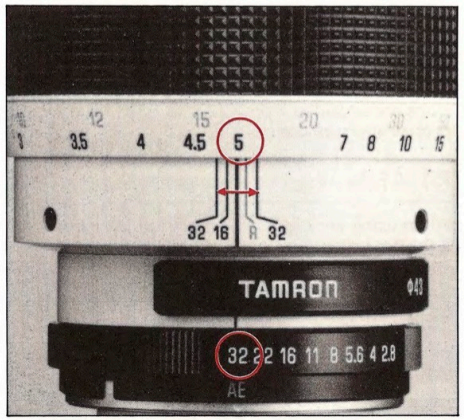


(1) Note Before Shooting

The angle of view of 300mm telephoto lenses is 8 degrees. This narrow angle can cause "camera shake" problems. For ordinary shooting use of a monopod or tripod is recommended. When shooting with the lens hand-held, it is recommended that a shutter speed of 1/300 second or faster be used. When carrying the lens mounted on your camera, use the neck strap provided on the lens.

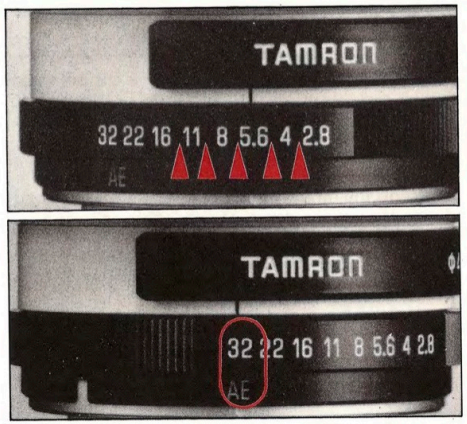
(2) Focusing

Focus by turning the operating ring until the subject appears sharp in the viewfinder. The position of the infinity mark (∞) of this lens is shifted slightly to the positive side to enable focusing adjustment even when focus shift occurs, due to temperature changes. Be sure to check the focus through the viewfinder even when you shoot at infinity.



(3) Checking Depth-of-Field

To check depth-of-field, you may use the depth-of-field scales on the lens for apertures F/16 and F/32. When you want to check depth-of-field through the viewfinder of your camera, push the depth-of-field preview button on your camera (in the case of Olympus cameras, push the built-in preview lever on the mount). For precise depth-of-field, please look at the depth-of-field table on page 18.

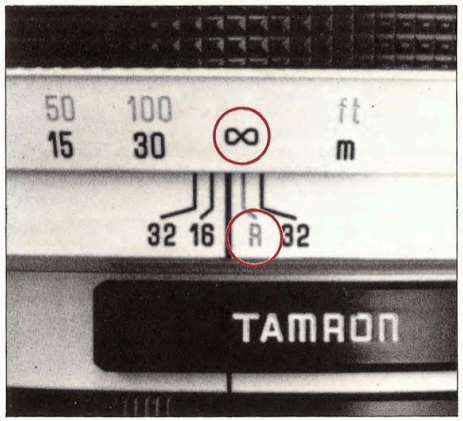


(4) Aperture Control

Rotate the aperture control ring and set the required aperture against the index line. Intermediate click stops are provided from F/2.8 to F/16 for more precise aperture control.

(5) 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 F/32 when the lens is used on other cameras.

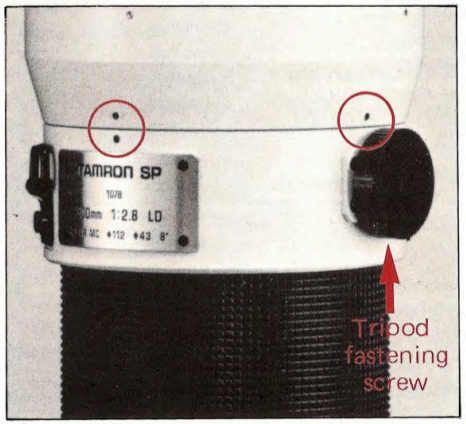


(6) Infra-Red Index

Since the focal point shifts in infra-red photography, it is necesssary to correct the focus. Focus in the normal manner, set an infra-red filter and shift the indicated distance to the red line marked "R".

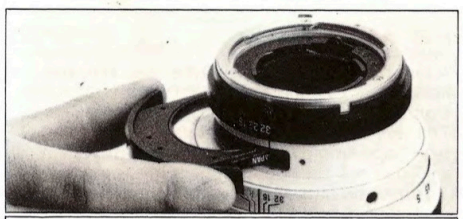
(7) Lens Cap

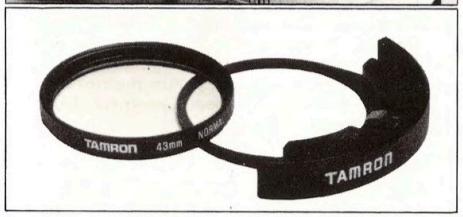
Since the front lens element of this lens is large, the lens cap is somewhat different from ordinary lens caps. Use the cap when the lens is not in use and fasten the strap tightly.



(8) Tripod Mount Ring

A sturdy tripod mount ring which can rotate 360 degrees is built into the lens. By loosening the tripod fastening screw provided on one side of the ring, you can select any position within 360°, thus commanding free camera movement. A mark on the lens barrel indicates the position of a 90 degree turn of the mount ring.





(9) Filter

This lens features a rear drop-in type filter system. To use a filter, mount it in the filter frame, and insert the frame into the slot just in front of the aperture ring. The filter frame accepts a 43mm filter. An extra filter frame is supplied for convenience in filter control. Since the focusing system of this lens is adjusted with a rear filter built-in the lens, it is always necessary to use a rear 43mm filter. One rear normal filter is supplied, mounted in a frame at the factory. Also, a 112mm normal front filter is available as an optional extra, for protection of the front lens element.

(10) Lens Hood

A lens hood is supplied with the lens. The lens hood prevents unnecessary light from striking the front element of the lens causing unwanted glare. The lens hood supplied is a detachable bayonet-type hood employing a very convenient system.

a. To attach the hood, rotate it in the clockwise direction onto the flange provided on the front end of the lens.
b. When the lens is not in use, detach the hood from the lens, reverse it and put it on the lens barrel. Then rotate the hood in the counter-clockwise direction and it will screw onto the front of the lens. This secures it and prevents it from being dropped or lost.

6. DEPTH OF FIELD TABLE

Focal Length	Aperture (F) / Distance (m)	2.8	4	5.6	8	11	16	22	32
f = 300mm	3.00	2.99 ~ 3.01	2.99 ~ 3.01	2.98 ~ 3.02	2.98 ~ 3.02	2.97 ~ 3.03	2.95 ~ 3.05	2.93 ~ 3.07	2.91 ~ 3.10
	3.50	3.49 ~ 3.51	3.48 ~ 3.52	3.48 ~ 3.52	3.47 ~ 3.53	3.45 ~ 3.55	3.43 ~ 3.57	3.41 ~ 3.59	3.37 ~ 3.64
	4.00	3.98 ~ 4.02	3.98 ~ 4.02	3.97 ~ 4.03	3.96 ~ 4.04	3.94 ~ 4.06	3.91 ~ 4.09	3.88 ~ 4.13	3.83 ~ 4.18
	4.50	4.48 ~ 4.52	4.47 ~ 4.53	4.46 ~ 4.54	4.44 ~ 4.56	4.42 ~ 4.58	4.39 ~ 4.62	4.35 ~ 4.66	4.29 ~ 4.74
	5.00	4.98 ~ 5.02	4.97 ~ 5.04	4.95 ~ 5.05	4.93 ~ 5.07	4.91 ~ 5.10	4.86 ~ 5.14	4.81 ~ 5.20	4.73 ~ 5.30
	7.00	6.95 ~ 7.05	6.93 ~ 7.07	6.90 ~ 7.10	6.86 ~ 7.14	6.81 ~ 7.20	6.73 ~ 7.29	6.64 ~ 7.40	6.48 ~ 7.60
	8.00	7.94 ~ 8.06	7.91 ~ 8.09	7.87 ~ 8.13	7.82 ~ 8.19	7.76 ~ 8.26	7.65 ~ 8.38	7.53 ~ 8.54	7.33 ~ 8.80
	10.00	9.90 ~ 10.1	9.86 ~ 10.1	9.80 ~ 10.2	9.72 ~ 10.3	9.62 ~ 10.4	9.46 ~ 10.6	9.27 ~ 10.9	8.97 ~ 11.3
	15.00	14.8 ~ 15.2	14.7 ~ 15.3	14.6 ~ 15.5	14.4 ~ 15.7	14.2 ~ 16.0	13.8 ~ 16.4	13.4 ~ 17.0	12.8 ~ 18.2
	30.00	29.1 ~ 31.0	28.7 ~ 31.4	28.3 ~ 32.0	27.6 ~ 32.9	26.8 ~ 34.1	25.5 ~ 36.4	24.2 ~ 39.6	22.2 ~ 46.3
	∞	964 ~ ∞	675 ~ ∞	482 ~ ∞	337 ~ ∞	245 ~ ∞	169 ~ ∞	123 ~ ∞	84.3 ~ ∞

7. SPECIFICATIONS OF TAMRON LENSES

Specification \ Model No.	13A	17A	27A	01A	28A	22A	20AB	26A	19AH	103A	104A
Focal Length	24–48mm	35–70mm	28–80mm	35–80mm	28–135mm	35–135mm	70–150mm	35–210mm	70–210mm	80–210mm	75–250mm
Max. Aperture	F/3.5–3.8	F/3.5	F3.5–4.2	F/2.8–3.8	F/4–4.5	F/3.5–4.2	F/3.5	F/3.5–4.2	F/3.5	F/3.8–4	F/3.8–4.5
Angle of View	84°–48°	64°–34°	75°–30.5°	64°–30°	75°–18°	63°–18°	34°–16°	64°–11°	34.5°–12°	30°–11°	32°–10°
Lens Construction	9/10	7/7	8/9	8/9	10/17	12/14	10/13	12/16	11/15	10/13	10/13
Coating	BBAR Multiple Layer Coating										
Minimum Focus from Film Plane	0.6m	0.25m	0.36m	0.27m	2.0m	1.8m	0.7m	1.6m	0.85m	0.9m	1.2m
Max. Reproduction Ratio	–	1 : 2.8	1 : 3.4	1 : 2.5	1 : 4	1 : 4	1 : 3	1 : 3.8	1 : 2.66	1 : 2.8	1 : 3.4
Aperture Range	3.5/3.8–32, AE	3.5–32, AE	3.5/4.2–32, AE	2.8/3.8–32, AE	4/4.5–32, AE	3.5/4.2–32, AE	3.5–32, AE	3.5/4.2–32, AE	3.5–32, AE	3.8/4–32, AE	3.8/4.5–32, AE
Lens Accessory Size	77mm	58mm	67mm	62mm	67mm	67mm	49mm	67mm	62mm	58mm	62mm
Length at ∞ [W/Nikon Mount] (mm)	61 [65.5]	55 [59.5]	82 [86.5]	72 [76.5]	106 [110.5]	105 [109.5]	99 [103.5]	121.5 [126.0]	150 [154.5]	137.7 [142.2]	172 [176.5]
Max. Diameter (mm)	64.5	65.6	70	64.5	70	72.4	64.5	73	71	65	71
Weight (g)	346	330	480	386	710	625	459	875	860	634	856
Lens Hood	Bayonet	Push-on	Bayonet	Push-on	Bayonet	Bayonet	Built-in	Bayonet	Bayonet type, coupled to zooming	Screw-in	Built-in

23A	05A	06A	31A	51B	01B	02B	52B	03B	04B	107B	54B	06B	55BB	01F
60–300mm	70–350mm	200–500mm	200–500mm	17mm	24mm	28mm	90mm	135mm	200mm	300mm	300mm	350mm	500mm	
F/3.8–5.4	F/4.5	F/6.9	F/5.6	F/3.5	F/2.5	F/2.5	F/2.5	F/2.5	F/3.5	F/2.8	F/5.6	F/5.6	F/8	
40°–8°	34°–7°	12°–5°	12.5°–5°	104°	84°	75°	27°	18°	12°	8°	8°	7.3°	5°	–
11/15	13/15	8/14	10/14	10/12	9/10	7/7	6/8	4/4	5/5	6/7	5/6	4/7	4/7	5/6
BBAR Multiple Layer Coating														
1.9m	2.5m	3.0m	2.5m	0.25m	0.25m	0.25m	0.39m	1.2m	1.7m	3.0m	1.4m	1.1m	1.7m	–
1 : 1.55	–	–	1 : 3.5	–	–	1 : 5.8	1 : 2	1 : 7	1 : 5.9	–	1 : 3.3	1 : 2.5	1 : 3	–
3.8/5.4–32, AE	4.5–32, AE	6.9–32	5.6–32	3.5–22, AE	2.5–22, AE	2.5–32, AE	2.5–32, AE	2.5–32, AE	3.5–32, AE	2.8–32, AE	5.6–32, AE	–	–	–
62mm	82mm	82mm	95mm 43mm (rear)	Built-in	55mm	49mm	49mm	58mm	58mm	112mm 43mm (rear)	58mm	82mm 30.5mm (rear)	82mm 30.5mm (rear)	–
161.5 [166]	274 [278.5]	370 [374.5]	360.5 [365]	43 [47.5]	38 [42.5]	33 [37.5]	66 [70.5]	79.5 [84]	108 [112.5]	199 [203.5]	163.5 [168]	74.5 [79]	87 [91.5]	42.5 [47]
68	90	90	105	70	64.5	64.5	64.5	64.5	68	119.0	64.5	86	84	64.5
870	2,170	2,770	2,800	270	230	180	420	410	540	2,071	610	577	535	250
Bayonet	Built-in	Built-in	Built-in	Push-on	Screw-in	Screw-in	Screw-in	Built-in	Built-in	Bayonet	Built-in	Screw-in	Screw-in	–

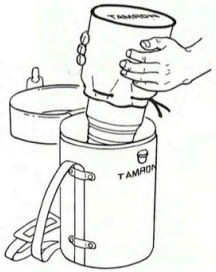
* Specifications and availability are subject to change without notice.

8. CARING FOR YOUR LENS

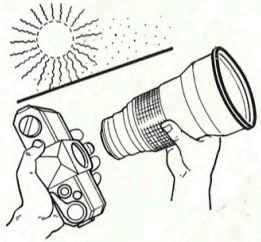
1. Avoid touching the lens surface. Use a photographic brush or blower to remove dust from the lens surface. When not using the lens, put a lens cap on for protection.
2. Use a lens cleaning tissue or lintless cloth with a drop of cleaning solution to clean fingerprints or dirt on the lens surface with a rotary motion from center to edge. Use a silicon cloth to clean your lens barrel only.

3. When carrying a lens on your camera without a camera case, hang it from your shoulder with the lens towards your body to protect it from objects which it might hit.

4. When storing your lens in a lens case, turn the focusing ring so that the ∞ mark on the distance scale is aligned to the index line. Also store it with a packet of desiccant



5. Fungus is an enemy of your lens. Clean the lens after shooting at seaside or in a humid place. Store your lens in a clean, cool and dry place. If you find fungus on your lens, please consult a repair shop or nearby photographic store.



TAMRON International Service
Should any TAMRON product require service, TAMRON's international service is available in over 48 nations worldwide.

TAMRON CO.,LTD.

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

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