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TAMRON CO.,LTD.

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

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Model **01B**



Model **02B**

TAMRON

24mmF/2.5

ULTRA WIDE-ANGLE

28mmF/2.5

WIDE-ANGLE

OWNER'S MANUAL



ADAPTALL-2 MOUNT SYSTEM



24mm f/2.5



28mm f/2.5

Thank you for selecting the new Tamron Adaptall-2 wide angle 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.

Every Tamron lens is made of carefully selected materials and is designed and manufactured for maximum durability to allow rugged use and long lasting performance. With proper handling and care, your Tamron Adaptall-2 lens will give you many years of beautiful and exciting pictures.

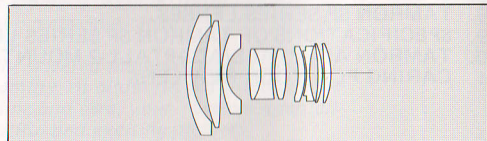
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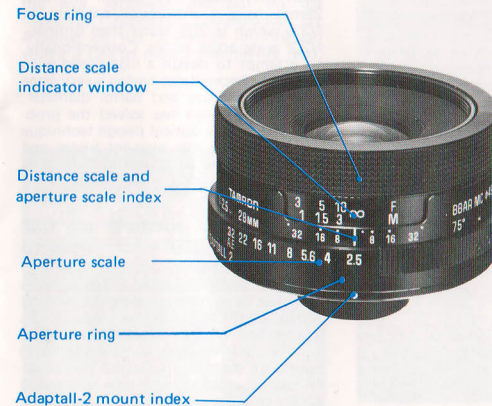
(1) Description of Parts and Specification of Model 01B 24 mm f/2.5 Lens



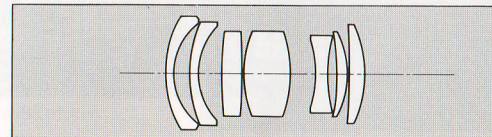
Focal Length	24mm
Max. Aperture	f/2.5
Construction	10 elements in 9 groups
Coating	BBAR Multiple Layer Coating
Angle of View	84°
Min. Focus from Film Plane	0.25m (9.8 in.)
Focusing Method	Straight helicoid-extendion system
Aperture Range	2.5-22, AE (w/half-stops)
Lens Accessory Size	55mm
Length (at inf.)	38mm (1.5 in.)
Diameter	64.5mm (2.5 in.)
Weight	230 grams (8.1 oz.)
Lens Hood	Screw-in, optional extra



(2) Description of Parts and Specification of Model 02B 28 mm f/2.5 Lens



Focal Length	28mm
Max. Aperture	f/2.5
Construction	7 elements in 7 groups
Coating	BBAR Multiple Layer Coating
Angle of View	75°
Min. Focus from Film Plane	0.25m (9.8 in.)
Focusing Method	Straight helicoid-extendion system
Aperture Range	2.5-32, AE (w/half-stops)
Lens Accessory Size	49mm
Length (at inf.)	33mm (1.3 in.)
Diameter	64.5mm (2.5 in.)
Weight	180 grams (6.3 oz.)
Lens Hood	Screw-in, optional extra





f=28mm, f/4, 1/30 sec.

(1) Fast aperture of f/2.5 in a compact design

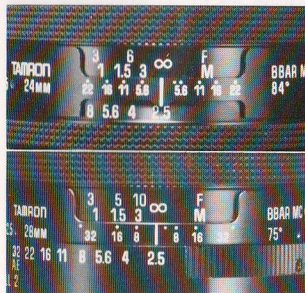
Both the models 01B 24mm and 02B 28mm have a maximum aperture of f/2.5 which is 25% faster than ordinary f/2.8 wide angle lenses. Conventionally, an attempt to design a high speed wide angle lens necessitates having a very large effective aperture and barrel diameter. However, Tamron has solved the problem with a new optical design technique by making the rear element bigger and has achieved a fast aperture of f/2.5 in a compact, light-weight lens body.

(2) Minimum aperture of f/32 (Model 02B) for increased depth-of-field

As the Tamron Adaptall-2 28mm f/2.5 lens has a minimum aperture of f/32 increased depth-of-field is possible. As this is one of the essential features of wide angle lenses, you can obtain images which are sharper. This is also particularly useful with today's high-speed 400 ASA color films which can be used even under extremely bright illumination conditions.

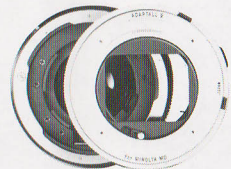
(3) Unique and convenient outer design

In designing the outer appearance of the lens, emphasis was put on the maximum handling convenience by showing all the operating information where it can be most conveniently read.



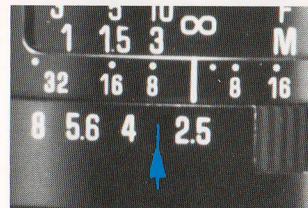
(4) Exclusive Adaptall/Adaptall-2 Mounts

Tamron Adaptall mounts are precision manufactured for most popular 35mm SLR cameras. They provide full meter and aperture coupling and faithfully reproduce all the functions of the lens. Only one mount is necessary for each camera regardless of lens design.

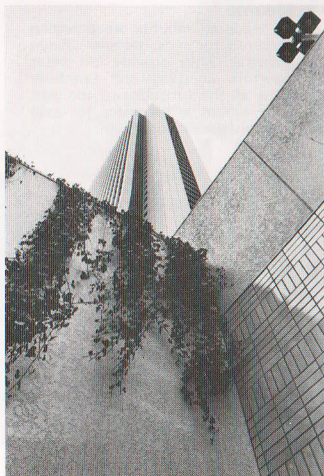


(5) Half f/stops

Both models 01B 24mm and 02B lenses have half f/stops to f/16 on the aperture control ring, enabling you to make small exposure differences for creative photography.

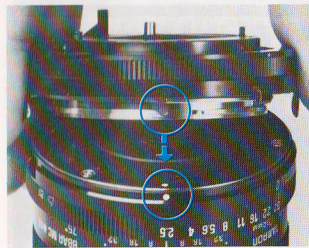


The characteristics of wide angle lenses are extended depth-of-field, greater perspective and extra coverage taking in nearly twice the angle of view of standard 50mm lenses. Therefore, the Adaptall-2 24mm f/2.5 and 28mm f/2.5 lenses are very convenient and versatile for quick action photos in indoor photography when you cannot get back far enough and in outdoor landscape or architectural photography with their wide angle of view and perspective.



f=24mm, f/22, 1/125 sec.

- (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



vided on the lens, and the exposure control mechanism of the lens will crosscouple to the camera's system.

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.

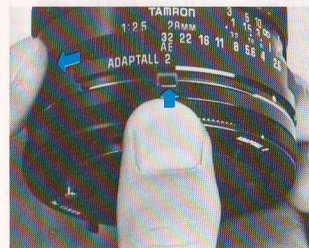


- (3) Your Tamron lens with the Adaptall custom mount can be fitted to your camera in the same manner as the camera manufacturer's lenses.

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.

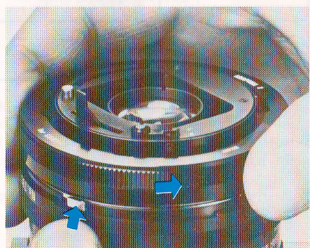
- (4) **Removing the custom mount:**

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.



(1) Focusing

Focusing of wide angle lenses is closely related to the depth-of-field: provided that the camera-to-subject distance is the same, the shorter the focal length of the lens, the greater the depth-of-field of the lens becomes. If the focal length of the lens is the same, the more the lens is stopped down, the greater the depth-of-field becomes. For example, with a 24mm f/2.5 lens (model 01B) or a 28mm f/2.5 lens (model 02B), the depth-of-field changes as follows:

Model	Aperture	Object distance	Depth-of-field
01B 24mm f/2.5	f/8	3m (9.8 ft.)	1.3m (4.3 ft.) - Inf.
	f/22	3m (9.8 ft.)	0.69m (2.3 ft.) - Inf.
02B 28mm f/2.5	f/8	3m (9.8 ft.)	1.6m (5.2 ft.) - 79.4m
	f/32	3m (9.8 ft.)	0.67m (2.2 ft.) - If.

Since great depth-of-field can be obtained with wide angle lenses, it is not essential for you to get the image exactly focused in the camera's viewfinder for snapshots. Simply adjusting the distance scale to the desired position by measuring the camera-to-subject distance visually can be quicker and more convenient. Note:

For details on the depth-of-field, please refer to depth-of-field tables on page 12 of this manual.

(2) Depth-of-Field

The depth-of-field is marked on the lens barrel between the distance scale index and aperture indicator window of the lens, and you can read the depth-of-field in the following manner.

- 1 Set the aperture control ring at the desired position.
- 2 Set the lens to the desired distance.
- 3 Read the value from the depth-of-field indices.

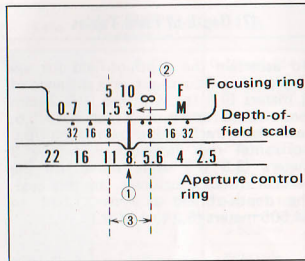
In this case, the depth-of-field at f/8 and at the object distance of 3 meters (9.8 ft.) is 1.6 meters (5.2 ft.) to 79.4 meters or almost infinity.

(3) Aperture Control

Turn the aperture control ring and set the required f-stop in the aperture indicator window. Both the 01B 24mm f/2.5 and 02B 28mm f/2.5 lenses feature half-stops for precise exposure adjustment between the aperture range of f/2.5 to f/16.

(4) 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 02B 28mm lens is used on other cameras. (The model 01B 24mm f/2.5 lens has the AE mark at the same position as f/22.)

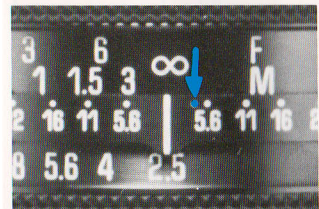


Models 01B and 02B lenses do not have an auto-manual lever for previewing depth-of-field. When you wish to check the depth-of-field, use the lever or button on the camera body. (In the case of Olympus the mount has a built-in depth-of-field lever.)



(5) Infra-Red Index

Since the focal point shifts in infra-red photography, focus compensation is essential. First, focus the lens in the normal manner and then set the given distance to the red point provided next to the distance scale index.



(6) Lens Hood (Optional Extra)

As an optional accessory, a screw-in type lens hood is available. A lens hood is always advantageous since it prevents unwanted light from striking the lens causing image degrading flare.



(7) Depth-of-Field Tables

To ascertain the depth-of-field for example when you shoot at a distance of 3 meters (9.8 ft.) with the 01B 24mm lens whose aperture is set to f/5.6, read where the figures shown in the f/5.6 horizontal row intersect with the 3 meters (9.8 ft.) value shown on the vertical distance column. (In this case, the depth-of-field is from 1.574 to 54.505 meters (5.2 to 178 ft.).

Lens	Aperture (f) Distance (m)	2.5	4	5.6	8	11	16	22	32
		24mm F/2.5 (Model 01B)							
	0.25	0.246~0.254	0.243~0.257	0.241~0.260	0.237~0.265	0.233~0.272	0.226~0.283	0.218~0.299	
	0.50	0.475~0.528	0.462~0.547	0.448~0.568	0.430~0.604	0.409~0.658	0.379~0.775	0.350~0.997	
	1.00	0.890~1.143	0.836~1.252	0.786~1.396	0.721~1.693	0.656~2.320	0.571~6.387	0.497~∞	
	1.50	1.256~1.871	1.146~2.202	1.048~2.722	0.932~4.252	0.820~15.028	0.686~∞	0.578~∞	
	3.00	2.129~5.144	1.817~9.113	1.574~54.505	1.314~∞	1.093~∞	0.859~∞	0.689~∞	
	5.00	2.949~17.165	2.374~24.353	1.969~∞	1.573~∞	1.261~∞	0.955~∞	0.747~∞	
	7.00	3.533~∞	4.391~∞	3.155~∞	2.229~∞	1.639~∞	1.148~∞	0.853~∞	
	∞	6.931~∞	4.337~∞	3.101~∞	2.175~∞	1.585~∞	1.094~∞	0.799~∞	
28mm F/2.5 (Model 02B)									
	0.25	0.247~0.253	0.245~0.255	0.243~0.257	0.241~0.260	0.238~0.264	0.232~0.272	0.227~0.282	0.218~0.300
	0.50	0.482~0.519	0.472~0.532	0.462~0.546	0.448~0.569	0.431~0.601	0.407~0.664	0.381~0.764	0.346~1.031
	1.00	0.919~1.098	0.877~1.167	0.837~1.251	0.783~1.406	0.725~1.667	0.648~2.436	0.576~5.670	0.488~∞
	1.50	1.317~1.746	1.228~1.938	1.146~2.199	1.043~2.762	0.939~4.090	0.807~22.546	0.693~∞	0.565~∞
	3.00	2.321~4.263	2.046~5.725	1.819~9.070	1.561~79.462	1.328~∞	1.069~∞	0.870~∞	0.671~∞
	5.00	3.340~10.077	2.790~11.488	2.376~26.232	1.947~∞	1.593~∞	1.228~∞	0.969~∞	0.724~∞
	7.00	4.113~24.255	3.304~34.553	2.735~∞	2.178~∞	1.741~∞	1.312~∞	1.019~∞	0.750~∞
	∞	9.714~∞	6.076~∞	4.344~∞	3.045~∞	2.218~∞	1.593~∞	1.116~∞	0.771~∞



Model No.	01B	02B	03B	04B	20A	03A	04A	05A	06A	07A	09A
Specification											
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	10/13	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		



Model No.	52A	55B	52B	54B	01F	51B	01A	51A	13A
Specifications									
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	24~48mm F/3.5-3.8
Angle of View	34°-11°	5°	27°	8°	-	104°	64°-30°	34°-16°	84°-48°
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	9 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 (38.4 inches)	0.6m (23.6 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°)	178°40'
Lens Accessory Size	58mm	30.5mm (82mm front)	49mm	58mm	-	4-piece filters built-in (82mm front)	62mm	62mm	77mm
Lens Accessory Size	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 (5.8 inches)	65.5mm (2.6 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 (2.7 inches)	64.5mm (2.5 inches)
Weight	750 g (26.5 ounces)	575 g (20.2 ounces)	420 g (14.8 ounces)	610 g (21.5 ounces)	250 g (8.8 ounces)	290 g (10.2 ounces)	386 g (13.6 ounces)	760 g (26.8 ounces)	346 g (12.2 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		Built-in, retractable	Push-on-type
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			

Adaptall Mounts	Adaptall Lenses	SP/Adaptall-2 Lenses
For Pentax K	Yes	Yes
For Pentax ES \diamond	Yes	Yes \diamond
For Pentax Universal	Yes	Yes
For Nikon A1 [†]	Yes	Yes [†]
For Fujica ST	Yes	Yes
For Mamiya SX	Yes	Yes
For Topcon RE \diamond	Yes	Yes \diamond
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

\diamond 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.

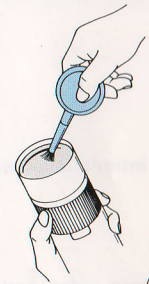
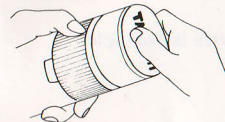
* Mount requires initial maximum aperture adjustment.

(●) 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.

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:

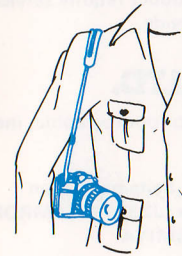
a. Use a photographic lens brush to remove dust or dirt from the surface.

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.

