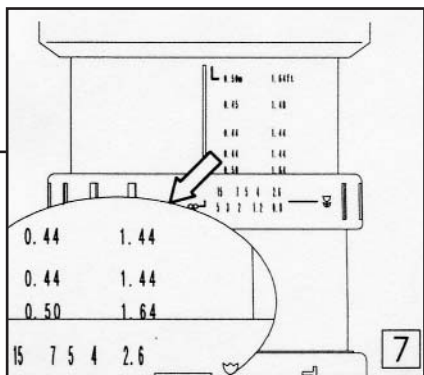
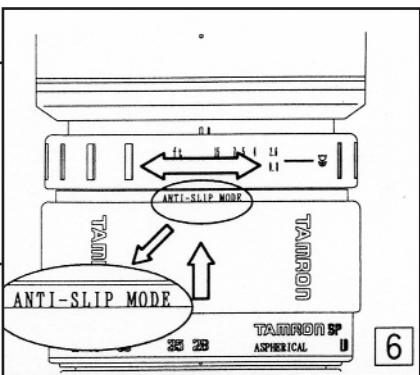
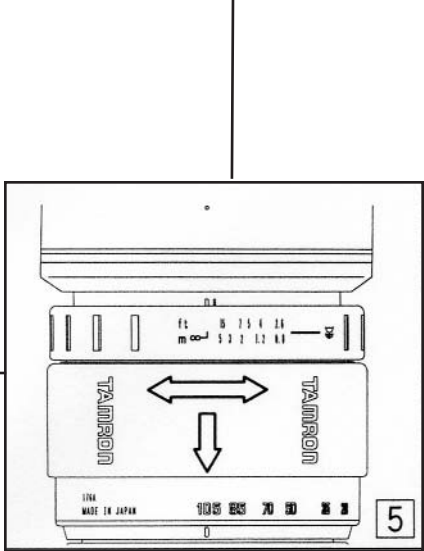
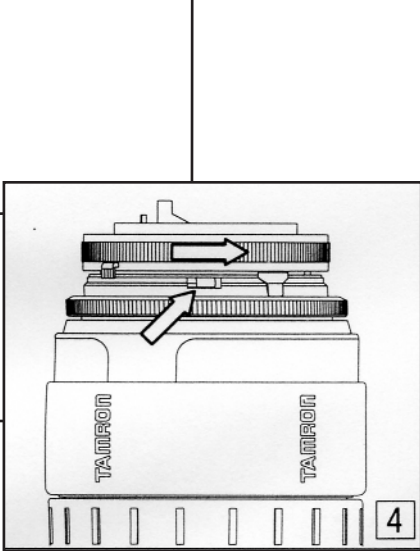
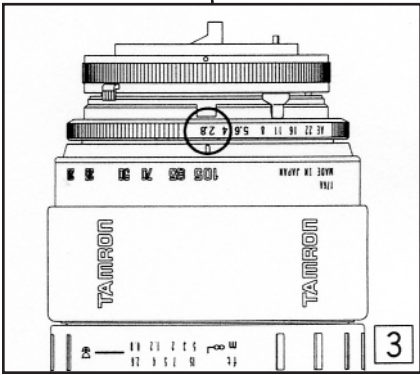
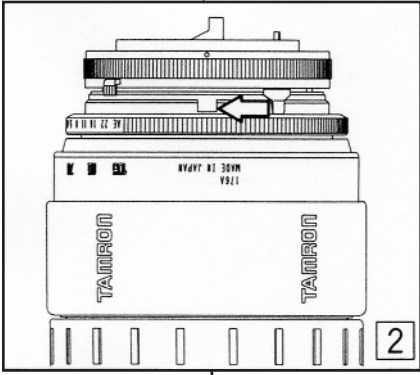
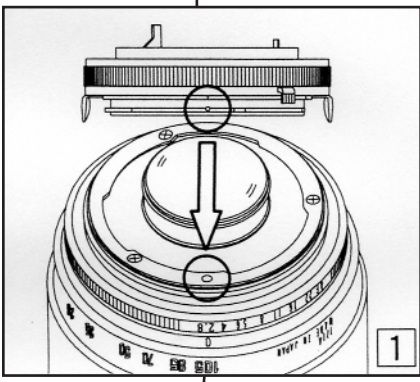
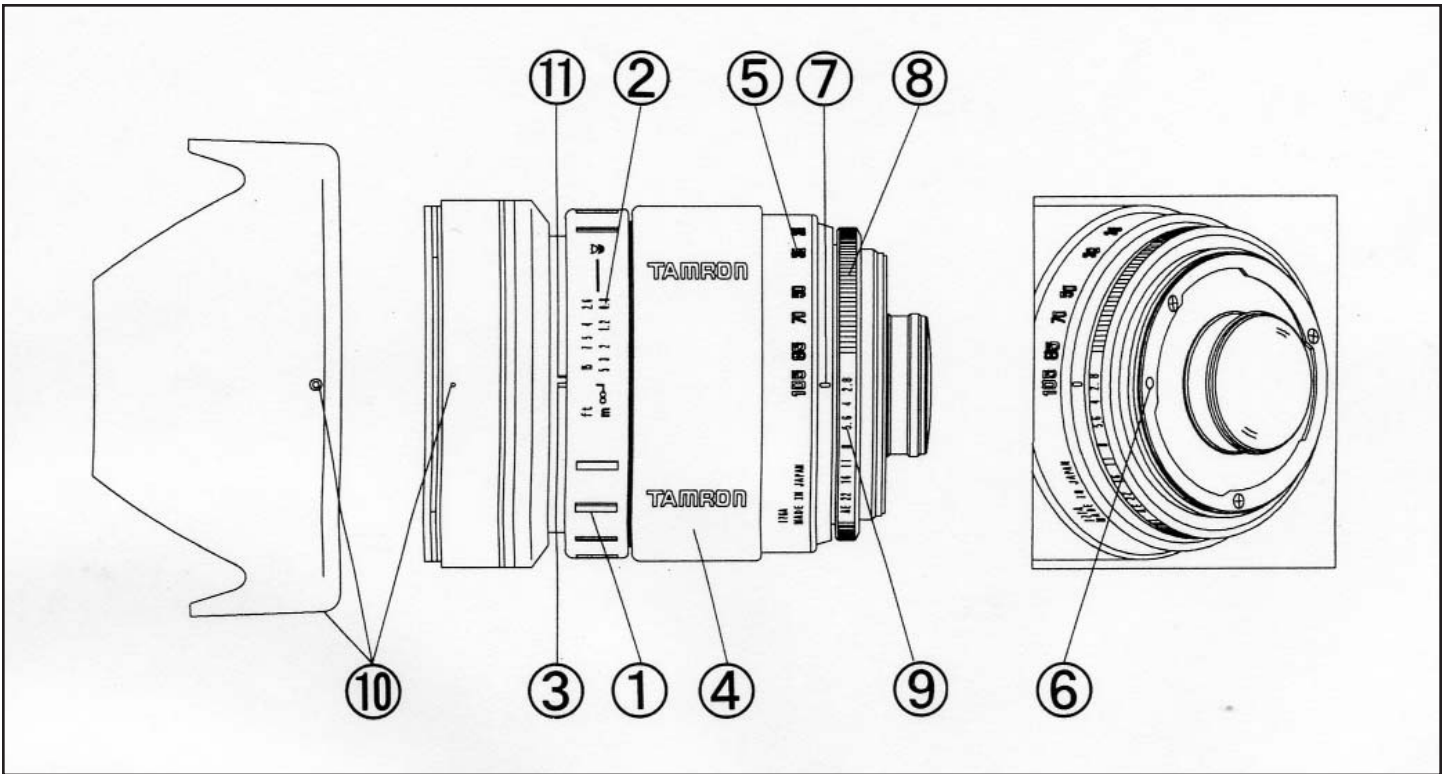


# TAMRON

## SP AF 28-105mm F/2.8 LD Aspherical [IF] (Model 176A)



Thank you for purchasing this Tamron lens. Please read this owner's manual carefully before using your new lens. Proper care and maintenance of this lens will result in years of enjoyable use.



## DESCRIPTION OF PARTS

1. Focusing ring
2. Focus distance scale
3. Focus distance index
4. Zooming ring
5. Zooming scale
6. Lens mounting guide
7. Aperture/Zoom Index
8. Aperture ring
9. Aperture scale
10. Hood attaching index
11. Minimum focus distance scale

## SPECIFICATIONS

	<b>176A</b>
Focal Length	28-105mm
Maximum Aperture	F/2.8
Angle of View	75° - 24°
Lens Construction (Groups/Elements)	13/15
Minimum Focus Distance	0.44m (1.44') f=70-85mm
Maximum Magnification Ratio	1:4.7 f=85mm
Filter Size	82mm
Length	104.5mm (4.1")
Diameter	87mm (3.4")
Weight	845g (29.8oz)

\* Specifications and design are subject to change without notice.

## ATTACHING AND REMOVING THE INTERCHANGEABLE MOUNT

This lens employs the Tamron Adaptall-2 Interchangeable Mount System. The lens can be fitted to most of the SLR cameras on the market. Please read the instructions manual enclosed with the mount, so that the proper fitting is made.

### 1. Fitting the Mount to Your Lens

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. 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 it engages in the provided on the lens, and the exposure control mechanism of the lens will cross couple to the camera's system.

### 2. Removing the Mount from Your Lens

Before removing the custom mount, be sure to move the aperture ring to the maximum opening. 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. [1 - 4]

## MOUNTING THE LENS TO YOUR CAMERA

Your Tamron lens with the Adaptall custom mount can be fitting to your camera in the same manner as camera manufacturer's lens.

## FOCUSING

Focusing is done by rotating the focus ring. Focusing can be monitored on the focusing screen of the viewfinder while the focus ring is being rotated.

\* For further details, please refer to the section of the instruction booklet called "How to focus."

\* To confirm the minimum focus distance at the focal length in use, please refer to minimum focus distance scales shown on the lens barrel. [6, 7]

## FOCUSING (con't)

Minimum focus distance at respective focal lengths.

Focal length	Minimum Focus Distance	
28mm	0.50m	1.84ft
50mm	0.45m	1.48ft
70mm	0.44m	1.44ft
85mm	0.44m	1.44ft
105mm	0.50m	1.84ft

\* For example, the minimum focus distance at f=105mm setting is 0.5m (1.84ft.) as above or as shown in Fig. 7.

## APERTURE ADJUSTING AND AE SETTING

To set the aperture, rotate the aperture ring to the desired point on the aperture scale. The AE mark of the aperture ring should be set in accordance with the instructions for the camera in use.

## ZOOMING

To set your lens to the desired image composition you desire, simply look through the viewfinder and operate the zoom ring.

## ANTI-SLIP MODE

Tamron AF28-105mm F/2.8 lens incorporates an "Anti-Slip" mechanism designed to let you change the rotation torque of the zoom ring by pulling the ring toward the camera or pushing it the opposite way. By pulling the ring backward, you will see an imprint reading "Anti-Slip Mode." In this position, the torque is heavier and prevents any sliding movement of the zoom ring due to its weight balance when you carry your camera with the lens positioned downward. When the zoom ring is pushed toward the subject, the imprint is hidden. In this mode, the zoom torque is lighter, and is recommended for normal shooting conditions.

## LENS HOOD

A bayonet-type lens hood is provided as a standard accessory. Tamron recommends shooting with the hood attached whenever possible as the lens hood cuts out light which is harmful to image quality. However, please be aware of the precautions noted below when your camera is equipped with a built-in flash. When the hood is not in use, it can be placed on the front of the lens in reverse:

### Attaching the lens hood

Align the index mark on the hood with the corresponding index mark on the lens. Push the hood onto the lens and then rotate it clockwise to secure. When attaching the lens hood, hold the focusing and zoom control rings so that they are not rotated unintentionally.

## CHECKING THE DEPTH-OF-FIELD

The depth-of-field table shows aperture values horizontally and ranges vertically. If, for example, the aperture is F8 and the shooting range is 5m (Focal length 105mm), the depth-of-field value is 4.434(m) - 5.734(m) where F8 in the horizontal column and 5.0 (m) in the vertical column intersect. If your camera has a preview mechanism, the depth-of-field effect can be confirmed in the viewfinder. For further details, see the instruction manual of your camera.

## PRECAUTIONS IN SHOOTING

When the built-in flash on the camera is used, symptoms such as corner illumination fall-off or vignetting at the bottom part of the image may be observed, especially at the wider angle range. This is due to the inherent limitation of the coverage of the built-in flash, and/or the relative position of the flash to the edge of the lens barrel which causes shadows on the image. Accordingly, we recommend not using the built-in flash at wide angle settings.

Please refer to the section of your camera's instruction manual pertaining to the use of the built-in flash, since the angles of coverage of the flashes differ between camera models.

When you use a built-in flash, make sure to detach the lens hood.

## PRECAUTIONS IN SHOOTING (con't)

Certain camera models may indicate the maximum and minimum aperture values in approximate numbers. This is inherent to the design of the camera and is not an indication of error.

Do not use the lens hood when you shoot with your camera's built-in flash. Even without the lens hood, an arched-shape shadow may be observed at the bottom portion of the picture when using the built-in flash. Tamron recommends using an optional flash unit, (clip-on or grip type), when use of flash is necessary.

When using the lens in the telephoto focal range, it may be necessary to use a tripod to avoid camera shake. Using high speed film (ISO 400 or faster) with a fast shutter speed is also helpful to reduce the affect of camera shake.

## TO ENSURE LONG-TERM SATISFACTION

1. Avoid touching the glass element surface. Use a photographic lens cloth or blower brush to remove dust from the lens element surface. When not using the lens, always place a lens cap on it for protection.

2. Use a lens cleaning tissue or lint cloth with a drop of cleaning solution to remove fingerprints or dirt on the glass lens surface with a rotary motion from the center to edge. Use a silicon cloth to clean your lens barrel only.

3. Mildew is an enemy of your lens. Clean the lens after shooting near water or in any humid place. Store your lens in a clean, cool and dry place. If you find mildew on your lens, consult a repair shop or nearby photographic store.

4. Do not touch the lens/camera interface contact since dust, dirt and/or stains may cause a contact failure between the lens and camera.

5. When using your equipment [camera(s) and lens(es)] in an environment where the temperature changes from one extreme to the other, make sure you put your equipment temporarily in a case or plastic bag for a length of time in order for the equipment to go through a gradual temperature shift. This will reduce potential equipment trouble.