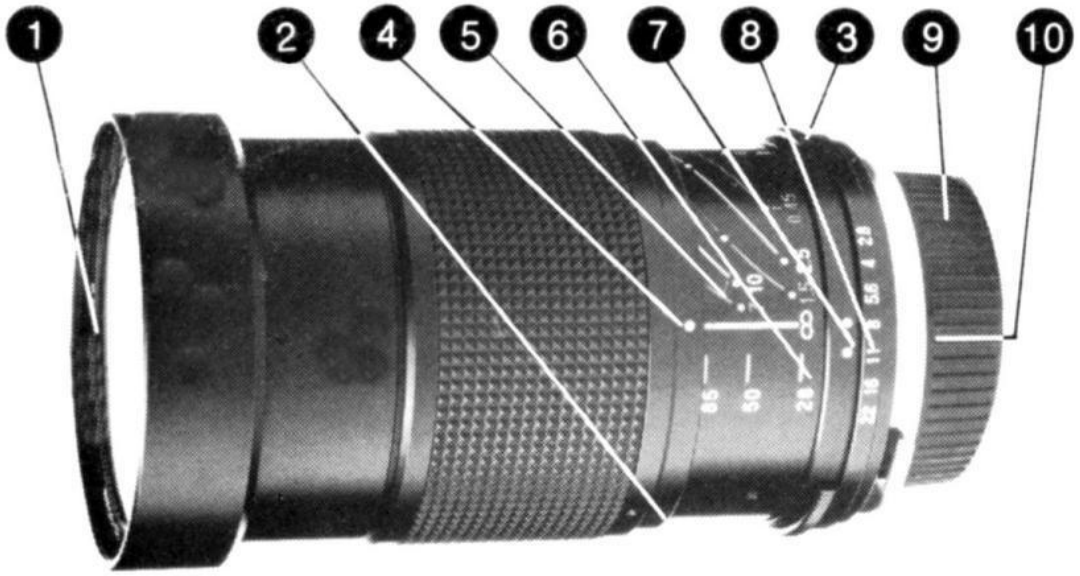
Vivitar®

Auto Variable Focusing Lens

Instructions

28-85mm

f2.8-3.8



Features and Controls

1. 67mm Accessory Thread
2. One-Touch Variable Focusing Ring
3. Macro Range Position
4. Distance Index Dot
5. Distance Scales
6. Focal Length Scale
7. Aperture Index Dots
8. Aperture Ring
9. Lens Mount
10. Alignment Reference Dot (bayonet mounts only)

Mounting the Lens

While mounting, leave the front lens cap on to avoid smudging the front element. For easiest handling, slide the Variable Focusing Ring forward to the 85mm position and grasp the lens around the barrel. For bayonet mounts, engage and lock as you would your normal lens.

Exposure Control

This lens has an automatic diaphragm which

enables you to compose your picture and focus wide-open, where the image is at its brightest. When the camera shutter is released, the diaphragm automatically stops down to the aperture setting preselected manually or automatically, depending on your particular camera system. The diaphragm immediately reopens as soon as the exposure is completed.

This is a variable aperture lens: At 28mm the range is f/2.8 - f/16 and the aperture is indicated by the ***red*** aperture index dot. At 85mm the range is f/3.8 - f/22 and the aperture is indicated by the ***orange*** aperture index dot.

If you are using a camera equipped with automatic shutter control, automatic aperture control, or both, your camera will automatically compensate for the variable aperture. If you are using the manual mode on cameras so equipped, follow metering procedures as outlined in your SLR manual, remembering that changes in focal length may require manual adjustments in shutter speed or aperture.

For further information on variable aperture contact: Consumer Affairs, Vivitar Corporation, P.O. Box 2100, Santa Monica, Ca., 90406.

Focusing and Variable Focal Length Operation

Your new Vivitar lens features exceptionally smooth, "one-touch" control of focusing and focal length selection.

To change focal lengths, slide the Variable Focus Ring back and forth along the lens barrel to the desired image size. The most commonly used focal

lengths are engraved on the barrel. The 28mm to 85mm focal range enables you to handle diverse photo situations from wide angle to telephoto. You can also crop out unwanted backgrounds "on camera" by moving to a longer focal length, where the subject fills more of the frame.

Focus as you would with a normal lens by turning the Variable Focusing Ring until the subject appears sharpest in the camera viewfinder. While focusing, be careful not to accidentally change focal lengths by sliding the Variable Focus Ring forward or backward. If this occurs, you must re-focus on your subject.

Note: As you rotate the ring to focus, the ring will also move along the barrel, away from the marked focal length position. However, this is part of the focusing function, and the focal length will not change provided you do not slide the ring as you rotate it.

IMPORTANT: Moving to a longer focal length may affect the exposure. Most cameras today have through-the-lens metering systems which determine exposure settings by averaging the light intensities in the image area. If the central subject is darker than the surrounding areas, moving toward 85mm will progressively delete the surrounding lighter areas, and the overall light intensity will drop correspondingly. If the lens is already at or near maximum aperture on an automatic aperture type camera, an underexposure situation may be indicated, requiring a slower shutter speed. On automatic shutter type cameras, an undesirably slow shutter speed may result. Although less likely, the opposite situation with a bright subject against a dark background may lead to an overexposure situation requiring correction. In either case, when

using a manual mode on cameras so equipped, manual readjustment of shutter speed or aperture may be required. Always check the exposure control readout ***after*** moving to the focal length at which you wish to take the picture.

Distance Scales and Distance Index Dot

There are two wrap-around Distance Scales engraved on the lens barrel to show the approximate distance between the subject in focus and the film plane. The white scale indicates the distance in feet and the green scale indicates the distance in meters. The Distance Index Dot is the reference point for the correct focus position of your lens. Reading the distance indicated on the Distance Scales opposite this dot lets you estimate the distance from the subject in focus to the film plane, which can be especially useful in flash photography to determine whether your subject is within the effective operating range of your flash.

Macro Range

At the 28mm focal length setting, rotating the Variable Focusing Ring all the way to the right (toward the yellow M.R.) enables you to focus on subjects as close as 9 cm (3.5 in.) from the front of the lens, giving a reproduction ratio of 1:4, i.e. the image on the film is ¼ lifesize.

EE Coupled Lens

Canon mount lenses have a click-stop at the EE position, marked by an "O". The Aperture Ring may be set and removed from this position in the same way as for any f-stop setting; make sure to align the

"O" with the red aperture index dot.

On Minolta MD mount lenses, the minimum aperture setting is engraved in green. When using this lens in the automatic aperture mode on a Minolta XD camera, the lens must be set at this minimum aperture.

Lens Care

1. It's a good idea to keep a Skylight 1A or UV filter on your lens at all times. This not only improves photographs but also protects the front element from dirt and scratches.

2. Help keep your lens dust-free by always mounting the front and rear lens caps when the lens is not in use.

3. Clean the lens only when necessary and use only special photographic lens cleaning accessories, such as an air brush, anti-static brush, or liquid lens cleaner and lens tissue. In EXTREME cases, you may use a clean, soft cotton cloth moistened with denatured alcohol. Never rub any lens element with your finger, clothing or any other possibly abrasive material. Doing so will scratch the lens coating and may damage the element surface.

4. Always store your lens in a cool, dry place, preferably with a packet of silica gel.

Specifications

Optical Construction: 14 elements, 11 groups. Multicoated.

Angles of Acceptance: 74° - 29°

Aperture Range: f2.8 - f16 at 28mm position
f3.8 - f22 at 85mm position

Minimum Focusing Distance from Film Plane: 25 cm (9.8 in.)

Maximum Reproduction Ratio: 1:4 (at macro setting)

Maximum Diameter: 70 mm (2.8 in.)

Length at Infinity Setting: 105 mm (4.1 in.) at 28mm position

Weight: 650 g (22.8 oz.)

Accessory Size: 67mm

Specifications subject to change without notice. Weight and length may vary slightly depending on lens mount.

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