

Vivitar

Automatic Fixed Mount Lens

Telephoto
135mm f3.5

Owner's Manual

Before you Begin . . .

to use your new Vivitar Automatic Lens, please take time out to carefully study this Owner's Manual. Keep it handy as a guide and refer to it whenever questions arise on the use and care of your lens. The information it contains should help you get maximum enjoyment from your lens, enjoyment that comes from the satisfaction of taking pictures with that "professional touch."

Getting Acquainted with Your Lens



Mounting Your Lens

Your Vivitar lens has been designed to mount in the same manner as your normal lens. Because telephoto lenses are slightly longer, special care should be taken when aligning the lens on your camera. Holding the lens firmly around the lens barrel will enable you to achieve better balance during the mounting procedure.



Holding Your Lens

When using your lens, it is best to support the camera/lens combination with most of the weight resting in the palm of your left hand as shown. This leaves your other hand free to operate the controls of your camera and assures proper balance and stability.



Focusing

Your new Vivitar lens has been designed to provide you with the utmost in fast and easy focusing. To focus, simply turn the Focusing Ring ③ until the subject appears sharpest in the camera's viewfinder.



DISTANCE SCALES

Your lens has two Distance Scales ④ which give you the distance from the subject in focus to the film plane. The white numbers denote this distance in feet while those in green represent distance in meters.



DISTANCE INDEX MARK

The Distance Index Mark ⑤ is the reference point for the correct focus position of your lens. Reading the number of feet or meters indicated on the Distance Scales opposite this mark allows you to estimate the distance from the subject in focus to the film plane.



INFRARED INDEX MARK

Your Vivitar lens provides an Infrared Index Mark ⑥ for use with infrared film. This mark appears at the right of the Distance Index Mark on the Depth of Field Scale ⑦ as a red line. When using infrared film, focus normally on your subject and read the distance on the Distance Scales as indicated opposite the Distance Index Mark.



Then, turn the Focusing Ring ③ until the distance reading is opposite the Infrared Index Mark. Your lens will then be focused for average infrared photography. NOTE: Infrared radiation is variable by nature and therefore the Infrared Index Mark should be used only as an approximation.

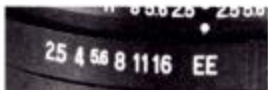
Aperture Control

The automatic diaphragm operation of your lens allows you to focus and compose your picture with the diaphragm at maximum aperture or "wide open." The diaphragm will automatically stop down to the preselected aperture and re-open when the exposure is completed.

EE COUPLED LENSES

Some cameras (such as the Konica Autoreflex series) automatically determine the correct aperture for a given photographic situation when a specific shutter speed is selected. For a lens to operate automatically with these cameras it must be coupled to the camera's EE mechanism. Vivitar Automatic Lenses designed with EE coupling mechanisms differ from other lenses as follows:

A. Aperture Scale — Since cameras with EE mechanisms work automatically to f16 only, the aperture range of the EE coupled Vivitar lens goes to f16 only.



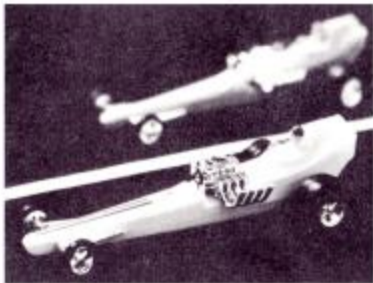
B. EE Lock Button — To ensure that the lens is not accidentally removed from EE operation, the Aperture Ring locks with a positive click when placed in the "EE" position. When you wish to set the aperture manually, depress the EE Lock Button to move the Aperture Ring from the "EE" position.



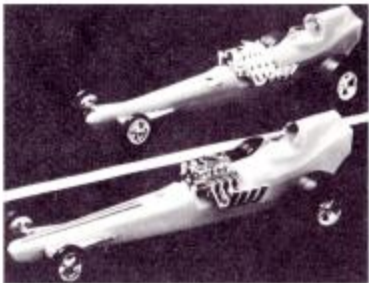
Depth of Field

The Depth of Field is the area in acceptable sharpness in front of and behind the subject in focus. This depth is determined by the aperture you have selected and the distance from the subject in focus to the film plane. As you get closer to your subject or as you open your lens, e.g., from f22 to f3.5, the depth of field becomes shallower. By stopping your lens down, e.g. from f3.5 to f22, or getting farther away from your subject, this depth of field or zone of acceptable sharpness increases.

f5.6



f16



Another factor in determining depth of field is the focal length of your lens. Knowing the depth of field limitations of the lens you are using allows you greater creative control in your picture-taking.

Because of its longer focal length, the depth of field of your Vivitar telephoto lens is shallow even when the lens is fully stopped-down. Therefore, you should always take the time to focus properly. Creatively the shallow depth of field can be used to add impact to your pictures by providing you with pleasing, out-of-focus foregrounds or backgrounds. As shown at right, in portraiture a soft, out-of-focus background provides "separation" and makes your subject stand out.





DEPTH OF FIELD SCALE

Your lens has a double series of numbers representing f-stops engraved on the Depth of Field Scale (7). Once you have focused on your subject, all subjects within the distance range indicated between the marks for the aperture you have selected will be in the zone of acceptable sharpness.



EXAMPLES: At f5.6 and the subject at 10 feet, your depth of field is from 9'8¼" to 10'4".



At f11 and the subject at 10 feet, your depth of field is from 9'4½" to 10'8¾".

DEPTH OF FIELD PREVIEW

You can see the depth of field in your camera's viewfinder by using the depth of field preview control which is located either on the camera body or on your lens. Vivitar Automatic Lenses designed for use on cameras not having depth of field preview controls on the camera body provide a Depth of Field preview control built into the Lens Mount (11).

Your lens may have any one of the following three Depth of Field Preview controls:

- A.** Preview Button — Slide it to stop diaphragm down. When released, diaphragm returns to auto operation.



- B.** Auto/Manual Switch — Set to "M" position to stop diaphragm down. Return to "A" to re-activate auto diaphragm mechanism.



- C.** Auto/Manual Ring — Turn ring until "M" is opposite red dot. To re-activate auto diaphragm operation, turn ring until dot is opposite "A."



Depth of Field Table

If you need more precise depth of field information than can be obtained by looking through your camera's viewfinder, the following table will be helpful.

135mm f3.5

f/	f3.5	f4	f5.6	f8	f11	f16
5	4'11 1/2" — 5'6"	4'11 1/2" — 5'6"	4'11 1/2" — 5'1"	4'10 1/2" — 5'1 1/2"	4'9 1/2" — 5'2 1/4"	4'9 1/2" — 5'3"
6	5'11 1/4" — 5'11 1/4"	5'10 1/2" — 6'1 1/4"	5'10 1/4" — 6'1 1/2"	5'10 1/4" — 6'2"	5'9 1/4" — 6'3 1/4"	5'8 1/2" — 6'4 1/2"
7	6'10 1/4" — 7'1 1/4"	6'10 1/4" — 7'1 1/4"	6'9 1/4" — 7'2 1/4"	6'9 1/4" — 7'3"	6'8 1/4" — 7'4 1/4"	6'6 1/2" — 7'6 1/2"
8	7'10 1/2" — 8'1 1/2"	7'10 1/2" — 8'2"	7'9 1/4" — 8'2 1/4"	7'8 1/2" — 8'4"	7'7" — 8'5 1/4"	7'5 1/2" — 8'7 1/2"
10	9'9 1/4" — 10'2 1/4"	9'9 1/4" — 10'2 1/4"	9'8 1/4" — 10'4"	9'6 1/2" — 10'6"	9'4 1/2" — 10'8 1/4"	9'1 1/2" — 11' 1/4"
15	14'9 1/4" — 15'5 1/4"	14'5 1/2" — 15'6 1/2"	14'3 1/4" — 15'9 1/4"	14' 1/2" — 16' 1/4"	13'7 1/4" — 16'8 1/4"	13'1 1/2" — 17'6 1/4"
25	23'9" — 26'4 1/4"	23'7 1/2" — 26'6 1/4"	23' 1/2" — 27'3 1/2"	22'4 1/2" — 28'4 1/2"	21'4 1/2" — 30'1"	20'2 1/2" — 32'10 1/4"
50	45'2 1/4" — 55'11 1/4"	44'7 1/2" — 56'9 1/2"	42'9 1/4" — 60'2 1/4"	40'4 1/2" — 65'8 1/4"	37'4 1/2" — 75'5 1/2"	33'9 1/2" — 95'8 1/4"
100	82'5 1/4" — ∞	80'8 1/2" — ∞	74'9 1/4" — ∞	67'8 1/4" — ∞	59'8 1/2" — ∞	51'1 1/4" — ∞

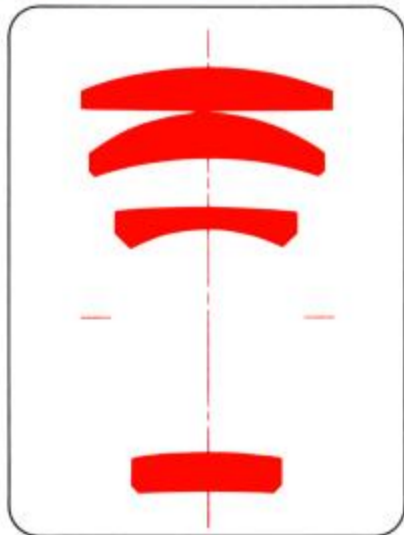
Using the Lens Hood

Vivitar Fixed Mount Automatic Telephoto lenses have built-in Retractable Lens Hoods ② which should be used to protect against extraneous light striking the lens and causing unwanted glare. To extend or retract lens hood, use a gentle, twisting motion.

Taking Care of Your Lens

- A.** When attaching threaded accessories (filters, etc.) to your lens, align the accessory very carefully with the Filter Thread ① to prevent any possibility of damage.
- B.** Keep your lens dust-free by making sure both front and rear lens caps are in place when it is not in use.
- C.** Clean your lens with an air brush, anti-static brush, or wipe it lightly with a camel hair brush or lens tissue. In EXTREME cases use a clean, soft cotton cloth moistened with denatured alcohol.
Never rub the lens surface with your finger, clothing or any other abrasive material. Cleaning your lens in this way will scratch the lens coating and can cause damage to the element surface.
- D.** Always store your lens in a cool, dry place. It's a good idea to store it with the silica gel packet supplied with your lens especially during humid or wet weather. Remember, a leather case with a silica gel packet is as good as an aluminum case with polyfoam inserts to protect your lens and provides a handy means of storage.

Specifications



- Elements/Groups:** 4/4
 - Angle of Acceptance:** 18°
 - Aperture Range:** f3.5 to f22*
 - Minimum Focusing Distance from Film Plane:** 5 ft. (1.5m)
 - Weight:** 15 oz. (430 gr.)
 - Length at ∞ :** 3 $\frac{5}{8}$ " (93mm)
 - Maximum Barrel Diameter:** 2 $\frac{1}{2}$ " (64mm)
 - Accessory Size:** 52mm
 - Slip-On Lens Cap Size:** 60mm
 - Retractable Lens Hood:** Yes
 - Accessories Included:** Front and rear lens caps and silica gel packet
- *EE coupled lenses to f16 only.

Specifications subject to change without notice. Weights and lengths may vary slightly, depending on lens mount.

ENTER LENS SERIAL NUMBER
HERE FOR YOUR RECORD

Vivitar

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