

Vivitar®

**Automatic Fixed Mount Lenses
Wide Angle**

Owner's Manual

Before you Begin . . .

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

Getting Acquainted with your Lens



(Vivitar 28mm f2.5 shown as typical wide angle lens)

Mounting your Lens

Your Vivitar lens has been designed to mount in the same manner as your normal lens. Holding the lens firmly around the lens barrel will give you better balance and a more secure grip during the mounting procedure.



Holding your Lens

While using your lens, it is best to support the camera/lens combination with most of the weight resting in the palm of the left hand as shown. This leaves the right 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 ② until the subject appears sharpest in the camera's viewfinder.



DISTANCE SCALES

Your lens has two Distance Scales ③ to show you the approximate distance from the subject in focus to the film plane. The white numbers indicate this distance measured in feet while those in red or green show the distance in meters.



DISTANCE INDEX MARK

The Distance Index Mark is the reference point for the correct focus position of your lens. Reading the distance indicated on the Distance Scales ③ opposite this mark lets you estimate the distance from the subject in focus to the film plane. You'll find the Distance Index Mark to be especially useful in flash photography, where it can be used to make sure your subject is within the effective flash range of your unit.



INFRARED INDEX MARK

Your Vivitar lens provides an Infrared Index Mark ⑤ for use with infrared film. Depending on your lens, this mark appears on the Depth of Field Scale ⑥ as a) a red line, b) a red "R," or c) a red f-stop number. When using infrared film, focus normally on your subject and read the distance on the Distance Scale ③ indicated by the Distance Index Mark ④. Then, turn the Focusing Ring until this distance reading is opposite the Infrared Index Mark ⑤, and your lens will be focused



for average infrared photography.

NOTE: Since infrared radiation is variable by nature, the Infrared Index Mark should be used only as an approximation for focusing.

Aperture Control

The Aperture Ring (B) controls the amount of light allowed to reach the film by controlling the size of the lens diaphragm opening. The higher the f-stop number, the smaller the diaphragm opening and the smaller the amount of light allowed to reach the film.

The automatic diaphragm operation of your lens allows you to focus and compose your picture with the diaphragm at maximum aperture, or "wide open," when the viewfinder image is brightest and easiest to see. When shooting, the diaphragm will automatically stop down to the preselected aperture at the moment of exposure and immediately re-open as the exposure is completed.



EE COUPLED LENSES

Vivitar EE coupled lenses for the Konica Autoreflex series cameras differ from other lenses as follows:

- A. Aperture Scale** — Since the Konica EE mechanism works automatically to f16 only, the aperture range of the EE coupled lenses 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. To set the aperture manually, press the EE Lock Button and rotate the Aperture Ring to the desired setting.

Depth of Field

Depth of field is the area in acceptable sharpness in front of and behind the subject in focus. This area is determined by the aperture you choose and the distance from the subject in focus to the film plane. As you move closer to your subject or as you open your lens (e.g. from f16 to f4) the depth of field becomes shallower. By stopping your lens down (e.g. from f4 to f16) or moving farther away from your subject, the depth of field or zone of acceptable sharpness will increase.

Another factor affecting depth of field is the focal length of your lens. As a rule, the shorter the focal length, the greater the resulting depth of field. Knowing the depth of field limitations of your lens allows you greater creative control as you photograph. Short focal length lenses with their deep zone of sharpness can be used very effectively for "point and shoot" photography and are extremely helpful when shooting fast action and in situations where you are unable to focus critically. You'll also find the greater depth of field of wide angle lenses useful when shooting landscapes, cramped interiors, and architectural exteriors.



f4



f16

Depth of Field Scale

Your lens has a double set of numbers representing f-stops engraved on the Depth of Field Scale (6). Once you have focused on your subject, everything within the distance range indicated between the aperture marks you have selected will be in the zone of acceptable sharpness. As shown in the illustration, with your lens focused at 10 feet and the Aperture Ring set to f8, everything between 5½ feet and infinity will be in focus.



Depth of Field Preview

You can actually see depth of field in your camera's viewfinder by using the depth of field preview control located either on your camera body or on your lens. Vivitar Automatic Lenses designed for cameras not having depth of field preview controls on the camera body have them built into the Lens Mount (10).

Your lens may have any of the following Depth of Field preview controls:

- A. Preview Button** — Slide or press it to stop diaphragm down. When released, diaphragm returns to automatic operation.
- B. Auto/Manual Switch** — Set to "M" position to stop diaphragm down. Return to "A" position to re-activate auto diaphragm mechanism.

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 damage to the threads.
- B.** Keep your lens dust-free by using both front and rear lens caps when the lens is not in use.
- C.** Clean your lens with an air brush, anti-static brush, good quality camel-hair brush, or use a lens tissue to gently brush away loose particles. To remove fingerprints and smudges use a very small amount of lens cleaning fluid and gently swab the lens surface with a lens tissue. **NEVER RUB THE LENS ELEMENTS WITH YOUR FINGERS, CLOTHING, OR OTHER ABRASIVE MATERIAL.** Attempting to clean your lens this way can scratch the lens coating and damage the glass 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, especially during wet or humid weather. A lens case with a silica gel packet provides a handy means of storage and gives excellent protection for your lens.

Specifications for Vivitar 17mm f3.5 Fixed Mount Lens



Optical Construction:

- 11 elements in 8 groups*
- Angle of Acceptance: 104°*
- Aperture Range: f3.5 to f16*
- Minimum Focusing Distance from Film Plane: 22 cm (0.7 ft.)*
- Weight: 380 g (13.3 oz.)*
- Maximum Barrel Diameter: 56 mm*
- Length at Infinity: 80 mm*
- Lens Coating: MC (Multicoating)*
- Accessory Size: 72mm*
- Lens Cap Size: 80mm*

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

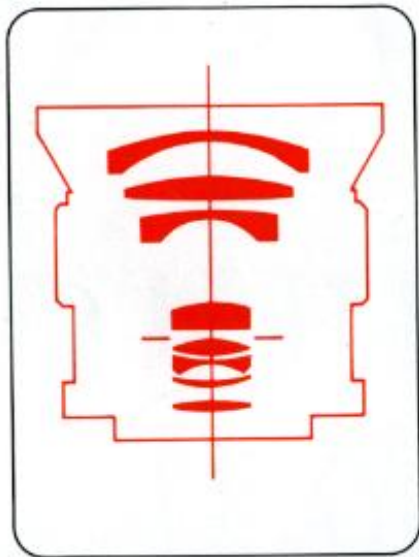
Depth of Field Tables for 17mm f3.5 Fixed Mount Wide Angle Lens

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

ft \ f	3.5	5.6	8	11	16
0.75	0.692 ~ 0.818	0.662 ~ 0.865	0.630 ~ 0.926	0.595 ~ 1.015	0.544 ~ 1.209
0.83	0.763 ~ 0.918	0.726 ~ 0.977	0.688 ~ 1.056	0.646 ~ 1.173	0.586 ~ 1.440
0.91	0.832 ~ 1.021	0.789 ~ 1.095	0.744 ~ 1.194	0.695 ~ 1.347	0.626 ~ 1.711
1.00	0.900 ~ 1.125	0.849 ~ 1.215	0.798 ~ 1.339	0.742 ~ 1.534	0.664 ~ 2.025
1.50	1.286 ~ 1.799	1.185 ~ 2.043	1.087 ~ 2.418	0.986 ~ 3.138	0.853 ~ 6.233
2.00	1.637 ~ 2.569	1.477 ~ 3.098	1.328 ~ 4.050	1.179 ~ 6.580	0.994 ~ ∞
3.00	2.252 ~ 4.492	1.959 ~ 6.404	1.705 ~ 12.465	1.468 ~ ∞	1.191 ~ ∞
5.00	3.218 ~ 11.203	2.651 ~ 43.814	2.207 ~ ∞	1.825 ~ ∞	1.418 ~ ∞
∞	9.031 ~ ∞	5.644 ~ ∞	3.951 ~ ∞	2.873 ~ ∞	1.975 ~ ∞

m \ f	3.5	5.6	8	11	16
0.22	0.204 ~ 0.239	0.195 ~ 0.252	0.186 ~ 0.269	0.176 ~ 0.294	0.161 ~ 0.347
0.25	0.229 ~ 0.275	0.218 ~ 0.293	0.207 ~ 0.316	0.194 ~ 0.350	0.177 ~ 0.428
0.30	0.271 ~ 0.337	0.255 ~ 0.363	0.240 ~ 0.400	0.223 ~ 0.456	0.200 ~ 0.598
0.40	0.349 ~ 0.468	0.325 ~ 0.521	0.300 ~ 0.599	0.275 ~ 0.736	0.240 ~ 1.192
0.50	0.423 ~ 0.611	0.387 ~ 0.705	0.353 ~ 0.855	0.318 ~ 1.165	0.273 ~ 2.949
0.70	0.558 ~ 0.939	0.498 ~ 1.180	0.443 ~ 1.672	0.389 ~ 3.480	0.324 ~ ∞
1.00	0.734 ~ 1.571	0.632 ~ 2.388	0.546 ~ 5.898	0.467 ~ ∞	0.376 ~ ∞
2.00	1.158 ~ 7.316	0.925 ~ ∞	0.752 ~ ∞	0.609 ~ ∞	0.463 ~ ∞
∞	2.752 ~ ∞	1.720 ~ ∞	1.204 ~ ∞	0.876 ~ ∞	0.602 ~ ∞

Specifications for 28mm f2.5 Wide Angle Lens



- Elements/Groups: 8/7*
Angle of Acceptance: 74°
*Aperture Range: f2.5 to f22**
Minimum Focusing Distance from Film Plane: 12" (304 mm)
Weight: 11¼ oz. (318 g)
Length at ∞: 2¾" (60 mm)
Maximum Barrel Diameter: 2½" (63 mm)
Accessory Size: 67mm
Slip-on Lens Cap Size: 70mm
Accessories Included: Front and rear lens caps
**Konica Autoreflex Series to f16 only*

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

Depth of Field Tables for 28mm f2.5 Wide Angle Lens

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

ft. \ f	2.5	4	5.6	8	11	16
1 1/2	1'5 1/4" ~ 1'8 1/4"	1'5 1/4" ~ 1'7"	1'4 3/4" ~ 1'7 1/4"	1'4 3/4" ~ 1'6 1/4"	1'3 3/4" ~ 1'9"	1'3 1/4" ~ 1'10 1/4"
2	1'11" ~ 2'1 1/4"	1'10 1/2" ~ 2'1 3/4"	1'9 1/2" ~ 2'2 3/4"	1'9" ~ 2'4 1/4"	1'8 1/4" ~ 2'6 1/4"	1'8 1/4" ~ 2'10 1/4"
3	2'9 1/4" ~ 3'2 3/4"	2'8 1/4" ~ 3'4 1/4"	2'7" ~ 3'7"	2'5 1/4" ~ 3'11 1/4"	2'3 1/2" ~ 4'5 1/2"	1'6 1/4" ~ 5'9 1/2"
5	4'5 1/4" ~ 5'8 1/4"	4'1 3/4" ~ 5'3 1/2"	3'10 1/4" ~ 7' 1/2"	3'6 3/4" ~ 8'6 3/4"	3'2 3/4" ~ 11'9 1/4"	2'9 1/2" ~ 32'4"
10	7'10 3/4" ~ 13'7"	7' 1/4" ~ 17'5"	6'3 1/2" ~ 24'11"	5'5 1/4" ~ ∞	4'7" ~ ∞	3'9 1/4" ~ ∞
30	16'5 1/4" ~ ∞	13' 1/4" ~ ∞	10'7 1/4" ~ ∞	8'4 3/4" ~ ∞	6'7 1/4" ~ ∞	4'11 1/4" ~ ∞

m \ f	2.5	4	5.6	8	11	16
0.45	0.45 ~ 0.47	0.44 ~ 0.48	0.45 ~ 0.49	0.42 ~ 0.51	0.40 ~ 0.53	0.40 ~ 0.57
0.8	0.59 ~ 0.64	0.57 ~ 0.65	0.56 ~ 0.67	0.54 ~ 0.71	0.52 ~ 0.76	0.48 ~ 0.87
0.9	0.86 ~ 0.98	0.82 ~ 1.00	0.79 ~ 1.10	0.75 ~ 1.20	0.70 ~ 1.36	0.77 ~ 4.76
1.5	1.35 ~ 1.75	1.26 ~ 1.92	1.19 ~ 2.15	1.09 ~ 2.60	0.99 ~ 3.60	0.85 ~ 9.80
3.0	2.40 ~ 4.15	2.15 ~ 5.30	1.90 ~ 7.60	1.65 ~ ∞	1.40 ~ ∞	1.15 ~ ∞
9.0	5.00 ~ ∞	3.95 ~ ∞	3.25 ~ ∞	2.55 ~ ∞	2.00 ~ ∞	1.50 ~ ∞

NOTES:

Vivitar®

Vivitar®

is an International Trademark of **Ponder & Best, Inc.**
Santa Monica, CA 90406 USA

Subsidiary Companies:

Vivitar Japan, Ltd. / Tokyo, Japan

Vivitar Photo-Elektronik GmbH / Frankfurt, W. Germany

Printed in Japan