Vivitar

AUTOMATIC TX LENSES

Zoom Owner's Manual

Vivitar Auto TX

(Vivitar 90-230mm f4.5 shown as typical Zoom Lens)

Before you begin...

to use your new Vivitar Automatic TX Lens, please take the time to carefully study this Owner's Manual and Insert. Keep it with you as a handy guide and refer to it whenever questions arise on the use and care of your lens.

Getting acquainted with your Lens

1. Accessory Thread
2. Retractable Lens Hood
3. Focusing Ring
4. Distance Scales
5. Distance Zoom Index Mark
6. Infrared Index Marks
7. Zoom Ring
8. Focal Length Scale
9. Tripod Mounting Ring
10. Lens Mount Locking Ring
11. Aperture Scale
12. Aperture Ring
13. Aperture Reference Mark

Mounting your Lens

Your lens is part of a complete system which allows you to use the lens on two or more cameras with differing lens mounts by simply changing the automatic adapter. Complete instructions on mounting individual adapters are provided in the individual adapter packages.

Because your Zoom Lens is slightly longer than most lenses, extra care should be taken when mounting the lens/adapter combination to the camera. It is a good idea to hold the lens firmly around the lens barrel for better balance and a secure grip during the mounting procedure. (See Photo "A")

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 your left hand as shown. This leaves the right hand free to operate the controls of your camera and assures proper balance and stability. (See Photo "B")

Focusing and Zoom Control

After mounting your Vivitar Automatic TX Zoom Lens on your camera, focus on your subject by

turning the Focusing Ring ③ until the subject appears sharpest in the camera's viewfinder.

To zoom from one focal length to another, turn the Zoom Ring ⑦ until the subject is composed as you wish it to appear in the final picture. (See Photo "C," "D," "E") For your convenience the major focal lengths are engraved on the Zoom Ring Focal Length Scale ⑧ allowing you to set a specific image size. Should you wish to use a specific focal length, turn the Zoom Ring ⑦ until the engraved focal length is opposite the Distance Zoom Index Mark ⑤. Since a higher magnification allows you to see your subject more clearly, you may find it convenient to focus first at the longest focal length. Once focused on your subject, the cam-operated system of your lens maintains focus as you change the zoom position. However, where critical focusing is necessary, it is recommended that you re-focus your lens at each new focal length.

Distance Scales

Your lens has two Distance Scales ④ engraved on the Focusing Ring to show you the approximate distance from the subject in focus to the film plane. The white numbers indicate this

distance in feet while those in green show the distance in meters. (See Photo "F")

Distance Zoom Index Mark

The Distance Zoom Index Mark ⑤ is the reference point for the correct focus position of your lens. Reading the distance indicated on the Distance Scale ④ opposite this mark lets you approximate the distance from the subject in focus to the film plane. You will find the Distance Index Mark ⑤ 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. (See Photo "G")

Infrared Index Marks

Your lens has a series of Infrared Index Marks ⑥ engraved in red on the lens barrel. These marks are provided for the major focal lengths as they appear on the Focal Length Scale ⑧ of your lens. When using infrared film, focus normally on your subject and read the distance on the Distance Scale ④ opposite the Distance Index Mark ⑤. Then, turn the Focusing Ring ③ until the distance reading is opposite the Infrared Index Mark ⑥ for the focal length you are using. For focal lengths other than those engraved,

approximate the position of your focal length between the marks provided and adjust the Focusing Ring accordingly. *NOTE:* Since infrared radiation is variable by nature, the Infrared Index Marks should be used only as an approximation for focusing. (See Photo "H")

Aperture Control

The Aperture Ring (12) controls the amount of light allowed to reach the film by adjusting 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.

Vivitar Automatic TX Lenses and TX Lens Mount Adapters provide full coupling to the automatic diaphragm operation and through the lens metering system of your camera, even with "open aperture" and automatic exposure cameras. The automatic diaphragm of your TX Lens and Adapter combination allows you to focus and compose the 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 pre-selected aperture at the moment of exposure

and re-open immediately after the exposure is made. *NOTE:* Two aperture scales are engraved on the Aperture Ring ⑫ of your TX Lens to assure proper coupling between the TX Lens Mount Adapters and the cameras they are designed to fit. Refer to the TX Lens Mount Adapter instructions for the proper aperture scale to use with your TX Lens Adapter combination. (See Photo "I")

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 select and the distance from the subject in focus to the film plane. If you move closer to your subject, or if you open your lens diaphragm (e.g. from f22 to f4.5), the depth of field becomes more shallow. (See Photo "J") By stopping your lens down (e.g. from f4.5 to f22), or moving farther from your subject, the depth of field or area of acceptable sharpness increases.
(See Photo "K")

Another factor affecting depth of field is the focal length at which you are shooting. As a rule, the longer the focal length of your lens, the more shallow the depth of field becomes. Therefore,

as you change the focal length of your Vivitar Automatic TX Zoom Lens from the shortest focal length to the longest focal length, the area of acceptable sharpness decreases. You can compensate for this by stopping your lens down, but a shallow depth of field can add impact to your photography by giving you a pleasing out-of-focus foreground or background.

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 or on the TX Lens Mount Adapter. For cameras without depth of field control, Vivitar TX Lens Mount Adapters have one of the following:

A. *Preview Button* — slide or press the button to stop the lens diaphragm down. When released, the diaphragm will return to automatic operation.

B. *Auto/Manual Switch* — Set the switch to the "M" position to stop the diaphragm down. Return the switch to the "A" position to reactivate automatic diaphragm operation.

Using the Lens Hood

Your Vivitar Automatic TX Zoom Lens has a built-in Retractable Lens Hood (2) which should

be used to protect against extraneous light striking the lens and causing unwanted glare. To extend or retract the lens hood, use a gentle, twisting motion. (See Photo "L")

Adjustable Tripod Mounting Socket

Your lens is equipped with an Adjustable Tripod Mounting Socket which allows you to use a tripod for maximum stability. Attach the camera/lens combination to the tripod through the threaded socket on the lens' Tripod Mounting Ring ⑨. To adjust the camera for vertical and horizontal framing, loosen the knob on the Tripod Mounting Ring ⑨ slightly until the camera swivels freely. Once set to the desired angle, tighten the knob securely.

Taking Care of your Lens

A — When attaching threaded accessories (filters, etc.) to your lens, align the accessory very carefully with the Accessory 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.

NOTES:

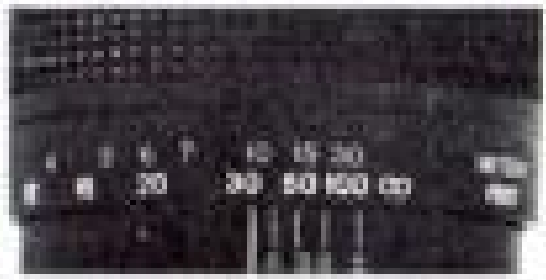
A

B

C

D

E



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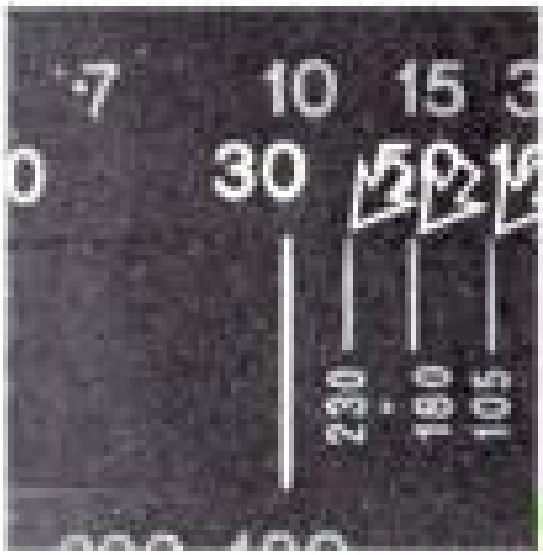
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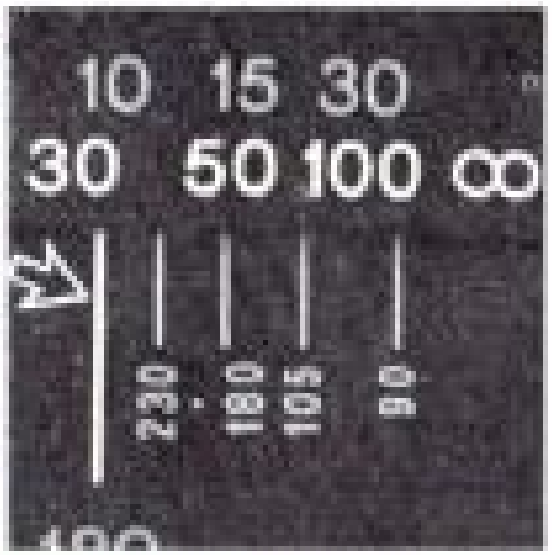
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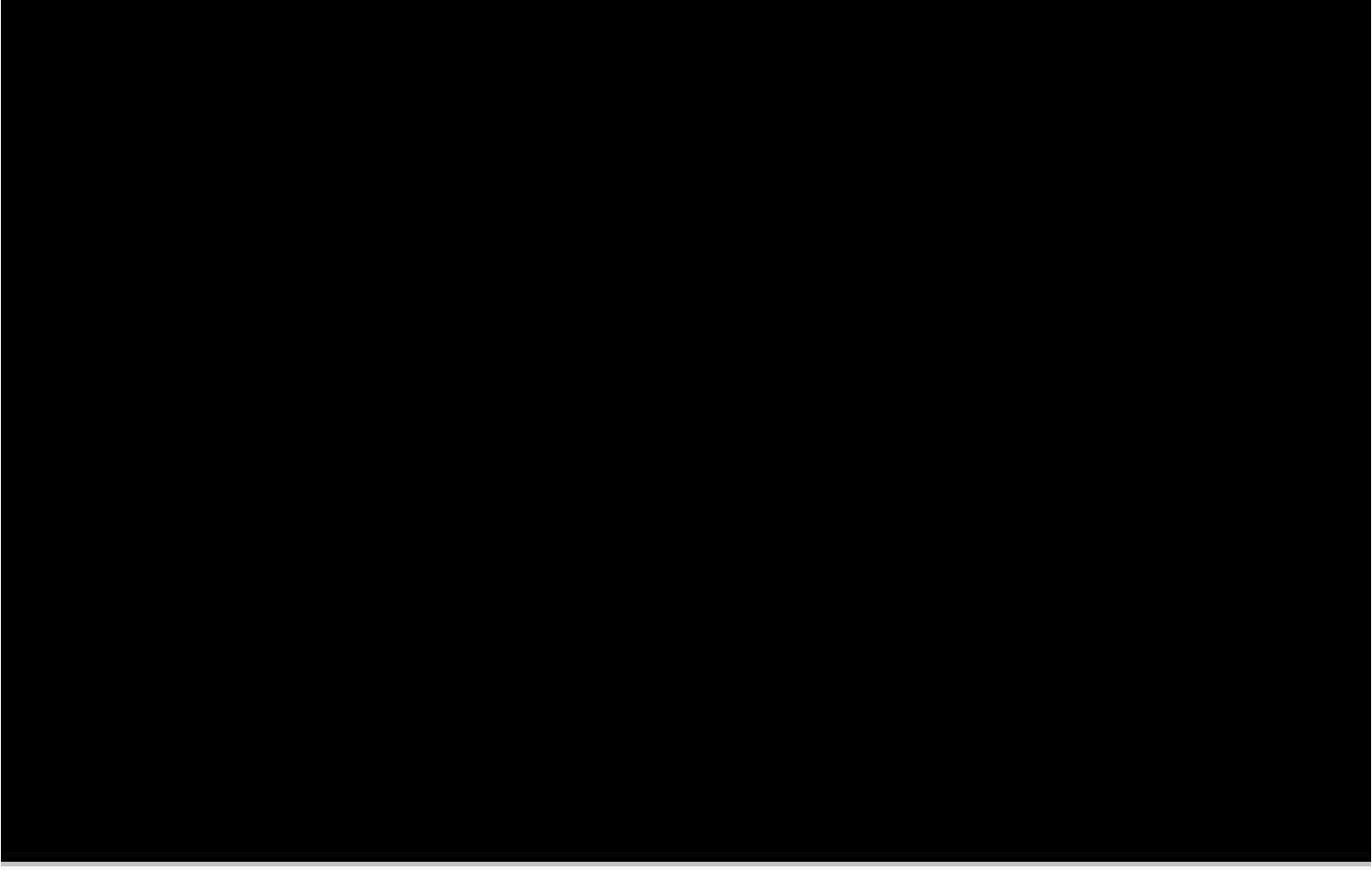

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