

# Vivitar

## 2X Matched Multiplier™

for Vivitar 100-200mm/f4 Close-Focusing Zoom Lens



Owner's Manual

## **About Your New Multiplier**

Your new Vivitar 2X Matched Multiplier™ is a precision optical component computer-designed specifically for your Vivitar 100–200mm f4 Close-Focusing Zoom Lens. It effectively doubles the power of your lens while maintaining high resolution and contrast. The Matched Multiplier provides convenience, economy and expanded capabilities without compromising optical quality.

## **Mounting**

It is important that you mount your Matched Multiplier in the following sequence to ensure proper meter coupling with your camera. First, mount the Matched Multiplier to the camera body; then, attach your lens to the Matched Multiplier.

Note: With Konica AR cameras, set the Matched Multiplier EE Control Ring *and* the aperture ring on the lens to the EE position *before* mounting.

## **Your New Capabilities**

The 100–200mm lens/2X Matched Multiplier combination will give you a new range of zoom focal lengths—200–400mm. In addition, the lens' close-focusing capability doubles, giving you a new maximum reproduction ratio of around 1:1.5,  $\frac{2}{3}$  life size. The focusing range remains the same, so you can still focus as close as 35 inches from the film plane. Automatic meter and diaphragm coupling is fully maintained.

## **Depth of Field**

Although the addition of the Matched Multiplier will not affect the focusing range of the lens, it will alter the depth of field, reducing it as the effective focal length becomes longer. At the maximum zoom setting of the lens (200mm), the addition of the 2X Matched Multiplier results in the same depth of field as a 400mm telephoto lens.

## **Exposure Determination**

Cameras with Through-The-Lens Metering

The Vivitar 2X Matched Multiplier will reduce the amount of light transmitted through the lens by two f-stops. With automatic TTL metering, no manual exposure compensation needs to be done. The camera meter will read the exact amount of light being transmitted.

## Manual Metering and Flash Exposures

The Vivitar 2X Matched Multiplier will reduce the amount of light transmitted through the lens by two f-stops. Exposure compensation is required when using a hand-held meter. You can either slow the shutter speed by two settings or open the lens two additional f-stops or slow one setting and open one f-stop. For example, after determining the required exposure to be 1/250 second at f16, you can compensate in any one of the following ways:

- 1.** Set the shutter speed at 1/60 second, if depth of field is more important.
- 2.** Set the lens to f8, if a fast shutter speed is more important.
- 3.** Set the shutter at 1/125 and the lens at f11, if both are equally important.

When using flash, set the shutter speed for the proper synchronization time for flash (see your camera instruction manual), determine the necessary exposure and open the lens two additional f-stops.

## **Specifications\***

*Optical Construction:* 4 elements in 3 groups

(Matched Multiplier only)

*Angle of Acceptance:* 12°–6°

*Aperture Range:* f8 to f44 (f32 on Konica mount)

*Maximum Reproduction Ratio:* 1:1.5

*Minimum Focusing Distance from Film Plane:* .9 m (35 in.)

*Lens Coating:* Multicoating

*Maximum Barrel Diameter:* 60 mm (2.4 in.)

*Length:* 182 mm (7.2 in.)

*Weight:* 164 g (5.8 oz) (Matched Multiplier only)

\*Specifications are for 2X Matched Multiplier mounted on the Vivitar 100–200mm lens, except where indicated.

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

Vivitar Corporation

Santa Monica, CA 90406 USA

Subsidiaries

Vivitar Japan Ltd.: Tokyo, Japan

Vivitar Photo-Elektronik GmbH: Bad Soden, FRG

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