Vivitar®

Automatic 2X Tele Converter

Owner's Manual

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Automatic
2X Tele Converter

Your new **Vivitar Automatic Tele Converter** doubles the effective focal length of your SLR lens. It offers you an economical and convenient way to achieve telephoto effects without the burden of large, heavy, and sometimes costly telephoto lenses.

The Tele Converter takes only seconds to attach or remove. It fits directly onto your camera body and accepts all lenses designed for your camera.

SPECIFICATIONS AND FEATURES

- Length: Approximately one inch (25 mm) when mounted on the camera
- Weight: 4.5 ounces (128 gr)
- Optical construction: 4 elements in 4 groups — fully coated for maximum light transmission
- Fully automatic diaphragm coupling
- Fully automatic meter coupling
- Doubles effective focal length of prime lens
- Does not affect focusing range of prime lens

135mm lens

135mm lens with 2X Tele Converter

FOCAL LENGTH

Your Vivitar Automatic Tele Converter works with lenses of all focal lengths. If you now have a 50mm and 200mm lens, using your 2X Tele Converter increases their effective focal lengths to 100mm and 400mm respectively. With the Vivitar 85-205mm Automatic Zoom Lens, the 2X converter provides a focal length range of 170-410mm. Tele Converters yield the best results when

used with normal lenses and with medium length telephoto lenses. As with all telephoto applications, use a tripod whenever possible to minimize the problem of camera movement.

FOCUSING RANGE

Since the Tele Converter does not alter the focusing range of your prime lens, the minimum focusing distance is not affected. For example, when used with a Vivitar 135mm Automatic Lens having a focusing range of 4½ feet to infinity, the converter and lens combination results in a 270mm lens which *still* focuses from 4½ feet to infinity.

Mike Butkus

DEPTH-OF-FIELD

Although the converter doesn't change the focusing range, it does affect depth-of-field (area of acceptable sharpness in front of and behind the subject in focus). The depth of field will be comparable to that of a lens with the same focal length as your lens and converter combination. For example, your 2X Tele Converter combined with a 100mm lens will give you the same depth-of-field range as a 200mm telephoto lens. Because depth-of-field becomes more shallow as the focal length is increased, you should stop down the prime lens as much as lighting will allow.

DIAPHRAGM OPERATION

Your Vivitar Tele Converter works with manual (preset) and automatic diaphragm lenses. Full aperture viewing is maintained when the Tele Converter is used with automatic lenses.

MOUNTING

The Tele Converter is mounted on the camera in the same way that a prime lens is mounted. Once the converter is in place, mount the prime lens onto the Tele Converter just as you would mount the lens onto the camera itself.

NOTE: FOR NIKON TELE CONVERTERS

1) First mount your prime lens onto the Tele Converter.

2) Then attach the lens/converter combination to the camera the same way you would mount the prime lens only.

This method of attachment will assure proper meter coupling on Nikon cameras. To remove the Tele Converter, first remove the prime lens from the converter and then remove the converter from the camera body.

NOTE: FOR CANON TELE CONVERTERS

To ensure proper meter coupling of the Tele Converter to your Canon camera,

mount the converter as follows:

1) First mount the Tele Converter onto the camera the same way you would mount your prime lens.

2) With the Tele Converter securely in place, mount the prime lens onto the Tele Converter in the same way you would mount your lens to your camera.

To remove the Tele Converter, first remove the lens/converter combination, and then remove the Tele Converter from your prime lens.

EXPOSURE

When mounted behind your prime lens, the 2X Tele Converter reduces incoming light by 2 f-stops.

FOR CAMERAS WITH THROUGH-THE-LENS METERS

On cameras equipped with built-in meters, your Tele Converter maintains full automatic meter coupling between camera and lens. Since the meter automatically reads the amount of light coming through both the lens and the Tele Converter, no exposure calculations are necessary.

FOR CAMERAS WITHOUT THROUGH-THE-LENS METERS

If your camera does not have a through-the-lens light meter, calculate the changes in exposure required with the Tele Converter in place as follows:

1) Determine the correct exposure of your subject with a hand-held meter (or film manufacturer's exposure chart).

2) Set your camera shutter speed and lens f-stop for the exposure indicated by your meter or chart.

3) Compensate for the reduced incoming light using either *one* of the following methods:

a) Set the shutter so that it stays open 4 times longer (2 shutter speed settings). For example, if your light meter indicates an exposure of 1/250 second @ f16, keep your lens set at f16 and change the shutter speed to 1/60 second.

OR **b)** Locate the f-stop setting indicated by your light meter or chart on the Aperture Conversion Scale shown below, and set your lens to the corresponding f-stop directly below that number on the scale. For example, if your light meter indicates an exposure of 1/250 second @ f16, keep the shutter set at 1/250 second and open your lens to f8.

APERTURE CONVERSION SCALE

Indicated f-stop	2	2.8	4	5.6	8	11	16	22	32	45	64
Set your lens to this	1	1.4	2	2.8	4	5.6	8	11	16	22	32