

Notes

General Teleconverter Usage

Teleconverters (“converters” or “TC’s”) are a relatively inexpensive way of extending the focal length, and hence the range, of an existing lens. However, their usage comes at a price in performance terms. Typically, AF speed may be reduced, and any tendency of the lens to “hunt” may increase. Image quality (resolution and contrast) is likely to be degraded somewhat. Lastly, an inevitable result of using any converter is a lessening of light transmission, and hence a darker viewfinder:

- + a 1.4x converter will lose 1 stop of light; an f/2.8 lens becomes an f/4 combination
- + a 1.7x converter will lose 1.5 stops of light; an f/2.8 lens becomes an f/4.7 combination
- + a 2x converter will lose 2 stops of light; an f/2.8 lens becomes an f/5.6 combination
- + a 3x converter will lose 3 stops of light; an f/2.8 lens becomes an f/8 combination.

Converters are designed to be used on longer focal length lenses. Prime lenses under about 100mm, zooms shorter than about 70-200mm, and “superzooms” like an 18-200mm, tend to give poorer results with converters.

The Nikon MF converters have limitations as to which focal lengths they can be used on. The TC-14A, TC-200 and TC-201 are intended for lenses of 200mm and less; the TC-14B, TC-300 and TC-301 are intended for lenses of 300mm and more.

Not all lenses will physically fit all converters. If the converter has a protruding front element, and/or the lens has a non-recessed rear element, attempting to mount the converter could damage both it and the lens. The Nikon TC-300 and TC-301 are good examples. *Nikonians cannot be held responsible for any damage caused by mounting any converter on any lens.*

Converters transmit various signals between the lens and camera using electrical contacts. 10 contacts are currently required for full operation, including autofocus and VR/OS/VC functions where the lens has them, with Nikon AF cameras. Autofocus is transmitted using the electrical contacts for AF-S, AF-I, HSM and USD lenses, or through a mechanical clutch known colloquially as “screwdriver” for other AF lenses. Nikon’s TC-xxE, TC-xxE II and TC-xxE III converters, as well as newer Sigma EX DG TC’s, do not have the “screwdriver” clutch. Some older 3rd Party converters such as the Kenko Teleplus MC4 and MC7 lack the contacts for AF-S/AF-I/HSM/USD lenses. Stopping down of the lens diaphragm is achieved via a mechanical linkage (which often rattles!).

If a VR/OS/VC lens will autofocus with a particular converter and camera combination, then in general VR/OS/VC will also work.
If a lens will meter with a particular camera, then in general metering will also work with a converter attached.

Nikon’s TC-xxE, -II and -III converters have a tab on the front mounting ring that prevents them being mounted on anything but the longer “pro” Nikkor AF-S and AF-I lenses. It is possible to remove the tab with a grinding tool, but *Nikonians cannot be held responsible for any damage caused by doing so.* In addition, the latest TC-14E III is not usable with older “D-type” AF-S and AF-I Nikkors.

Tamron SP Pro converters are functionally the same as the equivalent Kenko Pro 300 converters; any differences are cosmetic only. The Nikon TC-xxE and TC-xxE II converters have only cosmetic differences, but TC-xxE III converters have a new optical formula.

Notes on the Compatibility Table

Focusing

MF: Only manual focusing is possible with this combination.

AF (1): Autofocus is possible with lenses having a maximum aperture of f/4 or greater (f/5.6 for the D800 and newer cameras). Autofocus may be possible in some conditions with lenses having a smaller maximum aperture.

AF (2): Autofocus is possible with lenses having a maximum aperture of f/2.8 or greater (f/4 for the D800 and newer cameras). Autofocus may be possible in some conditions with lenses having a smaller maximum aperture.

AF (3): Autofocus is possible with lenses having a maximum aperture of f/2 or greater (f/2.8 for the D800 and newer cameras). Autofocus may be possible in some conditions with lenses having a smaller maximum aperture.

Viewfinder Display and EXIF Data

D (a): The camera display and EXIF generally show the adjusted aperture and focal length, e.g. with a 1.4x converter on a 200mm lens set to f/4, the camera will show 280mm and f/5.6.

D (b): The camera display and EXIF generally show the aperture and focal length of the lens itself, e.g. with a 1.4x converter on a 200mm lens set to f/4, the camera will still show 200mm and f/4.
Note: the actual exposure will still be correct.

D (c): The camera display and EXIF generally show the aperture and focal length of the lens itself; e.g. with a 1.4x converter on a 200mm lens set to f/4, the camera will still show 200mm and f/4.
Aperture information is only available with certain Nikon cameras.

Other Reported Compatibility Issues

Sigma lenses and converters are the trickiest for compatibility - in general, Sigma lenses only work reliably with Sigma converters and vice-versa.

Members have consistently reported that the older Kenko and Tamron converters will not autofocus with Sigma HSM lenses. Some members have reported that the Kenko Pro 300 and Tamron SP converters will not autofocus with some Sigma HSM lenses. Sigma's own EX 1.4x converters disable autofocus with lenses slower than f/4, so will not AF with, for example, the Sigma EX 500mm f/4.5 HSM, whereas the Kenko Pro 300 1.4x converter *does* provide autofocus with this lens. Some members have reported that the Sigma EX converters will not autofocus with any Tokina AT-X lens.

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