

Installation of a Starlight Instruments FTM-CPC8 on a Late Model Sky-Watcher Skymax 150mm Maksutov

The instruction provided to install the FTM-CPC8 on a Celestron 8SE were followed without difficulty or without need to deviate due to physical differences, as described, in the stock focusing mechanism. It is the opinion of the author that late model Sky-Watcher Skymax 150mm Maksutov optical tubes have the exact same focuser mechanisms.

After installation, the focuser seems to be performing flawlessly. At this time due to cloudy skies testing has only been performed during daylight observing distant objects. The only area of concern experienced so far is the crowding that occurs between the focuser and the 2" aftermarket diagonal used by the author. Size comparisons between the aftermarket diagonal and the stock diagonal reveal the stock diagonal will be only slightly better. The stock diagonal is slightly smaller than the aftermarket diagonal used for testing. These concerns will be greatly diminished, if not eliminated, if a 1.25" diagonal is used. Analysis was performed for two different mounts that require different insertions of the diagonal relative to the focuser. The first is for an Explore Scientific Twilight I or similar mount where the mounting rail is at the 9 o'clock position. The second is for a Celestron AVX GEM, or similar, where the mounting rail is at the more common 6 o'clock position.

Usage on an Explore Scientific Twilight I

Usage with an Explore Scientific Twilight I result in the focuser at the 6 o'clock position directly below the diagonal. This can be seen in the series of photos below. Typically for Alt-Az mounts vs. an equatorial mount, there is less of a need to rotate the diagonal thus there are no issues with the diagonal impinging on the focuser due to rotation. While the space between the focuser and diagonal is fairly tight, this arrangement is still very usable.









Usage On an Celestron AVX

Usage with a Celestron AVX mount results in the focuser at the 3 o'clock position directly to the right of the diagonal. This can be seen in the series of photos below. There are rotation issues regarding using the focuser on an equatorial mount. The user may find it necessary to rotate the diagonal to get the eyepiece in a more natural position for viewing. The last two photos below are intended to show the maximum rotation clockwise and counter-clockwise available to user when using a 2" diagonal. Interestingly there is plenty clearance when the diagonal is in the straight up position. So, for Alt-Az mounts, where the mounting plate will be in the 6 o'clock position, compatibility of the focuser with 2" diagonals is optimal.















Summary

Except for crowded ergonomics, the Starlight Instruments FTM-CPC8 seems to be performing flawlessly, and cosmetically looks as if it was specifically designed for the late model SkyWatcher Skymax 150mm Maksutov optical tubes. Those wishing to use this combination on an equatorial mount might consider using a 1.25" diagonal instead of the supplied 2" diagonal, or an aftermarket 2" diagonal. This will give a greater rotation range for when the mount places the optical tube at an awkward angle. The other advantage is a reduced focal length, resulting in a wider angle of view, and a brighter image.