

# Starizona CGEM Landing Pad



The Starizona CGEM Landing Pad is designed to make setting up and polar aligning a Celestron CGEM or CGEM DX equatorial mount much simpler. The Landing Pad can remain attached to the mount head and helps guide the mount onto the tripod. Once in place, the Landing Pad's robust bearing system allows very smooth action when adjusting the azimuth position during polar alignment. It eliminates the jerky motion of the mount's original adjustment knobs, making it easy to achieve a very precise polar alignment.

## Included hardware:



- **1** – *M12 x 25mm socket head cap screw*
- **2** – *M8 x 20mm socket head cap screw*
- **1** – *10mm hex wrench*
- **1** – *6mm hex wrench*

## Additional required tools:

- *Adjustable crescent wrench*

# Installation

## Remove Azimuth Post from Tripod



The azimuth adjustment post that is normally attached to the CGEM tripod is removed and is not used with the Landing Pad. To remove the post, loosen the lock nut with a wrench, then unthread the post from the tripod.

Note there are two holes in the top of the tripod. The post normally comes from the factory installed in the hole opposite one of the tripod legs. However, the tripod is more stable if one of the legs is pointed north (in the Northern Hemisphere). This places the counterweights over that leg. When you install the Landing Pad, we recommend doing so such that one of the legs is toward the north.

## Replace Original Adjustment Knobs with Bolts



Remove the two azimuth adjustment knobs from the mount head. These are not used with the Landing Pad, and are replaced with fixed bolts to avoid the possibility of grabbing the wrong adjustment knobs in the dark.

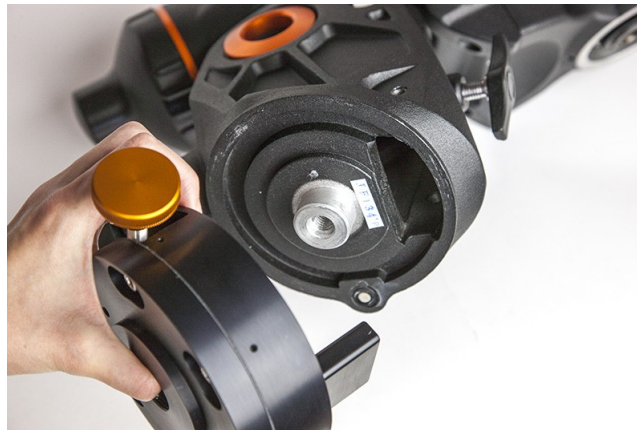
Install the two M8 socket head screws in place of the knobs. Do not thread these bolts in very far yet, as the rectangular post on the top of the Landing Pad needs to clear them when first installed.

## **Remove Mounting Post from Landing Pad**



Unthread the cylindrical mounting post from the bottom of the Landing Pad. There is a set screw that can lock this post in place, and it should be loose when the Landing Pad is new, but if the post will not unthread easily, check this set screw.

## **Attach Landing Pad to CGEM Head**



The easiest way to attach the Landing Pad is to lay the CGEM mount head on its side. The post on the bottom of the mount head will insert into the matching cutout in the top of the Landing Pad. The rectangular block on the top of the Landing Pad should fit between the M8 screws you installed in place of the original adjustment knobs. Hold the Landing Pad flat against the base of the mount head and snug the M8 screws by hand to help hold it in place.



Use the large hex wrench to install the M12 bolt into the bottom of the Landing Pad. Make sure this bolt is tight. You can tighten the M8 bolts now as well. If the Landing Pad is rotated too far one way, one of the bolts may not reach, so be sure the rectangular block the bolts lock onto is centered.

### **Reinstall Mounting Post and Lock**



Thread the cylindrical mounting post back into the bottom of the Landing Pad. Be sure it is threaded all the way in.



Once in place, use the small hex wrench to lock down the set screw that holds the mounting post in place.

## **Attach Landing Pad and CGEM Head to Tripod**



There is a small pan-head bolt in the bottom of the Landing Pad that helps guide it into one of the (now empty) post holes on the top of the tripod. It should go into the hole that is away from one tripod leg, which will be to the south (in the Northern Hemisphere). This places the orange adjustment knobs to the south, away from one tripod leg.



When setting the mount head and Landing Pad onto the tripod, you can simply let the Landing Pad sit against the top of the tripod, then rotate the mount until the pan-head screw drops into place in the hole. This makes guiding the mount into place easy.

Lock the mount in place in the normal manner, with the knob and threaded rod under the tripod. Normally this knob is not overtightened, so that the CGEM mount head can be adjusted in azimuth. But now with the Landing Pad, you can lock this knob very tightly to prevent the mount from slipping, as the adjustment is now all within the Landing Pad itself.

To make azimuth adjustments when polar aligning the mount, simply loosen one of the orange adjustment knobs and tighten the other. Unlike the stock CGEM adjustment knobs, the Landing Pad knobs are much finer, fitting into much more precisely machined holes, and the motion due to the bearing assembly in the Landing Pad is incredibly

smooth. Very tiny adjustments can be made with no backlash or jerking motion.



## **STARIZONA**

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