



Telescope Performance Improvements

TPI Tripod leg leveller- Installation and care instructions

Thank you for your purchase- Your tripod leg levellers have been carefully manufactured to easily support and enable fine levelling of your rig. The extra wide articulating pad offers a stable platform even on less than solid ground. The swivel action can easily accommodate uneven ground.

Another very useful way to use the levellers is in polar aligning your mount. Use the following steps to create a fine adjustment method for your ALT polar align adjustment.

- 1-Initially set the levellers so they are all equally extended (within ¼")
- 2-Extend the inner legs of your tripod to the desired height (we suggest collapsed as much as possible for best stability)
- 3-Place a level on top of your tripod head and level as best you can using the leveller threads.
- 4-Place your mount head on the tripod and go through your Alignment routine.
- 5-When you get to the polar align portion- polar align as close as you can with your mount head adjusters.
- 6-Lock the ALT adjusters on your mount (you will not need to use them again after this routine unless you change Latitudes).
- 7-The next time you go to set up your mount, level the tripod using the levellers, then place your mount head on the tripod (do NOT adjust the ALT adjusters)
- 8-Polar align your mount in Azimuth using your mounts adjustment.
- 9-When it comes time to adjust the ALT (it should be close because you had a levelled tripod and the ALT adjustment on your mount head was not adjusted since the last time you set up.)
- 10- To adjust the ALT, simply adjust the single leveller (the one in line with your counterweight bar) This will tilt up or down the tripod slightly so you will be EASILY able to tweak the polar alignment in ALT. Lock down the levelers and you are set to go!

INSTALLATION and ADJUSTMENT

The existing caps on your tripod need to be removed to enable installation of the levellers.

On the EQ6/CGEM/Atlas/CG5 tripod, the aluminum caps are glued to the stainless steel extension legs. Quite often these can be easily popped off by using a wood drift and a hammer (or a plastic face hammer) to knock them off. Sometimes more heroics are required as the “glue” that is used can be rather secure- especially on mounts made in the last 2 years (white EQ6 and CGEM mounts).

These caps (if you cannot get them off using the above method) will need a little heat. Use a propane torch, hair dryer, or paint stripper gun to carefully heat the aluminum cap. (not enough heat to affect the paint or discolour the cap, just enough to soften the glue) The cap will then come off

rather easily. PLEASE wear gloves, be patient and be safe when doing this. Remove any excess glue on the stainless with a pan scrubber or Scotchbrite pad.

- 1- Separate the 2 blocks of the levellers by removing the 5/16" Allen cap screw- set the portion with the long threads and pad aside for now.
- 2- Loosen the aluminum 2 piece clamp on the upper block until it JUST fits snugly inside the stainless steel tripod inner leg. Insert it fully so it is flush with the black aluminum block as shown



- 3-Grasp the stainless steel leg and FIRMLY turn the block to tighten the clamp inside the leg (it will lock inside the leg as you turn the block)
- 4-Firmly tighten the set screw as shown to secure the clamp from loosening. Apply blue thread locker to the set screw if desired (not supplied)



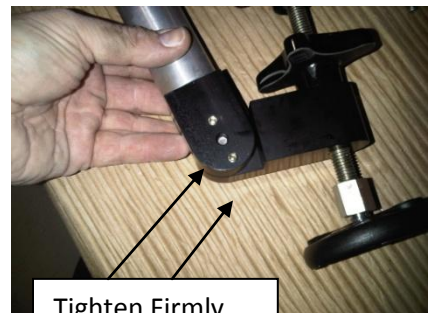
- 4-Once the leveller block is secure- Reassemble the levellers with the 5/16" Allen cap screw (just snug at this point)- Be sure to back off the 2 set screws before tightening the 5/16" Cap screw- Repeat for all 3 levellers.
- 5-Fully spread your tripod and secure with the lock nut and spreader.
- 6-Adjust the angle of the leveller so that the lower block is PARALLEL to the floor and the threads are straight up and down.
- 7-FIRMLY tighten the 5/16" Allen Cap screw then FIRMLY tighten the 1/4" set screws as shown



Re-assemble



Parallel to floor



Tighten Firmly

8-Adjust the levellers by first loosening the middle lock knob.

9-Turn the upper knob to raise or lower the leveller

10-Lock the position by tightening the middle lock knob.



Loosen



Adjust



Tighten

CGE and CGE-PRO Installation additions.

On the CGE and CGE Pro- Simply remove the screws holding the existing tripod leg caps to the extension legs. The cap may need a little plastic hammer persuasion to pop them off. The Levellers have a custom insert that fits inside your tripod extension legs and secure with 10-24 Button head screws (included) Follow the adjustment instruction above. Due to manufacturing differences in CGE tripods- It MAY be required to open the small holes in the inner legs to the same diameter as the larger set of holes (about 3/16" or as required) these drill out very easily with a normal twist drill. This makes fitting the 4 screws easier.

CARE and CLEANING

Your levellers CNC machined from 6061-T6 aircraft aluminum with superior corrosion resistance and strong mechanical properties. The parts are black anodized and will provide many years of trouble free service.

Clean the parts with a damp cloth and a mild cleaning solution like Windex or equivalent as required. The fasteners on your TPI products are stainless steel. A VERY light lubrication with a thin oil or spray wax may be applied to the threads if required or desired depending on your location and frequency of use/dew conditions this will prevent any binding or stiffness while you adjust the leveller height.

Comments or questions please contact Dave Yates at dave@tpiastro.com