Gear Switch Meshing Adjustment

CEM120 gear is designed adjustable by customer although in most cases not necessary. If you experienced DEC/RA motor stall occasionally, or there is free play between the worm and gear, follow this instruction to adjust the gear meshing.

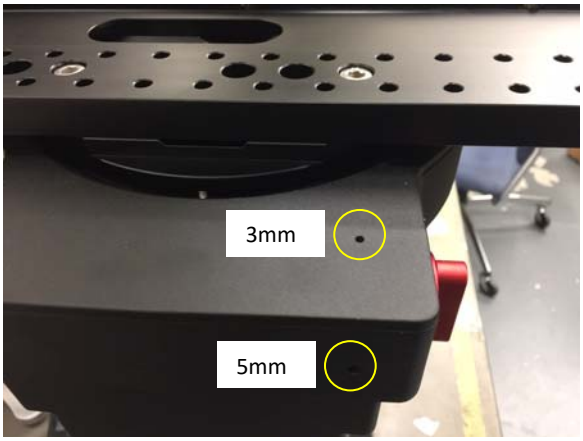
Tool needed: 2mm and 2.5mm hex keys.

<u>To Adjust DEC Gear:</u>

Release DEC axle locking knob

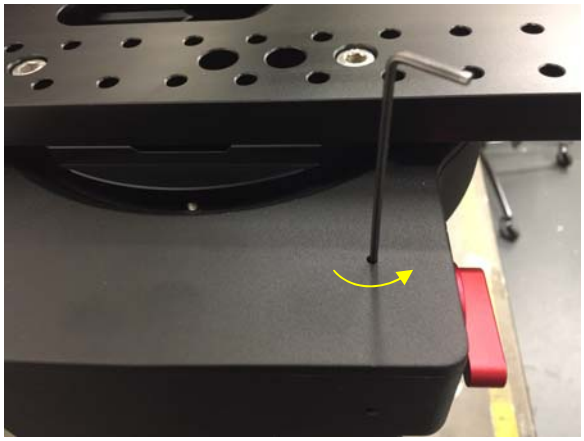
Disengage DEC gear switch

Rotate DEC saddle 90 degrees to exposure two small holes next to DEC **Gear Switch**: one on the top cover (3mm diameter), one on the side (5mm). There is a **set screw** inside the 3mm hole to lock the **gear adjustment screw**, which is inside the 5mm hole.

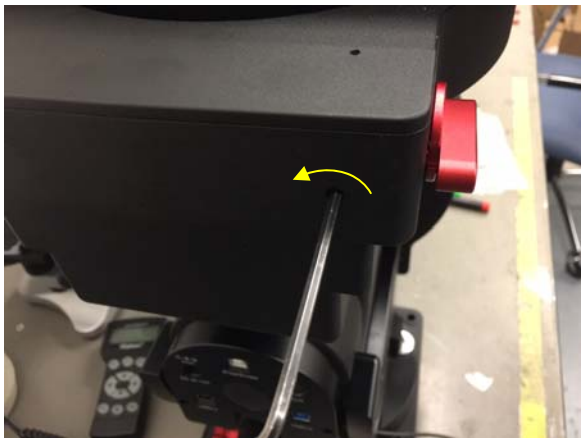


Engage the worm/gear.

Insert the 2mm hex key into the 3mm hole on the top. Gently turn the hex key until you feel it has been engaged with the screw. Turn the **set screw** half a turn counterclockwise.



Adjust the **gear adjustment screw** on the side inside 5mm hole by using the 3mm hex key. Turn counterclockwise to loosen the meshing or turn clockwise to tighten the meshing.

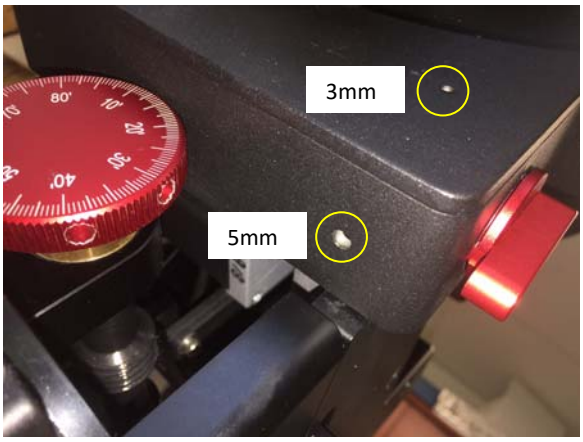


If the motor stalls or the mount does not tracking smoothly, most likely the meshing is too tight. You may loosen it by about 1/8 turn (**or less for tracking**). ***Tighten the set screw to LOCK the gear screw (important)***, then test the mount. Adjust again if needed, but no more than ¼ turn in total.

If you feel there is free play between the worm and gear, you may tighten the gear screw to eliminate it.

To Adjust RA Gear:

The RA gear meshing adjustment screw is located next to the RA Gear Switch. The set screw is inside a 3mm hole and the gear adjustment screw is inside a 5mm hole.



The adjustment is same as that for DEC gear/worm.

Please contact support@ioptron.com for further information.