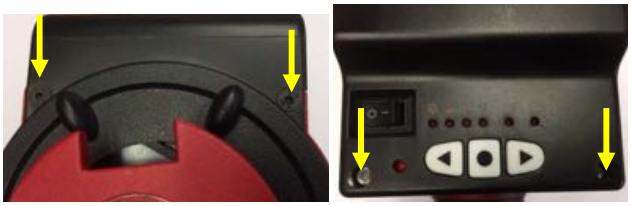
How to Rotate or Replace a SkyGuider Pro Polar Scope (9/1/2017)

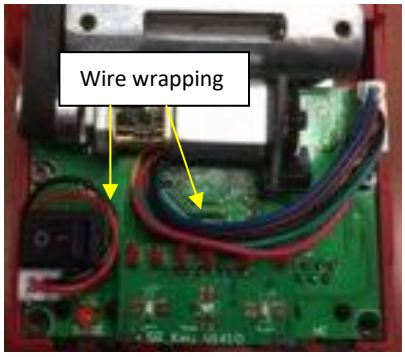
This instruction is not for polar scope alignment, nor for polar scope reticle adjustment. This is for those who want to rotate the polar scope to align the 12 o'clock mark to the DEC bracket orientation.

Tool needed: 1.5mm, 2mm and 2.5mm Allen wrenches, Phillips screw driver

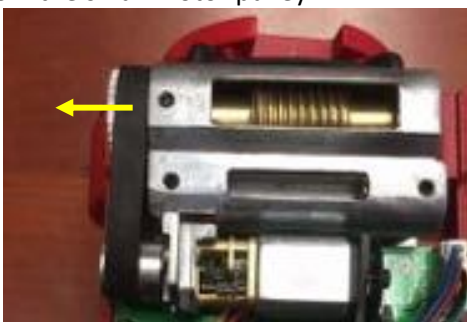
1. Loosen two screws at the front of the mount and two others on the top of a SkyGuider Pro main board cover and remove the black cover.



2. Remove the black plastic cover. Remember how wires are wrapped.



3. Pull the belt off the worm pulley. Then remove the belt from the small motor pulley.



4. Remove the small motor pulley from the motor axle by release a set screw using a 1.5mm allen wrench. If the set screw is not accessible, you may gently turn the black encoder wheel with your finger to rotate the motor axle. ***You need be very careful not to bend the black ticks!*** It may also need a lot of turns.

5. Disconnect both motor and battery cables.

6. Remove the motor by release two Phillips screws.

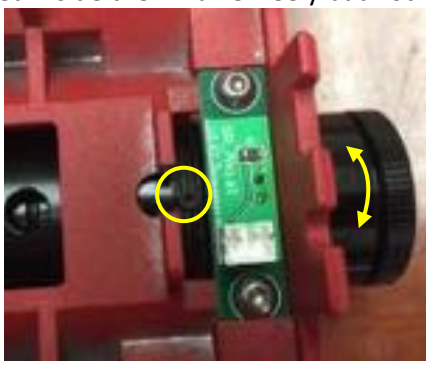
7. Remove two screws that secure the circuit board. Gently pull the circuit board out of the mount compartment. There is a LED connection underneath.

8. Disconnect the polar scope LED cable.

9. Remove polar scope cover and base.

10. Release RA Clutch Disk slightly so the polar scope can be rotated.

11. Rotating RA axis to locate two set screws that hold the polar scope inside RA axle. Use a 1.5mm Allen wrench to unthread the set screws slightly. So it can be rotated inside the RA axle freely but not fall out.

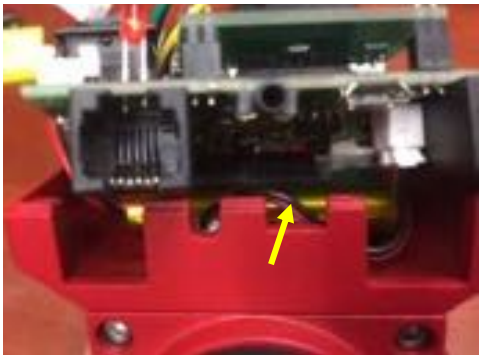


If you are replacing the polar scope, or need to adjust the objective lens, release the set screw a little more so you can pull out the polar scope.

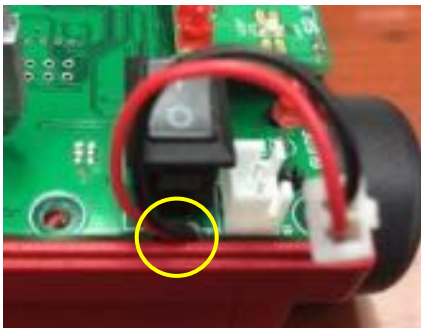
DO NOT mix them with the polar scope alignment screws.

12. Now rotate and hold the front adapter, which is used for mounting a Camera Mounting Block/DEC Mounting Bracket, to your desired position. Rotate the polar scope so the 12 o'clock/illumination opening is at the top. Tighten, but **NOT** over tighten two set screws to secure the polar scope.

13. Put the battery back into the compartment. Connect the LED cable to the board first. While install board back into the compartment, make sure that the LED cable is not jammed between the board and the case.



14. Gently push the board down with the power cable goes through the small cut on the board, and all the ports are aligned. Secure the board to the mount using two screws.

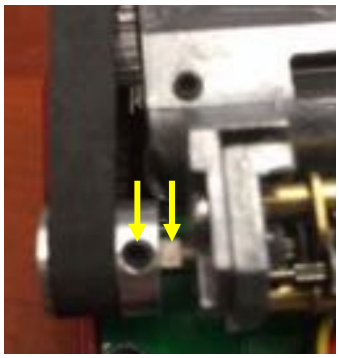


15. Slide the motor into the mounting bracket and hold it in place loosely with two Phillips screws.

16. Wrap the belt over both pulleys and slide motor pulley onto the motor axle, very carefully! Make sure the belt is not jammed under the large worm pulley.

17. Tighten motor locking screws while push the motor against worm assembly.

18. Align the set screw of the small motor pulley on top of the flat surface of the motor axle.



19. Tighten the set screw. Make sure that both pulleys are aligned and not touch the motor/worm assembly.

20. Plug in the power cable and motor cable. Refer to step 2 to wrap the wire properly. Put the cover on with push buttons installed properly.
21. Now follow the Polar Scope Alignment instruction to check if the polar scope is aligned to the RA axis. If it is not, follow the instruction to adjust it.

http://www.ioptron.us/Support/SGP_PolarScopeAlign.pdf