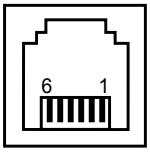
TESTER FOR AP CONTROL BOX AUTOGUIDER PORT

Here is the test for the guider port on the GTOCP3 of your AP mount. To perform the test, you will need a foot or so of 6 conductor flat phone cable with a standard RJ11-6 plug on the end. Remove the insulating material from 3 – 4 inches of the bare end of the cable to expose the six colored wires. Remove the insulation from about 1/4" to 3/8" of the ends of each of these wires, although you could skip the wire corresponding to pin #1 if you wish. The #1 wire will typically be either the white or the blue, depending on how the plug was attached. In addition to the cable I just described, I find a short test lead with alligator clips on each end to be very handy. Please see the attached photo showing the test wire with alligator bridge wire.

GTOCP3 AutoGuider Port
RJ-11-6 Receptacle

Pin 1 NC
2 GND
3 R.A. –
4 Dec. –
5 Dec. +
6 R.A. +



Pin Positions Jack 623k

You may find it helpful to list the wire numbers and color codes before you start. Most likely, you will have: blue, yellow, green, red, black & white or else the exact reverse of this. If you hold the test cable so that you are looking at the bottom of the plug, with the plug's clip away from you, you can see the colored wires in order exactly as they go into the jack illustrated above.

To test:

1. Power up the mount.

2. Remove the covers from the gearboxes that cover the reduction spur gears.

3. If you have never done so before, set the keypad button rate to 1x and press the direction buttons to familiarize yourself with just how slow the gears actually are turning at 1x. Note also that in the RA, you have default rotation at sidereal. Pressing the EAST button at 1x simply stops the tracking rotation. Pressing the west turns the gears at 2x. The DEC axis is more straightforward.

4. Set the guide rate to 1x

5. If you have a test lead, attach one of the alligator clips to the #2 wire of the cable you have made. Make sure that none of the bare wires are touching.

6. Plug the cable into the auto-guider port of the AP Control Box.

7. Take the other end of the alligator clip test lead and clip it on the bare #6 wire from your test cable. (If you don't have the test lead, simply hold the #6 wire's bare end in contact with the #2 wire's bare end. This method goes for all the steps below using the relevant wire and the #2 wire.)

8. Observe the gears in the RA axis gearbox. They should be stopped as you observed in step #3.

9. Remove the test lead from wire #6 and attach the alligator clip to wire #3 on your test cable.

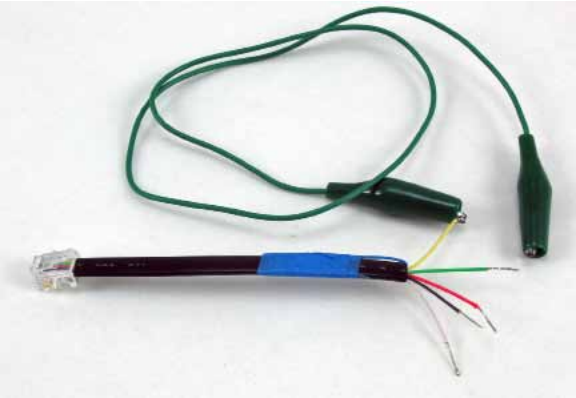
10. Observe the RA gears again. They should be turning at 2x sidereal in the same direction as normal sidereal tracking.

11. Remove the test lead from wire #3 and attach it to wire #4.

12. Observe the DEC gears for rotation at 1x. Be sure to note the direction of rotation.

13. Remove the test lead from wire #4 and attach it to wire #5.

14. Observe the DEC gears for rotation at 1x. The direction of rotation should be opposite of the direction observed in step #12.



15. Note any differences from the expected performance for communication with the technical staff at Astro-Physics. If the mount performs as expected, then the issue must lie elsewhere.