

Equipment Instruction Manual Series

AST 205: Planets in the Universe

Orion ShortTube 80mm Refractor

V01, 2013 Sept 11

1 Telescope setup



Figure 1: There are two basic parts to this setup - the telescope and the tripod. We will set up the tripod first

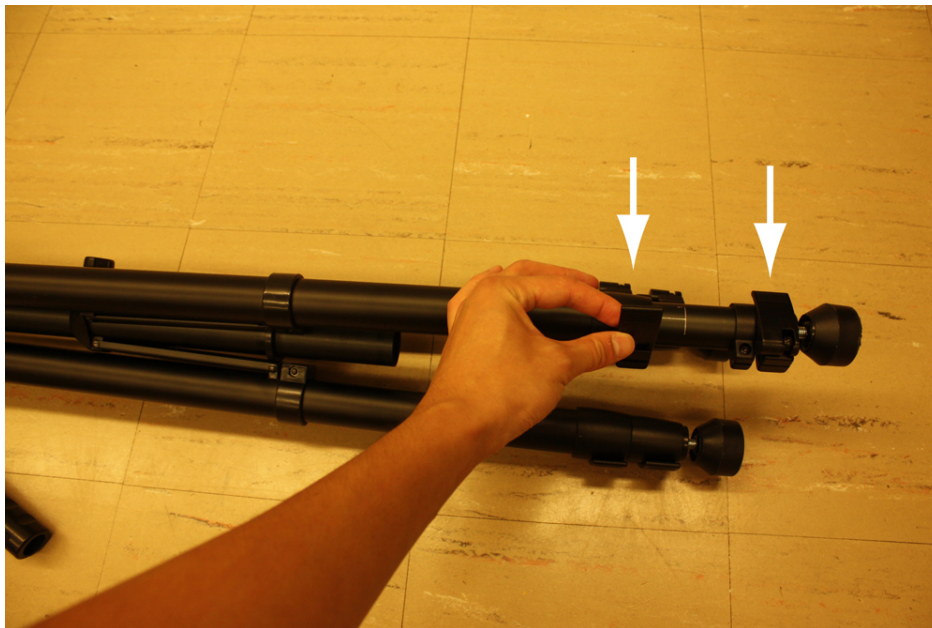


Figure 2: Unlock the extensions to each leg by releasing this lever. Remember to lock it again once the section is fully extended. There are two extensions per leg (arrow), extend all of them.



Figure 3: This is what the tripod should look like fully extended

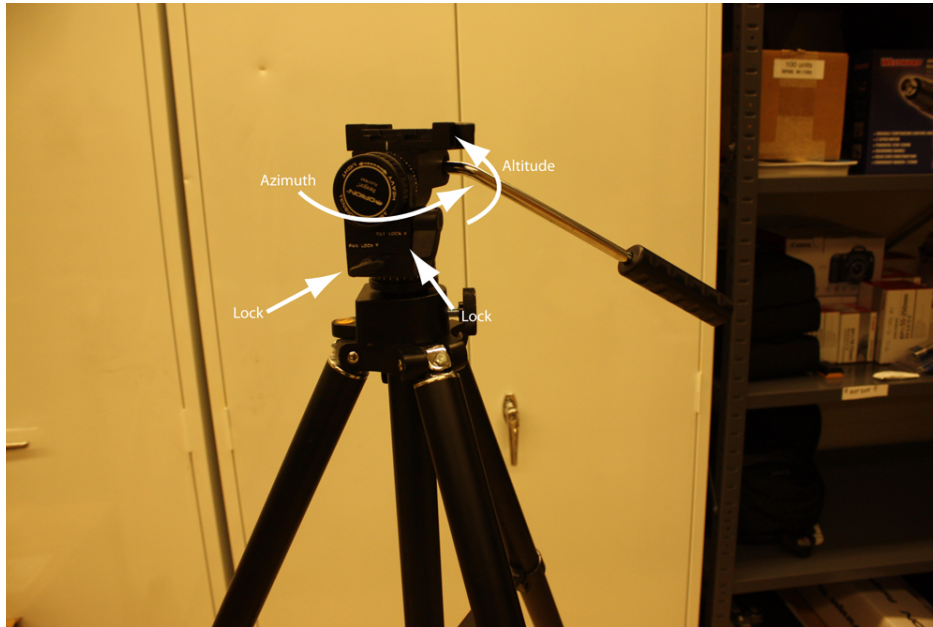


Figure 4: This tripod moves in two axes: Altitude (up down) and azimuth (left right). To make mounting the telescope easier, we will unlock both axes of the tripod.



Figure 5: Take out the telescope out of its storage bag



Figure 6: The telescope mounts onto the tripod in this direction. More detail in the next three points. Caution: You may find this a two person job at first.

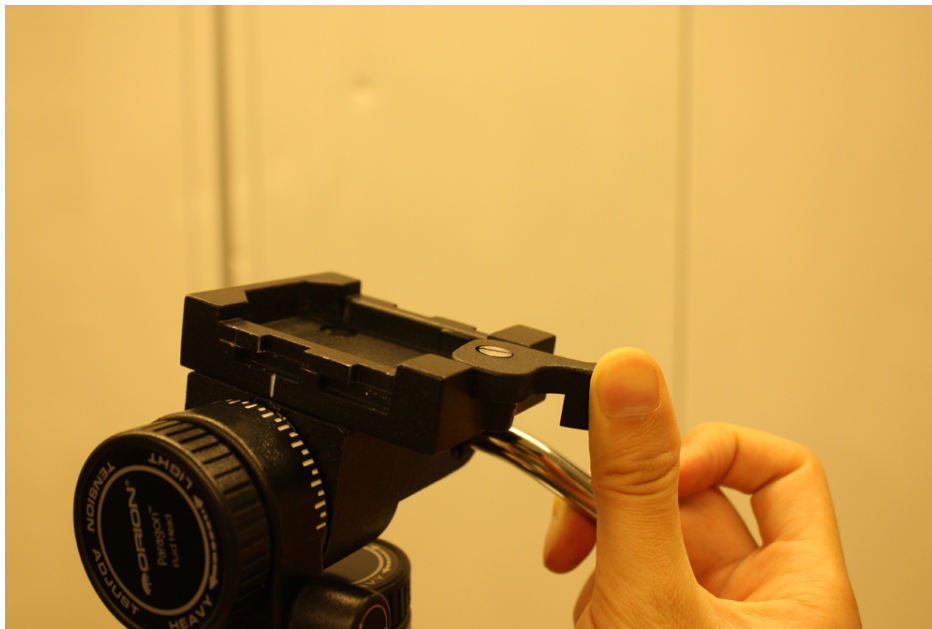


Figure 7: Mounting telescope step 1: Hold this lever open

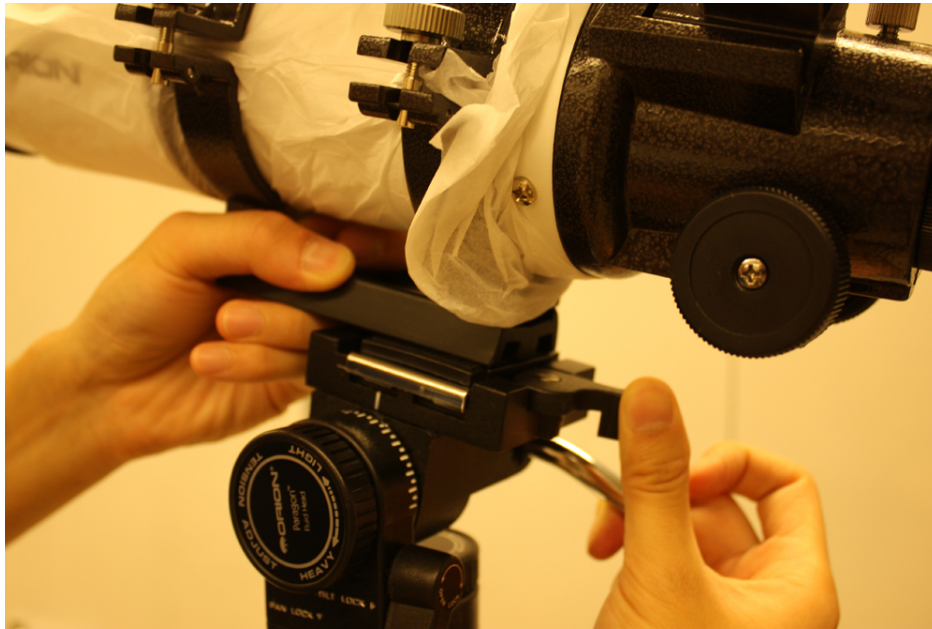


Figure 8: Mounting telescope step 2: Slide the telescope into its seating



Figure 9: Mounting telescope step 3: Snap the lever shut. Ensure the telescope is securely mounted on the tripod.

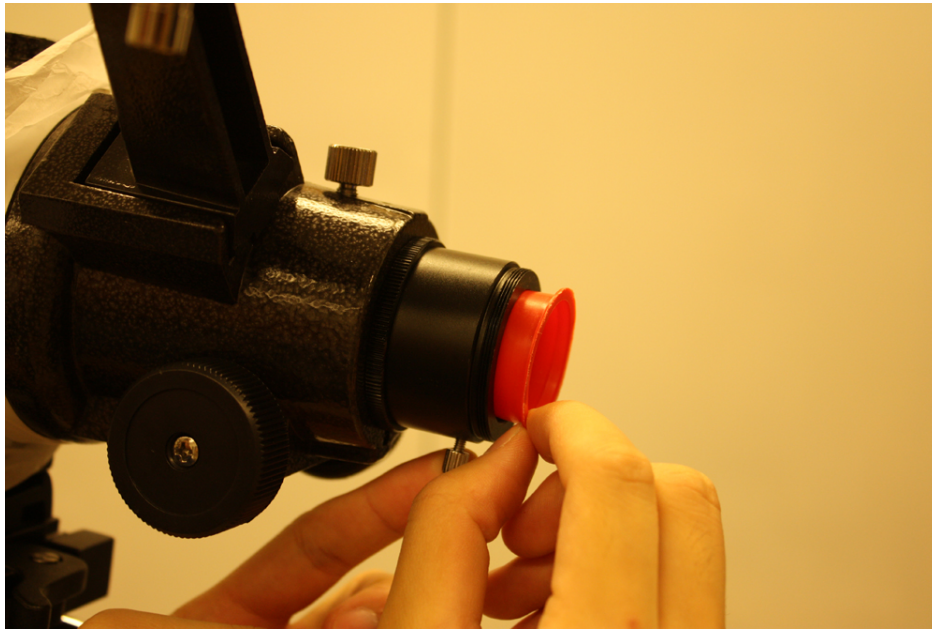


Figure 10: Remove dust cap at the end of the telescope

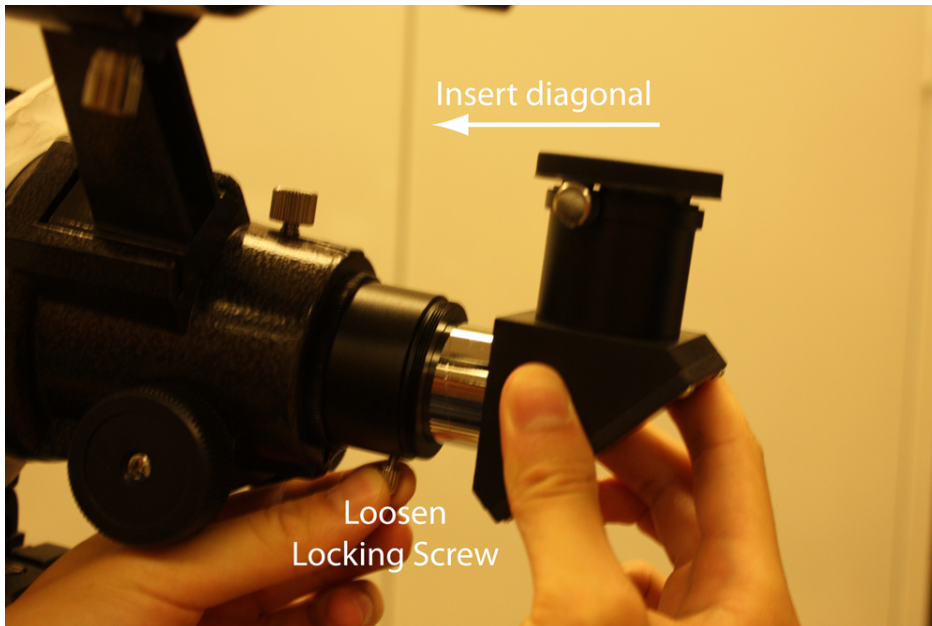


Figure 11: Loosen screw and insert right angle diagonal. **Lock screw afterwards!**

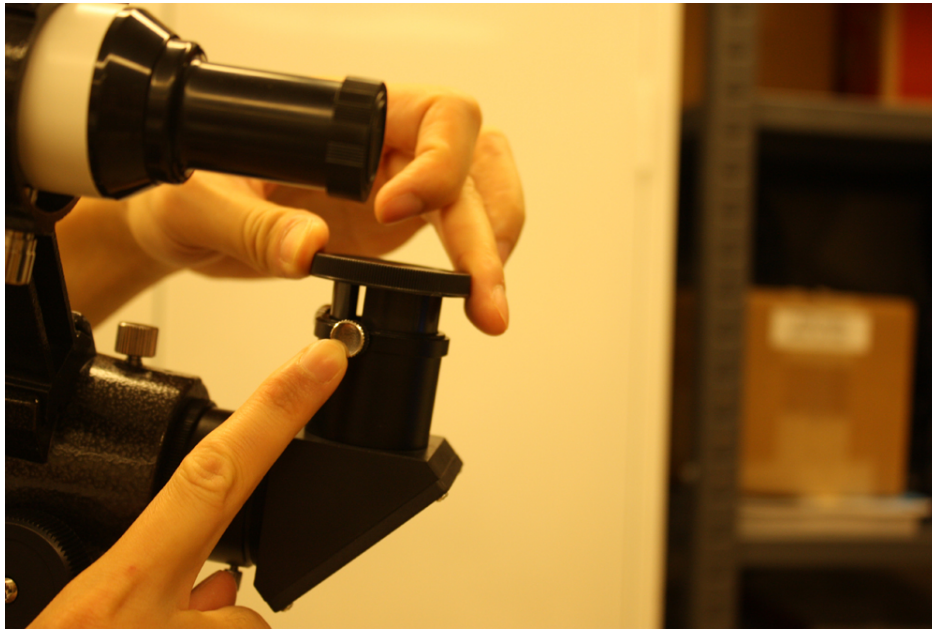


Figure 12: Loosen screw on the diagonal and remove dust cap



Figure 13: Insert eyepiece, and **lock screw**.



Figure 14: Remove finder scope dust cap



Figure 15: Remove main scope dust cap

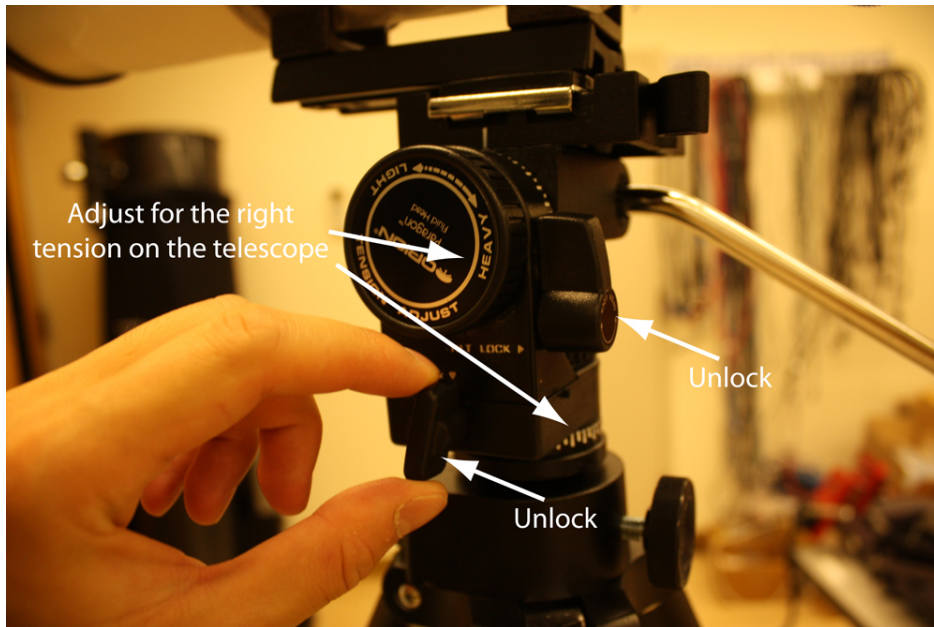


Figure 16: Unlock the altitude and azimuth locks. You can adjust the dials to get the right tension on the movements



Figure 17: You should now be able to move the telescope freely in both axes.

2 Finderscope alignment

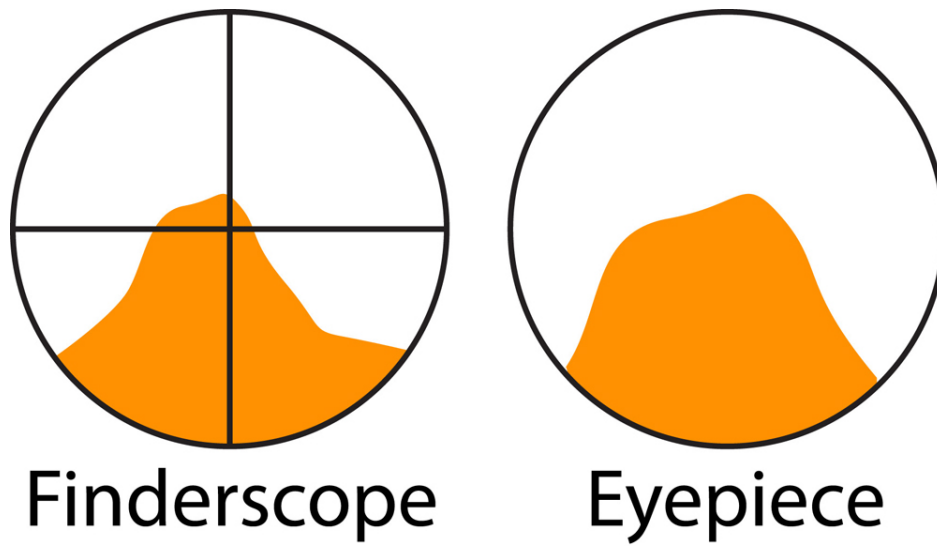


Figure 18: **Finderscope alignment:** This is best done during the day. Point the telescope at a distant object (mountain peak, distant treetop, the Moon, etc), we want the crosshairs on the finderscope to be pointed at the centre of what we see in the eyepiece.

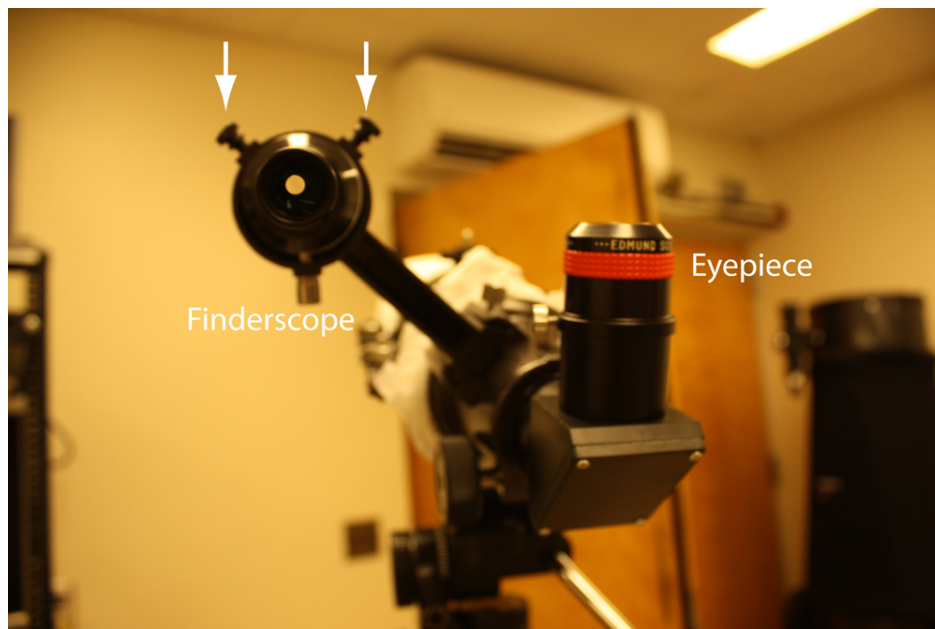


Figure 19: **Finderscope alignment:** Adjust these two screws to change the alignment of the finderscope



Figure 20: You can bring the telescope into focus using this knob

3 Disassembly checklist

1. Replace dustcaps on the main telescope and finderscope
2. Remove eyepiece
3. Remove diagonal, replace dustcaps on all ends of the diagonal and on the main telescope
4. Remove telescope from mount, place telescope in storage bag
5. Unlock the axes of the tripod
6. Retract the extentions of the tripod

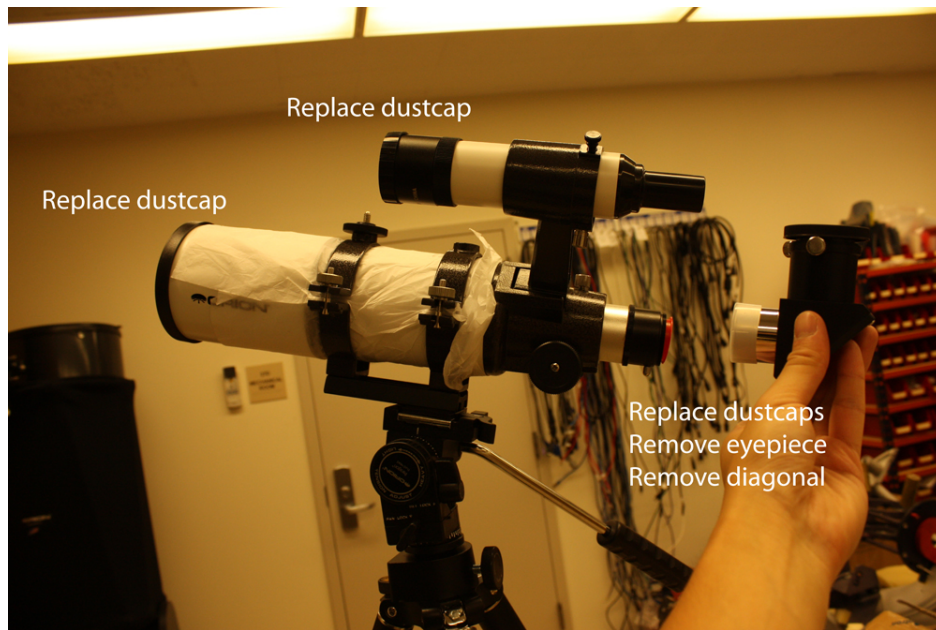


Figure 21: Disassembly steps