

How to gut your 8" Lx200 in 10 easy steps!

This is how I did it. Before I begin, let me make a few cautionary statements:

I like to take things apart and (try) to put them back together again.

I am fairly handy with tools - you may not be...

Collimation and focus control can be severely altered by these procedures.

Damage to corrector plate and primary mirror could possibly result if mishandled.

I'm pretty sure this voids any warranty!!! I do not recommend this procedure unless it is a necessity.

If you decide to follow any or all of the procedures listed below, you are on your own.

I accept NO responsibility or liability for any damage or harm that may come to your equipment by following my suggestions of any of these procedures. These are simply the steps that I took to modify my own equipment.

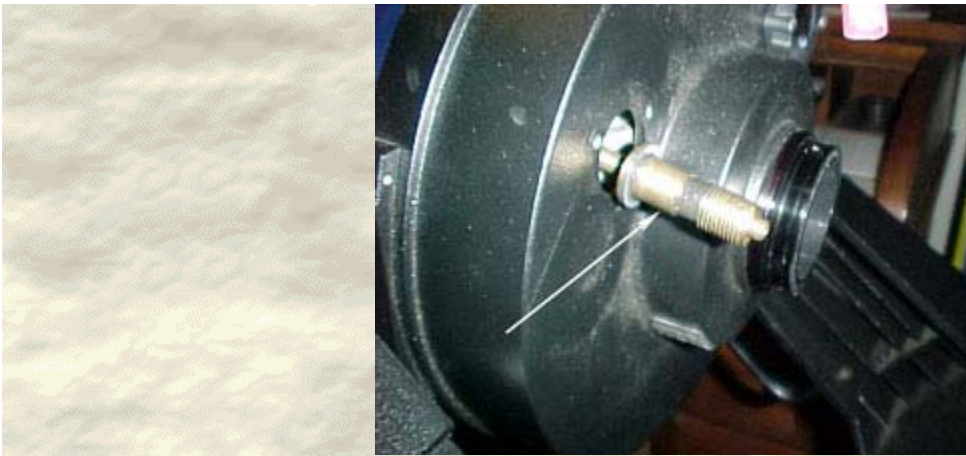
Now on to the fun part!!

Step 1: Mount scope on tripod or pier and put OTA in an almost horizontal position (place the Corrector Plate slightly above the rear cell).

Step 2: Loosen the 2 set screws that hold the focus knob in place. Unscrew the focus knob completely (the primary may move until the focus shaft reaches it's end of travel, at which time the focus knob will finally begin to unscrew itself and eventually come loose).

Step 3: Remove the 3 Allen screws from the remaining flange around the focus knob shaft. Pull off the flange.

Step 4: Remove the Allen Screw and washer from the rear of the Focus shaft (they may be completely obscured by grease). Unscrew and remove the brass coupler (white arrow in image below) leaving just the focus shaft remaining.



Step 5: On the front of the scope, remove the six Allen head screws (white arrows shown below) from the plastic retaining ring on the corrector plate.

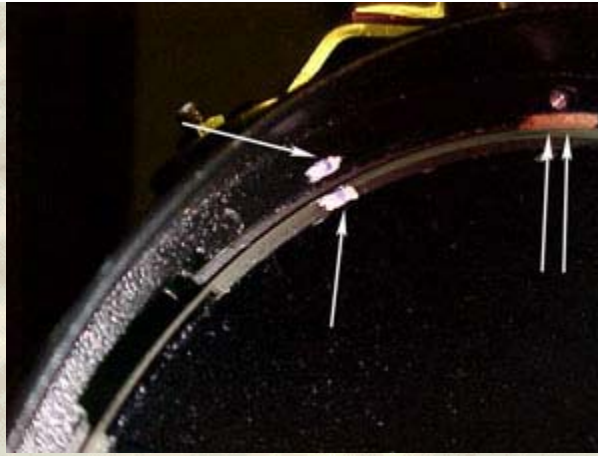
Note that this ring is the only thing besides gravity and some dried-up cork holding the corrector plate on the OTA.

Ensure that the front end of the scope is slightly elevated so that the secondary does not fall out accidentally.



Step 6: Look for the index marks (single white arrows shown below) that tell you where to correctly position the secondary. If there are none, make some near the edge of the OTA and corrector plate with Whiteout or a permanent marker so that the corrector plate can be properly positioned later on.

This is crucial for proper correction of the optics.



Step 7: Remove the corrector plate by grasping the secondary housing and pulling gently. Make sure the cork pads are not lost (double arrow shown in step 6, above). It may be stuck quite firmly by the cork pads.

Do not twist to loosen a stuck corrector while holding on to the secondary - the secondary **will turn. The secondary alignment is as important as the corrector plate alignment.**

Place the secondary in a safe place after removal.

Step 8: Remove the clip or screw from the front end of the baffle tube. It works well to get a fingernail or fine screwdriver under on side of the split ring and ease it off over the front of the baffle tube. It may be covered with grease so be careful not to spatter it on the primary when the clip comes loose. This clip or screw is what keeps the primary from moving too far forward when focusing.

Watch out for the grease covering the baffle tube also!

Step 9: Grasp the outer shaft of the baffle tube (the part that is connected to the primary) and slowly pull the primary forward. Use slow careful movements and watch for the end of the baffle tube when the primary finally comes free. Tilt the primary beyond 45 degrees to pull it out the front of the OTA through the 2 slots cut into the front ring (white arrows shown below). Be careful of the focus shaft.

Set the primary somewhere VERY safe.



The Empty OTA (otherwise known as NOW WHAT???)

This is a good time to tighten OTA bolts and screws, flock the inside of the OTA, replace collimation screws, install a cooling fan, fix your broken focuser, paint the OTA, mount other hardware to the tube, regrease the baffle tube, clean the optics, etc. Whatever you have in mind, just make sure to do it all now as you do not want to repeat this procedure very often.

Reinstallation: Before reinstallation of the primary, regrease the surface of the baffle tube so that the primary moves smoothly. I use the same grease that I used when replacing the DEC and RA gears, a high pressure lithium based automotive grease with a temperature range of -40 F to 400 F. The grease type is not critical as this is a very low-pressure use, but stay away from molybdenum based grease (toxic to your liver) and anything that may run or clump.

Reverse steps 1-9 to reinstall all parts. When focus is reattached, run the mirror the full range of motion several times to distribute the new grease evenly. Collimation will be required as a final step.

Fini

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