

Cleaning the CDK12.5 Primary Mirror

Removing the CDK12.5 Primary Mirror

Step 1: Remove the scope from the mount and place it face down onto a piece of carpeting or cardboard.

Step 2: Remove the focuser, the handle, and all the screws that hold the backplate to the tube. There are 4 places where screws need to be removed shown on the image below. The bottom part of the back plate has a handle. The screws holding the handle needs to be removed before you can access the two screws underneath the handle.



Step 3: Lift up on the side of the back-plate on the opposite side of the dovetail, while holding down the side closest to the dovetail. Then, lift the back-plate up and away from the dovetail (this is so the back of the primary mirror will clear a dovetail mounting block)



Step 4: Place the back-plate and primary mirror on a table and use whatever cleaning method you are most comfortable with.



Additional notes:

There is also a retaining ring at the base of the primary baffle that can be un-screwed and removed to expose the inner edge of the primary mirror. When replacing this retaining ring, do not tighten it down

against the primary mirror. Instead, screw it down to where it just touches the primary and then back it off a quarter turn.

Cleaning the Primary Mirror

There are a lot of opinions on cleaning mirrors. Ours is a pretty basic and conservative procedure. You will need:

- 1 – Compressed air
- 2 – Camel hair brush (you may bypass this but it is a great tool to have)
- 3 – Cotton balls
- 4 – Non-scented Kleenex
- 5 – Distilled Water
- 6 – Liquid dish soap (non-waxy)
- 7 – Isopropyl Alcohol
- 8 – Paper towels (not for touching the optics, just soaking up water)

Procedure:

- 1 – Place the primary mirror and backplate assembly facing up on its back.
- 2 – Using the compressed air, blow off dust and the larger particles on the surface of the mirror. NOTE: Do not shake the bottle of air and follow the directions so as not to expel liquids compounds from the bottle. Do a test spray of air before blowing on the mirror)
- 3 – If you have a camel hair brush (commonly used for camera lenses), brush off remaining dust and particles.
- 4 – Mix two drops of dish soap (non-waxy type) to one quart of distilled water to make a cleaning solution. (too much dish soap can leave residue)
- 5 – Clean the worst spots first. Wet the cotton ball in the mixture and drag it across the section you are cleaning in straight lines. Dragging with nearly no pressure is the best way to clean. If the spot you are cleaning requires more pressure than just use enough pressure to remove the spot.
- 6 – Now clean the rest of the mirror with wetted Kleenex. Again dragging the wetted Kleenex in straight lines.
- 7 – The distilled water mixture should dry with no spots, so at this point you may be finished.
- 8 – If you have more problem spots or if the distilled mixture left some spots, you can now clean with an alcohol mixture. You should mix a 50/50 alcohol to distilled water mixture.

9 – Use cotton balls for small spot cleaning and Kleenex for larger area cleaning. Again you straight lines and only drag the Kleenex/cotton ball across the surface.

Any excess mixture should have found its way to the bottom of the carbon fiber lower light shroud and onto the paper towels. Wipe up the excess cleaning mixture with the towels (not wiping the mirror with paper towels) and you should be finished.