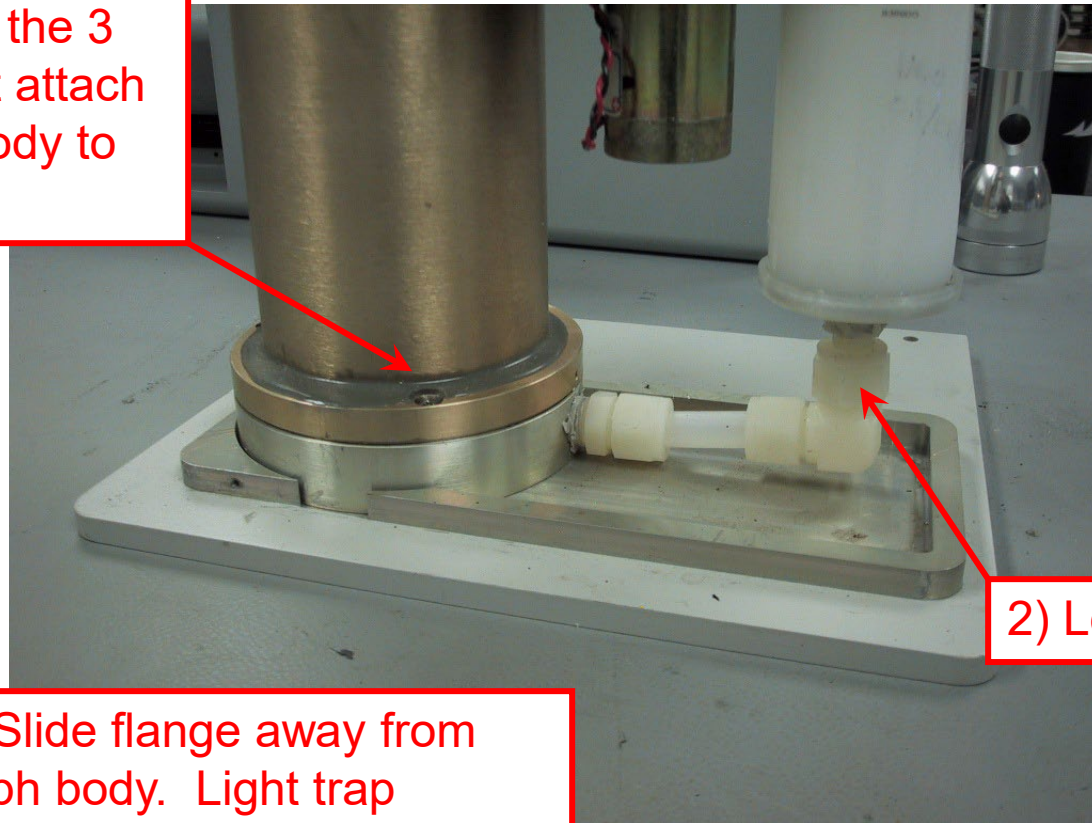


Opening Nephelometer to Remove Light Trap Column

1) Remove the 3 screws that attach the neph body to the flange

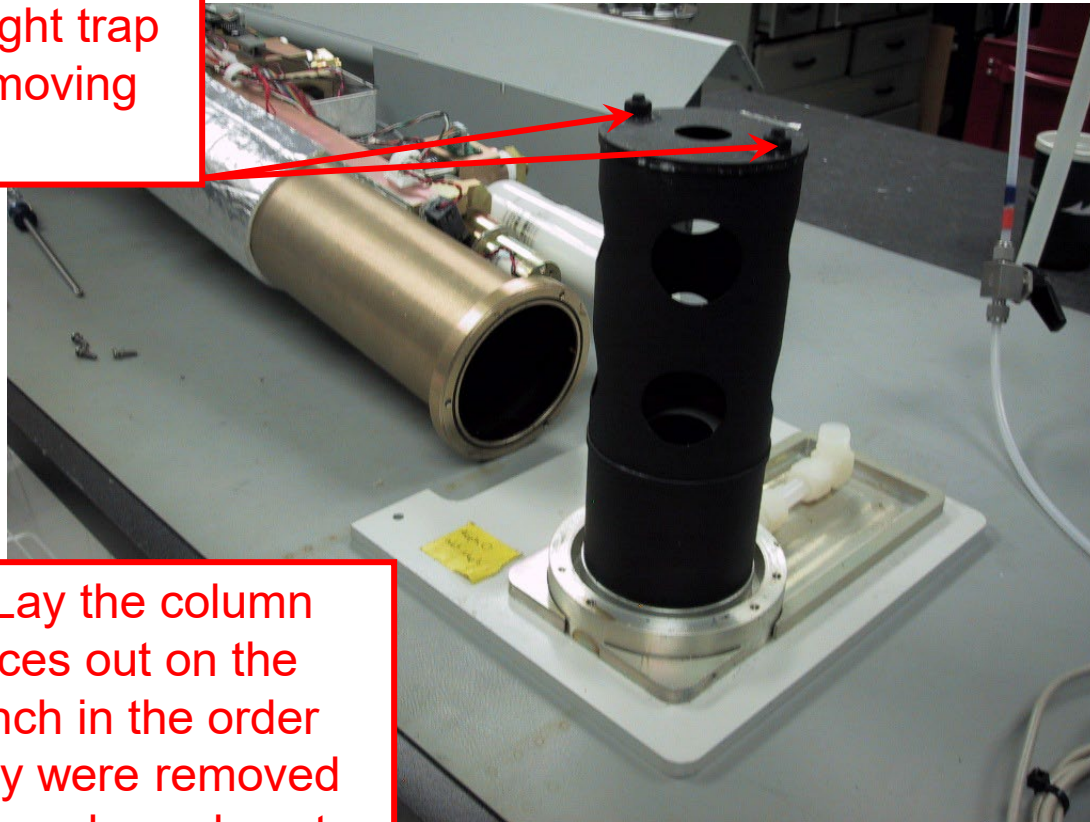


2) Loosen this nut

3) Slide flange away from neph body. Light trap column is attached to flange.

Light Trap Column

1) Open the light trap column by removing these 2 nuts



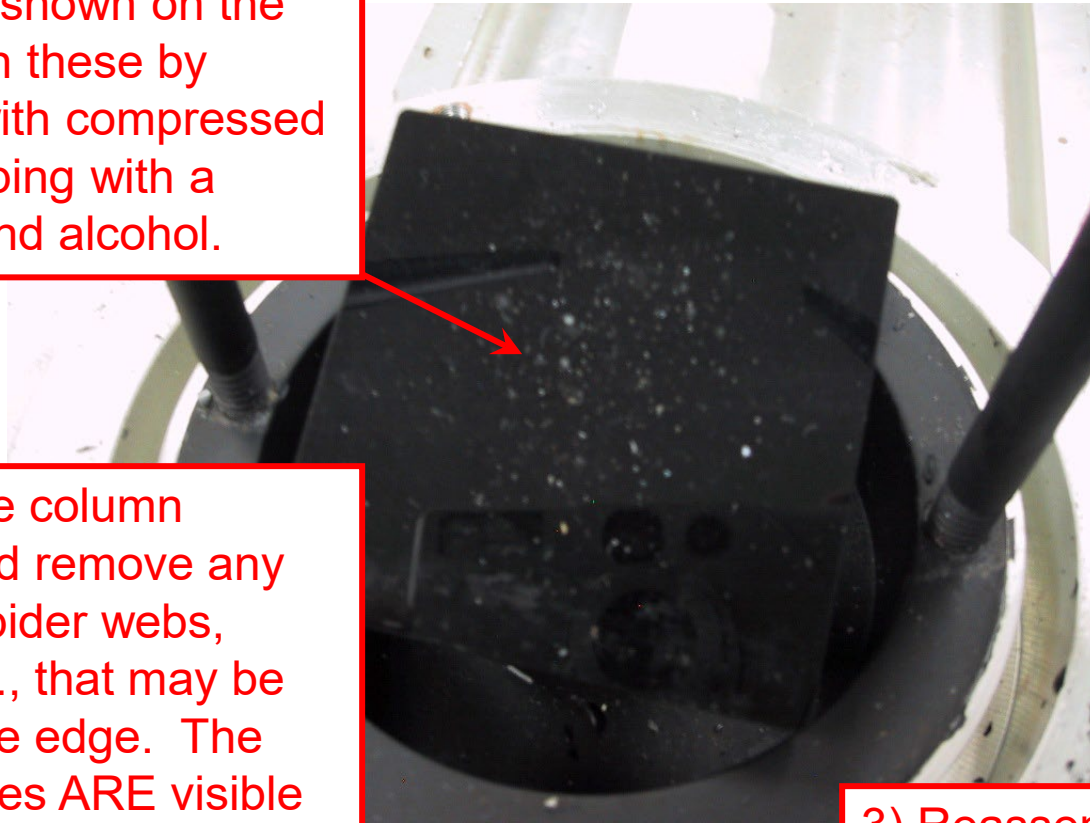
2) Lay the column pieces out on the bench in the order they were removed so you know how to reassemble them

Example of Dirty Light Trap

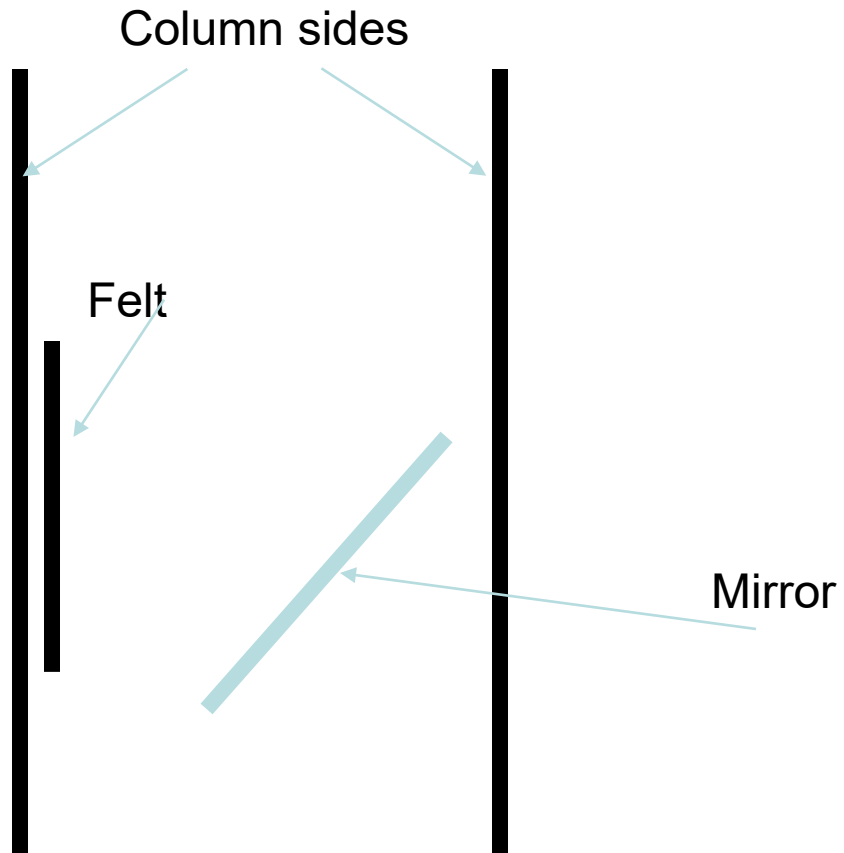
1) Light colored dust and dirt particles are shown on the mirror. Clean these by blowing off with compressed air and/or wiping with a clean wipe and alcohol.

2) Inspect the column apertures and remove any tiny fibers, spider webs, particles, etc., that may be clinging to the edge. The aperture edges ARE visible to the optics.

3) Reassemble column the way it was before

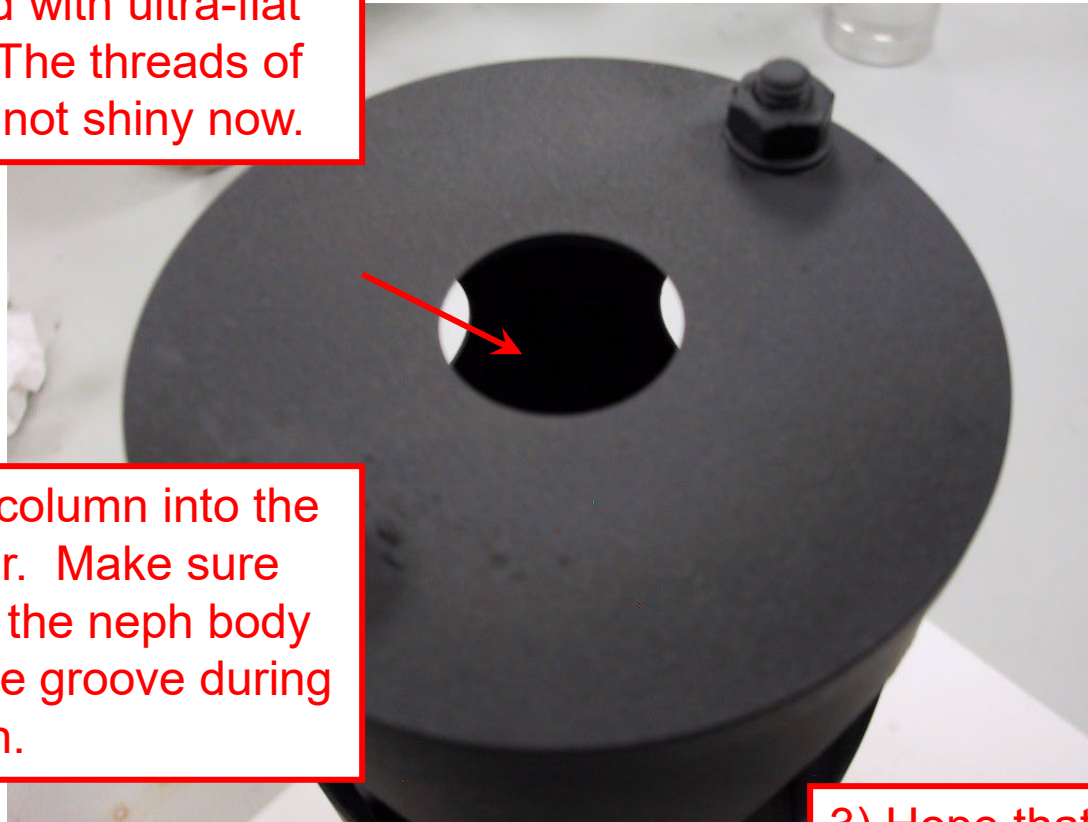


There is a piece of black felt on the interior wall of the column. This black felt should be lined up so that the mirror reflects towards it.



Column Reassembled

1) Top and bolts/nuts have been sprayed with ultra-flat black paint. The threads of the bolts are not shiny now.



2) Re-install column into the nephelometer. Make sure the o-ring on the neph body remains in the groove during this operation.

3) Hope that this has reduced the background!