

S2KB Filter Change Notes

- 1) On the TCS, login and select Setup->Engineering Services
- 2) On Moss, make sure the guide cameras are not "connected"
- 3) Check the dewar fill logsheet and make sure the dewar does not need filling within the next hour
- 4) Turn the CCD controller off in the computer room (2 switches on front with red guards)
- 5) Take filters and a flashlight upstairs.
- 6) Make sure the power to the CCD is off by checking the temps on the interface box. If nothing is displayed then assume it's off.
- 7) Unplug cables leading from the telescope into the interface box
- 8) Unplug cables between interface box and head electronics and shutter cable
- 9) Unplug the power and ethernet cables to both N and S guide cameras and the main cable from the telescope to the FSA
- 10) Unscrew the 1 or 2 screws securing the interface box to its mount – a couple turns of the screw(s) is all that is necessary
- 11) Remove the interface box and place on top of the tool cart
- 12) Remove the support bracket for the interface box mount by unscrewing the 1 screw into the FSA and the 1 screw+nut on the interface box mount
- 13) Remove the interface box mount from the FSA by unscrewing 4 screws leading into the FSA
- 14) Use the instrument cart and platform to secure the instrument, then remove the 5 screws holding the instrument to the FSA.
- 15) Now you can either or.
 - a) Remove the FSA to have full accessibility to the filters
 - 1) Remove both guide camera power supply mounts by unscrewing 3 screws each
 - 2) Use the filter cart and platform to secure the FSA in place
 - 3) Unscrew large bolts securing the FSA to the corrector
 - 4) Lower the platform+FSA
 - b) Leave the FSA mounted – you would still have access to the filters it may be harder to see what you are doing
- 16) Remove the upper and lower filter doors by unscrewing 3 screws each
- 17) Remove any filters no longer needed
- 18) Install new filters
 - a) Move the top filter wheel (wheel 2) to an empty slot
 - b) Filter holders/masks/jackets can be found in the small white box on the FSA cart. Screws can be found in the small, clear plastic container also on the FSA cart
 - c) Secure the filters (but not too tightly!) in the slots and then move the wheel while watching from underneath to make sure the screws are not too long (i.e. do not come through the other side).
 - d) Make sure both wheels move freely by moving both in both directions 8 turns positions each.
- 19) Replace filter door covers (2 with 3 screws each)

- 20) If you have removed the FSA from the corrector, remount the FSA and guide camera power supply mounts, but do not plug in guide camera cables yet.
- 21) Reinstall S2KB (5 screws)
- 22) Install interface box mount (4 screws) and associated bracket (2 screws)
- 23) Replace interface box on mount and secure with 1 (or 2) screw(s).
- 24) Attach cables between head electronics and interface box, and plug in shutter cable
- 25) Plug in ethernet and power supply cables to both guide cameras
- 26) Plug in cables from the telescope to the interface box. Ensure that cable strain-relief hooks are in the appropriate places (marked with red and blue tape)
- 27) Attach main cable from telescope to FSA
- 28) Double check that all cables to the instrument, telescope, guide cameras and FSA are plugged in
- 29) Turn on the CCD controller in the computer room (2 switches with red guards)
- 30) Epar detpars in the Data Acquisition window for 4 by 4 binning and take 3 biases to check that things are functioning correctly.
- 31) Epar detpars to reset binning to 1 x 1 and take another bias to again check instrument
- 32) "connect" to each of the guide cameras and make sure light is coming through
- 33) On the TCS "Exit Engineering Services". Update the filter names in wheel2
- 34) Log out of the ACE TCS and disconnect from the guide cameras