

## **Mosaic removal/ S2KB installation:**

- 1) Turn off air compressor and open valve.
- 2) End the Arcon session on Rust. Quit the guider GUI and VNC viewer.
- 3) Exit the DCA on Driftwood/Emerald.
- 4) Make sure the guide cameras are turned off
- 5) Check the dewar fill logsheet to see if Mosaic needs filling before 1pm.
- 6) Turn off the Nexus/Tram box in the computer room.
- 7) Turn off the Arcons via the 4 rocker switches at the instrument.
- 8) Put staybar in.
- 9) Unplug the transformer.
- 10) Uncable. Cables running from MSE box to instrument are stowed in the filter loading room. All other cables [EXCEPT DRY N2 LINE] get wrapped up and stowed along the telescope tube. Detach fill line. Turn off dyr N2 flow.
- 11) Attach frame (2 pieces) to instrument with bolts. Secure frame pieces together via long bolts.
- 12) Position Mosaic cart beneath instrument.
- 13) Raise platform to meet instrument.
- 14) Secure instrument to cart via large bolts beneath cart.
- 15) Unscrew "captured" screws attaching instrument to corrector.
- 16) Lower floor.
- 17) Place red cover over Mosaic window.
- 18) Turn on crane power via long stick.
- 19) Unstow crane cable and lower crane to platform level.
- 20) Place lifting straps (located in bottom drawer of tool cart) on crane.
- 21) Attach lifting straps to eyebolts on Mosaic cart.
- 22) Raise Mosaic+cart.
- 23) Open top trap doors from beneath.
- 24) Open bottom trap doors.
- 25) Lower Mosaic to ground level.
- 26) Remove lifting straps and place cover over Mosaic box. Secure.
- 27) Raise crane to observing level, remove lifting straps (stow in bottom drawer of toolcart), and stow crane.
- 28) Turn crane power off
- 29) Close both sets of trap doors and lock top doors from beneath.
- 30) Remove small spacer ring via 3 small screws.
- 31) Remove Mosaic/corrector adaptor ring via 16 screws.
- 32) Attach small spacer ring to adaptor ring and stow on bottom shelf of instrument cart.
- 33) Install 4 large weights to bottom of telescope.
- 34) Change cell weights and RA weights. Adjust tube weights and roller weights per balance sheet.
- 35) Install FSA adaptor ring with 16 screws.
- 36) Align FSA below telescope and install using 12 screws.
- 37) Attach both guide camera power supply brackets with 3 screws each.
- 38) Plug in cable from telescope to guide camera power supplies.

- 39) Remove S2KB from its box and set on top of tool box.
- 40) Remove S2KB face plate and place in its box.
- 41) Place adaptor ring on front of S2KB and secure with fiberglass nuts and blue nut driver (tab on ring should be facing down and dry N2 port should be at ~4 o'clock).
- 42) Place S2KB in instrument cart and secure in place.
- 43) Attach instrument with 5 screws.
- 44) Remove instrument cart and stow at edge of platform.
- 45) Plug in the dry N2 and start flow at gauge.
- 46) Install interface box mount (with 4 screws) and mount bracket (2 screws).
- 47) Install interface box (should be stored in the filter loading room) and secure in place with 1 (or 2) screw(s). Make sure it is set off from the metal edge on the left.
- 48) Plug in the main cable from the telescope to the FSA.
- 49) Plug in both guide camera ethernet and power cables.
- 50) Plug in shutter cable. Secure all cables at interface box mount or on FSA main cable. Make sure the dry N2 line is out of the way of heat gun use.
- 51) Attach cables between head electronics and interface box.
- 52) Attach cables between interface box and telescope. Be sure the cable strain-relief hooks are in the proper position – they are marked with red and blue tape.
- 53) Make sure all carts are properly stowed and the crane is stowed and off.
- 54) Double check that all cables are properly seated.
- 55) Remove stay bar and balance.
- 56) Have BB or Skip copy down the filter list from the whiteboard and take all Mosaic filters from filter loading room to the 4meter.
- 57) Turn on CCD controller racks (2 switches at bottom back) and controller (2 switches at front with red guards) in the computer room.
- 58) On Taupe in Data Acquisition window type "ccdinfo" to make sure all is connected and working.
- 59) Bring up VNC viewer to Taupe and establish itcs/socket connection.
- 60) Epar detpars in the Data Acquisition window and set binning to 4x4. Take 3 biases to check instrument functionality.
- 61) Epar detpars to reset binning to 1x1 and take another bias to check functionality.
- 62) Obsinit Taupe, then reset imtype=fits in login.cl file in Data Acquisition window. Logout of the Data Acquisition window and restart another one for changes to take effect.
- 63) Restart the VNC viewer window on Taupe.
- 64) 'Exit Engineering Services" on the ACE TCS and edit the parameters to reflect the new instrument. Select Setup-> Equipment Installed. See the ACE technical reference manual for which parameters to change.
- 65) Update the filter names if necessary.
- 66) Reboot Moss into Windows200 and check guide cameras.
- 67) Check functionality of filter wheels and CCD shutter.
- 68) Log out of the TCS and disconnect from the guide cameras.
- 69) Fill the dewar if necessary.