

S2KB/FSA Removal / MOSAIC installation:

- 1) Login to the TCS and select Setup->Engineering Services.
- 2) Check the dewar fill logsheet to see if the dewar needs filling before 1pm.
- 3) Turn off CCD controller in the computer room on front (2 switches with red guards) and controller racks (2 switches at bottom back).
- 4) Plug in air compressor and turn on.
- 5) Put staybar in place
- 6) Make sure the CCD power is off by testing the temperature readings on the interface box. Then disconnect all cables to instrument and FSA
 - a) Disconnect CCD cables between telescope and interface box – power first - and place in the filter loading room.
 - b) Disconnect CCD short CCD cables between interface box and head electronics and store on the bottom shelf of the FSA cart.
 - c) Disconnect main cable from telescope to FSA and place on bottom shelf of cart.
 - d) Disconnect ethernet and power cables to both guide cameras
 - e) Disconnect shutter cable
 - f) Disconnect dry Nitrogen line and turn off flow gauge
 - g) Disconnect power cords from telescope box to guide camera power supplies
- 7) Unscrew 1(or 2) screw(s) securing interface box to its mount.
- 8) Remove interface box and place in filter loading room.
- 9) Remove interface box mount bracket with 1 screw into FSA and 1 screw+nut on mount. Place the bracket on the shelf of the FSA cart
- 10) Remove interface box mount (red) via 4 screws at top. Screws should be placed in plastic box in “bracket screws” compartment. Bracket should be placed on middle shelf of cart.
- 11) Remove both guide camera power supplies + mounts via 3 screws. Place power supplies and cables on middle shelf of cart.
- 12) Use instrument cart and platform to secure S2KB.
- 13) Remove instrument from FSA (5 screws). Screws should be placed in plastic box in “adaptor ring screws” compartment.
- 14) Remove S2KB from instrument cart and place on top of the tool box.
- 15) Use the blue nut driver to remove the fiberglass nuts securing the adaptor ring to the front of the instrument. Nuts should be placed in plastic box. Ring should be placed on middle shelf of cart.
- 16) Place face plate on the instrument and finger tighten nuts.
- 17) Place the instrument in its box and send to the fill station at the 2meter. Have it filled manually once there.
- 18) Place the FSA cart under the telescope and remove 12 screws securing FSA to main ring. Place screws in plastic box.
- 19) Remove the FSA + cart and store at the edge of the platform.
- 20) Loosen and remove 16 screws securing main ring to corrector. Place ring on bottom shelf of cart.
- 21) Remove 3 small screws attaching spacer to Mosaic ring (ring has aligning pins).

- 22) Install Mosaic ring with 16 screws – pins pointing down. Align North with black mark on corrector.
- 23) Install spacer with 3 small screws – legible “North” facing down. Align North on spacer with North on Mosaic ring.
- 24) Remove 4 large weights, run the Dec tube weights up to appropriate number (check balance book), install small weights in side panels (check balance book), and change RA weights as needed.
- 25) Turn on crane power and remove crane handpaddle from stowed position.
- 26) Rotate the dome until crane is above hatch (line up black tape on dome + wall).
- 27) Unlock top hatch doors from below. Open hatch doors.
- 28) Unlock and open bottom hatch doors.
- 29) Lower crane to observing level.
- 30) Attach lifting straps (stored in bottom drawer of tool cart) to the crane.
- 31) Lower crane to basement and attach lifting straps to Mosaic cart. Raise to observing floor.
- 32) Close top hatch doors. Lock from beneath. Close bottom hatch doors.
- 33) Lower Mosaic to platform. Remove lifting straps. Stow straps in bottom drawer of tool cart. Stow crane and turn off crane power.
- 34) Unbolt Mosaic from the cart.
- 35) Remove Mosaic frame in 2 pieces and remove the red cover over the window.
- 36) Align Mosaic under telescope, then bolt on with screws in ring.
- 37) Lower platform to remove the cart. Stow cart above the old control room.
- 38) Retrieve the Mosaic cable bunch from the filter loading room (old control room).
- 39) Install cable bunch (on top and bottom of MSE box and on Mosaic).
- 40) Plug in the orange air line, dry N2, and yellow extension cord. Turn on the N2 flow at gauge.
- 41) Plug in the transformer in the filter loading room (old control room).
- 42) Remove stay bar.
- 43) Install fill line at instrument.
- 44) Balance

** By now Electronic Maintenance should have switched computers from Taupe to Rust downstairs. Don't proceed until that has been done. **

** Filters can be loaded now too **

- 45) Turn on the Arcons (4 red switches at instrument).
- 46) Turn on the Nexus/Tram box.
- 47) Startup the Arcons on Rust.
- 48) Make sure the systems come up and take a test bias exposure.
- 49) Cycle through filters and open/close the shutter to make sure they are working.
- 50) Try turning on the guide cameras to make sure they are working – should see ion events.
- 51) Reboot Moss into Linux.
- 52) Update the filter list (epar wheel1, motor init, 'savewheel1', whiteboard).
- 53) Obsinit both Rust and Driftwood/Emerald.
- 54) Restart Arcons and DCA.

- 55) Bring up guider GUI on Rust.
- 56) Bring up VNC viewer to Taupe on Rust.
- 57) Change 'Equipment Installed' parameters on ACE TCS. Select Setup-> Equipment Installed. Refer to ACE technical reference manual for which parameters to change.

<http://gyaos.kpno.noao.edu/ts/wiyn36/mosaic.html>