Prerequisites

This procedure is used when installing the 8k instrument to the 1.3m telescope. Instrument rotator needs to face North.

Equipment Needed

- Allen wrenches.
- Cable ties.
- Side cutters.

Hardware Installation

Set up the instrument ramps for the 1.3m. These are stored in the garage. Use two people to carry each section.

Add 2 large weights on the secondary, one on either side of the West truss.

Load the 8K instrument into the truck at the 2.4m telescope where it is normally stored. Strap it securely before driving the truck slowly down to the 1.3m telescope.
Unload the instrument from the truck and using two people, push it up the ramp into the dome.

Remove the cover and dust off the optics on the 8K.

Position the 8K with the filter wheel facing North and the dark slide facing East.

Install the 8K baffle cover onto the telescope. This is normally kept in the telescope control room at the 1.3m.

Remove the 8K dark slide.
Tape up the dark slide opening using foil tape. Insert an alignment pin into the telescope mounting bolt hole and raise the 8K to the telescope using the hydraulic floor.

Bolt up the instrument to the telescope and remove the alignment pin.

Lower the hydraulic floor, taking care not to catch the instrument with the handler cart.

Plug the 8K power strip into the telescope power.

Connect up the fiber optics to the master CCD controller.
Connect the South BNC cable.

Insert foam into the opening near to the rotator knob to prevent light leaks.

Connect the fiber optics to the slave CCD controller.

Remove the Guider camera selector box. Plug in the South camera to the power strip.

Balance the telescope.
Cassegrain – 2 small weights at position #1.
Remove the CCD Power supply.
Vertical weights set to 1125

RA weights to 750.

In the computer room, make sure that the fiber optics are connected correctly to the Master and Slave connections on the 8K computer.

Turn on Master CCD power followed by the Slave CCD power.

Turn on the 8K computer and make sure that the green lights on the fiber optic cards light up, indicating correct connection to the CCD controllers.
The lights on the CCD controller indicate that it has power. All green lights should be lit once the software powers up the instrument by using the “pon” command in detcom.

Software Installation

2. In an xterm, type “ccdconfig” and follow the prompts to set up the CCD.
3. From the background menu, select telescope control-XTCS and initialize.
4. Bring up IRAF and DS9 windows.
5. From the background menu, select data acquisition-MDM8K.
6. In the Detcom window that appears, enter the user name & password.
7. In the Detcom window, select “mdm8k”.
8. In the Detcom window, type “tcs on” to establish TCS communications.
9. In Detcom window, type “pon” to turn the power on to the detector. Check that the green lights are lit on the CCD controllers.
11. In Detcom window, type “file test.001” for the file name.
12. In Detcom window, type “etype <type of exposure>” to set up of the exposure.
13. In Detcom window, type “etime 3” to set an exposure time of 3 seconds.
14. In Detcom window, type “!flush” to clear the CCD.
15. In Detcom window, type “go” to take the exposure.
16. In Detcom window, type “!pwd” to see the current directory path.
17. In Iraf, change the directory to the above path.
18. Using Iraf, type “disp <filename>” to see the image in DS9.
19. In Detcom, type “pof” to turn off the detector.
20. In Detcom, type “detach” to close it.