
Mauna Loa Solar Observatory Observer's Log

Sat Dec 11 17:34:48 GMT 2021

Year: 21 Doy: 345

Observer: mlso

WEATHER COMMENT: mcotter: Sat Dec 11 17:36:49 GMT 2021

Temp: 44.5f, Humidity: 30%, Pressure: 28.746in, Wind: 13mph from 163degs, Skies: Beautiful clear skies with moderate winds from the south. The inversion layer is not discernible on the horizon.

___end___

Sat Dec 11 17:53:44 GMT 2021 Kcor Focus/alignment program exited

Sat Dec 11 17:58:00 GMT 2021 Kcor Focus/alignment program exited

KCOR COMMENT BY mcotter: Sat Dec 11 18:01:44 GMT 2021

The Kcor instrument is now running, though the sky is a little bright.

SGS offsets: X(RA): 50, Y(Dec): 5.

Polarization checked good: Mid, Bright, Dark, Mid.

___end___

GENERAL COMMENT BY mcotter: Sat Dec 11 18:01:55 GMT 2021

Opened windows upstairs

___end___

GENERAL COMMENT BY mcotter: Sat Dec 11 18:02:06 GMT 2021

PM Blew off UCOMP 01

___end___

GENERAL COMMENT BY mcotter: Sat Dec 11 18:02:14 GMT 2021

PM Blew off Kcor 01

___end___

UCOMP COMMENT BY mcotter: Sat Dec 11 18:14:54 GMT 2021

I started Ucomp as normal but when I put it in "Center Occulter" the program just hangs up, the Ucomp mech-controller does nothing and the diffuser and the shutter are staying in beam. I am going to try and exit the program and restart to see if it makes a difference.

___end___

KCOR PROBLEM COMMENT BY mcotter : Sat Dec 11 18:23:18 GMT 2021

After trying to restart the Ucomp Controller program I again tried running the program but again it is hanging up. I am now power cycling the computer to see if it will have a positive effect.

___end___

WEATHER COMMENT: mcotter: Sat Dec 11 18:56:53 GMT 2021

High altitude Cirrus clouds are visible above the observatory and are stretching out across the sky to the south and west.

___end___

KCOR COMMENT BY mcotter: Sat Dec 11 18:57:47 GMT 2021

The Kcor instrument has been paused due to bright skies and high altitude Cirrus in the viewing area.

___end___

UCOMP PROBLEM COMMENT BY mcotter : Sat Dec 11 20:45:51 GMT 2021

I have power cycled the Ucomp computer multiple times but the instrument program continues to get hung up when I try to run it. I will continue to try and trouble shoot the program, but I would not be able to run the instrument anyway, as the sky is too bright and has high altitude Cirrus clouds in the viewing area.

___end___

Sat Dec 11 21:23:34 GMT 2021 Running UCOMP Cookbook dark_80ms_2beam_16sums_BOTH.cbk line 0

Sat Dec 11 21:24:51 GMT 2021 Running UCOMP Cookbook 637_Scan.cbk line 0

Sat Dec 11 21:27:01 GMT 2021 Running UCOMP Cookbook 656_Scan.cbk line 0

Sat Dec 11 21:28:51 GMT 2021 Running UCOMP Cookbook 789_Scan.cbk line 0

Sat Dec 11 21:30:40 GMT 2021 Running UCOMP Cookbook 1074_Scan.cbk line 0

Sat Dec 11 21:31:52 GMT 2021 UCOMP Paused for clouds

Sat Dec 11 21:32:59 GMT 2021 UCOMP Restarted from pause

Sat Dec 11 21:33:31 GMT 2021 Running UCOMP Cookbook 1079_Scan.cbk line 0

Sat Dec 11 21:35:21 GMT 2021 Running UCOMP Cookbook all_wavelength_coronal_flat.cbk line 0

Sat Dec 11 21:53:27 GMT 2021 Running UCOMP Cookbook all_wavelength_coronal.cbk line 0

UCOMP PROBLEM COMMENT BY mcotter : Sat Dec 11 21:54:48 GMT 2021

After repeated attempts to get the instrument software running without hanging up I called Ben to help me to troubleshoot the issue. When looking in the software logic block

diagram Ben saw that the "Filter Wheel" was not communicating from the instrument software, therefore when the software reached a point in the initialization of the instrument it was expecting to see an output from the Filter Wheel, and it was not there so the instrument just hung up waiting for a response. Ben asked me to physically inspect the Filter Wheel. I removed the cover and checked the cable going to the Filter Wheel and it looked fine. I pulled the plug out of the Filter Wheel (printer style USB connector) and plugged it back in and Ben told me to wait as it appeared the communication was restored. After a minute or so Ben confirmed that the Filter Wheel was again communicating. I noted to Ben that the female side of the connector felt like it had some play in it and when reconnecting the connector it was not a nice tight snap in fit. I put the cover back on and came back to the control room where at this time Ben instructed me to manually power cycle the Ucomp cameras. This is accomplished by unplugging the power cord to the cameras via a small two receptacle power cable in the back of the Ucomp rack. Having done this the instrument was now communicating properly with the software. Ucomp now appears to be operating properly.

____end____

UCoMP COMMENT BY mcotter: Sat Dec 11 22:10:47 GMT 2021

It appears that it is necessary to power cycle the cameras as described in the previous entry when the Ucomp instrument software has been restarted. Also, if further issues persist with the Ucomp instrument software hanging up it may be necessary to unplug and then again plug in the USB cable that goes to the Filter Wheel. As described in my previous entry, I accomplished this by removing the cover and unplugging the connector at the housing of the filter wheel. If we need to unplug and plug in the connector again for a similar problem we can try unplugging the Filter Wheel connector at the bottom of the instrument, on the exterior bulkhead. The connector for the Filter Wheel is all the way at the back of the instrument adjacent to the south side bulkhead. Additionally, the area of the Filter Wheel where the USB cable plugs in is right up against the interior bulkhead of the instrument. Ben asked me to look online and see if there is a 90 deg connector available that will offer more room for the USB connector/cable to be inserted into the Filter Wheel housing. When convenient I am going to remove the Ucomp cover and take photos of the Filter Wheel USB connection area and receptacle, so that we can see if an alternate 90 deg connector/cable is available that will properly fit the configuration.

____end____

KCOR COMMENT BY mcotter: Sat Dec 11 22:11:27 GMT 2021

Though the sky is a little bright the Kcor instrument is running.

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UCoMP COMMENT BY mcotter: Sat Dec 11 22:12:01 GMT 2021

The Ucomp instrument appears to be operating normally.

____end____

Sat Dec 11 22:20:27 GMT 2021 UCoMP Paused for clouds

Sat Dec 11 22:31:20 GMT 2021 UCoMP Restarted from pause

GENERAL COMMENT BY mcotter: Sat Dec 11 22:33:37 GMT 2021

I paused both instruments for about ten minutes due to Cirrus clouds passing through the viewing area, but we are now back on sky. The sky is a bit bright and aerosols are visible but the images look acceptable.

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Sat Dec 11 22:52:19 GMT 2021 Running UCOMP Cookbook all_wavelength_coronal.cbk line 23

Sat Dec 11 23:19:30 GMT 2021 Running UCOMP Cookbook dark_80ms_2beam_16sums_BOTH.cbk line 0

Sat Dec 11 23:20:47 GMT 2021 Running UCOMP Cookbook 637_Pol_Calibrate.cbk line 0

Sat Dec 11 23:24:52 GMT 2021 Running UCOMP Cookbook 656_Pol_Calibrate.cbk line 0

Sat Dec 11 23:28:56 GMT 2021 Running UCOMP Cookbook 789_Pol_Calibrate.cbk line 0

Sat Dec 11 23:32:59 GMT 2021 Running UCOMP Cookbook 1074_Pol_Calibrate.cbk line 0

Sat Dec 11 23:37:03 GMT 2021 Running UCOMP Cookbook 1079_Pol_Calibrate.cbk line 0

Sat Dec 11 23:41:07 GMT 2021 Running UCOMP Cookbook waves_1074_1hour.cbk line 0

Sun Dec 12 00:09:09 GMT 2021 UCoMP Paused for clouds

GENERAL COMMENT BY mcotter: Sun Dec 12 01:29:30 GMT 2021

The sky became quite bright and both instrument were stopped at approximately 2:10pm HST.

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Sun Dec 12 01:44:23 GMT 2021 UCoMP Restarted from pause

UCoMP COMMENT BY mcotter: Sun Dec 12 01:50:52 GMT 2021

Took photos of the Ucomp Filter Wheel USB connector that was giving us problems this morning, so that we can find an alternate cable with a 90 deg connector head.

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GENERAL COMMENT BY mcotter: Sun Dec 12 01:51:22 GMT 2021

Emptied trash receptacles in control room.

____end____

GENERAL COMMENT BY mcotter: Sun Dec 12 01:54:19 GMT 2021

The day started out nice and clear but by mid morning high altitude Cirrus clouds moved into the viewing area from the south-southwest. After a short pause the sky cleared enough to again run the instruments, though the sky was a bit bright. By approximately 2:00pm HST the cirrus returned and the sky became entirely too bright to observe.

____end____

ONSITE STAFF: mcotter