

AVIV 420 CD Startup:

Lamp and Cooling System

1. Check N_2 levels of the dewar. Do not use if less than 1/3 dewar.
2. Turn on the N_2 , Open the two O_2 Scrubber valves. Check the N_2 flow level on the gauge next to regulator – the mercury bead should hover at about 25.
3. Purge system for 30 minutes, or until the oxygen sensor reads less than 7 ppm.
4. Turn on the switch labeled “Xe Lamp Pwr.” When the “Lamp Ready” green light comes on (after about 60 seconds) then push the red “Ignite Lamp” button. If the lamp is successfully lit, the green “Lamp On” light will come on, and the voltmeter should read around 8V.
5. Turn on the chiller. Chiller on the UTL-CD is linked to instrument power.
6. Record starting lamp hours in the logbook.
7. Turn on instrument power switch
8. Start up the computer (instructions below).
9. Allow the lamp to warm up for 45-60 minutes.

Computer

1. Turn on the switch marked “CPU/Inst Pwr.”
2. Push the power button on the CPU.
3. Open the program on the desktop labeled “AVIV 420 CD Instrument.”
4. Open “Displays” and select “Data Browser.” Change the “Default Dataset Path” line to read “C:\Data\outside user\your lab name\your folder name.” Hit “Enter.” Your data will automatically be saved at a .dat file to this specified folder when the experiment is done.

NOTE: “CD signal” and “Dynode Voltage” are saved automatically, but if you want to include other parameters, such as cuvette temperature, you must choose them from the “Configure Experiment” menu under “Data Set Save Options” before starting your experiment.

To enter your experimental parameters, open “Configure Experiment,” select “Experiment Configuration” and choose your experiment type. Be sure to click “Exit/Save Configuration” to exit the window. Just closing the window will not save your parameters.

NOTE: You must hit “Enter” after everything!! Otherwise it will not save.

5. When your experiment is done, you will be prompted to “Store/Save Experiment” or “Discard.” Check that your dataset path is correct.
6. To save your data as a text file, click on the “Displays” menu and open “Data Browser.” Select your experiments, open “Export Data Set” and click “Export to ASCII text.” This will save your data as .txt in your specified folder.

AVIV 420 CD Shutdown:

*Please remember to clean out the cell holder with a moist Q-tip after doing denaturant or temperature melts.

1. Close program and shut down computer.
2. Turn off "CPU/Inst Pwr."
3. Record the ending lamp hours in the logbook.
4. Turn off the "Xe Lamp Pwr."
5. Purge system for 15 minutes with N₂.
6. Turn off N₂ and close both O₂ scrubber valves.
7. Turn off the chiller.