

# Rigaku Ultima III Powder X-Ray Diffractometer w/ Mercury CCD@ FSU [CSL 1011]

## Quick Start-up and shut-down procedure for Rigaku Ultima III Powder XRD

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### Start-up Procedure

## Ultima III Powder XRD with Mercury CCD in CSL 1011



If the Julabo F25 MD chiller is off, switch it on by holding down the green “Energize output” button mounted on the wall to the left of the chiller while switching the power on (ON Button 1) and pressing the green power button (ON Button 2). When the display comes on, let go of the “energize output” button. Julabo chiller will come on and start to cool. The desired temperature is at or below  $-4^{\circ}\text{C}$ .



If the Haskris chiller is off, turn it on. Usually it will be on. Check that the five green lights located at the back of Ultima III PXRD. All should be lit. If the top light is off the flow is low. Contact *PXRD Personnel*.



Turn the control computer (Control PC) on by pressing the power button on the front of the PC. You should see the normal boot up windows (if not press <Scroll Lock> twice on the keyboard, the monitor will switch to Control PC's display). Log in using the username *administrator* and password (*ask PXRD Personnel*).

Switch the monitor to the frame grabber computer (Frame Grabber PC) by pressing <Scroll Lock> twice. Power up the frame grabber computer. Log in using the username *administrator* and password (*ask PXRD Personnel*).

Now press <Scroll Lock> twice to switch to the Control PC's display.



If the x-ray tube has been off for more than an hour, the tube needs to be aged by opening "XG Operation" and clicking the *Execute Aging Icon*. Aging the tube properly extends its lifetime. This procedure will take around 45 minutes.

If the Julabo chiller is at or below -4 °C, the CCD detector is ready.

Open "Standard Measurement" and "Raxvideo" and the system is ready.

## Shut-down Procedure

Turn the control computer (Control PC) off by closing all Windows programs and executing a Windows 2000 shutdown.

Switch the monitor to the frame grabber computer (the left PC) by pressing <Scroll Lock> twice and execute a Windows 2000 shutdown.

Press <Scroll Lock> twice to switch to the Control Computer.



Now, in the Ultima III Generator's Left Top Panel,

- Under X-RAYS
  - Press the Grey OFF button, then
- Under POWER

Press Red OFF button



V. 20140410/TS