

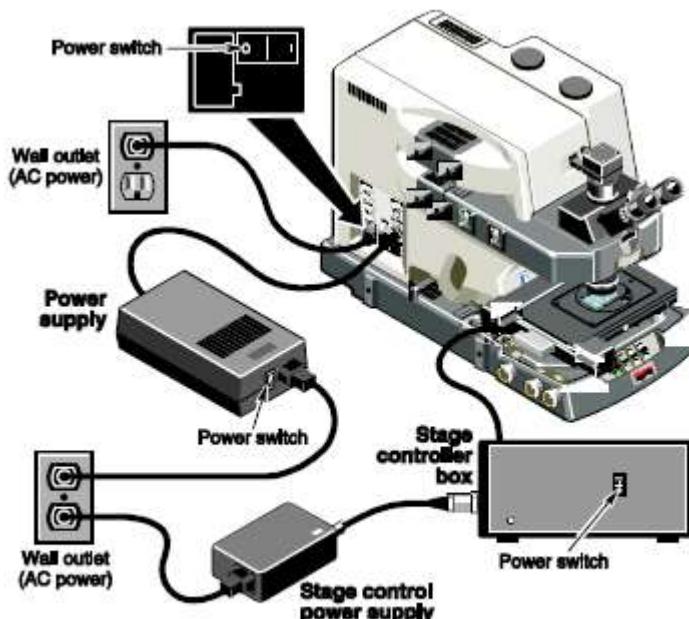
Continuum FT-IR Microscope Power Up and Shutdown Procedures

Turning on the system components:

We recommend that you keep your spectrometer and Continuum microscope on at all times unless the building is subject to power outages or you need to perform a service or maintenance procedure. Leaving the system on keeps it stable and gives you the most consistent results. If you must turn the spectrometer off, allow it to stabilize for at least one hour, and allow the MCT detector in the Continuum to come to temperature for 30 minutes after filling with liquid nitrogen before collecting spectra.

Follow these steps to turn on the system components:

Step 1. Turn on the power for the Continuum microscope. The switch is on the small panel near the rear of the left side of the microscope.



Step 2. Turn on the power for the Stage Controller if the Continuum is equipped with an automated stage.

Step 3. Turn on the power for the computer, monitor(s) and printer. Allow the computer to go through all normal start up processes.

Step 4. After approximately 30 seconds, turn on the power for the FT-IR spectrometer. Turn on the spectrometer by pressing the power switch (I/O) on the external power supply to I.

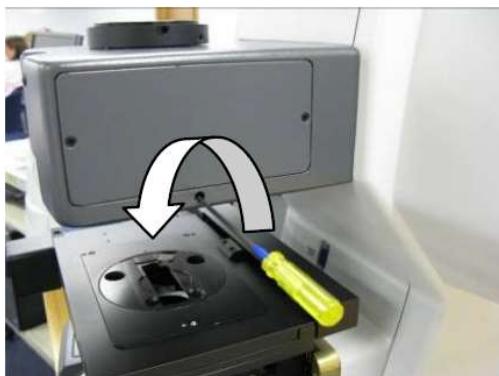
Step 5. If a purge option is available turn on the gas and set pressure regulator and flowmeter to appropriate setting found in the instrument's user and/or site and Safety guide. It may take an hour or two for the FT-IR spectrometer and Continuum to purge out water vapor and carbon dioxide to an acceptable level.

Step 6. For the FT-IR spectrometer, check that desiccant button is Blue (good): If your spectrometer is sealed and desiccated, a bag or cartridge is located in the instrument. The desiccant protects the beamsplitter and optical components by reducing the amount of water vapor inside the spectrometer. See "Checking and changing the Desiccant" in the "Maintaining your spectrometer" section of the user guide.

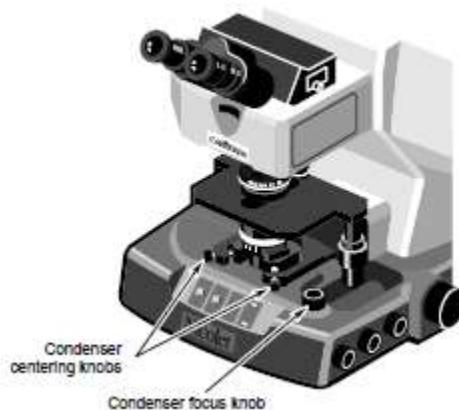
Step 7. Start Omnic Software

Step 8. If the Continuum is equipped with a manual stage, the microscope illuminators can be turned on at this point and the system will be ready to run samples. If the system is equipped with an automated stage proceed to Step 9.

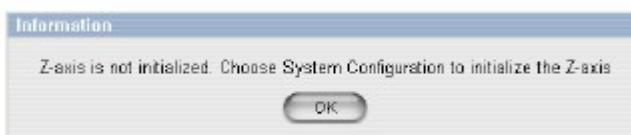
Step 9. Initializing the stage. When the microscope and stage controller have been powered off and restarted, it is necessary to initialize the vertical and horizontal movement of the stage. Because the stage will move through the full range of its travel, it is necessary to remove the nosepiece with the objectives of the microscope as well as any stage insert. The nosepiece can be removed by loosening the set screw on the right side of the housing with a 3/32 " ball driver as shown in the image below.



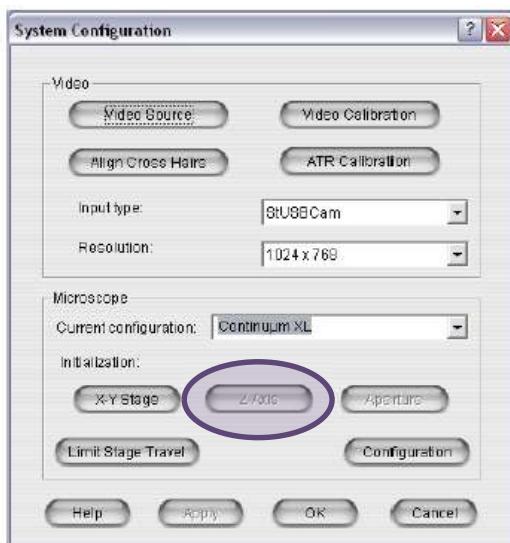
When the nosepiece is loose, slide it forward to remove it. The condenser below the stage should be lowered as far as it can go using the Condenser Focus Knob shown below. **Do not turn the condenser focus knob any further once you feel some resistance and it has stopped moving downward.**



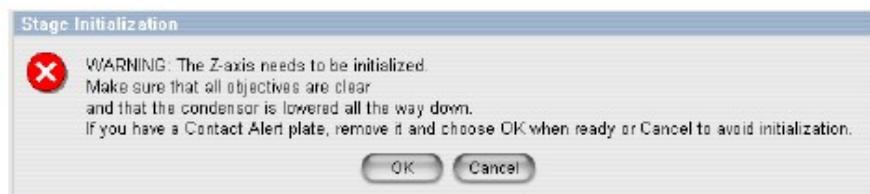
The Omnic software will give prompts about what will need to be done during the initialization process. The initialization of the Z axis of the stage will start with the following prompt. Click the OK button to open System Configuration.



When the System Configuration opens click on the Z-Axis button to begin the initialization process.



The warning below will be displayed before the stage begins moving. If the nosepiece has been removed and the condenser has been lowered, click OK to continue.



After the Z-Axis has been initialized, the X-Y Stage will also need to be initialized. To make certain that the stage will not bump into the condenser during this process, it is helpful to raise the stage using the large focus knob on the right side of the Continuum so that the stage is well above the condenser. Click OK to begin the X-Y Stage initialization process.



After the stage initialization is complete, the nosepiece can be reinstalled, and the Continuum is ready for use. Always follow the safety precautions described in the user manual and the Spectrometers Site and Safety Guide that came with your system

Turning off the system components:

Step 1. Exit out of the Omnic software

Step 2. If a purge option is available turn off the gas.

Step 3. If the instrument is going to be off for an extended period of time install new desiccant in the FT-IR spectrometer. See “Checking and changing the Desiccant” in the “Maintaining your spectrometer” section of the user guide.

Step 4. Turn off the printer and then the computer

Step 5. Turn off the spectrometer by pressing the power switch (I/O) on the external power supply to O. Turn off the Continuum using the power switch on the rear panel on the left side of the microscope. Power off the stage controller box.

Step 6. Disconnect the power supply for the AC outlet. To protect the Continuum from dust it is recommended that the microscope be covered so that the trinocular viewer, stage and condenser are not exposed.