Start Up

1. The Power distribution box is mounted on the wall behind the system. Ensure that both the green lights on the box are **ON**. If not press the green button to energize the system.

2. Go to your FOM account and login to the tool, it will turn on the computer located to the left of the system. The Xactix controller software should start automatically.

   Login user ID: **Cal**
   Password: none

![Diagram](image)

Figure 1

3. **Turn ON** the pump that located in the Chase area.

Loading/Unloading Sample

1. On the main screen of the Xactix software (Figure 2), click **Load/Unload Sample** to begin the chamber venting routine. Verify that the process shroud is in the forward position by pulling the handle located on the front of the system. Click **Yes** after verifying the shroud position. (Figure 3).
2. Once the chamber is open, the screen shows two options; (a) **Examine** (b) **Done** (Figure 4).

![Figure 4](image1)

(a) **Examine** allows the chamber to be held at vacuum without going through the entire process of evacuation. This is used if the sample is to be taken out for a short period of time (e.g. viewing under a microscope, taking pictures etc.)

(b) **Done** is used if the chamber is to be opened for a few seconds only for either removing or loading the sample. Clicking on ‘**Done**’ will initiate the full pump/purge cycle to be performed.

**Performing an Etch**

1. From the main screen (Figure 2), click on **Etch Menu**. This opens up the Etch Menu screen shown in Figure 5.

![Figure 5](image2)
2. Enter a unique **Lot Number** for the etch run to be performed and click **Done**. This information will be maintained in the Xactix system log and allows etch details to be found at a future date.

![Etch Menu](image)

**Figure 6**

3. The etch recipe has four parameters on the etch menu screen, No. of Cycles, Etch Time, XeF$_2$ pressure and N$_2$ pressure. The **default values** are 10, 30 sec, 3.0 T and 0.0 T respectively. 10 cycles of 30 sec each give a total etch time of 5 minutes. The values can be changed according to requirements. However, the maximum XeF$_2$ pressure is 3.0 T.

4. Click on **Start Etch** to begin etch process. On completion the software reverts to the main screen where from the sample can be unloaded.

5. Don’t forget to **turn OFF** the pump in the Chase area.