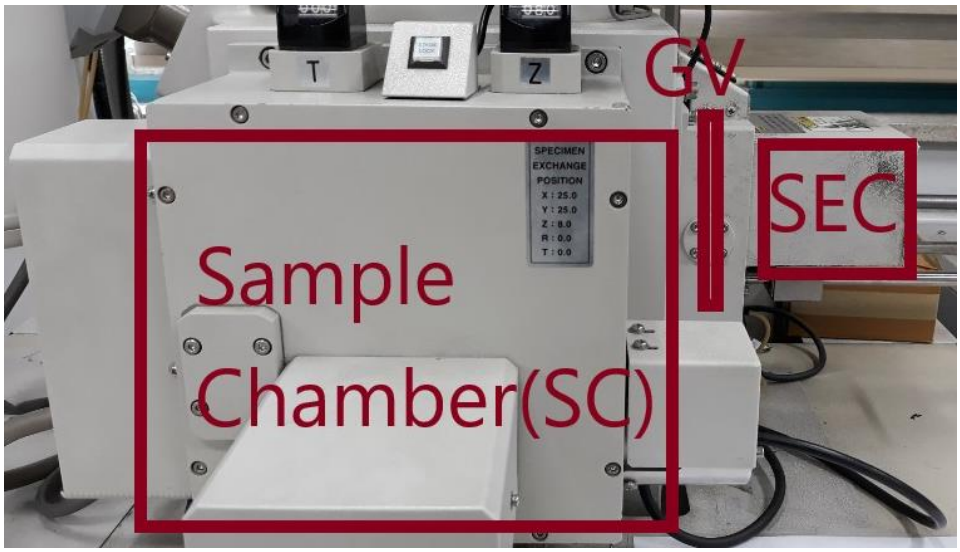
~ Parts Introduction ~

1. Stage Controller & Operation Panel

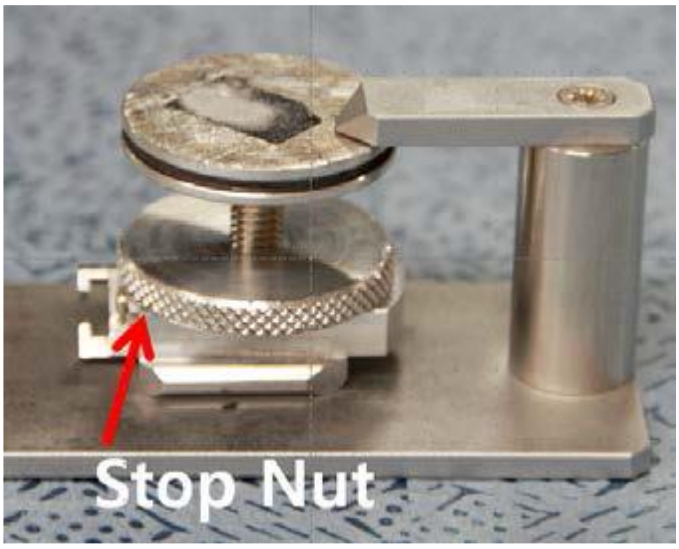
2. SEM Holder Set

3. SEM Chambers



~ Sample Preparation ~

1. Fix your sample on the stub (with carbon tape or conductive paste)
2. Assemble stub and holder tightly
3. Adjust sample height with stop nut

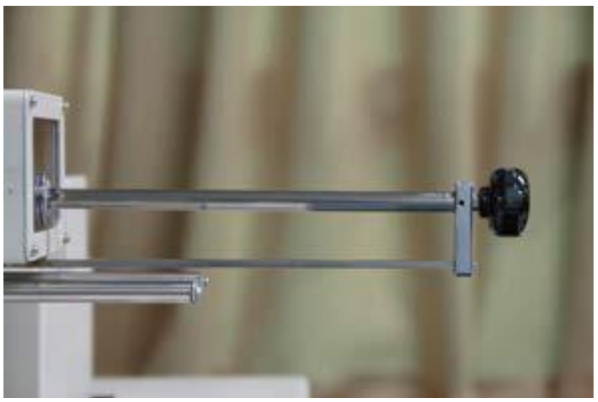


~ Sample Loading ~

1. Check if **1) Beam is off 2) Stage is at home 3) T: 000, Z: 080**, then Press AIR Button
2. When SEC venting is over (BEEP), Open SEC

3. Load Sample on ROD and turn it to lock

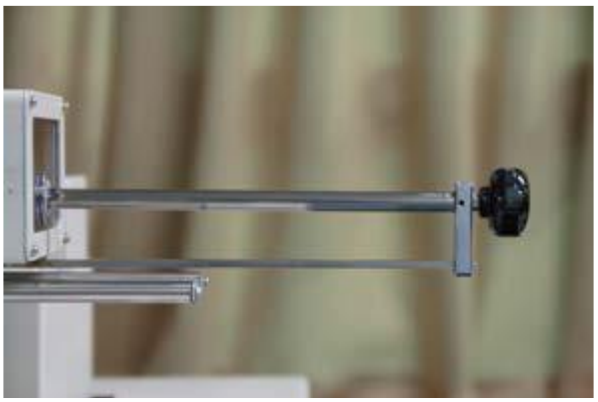
4. Pull ROD completely and Close SEC. Press EVAC



5. When SEC evacuation is over (BEEP), Press Open

6. When Gate Valve is open (BEEP), Push ROD into SC and turn it to unlock

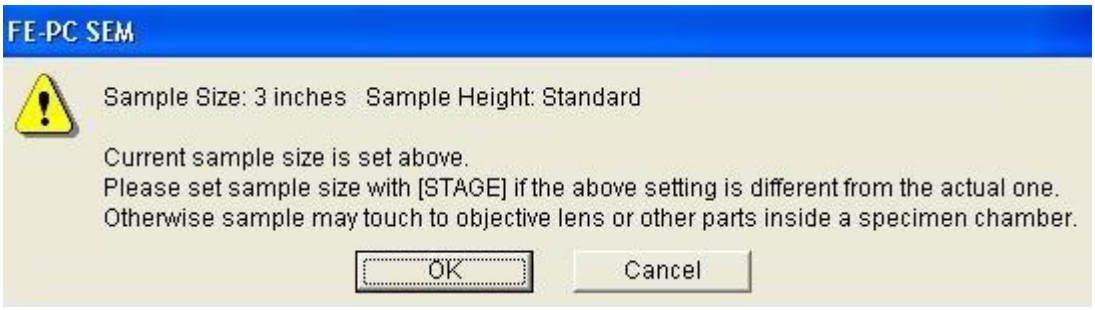
7. Pull ROD Completely and Press CLOSE



~ Imaging ~

1. Select Vacc and Ie. Click ON

2. Check the size and height of the sample. Then press OK.

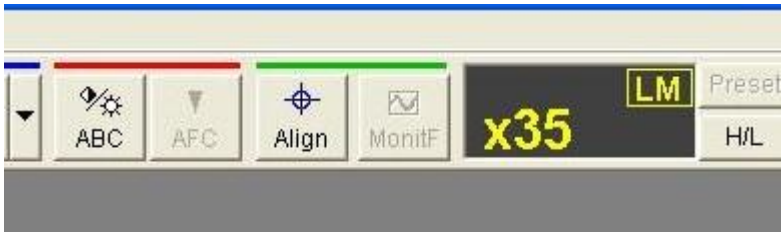


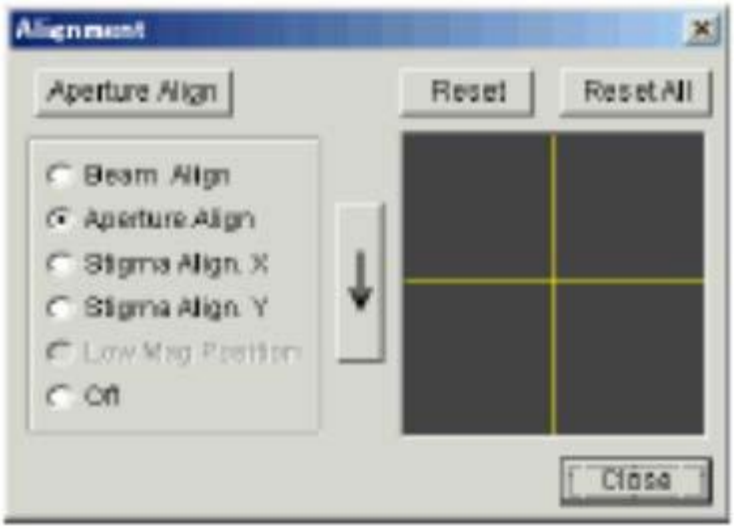
3. Move to the sample are at LM and click H/L

4. Adjust Focus / Stigma / Brightness and Contrast to get clear Image

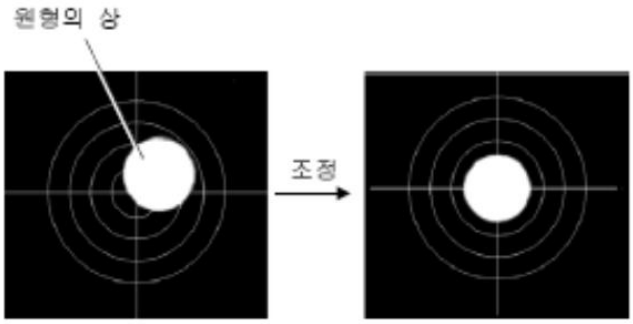
~ Alignment ~

1. Click Align to open the alignment window.





2. Select Beam Align: Adjust X,Y to move an image to the center



3. Select Aperture Align: Adjust X, Y to minimize image movement.
4. Select Stigma Align X: Adjust X, Y to minimize image movement.
5. Select Stigma Align Y: Adjust X, Y to minimize image movement.
6. Press Close to finish alignment

~ Sample Unloading ~

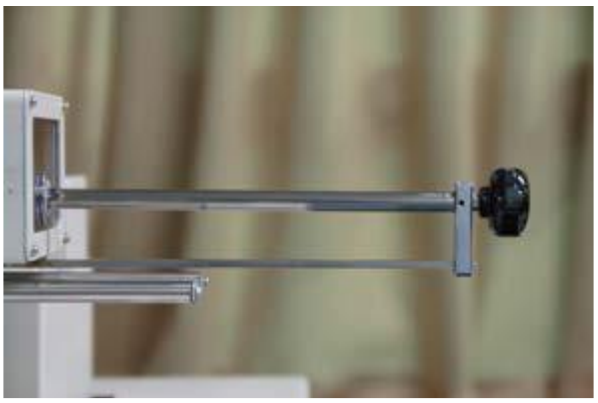
1. Check if **1) Beam is off 2) Stage is at home 3) T: 000, Z: 080** and Press OPEN
2. When Gate Valve is open (BEEP), Push ROD into SC and turn it to LOCK
3. Pull ROD Completely and Press CLOSE

4. When Gate Valve is closed (BEEP), Press AIR

5. When SEC venting is over (BEEP), Open SEC

6. Turn ROD to unlock and Unload sample holder

7. Make sure that ROD is pulled completely and close SEC



8. Press EVAC and wait until SEC evacuation is over (BEEP)

~ FAQ ~

Q. I cannot turn on the beam

Check the degree of a vacuum in SC on a display in front of S-4800. It should be LE-3. If not, please wait for several minutes.

Q. I cannot see anything though I've turn on the beam

1) Try to change brightness and contrast. If there is nothing but gray screen, please turn off the program and turn it again.

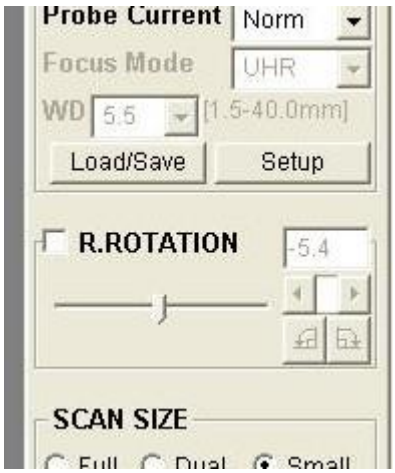
2) Check the Beam Alignment

Q. How can I measure the length in SEM image?

At Utility tab, you can find arrows with letter L. Click it and drag & drop on SEM image. When measuring is finished, click All and Clear.

Q. How can I rotate the SEM image?

At SEM tab, you can find R. Rotation. Check it and you'll be able to rotate the image. Please uncheck after use.



Q. How can I tilt or elevate the sample?

You use dials below to tilt(T) or elevate(Z) the sample. However, before elevate (less than 3.0mm / 4.0mm for magnetic sample) or tilt, please ask to the Technician Office first.