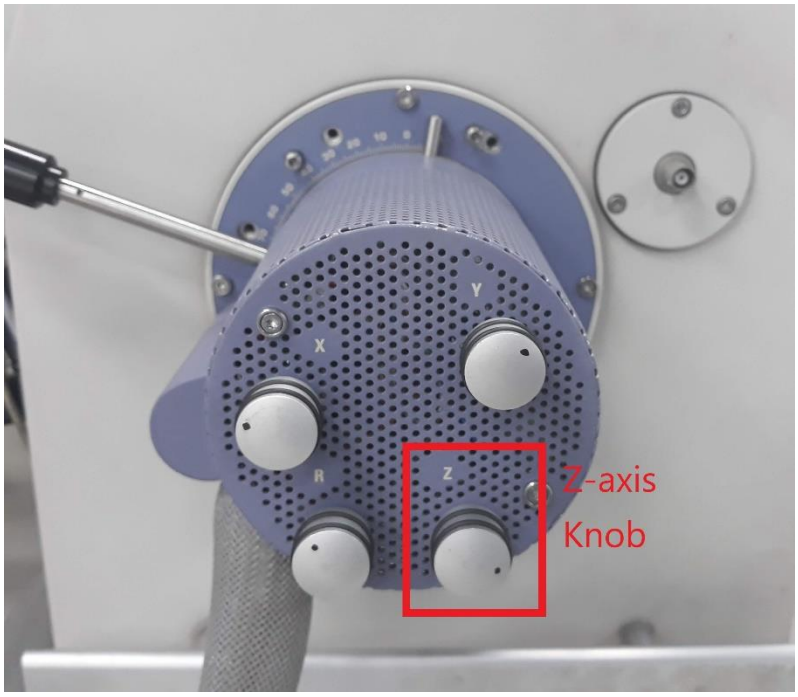
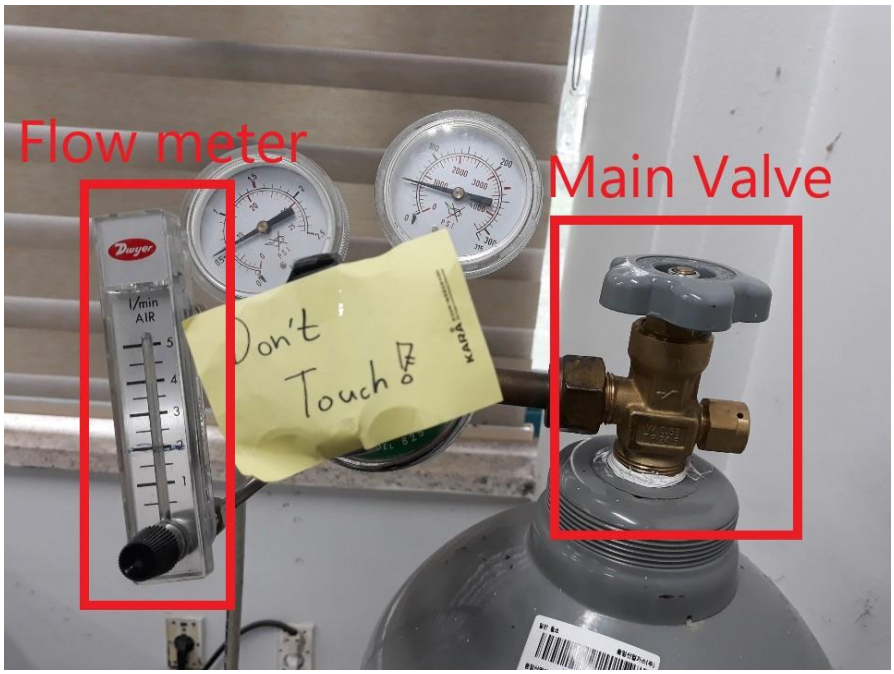
~ Parts Introduction ~

1. SEM Chamber

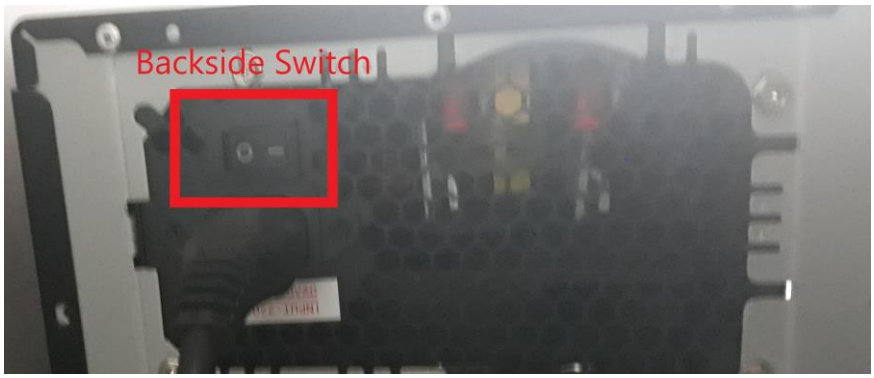


2. N2 main valve / flow meter



~ How to turn on/off SEM PC~

1. Turn on three PCs. For PC(right), turn the backside switch to "—"



2. To log in, you'll need passwords: PC(right) "xl30sfeg", PC(left) "philips3308!"

3. Double click on "Microscope control"

4. If you're the last user of the day (check reservation system), turn off PCs

5. In order to turn off PC(right) completely, turn the backside switch to "O"

~ Sample Loading ~

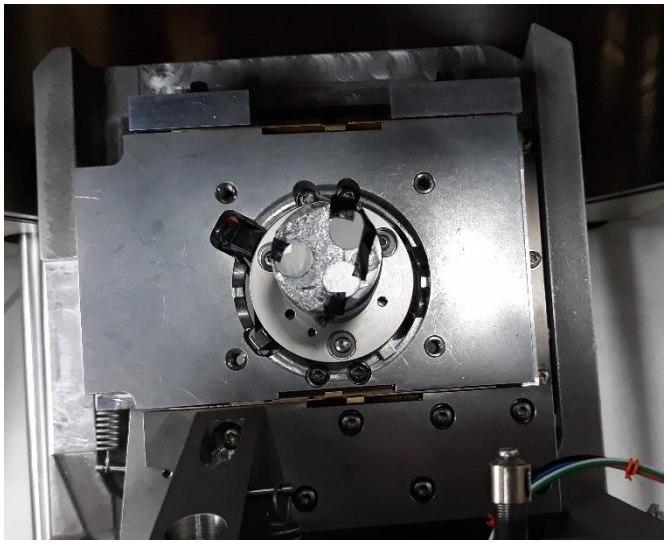
1. Click Vent and press OK to confirmation pop-up (whoosh)

2. Open the main valve of N2 and adjust flow meter to 2

3. When ventilation is over, open the chamber carefully

4. Close the main valve of N2 and flow meter

5. Load the sample and lightly press it



6. Tighten the stage screw and pull the sample gently to make sure it is secure
7. Adjust the sample height to fit the line (SE / BSE)

   *SE for general secondary electron detecting, BSE for backscattered electron detecting

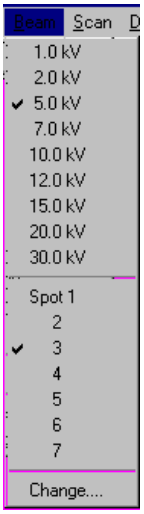
8. (Only for BSE) Turn the knob to insert BSE detector

9. Close the chamber slowly and click "PUMP" (make sure that chamber is closed well before click the button)

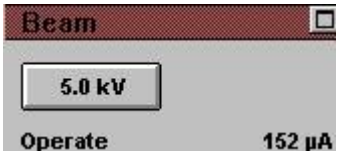
~ Initial Setting ~

1. When the vacuum level is sufficient, "Pre Vac" changes to "Vac OK"

2. Select accelerating voltage and spot size

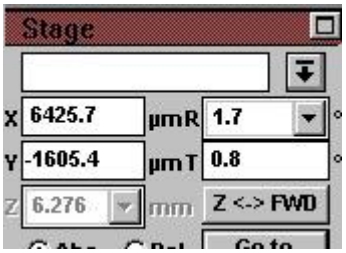


3. Click the beam button to turn it on (whoosh)



4. Move to your sample area and focus the image with right button of mouse

5. When image is focused, press Z<->FWD to link WD and Z value



6. Rotate Z-axis knob to make z value between 6 to 7mm

7. Repeat step 4 to 6 to make sure

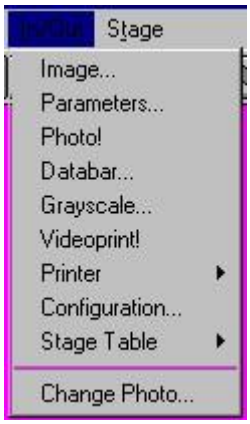
~ Image Saving ~

1. Set scan speed as Slow Scan 3(recommended)

2. When full frame is scanned, click freeze (ice-figured button)

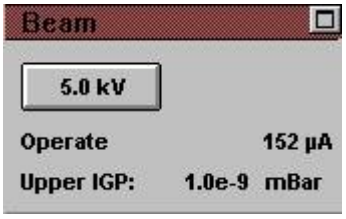
3. In/Out – Image – name the image and **click** SAVE (do not press enter!)

   * use filename below 8 characters



~ Sample Unloading ~

1. Click the beam button to turn it off (whoosh)



2. Click Vent (whoosh)

3. Open the main valve of N2 and adjust flow meter to 2

4. When ventilation is over, open the chamber carefully
5. Close the main valve of N2 and flow meter
6. Loosen the stage screw and unload the sample
7. (Only for BSE) Turn the knob to remove BSE detector

8. Close the chamber slowly and click "PUMP" (make sure that chamber is closed well before click the button)

~ FAQ ~

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

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

Q. Image doesn't move at all

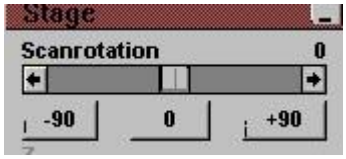
Move to the Scan Menu. Click "Full frame" if other option is checked.

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

You can find "Measurement" as below. Click it and drag & drop on SEM image and save it.

Q. How can I rotate the SEM image?

At Stage tab, you can find "Scanrotation". You can rotate the image with it. Please click "0" after use.



Q. Can I tilt the sample?

Due to prevent possible damage on SEM, please contact to technician office if you need tilt function.