

JEOL 7001 Operating Instructions

FEG SEM

SEM Start Up

1. Turn on computer and log on as **"CEMMA User"**
2. Open **'PC_SEM'** program.
3. Select **Your name, Password** and click **log on**
4. Fill out the logbook with all required information.
5. Open the **'IR'** camera program to view specimen movement. (F4)

Loading the Specimen

Note: Always wear Gloves when handling the specimen holder

6. **'Vent'** the specimen chamber.
7. Unlatch chamber and insert specimen (let holder rest on plate and push into place)
8. Close specimen chamber
9. **'EVAC'** the specimen chamber.
10. Click on **'Exchange Position'** (Green light goes on) (X=0, Y=0, R=0 Z=40, T=0)
11. Place the handle in horizontal position and push in specimen
12. Remove handle and place in vertical rest position.
13. Select and click on the correct specimen holder.
14. Insert a specimen offset.

Specimen Observation

15. Adjust the **Z height** and the **WD** of the specimen to desired amount.
16. Set the **'Accelerating Voltage'** and **'Probe Current'**.
17. Turn on the **"Observation ON"** icon so becomes green (this will turn on the filament)
18. Click the **ACB** button and adjust the **Focus** and **Magnification**.
19. Press the **'Alignment'** button and adjust the **Wobbler (X and Y controls)**.
20. Focus
21. Press the **'Stigmator'** button and adjust the **Stigmator X and Y** (at higher magnification)

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Removing/Changing the Specimen

Note: Always wear Gloves when handling the specimen holder

22. Press the **OFF** icon (filament turns off)
23. Click on **'Exchange Position'** (Green light goes on)
24. Confirm that the **'EVAC'** button is lit (specimen chamber).
25. Place the handle in horizontal position and push in to engage specimen
26. Pull back on handle to remove specimen.
27. Place handle in vertical rest position.
28. **'VENT'** the specimen chamber.
29. Unlatch chamber and remove specimen.
30. Close specimen chamber

SEM Shut Down

31. On the **"Touch Panel Unit"** verify that the **"HV"** button is highlighted.
32. **'EVAC'** the specimen chamber
(When not in use the instrument should be left in **'EVAC'**)
33. Close the **'IR'** camera.
34. Complete log book.