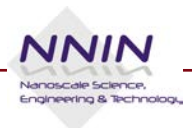




Sputter Coater

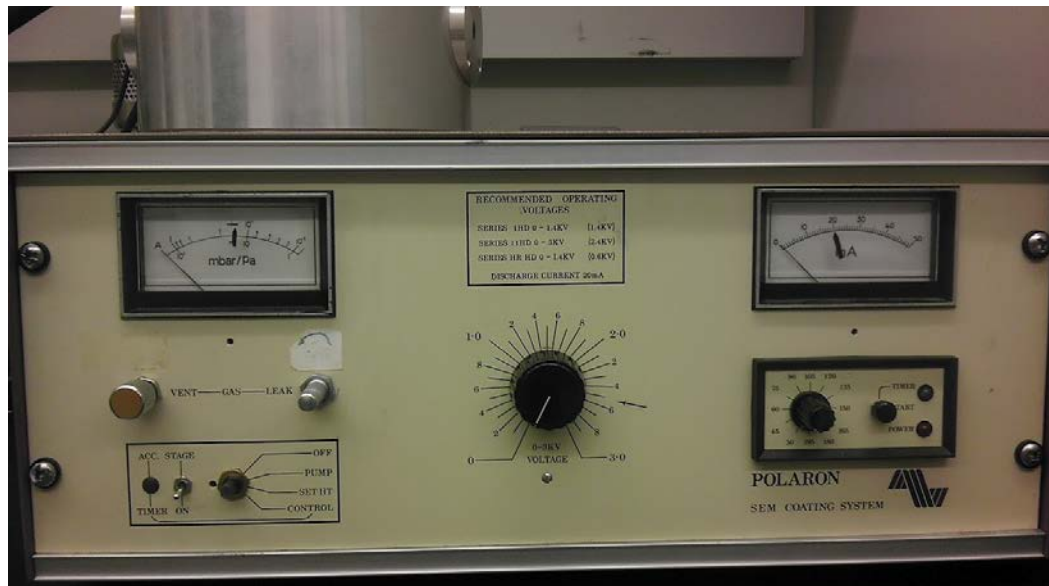
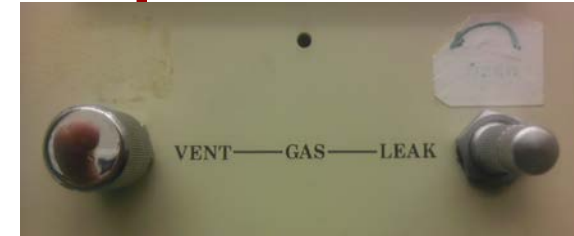
(Polaron)

User Manual



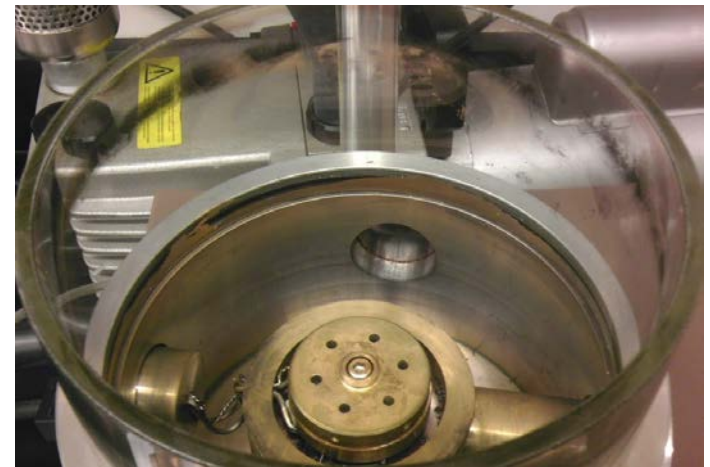
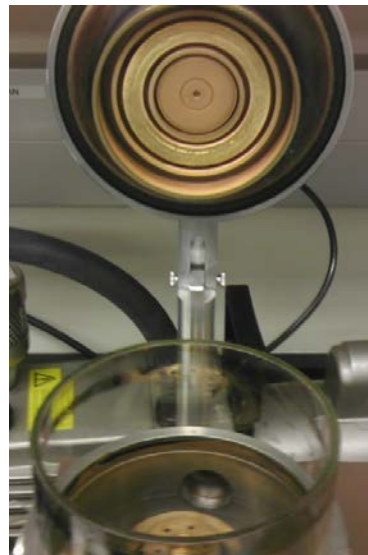
I) Check the following on the front panel

- LEAK valve is closed (clockwise).
- VENT valve is closed (clockwise).
- The timer is set to the desired time.
- VOLTAGE CONTROL set to zero.



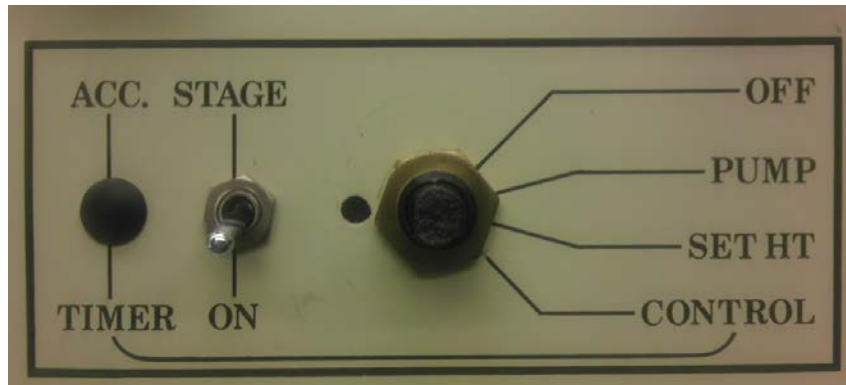
II) Loading specimens

- Put on a pair of gloves.
- Open Ar gas cylinder, gas pressure 20~30 psi.
- Open the top plate of the sample chamber.
- Place the sample mount in the sample holder.
- Close the top plate of sample chamber.



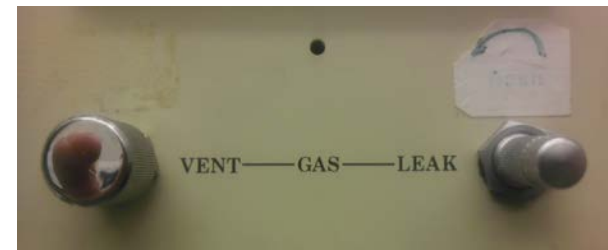
III) Pumping

- Turn the OPERATION SWITCH to the PUMP position.
- Wait for the vacuum gauge to indicate 0.1 mbar.
May take up to 20min.



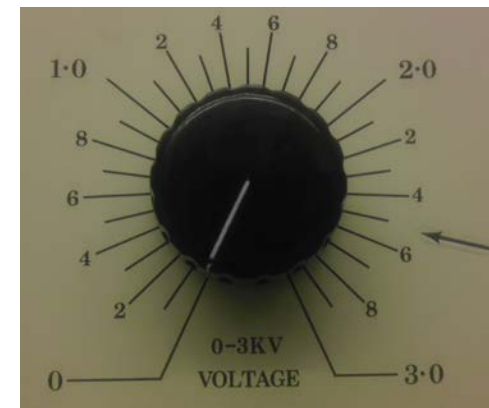
IV) Flushing Chamber

- Open the LEAK valve by rotating it counterclockwise until the vacuum gauge indicates 0.5 mbar, wait for 10 seconds.
- Close the LEAK valve, wait the system to pump down to 0.07~0.08 mbar.
- Open the LEAK valve again to flush argon for 10 seconds with the gauge indicating 0.5 mbar.
- Close the LEAK valve and pump down to about 0.06 mbar, wait about 5 minutes.



V) Coating Specimens

- Open LEAK valve to ~ 0.14 mbar (marked).
- Turn voltage control knob to 2.5 kV.
- Switch to SET HT, quickly check current is reading ~ 18 mA and switch to CONTROL.
- Press start and deposition will occur for specified time. Approximately 13.5 nm/minute.



VI) Shutdown

- Turn voltage to zero.
- Close LEAK valve.
- Turn OPERATION SWITCH to OFF.
- Open VENT valve slowly to let Ar bring the chamber back to atmospheric pressure.



VII) Clean-up

- Take out sample and close the top plate of sample chamber.
- Close gas cylinder.
- Close the VENT valve.
- Clean chamber with ethanol and Chem Wipe.

