

## PLD Thermionics

Reset Instructions: For power outages only!

1. Check that the gate valve has closed (red indicator light is on if power is restored, or that there is a white spot on close on the indicator below the gate valve motor).

2. Check All three pressure gauges. If the pressure is  $>10^{-4}$  Torr and rising, press EMIS on the ion gauge until it reads OFF, and switch off the Cold Cathode Gauge (MKS). (If pressure is stable, then it's ok.)

**IMPORTANT!!!!!!**

If the gate valve is not closed, and the pressure is rising or already  $>10^{-3}$  Torr (may read OFF or Err) proceed to PUMP DOWN INSTRUCTIONS. DO NOT CONTINUE FURTHER, but instead pump the chamber down as if it had been vented Pump Down Instructions.

Otherwise, continue.

3. Switch off the Edward's roughing pump (on the pump itself. It won't currently be on since it's not getting power, but flip the switch so it's in the off position.)

4. Flip the Main Power Reset Switch on the silver panel (Power Distribution Box) down then up to restore power to the system. Press the red Reset button on the right side of the main panel (to open the roughing pumps (RP) to the turbo pump (TP)). Then press the red Reset button on the LL panel.

5. Turn the Edward's RP on. Flip the power strip reset switch that the LL RP is plugged into. The RPs should start and the turbo controllers will power up.

6. Press the start button on the Alcatel LL TP. Press and hold the 'Test' button on the APC UPS at the bottom of the control tower to turn on the Main TP. The Main TP is connected to the UPS so should start automatically.

7. If the pressure is still  $<10^{-3}$ , let the Main TP get close to normal speed (about 22000 rpm, at least 20000 rpm, full speed is 34500), then slowly start to open the gate valve with the jog toggle, you should hear the ca-chunk. Check the pressure again on KJL multigauge to make sure the pressure is dropping. (If you turned it off, press F then EMIS again until it reads a pressure again.)

8. Jog open the gate a ways. If the pressure is dropping at a nice steady pace, open the gate valve by pressing the open button on the gate valve power box. If that fails, use the 'jog' toggle switch to open the gate 'manually' all the way.

9. Check that the pressure lowers to the  $10^{-8}$  Torr range.

#### PUMP DOWN INSTRUCTIONS:

Do 3, 4, then 5 from above to let RPs lower pressure before turning on the turbo pumps. Wait for about 10 minutes. The UPS will not turn on when you Flip the Main Power Switch, turn it on by pressing and holding the test button for a second when the pressure reaches the milliTorr (press F the EMIS on the KLS multigauge to check the pressure) range to start up the Main TP. Start to open the gate valve as the Main TP reaches about 1800 rpm. Proceed with 8 and 9.