1 Objective:

This Standard Operation Procedure states how Spin Coater should be operated.

2 Responsibilities:

2.1 Director / HOD / PI

The Director/HOD/PI has overall responsibility for ensuring a system is established for the safe use of the spin coater.

2.2 Designated Person

There shall be a designated person to oversee the correct operation and maintenance of the spin coater.

a. This person shall periodically inspect the spin coated to ensure its operational performance.

b. He/she will make necessary arrangements for repair works of the spin coater.

d. He/she will report to the Director/HOD/PI unsafe practices by spin coater users.

2.3 Staff/ Research personnel

a. Spin coater users shall attend appropriate training on the safe use of the machine.

b. Users shall report any injuries, defects or breakdowns to their supervisor.

3 Procedures:

3.1 Switch on power supply and Transformer (black box)

3.2 Switch on Vacuum Pump

3.3 Turn Lever Towards the Gold colored bolt (for the N2 gas Make sure N2 $\geq$ 60 PSI)

3.4 Use aluminum foil to cover up the inside of the coater

3.5 Set Program

4 Programming Procedures (PGM mode):

4.1. Press ***Program Select*** button to select program (program A to T **Don't use C this is for cleaning!)

4.2. Press ***F1*** button to switch between "program" mode and "off" mode (indicated as PGM and OFF on the interface respectively)

4.3. In PGM mode, press ***STEP*** button to select the step to be programmed

4.4. Press ← or → buttons to switch between the set data (RPM, time etc) to be changed

4.5. Press ↑ or ↓ buttons to increase or decrease the values of the set data

4.6. To delete steps, press ***DEL STEP*** button and press ***ENTER*** button

4.7. ACL (on the interface) is the acceleration index value and be adjusted while the number to the right of it is the calculated acceleration (RPM/second) which is not adjustable but is dependent on the selected ACL

5.1 Running the Program:

5.1 Load sample onto chuck

Make sure the Sample is lager than the chuck

5.2 Put resist **MAKE SURE YOU DON'T PUT ANY CHEMICALS INTO THE CHUCK!

5.3 Close lid and Press ***VACUUM*** button

5.4 Press F1 button and ensure that coater is in "OFF" mode

5.5 Press ***RUN/STOP*** button and program will start running (Coater will be in "RUN mode as indicated on the interface)

5.6 When program ends, press ***VACUUM*** button, open lid and take out sample

6 Shut down Procedures

6.1 Clear aluminum foil

6.2 Cover chuck with Petri Dish and drop few drops of acetone on the dish

6.3 Press ***VACUUM*** button and close the lid and run program "C"

6.4 Remove any resist on the chuck with acetone.

6.5 When program ends, open lid and wipe inside of Coater with acetone and dry it taking care not to let any chemicals enter the vacuum path via the chuck

6.6 Press ***VACUUM*** button

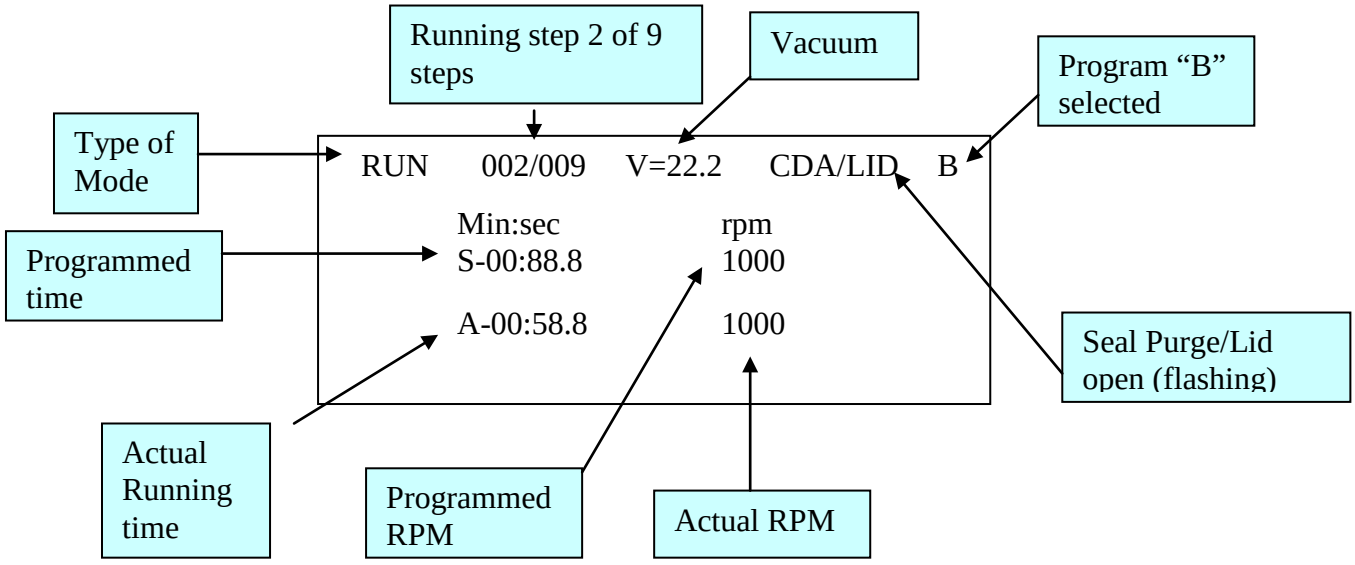
6.7 Store the Petri Dish

6.8 Switch off vacuum pump

6.9 Switch off Transformer and power supply

6.10 Wait 2 mins after last use before switching off the N2.

7 Summary guide:



8 References:

Manuals kept on the shelves at S7-01-01A near grey area cabinet.

9 Appendix:

Nil