Operational Procedure for Headway Spinner

1) Make sure there is Aluminum foil in the spinner.



- 2) Select the proper spin chuck.
- 3) Place the wafer on the spinner.
- 4) Press the **VACUUM ON** button on the spinner controller.
- 5) Press **RECIPE** to select a recipe.
- 6) The screen will display "SELECT A RECIPE"
- 7) Press a **Number** key to select Recipe Number. In this example Recipe 1 will be selected.
- 8) Press **STEP** to begin editing recipe.



- 9) Screen will display message "SELECT A STEP".
- 10) Press 1 to select Step 1. The Step arrow will display "1-9" indicating Step 1 of 9 total steps.
- 11) Press **SPEED/RAMP**.
- 12) The previous Speed for Step 1-9 will be displayed in RPM.



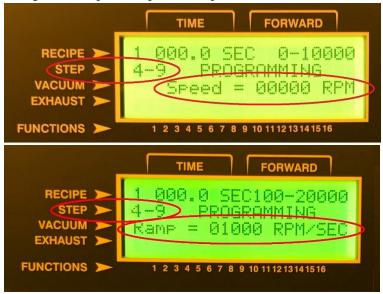
- 13) Press Any Number to Continue
- 14) User is prompted for a password. Input Password 7323. Press ENTER.
- 15) User can now edit the speed. Input new Speed.
- 16) Press SPEED/RAMP again to display previous Ramp Rate in RPM/SEC.
- 17) User can now edit the ramp rate. Input new Ramp Rate.
- 18) Press STEP TERMINATE.



19) The previous Time will be displayed.

- 20) User can now edit the time. Input new Time.
- 21) Repeat this process (Steps 8-20) by pressing **STEP** and a step **Number** key to edit other steps.
- 22) Final Ramp to 0 RPM Step: On your final step, you should program the recipe to ramp down to 0 RPM.
 - a. Press STEP.
 - b. Press the number for your final used step.
 - c. Press SPEED/RAMP.
 - d. Input Speed 0 RPM.
 - e. Press SPEED/RAMP.
 - f. Input Ramp Rate between 100-2000 RPM/SEC.
 - g. Press STEP TERMINATE.
 - h. Input Time 0 SEC.
- 23) **Unused Steps:** There are 9 steps total. If there are unused steps after your **Final Ramp to 0 RPM Step**, you may need to check that all remaining unused steps are set to 0 RPM, 100-2000 RPM/SEC, and 0 SEC
 - a. Press STEP.
 - b. Press the number for the unused step.
 - c. Press SPEED/RAMP.
 - d. Input Speed 0 RPM.
 - e. Press SPEED/RAMP.
 - f. Input Ramp Rate between 100-2000 RPM/SEC (The Ramp Rate is **irrelevant** here since you are editing an unused step with Speed = 0 RPM and Time = 0 SEC. This is done to avoid "Wrong Entry" message and brief alarm sound for invalid Ramp Rates.
 - g. Press STEP TERMINATE.
 - h. Input Time 0 SEC.
 - i. Repeat steps (a) through (h) for remaining unused steps.
 - j. These entries are to make sure that wafer doesn't go into unwanted steps.

The following are examples of Speed, Ramp Rate, and Time values for an Unused Step 4-9





- 24) Once all steps are edited, press **STEP** followed by **0** to end recipe editing.
- 25) User will be prompted to input new password twice. Input new password twice:
 - a. Input 7323.
 - b. Press **ENTER**.
 - c. Input 7323 again.
 - d. Press **ENTER**.
- 26) Now use pipette and drop your resists evenly on your wafer and make sure it covers entire area.
- 27) With your foot press the **Green** button on the floor and this will start the spinner.



- 28) If you need to abort before recipe finishes, press the **Red** button on the floor. Reset the spinner by pressing **Green** button after abort.
- 29) Once it's done spinning, turn off the vacuum and remove the wafer and place it on the hot plate for 90 sec.
- 30) Remove the Aluminum foil and replace it with new one.
- 31) Clean the spin chuck.
- 32) Clean any photoresist spills on the bench or on the floor.