

Typical Operating Procedure

1. Turn on vacuum at power strip on floor to right of spinner.
2. Check vacuum pressure (20-21 in-Hg) on vacuum gauge to right of spinner. [Fig 1]
3. Select spin recipe. (See Programming Spin Parameters section.)
4. Remove chamber lid. [Fig 2]
5. Select appropriate sample chuck.
 - Note:** Sample should be large enough to cover vacuum seal on chuck.
6. Place rubber gasket(s) in chuck shaft. [Fig 3a,b]
 - Note:** Some chucks may require two gaskets.
7. Attach chuck to spindle, aligning flat shaft edge to flat spindle edge and pressing down firmly. [Fig 3c]
8. Center dummy sample on chuck. [Fig 4]
9. Cover chamber with black lid. [Fig 2]
 - WARNING:** Wear protective eyewear to prevent accidental injury from flying debris.
10. Press green **START** button to perform test spin. [Fig 5]
 - Note:** It is best to allow entire spin process to finish to ensure it is programmed correctly.
 - Note:** Press red **STOP** button to terminate spin if necessary. [Fig 5]
 - Note:** If spinner does not start ****CHECK VACUUM**** warning is indicated on LCD display. [Fig 6] Be sure chuck is seated tightly on spindle and dummy sample seals chuck properly. Also be sure sample is centered on spindle.
11. If spin test is successful, replace dummy sample with real sample and test spin to ensure vacuum seal.
12. Apply coating material (e.g. photoresist) uniformly on sample.
13. Cover chamber lid; [Fig 2] press green **START** button. [Fig 5]
14. When spin process completes, remove lid, remove sample from chuck.

Shutdown Procedure

1. Remove chuck from spindle by firmly pulling upward.
2. Remove rubber gasket(s) from chuck shaft using wooden end of cotton swab.
3. Clean chuck and spindle with acetone, rinse with DI water and dry with compressed N₂.
 - Note:** Clean all parts for next user.
4. Cover chamber with lid.
5. Switch off vacuum pump at power strip on floor to right of spinner.



Fig 1



Fig 2

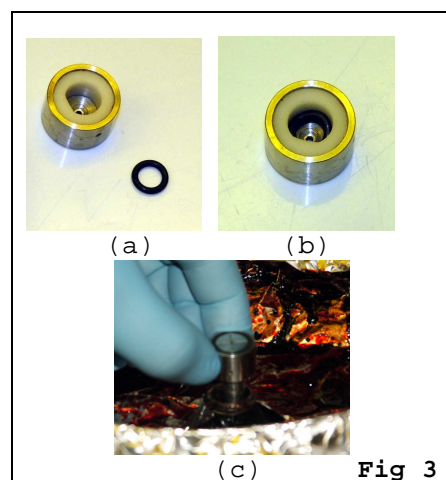


Fig 3



Fig 4



Fig 5

Programming Spin Parameters

The Direct View 1000 control panel consists of an LCD display and 10 input buttons. [Fig 6]

Three recipes may be programmed at any given time.

To select a recipe to edit:

1. At **RECIPE** prompt, press **ENT**.
Note: Press **+** or **-** to scroll down or up parameter list to arrive at **RECIPE** if necessary.
2. Press **+** or **-** to change recipe number (1, 2 or 3).
3. Press **ENT** to accept recipe number.
Note: Spin parameters for selected recipe number are displayed.
Note: Each spin recipe consists of three spin cycles.

To program first cycle of example spin parameters at right, perform the following steps:

1. Beginning with cursor on **RECIPE**, press **+**.
2. With cursor on **RPM 1** press **ENT**.
3. Press **+** or **-** to increase or decrease numerical value of each digit and **←** or **→** to select each digit.
4. When value is "2000", press **ENT** to accept value.
5. Press **+** to scroll down to **RAMP 1**, then press **ENT**.
6. Press **+** or **-** to increase or decrease numerical value of each digit and **←** or **→** to select each digit.
7. When value is "0003", press **ENT** to accept value.
8. Press **+** to scroll down to **TIME 1**, then press **ENT**.
9. Press **+** or **-** to increase or decrease numerical value of each digit and **←** or **→** to select each digit.
10. When value is "0001", press **ENT** to accept value.

Repeat steps 2-10 to program remaining two cycles (2 and 3).

Note: RAMP 4 is typically set to 1.

Once final value is accepted by pressing **ENT**, selected recipe is active. Pressing **START** button [Fig 5] performs active recipe.

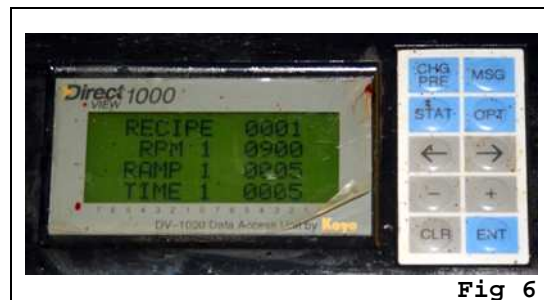


Fig 6

Example Spin Parameters

Cycle 1

RPM = 2000RPM
 RAMP= 3s
 TIME = 1s

Cycle 2

RPM = 3000RPM
 RAMP= 1s
 TIME= 1s

Cycle 3

RPM = 4000RPM
 RAMP = 1s
 RIME = 30s

[RAMP 4 = 1]

Fig 7

Note: Example is typical for spinning photoresist.