## How to use of ultra centrifuge model XL-80

Sample volume:

When using thin tubes (swing rotor), fill the tube with sample up to about 2-3 mm from the top. When using a thick tube (angle rotor), more than half the tube volume is required.

- Adjust the balance of weight of sample. Set it in the rotor symmetrically When balancing, include the weight of the cap and bucket. When using a swing rotor, also hang an empty bucket.
- 2. The main body breaker is turned on. (The right side of main body)
- 3. The door is opened. The rotor is put on the axis.(Do not put a strain in the axis.) The door is closed.
- 4. The [VACUUM] button is pushed, and the chamber is made a vacuum.
- The [SPEED] button is pushed.
   After the rotational speed is input, fixes it with [ENTER] button.
   (Please push the [CE] button when you make a mistake in the input. )
- 6. The [TIME] button is pushed. After time is input, [ENTER] button is pushed. (It counts down immediately after the start.)
- 7. The [TEMP] button is pushed. After temperature is input, [ENTER] button is pushed.
- 8. The [ROTOR] button is pushed. After the number of the rotor is input, [ENTER] is pushed.
- The [ACCEL PROFILES] button is pushed. The degree of acceleration is selected. (Refer to a table) (Please select 4 or 7 at the swing rotor use.)
- 10. The [DECEL PROFILES] button is pushed. The degree of deceleration is selected. (Refer to a table) (Please select 4 or 7 at the swing rotor use.)
- 11. When the value of vacuum becomes 750micron, it is possible to start.
  Push [START] button after pushing [ENTER] button to start centrifuging
  Stay nearby until reaches maximum RPM.
  If an abnormality occurs, immediately press [Stop] and evacuate.

## After centrifugal finishes

- 12. The [VACUUM] button is pushed. Air is enter in the chamber.
- 13. Open the door when the sound that air enters stops. The rotor is taken out. Leave the door slightly open to allow the inside to dry out.
- 14. The main body breaker is turned off.

## Fill in the usage notes after use.

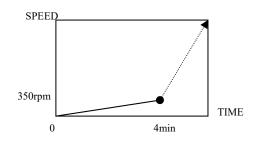
Wash the used rotor, bucket and cap with pure water.

When you want to set the temperature beforehand... Make the chamber to the vacuum with the [VACUUM] button after setting the temperature. Caution UC Tubes cannot be autoclaved. Ethanol cannot be used in PC bottles.

4 is used usually.

	Rotational	Arrival
Number	speed	time
1	170	2:00
2	350	2:40
3	500	3:00
4	170	3:00
5	350	4:00
6	500	4:30
7	170	4:00
8	350	5:20
9	500	6:00

Additionally, "MAX SPEED" and "NO BRAKE" can be selected.



At the ACCEL 5 setting, it will change into the maximum acceleration in 4min. At the DECEL 5 setting, it takes 4min from 350 to 0 rpm after it decelerates by the maximum deceleration.