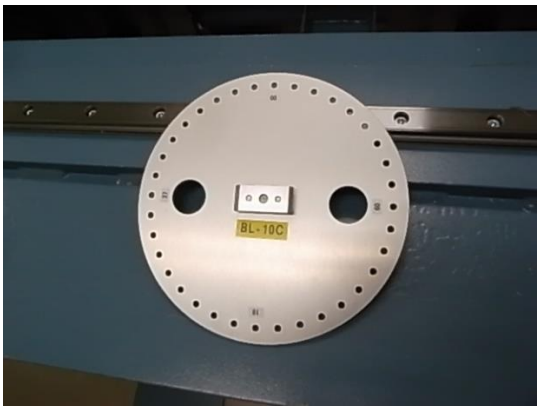
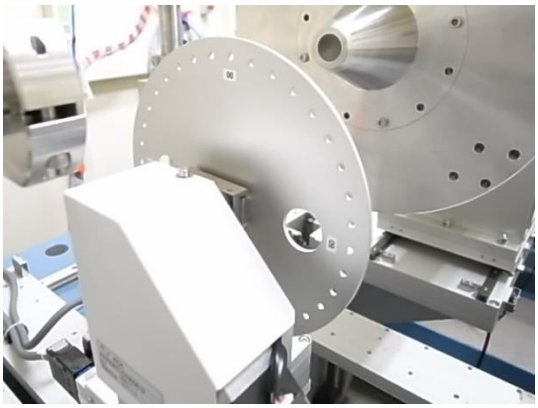
Rotating Sample Changer User Manual

With this rotating sample changer, you can continuously measure samples by attaching them to each hole of the 36-hole circular plate. The disc rotates and automatically switches the samples for measurement. Below is an explanation of how to use it.

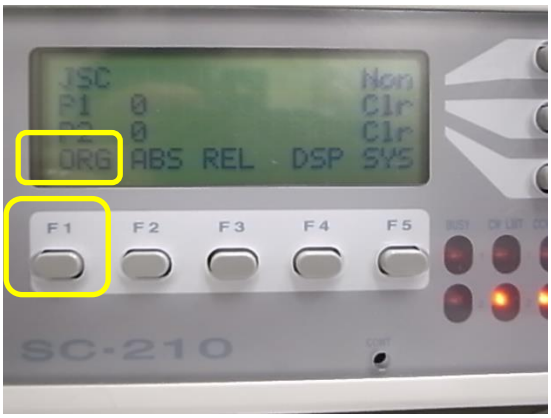




1.Disk Fixation and Datum (Origin Return Operation)

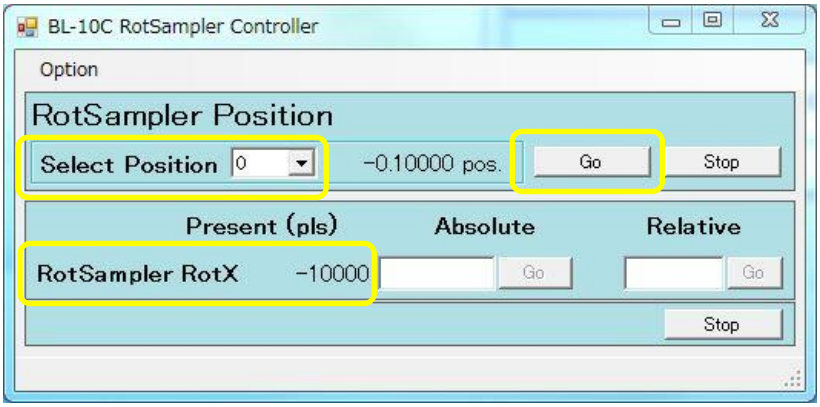
- Please fix the samples on the disk using tape or other means.
- Fix the disk to the main body of the rotating sample changer. Push the disk firmly until it is securely seated at the back. When fixing, avoid rotating the sample stage as it may cause pulse misalignment. In such cases, please perform the following Datum.

Press the ORG (F1) key on the SC210 motor controller to switch to the ORG screen.



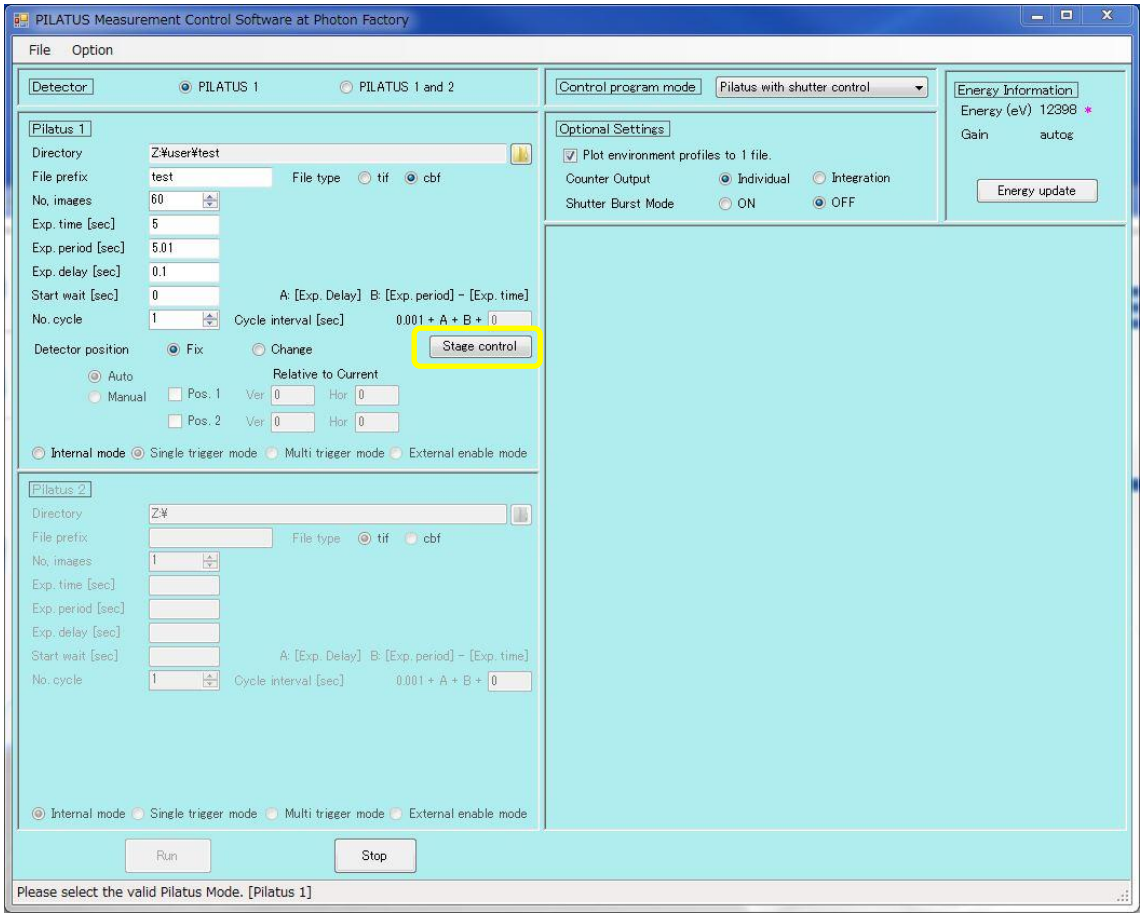
Press the [1] (F2) key to Datum CH1.

- Once the Datum operation is completed, the Datum position will be set to "0" for BL-6A and BL-15A2, and "-10000" for BL-10C.
- Only for BL-10C, on the Hatch Outside Control PC, in the RotSampler Controller GUI, the Rot Sampler RotX axis is displayed as "-10000". Please select "0" from the Select Position and press "Go". The stage will rotate, and the pulse will come to the 0 position.

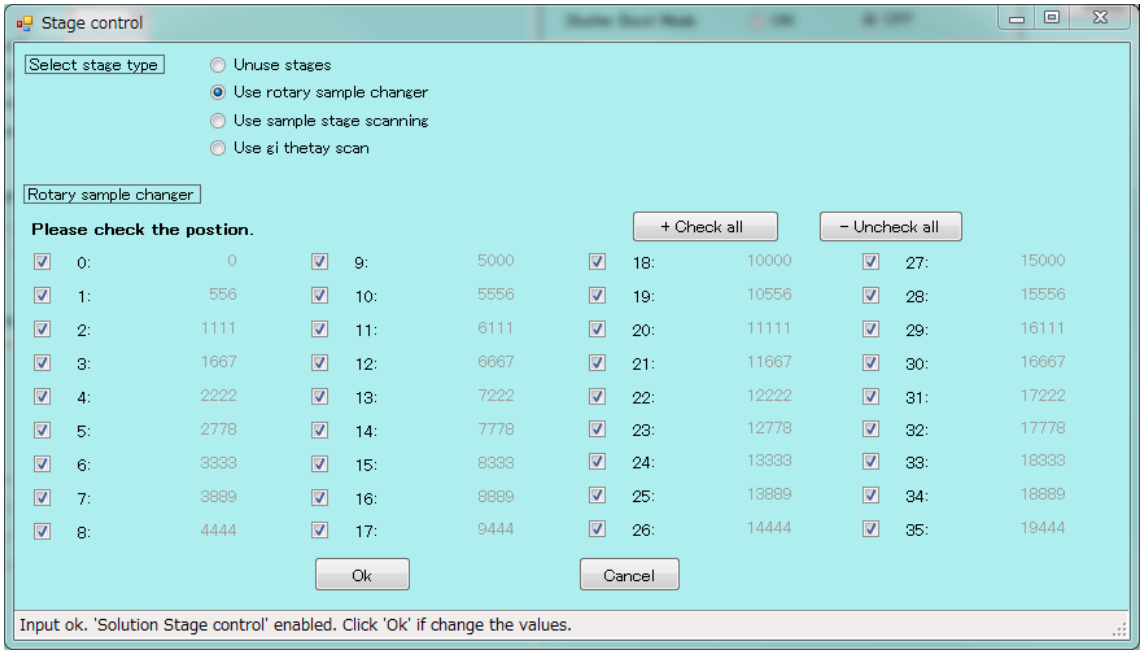


2.Measurement Procedure

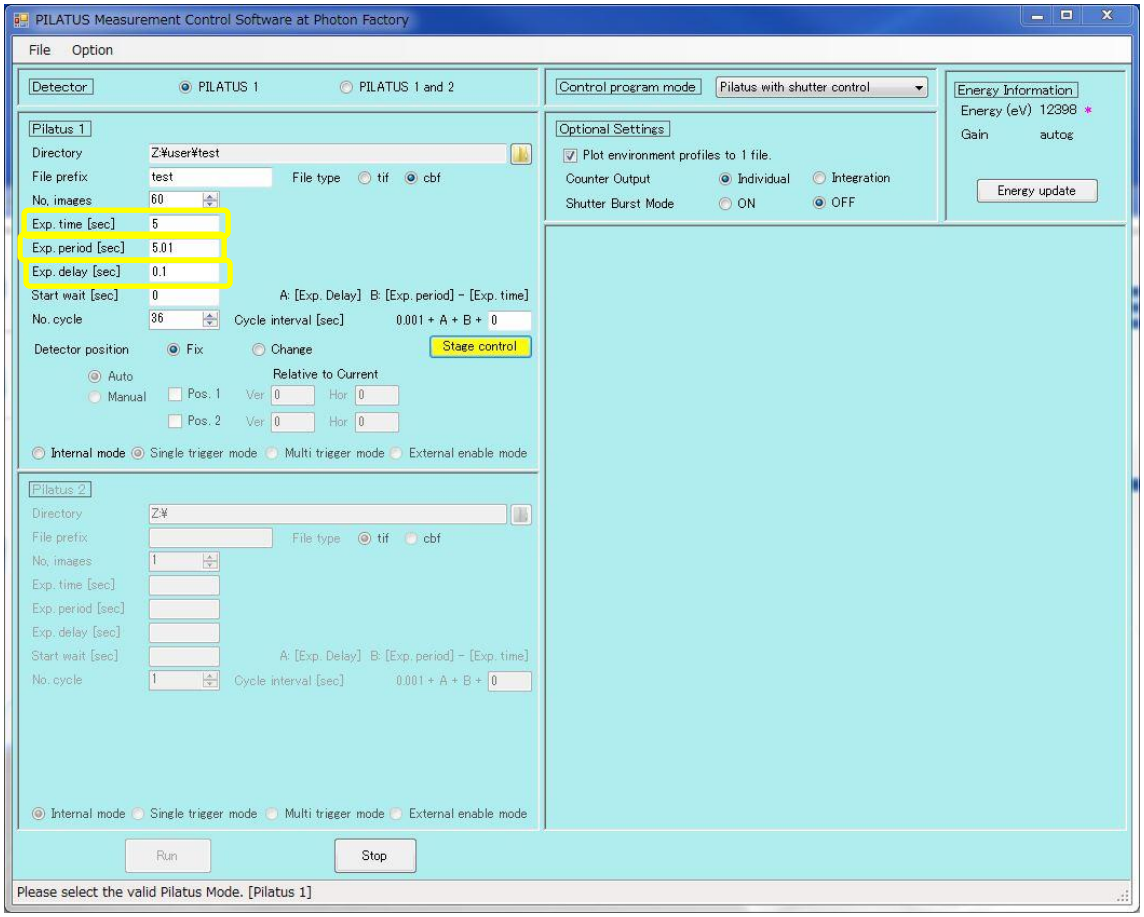
- Please click on "Stage Control" in the PILATUS Measurement Control Software at Photon Factory.



- Select "Use rotary sample changer" for Stage type. Choose the positions of the holes you want to measure, and then close the window by clicking "OK". The following is an example of measuring all the holes.



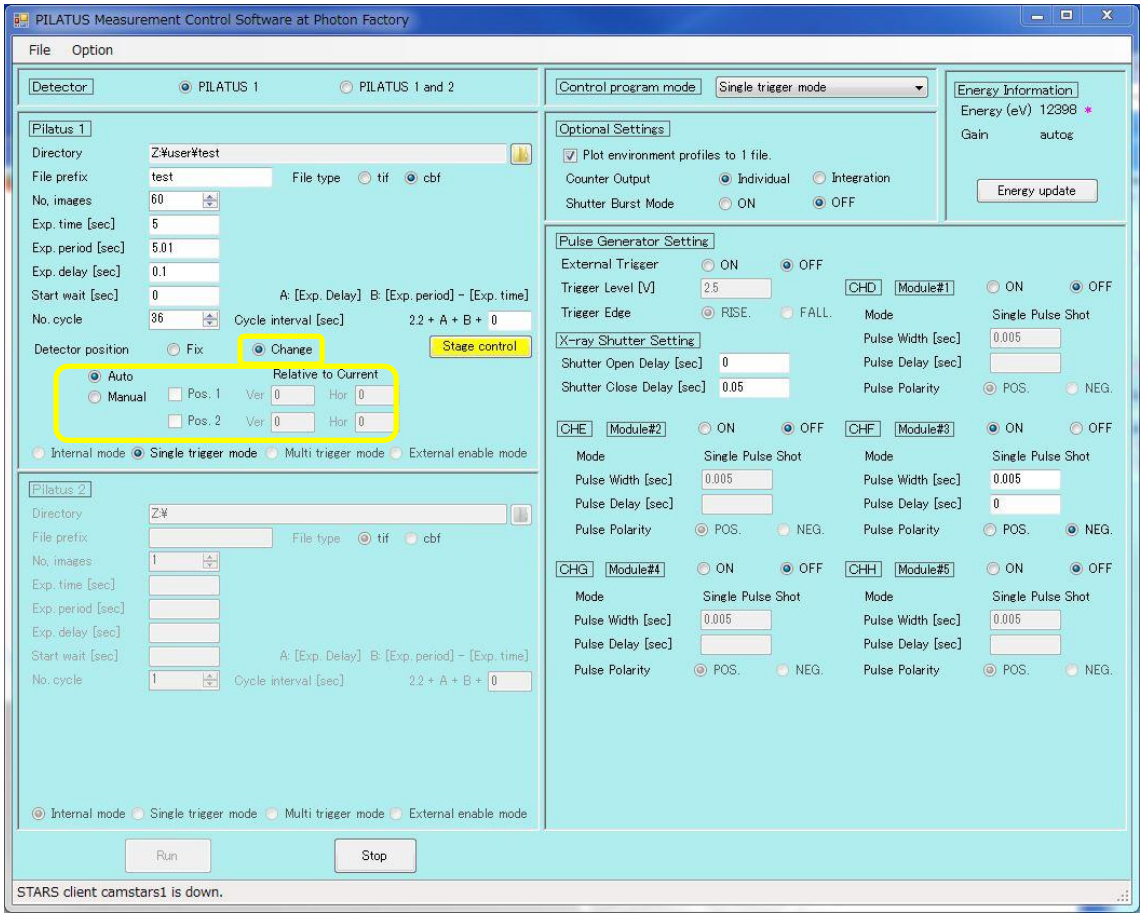
- The "No. Cycle" will be automatically set according to the number of selected holes. The measurements will be distinguished by the sample position = Cycle number.
- Determine the measurement conditions (number of image acquisitions, exposure time, and exposure interval).
- In the PILATUS Measurement Control Software at Photon Factory, input the number of images, exposure time, and exposure period according to the measurement conditions.



- Press "Run" in the PILATUS Measurement Control Software at Photon Factory to start the measurement. The file name will be "sample_0 (hole position)_00000 (number of measurements).tif".

3.Measurement with Translation Function

- If you want to translate the detector, continue with the following steps after the measurement procedure.
- Select "Change" from the Detector position, and then choose either "Auto" or "Manual." If you choose "Manual," please input the Ver. and Hor. values for Pos.1 and Pos.2.



- Press the Run button to start the measurement.
- The file name will be "sample_0 (hole position)_d0 (translation position) 00000 (number of measurements).tif."

4.If the disc stops moving midway.

- Please check if the motor cable or RS232C cable is disconnected. When plugging or unplugging the motor cable, please ensure to turn off the power beforehand to prevent electric shock.
- Please turn off the power of SC210, and then turn it back on.
- Execute the "Datum" command.
- If the disc still does not move, please restart the PILATUS Measurement on the Control PC (CNTL PC).