

If QC has not been run, then startup and QC procedures must be followed, otherwise proceed directly to running samples.

Startup and flushing

Empty the waste container into the sink and add 100 mL of 0.5% bleach (~5 mL bleach to 100 mL NanoPure water). Return the waste container to the system and press the button on the front of the instrument to startup. Turn on the NanoPure water system and let run for at least 1 minute (Do NOT collect the first bit of water from the NanoPure system as it will contain detectable particulate). Fill a polystyrene round bottom tube with ~4-5 mL NanoPure water to be used for flushing.

Once the instrument has finished the startup procedure (the blue light will stop flashing, ~5 minutes). Using the water sample collected above, in the CSampler Software, set up a run to flush for 15 minutes on fast flow rate (requires a minimum of 1 mL). Once the 15 minute flush has finished, proceed to QC.

QC

Retrieve tubes of prepared 8- and 6-peak beads used for QC (black and white tube rack in door of refrigerator). Locate and open up the current QC file, labeled: "QC samples" and start date of file (file is located in Desktop/BIF Users/QC/Current). Under the Autocollect tab, add today's date to the next QC slots to be filled (for example, if A04 already has a date, then use A05), one for each QC sample. Put the tubes into the correct position in the tube rack and start up the run (2 minutes, slow flow rate, threshold of 80,000). To run an automated run for both samples, be sure to have agitation on for each sample and a wash between samples.

Checking QC

The 8-peak beads are used to measure the blue laser and detectors FL1, FL2 and FL3. The 6-peak beads are used to measure the red laser and FL-4. The CV values for each of the detectors (FL-1,-2 and -3 for the 8-peak and FL-4 for the 6-peak) must be less than 5%. If the numbers are higher than 5%, contact Dan or Darrell before running any samples.

To check QC results: On manual collect tab, select the 8-peak QC sample and look at plots 1-4. Plot 1 should show >80% in gate R1; if not, then fresh QC samples need to be made. For plots 2-4, in the data tables below the dot plots, find the CV for FL1/2/3 for M1/2/3 (need to be <5%). To check the red laser and FL-4, select the 6-peak QC sample. Check the % in gate R2 in plot 5 and CV for FL-4 for M4 in plot 6.

If the QC results are good (CV values <5%), then proceed to samples. QC only needs to be run once per day.

Shutdown

Following every run, flush with decontamination solution for 2 minutes on fast and water for 2 minutes on fast. If you are the last user for the day then press the button on the front of the instrument to shut it down (shutdown takes ~15 minutes). Once you press the button to begin shutdown, you are free to leave.