



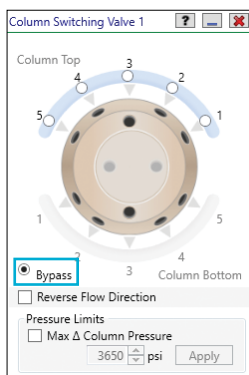
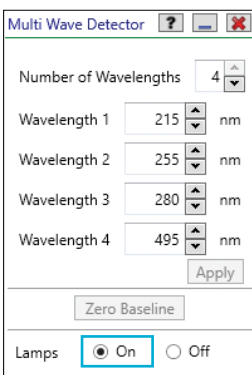
CHROMATOGRAPHY

NGC Liquid Chromatography System

Quick Guide

Starting Your NGC Chromatography System

- 1 Turn on the system and detector (30-minute warm up for multi-wavelength lamps).
- 2 Ensure all column switching valves are set to Bypass.

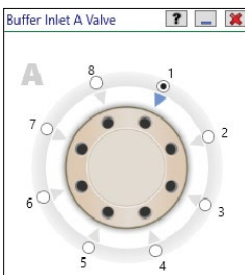


Note: If the system is in a cold room or box, the system should remain powered on to prevent condensation from forming inside.

Priming the Pumps

All lines should be primed with filtered and degassed water using a syringe and the pump head priming port.

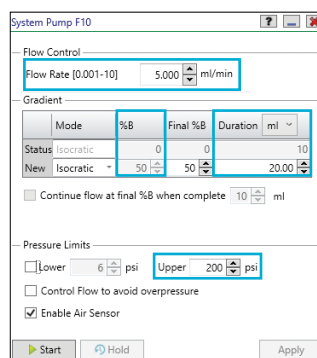
- 1 Insert a syringe onto the priming port, rotate the priming port one half turn, and use the syringe to pull 15 ml.



- If using a buffer blending valve, change the mode to **Priming** and select the buffer blending port you want to prime
- If using an inlet valve, select the port you want to prime

Purging the System

- 1 Set the pumps to flush 20 ml of filtered and degassed water through the system.



- Set Flow Rate
- Set %B
- Set Duration
- Set Pressure Limits

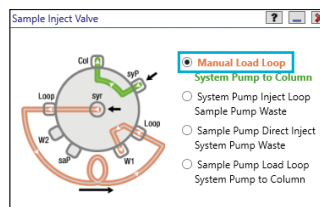
- 2 If a column is stored in 20% ethanol, be sure to flush the column with water.

- If the system contains a column switching valve, select the correct column position on the column switching valve
- In the pump control window, enter the recommended flow rate, adequate duration to flush the column, and the upper pressure limit of the column in line
- If successful, LED lights will indicate flow to the column position

- 3 Repeat priming steps using the appropriate filtered and degassed buffer for the run.

Sample Application Using the Sample Loop

- 1 Load sample in Manual Load Loop mode.



- Flush the loop with water and then equilibration buffer before introducing the sample
- Load a minimum of 200 µl greater than the loop volume to ensure air has been purged from the loop

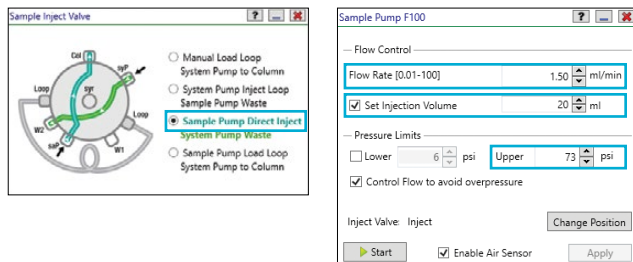
2 Select System Pump Inject Loop on the Sample Inject Valve to start sample injection with the system pumps to the column.

- Use 2.5x the loop volume to ensure all sample has been loaded to the column

Sample Application Using the Sample Pump

1 Prime the sample pump with water and then equilibration buffer, followed by sample.

2 Select Sample Pump Direct Inject on the Sample Inject Valve.



- Enter the flow rate
- Set the Injection Volume. If equipped with sample air sensing, enable air sensor and set the injection volume to greater than the sample volume
- Set the Column Pressure Limits
- Start the pump

Cleaning the System

1 After priming the pumps and ensuring the column switching valves are in bypass, flush the system with 30 ml water followed by 30 ml 0.5 M NaOH, incubate for 30 minutes to an hour, and then flush the system with 30 ml of water. Collect all 90 ml using the fraction collector to ensure the dispenser is cleaned.

- To clean the sample loop, set the injection valve to **System Pump Inject Loop**

2 If the sample pump was used, repeat the procedure in step 1 using the Sample Pump while the Sample Inject Valve is in the Sample Pump Waste position.

System Shutdown

- 1 Turn off lamps and reset column switching valve to Bypass.**
- 2 Prime the pumps and purge the system with water to remove high salt buffers.**
- 3 For storage, prime the pumps and purge the system with 20% ethanol.**

Maintenance

- 1 Change pump wash solution (20% ethanol) weekly.**
- 2 Power cycle every two weeks.**
 - Go to **Shutdown** on the touch screen, shut the system down, wait 10 seconds, and turn it back on
 - If your system is in a cold room or box, do not leave the system off for more than 10 minutes
- 3 Clean system after each use to prevent damage to flow cell. For more information about system maintenance, see Appendix A of the NGC Chromatography Systems and ChromLab Software Instrument Guide (1000049091).**

Need more help?

For priming pumps, go to **Help > Tutorials > Priming the Pumps.**

For priming the system and sample application, go to **Help > Tutorials > Performing a Manual Run.**

Visit bio-rad.com/myNGC for more information.

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