

Key Things to Consider as You Restart Your Systems

As you return to the lab and bring your systems back on-line, follow these simple steps for proper startup:

LC SYSTEM START-UP REFERENCE

1. Check the state of the instrument, connections and waste, and ensure it is calibrated/within the preventative maintenance period
2. Discard all aqueous/buffered mobile phases that have been opened, left out, or are greater than one (1) month old
3. Discard any samples that have been left in the sample manager or autosampler
4. Remove the analytical column from the system and replace with an appropriate union
5. Place all solvent lines, including wash and purge lines, into a clean bottle containing 80–90% organic (MeCN or MeOH)/10–20% water. If salt buffer were left on the instrument, prime with 100% water prior to adding any organic MP to the system
6. Cycle the power to each module
 - a. Allow each module to go through its start up diagnostics before powering on the next unit
 - b. Check all communications between systems/ workstation and reestablish as needed.
 - i. Includes remapping any shared network drives
7. Prime each solvent/wash line for 5 min with the above mobile phase
8. Set flow to 0.5 mL/min and allow to flow the system with no column for 20–30 min
9. Where applicable, run System Diagnostic tests. For example:
 - a. Pump leak tests
 - b. Sample manager diagnostics and leak tests
10. Create fresh working mobile phase(s) and wash solvents and route the LC solvent lines to the appropriate solvent containers
11. Prime each line for 5 min
12. Connect the column to the inlet of the system (Do not connect the column to the detector)
 - a. Gradually start the flow, collecting the mobile phase effluent in a beaker/waste container
 - i. Increase the flow gradually to the desired flow rate
 - ii. Observe the pressure, ensure the pressure reaches a steady state for 5 min
13. Stop the flow and now connect the column to the detector
 - a. Gradually start the flow
 - i. Increase the flow gradually to the desired rate
 - ii. Observe the pressure and detector signal, ensure the pressure and detector signal reach a steady state for 5 min



For a video detailing how to start an ACQUITY™ UPLC™ System after long-term storage, [click here](#)

MASS SPECTROMETER START-UP REFERENCE

1. Check the state of the MS detector, vacuum pump(s), connections and waste and ensure it is calibrated/within the preventative maintenance period
2. If required, pump down the MS and wait until appropriate vacuum level is achieved before proceeding
3. Check the operations manual; where applicable, run MS Diagnostic tests
4. Key parameters to check prior to operation (may vary with MS model)
 - a. Vacuum readbacks
 - b. Gas gauge readbacks
 - c. Voltages switch on and readbacks are correct
 - d. Source temperature setpoint is achieved
 - e. Sensitivity and resolution benchmarks are tuned properly
5. Ensure the entire system is working properly
 - a. Run a system qual check and compare to last known results to make sure the system is working properly
 - i. Example: system suitability standard injection or a QC Reference Material



If you are looking for additional information or need assistance with bringing your instrumentation back up after long-term storage,

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