**G25 Preparative LCMS Troubleshooting**

This is a list of common issues encountered while using the analytical and preparative LCMS instruments. Where the fix is known, the solution is provided below. If new issues are encountered while operating the LCMS instruments, it and its solution can be added to this list.

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# **Solvent Volumes are too Low (analytical & prep)**

**Issue: There is not enough solvent to complete an injection**

* The pump module is set to prevent analysis when solvent levels get too low
* This volume is set to be above the height of the solvent inlet filter in the bottle
* Check the solvent volumes in the bottles above the autosampler module
* Refill if they are low
* Enter the new solvent volumes in the pump module (see the G25 LCMS Operation Guides)

# **No Sample Vial Detected (analytical & prep)**

**Issue: The run could not be started as the sample location selected was empty**

* Check that the sample has been placed in the correct well location
* Check that the sample location selected when running the sample is correct
* Press the On button to clear the error message and reset the modules

# **A Leak has Been Detected (analytical & prep)**

**Issue: Solvent has tripped one of the leak sensors**

* Look through each module of the LCMS to identify which sensor has been tripped
* Dry the sensor with a paper towel
* Locate the source of the leak and fix (usually a connection has come loose and needs tightening)
* Once dry, press the On button to clear the error message and reset the modules

# **A Solvent Line is not Pumping Solvent (analytical & prep)**

**Issue: The solvent volumes on the software are decreasing but no actual solvent is being pumped through the line (Note: no error message will be shown for this issue)**

1. Open the purge valve (do not remove all the way)
2. Turn the pump module on
3. Right click and choose “Method”
4. Set one solvent line to 100%
5. Check the flow out of the waste line (should be a steady stream when running at 15 mL/min. If it is dripping slowly, then there is likely a blockage before the pump)
6. Turn the pump module off
7. Before removing the tubing, close the purge valve otherwise solvent will drip and trigger the leak sensor
8. Remove the tubing coming out of the purge valve and attach the syringe
9. Open the purge valve
10. Pull the plunger to draw solvent through and flush out the line
11. Once adequately flushed, close the purge valve and reattach the tubing to the waste
12. Test the flow by following steps 1-5 above
13. When the flow rate out of the waste is correct, turn off the pump module, close the purge valve and run a blank, then your sample

# **Incorrect Signal from the MSD (prep)**

**Issue: No mass signal is seen from the MSD when running a sample**

* This is likely an issue with the isocratic pump which provides the makeup flow to the MSD
* Check that there is solvent in the bottle (1 L bottles above the autosampler module)
* Check that solvent is pumping through the isocratic pump (follow steps 1-5 from “A Solvent Line is not Pumping Solvent” but for the isocratic pump module)
* If no solvent is pumping through, follows steps 6-12 from “A Solvent Line is not Pumping Solvent” but for the isocratic pump module
* When the flow rate out of the waste is correct, turn off the pump module, close the purge valve and run a blank, then your sample

# **Significant Delay with Fraction Collection between the DAD and MSD Signals (prep)**

**Issue: The green and red lines which indicate the collected fractions have a significant delay between the DAD signals and the MSD signal**

* CURRENTLY UNDER INVESTIGATION