

ACCQPrep Verification After A Prolonged Shutdown

Introduction

Follow this procedure to verify the ACCQPrep HP125 or HP150 is ready for use after a prolonged shutdown.

Power on the System

Verify the power cord is connected and turn on the power switch for each component, if present, in the following order:

- Roughing pump
- Fluid interface module
- PurIon mass spectrometer
- Autosampler
- ACCQPrep

Priming the ACCQPrep Pumps

1. Ensure that the solvent containers are full. Place the solvent lines in the appropriate bottles.
2. Place the waste lines in the appropriate containers.
3. Turn the prime valve to the PRIME position (Figure 1).



Figure 1: Turn the valve to the Prime position

- If the solvent select option is not installed, the system will immediately prime both solvent lines.
 - If the solvent select option is installed, a dialog box opens when the valve is switched to the PRIME position. The dialog box allows you to select which of the A solvents and B solvents will be primed.
 - If you have not already assigned names to the A and B solvents, they can be named at this time using the drop downs.
4. Once priming is complete, a new screen will appear directing you to turn the valve from the PRIME position to the RUN position.

Priming the Autosampler

(ACCQPrep with Autosampler only)

1. Ensure the wash station supply line is placed into a suitable solvent (typically the strong chromatographic solvent) and the waste line is routed to a suitable container.
2. Go to TOOLS > AUTOMATION MANUAL CONTROL and select the START WASH button (Figure 2).

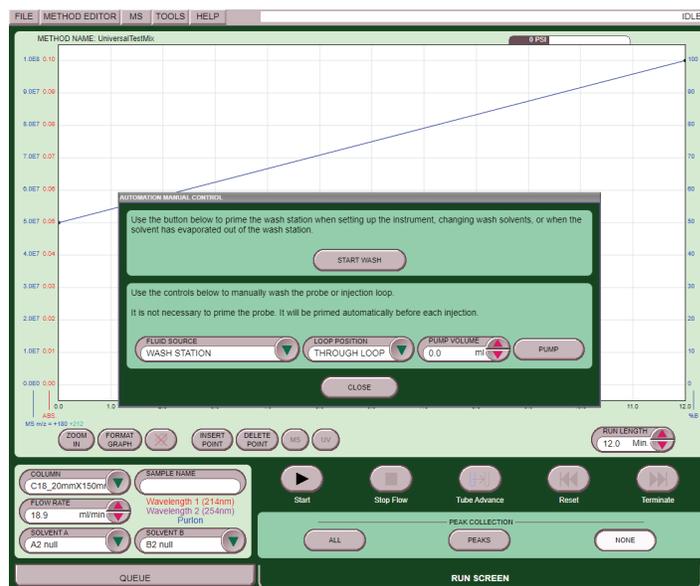


Figure 2: Automation Manual Control

3. Ensure the wash solvent is pumped into the center portion of the wash station and when full, the fluid drains into the overflow drain (Figure 3).



Figure 3: Wash station and overflow drain

4. Stop the wash
5. Use the control in the lower half of the window to flush the injection probe and sample loop. Select:
 FLUID SOURCE: WASH STATION
 LOOP POSITION: THROUGH LOOP
 PUMP VOLUME: 10 mL
6. Select pump. Allow autoinjector to actuate twice to pull 10mL through the probe and loop.
7. Close the automation manual control window.

Filling the ELSD P-trap

ACCQPrep with ELSD only

The P-trap must be filled with fluid to prevent sample loss. Depending on your application, the P-trap fluid may need periodic replenishment to ensure maximum signal from the ELSD.

1. Raise the drain tubing attached to the P-trap drain vent assembly above the instrument.
2. Place 10 mL of liquid, such as isopropyl alcohol, into the tube. Make sure the fluid level in the tubing doesn't exceed the level of the instrument case top. If the tubing is raised too fast, fluid may flow out the top of the vent tube causing a spill. Lift it high enough so the fluid enters the P-trap drain (Figure 4).

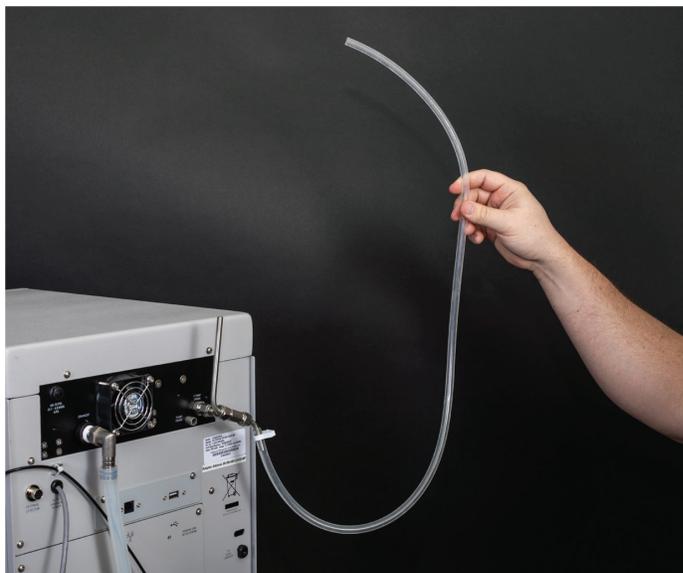


Figure 4: ELSD P-trap Drain: Keep liquid level lower than the top of the system

Flushing the System

To insure the system has the desired solvents in the flow cell and entire flow path, flush the system.

1. From the TOOLS menu, select Manual Control.

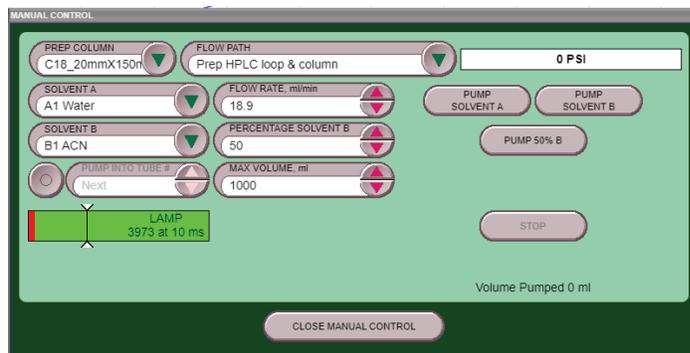


Figure 5 Manual Control Screen

2. In the flow path, select through Prep HPLC loop and column.
3. In the column drop down select the column you would like to equilibrate.
4. Select the appropriate flow rate and %B for the column selected.
5. Set the maximum volume to the standard equilibration volume for the column. If unknown, check a previous method from Method Editor window for the value (Figure 6).

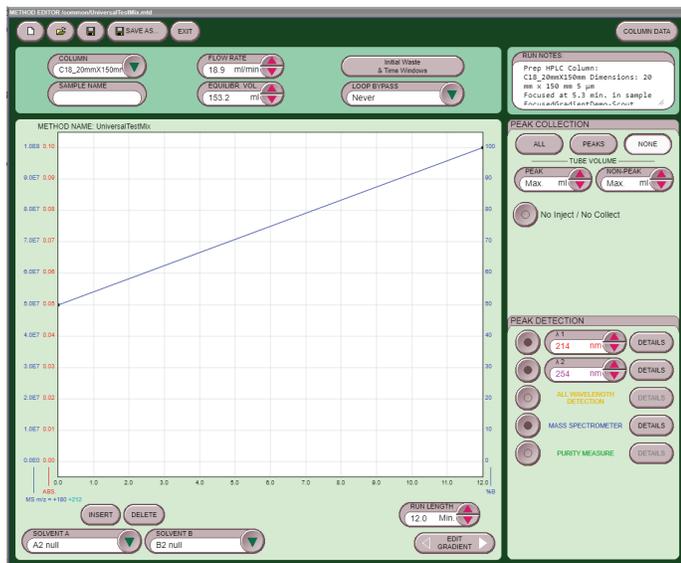


Figure 6: Method Editor Equilibration Volume

6. Select Pump X%B and allow the volume to be pumped.
7. Observe that Raw Lamp Energy gauge is in the green zone, system pressure on the upper right of the screen is within the expected range and watch for any leaks or error messages.
8. The system will notify you that the volume has been reached. Close the MANUAL CONTROL screen.

Final system verification test options

There are 2 options for the final test the first is to use the system verification kit Teledyne ISCO provides, the second is to run a sample you have run before and verify it using a reference chromatogram. The system verification kit Teledyne ISCO provides requires a RediSep® Prep C18 20 x 150 mm column (not provided in the kit). The reference chromatogram relies on the user having a sample they can rerun and a known good column.

Performing a system verification separation

It is recommended that the system operation be verified using the ACCQPrep Verification Kit (Part no.60-5234-835). Follow the instruction sheet included in the test kit.

System verification using a reference chromatogram

1. Select FILE>OPEN, then select the .run file you want to repeat, then OPEN (Figure 7).

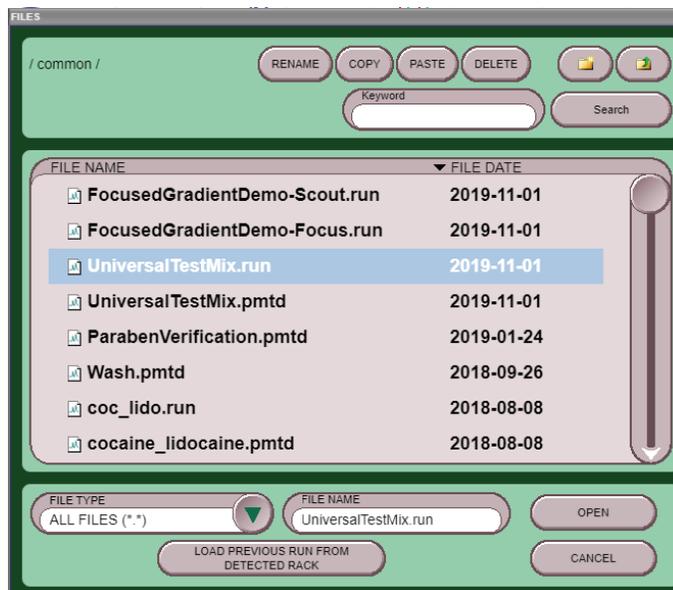


Figure 7: File open screen

2. Select the EXTRACT button at the bottom of the screen (Figure 8).

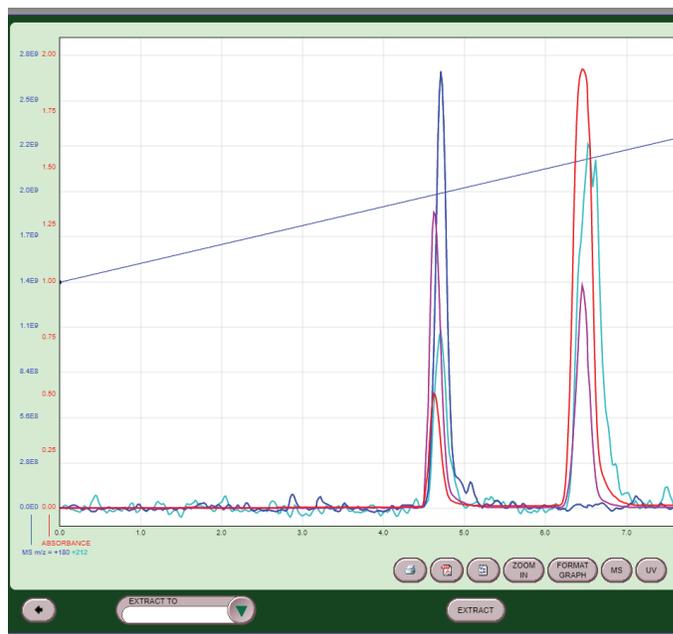


Figure 8: Run results screen with Extract button

3. The run window opens with the method from the run selected. Confirm the method settings are correct.
4. Select the Start button and choose the appropriate sample option for your system.
5. Select START EQUILIBRATION and allow the separation to begin.
6. During the separation you can add the previous run information to the screen by selecting FORMAT GRAPH below the chromatogram window (Figure 9). Select ADD REFERENCE and choose the previous run from the file window, then select open. The previous run will be displayed above the current run for comparison (Figure 10). (Only available on systems running PeakTrak version 4.2.40 and newer.)

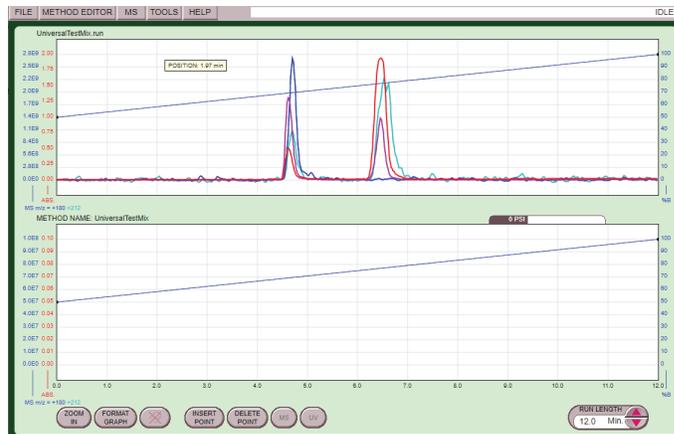


Figure 10: Run Screen with reference chromatogram

7. Evaluate the new separation as compared to the previous run.

Additional Assistance

Please contact your local Technical Sales Representative or Field Service Engineer with any questions or concerns. The technical support team can also be reached at:

Isco.Service@teledyne.com

(800) 775-2965.

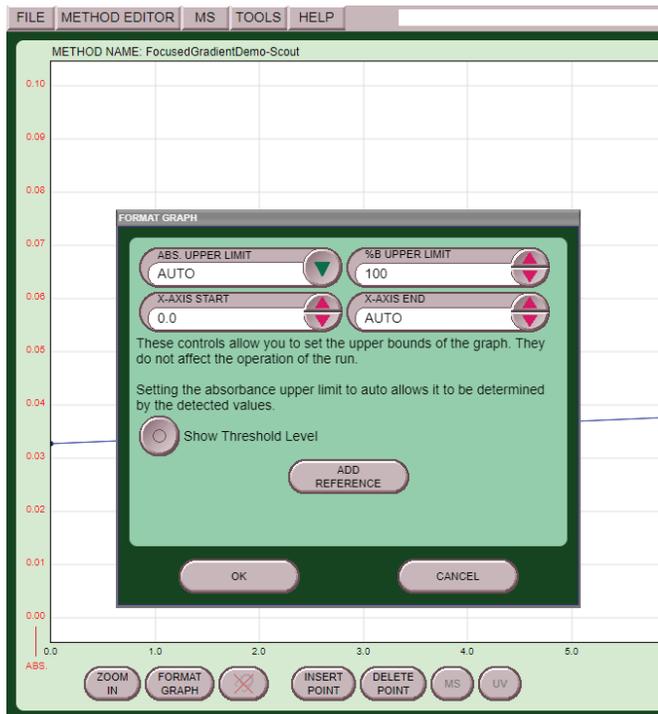


Figure 9: Format Graph screen to add a reference chromatogram

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