

EDGE After Install: How to Confirm that the EDGE is Ready to Run

After Installation

1. Please do a visual inspection of the EDGE.
 - a. Confirm that the dispense needle and tubing are present and appear as they should be.
 - i. The dispense needle should be free of debris.
 - ii. The tubing should not impede automation.
 - b. Confirm that the rack and enclosure are not cracked or dirty. If they are, please wipe down.
 - c. Confirm that the chamber and actuator are clean. If not, please wipe down.
 - d. Confirm that the O-rings are not cracked. If they are cracked, please replace them (P/N 525205 includes replacement and tool to fix).
2. Please verify the autosampler calibration is correct.
 - a. Enter the "Diagnostics" section under "Tools." Scroll to the autosampler section.
 - b. Select "Waste" under "Collection." Confirm that the needle is settled into the waste port correctly. Approximately $\frac{3}{4}$ of the entire needle should be in the port. Return the needle to "Home."
 - c. Load the rack with Q-Cups and vials, and run the "Automated Test" under the "Autosampler" section. The Automated Test will load all 12 Q-Cups. If the EDGE does this successfully, move on to section 3.
 - d. If the EDGE does not successfully load all 12 Q-Cups, please recalibrate the EDGE using the Calibration Tool provided in the accessory kit and selecting "Autosampler Calibration" in the "Calibration" under "Tools." Calibration can also be done with a Q-Cup, but it is less accurate.
3. Please prepare two bottles of solvent, one with water and one with acetone or alcohol (IPA).
 - a. Please confirm that the waste assembly is attached to the EDGE. The newer 2 liter waste assembly (P/N 525165) requires 2 fittings (P/N 153615). Please contact Molecular Support if you need a newer waste assembly.
 - b. Please attach them to the EDGE using one of the six solvent lines threaded through the caps provided in the accessory kit.
 - c. Please enter the "Bottle Setup" section under "Settings." Select the lines the solvents are attached to, and select the appropriate solvent. Allow the solvents to be primed. Please note if solvent does not enter the waste bottle.
4. Please enter the "Utilities" section under "Tools."
 - a. Please run "Leak Check." If the unit fails, you will also fail "Clog Check." Please contact Molecular Support for further guidance.
 - b. If the unit passes, please run "Clog Check." If the unit fails clog check, please make note of **where the unit fails and pressure reading**, and contact Molecular Support. If the unit is running software 1.18 or lower, please make note of the pressure during the "Dispense Needle/Cooling Coil" section of the test. This is essentially the purge function and should be between 6 and 10 psi.
5. Please enter the "Calibration" section under "Tools." Please run the "Pressure Calibration" function.
6. Please enter the "Utilities" section under "Tools."
 - a. Please run a System Purge. The pressure should be between 6-10 psi. Please contact Molecular Support if the pressure is incorrect. The pressure will not be visible in software versions 1.18 and lower.
 - b. Please run a System Wash with water. The pressure will not be visible in software versions 1.18 and lower. Note: If the unit sat "dirty" for a long time before being set up, for example, the unit came from a long term demo and wasn't touched, multiple system washes are suggested.
7. Create a method as follows: Cycle 1: 30 mL of water as a top add, a 5 min hold at 150 °C; Wash 1: 30 mL of water held at 100 °C for 15 s; Wash 2: 10 mL of water, no hold or heat. Run this method without a sample using an empty Q-Cup containing only the S1 Q-Disc stack and a vial.
 - a. During the run, verify the programmed temperature was reached within 3 min, the pressure was above 20 psi, and 30 mL of water was ultimately collected. If the temperature overshoots or does not reach temperature appropriately, recalibrate the temperature with a NIST-certified thermometer. Please see the next step for further guidance on this.
 - b. When the run is complete, confirm the volume recovered is 30 mL. Note: Graduated vials (P/N 153450) can be used to verify volume recovery. Also, confirm that the Q-Cup has no extra solvent, and the Q-Disc is mostly dry.
8. To calibrate the temperature, please obtain a NIST-certified thermometer. If you need one, please contact Molecular Support.
 - a. With water as a solvent attached to the EDGE, please enter the "Temperature Calibration" section under "Calibration." Follow the prompts on the screen. When taking the temperature, please stir the water with the thermometer to allow the thermometer to reach equilibrium before recording the temperature.

9. The final step is to remove water from the system so that solvents can be ran through the system without contamination with water. In order to do this, create a method with a 1 min hold at 100 °C of 30 mL of acetone or alcohol (whichever solvent you have attached) and a wash step of 10 mL with no hold or heat applied. Run this method twice.
10. The EDGE should be ready to run!

After Demo Cleaning

1. Run a blank method with the solvent used during the demo with just a Q-Cup containing a Q-Disc.
2. Run a System Wash with water. **Note: If you were previously running chloroform, please remove the chloroform from that line by running a System Wash from that line with a solvent miscible with chloroform, such as methanol. After doing this, please rerun the System Wash with water.**
3. Clear the rack of Q-Cups and vials. Remove the rack if shipping the unit.
4. If shipping the unit, please go through the "Prepare to Ship" utility. Be prepared to remount the shipping brackets. For older units that lack shipping brackets, cancel out of the "Prepare to Ship" utility.
5. For older units without the "Prepare to Ship" utility, go to the "Tools" section, then "Diagnostics," and then under "Autosampler," leave the autosampler in the load position.
6. Power off the unit, and if the unit is shipping, remove the waste assembly and wipe clean.