

Aquion Quick Start Guide

Use this quick start guide to help get your Thermo Scientific™ Dionex™ Aquion™ IC system up and running quickly and easily.

IC tubing connections, priming and system rinse

1. Verify that the pump is turned off.
2. Connect the pump eluent line to a bottle containing 18 MΩ-cm resistivity or better ASTM Type 1 deionized (DI) water.
3. Prime the pump by opening the priming knob ¼ turn and clicking prime on the Thermo Scientific™ Chromeleon™ Chromatography Data Systems (CDS) ePanel.
4. Wait until no bubbles are visible and water is flowing at a steady rate out of the pump waste line. Turn off the pump.
5. Close the priming knob to finger tight.
6. Turn on the pump, setting the flow rate to 1 mL/min, and flush the system with DI water for an hour. Turn off the pump.
7. Vacuum degas the eluent then connect the pump eluent line to the bottle containing degassed eluent. Repeat the priming steps 3-5.
8. Turn on the pump, setting the flow rate to 1 mL/min, and flush the system for about 30 minutes, then turn off the pump.

Suppressor and column conditioning

1. The columns must be placed with the guard column before the analytical column and the flow direction following the arrows on the column labels.
2. When installing a new IC column or guard column, after connecting the inlet of the column, direct the outlet of the column directly to waste. Pump eluent through the column at the standard flow rate for the column for at least 30 minutes before connecting to the suppressor. This prevents any storage solution or column residuals from flowing to the suppressor and will expedite the system equilibration time.

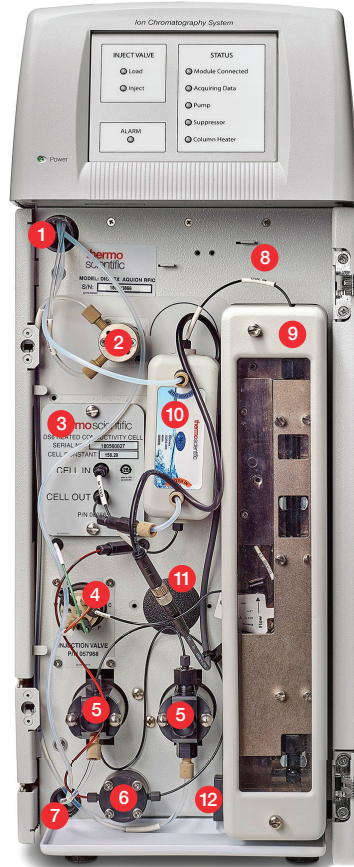
3. If the suppressor is not installed and connected to the system, the suppressor will need to be hydrated before use and then installed.
4. Connect the tubing from the separator (analytical) column to the “Eluent In” port on the suppressor and connect the suppressor “Eluent Out” tubing to the conductivity cell (CD). To set up AutoSuppression using recycle mode, connect “Eluent Out” from the CD to “Regen In” on the suppressor. Connect the suppressor “Regen Out” to waste.
5. Prepare and pump ≤ 10 mM eluent at the application flow rate into the suppressor for 5 minutes. **The power to the suppressor must be off during this step.**
Note: Care should be taken not to exceed 100 psi of backpressure on the Dionex ERS 500 suppressor. The backpressure to the suppressor includes any tubing, cell, and backpressure coils that are connected to the “Eluent Out” port of the suppressor.
6. Turn off the pump and allow the suppressor to sit for approximately 20 minutes to fully hydrate the suppressor resin, screens, and membranes.
7. After completion of Steps 1 through 4, normal operation may resume, using the application eluent strength and suppressor current recommendation.

Preparing to run the system

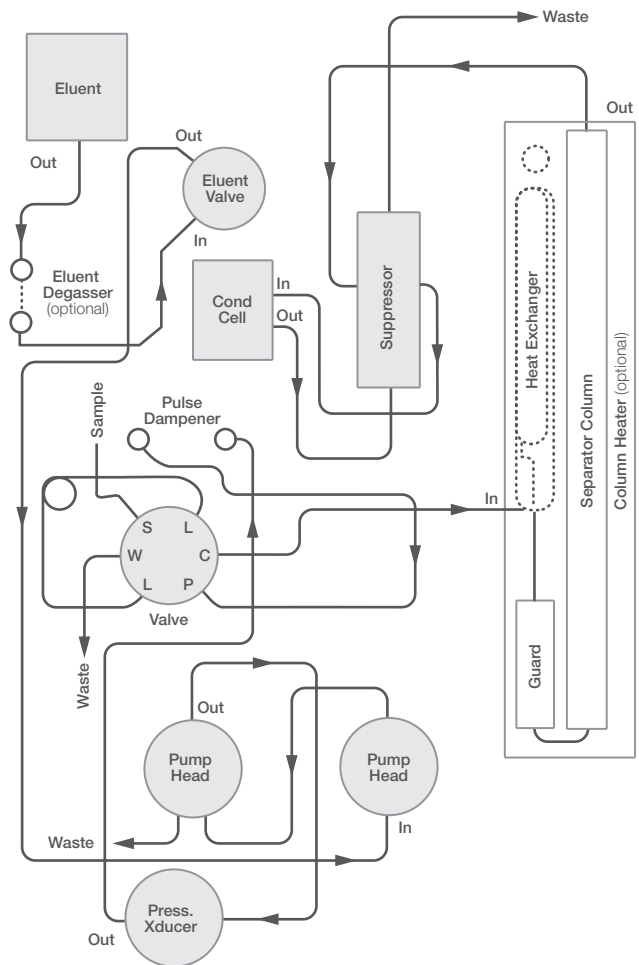
1. Use the eluent indicated for your method. Place the eluent line into the eluent bottle and start the pump at the flow rate prescribed in your method.
2. Equilibrate the system for about 30 min and monitor the baseline until the background conductivity is $<30 \mu\text{S}/\text{cm}$ on a system set up for anion analysis or $<2 \mu\text{S}/\text{cm}$ for cation analysis.
3. Start sample sequence in Chromeleon CDS.

Dionex Aquion components

- 1 Tubing chase
- 2 Eluent valve
- 3 Conductivity cell
- 4 Injection valve
- 5 Pump head
- 6 Pressure transducer
- 7 Tubing chase
- 8 Mounting brackets for second suppressor
- 9 Column heater (optional)
- 10 Suppressor
- 11 Site for auxiliary valve (optional)
- 12 Leak sensor



Dionex Aquion flow schematic



For the full user manual, technical specifications and product information visit [thermofisher.com/aquion](https://www.thermofisher.com/aquion)

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