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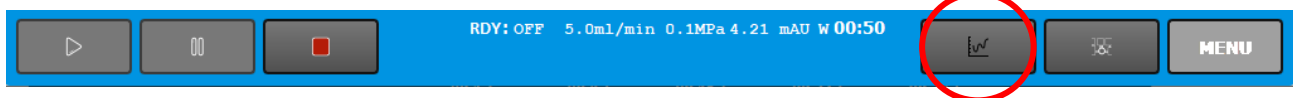
ECOM
HPLC FROM PRAGUE

ECS28 P – Quick Start Guide

Control Screen

After switching on the device, go to the Control Screen using the button in the status bar.
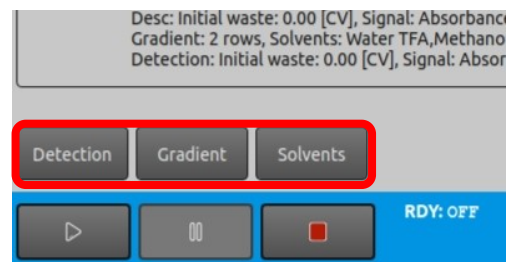

Sample Set Up

Press the **Current Sample** button. Set the sample name, user name, injection method, rack type, and fraction volume. Physically **check that the rack type matches** the rack type selected on the Current Sample screen and that the tubes are surely emptied before starting the separation. To select the method/column, press the Select button and choose from the library. If no method / column is stored in the library, it must be created.
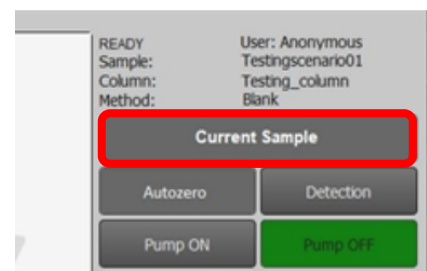
Parameters Check

On the Current Sample screen, press the **Detection** button. Check the set wavelengths, the method of collection and fractionation, or adjust the values, if needed. Press the Apply button to write down any changes carried out to the system. Press the OK button to return to the Current Sample screen.

On the Current Sample screen, press the **Solvents** button. Check the settings of the solvents, the parameters of the storage bottles and the waste reservoir, especially if the settings correspond to the physical state (volumes, connections). Press the Apply button to write down any changes carried out to the system. Press the OK button to return to the Current Sample screen.


On the Current Sample screen, press the **Gradient** button. Check the gradient table settings or adjust the values, if needed. Press the Apply button to write down any changes carried out to the system.

Press the OK button to return to the Current Sample screen.

System Flow Path Initialization

Press the Return button to move from the Current Sample screen back to the Control Screen. Press the **Flow Control** button. Here, perform an initial purge and initialization of solvents in the system flow path.

Don't forget to flush a sample loop. Be careful of solvent miscibility and compatibility.
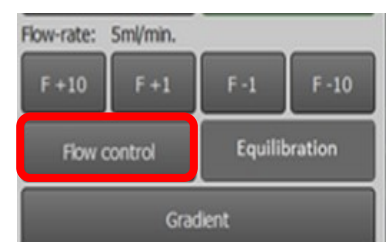
Equilibration

Now it is possible to connect the column and perform equilibration. Press the Return button to move from the Flow Control screen back to the Control Screen. Press the **Equilibration** button. Set the solvents S1 and S2, the flow rate at which the equilibration will be performed, the begin step (concentration of solvent S2 in S1), the gradient transition between solvents S1 and S2 and the end step (concentration of solvent S1 in S2). It is also possible to flow through the sample loop. Start equilibration by clicking the Run button. Check leakage of liquids during the equilibration. When the equilibration is complete, press the Return button to move from the Equilibration screen back to the Control Screen.
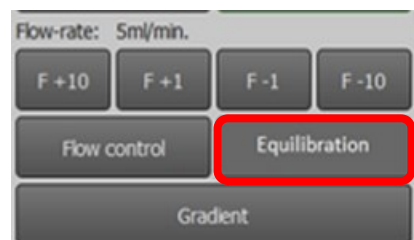
Start of the Separation

If any changes are made, **save the method** (*Control Screen / Current Sample / Method: Save as*). After signal stabilization and before starting the separation perform **Autozero**. By performing the above points, it is possible to start the separation by pressing the PLAY button in the status bar. The system goes from *Ready* to *Wait for the Load* state. Load the sample and inject it to the system by pressing the PLAY button. The separation is started now. During the separation *Run* (or *Extended Run*) some buttons will be disabled or hidden. Some more complex operations are allowed only in *Pause* (or *Extended Pause*) state (e.g. Gradient, Detection…). The separation will be paused by pressing the PAUSE button. The separation length is controlled by the gradient table setting. After the time set in the gradient table has ended, the system switches to the *Extended Pause* state, from which the separation can be terminated or extended.
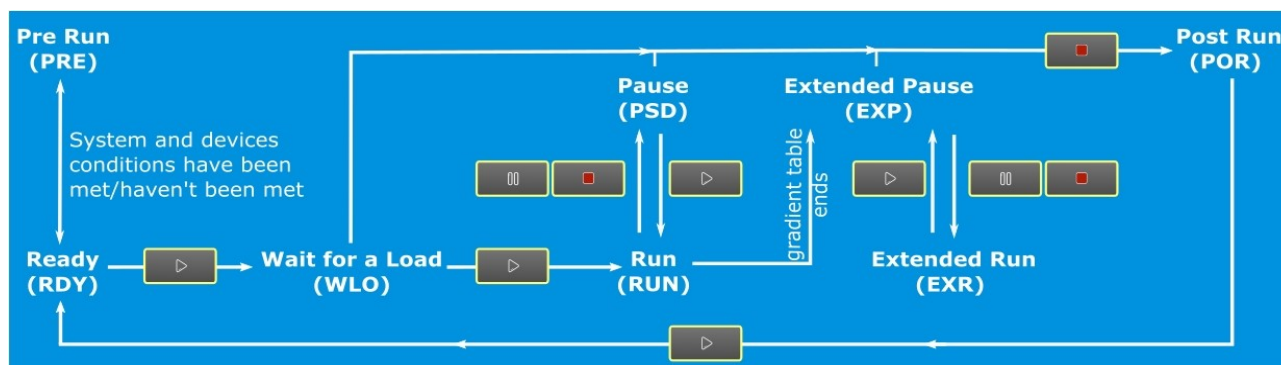
During the separation

By pressing the button F ± *value* is possible to change the current flow rate. By pressing the button V ± *value* is possible to change the fraction volume. Pressing the Hold button will keep the system at the current concentration until you turn this feature off by pressing the Hold button again. Pressing the Skip button skips 1 step (row) of the gradient table. By pressing the Next button, the needle will move to the next tube. The green highlighted Collect button indicates the collection of fractions in test tubes. By pressing the Waste button, the system will stop collecting fractions into test tubes, but they will be drained to the waste container.
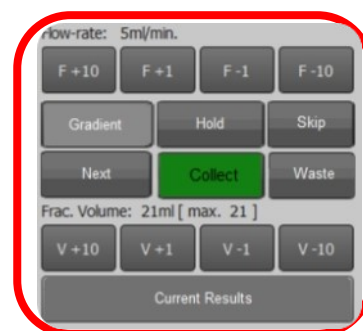
During the separation *Run* (or *Extended Run*) some buttons will be disabled or hidden. Some more complex operations are allowed only in *Pause* (or *Extended Pause*) state (e.g. Gradient, Detection…).

Press the Current Results button to display the screen showing the current separation results.