

Agilent InfinityLab LC Series Multi-wash Upgrade Kit

Installation Note

General Information

The multi-wash upgrade kit is designed for low carry over and can be installed in any Agilent InfinityLab LC Series Multisampler.

With the multi-wash upgrade kit you can minimize carry over for critical samples with the following measures:

- Wash the outer needle surface with the choice of three different wash solvents, or
- Back flush the needle seat and the rotor seal with the appropriate solvents

This integrated feature reduces the carry over to less than 9 ppm.

NOTE

If the multisampler multi-wash option is installed you will lose the ability to do multi-draw.

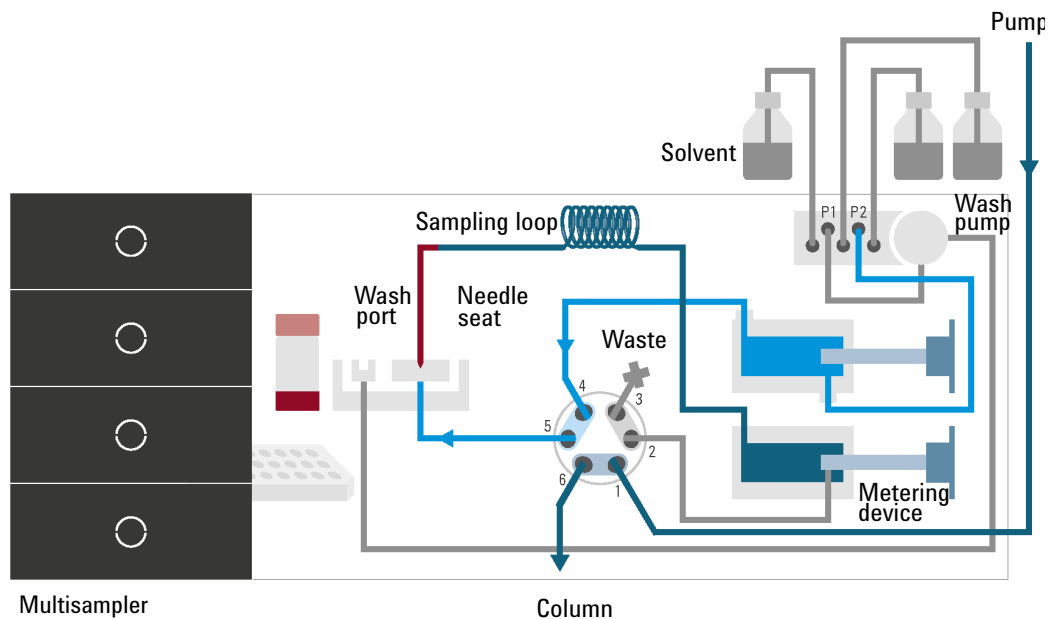


Figure 1 Valve in bypass, needle backflush (Multiwash)

General Information

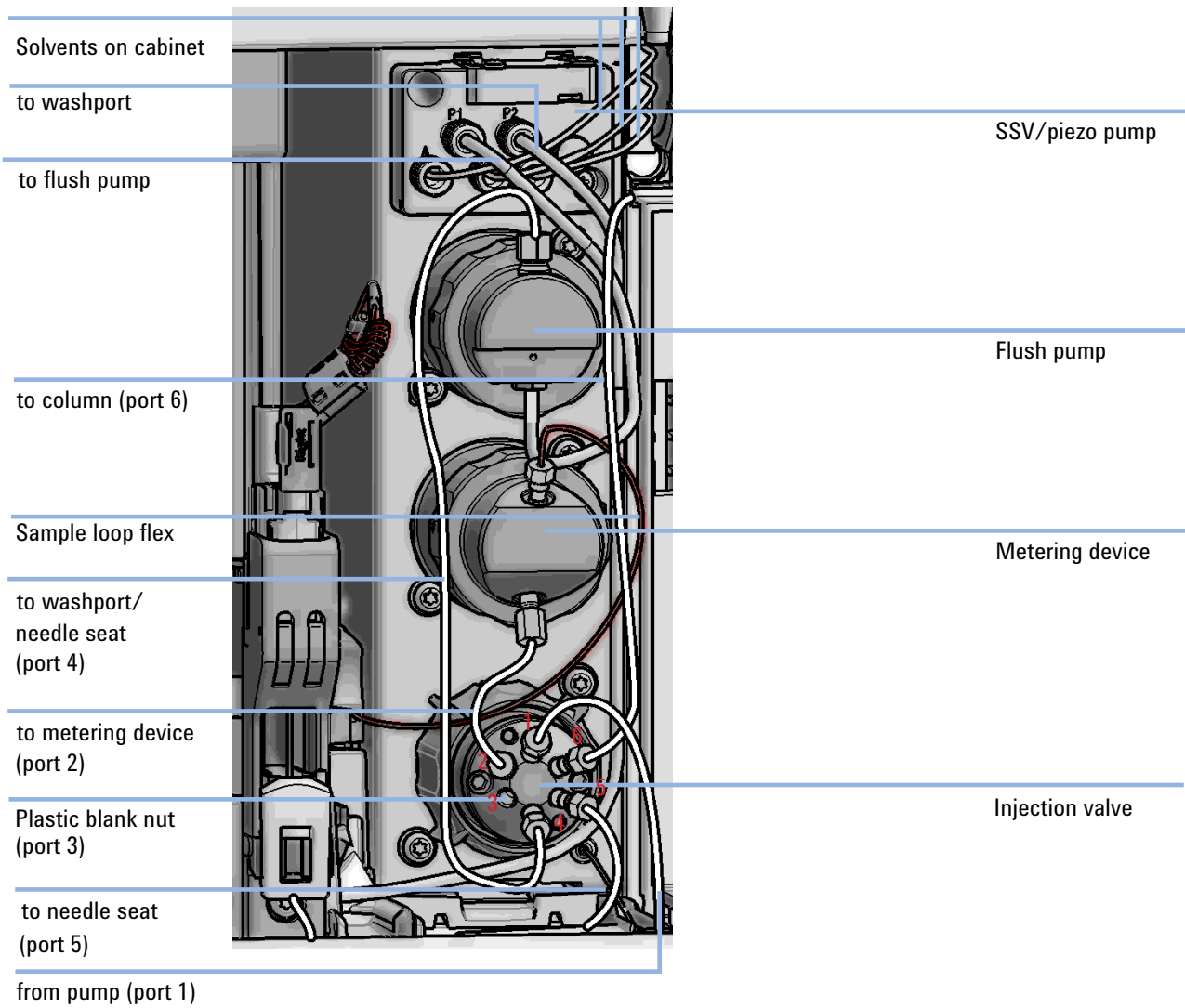
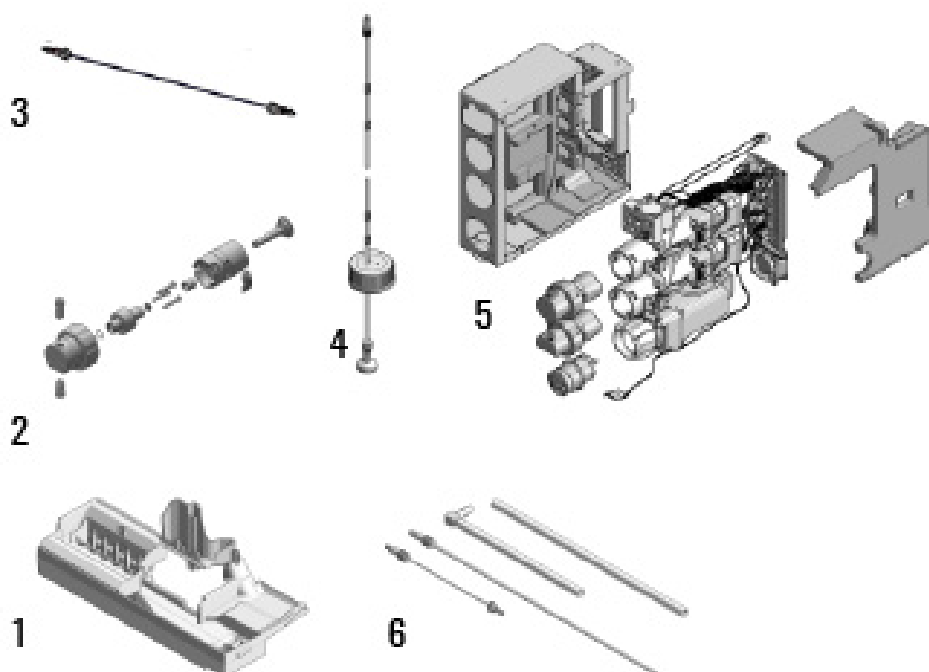


Figure 2 Capillary connections (Multiwash)

Delivery Checklist

Item	#	p/n	Description
1	1	G4267-68708	Drain Management Kit
2	1	G4267-60049	Flush head, 500 μ L
3	1	5500-1167	Capillary ST 0.17 mm x 250 mm SL-SL
4	2	G4220-60007	Bottle Head Assembly
5	1	G4267-60008	Hydraulic Multi Wash this is an internal partnumber and not orderable
6	1	G4267-60081	Tubing-Kit-Sampler-Multi-Wash



Installing the Multi-wash Infinity II Upgrade Kit

The installation of the upgrade kit requires the following procedures:

- [“Remove the Hydraulic Box”](#) on page 4,
- [“Install the Hydraulic Box”](#) on page 7, and
- [“Configuration of the Multi-wash Option”](#) on page 9.

Remove the Hydraulic Box

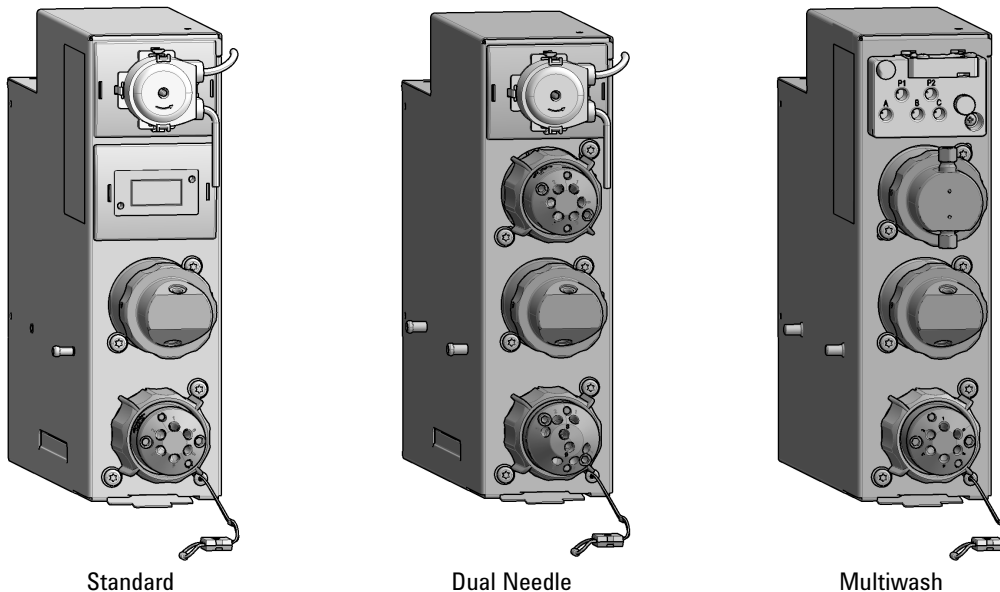


Figure 3 Variants of the hydraulic box

Tools required

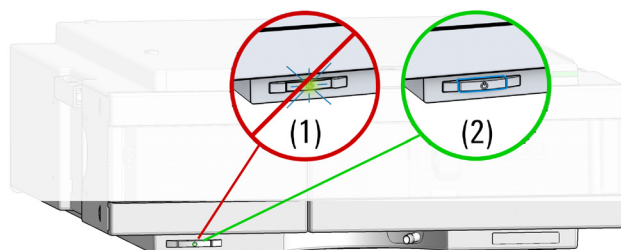
p/n	Description
	Hexagonal key, 2.5 mm
	Hexagonal key, 4 mm (supplied in HPLC Tool-Kit)
8710-0510	Wrench open 1/4 — 5/16 inch

NOTE

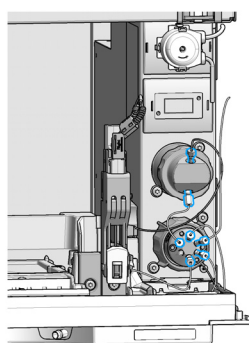
For changing the metering devices in the hydraulic boxes of the multisampler, the sampler must be in the service position.

- 1 In the Instant Pilot start the maintenance mode and select **Change Piston / Change Seal**. Wait until the metering drive is in the rear position.
OR
In the Agilent Lab Advisor software select **Service & Diagnostics** in the system screen (**Tools**) **Maintenance Positions > Change Piston / Change Seal**, click and wait until the needle assembly is in maintenance position.

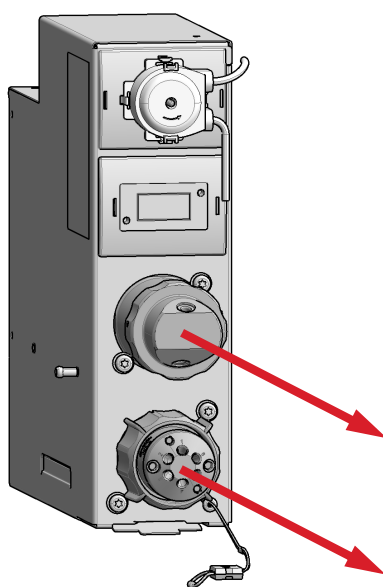
- 2 Switch off the module.



- 3 Remove the capillaries, the tubings, and the leak sensor which are connected to the hydraulic box.

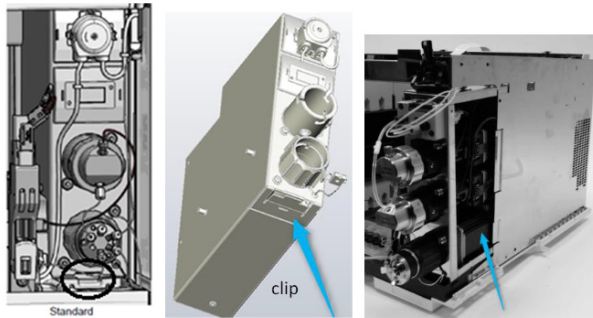


- 4 Remove the injection valve and the analytical head from the standard hydraulic box. For further info check the service manual.



Installing the Multi-wash Infinity II Upgrade Kit
Remove the Hydraulic Box

- 5 Lift the clip and pull the standard hydraulic box out of the mainframe.



Install the Hydraulic Box

- 1 Check the revision of the drain management kit especially the washport tubing. If necessary upgrade the complete drain management kit. For further info check the service manual.

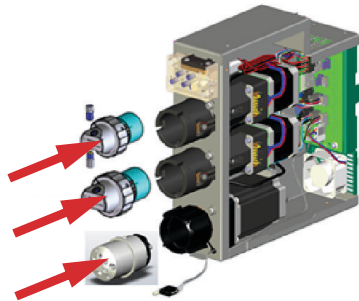


old

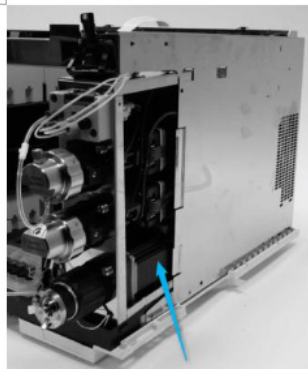


new

- 2 Install the injection valve and the analytical head from the standard hydraulic box into the multiwash hydraulic box.



- 3 Slide in the whole new multi-wash hydraulic box.



NOTE

The hydraulic box must be installed correctly. Push from the front against the hydraulic box and check if the lever is locked in place.

Installing the Multi-wash Infinity II Upgrade Kit
Install the Hydraulic Box

4 Reinstall the capillaries, the tubing and the leak sensor which are connected to the hydraulic box.

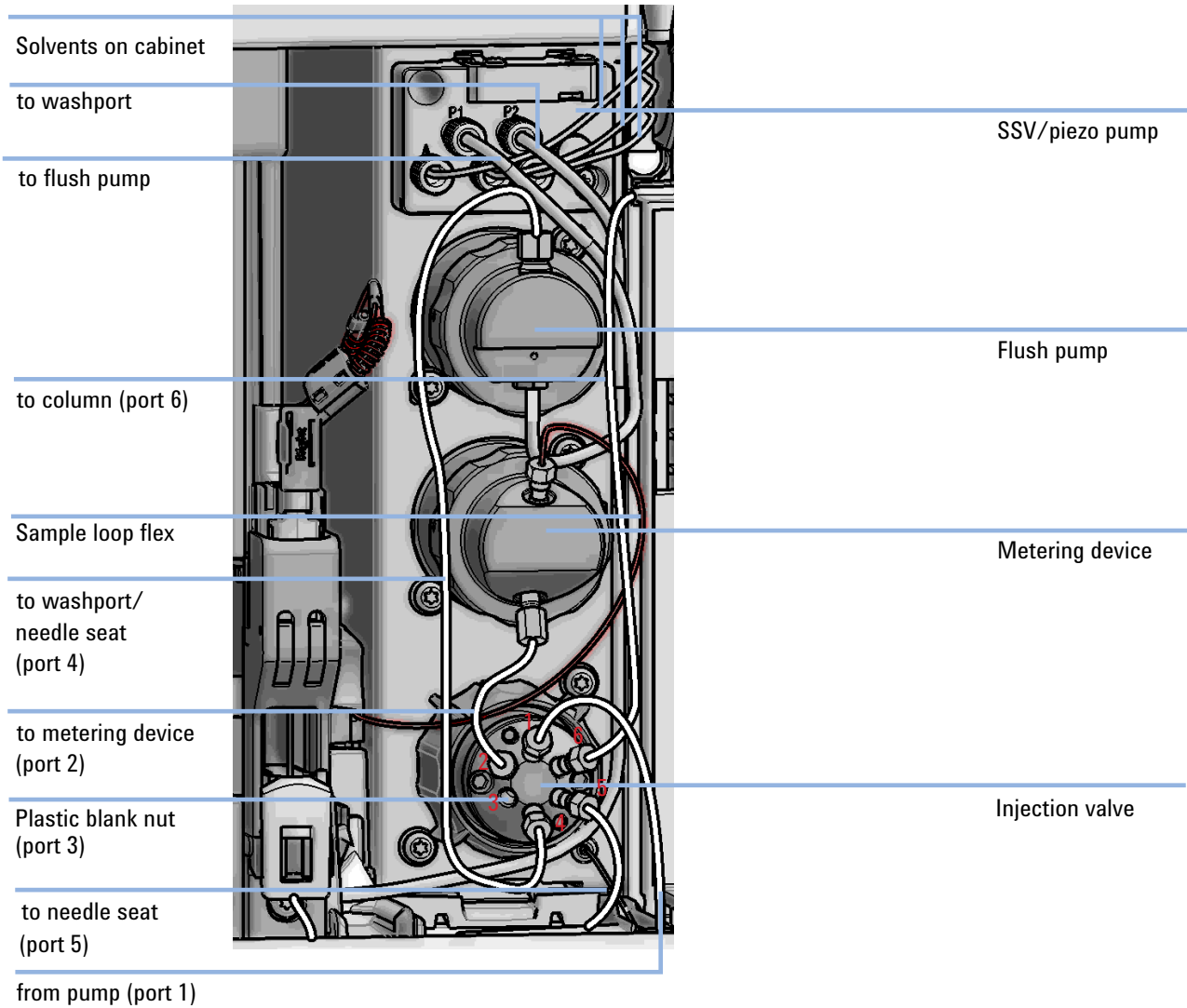
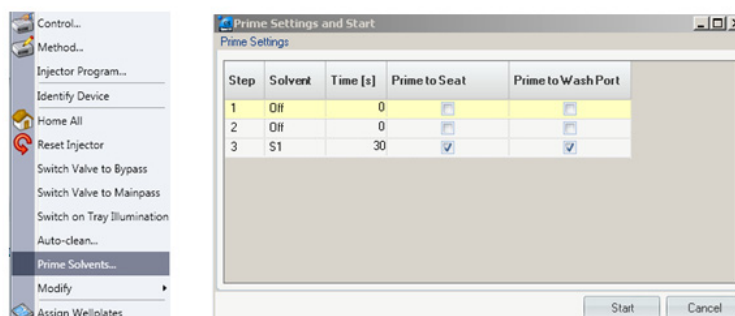


Figure 4 Capillary connections (Multiwash)

5 Switch on the instrument.

- 6 Prime the tubing with appropriate wash solvent and run **Prime to Seat** and **Prime to Wash port** for at least 30 s.



- 7 Perform a **pressure test** in LabAdvisor.

Configuration of the Multi-wash Option

The following options for the configuration of the Multi-wash option are available:

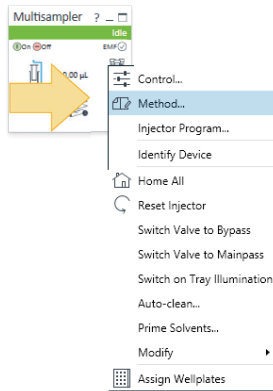
- “Configure Multi-wash in OpenLab CDS C.01.06 and above” on page 10
- “Configure Multi-wash in Control Module (G4208A)” on page 12

Configure Multi-wash in OpenLab CDS C.01.06 and above

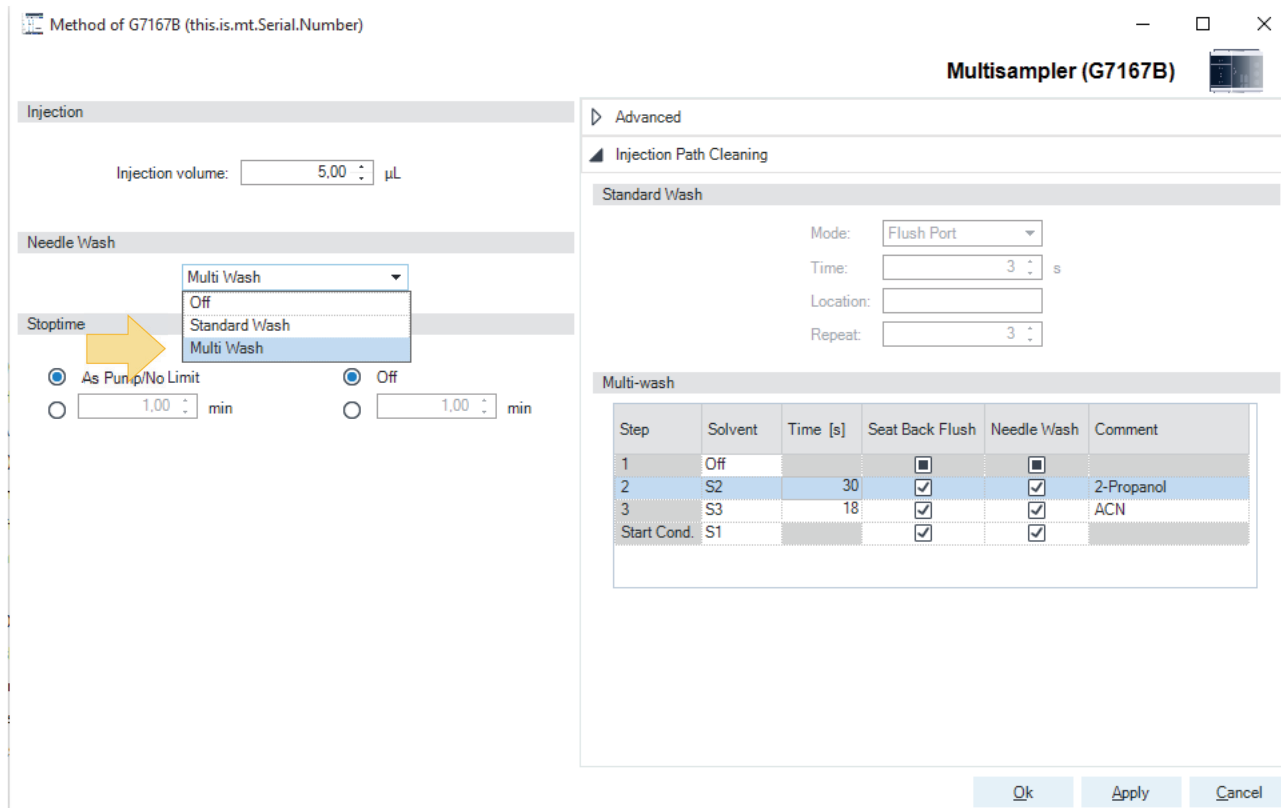
The multi-wash mode is automatically enabled and the multi-wash icon is shown in the graphical user interface.

Prerequisites For the OpenLab CDS LC driver A.02.11 or higher is required.

1 Right click on the dashboard and select **Method**.



2 Select **Multi-wash**.



3 Specify the duration of your solvent S1, S2 and S3 in the multi-wash table.

The screenshot shows the 'Multisampler (G7167B)' software interface. On the left, the 'Injection' section has 'Injection volume' set to 5.00 µL. The 'Needle Wash' section is set to 'Multi Wash'. The 'Stoptime' and 'Posttime' sections have radio buttons for 'As Pump/No Limit' and 'Off', with time input fields set to 1.00 min. On the right, the 'Advanced' tab is selected, showing 'Injection Path Cleaning' settings. The 'Standard Wash' section has 'Mode' set to 'Flush Port', 'Time' set to 3 s, and 'Repeat' set to 3. The 'Multi-wash' section contains a table with the following data:

Step	Solvent	Time [s]	Seat Back Flush	Needle Wash	Comment
1	Off		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
2	S2	30	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2-Propanol
3	S3	18	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ACN
Start Cond.	S1		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

At the bottom right of the window are 'Ok', 'Apply', and 'Cancel' buttons.

NOTE

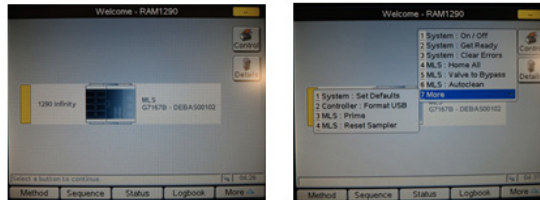
It takes approximately 30 s to fully exchange one solvent for another in the flush port. To flush and exchange the solvent in the seat, it takes 18 s. Additionally it is strongly recommended to use the Auto-clean function to flush the multisampler regularly with all installed solvents.

Configure Multi-wash in Control Module (G4208A)

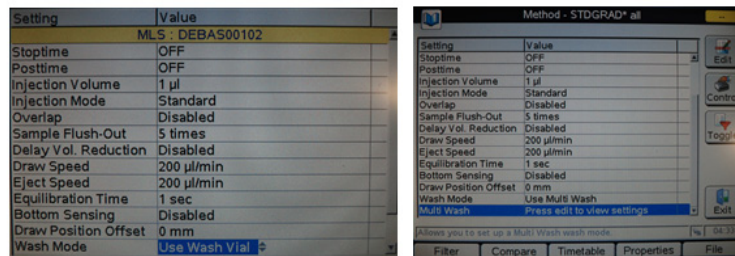
Prerequisites

For the Instant Pilot G4208A Firmware B.02.19 or higher is required.

- 1 Press **Control** and select **Prime/Auto clean** the tubing with appropriate wash solvent.



- 2 Press **Method** and select the **multi-wash** and configure your wash method.



- 3 Configure your wash method by selecting the appropriate wash solvents.

