3
Quick Start Guide

This chapter provides information on running an Agilent 1260 Infinity II LC System.

Best Practices

NOTE For best practices, refer to the *Agilent Information Center* on Agilent InfinityLab LC Series User Documentation (G4800-64600) or the 1290 Infinity Pump Quick Reference Sheet (01200-90091).

Prepare a Run

This procedure examplarily shows how to prepare a run. Parameters as shown in the screenshots may vary, depending on the system installed.

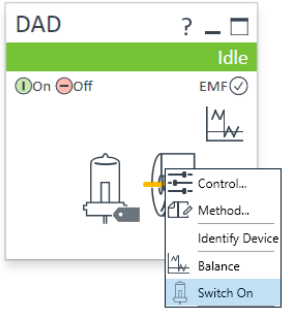
WARNING

Toxic, flammable and hazardous solvents, samples and reagents

The handling of solvents, samples and reagents can hold health and safety risks.

- ➔ When working with these substances observe appropriate safety procedures (for example by wearing goggles, safety gloves and protective clothing) as described in the material handling and safety data sheet supplied by the vendor, and follow good laboratory practice.
- ➔ Do not use solvents with an auto-ignition temperature below 200 °C (392 °F). Do not use solvents with a boiling point below 56 °C (133 °F).
- ➔ Avoid high vapor concentrations. Always keep the temperature in the sample compartment at least 25 K below the boiling point of the solvent used.
- ➔ Do not operate the instrument in an explosive atmosphere.
- ➔ Reduce the volume of substances to the minimum required for the analysis.
- ➔ Never exceed the maximum permissible volume of solvents (8 L) in the solvent cabinet. Do not use bottles that exceed the maximum permissible volume as specified in the usage guideline for solvent cabinet.
- ➔ Ground the waste container.
- ➔ Regularly check the filling level of the waste container. The residual free volume in the waste container must be large enough to collect the waste liquid.
- ➔ To achieve maximal safety, regularly check the tubing for correct installation.

1 Switch on the detector.

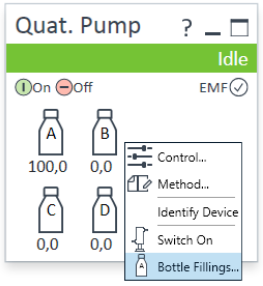


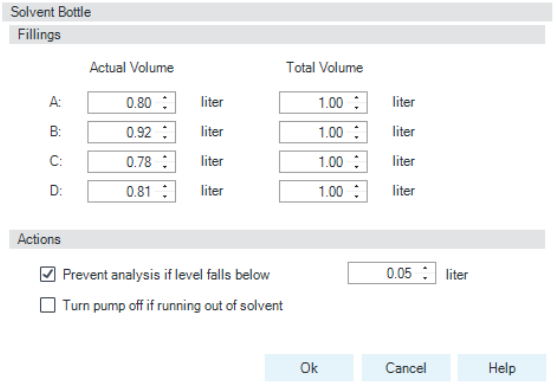
2 Fill the solvent bottles with adequate solvents for your application.

3 Place solvent tubings with bottle head assemblies into the solvent bottles.

4 Place solvent bottles into the solvent cabinet.

5 Solvent bottle filling dialog (in the software).





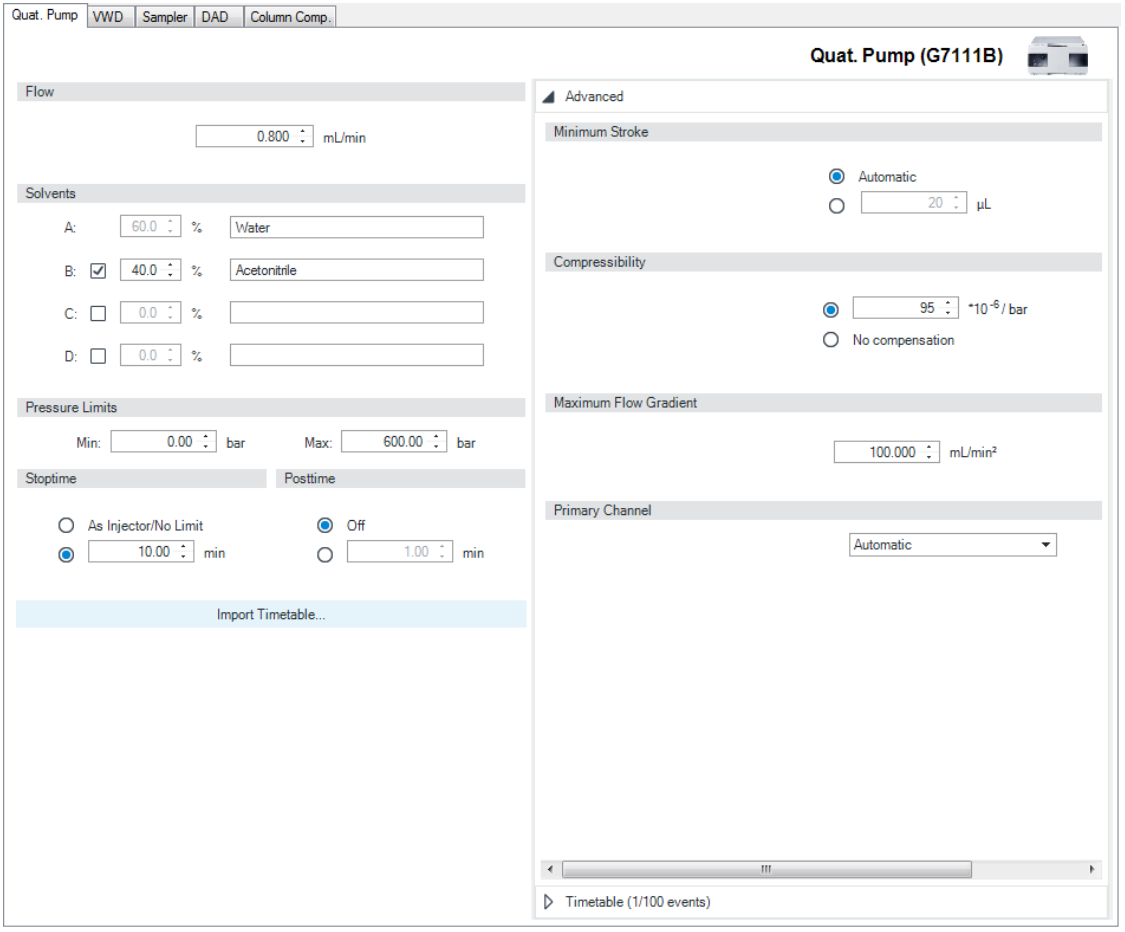
6 Purge the pump (in normal usage scenario).

OR

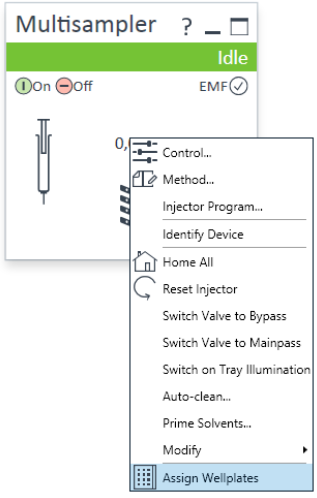
Prime the pump (after installation of the system).

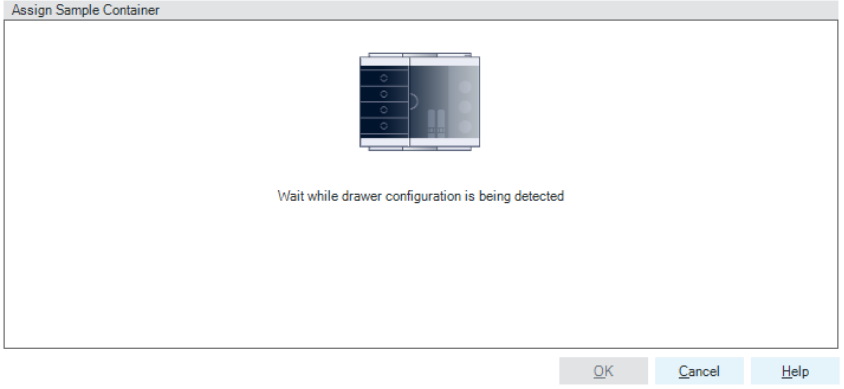
NOTE For details on priming and purging, refer to the technical note *Best Practices for Using an Agilent LC System* .

7 Change solvent (if necessary).

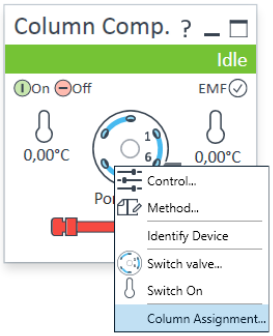


8 Choose the tray format of the sampler.

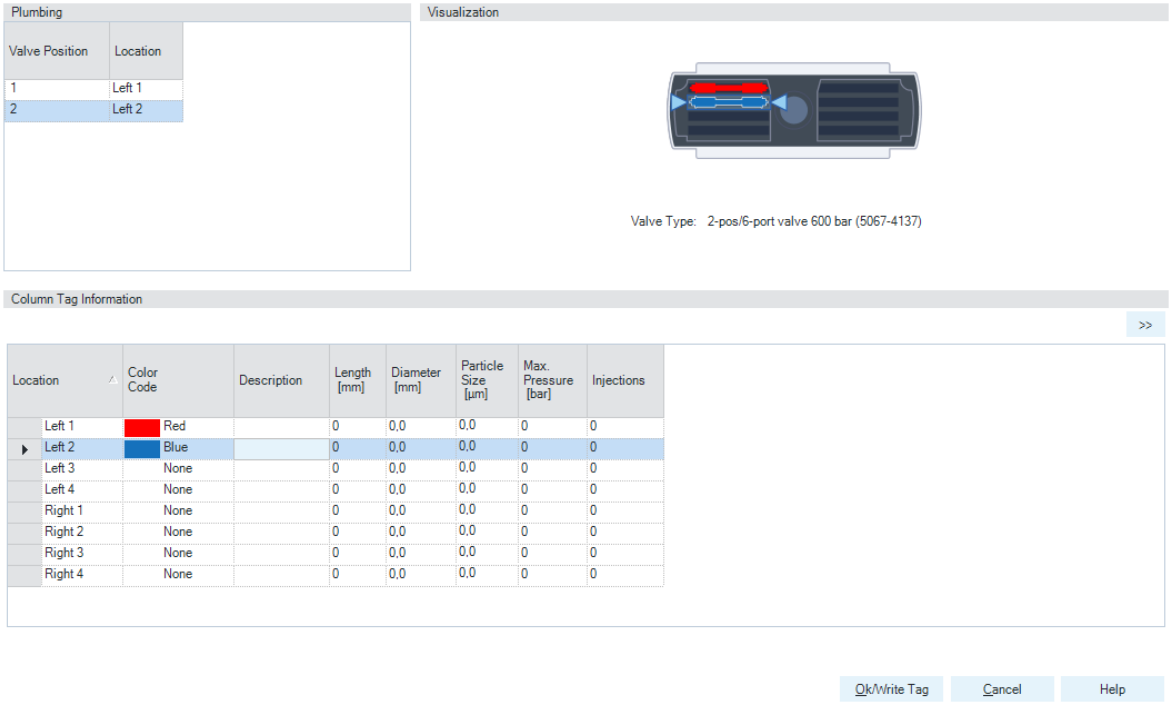




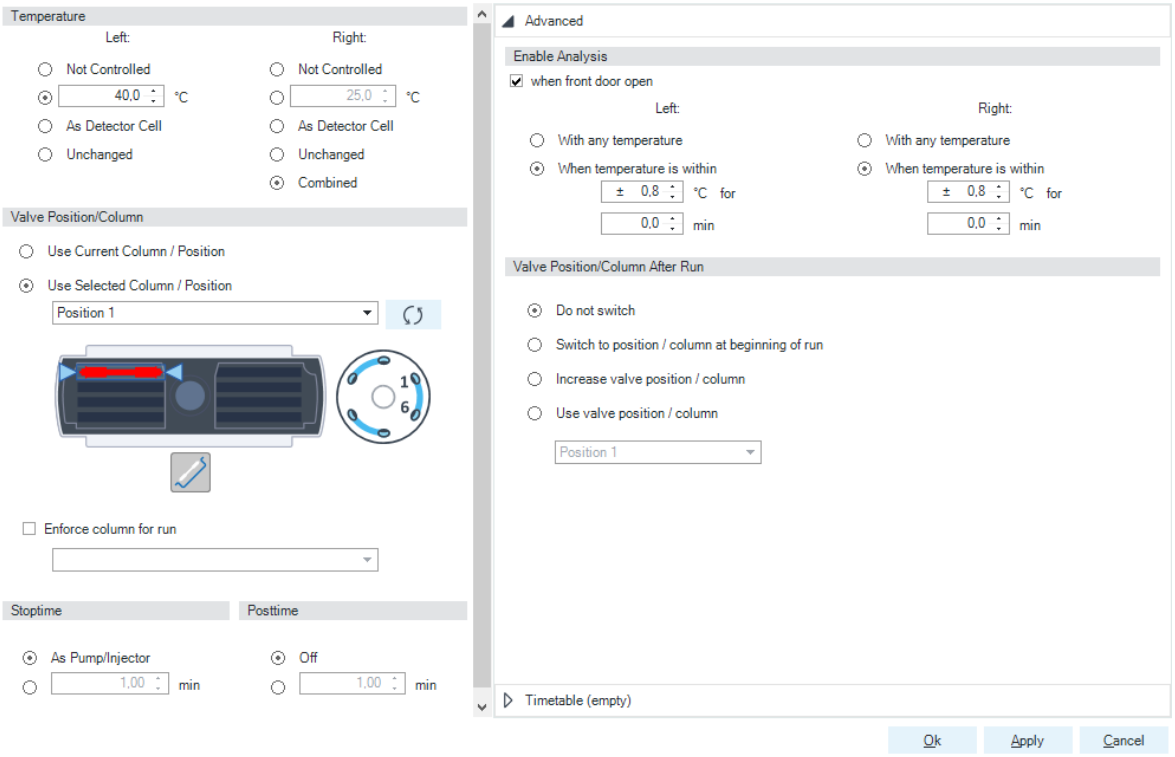
9 Add a new column.



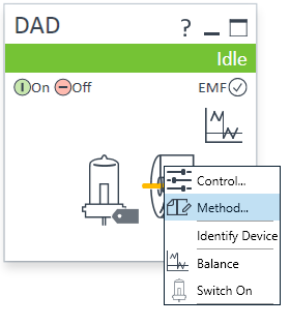
10 Enter the column information.

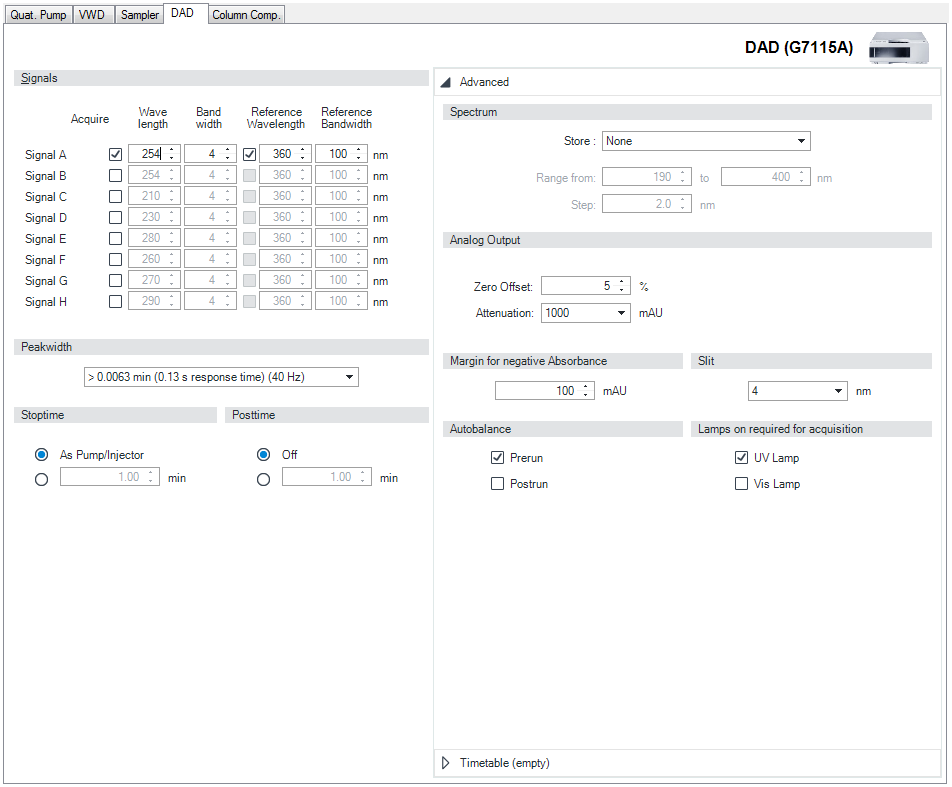


11 Select the column position.



12 Set the detector according to the needs of your method.





NOTE For details on running a method, see "Setup the Checkout Method" on page 61 as an example.

Check Out the System

Checkout Method

This is an examplary method for the Agilent InfinityLab LC Series.

Examplary configuration:

- Quaternary Pump G7111B
- Multisampler G7167A
- Multicolumn Thermostat G7116A
- Diode Array Detector WR G7115A

The RRLC checkout sample (5188-6529) serves as standard for systems with 600 bar and contains 100 ng/µL each of nine components dissolved in water / acetonitrile (65/35). The nine components are:

- Acetanilide
- Acetophenone
- Propiophenone
- Butyrophenone
- Benzophenone
- Valerophenone
- Hexanophenone
- Heptanophenone
- Octanophenone

The Agilent isocratic checkout sample (01080-68704) serves as standard for systems with 400 bar and contains each of four components dissolved in methanol.

- Dimethylphthalate
- Diethylphthalate
- Biphenyl
- o-Terphenyl

NOTE

Find the correct settings for the individual modules here:

- Checkout method parameter settings Isocratic Pump (G7110B) (Table 3 on page 58)
- Checkout method parameter settings Quaternary Pump VL (G7111A) (Table 4 on page 58)
- Checkout method parameter settings Quaternary Pump (G7111B) (Table 5 on page 59)
- Checkout method parameter settings Multisampler (G7167A) or Vialsampler (G7129A) (Table 6 on page 59)
- Checkout method parameter settings Multicolumn Thermostat (G7116A) (Table 7 on page 59)
- Checkout method parameter settings Diode Array Detector HS (G7117C) or Diode Array Detector WR (G7115A) (Table 8 on page 60)
- Checkout method parameter settings Variable Wavelength Detector (G7114A) (Table 9 on page 60)

Table 2 Overview of column options for different pumps

Pump	Option 1	Option 2	Option 3
1260 Infinity II Quaternary and Binary Pump (G7111B/G7112B)	Poroshell 120 EC-C18, 4.6 x 100 mm, 2.7 µm	Poroshell 120 EC-C18, 3.0 x 150, 2.7 µm	Poroshell 120 EC-C18, 3.0 x 50 mm, 2.7 µm
	695975-902T	693975-302T	699975-302T
1260 Infinity II Quaternary Pump VL (G7111A)	Poroshell 120 EC-C18, 4.6 x 100 mm, 4 µm	Poroshell 120 EC-C18, 4.6 x 50 mm, 2.7 µm	Poroshell 120 EC-C18, 4.6 x 150 mm, 4 µm
	695970-902T	699975-902T	693970-902T

Table 3 Checkout method parameter settings Isocratic Pump (G7110B)

Parameter	Value
Flow	1.5 mL/min
Solvents	65 % ACN in water
Compressibility	75
Stoptime	10 min
Pressure Limit	600 bar
Minimum Stroke	Automatic

Table 4 Checkout method parameter settings Quaternary Pump VL (G7111A)

Parameter	Value
Flow	1 mL/min
Solvent A	Water
Solvent B	ACN
Compressibility	75
Composition	65 % B (ACN)
Composition	35 % A (Water)
Stoptime	10 min
Pressure Limit	400 bar
Minimum Stroke	Automatic

Table 5 Checkout method parameter settings Quaternary Pump (G7111B)

Parameter	Value
Flow	0.8 mL/min
Solvent A	Water
Solvent B	ACN
Compressibility	95
Composition	40 %B (ACN)
Composition	60 %A (Water)
Stoptime	10 min
Pressure Limit	600 bar
Minimum Stroke	Automatic
Timetable	2.5 min 80 %B

Table 6 Checkout method parameter settings Vialsampler/Multisampler (G7129A/G7167A)

Parameter	Value
Injection	1 µL
Stoptime	as pump
Draw speed	100 µL/min

Table 7 Checkout method parameter settings Multicolumn Thermostat (G7116A)

Parameter	Value
Temperature (left)	40 °C
Temperature (right)	combined
Stoptime	as pump

Table 8 Checkout method parameter settings Diode Array Detectors (G7115A/G7117C)

Parameter	Value
Signal A	254/4 nm
Ref A	360/100 nm
Peakwidth	40 Hz
Stoptime	as pump
Spectrum	None
Autobalance	Prerun

Table 9 Checkout method parameter settings Variable Wavelength Detector (G7114A)

Parameter	Value
Wavelength	254 nm
Peakwidth	40 Hz
Stoptime	as pump
Autobalance	Prerun

Setup the Checkout Method

NOTE The setup of the checkout method in this procedure is an example. For the individual module parameters, see "Checkout Method" on page 56.

1 Turn on the lamp.

2 Load the the default method DEF_LC.M

3 Change the method and timetable settings for the 1260 Infinity II Quaternary Pump (G7111B)

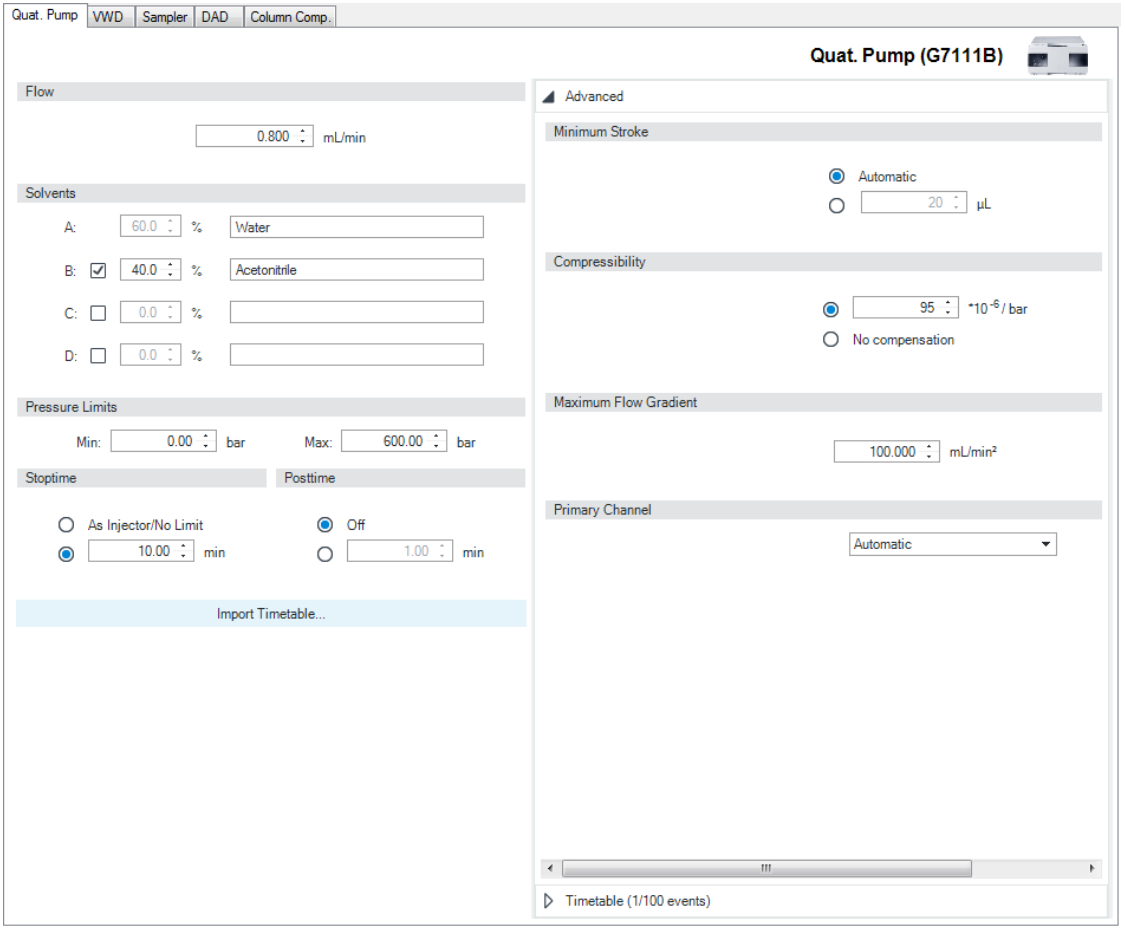


Figure 25 Method settings 1260 Infinity II Quaternary Pump (G7111B)

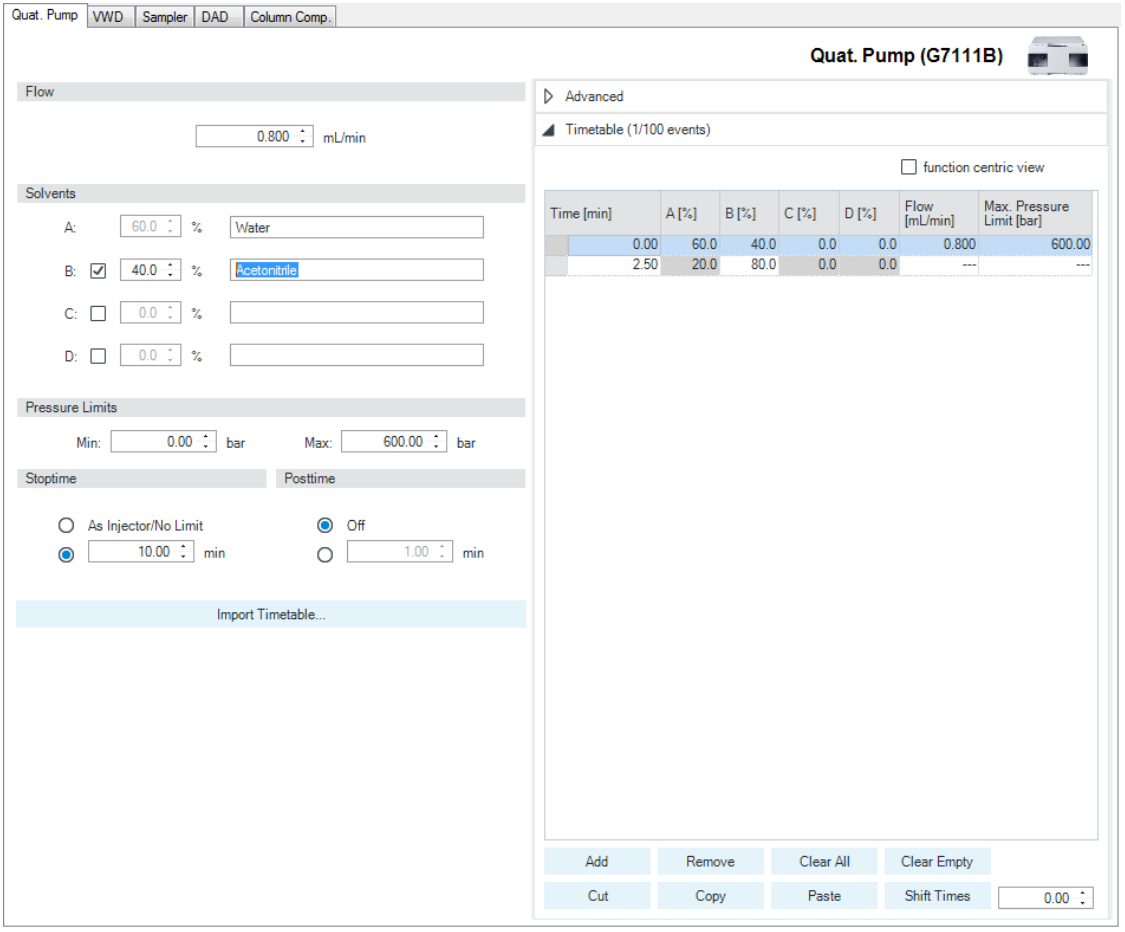


Figure 26 Timetable settings 1260 Infinity II Quaternary Pump (G7111B)

4 Change the method settings for the 1260 Infinity II Multisampler (G7167A)

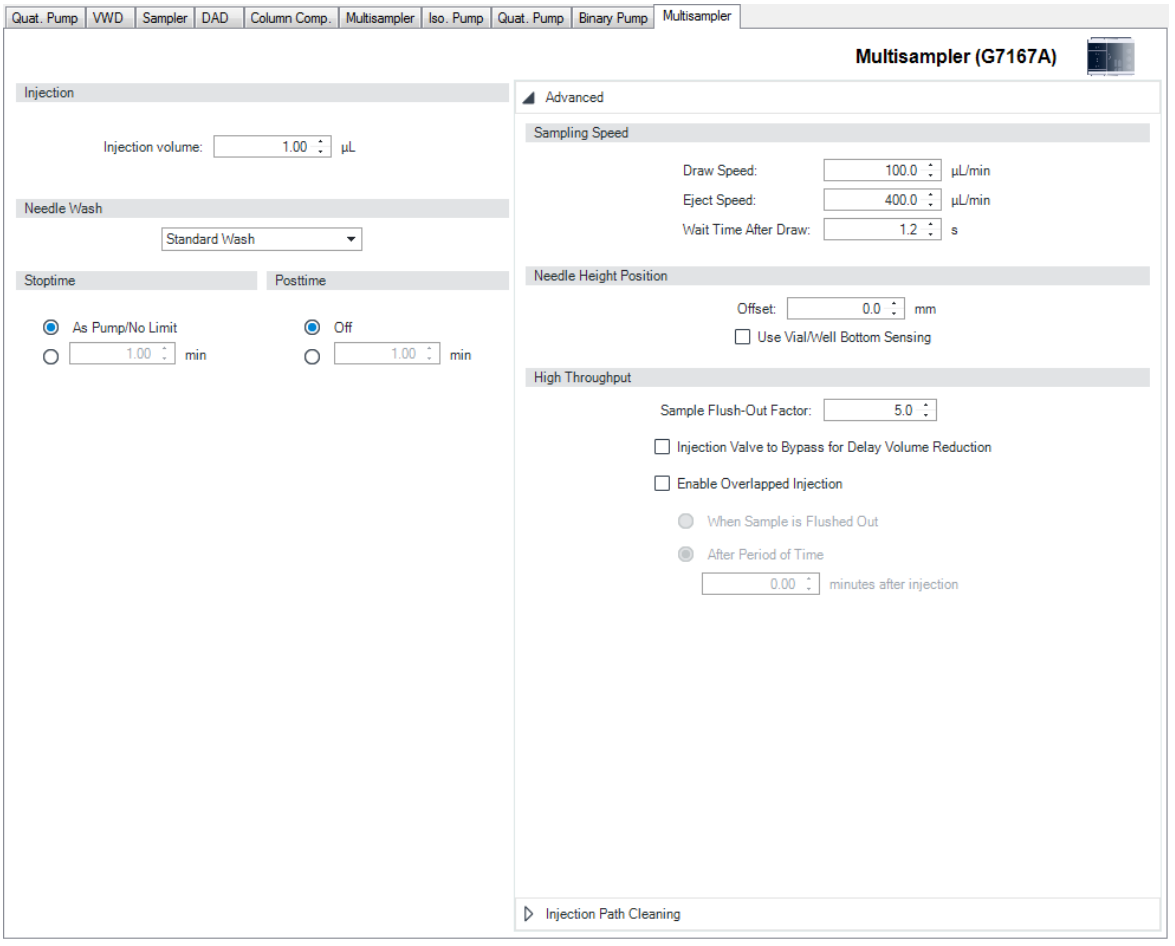


Figure 27 Method setting 1260 Infinity II Multisampler (G7167A)

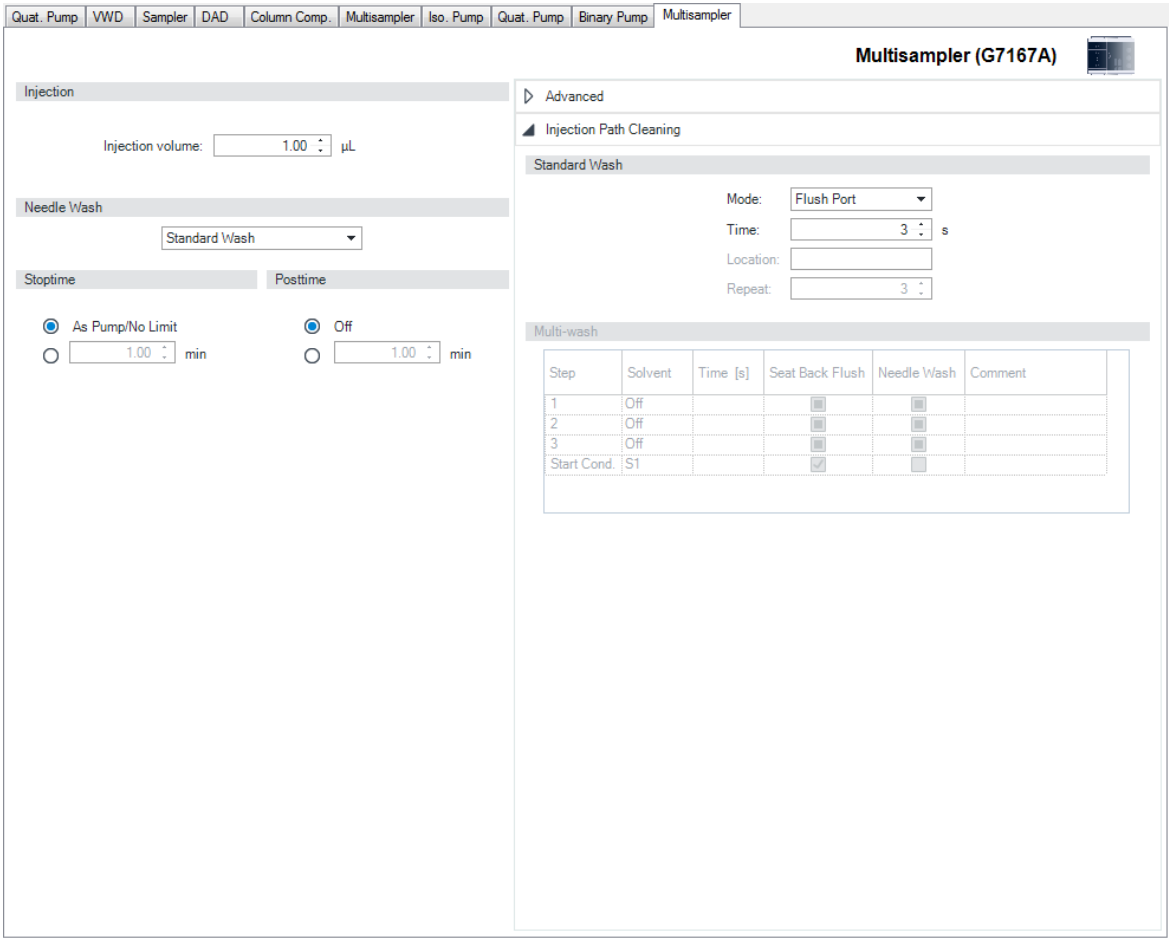


Figure 28 Method setting 1260 Infinity II Multisampler (G7167A) - Injection Path Cleaning

5 Change the method settings for the 1260 Infinity II Multicolumn Thermostat (G7116A)

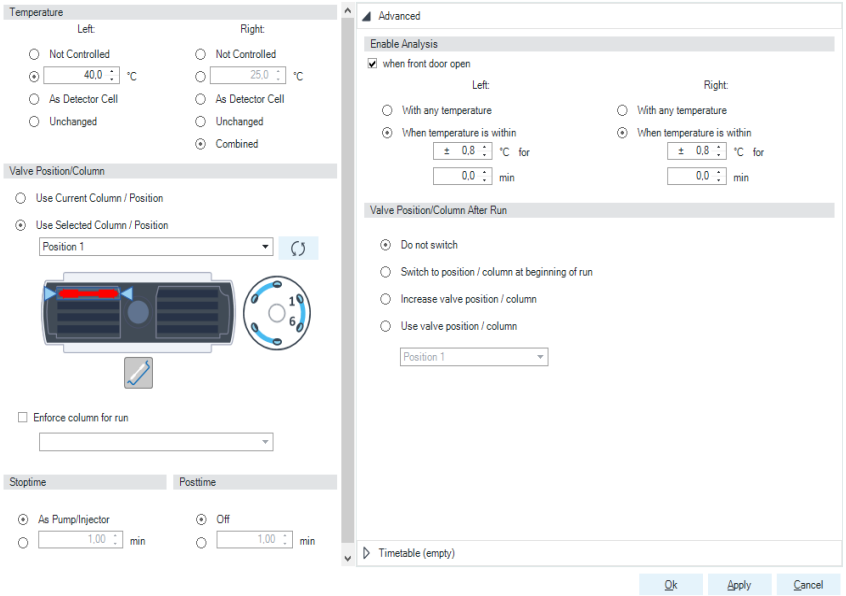


Figure 29 Method setting 1260 Infinity II Multicolumn Thermostat (G7116A)

6 Change the method settings for the 1260 Infinity II Diode Array Detector WR (G7115A)

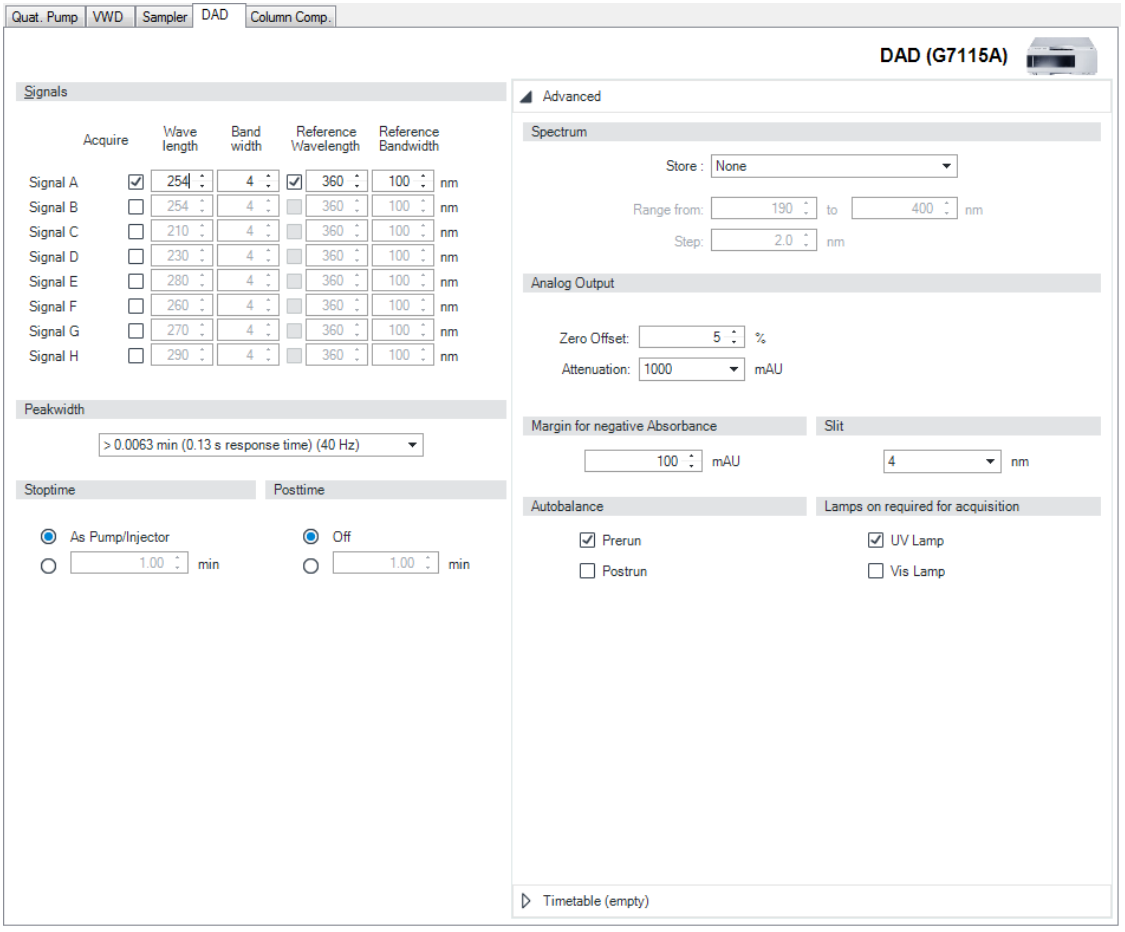


Figure 30 Method setting 1260 Infinity II Diode Array Detector WR (G7115A)

7 Save the method as GRAD-1.M

8 Equilibrate the system for 10 min under checkout conditions

9 Run and evaluate the checkout method