

Agilent 1260 Infinity Purification Solution

Installation Guide



Agilent Technologies

Notices

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CAUTION

A **CAUTION** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a **CAUTION** notice until the indicated conditions are fully understood and met.

WARNING

A **WARNING** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a **WARNING** notice until the indicated conditions are fully understood and met.

In This Book

This guide provides information on how to configure and install the Agilent 1260 Infinity Purification Solution.

1 System Setup and Installation

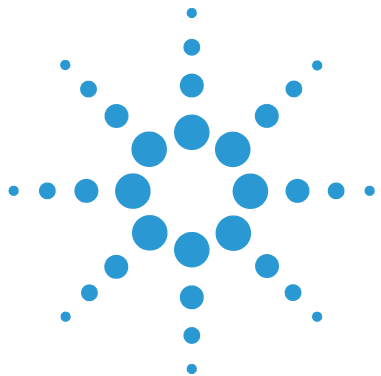
This chapter includes information on software installation, installation of the modules, and preparing the system for operation.

2 Installation Details for Supported Configurations and Components

This chapter provides detailed information on capillary connections for the different supported configurations of the Agilent 1260 Infinity Purification Solution.

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1 System Setup and Installation

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This chapter includes information on software installation, installation of the modules, and preparing the system for operation.



System Setup and Installation

The System Setup and Installation of the Agilent 1260 Infinity Purification Solution is done by an Agilent representative as part of the *System and Configuration Service*. This service is always included with the solution.

Delivery Checklist

NOTE

The list of required modules depends on the desired configuration of the system.
 Overview: [Table 1](#) on page 9

NOTE

The Agilent 1260 Infinity Purification Solution is very flexible and offers several configurations, see “[Installation Details for Supported Configurations and Components](#)” on page 45.

The kits listed below are designed to support all configurations.

For the delivery checklists of the individual modules, please refer to the corresponding module-specific user manual.

G4730A

p/n	Description
5067-4193	2pos/10port Preparative scale valve head 600 bar
5067-5747	Capillary Kit 1260 Prep
	Agilent Valve Kit G4730A – Instructions

**G4731A
 (optional)**

p/n	Description
5067-4194	8 pos/9 port Preparative scale valve head 600 bar
	Agilent Valve Kit G4731A – Instructions

1 System Setup and Installation

Delivery Checklist

Capillary Kit

Item	p/n	Description
1	G9381A	Standalone kit
OR 2	5067-5747	Capillary Kit 1260 Prep Together with G4730A

Options The following parts are available as options:

p/n	Description
G1361-68707	Gradient kit Shipped with every additional pump in a gradient system
G1968F	Mass-Based Purification Kit for 6100 Contains Delay Coil 5000 μ L, Capillary PK 0.1 mm x 1250 mm SX/SH, Capillary PK 0.25 mm
G1390B	Universal Interface Box II

Table 1 Required components (Agilent 1260 Infinity Purification Solution)

Function	Modules	
Solvent delivery	• 5065-9981	(1x-3x - depends on configuration)
	• G1361A	
	• G1391A	
Autosampler	• G2258A	
Valvedrive	• G1170A	(n = 1 for use with G4730A, n = 2 for use with G4730A combined with G4731A) The Valvedrive needs the accessory kit (mounting rail)
Valve	• G4730A	Kit for all configurations with 2pos/10port valve
	• G4731A	Kit for configurations with one 8pos/9port valve)
Valve holder	• G1383A	(with G1384A)
Analytical system (hardware)	• G1315C	
	• G1310B	(for MS-configurations)
	• G6120B or G6130B	(for MS-configurations)
	• G1968F	(for MS-configurations)
Fraction collection	• G1364B	(n = 1 for use with G4730A, n _{max} = 3 for use with G4731A)
Instrument connection	• G1390B	optional (only for systems with MS)
Analytical system (software)	<ul style="list-style-type: none"> • Agilent OpenLAB CDS ChemStation Automated Purification Software • OpenLAB CDS A.01.05, ChemStation Edition rev. C.01.05 with hotfix 5 • RC.Net drivers for LC & CE, rev. A.02.08 SP1 on a separate CD as an Add-on • Lab Advisor B.02.04 	

Site Requirements

Before starting the installation, read the following safety information carefully. Make sure to comply with the instructions. For details, refer to the *Agilent 1260 Infinity Purification Solution - Site Preparation Checklist*.

Power Considerations

For details on power supply capabilities, refer to the manuals of individual modules.

WARNING

Hazard of electrical shock or damage of your instrumentation can result, if the devices are connected to a line voltage higher than specified.

→ Connect your instrument to the specified line voltage only.

WARNING

The module is partially energized when switched off, as long as the power cord is plugged in.

Repair work at the module can lead to personal injuries, e.g. electrical shock, when the cover is opened and the module is connected to power.

→ Always unplug the power cable before opening the cover.

→ Do not connect the power cable to the instrument while the covers are removed.

CAUTION

Inaccessible power plug.

In case of emergency it must be possible to disconnect the instrument from the power line at any time.

- Make sure the power connector of the instrument can be easily reached and unplugged.
 - Provide sufficient space behind the power socket of the instrument to unplug the cable.
-

Power Cords

Different power cords are offered as options with the module. The female end of all power cords is identical. It plugs into the power-input socket at the rear. The male end of each power cord is different and designed to match the wall socket of a particular country or region.

WARNING

Absence of ground connection or use of unspecified power cord

The absence of ground connection or the use of unspecified power cord can lead to electric shock or short circuit.

- Never operate your instrumentation from a power outlet that has no ground connection.
 - Never use a power cord other than the Agilent Technologies power cord designed for your region.
-

WARNING

Use of unsupplied cables

Using cables not supplied by Agilent Technologies can lead to damage of the electronic components or personal injury.

- Never use cables other than the ones supplied by Agilent Technologies to ensure proper functionality and compliance with safety or EMC regulations.
-

WARNING

Unintended use of supplied power cords

Using power cords for unintended purposes can lead to personal injury or damage of electronic equipment.

→ Never use the power cords that Agilent Technologies supplies with this instrument for any other equipment.

Bench Space

NOTE

The bench must be sturdy enough to support the weight of the instrument.

Total weight is approximately 150 kg including the mass spectrometer.

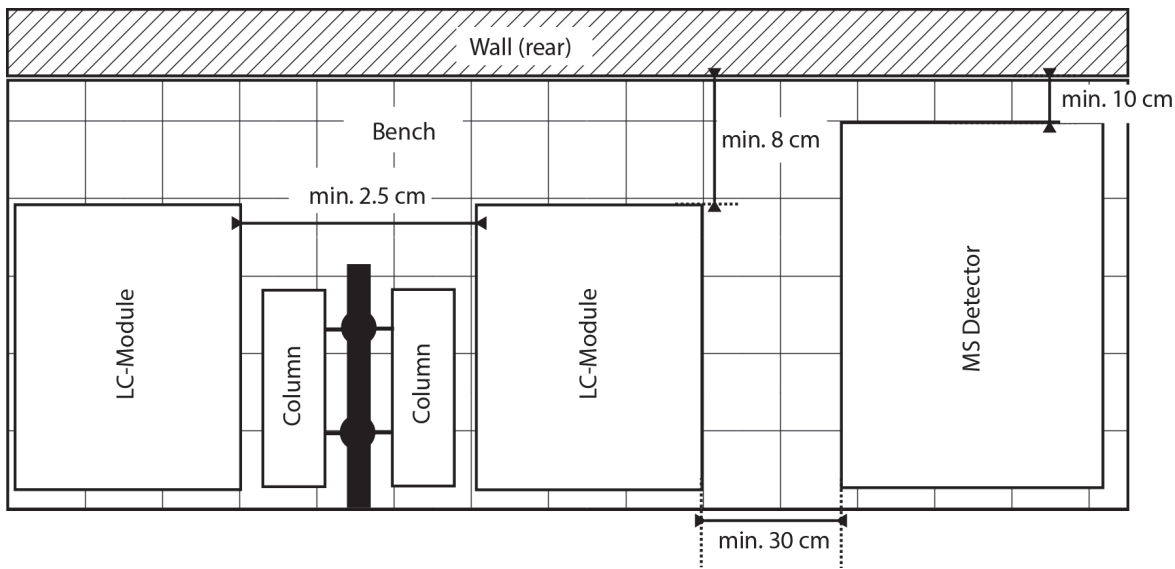


Figure 1 LC-Modules: Bench requirements and minimal space around

Condensation

CAUTION

Condensation within the module

Condensation will damage the system electronics.

- Do not store, ship or use your module under conditions where temperature fluctuations could cause condensation within the module.
 - If your module was shipped in cold weather, leave it in its box and allow it to warm slowly to room temperature to avoid condensation.
-

Installation Information on Leak and Waste Handling

The Agilent 1260 Infinity Purification Solution has been designed for safe leak and waste handling. It is important that all security concepts are understood and instructions are carefully followed.

WARNING

Large solvent volumes and high flow rates

Large amounts of organic solvent represent a serious health risk and may cause fire and explosion.

- Equip the laboratory with adequate safety features to run preparative HPLC.
- Take special care to avoid solvent spills.
- Run the preparative system under an adequate exhaust system (e.g. under a fume hood) to withdraw the fumes outside the laboratory building.
- If possible, store solvent containers conveniently outside the laboratory building.
- If possible use the system in an appropriate fume hood avoiding hazardous solvent vapors in the lab.
- Ensure that your waste container has sufficient capacity to take the waste solvent.

WARNING

Harmful vapors

The Agilent 6120/30 Single Quadrupole LC/MS is not connected to the CAN bus and is not integrated in the leak shutdown concept of the LC stack.

The flow splitter in front of the ESI nebulizer (simple T-Piece) enables a split ratio of approximately 1:5. The flow into the source is approximately 300 $\mu\text{L}/\text{min}$.

- Transfer the exhaust from the ion source and from the roughing pump to a fume hood.
- Avoid higher flow rates than 800 $\mu\text{L}/\text{min}$ directly without splitting into the source.
- Ensure that there is spray and that the T-piece splitter is not blocked.
- Never use non volatile buffers into the ion source.

WARNING

Hazardous solvent vapors

- Connect the fraction collector via the fume hood extraction adaptor and an exhaust tube to the fume hood.

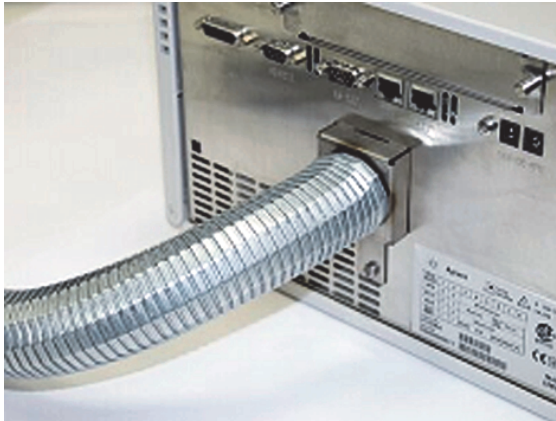


Figure 2 Fume hood extraction adaptor to connect the fraction collector to exhaust tube

1 System Setup and Installation

Installation Information on Leak and Waste Handling

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.
- The volume of substances should be reduced to the minimum required for the analysis.
- Never exceed the maximal permissible volume of solvents (6 L) in the solvent cabinet.
- Do not use bottles that exceed the maximum permissible volume as specified in the usage guideline for the Agilent 1200 Infinity Series Solvent Cabinets.
- Arrange the bottles as specified in the usage guideline for the solvent cabinet.
- A printed copy of the guideline has been shipped with the solvent cabinet, electronic copies are available on the Internet.

NOTE

Recommendations for Solvent Cabinet

For details, see the usage guideline for the Agilent 1200 Infinity Series Solvent Cabinets.

- 1 Stack the modules according to the adequate stack configuration.

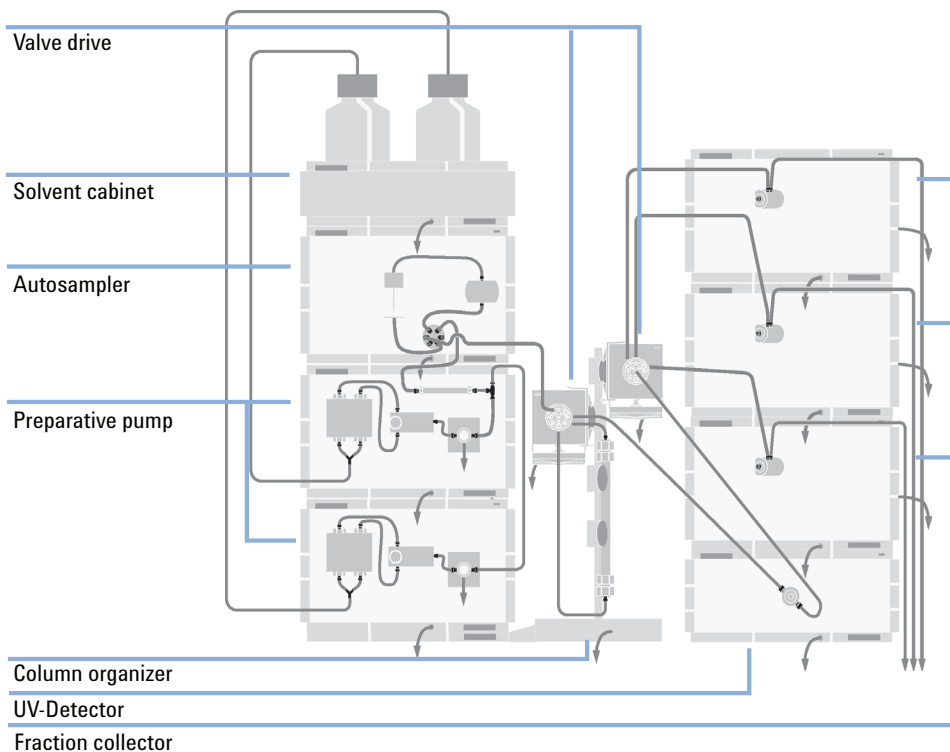


Figure 3 Leak and waste handling (example of a stack configuration for UV-detection with clustered fraction collectors)

↓ Tubing to waste

1 System Setup and Installation

Installation Information on Leak and Waste Handling

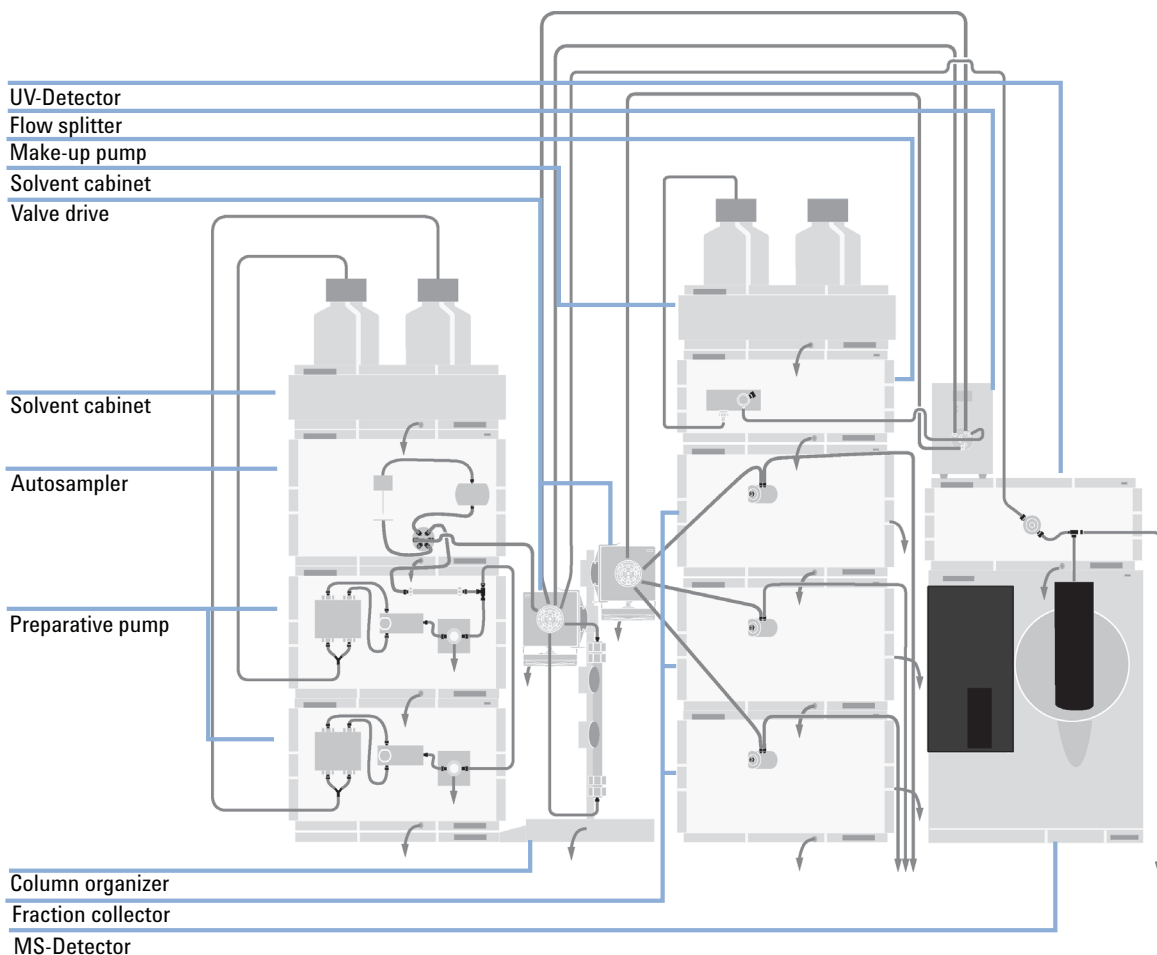


Figure 4 Leak and waste handling (example of a stack configuration for UV- and MS-detection with clustered fraction collectors and flowsplit before UV-detection)

↓ Tubing to waste

- 2 Connect data and power cables to the modules, see section *Installing the Module* below.
- 3 Connect capillaries and tubes to the modules.

4 Guide waste tubes of all components to an adequate waste container.

WARNING

Toxic, flammable and hazardous solvents, samples and reagents

- Keep solvent path free from blockages.
- Keep the flow path closed (in case the pump in the system is equipped with a passive inlet valve, solvent may leak out due to hydrostatic pressure, even if your instrument is off).
- Avoid loops.
- Tubes must not sag.
- Do not bend tubes.
- Do not immerse tube end in waste liquid.
- Do not intubate tubes in other tubes.
- For correct tubing follow instructions on label attached to the module.



Figure 5 Warning label (illustration for correct waste tubing)

Installing the Purification Solution

Parts required	Description All modules and kits, as required for your configuration All cables (power cords, communication cables), as required for your configuration Agilent ChemStation C.01.05 Hot Fix 05, LC Driver Package A.02.09, Lab Advisor B.02.04.Driver plus automated purification software as add-on.
Preparations	<ul style="list-style-type: none">• Check site requirements according to the <i>Agilent 1260/1290 Infinity Series HPLC - Site Preparation Checklist</i>• Locate bench space• Provide power connections• Unpack the purification system modules

WARNING

Toxic, flammable and hazardous solvents, samples and reagents

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

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-

WARNING

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- Keep solvent path free from blockages.
 - Keep the flow path closed (in case the pump in the system is equipped with a passive inlet valve, solvent may leak out due to hydrostatic pressure, even if your instrument is off).
 - Avoid loops.
 - Tubes must not sag.
 - Do not bend tubes.
 - Do not immerse tube end in waste liquid.
 - Do not intubate tubes in other tubes.
 - For correct tubing follow instructions on label attached to the module.
-

WARNING

Chemical toxicity of solvents, samples, buffers, pump fluid vapor, and aerosolized biological samples

User intoxication

- Vent exhaust gases from the Single Quad LC/MS external to the building.
 - Vent exhaust from spray chamber and foreline pump separately.
 - Ideally both exhaust vents should be below atmospheric pressure (negative pressure).
 - If negative pressure is not available, the tubing of foreline pump and drain bottle to the vent must be < 4.6 m.
 - Avoid backpressure in spray chamber exhaust and drain bottle exhaust (no backpressure at exhaust flow < 20 L/min).
-

WARNING

Explosive gas mixtures, high voltages and deterioration of parts

Explosion and/or negative effects on instrument operation.

- Use nitrogen as drying and nebulizing gas.
-

1 System Setup and Installation

Installing the Purification Solution

CAUTION

Vibration

Affecting of sensitive equipment.

→ Ensure sensitive equipment is properly isolated from the pump vibrations.

- 1 Remove the adhesive tape which covers the front doors.
- 2 Open the front doors.
- 3 Remove the transport protection foam.
- 4 Position the modules horizontally in the recommended stacks and order of the modules. For details, refer to the *Installation Instructions* as recommended for the desired configuration. For an overview, see [“Installation Details for Supported Configurations and Components”](#) on page 45.

CAUTION

Wrong capillary and tubing connections

Damage to the valves and valve drives or loss of samples.

- Adhere strictly to the recommendations for length and diameters of capillaries and tubings, as listed below (this may differ from configuration to configuration).
 - To tailor tubings and capillaries to their correct length, refer to the instructions, supplied with the cutter (p/n 8710-1930).
-

- 5 Establish flow connections.

NOTE

The length and diameter of the flow connections is critical for the function of the Purification Solution.

For generic information on how to correctly install valve heads and capillaries, refer to the following sections :

- “Installing the Valve Heads” on page 29
- “Installing the Tubes and Capillaries” on page 35
- “Capillary and Tubing Connections in Flow Path” on page 37
- “Special tubing of the Dual-Loop Autosampler (G2258A)” on page 38
- “Tubing of active flow splitter (G1968F)” on page 39

For special information on how to use correct capillaries and capillary lengths for the individual configurations, refer to “Installation Details for Supported Configurations and Components” on page 45

6 Optional, for MS-based configurations only:

a Locate the foreline pump on the laboratory bench or on the floor.

NOTE

The foreline pump must be close to the MS (connection hose from backside of MS = 2 m, may not be bent sharply).

b Place the drain bottle below the MS.

c Connect the MS via Tube PTFE 0.7 mm x 5 m, 1.6 mm od (5062-2462) to the drain bottle.

NOTE

Approximately 30 cm is alongside the MS. A hose extension kit is available (G1946-67002). The total hose length should not exceed 3 m.

d Connect the nitrogen source to the MS.

7 Ensure that the power switch at the front of each module in the purification system is OFF.

1 System Setup and Installation

Installing the Purification Solution

- 8 Connect the power cable to the power connector at the rear of each of the purification system modules.

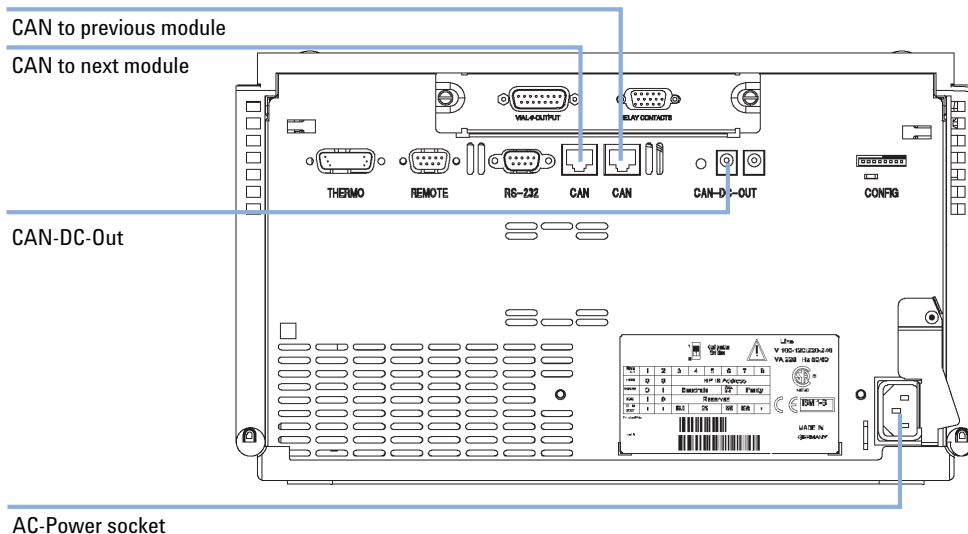


Figure 6 Cable connections (rear view of G1364B as example)

- 9 Connect the CAN cables between each of the Agilent 1200 Infinity Series modules in your purification system (CAN cables: long - PN 5181-1519; short - PN 5181-1516).

NOTE

The CAN-DC-IN port at the Agilent 1290 Infinity Universal Valve Drive must be connected to the CAN-DC-OUT port of either the G1361A preparative pump or the G1364B fraction collector.

- 10 Connect the LAN cable (e.g. from a Agilent ChemStation as controller) to the detector's LAN connector.

NOTE

In multi-detector configurations the LAN of the G1315C/D and G1365C/D must be used due to its higher data load.

- 11 Optional, for MS-based configurations only:

- a Connect the G6120B/G6130B via remote start cable (05989-60080) to one of the LC system modules.

- b** Connect the G6120B/G6130B via the fraction collector control cable (G1968-60002, part of G1968F) to the Universal Interface Box (UIB, G1390B).
- c** Connect the G6120B/G6130B via LAN connection to the Agilent ChemStation PC.

NOTE

The MS is connected to a fixed IP 192.168.254.11 / 12 .

This is necessary to operate and control the G6120B/G6130B with the Agilent 1260 Infinity Purification software.

- d** Connect the MRA.
 - Plug the Universal Power Supply male barrel connector into the MRA female port.
 - Plug the IEC 320 connector of the Power Cord into the Universal Power Supply.
 - Plug the opposite end of the Power Cord into a properly grounded power source.

NOTE

Connection of the splitter:

To use the splitter in local mode, connect the remote cable with the connector at the backside of the MRA and the relay board inside the UIB II).

The splitter is started during the preparative method by contact closure (an open circuit means start, a closed circuit means stop).

Setting of the split ration:

Set the split ratio directly on the display of the splitter. For details, refer to the *MRA Operating Manual*.

12 Install the trays you have ordered for your sampler and fraction collector(s).

13 Turn ON power by pushing the button at the lower left hand side each of the purification system modules.

14 Install the software packages.

NOTE

The latest Splitter software can be found on Disk 6 of the DVD set (G1968 Active Splitter).

1 System Setup and Installation

Installing the Purification Solution

- 15 Configure the instrument in the software.
 - a Create user account with permissions.
 - b Create a default project on OpenLab.
 - c etc.
- 16 Copy the Checkout-Method.
- 17 Start initial operation of the system.
 - a Fill in solvents.
 - b Purge and prime the system.
 - c Calibrate the system.
 - d etc.
- 18 Run the Checkout-Method.
- 19 Create a report and compare chromatograms.
- 20 (Optional) Transfer and upscale analytical method to the preparative system.
- 21 (Optional) Run preparative method with the sample, for details refer to .
 - a Start up, Priming, Purging.
 - b Measure the dwell volume for the hardware configuration.

NOTE

The dwell volume can be set to 1100 μL when using a standard setup with the capillary kit.

- c Set up an analytical method.
- d Set up a preparative method.
- e Set up an isocratic method to collect the peak of the dye solution.
- f Measure the delay time (Lab Advisor).
- g Determine the delay time between the UV signal and the MSD based on the analytical run.
- h Collect a sample compound and check the Recovery based on a visual check using the blue dye solution.
- i Run analytical injections with different target masses and use the sequence for *Purification Software*.
- j Set up the *Purification Software* and run preparative gradients.

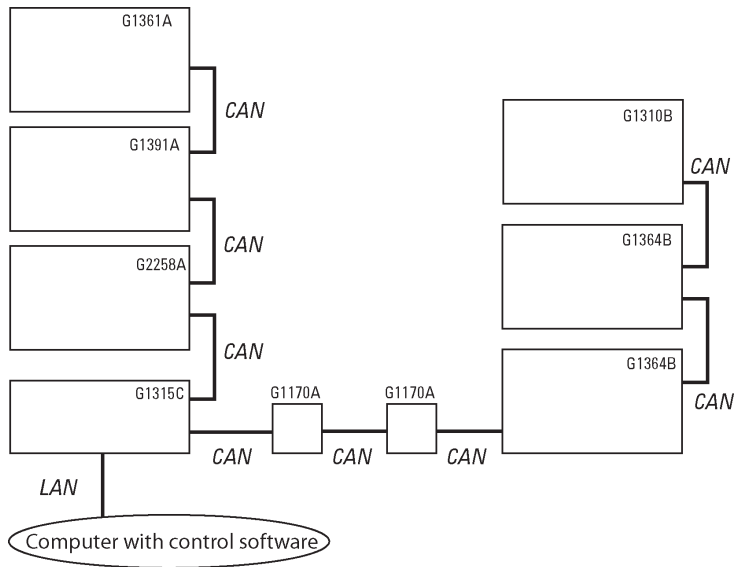


Figure 7 Cabling of a purification solution based on UV (schematic)

1 System Setup and Installation

Installing the Purification Solution

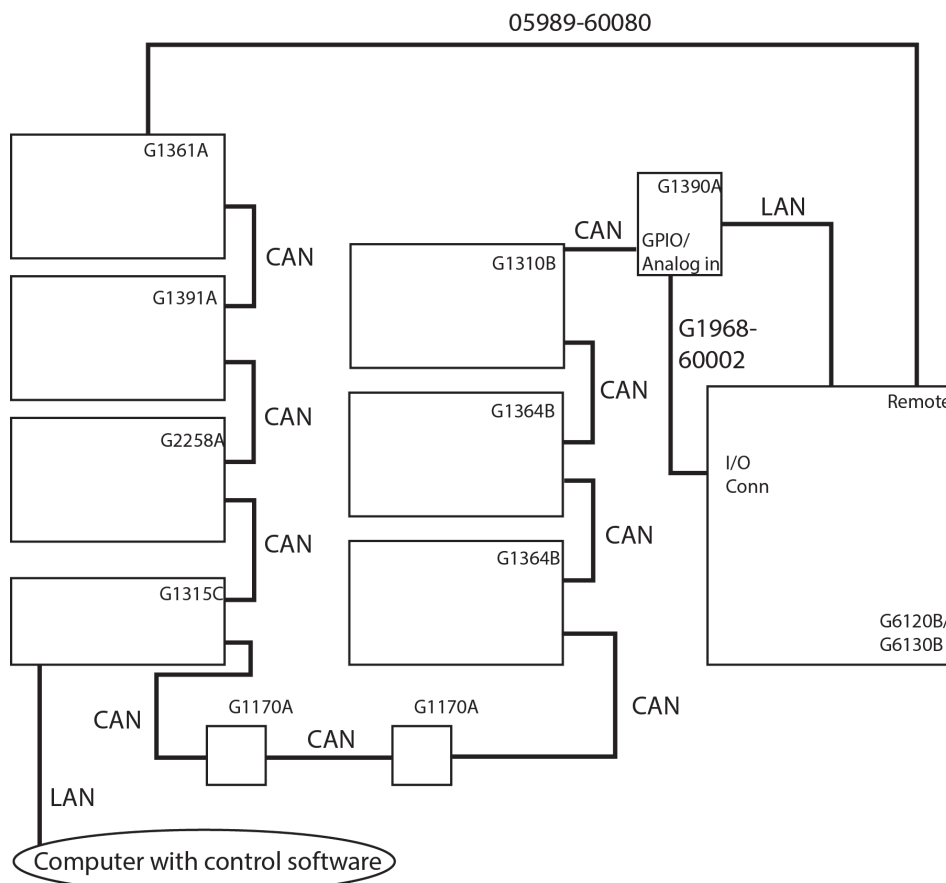


Figure 8 Cabling of a purification solution based on MS (schematic)

Installing the Valve Heads

CAUTION

The valve actuator contains sensitive optical parts, which need to be protected from dust and other pollutions. Pollution of these parts can impair the accurate selection of valve ports and therefore bias measurement results.

→ Always install a valve head for operation and storage. For protecting the actuator, a dummy valve head can be used instead of a functional valve. Do not touch parts inside the actuator.

CAUTION

Column Damage or Bias Measurement Results

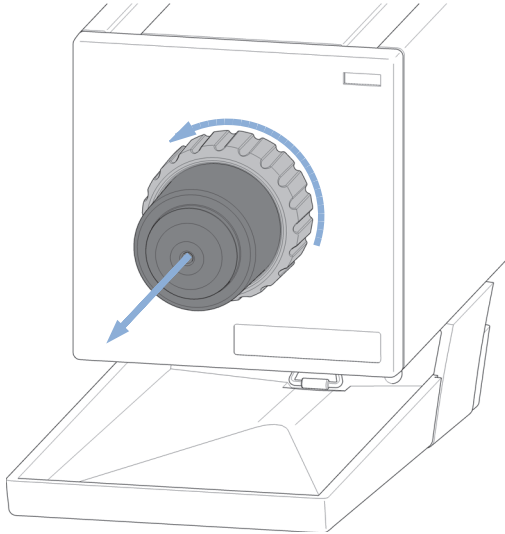
Switching the valve to a wrong position can damage the column or bias measurement results.

→ Fit the lobe to the groove to make sure the valve is switched to the correct position.

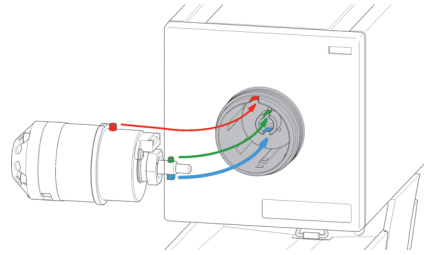
1 System Setup and Installation

Installing the Valve Heads

- 1** To remove the valve dummy, loosen the nut manually (at first installation only).

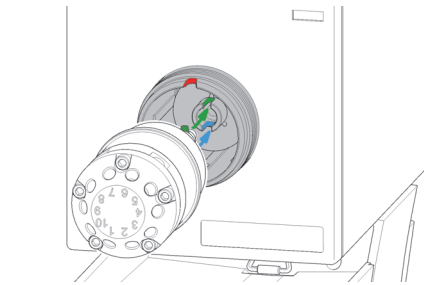
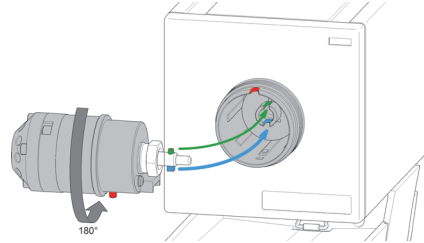


- 2** Insert the valve head into the valve shaft.



OR

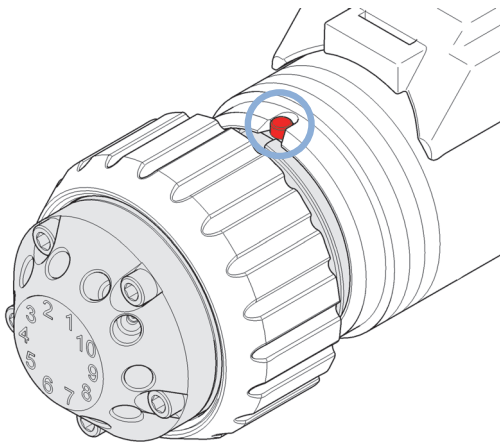
If the outside pin does not fit into the outside groove, you have to turn the valve head until you feel that the two pins snap into the grooves. Now you should feel additional resistance from the valve drive while continue turning the valve head until the pin fits into the groove.



NOTE

For a correct installation of the valve head, the outside pin (red) must completely fit into the outside groove on the valve drive's shaft (red). A correct installation is only possible if the two pins (green and blue) on the valve head fit into their corresponding grooves on the valve drive's actuator axis. Their match depends on the diameter of the pin and groove.

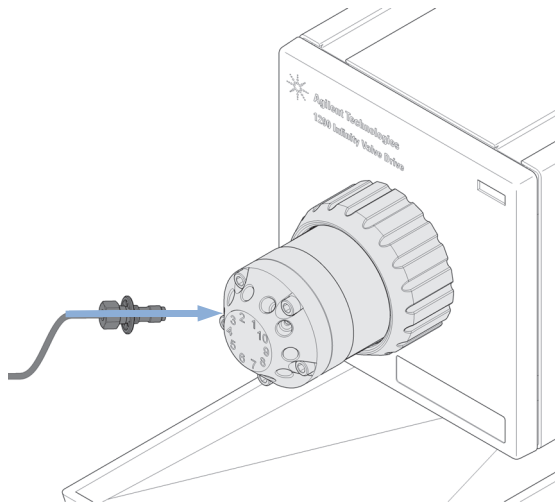
3 When the outer pin is locked into the groove, manually screw the nut onto the valve head.



NOTE

Fasten the nut manually. Do not use any tools.

4 Install all required capillary connections to the valve.



5 Power on or power-cycle your module, so the valve head gets recognized during module initialization.

NOTE

Power Off the Infinity valve drive for at least 10 s, otherwise the Agilent 1290 Infinity Valve Drive cannot properly recognize the new valve.

NOTE

The tag reader reads the valve head properties from the valve head RFID tag during the initialization of the module. The valve properties will not be updated if the valve head is replaced while the module is on. Selection of valve port positions can fail if the instrument does not know the properties of the installed valve.

Valve Head Parts Information

Replacement Parts

Table 2 Partslist 2 Position / 10 Port, Preparative Scale, Valve Head, 600bar

Valve	Rotor Seal	Stator Head	Stator Screws(Pack of 10)	Stator Ring
5067-4193 2 Pos/10 Port preparative scale valve head, 600 bar	5068-0153 (PEEK)	5068-0152	5068-0019	n.a.

Table 3 Partslist 8 Pos/9 Port, Preparative Scale, Valve Head, 600bar

Valve	Rotor Seal	Stator Head	Stator Screws(Pack of 10)	Stator Ring
5067-4194 8 Pos/9 Port Preparative scale valve head, 600 bar	5068-0155 (PEEK)	5068-0154	1535-4857	n.a.

Valve Head Parts

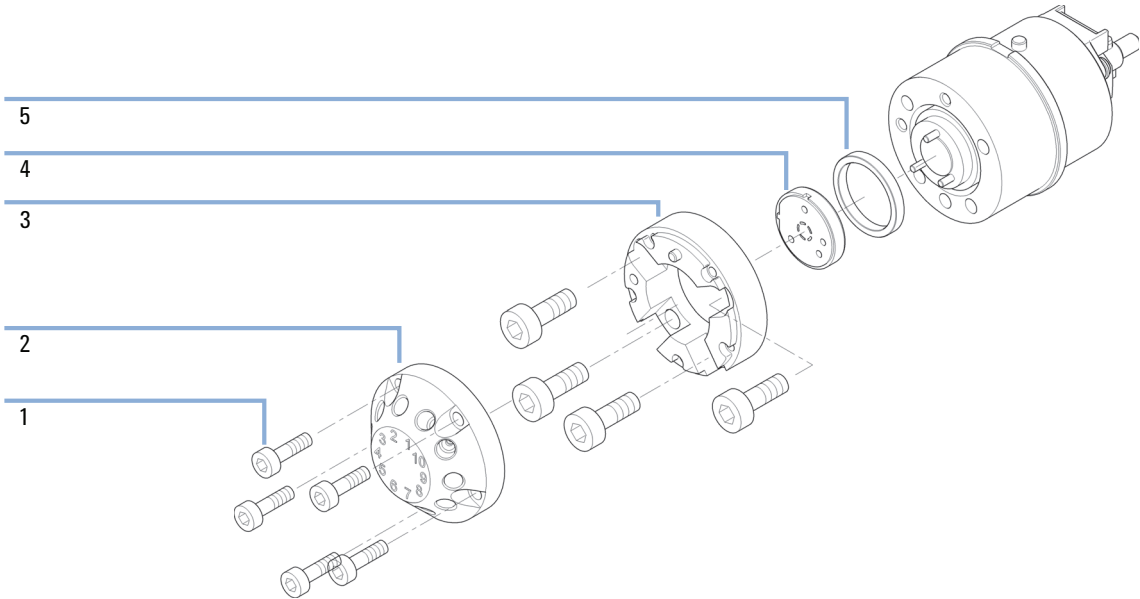


Figure 9 2pos/10port Valve Head Parts (valve head 5067-4193)

1	Stator screws
2	Stator head assembly
3	Stator ring (available for service only)
4	Rotor seal
5	Bearing ring

1 System Setup and Installation

Installing the Valve Heads

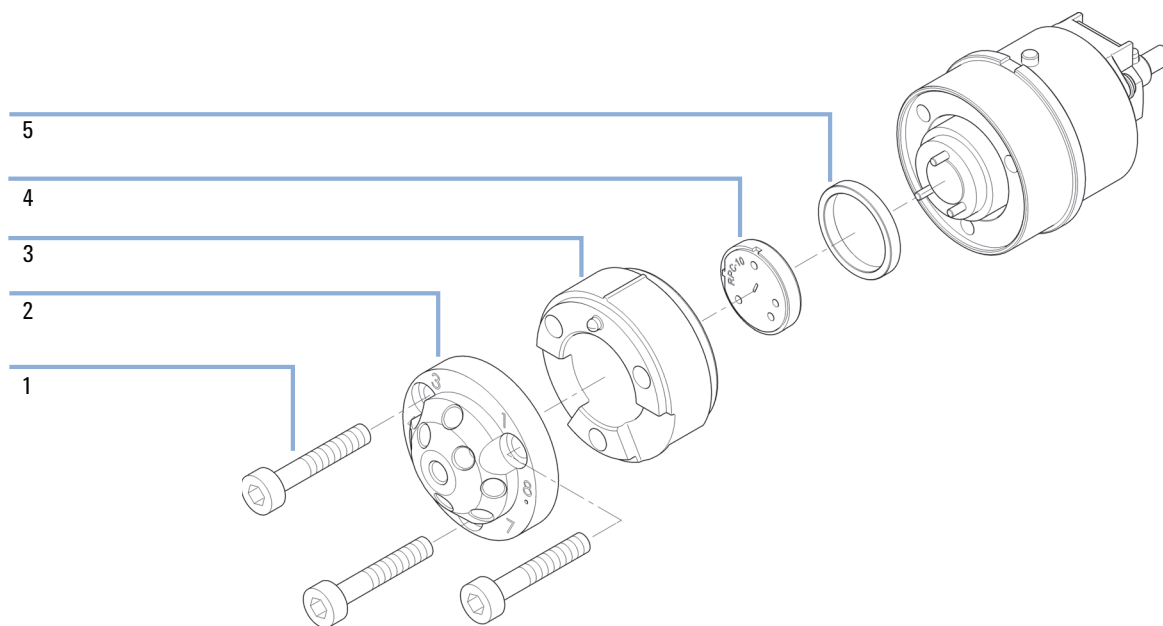


Figure 10 8pos/9port Valve Head Parts (valve head 5067-4194)

1	Stator screws
2	Stator head assembly
3	Stator ring (available for service only)
4	Rotor seal
5	Bearing ring

Installing the Tubes and Capillaries

CAUTION

Wrong capillary and tubing connections

Damage to the valves and valve drives or loss of samples.

- Adhere strictly to the recommendations for length and diameters of capillaries and tubings, as listed below (this may differ from configuration to configuration).
- To tailor tubings and capillaries to their correct length, refer to the instructions, supplied with the cutter (p/n 8710-1930).

- 1 Identify the required capillaries in Capillary Kit 1260 Prep (5067-5747) as required for the configuration.
- 2 Connect the capillaries that are connected directly to a column and fasten them immediately.
- 3 Install the capillaries depending on your configuration. For installation details, refer to [“Installation Details for Supported Configurations and Components”](#) on page 45.

NOTE

Tayloring of capillaries for all configurations is restricted to FSE certified personnel.

NOTE

Use utmost care to avoid any void volumes that are caused by poor connections.

- 4 Finger-tighten all remaining capillaries.
- 5 Clip the unions into the corresponding clips.
- 6 Fasten all fittings with a spanner.
- 7 Starting from position one through ten (G4730A) (and one through nine for G4731A), fasten the fittings.
- 8 Fasten all fittings on attached modules (autosampler, detector, additional pumps). Fit all unused valve ports with a plastic plug.

1 System Setup and Installation

Installing the Tubes and Capillaries

- 9** Push the valves into the rear positions.
- 10** Place the capillaries that go to another module or waste into the capillary guides to prevent squeezing them when closing the front cover.
- 11** Stow any excess lengths of the capillaries.
- 12** Perform a final leak-check.

Capillary and Tubing Connections in Flow Path

CAUTION

Wrong capillary and tubing connections

Damage to the valves and valve drives or loss of samples.

- Adhere strictly to the recommendations for length and diameters of capillaries and tubings, as listed below (this may differ from configuration to configuration).
- To tailor tubings and capillaries to their correct length, refer to the instructions, supplied with the cutter (p/n 8710-1930).

NOTE

Optimal preconditions for analytical to prep methods:

Dwell volume < column void volume

Potentials to minimize dwell volume (= optimized conditions for analytical to prep):

- Remove large loop sizes from the analytical flow path
- High pressure gradient formation versus low pressure gradient formation
- Minimize mixer void volumes
- Choose appropriate capillary diameters

Table 4 Color coding guide (capillaries in prep HPLC)

Color	ID (inch)	ID (mm)	Recommended flow rate (mL/min)	Void volume $\mu\text{L}/\text{cm}$	Calculated backpressure (bar) at max. flow rate ¹
black	0.004	0.102	0.1 - 0.8	0.081	103
red	0.005	0.127	0.2 - 1.5	0.127	72
yellow	0.007	0.178	0.8 - 3.0	0.249	37
blue	0.01	0.254	2.5 - 10	0.507	30
orange	0.02	0.508	7.5 - 75	2.027	14
green	0.03	0.762	20 - 150	4.56	6
tan	0.04	1.016	30 - 200	8.11	2

¹ (tubing length 1 m, solvent = methanol/water)

Special tubing of the Dual-Loop Autosampler (G2258A)

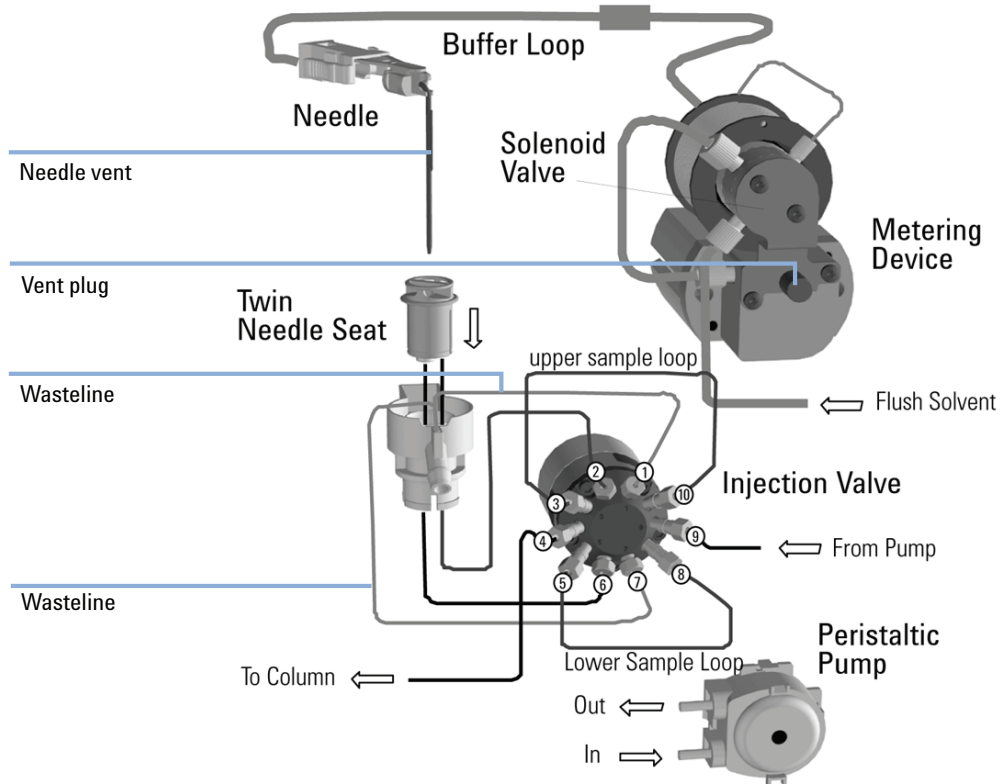


Figure 11 Hydraulic flow path of the Dual-Loop Autosampler (G2258A)

Correct use of the Dual-Loop Autosampler:

- Priming to startup:
Use a mix of ACN/water 50/50. Degas the solvent by sonicating or by vacuum filtration. Start to prime the metering device. Remove the blank nut and use a 10 mL syringe to purge the buffer loop until it is free of any air bubbles.
- Purge the buffer loop at least 10 cycles.

- Connect the needle wash to your solvent of choice (removal of high polar or low polar carryover) and use a needle wash time of 10 s to reduce carryover.

For further information on the correct use of the Dual-Loop Autosampler, see the *Agilent 1260 Infinity Purification Solution - System User Guide*.

Tubing of active flow splitter (G1968F)

NOTE

Optional, for use in MS-setup.

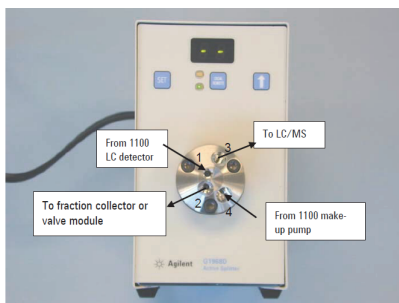


Figure 12 Tubing of the Active Flow Splitter (G1968F)

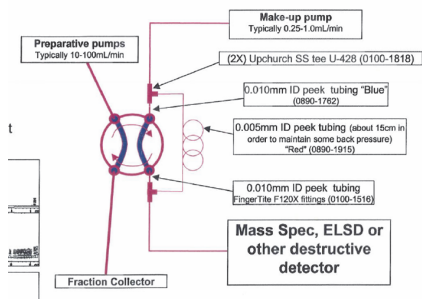


Figure 13 Tubing used for ms-detection with G4730A/G4731A

Software Installation

Prerequisites

Before installing the Agilent Automated Purification software, ensure that the following requirements are fulfilled:

- OpenLAB A.01.05 ChemStation Edition or later installed in the default installation folder (C:\Chem32\).

NOTE

If the ChemStation is installed in a different folder, or on a different drive, the Automated Purification software will not work.

- Agilent IO Libraries (Suite 16) installed.
- Agilent ChemStation C.01.05 (or later), Hot Fix HF05 installed.
- Agilent RC.Net Drivers A.02.09 or later installed.
- LC/MSD instrument configured:
 - MSD firmware version 3.02.48 or later
 - Dual-loop autosampler firmware A.02.54 or later
 - **Fraction collection enabled** check box marked during MSD configuration
- Agilent G1968 Active Splitter software installed from Disk 6 of the OpenLAD DVD set.

In addition, Agilent Lab Advisor B.02.04 or later is required for delay volume calibration.

Installing the Automated Purification Software

The Agilent Automated Purification software is installed using the Agilent OpenLAB Additional Software and Drivers Deployment Wizard.

- 1 Uninstall any previous version of the Automated Purification Software (see “Uninstalling the Software” on page 44 for details).

- 2 Insert the DVD containing the Automated Purification Software into the DVD Drive.
- 3 Open the Windows **Start** menu and navigate to the **OpenLAB Additional Software and Drivers** item.
 - a **Agilent Technologies > OpenLAB > OpenLAB Additional Software and Drivers**
The **Agilent OpenLAB Additional Software and Drivers Deployment Wizard** is displayed, showing the **OpenLAB CDS Summary** screen.
- 4 Click **Next** to advance to the **Planning** screen
- 5 In the **Planning** screen, select the **Install** option and click **Next**.
The **Add-on Selection** screen is displayed.
- 6 In the **Add-on Selection** screen, click **Browse** and navigate to the DVD containing the Automated Purification installation files.
- 7 Select the file PurificationChemStationPlugin.xml and click **Open**.

NOTE

Depending on your PC settings, the .xml extension may not be displayed.

The Automated Purification software is selected for installation.

- 8 Click **Next** to start the installation process.
- 9 When the License Agreement is displayed, mark the acceptance check box and click **Next** to proceed with the installation process.
The **Summary** screen is displayed, showing the installation steps.
- 10 Click **Start** to start installing the software.
- 11 When the installation is complete, click **Finish** to display the **Installation Qualification Report** and check the Final status.
Your Automated Purification software is now installed and ready to use.

Configuring User Profiles

The Agilent Automated Purification software can support two types of user:

- Method Developers working in *Expert* mode have full access to all features of the software, including method editing.

- Operators working in *Easy Prep* mode have access to a reduced feature set that excludes method editing.

The user profiles are configured in the OpenLAB Control Panel.

- 1 Open the Windows **Start** menu and navigate to the **OpenLAB Control Panel** item.

a **Agilent Technologies > OpenLAB > OpenLAB Control Panel**

The **OpenLAB Control Panel** opens.

- 2 In the OpenLAB Control Panel **Navigation** pane, select **Administration**.
- 3 From the **Administration** tasks in upper part of the **Navigation** pane, select **System Configuration**.

The **System Configuration** settings are displayed.

- 4 Click **Edit System Settings** in the toolbar.

The **Edit System Settings** dialog box is displayed.

- 5 Click the down-arrow of the upper field (for the authentication provider) and select **Internal** from the drop-down list and click **Next**.

- 6 In the **Authentication Parameters** section, click **Create Account**.

The form for the creation of the new account is displayed.

- 7 Complete the form with the details for the *Expert* user, including a password, and click **OK**.

The new account for the Method Developer is created.

- 8 Click **Next** to accept the new account, then click **Apply** to apply the configuration settings. Click **OK** when asked to confirm the changes to the system configuration.

Setup of the Method Developer user account is complete.

- 9 Close down the OpenLAB Control Panel, reopen it and log in with the credentials you have just specified.

The OpenLAB Control Panel opens with additional options in the **Navigation** pane.

- 10 Select **Users** from the **System Configuration** options.

The **Users** page is displayed.

- 11 Click **Create** in the toolbar

The **Create User** dialog box is displayed.

- 12 Enter a **Name** and **Description** for the new user in the upper fields.

- 13 In the **General** tab, provide a password for the new user, and mark the **User cannot change password** check box.
- 14 Switch to the **Role Membership** tab and mark the **Instrument User** and **ChemStation Operator** check boxes.
- 15 Click **OK** to create the new user.
Setup of the Operator user account is complete.

Licensing

A license is required to run the Agilent Automated Purification Software; two types of license are available, one for online operation, and one for offline operation:

Table 5 Automated Purification Software Licensing

License level	Purification software operation
No license	Purification software menus are inaccessible. Only the help about box can be invoked from the Purification menu. It displays that the purification product is not licensed.
Offline	Purification menus can be accessed in offline ChemStation only. All purification editing and browsing is supported, including import of analytical sequence from CSV file and evaluation of analytical runs. Creation of preparative sequences and methods is not supported. Sequence runs are not supported on offline ChemStations.
Online	Full access to purification software on online and offline ChemStations.

The Agilent Automated Purification Software licenses are administered in the OpenLAB Control Panel, and follow the OpenLAB licensing policy. There is a 60-day trial period that starts when the OpenLAB CDS is installed.

NOTE

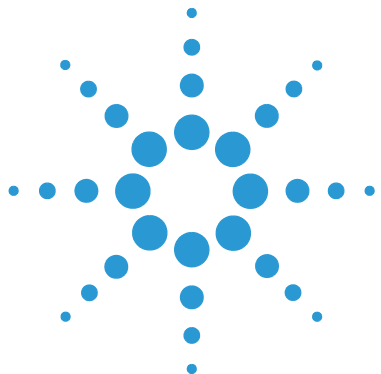
If you install the Agilent Automated Purification Software some time after the installation of the OpenLAB CDS, only the remaining time on the OpenLAB CDS trial period is available for the Automated Purification Software.

Uninstalling the Software

- 1 Open the Windows **Start** menu and navigate to the **OpenLAB Additional Software and Drivers** item.
 - a **Agilent Technologies > OpenLAB > OpenLAB Additional Software and Drivers**
The **Agilent OpenLAB Additional Software and Drivers Deployment Wizard** is displayed, showing the **OpenLAB CDS Summary** screen.
- 2 Click **Next** to advance to the **Planning** screen
- 3 In the **Planning** screen, select the **Uninstall** option and click **Next**.
The **Add-on Selection** screen is displayed.
- 4 In the list of installed add-ons, clear the check boxes against all the add-ons except the **OpenLAB CDS CS Automated Purification SW** and click **Next**.
The **Summary** screen shows the list of add-ons to uninstall.
- 5 Click **Start** to start uninstalling the Automated Purification software.

NOTE

Alternatively, you can use the **Programs and Features** tools from the Windows **Control Panel** to uninstall the Automated Purification Software.



2 Installation Details for Supported Configurations and Components

Agilent 1260 Infinity Purification Solution - Capillary Connections of Preparative Pumps Cluster and Dual-Loop Autosampler to 2/10 Valve 47

Agilent 1260 Infinity Purification Solution - Capillary Connections for the Combined Analytical and Preparative System 49

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV-based Preparative System with 2 Preparative Columns 54

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV/MS-based Preparative System with 2 Preparative Columns, UV in Front of the Splitter 58

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV/MS-based Preparative System with 2 Preparative Columns, UV Behind the Splitter 64

This chapter provides detailed information on capillary connections for the different supported configurations of the Agilent 1260 Infinity Purification Solution.



2 Installation Details for Supported Configurations and Components

Software Installation

The Agilent 1260 Infinity Purification Solution supports the following configurations:

- “Combined Analytical-Scale and Preparative-Scale LC Instrument With UV- and MS-Detection” on page 51
- “Preparative-Scale LC Instrument With UV- and MS-Detection” on page 60
 - UV detector after the splitter (3 or 10 mm UV cell)
 - UV detector before the splitter (0.06 or 0.3 mm UV cell)
- “Preparative-Scale LC Instrument With UV-Detection” on page 55

NOTE

All configurations are available as solution with one fraction collector or a cluster of fraction collectors (cluster requires G4731A Valve Kit).

Agilent 1260 Infinity Purification Solution - Capillary Connections of Preparative Pumps Cluster and Dual-Loop Autosampler to 2/10 Valve

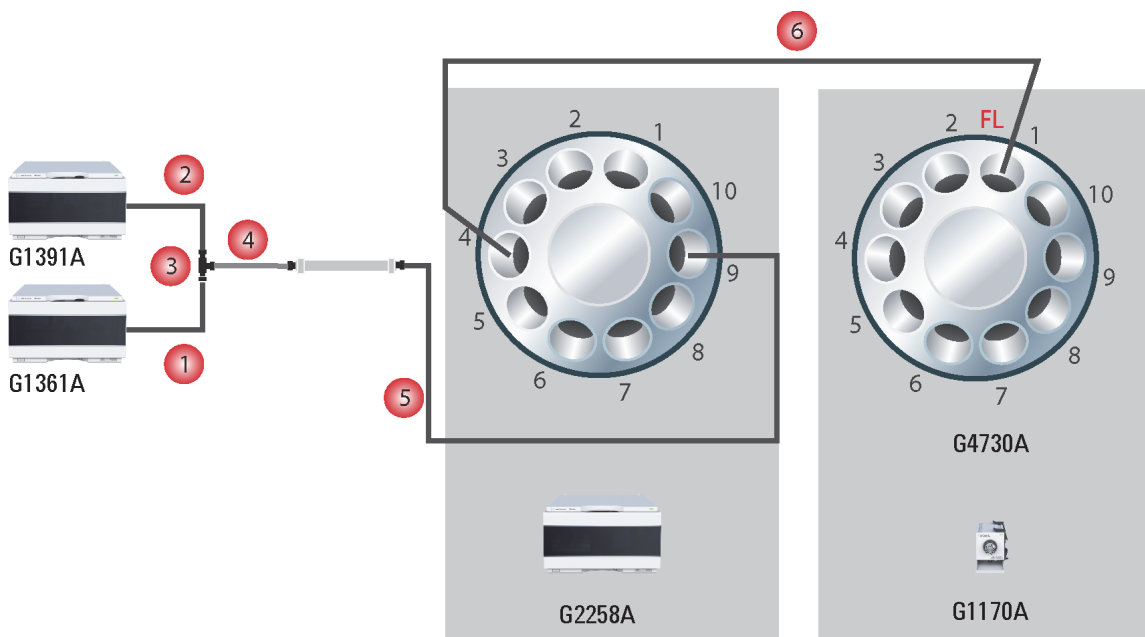


Figure 14 Capillary connections for preparative pumps cluster and dual loop autosampler to 2/10 port valve

FL PEEK fitting, long, finger tight

2 Installation Details for Supported Configurations and Components

Agilent 1260 Infinity Purification Solution - Capillary Connections of Preparative Pumps Cluster and Dual-Loop Autosampler to 2/10 Valve

Item	p/n	Description
1	5067-5738	Capillary ST 0.7 mm x 432 mm S/S
2	5067-5739	Capillary ST 0.7 mm x 40 mm S
3	0100-0782	TEE ST, 1/16 inch Tube OD Free tubing ends of Capillary ST 0.7 mm x 432 mm S/S (5067-5738), Capillary ST 0.7 mm x 40 mm S (5067-5739) and Capillary ST 0.7 mm x 76 mm S (5067-5740) has to be mounted directly into the TEE ST, 1/16 inch Tube OD (0100-0782). Mounting ferrules on tubings outside the TEE will make them incompatible with the TEE.
4	5067-5740	Capillary ST 0.7 mm x 76 mm S
5	5067-5741	Capillary ST 0.7 mm x 190 mm SH/SX, bend (Dual-loop autosampler valve position 9)
6	5067-5742	Capillary ST 0.7 mm x 308 mm SX/SX, bend (Dual-loop autosampler valve position 4) ¹

¹ Tubing (6) from the dual-loop autosampler to the valve has to be re-bended manually by a user. It exits the dual-loop autosampler through an outlet positioned in the right-bottom corner, which is originally covered by a small plastic chip that needs to be removed.

Agilent 1260 Infinity Purification Solution - Capillary Connections for the Combined Analytical and Preparative System

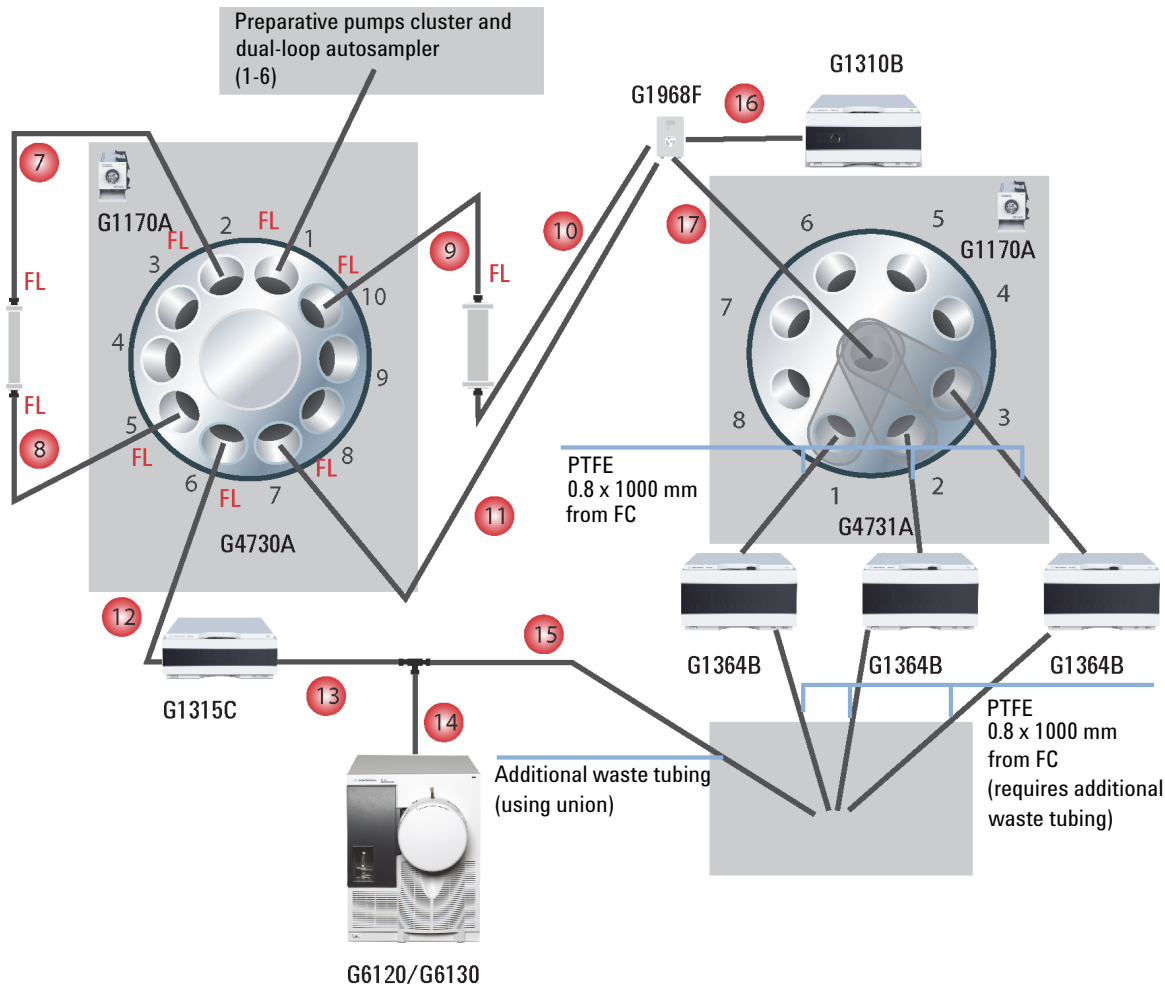


Figure 15 Capillary connections for the combined analytical and preparative system

FL PEEK fitting, long, finger tight

2 Installation Details for Supported Configurations and Components

Agilent 1260 Infinity Purification Solution - Capillary Connections for the Combined Analytical and Preparative System

Item	p/n	Description
7	5067-5750	Capillary ST 0.17 mm x 600 mm SX/SX
8	5067-5749	Capillary ST 0.17 mm x 900 mm SX/SX
9	5067-5743	Capillary ST 0.7 mm x 700 mm SX/SX, bend
10	UC1533	Tube PK 0.76 mm x 1.524 m, green # 10 = 900 mm, to tailor tubing to correct length, use cutter (p/n 8710-1930)
11, 12, 13	0890-1763 (2x)	Capillary PK 0.18 mm x 1.5 m # 11 = 900 mm, # 12 = 1500 mm, # 13 = 400 mm, to tailor tubing to correct length, use cutter (p/n 8710-1930)
14, 16	0890-1915	PEEK capillary, 150 cm length, 0.13 mm i.d. Part of G1968E Kit, # 14 = 80 mm, # 16 = 1250 mm, to tailor tubing to correct length, use cutter (p/n 8710-1930)
15	0890-1762	Tube, PK, 0.25 mm x 1.5 m, blue # 15 = 600 mm, to tailor tubing to correct length, use cutter (p/n 8710-1930), (optionally extended by 0.8 or 1 mm ID tubing to waste), part of G1968E Kit
17	0890-1760	Tubing Flexible, 2 m Delay coil, 1.6 x 5000 mm (approximately 10 mL) with ¼-28 to 10-32 adapters

Agilent 1260 Infinity Purification Solution - Capillary Connections for the Combined Analytical and Preparative System

Combined Analytical-Scale and Preparative-Scale LC Instrument With UV- and MS-Detection

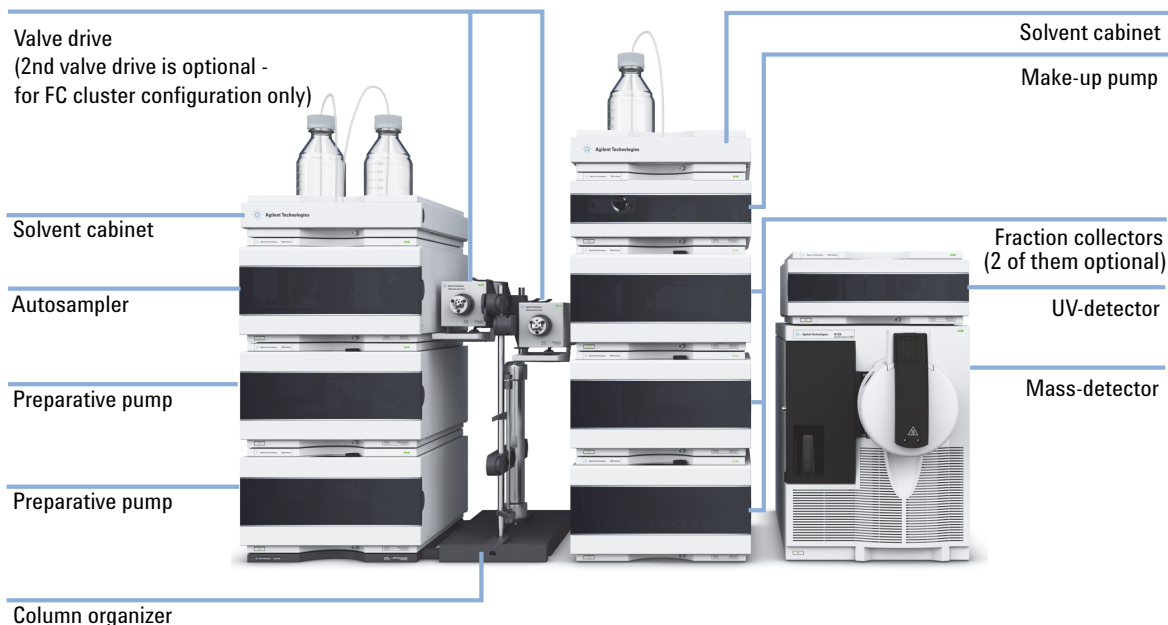


Figure 16 Stack configuration for Agilent 1260 Infinity Purification Solution, combined system with UV- and MS-Detection (example shows option with FCs in a clustered configuration - optional available to be stacked in the same order with one FC and only one valve and one valve drive)

2 Installation Details for Supported Configurations and Components

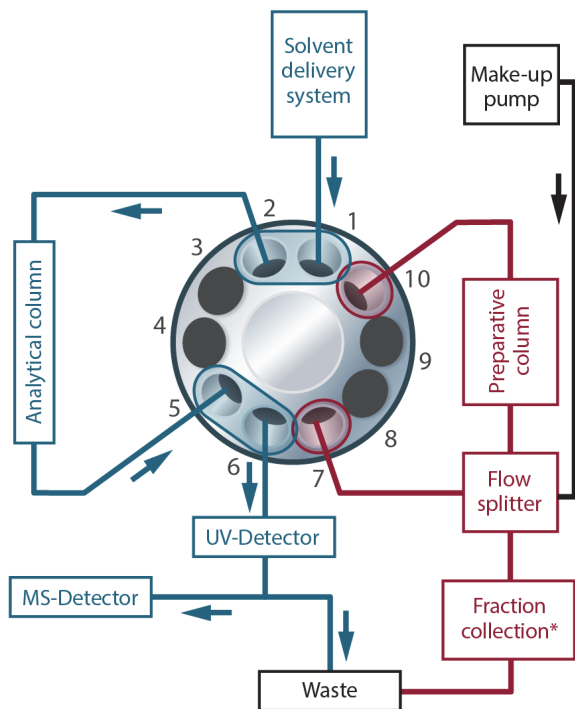
Agilent 1260 Infinity Purification Solution - Capillary Connections for the Combined Analytical and Preparative System

The combined analytical-scale and preparative-scale LC instrument with UV- and MS-detection consists of the following modules:

- One preparative and one analytical column
- Two G1361A Preparative Pumps and G1391 Accessory kit as gradient system
- One G2258A Dual-loop Autosampler for sample injection
- One G1315C/D Diode Array Detector or G1365C/D Multiple Wavelength Detector for UV-Detection
- G1364B Fraction Collector (FC) for sample collection, in the following configurations:
 - One FC with one G1170A Valve Drive/G4730A Valve Kit (option not shown), or
 - Up to three FCs as cluster with one G1170A Valve Drive/G4730A Valve Kit and one G1170A Valve Drive/G4731A Valve Kit (option shown in [Figure 16](#) on page 51)
- G1170-68705 Accessory Kit to configure the Valve Drive (not shown)
- One G1310B Isocratic Pump as make-up pump
- One G6120A/G6130A Mass Detector for Mass-Detection
- One G1968F Mass Based Purification Kit for the 6100 (not shown)
- One G1390B Universal Interface Box for electrical connections (not shown)
- One G9381A Capillary kit (not shown)

Agilent 1260 Infinity Purification Solution - Capillary Connections for the Combined Analytical and Preparative System

Position 1



Position 2

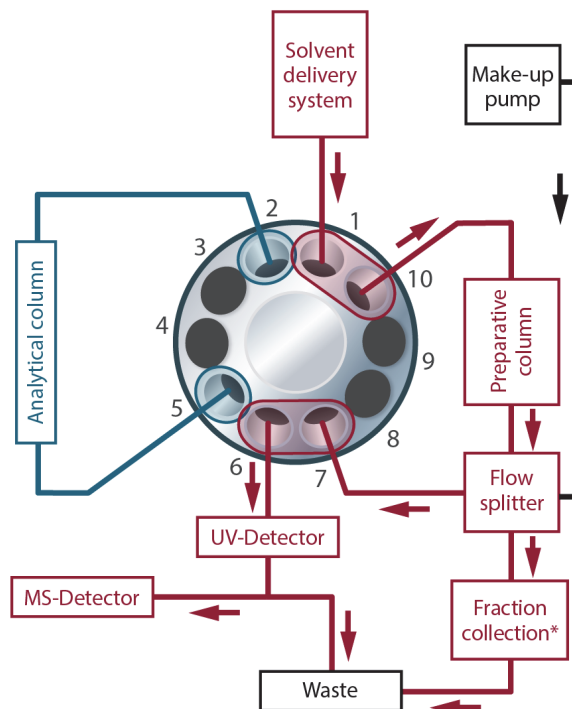


Figure 17 Schematic overview for a UV-MS detection based combined analytical to preparative scale system

1* Fraction collector (FC) options:
 One FC with one G1170A Valve drive/G4730 Valve kit, or
 Up to three FCs as cluster with one G1170A Valve drive/G4730A Valve kit and one G1170A Valve drive/G4731A Valve kit

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV-based Preparative System with 2 Preparative Columns

Item	p/n	Description
7, 9	5067-5743 (2x)	Capillary ST 0.7 mm x 700 mm SX/SX, bend
8, 10, 11, 12	UC1533 (4x)	Tube PK 0.76 mm x 1.524 m, green # 8, 10 = 750 mm, # 11, 12 = 1000 mm, to tailor tubing to correct length, use cutter (p/n 8710-1930)

Preparative-Scale LC Instrument With UV-Detection

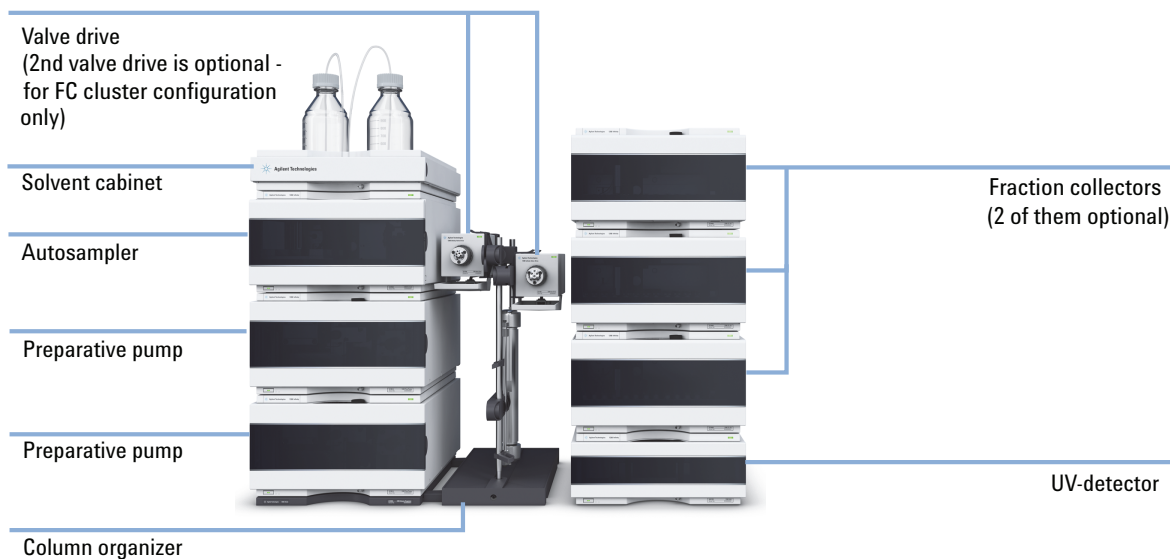


Figure 19 Stack configuration for Agilent 1260 Infinity Purification Solution, preparative system with UV-Detection (example shows option with FCs in a clustered configuration - optional available to be stacked in the same order with one FC and only one valve and one valve drive)

2 Installation Details for Supported Configurations and Components

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV-based Preparative System with 2 Preparative Columns

The preparative-scale LC instrument with UV-detection consists of the following modules:

- Two preparative columns
- Two G1361A Preparative Pumps and G1391 Accessory kit as gradient system
- One G2258A Dual-loop Autosampler for sample injection
- One G1315C/D Diode Array Detector or G1365C/D Multiple Wavelength Detector for UV-Detection
- G1364B Fraction Collector (FC) for sample collection, in the following configurations:
 - One FC with one G1170A Valve Drive/G4730A Valve Kit (option not shown), or
 - Up to three FCs as cluster with one G1170A Valve Drive/G4730A Valve Kit and one G1170A Valve Drive/G4731A Valve Kit (option shown in [Figure 19](#) on page 55)
- G1170-68705 Accessory Kit to configure the Valve Drive (not shown)
- One G9381A Capillary kit (not shown)

NOTE

Supported modules (for analytical method transfer):

- G4220B Binary Pump as solvent delivery module
 - G1312B Binary Pump as solvent delivery module
 - G1311B Quaternary Pump as solvent delivery module (supported is only a configuration where %B represents the organic solvent of the eluent)
 - G4226A Autosampler
 - G1329B Standard Autosampler
 - G4212A Diode Array Detector
 - G1315C/D Diode Array Detector
 - G6120/30/50 Single Quadrupole LC/MS System Bundle
-

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV-based Preparative System with 2 Preparative Columns

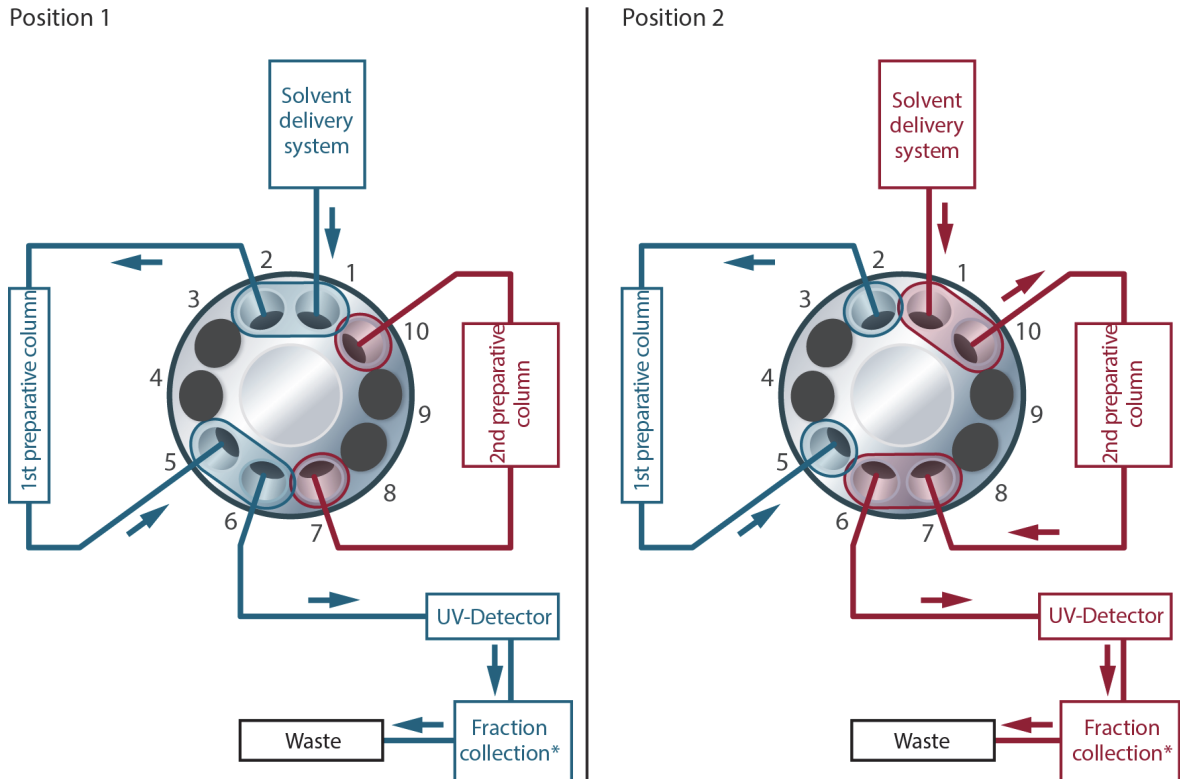


Figure 20 Schematic overview for a UV detection based separate preparative to preparative scale system

* Fraction collector (FC) options:
 One FC with one G1170A Valve drive/G4730 Valve kit, or
 Up to three FCs as cluster with one G1170A Valve drive/G4730A Valve kit and one G1170A Valve drive/G4731A Valve kit

2 Installation Details for Supported Configurations and Components

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV/MS-based Preparative System with 2 Preparative Columns, UV in Front of the Splitter

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV/MS-based Preparative System with 2 Preparative Columns, UV in Front of the Splitter

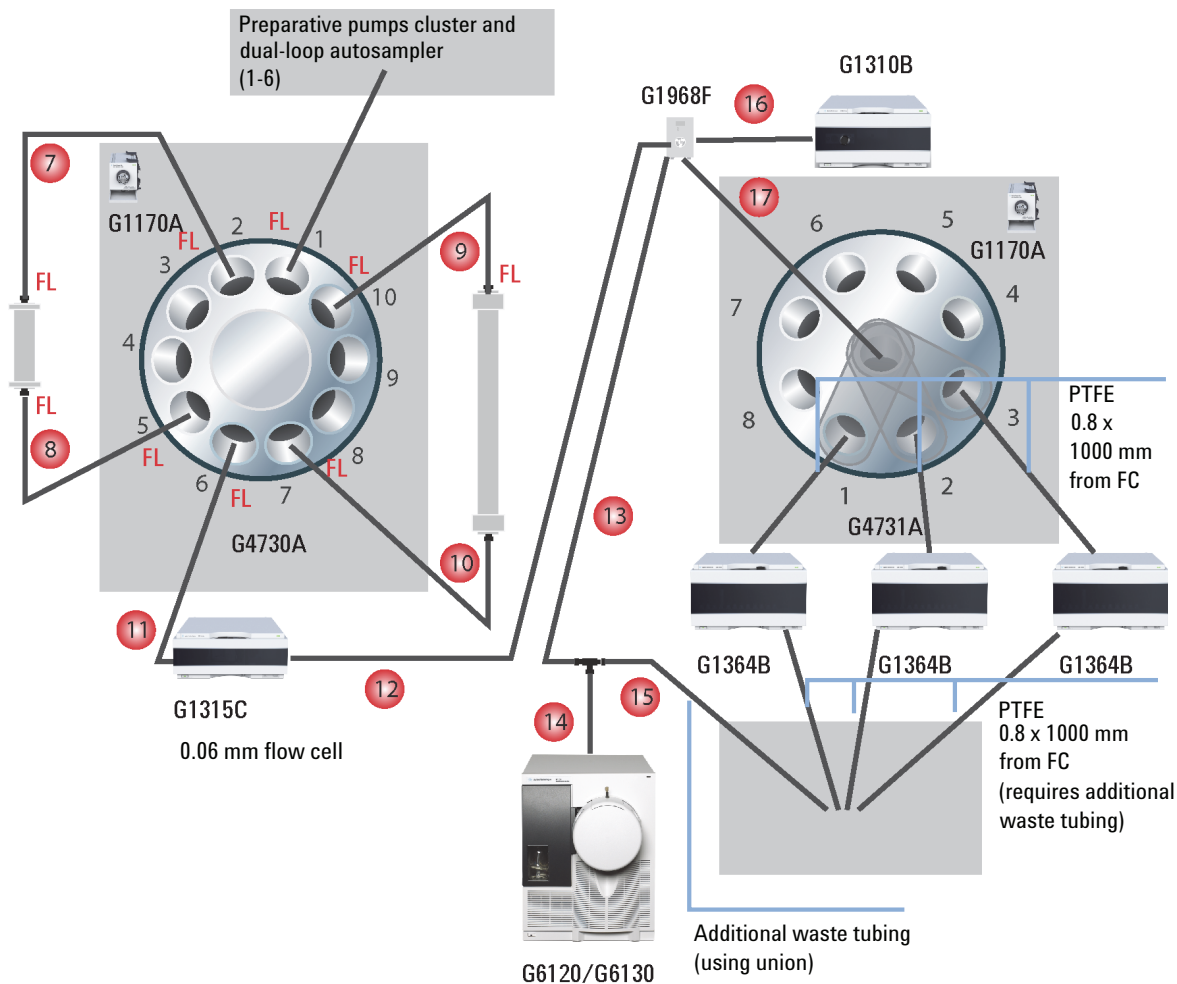


Figure 21 Capillary connections for the UV/MS-based preparative system with two preparative columns, UV-detection before splitting, 0.06 mm flow cell

FL PEEK fitting, long, finger tight

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV/MS-based Preparative System with 2 Preparative Columns, UV in Front of the Splitter

Item	p/n	Description
7, 9	5067-5743 (2x)	Capillary ST 0.7 mm x 700 mm SX/SX, bend
8, 10, 11, 12	UC1533 (4x)	Tube PK 0.76 mm x 1.524 m, green # 8, 10 = 750 mm, # 11, 12 = 1000 mm, to tailor tubing to correct length, use cutter (p/n 8710-1930)
13	0890-1763	Capillary PK 0.18 mm x 1.5 m # 13 = 1450 mm, to tailor tubing to correct length, use cutter (p/n 8710-1930)
14, 16	0890-1915	PEEK capillary, 150 cm length, 0.13 mm i.d. Part of G1968E Kit, # 14 = 80 mm, # 16 = 1250 mm, to tailor tubing to correct length, use cutter (p/n 8710-1930)
15	0890-1762	Tube, PK, 0.25 mm x 1.5 m, blue Part of G1968E Kit (optionally extended by 0.8 or 1 mm ID tubing to waste), # 15 = 600 mm, to tailor tubing to correct length, use cutter (p/n 8710-1930)
17	0890-1760	Tubing Flexible, 2 m Delay coil, 1.6 x 5000 mm (approximately 10 mL) with ¼-28 to 10-32 adapters

2 Installation Details for Supported Configurations and Components

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV/MS-based Preparative System with 2 Preparative Columns, UV in Front of the Splitter

Preparative-Scale LC Instrument With UV- and MS-Detection

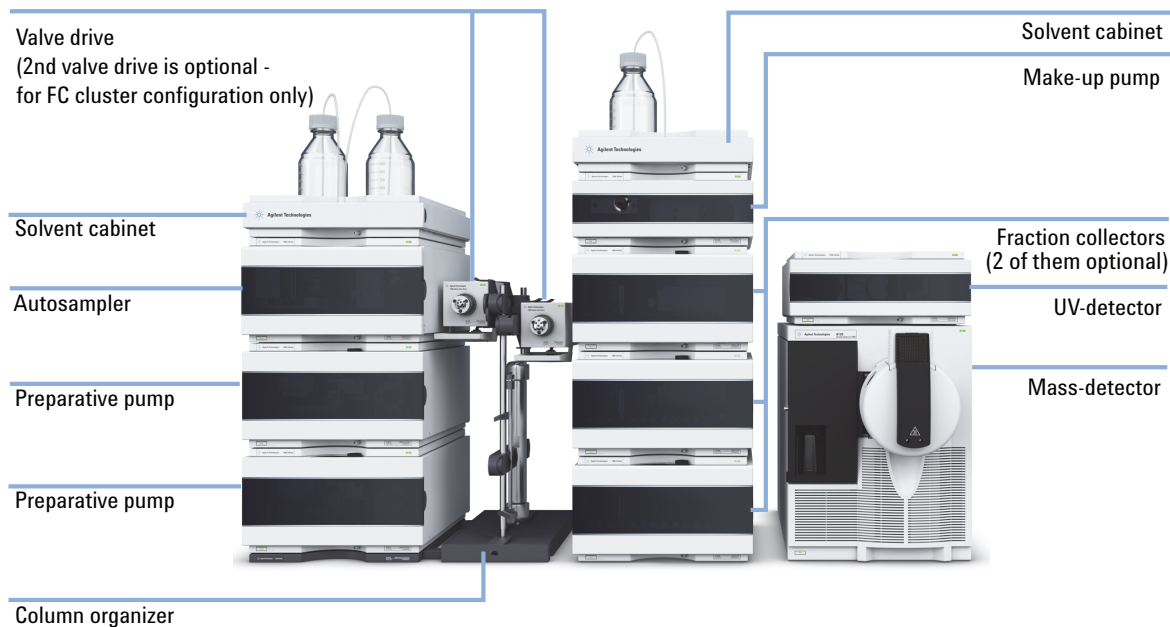


Figure 22 Stack configuration for Agilent 1260 Infinity Purification Solution, preparative system with UV- and MS-Detection (example shows option with FCs in a clustered configuration - optional available to be stacked in the same order with one FC and only one valve and one valve drive)

The preparative-scale LC instrument with UV- and MS-detection consists of the following modules:

- Two preparative columns
- Two G1361A Preparative Pumps and G1391 Accessory kit as gradient system
- One G2258A Dual-loop Autosampler for sample injection
- One G1315C/D Diode Array Detector or G1365C/D Multiple Wavelength Detector for UV-Detection
- G1364B Fraction Collector (FC) for sample collection, in the following configurations:

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV/MS-based Preparative System with 2 Preparative Columns, UV in Front of the Splitter

- One FC with one G1170A Valve Drive/G4730A Valve Kit (option not shown), or
- Up to three FCs as cluster with one G1170A Valve Drive/G4730A Valve Kit and one G1170A Valve Drive/G4731A Valve Kit (option shown in [Figure 22](#) on page 60)
- G1170-68705 Accessory Kit to configure the Valve Drive (not shown)
- One G1310B Isocratic Pump as make-up pump
- One G6120A/G6130A Mass Detector for Mass-Detection
- One G1968F Mass Based Purification Kit for the 6100 (not shown)
- One G1390B Universal Interface Box for electrical connections (not shown)
- One G9381A Capillary kit (not shown)

NOTE

Supported modules (for analytical method transfer):

- G4220B Binary Pump as solvent delivery module
- G1312B Binary Pump as solvent delivery module
- G1311B Quaternary Pump as solvent delivery module (supported is only a configuration where %B represents the organic solvent of the eluent)
- G4226A Autosampler
- G1329B Standard Autosampler
- G4212A Diode Array Detector
- G1315C/D Diode Array Detector
- G6120/30/50 Single Quadrupole LC/MS System Bundle

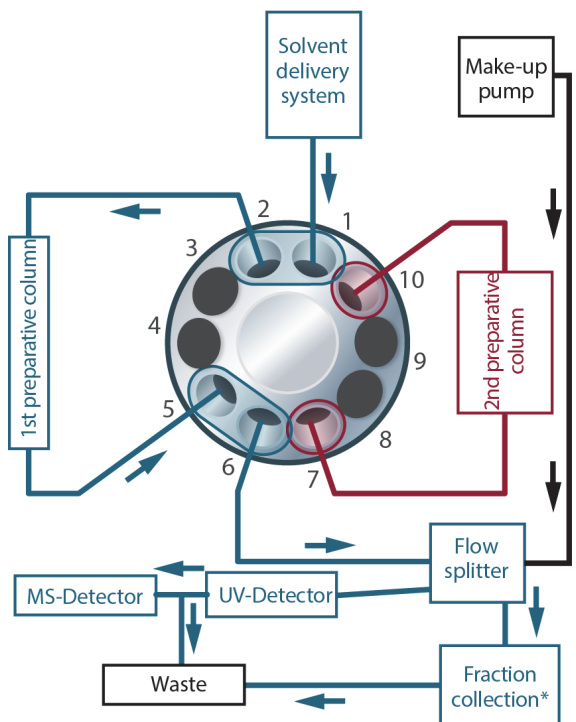
Supported Setups of Preparative-Scale LC Instrument with UV- and MS-Detection

- UV detector after splitter (see [Figure 23](#) on page 62)
 - 3 mm UV flow cell, or
 - 10 mm UV flow cell
- UV detector before splitter (see [Figure 24](#) on page 63)
 - 0.06 mm UV flow cell, or
 - 0.3 mm UV flow cell

2 Installation Details for Supported Configurations and Components

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV/MS-based Preparative System with 2 Preparative Columns, UV in Front of the Splitter

Position 1



Position 2

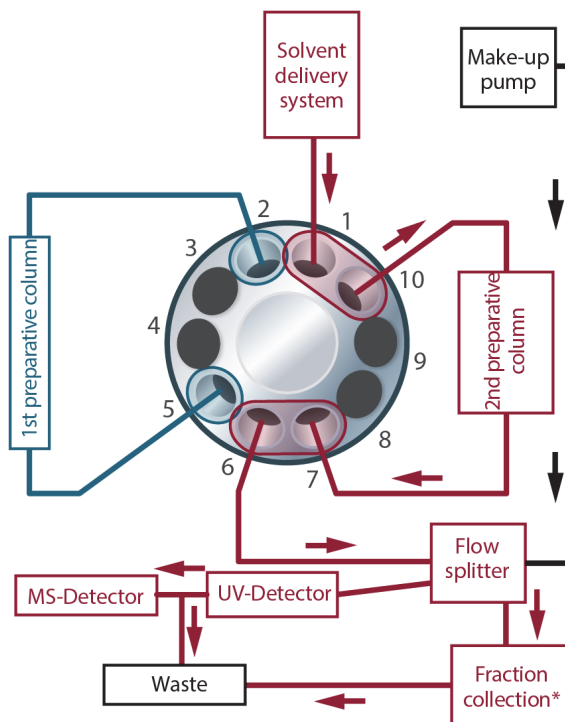


Figure 23 Schematic overview for a UV-MS detection based preparative scale system with flow split before UV-detection

1* Fraction collector (FC) options:
One FC with one G1170A Valve drive/G4730 Valve kit, or
Up to three FCs as cluster with one G1170A Valve drive/G4730A Valve kit and one G1170A Valve drive/G4731A Valve kit

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV/MS-based Preparative System with 2 Preparative Columns, UV in Front of the Splitter

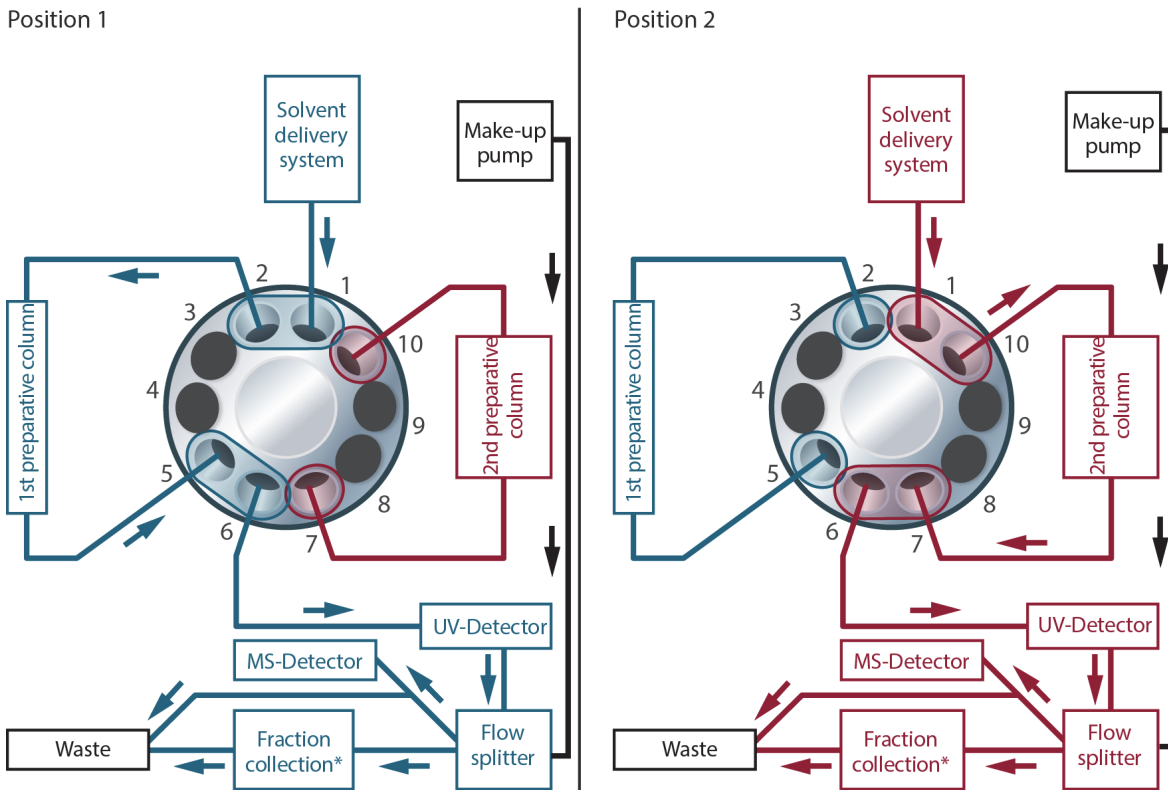


Figure 24 Schematic overview for a UV-MS detection based preparative scale system with flow split after UV-detection

* Fraction collector (FC) options:
 One FC with one G1170A Valve drive/G4730 Valve kit, or
 Up to three FCs as cluster with one G1170A Valve drive/G4730A Valve kit and one G1170A Valve drive/G4731A Valve kit

2 Installation Details for Supported Configurations and Components

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV/MS-based Preparative System with 2 Preparative Columns, UV Behind the Splitter

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV/MS-based Preparative System with 2 Preparative Columns, UV Behind the Splitter

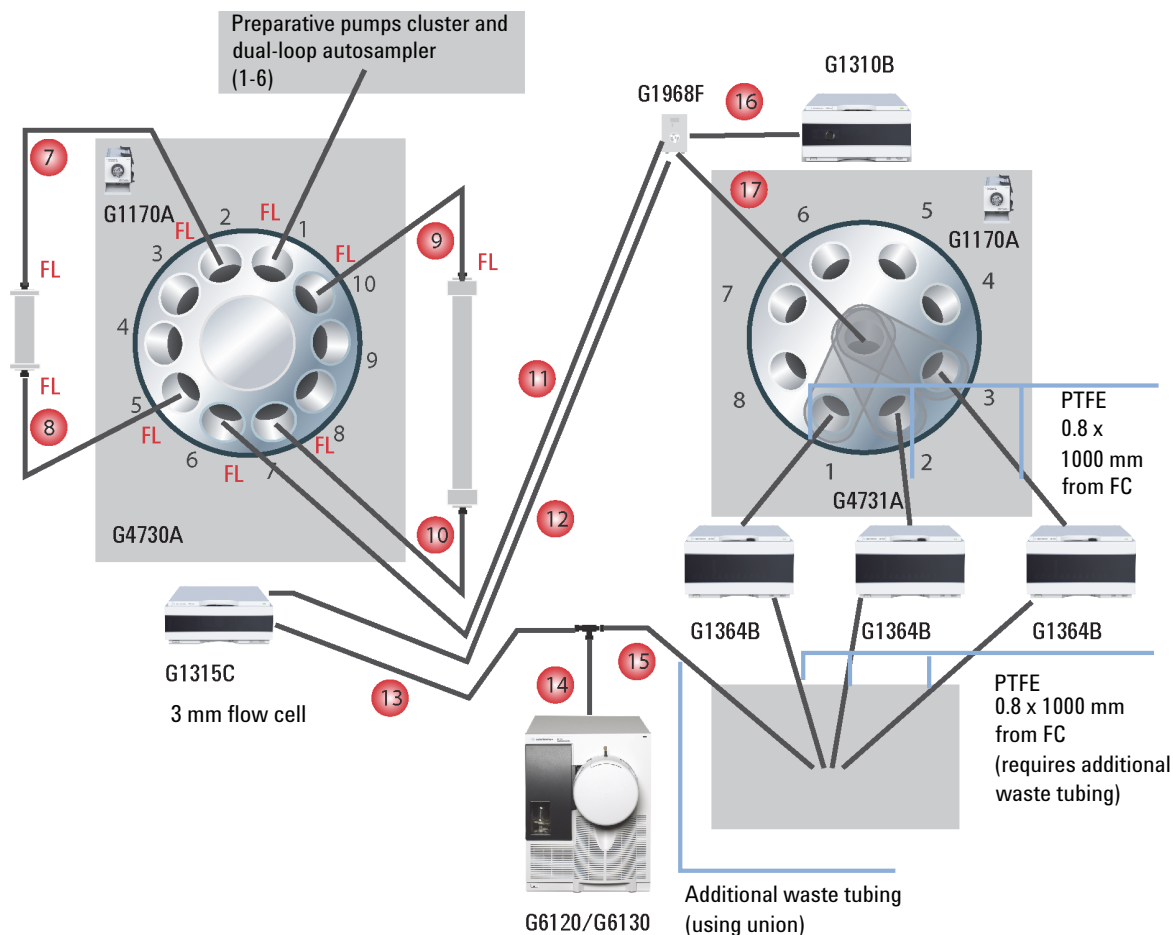


Figure 25 Capillary connections for the UV/MS-based preparative system with two preparative columns, UV-detection behind splitting, 3 mm flow cell

FL PEEK fitting, long, finger tight

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV/MS-based Preparative System with 2 Preparative Columns, UV Behind the Splitter

Item	p/n	Description
7, 9	5067-5743 (2x)	Capillary ST 0.7 mm x 700 mm SX/SX, bend
8, 10, 11	UC1533 (2x)	Tube PK 0.76 mm x 1.524 m, green # 8, 10 = 750 mm, # 11 = 1000 mm, to tailor tubing to correct length, use cutter (p/n 8710-1930)
12, 13	0890-1763	Capillary PK 0.18 mm x 1.5 m # 12 = 900 mm, # 13 = 400 mm, to tailor tubing to correct length, use cutter (p/n 8710-1930)
14, 16	0890-1915	PEEK capillary, 150 cm length, 0.13 mm i.d. Part of G1968E Kit, # 14 = 80 mm, # 16 = 1250 mm, to tailor tubing to correct length, use cutter (p/n 8710-1930)
15	0890-1762	Tube, PK, 0.25 mm x 1.5 m, blue Part of G1968E Kit (optionally extended by 0.8 or 1 mm ID tubing to waste), # 15 = 600 mm, to tailor tubing to correct length, use cutter (p/n 8710-1930)
17	0890-1760	Tubing Flexible, 2 m Delay coil, 1.6 x 5000 mm (approximately 10 mL) with ¼-28 to 10-32 adapters

2 Installation Details for Supported Configurations and Components

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV/MS-based Preparative System with 2 Preparative Columns, UV Behind the Splitter

Preparative-Scale LC Instrument With UV- and MS-Detection

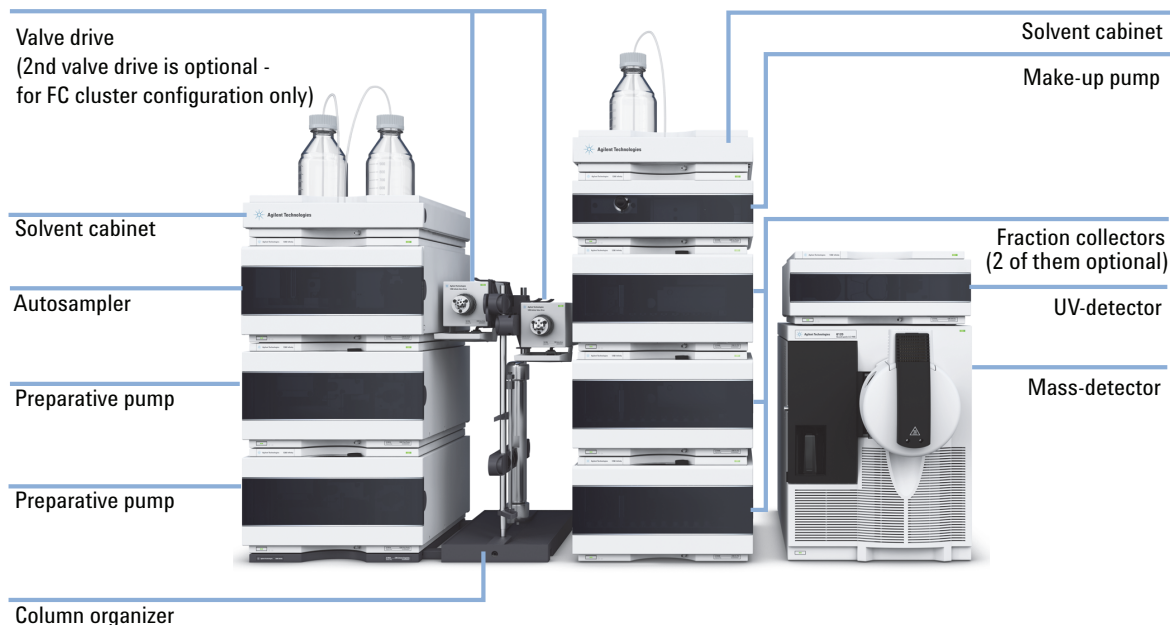


Figure 26 Stack configuration for Agilent 1260 Infinity Purification Solution, preparative system with UV- and MS-Detection (example shows option with FCs in a clustered configuration - optional available to be stacked in the same order with one FC and only one valve and one valve drive)

The preparative-scale LC instrument with UV- and MS-detection consists of the following modules:

- Two preparative columns
- Two G1361A Preparative Pumps and G1391 Accessory kit as gradient system
- One G2258A Dual-loop Autosampler for sample injection
- One G1315C/D Diode Array Detector or G1365C/D Multiple Wavelength Detector for UV-Detection
- G1364B Fraction Collector (FC) for sample collection, in the following configurations:

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV/MS-based Preparative System with 2 Preparative Columns, UV Behind the Splitter

- One FC with one G1170A Valve Drive/G4730A Valve Kit (option not shown), or
- Up to three FCs as cluster with one G1170A Valve Drive/G4730A Valve Kit and one G1170A Valve Drive/G4731A Valve Kit (option shown in [Figure 26](#) on page 66)
- G1170-68705 Accessory Kit to configure the Valve Drive (not shown)
- One G1310B Isocratic Pump as make-up pump
- One G6120A/G6130A Mass Detector for Mass-Detection
- One G1968F Mass Based Purification Kit for the 6100 (not shown)
- One G1390B Universal Interface Box for electrical connections (not shown)
- One G9381A Capillary kit (not shown)

NOTE

Supported modules (for analytical method transfer):

- G4220B Binary Pump as solvent delivery module
- G1312B Binary Pump as solvent delivery module
- G1311B Quaternary Pump as solvent delivery module (supported is only a configuration where %B represents the organic solvent of the eluent)
- G4226A Autosampler
- G1329B Standard Autosampler
- G4212A Diode Array Detector
- G1315C/D Diode Array Detector
- G6120/30/50 Single Quadrupole LC/MS System Bundle

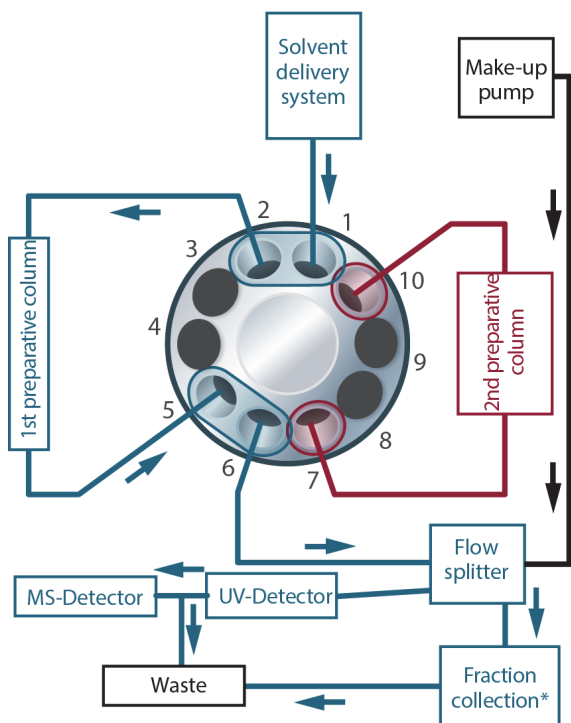
Supported Setups of Preparative-Scale LC Instrument with UV- and MS-Detection

- UV detector after splitter (see [Figure 27](#) on page 68)
 - 3 mm UV flow cell, or
 - 10 mm UV flow cell
- UV detector before splitter (see [Figure 28](#) on page 69)
 - 0.06 mm UV flow cell, or
 - 0.3 mm UV flow cell

2 Installation Details for Supported Configurations and Components

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV/MS-based Preparative System with 2 Preparative Columns, UV Behind the Splitter

Position 1



Position 2

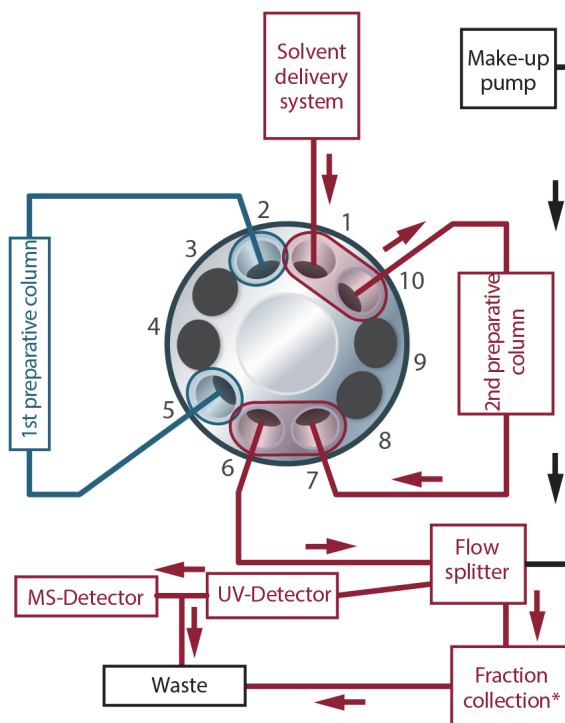
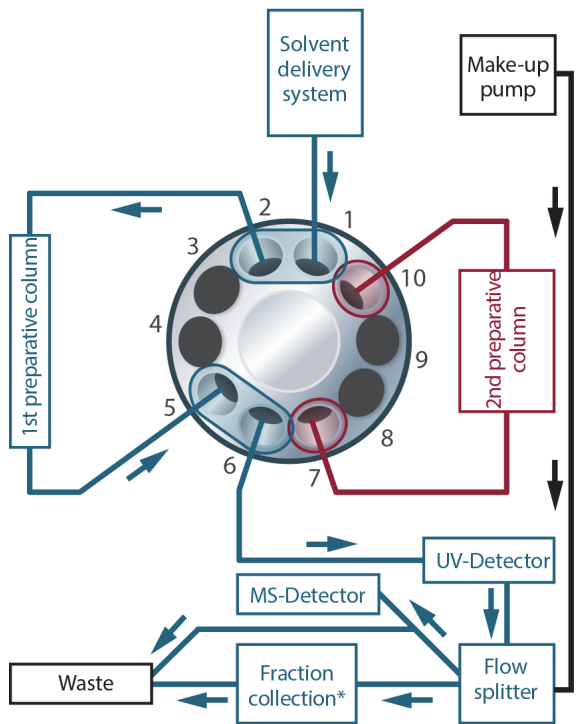


Figure 27 Schematic overview for a UV-MS detection based preparative scale system with flow split before UV-detection

1* Fraction collector (FC) options:
One FC with one G1170A Valve drive/G4730 Valve kit, or
Up to three FCs as cluster with one G1170A Valve drive/G4730A Valve kit and one G1170A Valve drive/G4731A Valve kit

Agilent 1260 Infinity Purification Solution - Capillary Connections for the UV/MS-based Preparative System with 2 Preparative Columns, UV Behind the Splitter

Position 1



Position 2

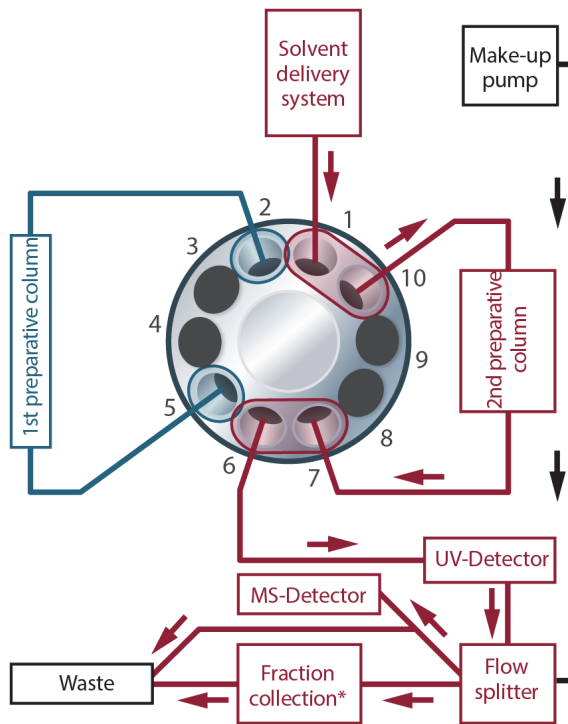


Figure 28 Schematic overview for a UV-MS detection based preparative scale system with flow split after UV-detection

* Fraction collector (FC) options:
 One FC with one G1170A Valve drive/G4730 Valve kit, or
 Up to three FCs as cluster with one G1170A Valve drive/G4730A Valve kit and one G1170A Valve drive/G4731A Valve kit

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In This Book

This manual contains information about the Agilent 1260 Infinity Purification Solution.

The manual describes the following:

- System Setup and Installation
- Separate Configurations (two Preparative Scale Columns)
- Combined Configurations (Analytical and Preparative Scale Columns)

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