Agilent InfinityLab Preparative Flow Cells for MWD & DAD

Technical Note

This technical note describes the preparative flow cells for the Agilent 1260 Infinity II DAD WR (G7115A) and Agilent 1260 Infinity II MWD (G7165A).

Contents

Agilent Technologies

Choice of Flow Cells and Capillaries for Preparative HPLC

The choice of the preparative flow cells depends on the optical path length; the choice for the flow cell connection capillaries depends on the flow rate or system capillary i.d., respectively.

Preparative flow cells:

p/n	Description
G7115-60001	InfinityLab Preparative Flow Cell Quartz, 3 mm path length, 50 bar (5 MPa)
G7115-60002	InfinityLab Preparative Flow Cell Quartz, 0.3 mm path length, 50 bar (5 MPa)
G7115-60003	InfinityLab Preparative Flow Cell Quartz, 0.06 mm path length, 50 bar (5 MPa)
G1315-60016	Prep flow cell SST - 3 mm, 120 bar (12 MPa) recommended flow rate up to 50 mL/min

NOTE

The preparative flow cell p/n G1315-60016 comes with pre-installed capillaries. Use this stainless steel flow cell for high-pressure applications with low flow rates.

For the preparative flow cells p/n G7115-60001, G7115-60002, and G7115-60003, install the connection capillaries to the flow cell before installing the flow cell into the detector, see "Install Capillary Kit on Preparative Flow Cell" on page 6.

Connection capillaries:

p/n	Description
5500-1342	Capillary ST DAD 4 – 8 mL/min
5500-1343	Capillary ST DAD 15 – 40 mL/min
5500-1344	Capillary ST DAD 40 – 80 mL/min
5500-1345	Capillary ST DAD 80 – 200 mL/min

NOTE

Order two capillaries for each flow cell (except for p/n G1315-60016).

When ordering the capillaries via detector capillary option, you only need to order the option number one time (the option triggers two capillaries automatically).

Parts Identification

Preparative Flow Cell - Stainless Steel

Item	p/n	Description
	G1315-60016	Prep flow cell SST - 3 mm, 120 bar (12 MPa) recommended flow rate: 50 mL/min
1	G1315-60021	Cell screw assembly (comprises window screw, spring washers, compression washer, window holder and quartz window)
	G1315-68712	Cell repair kit STD includes window screw kit, 4 mm hexagonal wrench and seal kit
2	G1315-68711	Gasket BACK (PTFE), 2.3 mm hole, outlet side (12/pk)
3	G1315-68710	Gasket FRONT (PTFE), 1.3 mm hole, inlet side (12/pk)
4	G1315-87305	Capillary SST, 250 mm length, 0.5 mm i.d., o.D. 0.9 mm with fittings for flow cell assembled
4a	5062-2418	1/16" fittings and ferrules 10/pk
5	G1315-27706	Cell body
6	G1315-84901	Clamp unit
7	G1315-84902	Handle for Clamp unit
	0515-1056	Screw M 2.5, 4 mm lg for cell body/clamp

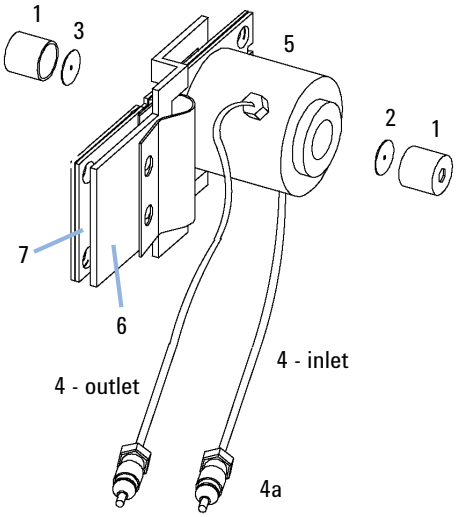


Figure 1 Prep Flow Cell - SST Parts

NOTE Gaskets #2 and #3 have different hole diameters.

1 - Window screw
2 - Spring washers
3 - Compression washer
4 - Window holder
5 - Quartz window
6 - Gasket

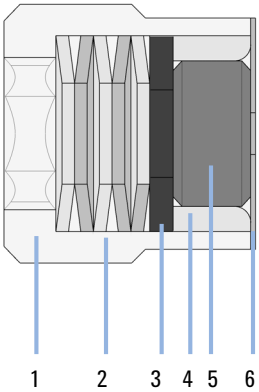


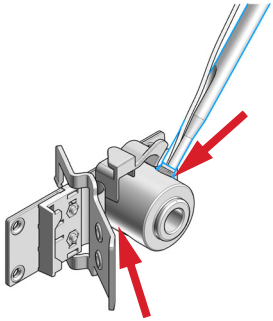
Figure 2 Orientation of Spring Washers

Install Capillary Kit on Preparative Flow Cell

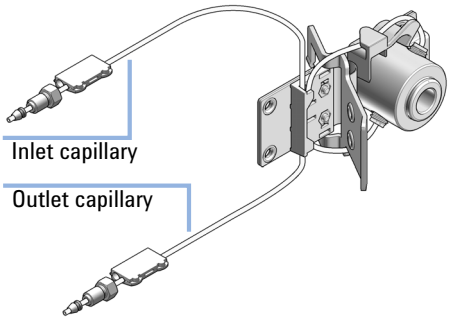
Tools required	p/n	Description
	8710-2820	Flow Cell Capillary Tool

Parts required	p/n	Description
	G7115-60001	InfinityLab Preparative Flow Cell Quartz, 3 mm path length, 50 bar (5 MPa)
OR	G7115-60002	InfinityLab Preparative Flow Cell Quartz, 0.3 mm path length, 50 bar (5 MPa)
OR	G7115-60003	InfinityLab Preparative Flow Cell Quartz, 0.06 mm path length, 50 bar (5 MPa)
	5500-1342	Capillary ST DAD 4 – 8 mL/min
OR	5500-1343	Capillary ST DAD 15 – 40 mL/min
OR	5500-1344	Capillary ST DAD 40 – 80 mL/min
OR	5500-1345	Capillary ST DAD 80 – 200 mL/min

1 Install the inlet and outlet capillaries to the flow cell body using the Flow Cell Capillary Tool.



2 Bend the capillaries as shown. Bend the outlet capillary first, and then the inlet capillary.

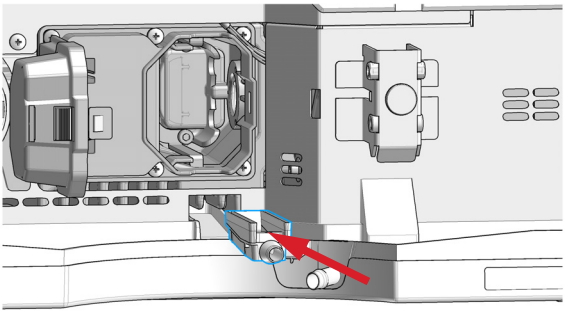


3 Install the flow cell to the detector, see “Remove and Install a Preparative Flow Cell” on page 9.

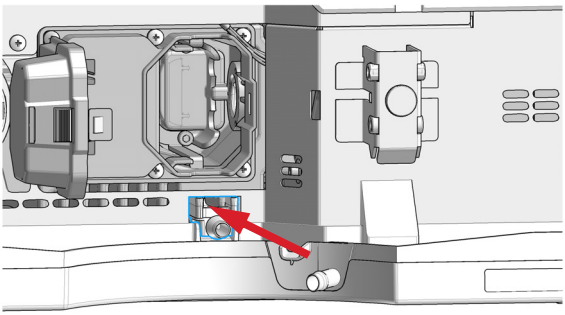
Install the Leak Plane Insert

When	When using G7115A or G7165A detector with a preparative flow cell	
Parts required	**p/n**	**Description**
	G7115-45010	Leak Plane Insert

1 Slide the leak plane insert into the opening in the detector housing below the optical unit.



2 Push the leak plane insert in until it is flush with the housing.



3 Install the preparative flow cell to the detector, see “Remove and Install a Preparative Flow Cell” on page 9.

Remove and Install a Preparative Flow Cell

When If an application needs a different type of flow cell or the flow cell needs repair.

Tools required

Description
Wrench, 1/4 inch for capillary connections

Parts required

	#	p/n	Description
	1	G7115-60001	InfinityLab Preparative Flow Cell Quartz, 3 mm path length, 50 bar (5 MPa)
OR	1	G7115-60002	InfinityLab Preparative Flow Cell Quartz, 0.3 mm path length, 50 bar (5 MPa)
OR	1	G7115-60003	InfinityLab Preparative Flow Cell Quartz, 0.06 mm path length, 50 bar (5 MPa)
OR	1	G1315-60016	Prep flow cell SST - 3 mm, 120 bar (12 MPa)
	2	5022-2133	High Flow union, ST, no fitting

Preparations Turn the lamp(s) off.

NOTE

The preparative flow cell p/n G1315-60016 comes with pre-installed capillaries. Use this stainless steel flow cell for high-pressure applications with low flowrates.

For the preparative flow cells p/n G7115-60001, G7115-60002, and G7115-60003, install the capillaries to the flow cell before installing the flow cell into the detector, see "Install Capillary Kit on Preparative Flow Cell" on page 6.

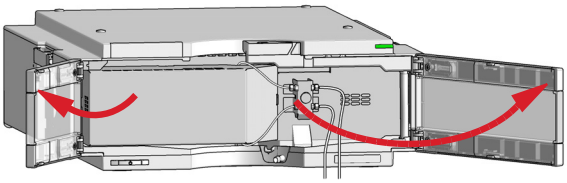
NOTE

Use High Flow union, ST, no fitting (5022-2133) on the flow cell holder instead of standard unions.

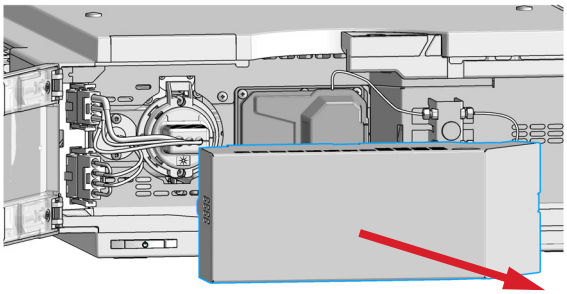
NOTE

The lamp house cover includes a magnet.

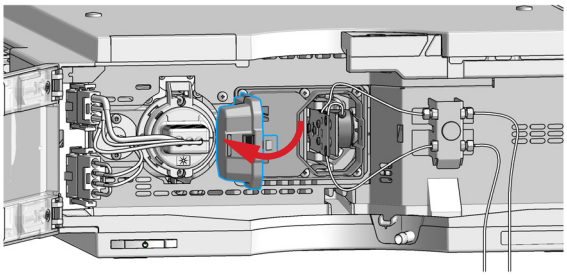
1 Open the doors.



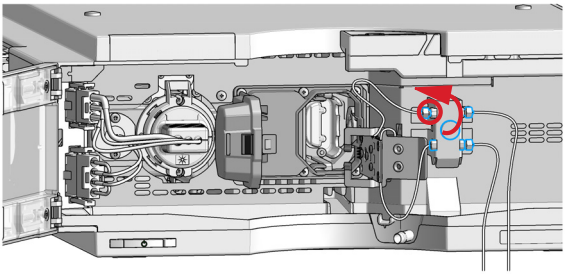
2 Grab the lamp cover and pull it off (it is fixed by two magnets in the center of the cover).



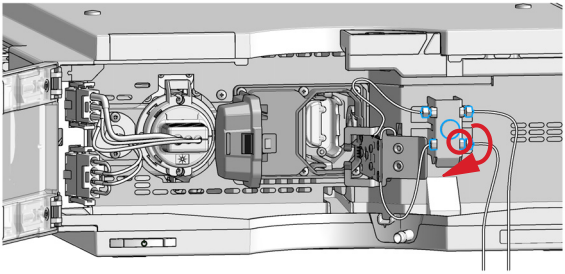
3 Open the flow cell door.



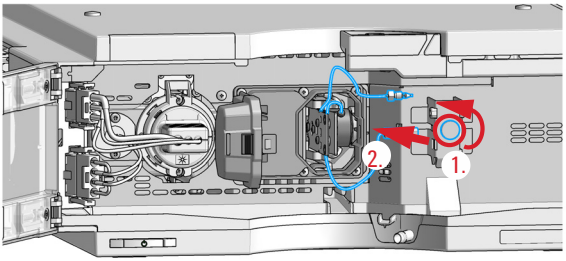
4 Disconnect the flow cell inlet capillary (top) from the union.



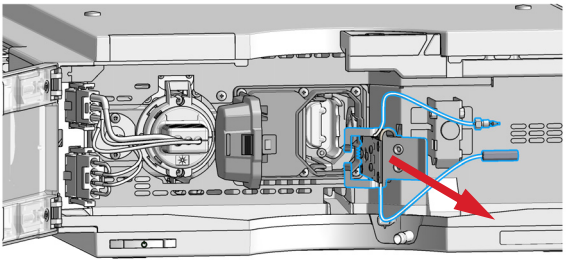
5 Disconnect the waste tubing (bottom) from the union.



6 Loosen the thumb screw (1.) and remove the flow cell outlet capillary (bottom) with the union (2.).



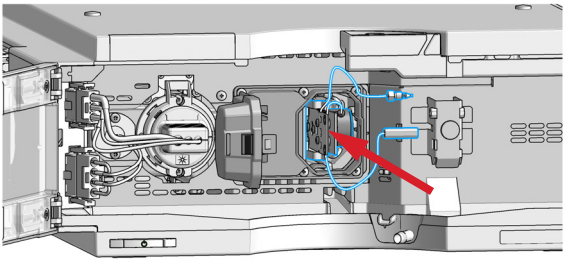
7 Remove the flow cell while pressing the flow cell holder.



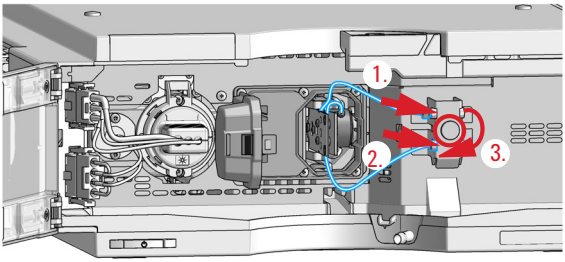
NOTE

The label attached to the flow cell provides information on part number, path length, and maximum pressure.

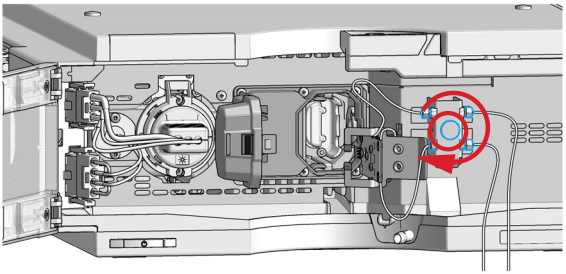
8 Insert the flow cell while pressing the flow cell holder.



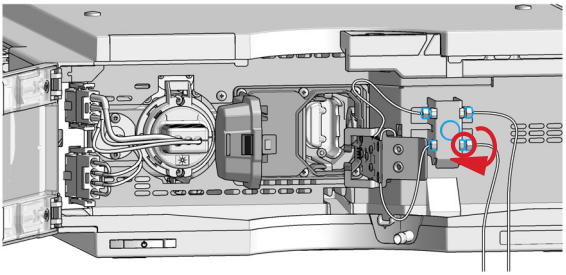
9 Insert the flow cell capillaries into the union holder (top is inlet, bottom is outlet).



10 Tighten the thumb screw.



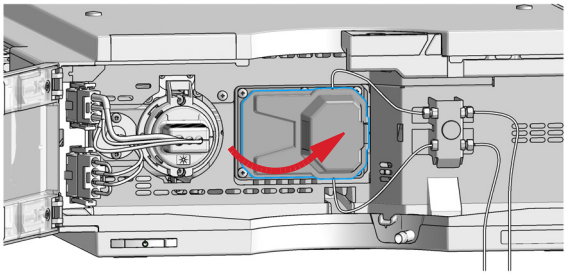
11 Reconnect the waste tubing (bottom) to the union. Establish a flow and check for leaks.



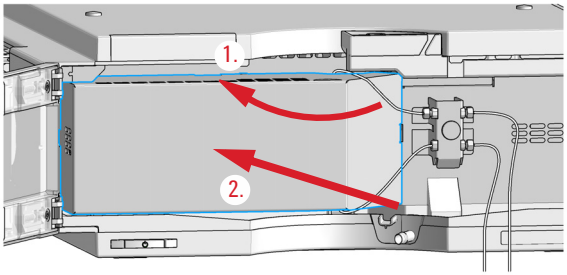
NOTE

To check for leaks, establish a flow and observe the flow cell (outside of the cell compartment) and all capillary connections.

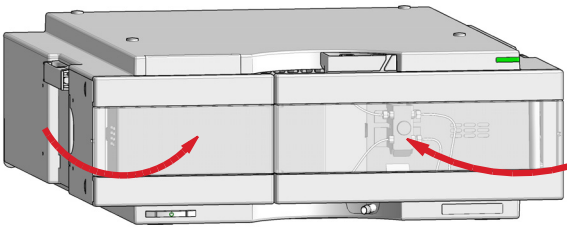
12 Close the flow cell door.



13 Slide the lamp cover into the top position of the metal front and press the lamp cover completely in until it clicks.



14 Close the doors.



15 Perform a **Wavelength Verification and Calibration** or a **Holmium Oxide Test** to check the correct positioning of the flow cell.

G7115-90110

Part Number:
G7115-90110 Rev. C
SD-29000186 Rev. C
Edition: 10/2019
Printed in Germany

Agilent Technologies, Inc
Hewlett-Packard-Strasse 8
76337 Waldbronn, Germany