

Agilent Stream Selector (G4238A/B)

Instructions

Technical Information about the G4238A/B Stream Analysis Valve Heads,
600 bar/1200 bar

Contents

Delivery Checklist (G4238A/B) 2

Specifications (G4238A/B) 2

Installation 3

Installation of the Valve Heads 3

Parts (G4238A/B) 7

Replacement Parts for the Stream Selector Valve (G4238A/B) 7

Valve Head Parts for the Stream Selector Valve (G4238A/B) 8



Delivery Checklist (G4238A/B)

Check the content of the delivery. You should have received the following:

G4238A

p/n	Description
5067-4209	Column Selector SA, 600 bar
G4238-90000	Agilent G4238A/B Stream Selector - Instructions

G4238B

p/n	Description
5067-4176	Column Selector SA, 1200 bar
G4238-90000	Agilent G4238A/B Stream Selector - Instructions

Specifications (G4238A/B)

Table 1 G4238A - Column Selector, 600 bar

Type	Specification
Liquid contacts	Stainless Steel, PEEK
Port size	Accepts 10-32 male threaded fittings
Flow passage diameters	Stator - 0.15 mm (0.006 in), Rotor Seal - 0.20 mm (0.008 in)
Port to Port Volume	0.13 µL (via outer groove), 0.14 µL (via inner groove)
Tubing pocket depth	3.4 mm (0.134 in), use non pre-swaged fittings to connect
Maximum pressure	600 bar

Table 2 G4238B - Column Selector, 1200 bar

Type	Specification
Liquid contacts	Stainless Steel, Vespel
Port size	Accepts 10-32 male threaded fittings
Flow passage diameters	Stator - 0.15 mm (0.006 in), Rotor Seal - 0.20 mm (0.008 in)
Port to Port Volume	0.13 µL (via outer groove), 0.14 µL (via inner groove)
Tubing pocket depth	3.4 mm (0.134 in), use non pre-swaged fittings to connect
Maximum pressure	1200 bar

Installation

Installation of the Valve Heads

The valve drives are factory-installed in the 1290 Infinity Thermostatted Column Compartment, in the 1290 Infinity Flexible Cube, and in the 1290 Infinity Universal Valve Drive. The valve heads are interchangeable and can be easily mounted.

At the first installation, the transportation lock (TCC only) and the dummy valve have to be removed, see “[Removing the transportation lock and the valve dummy \(only if used with TCC\)](#)” on page 3. The valve heads can be installed by mounting the valve heads onto the valve drives and fastening the nut manually (do not use any tools).

Be sure that the guide pin snaps into the groove of the valve drive thread.

NOTE

TCC only:

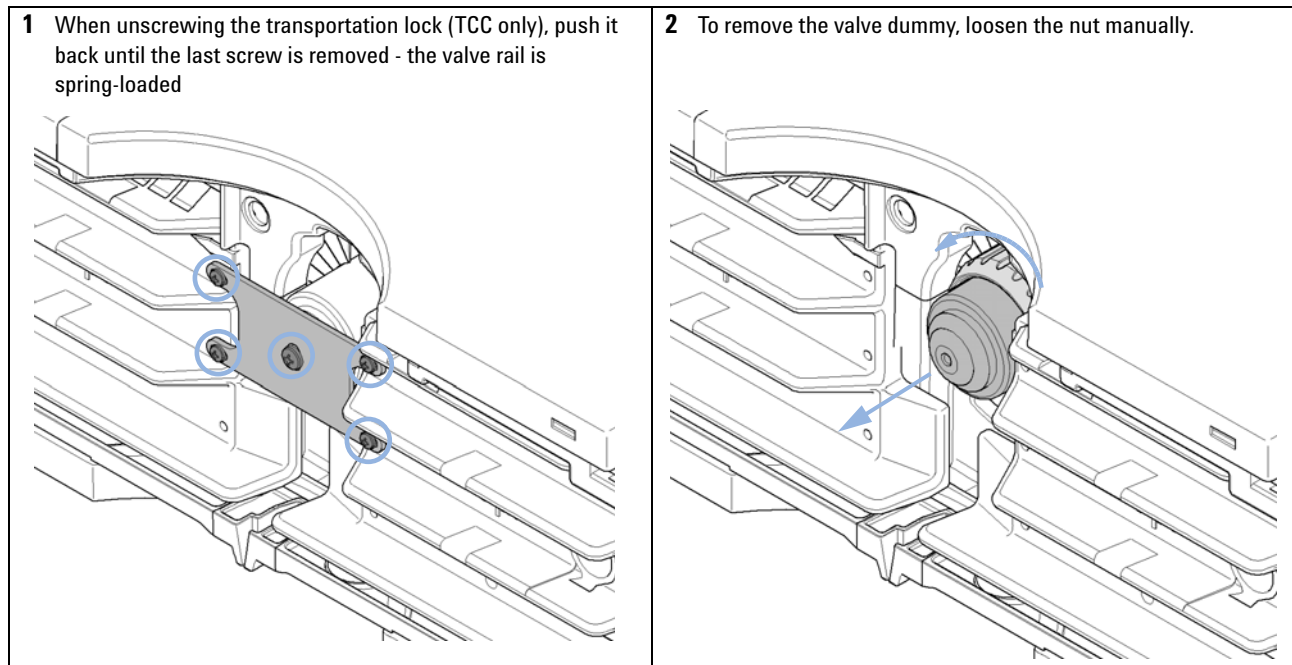
The valves are mounted on pull-out rails to allow easy installation of capillaries. Push the valve gently into its housing until it snaps into the inner position, push it again and it slides out.

If all capillaries are installed, push the valve back into its housing, see section *Installing the Valve Head and Connecting Capillaries* in the TCC-Manual.

Removing the transportation lock and the valve dummy (only if used with TCC)

The following procedure demonstrates the necessary steps for installing the valve head to the valve drive of a TCC.

For the installation of a valve head to a G1170A 1290 Infinity Valve Drive or G4227A 1290 Infinity Flexible Cube you can ignore the steps that describe the TCC features of the transportation lock and spring loaded valve drive.



Installing the valve head and connecting capillaries (with the Universal Valve Drive as an example)

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.

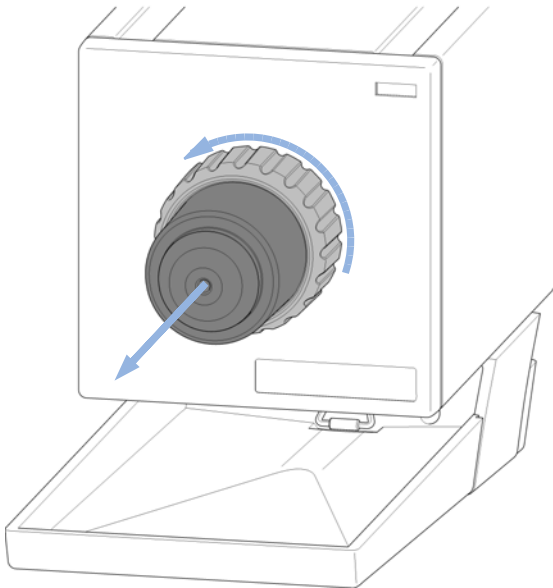
CAUTION

Column Damage or Bias Measurement Results

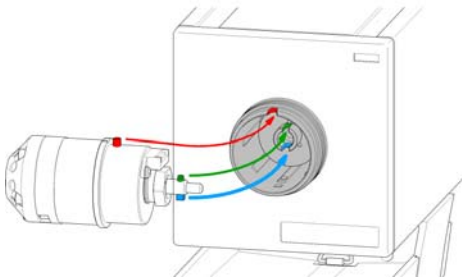
Switching the valve to a wrong position can damage the column or bias measurement results.

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

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

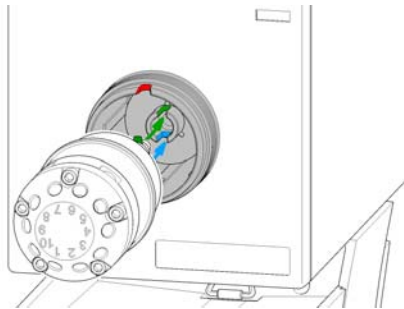
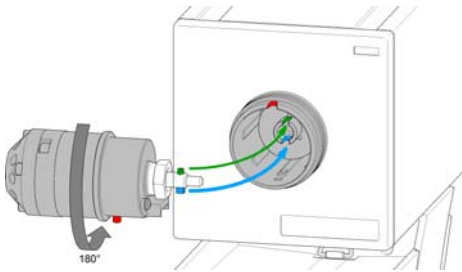


2 Insert the valve head into the valve shaft.



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.



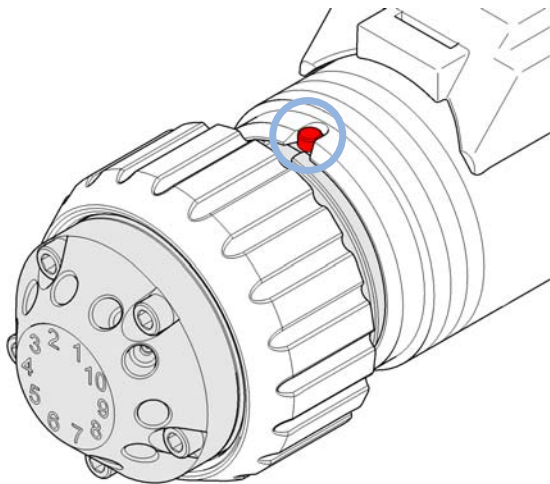
NOTE

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.

Installation

Installation of the Valve Heads

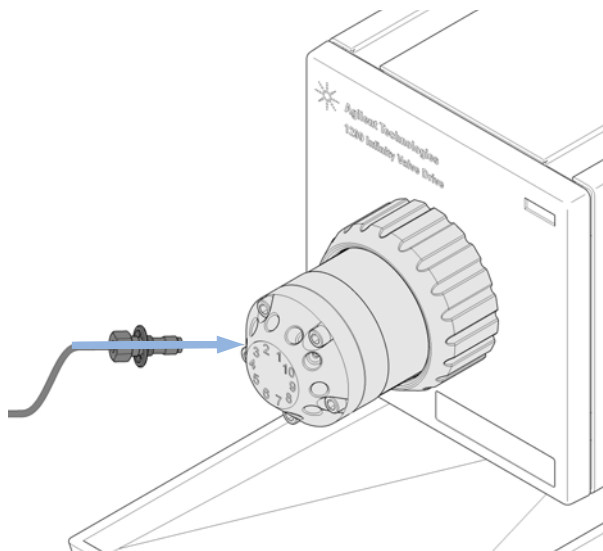
- 3** When the outer pin is locked into the groove, manually screw the nut onto the valve head.



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.

Parts (G4238A/B)

Replacement Parts for the Stream Selector Valve (G4238A/B)

Table 3 Replacement Parts (G4238A/B)

Valve	Rotor Seal	Stator Head	Bearing Ring	Stator Screws (Pack of 10)	Stator Ring
5067-4209 Column Selector SA, 600 bar	5068-0183	5068-0124	1535-4045	1535-4857	n.a.
5067-4172 Column Selector SA, 1200 bar	5068-0125	5068-0124	1535-4045	1535-4857	n.a.

Valve Head Parts for the Stream Selector Valve (G4238A/B)

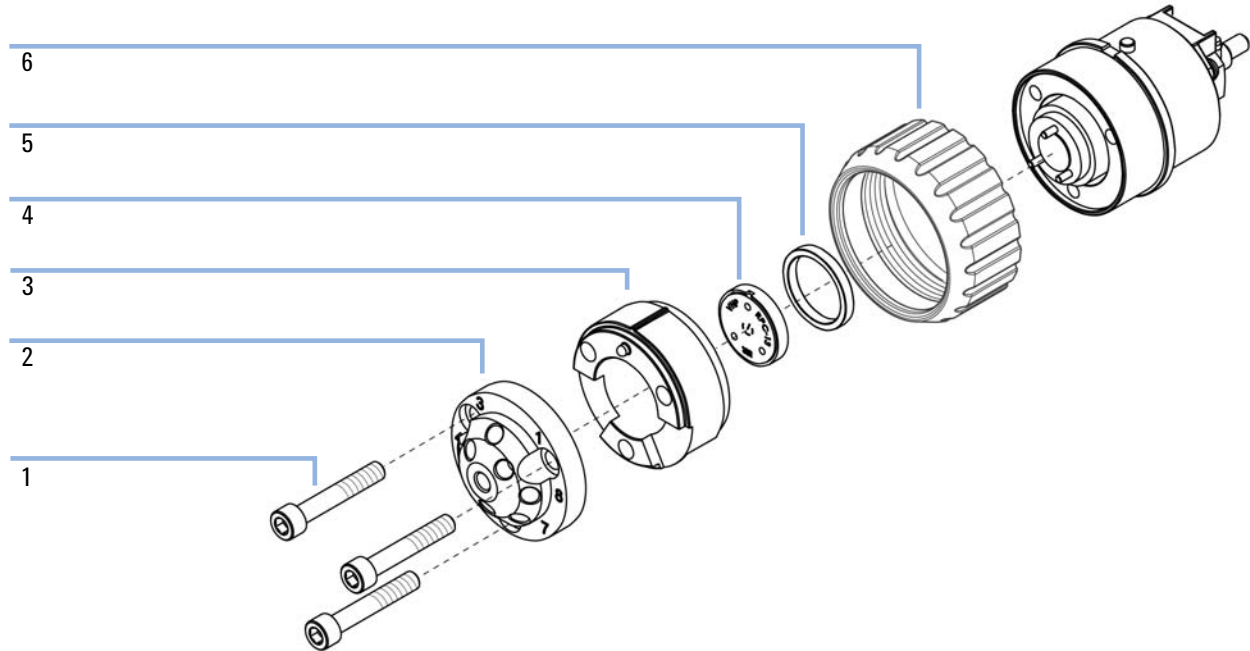


Figure 1 Valve Head Parts (G4238A/B)

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



G4238-90000

Part Number: G4238- 90000

Edition: 11/2013
Printed in Germany

© Agilent Technologies, Inc 2013

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