Installation Note for Bio-inert Multi-draw Upgrade Kit G5667-68711

Installation Note

In this Note we describe how to install the Bio-inert Multi-draw Upgrade Kit (G5667-68711) in an Agilent 1260 Infinity Bio-inert Autosampler or an Agilent 1260 Infinity II Bio-inert Multisampler.

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General Information

The multi-draw upgrade kit can be installed in any Agilent 1260 Infinity Bio-inert Autosampler or Agilent 1260 Infinity II Bio-inert Multisampler. With the kit you can add a maximum of 250 μL or 1000 μL to the injection volume (100 μL analytical head) of your injector. The total injection volume is then 350 μL or 1100 μL for 100 μL analytical head.

**NOTE**

The delay volume of your autosampler is extended when using the extended seat capillaries from the multi-draw kit. When calculating the delay volume of the autosampler you have to double the volume of the extended capillaries (used in partial filling mode). The delay volume can be reduced by bypassing the autosampler once the sample has reached the head of the column, see your *User Manual* for more information.

When using the autosampler in multi-draw mode the syringe ejects an equivalent of the injected volume into waste. Therefore it is recommended to install a separate waste tube (shipped with the start-up kit of your autosampler or Waste tube, 5 m (reorder pack) (5062-2461)) to the waste outlet of the autosampler.
Delivery Checklist

Make sure all parts and materials have been delivered with the upgrade kit. Please report missing or damaged parts to your local Agilent Technologies sales and service office.

<table>
<thead>
<tr>
<th>p/n</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5067-4741</td>
<td>ZDV union (Bio-inert) 600 bar</td>
</tr>
<tr>
<td>0101-1234</td>
<td>Sample loop 2 mL PEEK</td>
</tr>
<tr>
<td>0101-1236</td>
<td>Sample loop 500 µL PEEK</td>
</tr>
</tbody>
</table>

Union

Extended seat capillary, 500 µL with RheFlex® PEEK fittings

Extended seat capillary, 2000 µL with RheFlex® PEEK fittings
Installing Capillaries

Installing UHP-FF Fittings

<table>
<thead>
<tr>
<th>Tools required</th>
<th>p/n</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5043-0915</td>
<td>Fitting mounting tool for bio-inert capillaries</td>
</tr>
</tbody>
</table>

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<tr>
<th>Parts required</th>
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<tr>
<td></td>
<td>Capillaries and Fittings</td>
<td>For details refer to the part section of the manual.</td>
</tr>
</tbody>
</table>

1. Slide the fitting on the capillary. Let the capillary jut out 5 mm.
2 Insert the fitting to the receiving port and push the capillary to the bottom of the port.

3 Finger tighten the nut into the port until snug.
4 Use Fitting mounting tool (5043-0915) or a 5 mm hex wrench for fixing the fitting (maximum torque 0.8 Nm).

![Capillary fitting](image)

**CAUTION** Potential damage of capillaries

➔ Do not remove fittings from used capillaries.

5 When using UHP-FF fittings with bioinert capillaries, do not try to remove fittings from these capillaries. Bio-inert capillaries are using a PEEK front end, which may expand under pressure especially when being in contact with some organic solvents. If a fitting is moved across an expanded PEEK end, there is a risk of damaging the capillary by ripping off its end. Before re-installing such capillaries, push the ferrule towards the rear site for a small distance.

![Capillary fitting](image)

**Figure 1** Capillary fitting
Installation of the Bio-inert Zero Dead Volume (ZDV) Union

The Bio-inert ZDV (p/n 5067-4741) union has two different connectors where capillaries need to be installed in the correct sequence. Otherwise, an inset of the union may be damaged and the connection may not be tight.

1 Install the capillary at the end marked with a ring/indentation.

2 Install the second capillary at the other end.

CAUTION

Potential leak or damage of the Bio-inert ZDV Union.

➔ To avoid leaks or a damage to the Bio-inert ZDV union, follow the procedure below in the prescribed sequence.
Installing the Bio-inert Multi-draw Upgrade Kit for G5667

<table>
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<tr>
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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wrench, 1/4 inch</td>
<td>¼ inch wrench (one supplied in the autosampler accessory kit)</td>
<td></td>
</tr>
</tbody>
</table>

**CAUTION**

Wrong installation of waste capillary

Connecting a waste outlet directly to the plastic waste tube can lead to siphoning effects, which can result in a loss of injection precision.

→ Connect the waste tube from port 4 of the injection valve to the waste tube holder of autosampler wash port.

1. Remove the front cover.
2. Disconnect the seat-capillary fitting from the injection valve (port 5).
3. Install the seat extension loop (longer side) to the injection valve (port 5).
4 Install the union between the seat capillary and the other side of the seat extension loop. Store the extension loop in the leak tray.

5 Connect the injection waste tube to the waste outlet into the injection valve (port 4).

6 Install the front cover.

7 Connect the waste tube.
Installing the Bio-inert Multi-draw Upgrade Kit for G5668

<table>
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</thead>
<tbody>
<tr>
<td>Wrench, 1/4 inch</td>
<td></td>
<td>¼ inch wrench (one supplied in the autosampler accessory kit)</td>
</tr>
</tbody>
</table>

1. Open the front door.
2. Disconnect the seat-capillary fitting from the injection valve (port 5).
3. Install the seat extension loop (longer side) to the injection valve (port 5).
4 Install the union between the seat capillary and the other side of the seat extension loop. Store the extension loop in the leak tray.

5 Connect the injection waste tube to the waste guidance.

6 Close the front door.

7 Connect the waste tube.
Configuration of the Controller

The configuration of your controller is necessary to enable the multidraw mode.

When setting an injection larger as the configured injection volume the multidraw mode is active. Multiples of the injection syringe volume are stored in the extended seat capillary prior to switching the injection valve.

Multisampler configuration with OpenLAB CDS ChemStation Edition C.01.06 and above

1. Select **Right Capillaries** in the instrument function.

2. In the configuration menu change seat capillary to the value of the installed extended seat capillary and click **OK**.

Configuration for the Multisampler with Lab Advisor B.02.05 and above

1. Select the Autosampler from the pull down menu.

2. Select and press **Instrument Control > Configure**.

3. Select the volume for your installed extended seat capillary from the **Seat Capillary** pull down menu.
Legacy CDS systems for instant ChemStation Configuration

1 Select More Injector in the instrument function.
2 In the configuration menu, change seat capillary to the value of the installed extended seat capillary and click OK.

Control Module Configuration

1 Press System > Configure and select the Autosampler from the pull down menu.
2 Select the volume for your installed extended seat capillary from the Seat Capillary pull down menu and click Done.

Instant Pilot

1 In the startup screen select More > 1 Configure.
2 Then select Autosampler and specify the Volume of the installed seat capillary and the Multiple Draw Wait time.