

# Installation Note for Solvent Selection Valve Upgrade Kit (G1360A)

This note describes how to install the solvent selection valve upgrade kit into an Agilent 1100 Series binary pump.

## General Information

The programmable solvent selection valve combines two out of four solvents for binary pump formation or selects a different solvent for flushing the column. It cannot be used as an gradient valve. When installed the solvent selection valve can be activated from the set-up screens of your user interface. For channel A you can select between A1 and A2, for channel B you can select between B1 and B2. Position 1 is the upper connection of the valve, whereas position 2 is lower position of the valve. The valve outlet is the middle position of the solvent selection valve.

## Delivery Checklist

Ensure all parts and materials have been delivered with the upgrade kit. The delivery checklist is shown in Table 1. Please report missing or damaged parts to your local Agilent Technologies sales and service office.

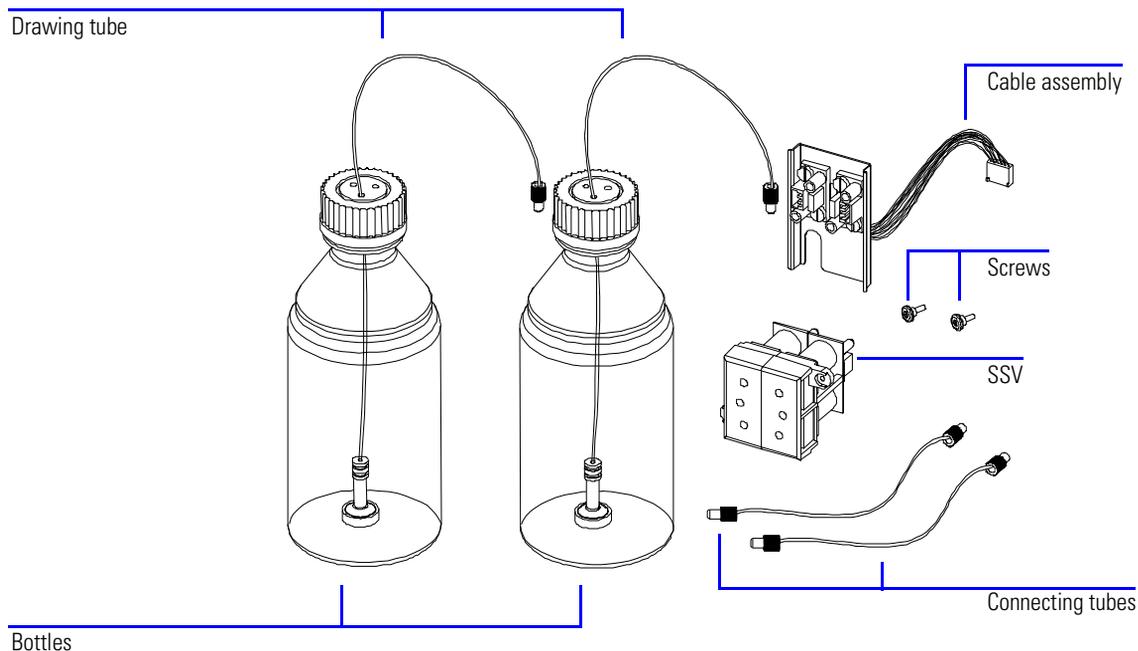
**Table 1**

**Solvent Selection Valve Upgrade Kit**

Description	Quantity	Part Number
Solvent selection valve (SSV)	2	G1312-60000
Screw	2	5022-2112
Cable assembly, solvent selection valve	1	G1312-61602
Connecting tube	2	G1311-67304
Drawing tube	2	G1311-60003
Bottle	2	9301-1421

**Figure 1**

**Solvent Selection Valve Upgrade Kit**



## **Safety Information**

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### **WARNING**

**The following procedures require opening the main cover of the binary pump. Always make sure the binary pump is disconnected from the line power when the main cover is removed. The security lever at the power input socket prevents that the pump cover is taken off when line power is still connected.**

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### **WARNING**

**To disconnect the binary pump from line, unplug the power cord. The power supply still uses some power, even if the switch on the front panel is turned off.**

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### **WARNING**

**When opening capillary or tube fittings solvents may leak out. Please observe appropriate safety procedures (for example, goggles, safety gloves and protective clothing) as described in the material handling and safety data sheet supplied by the solvent vendor, especially when toxic or hazardous solvents are used.**

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### **NOTE**

The electronics of the binary pump will not allow operation when the top cover and the top foam are removed. A safety light switch on the main board will inhibit the operation of the binary pump. Always operate the binary pump with the top foam and top covers in place.

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### **CAUTION**

Internal components may be sensitive to electrostatic discharge (ESD). Always use an ESD kit (shipped with the standard accessory kit of your pump) when handling internal parts.

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## Installing the Solvent Selection Valve Upgrade Kit

### Tools required

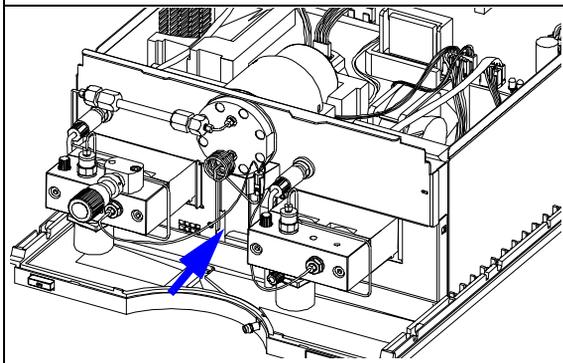
Screwdriver Pozidriv #1  
Wrench 1/4 inch  
Wrench 14 mm  
Wrench 7 mm  
Wrench 5 mm

The following procedure concentrates mainly on installation of new parts and gives only basic information about preparation steps, such as top cover removal, and so on. Refer to your *Reference Manual* in section “Repairing Your Pump” for detailed descriptions of these procedures.

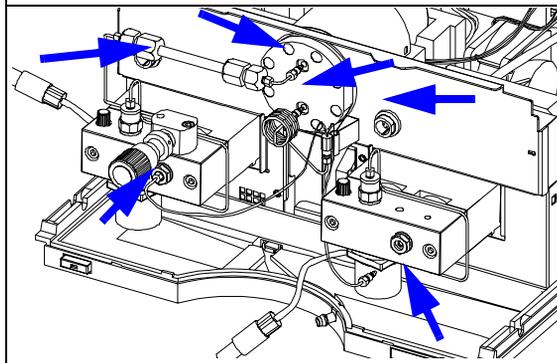
### Before beginning this procedure:

- Switch off binary pump at the main power switch.
- Disconnect the solvent inlet tube and the adapter at the active inlet valve. Beware of leaking solvents due to hydrostatic flow.
- Remove the solvent cabinet from the binary pump.

**1** Remove front cover, top cover, metal plate and top foam section. Remove the cover plate that covers the position of the solvent selection valve.



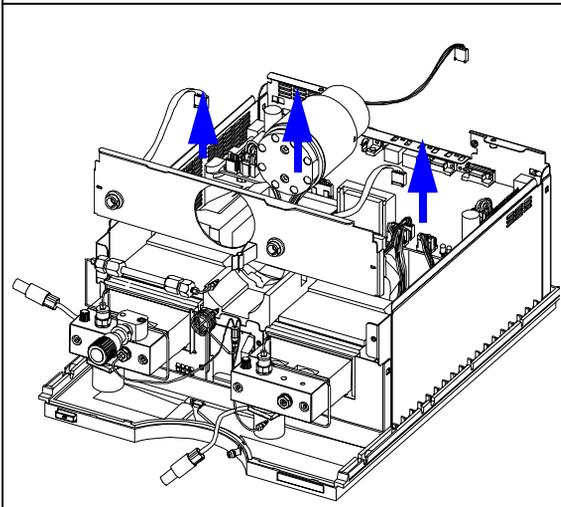
**2** Disconnect capillaries, tubes and connectors from the two pump heads and the damper. Remove the mixing chamber from its holder.



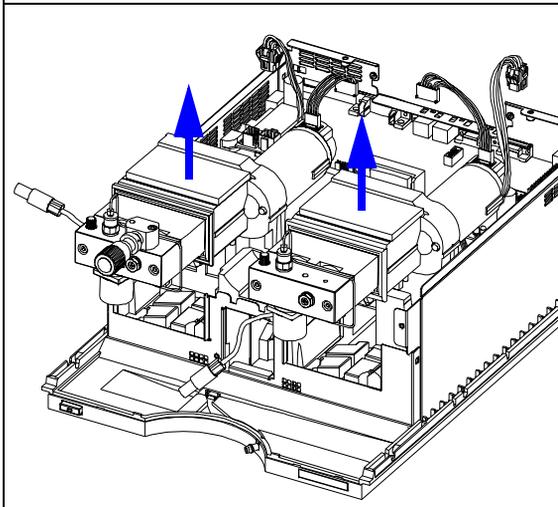
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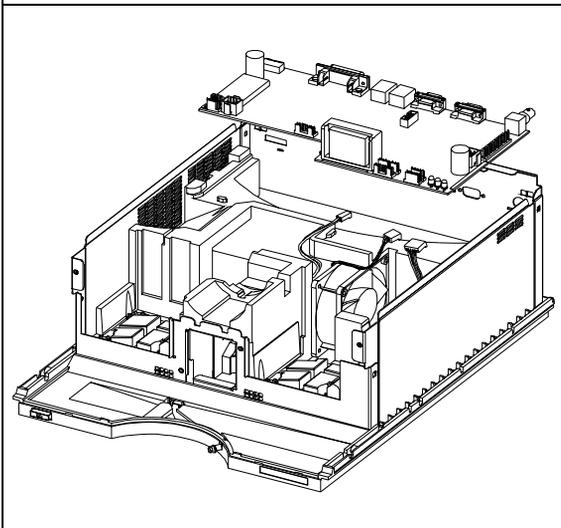
- 3** Disconnect the connectors of the active inlet valve and the damper from the main board (J19, J24, J28), loosen the Z-panel screws and take out the damper. Remove the Z-panel.



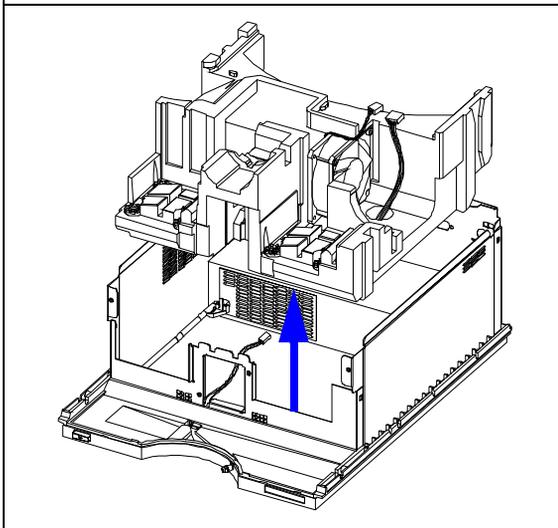
- 4** Disconnect both pumps from the main board (J16, J17, J12, J27) and lift them out of the foam.



- 5** Remove the HPM board, for help see “Exchanging the HPM Board” in your *Reference Manual*.

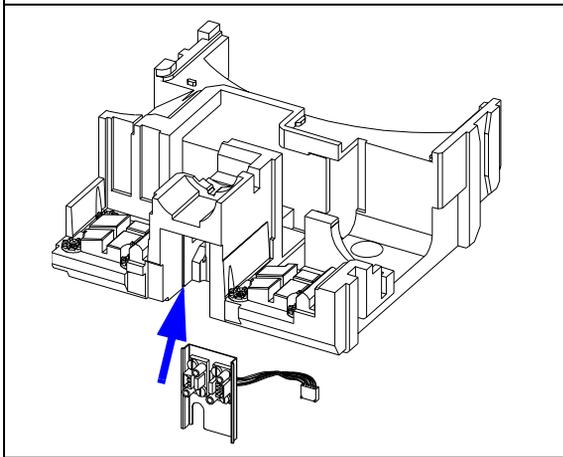


- 6** Push the leak sensor cable through the bottom of the foam and lift the foam out.

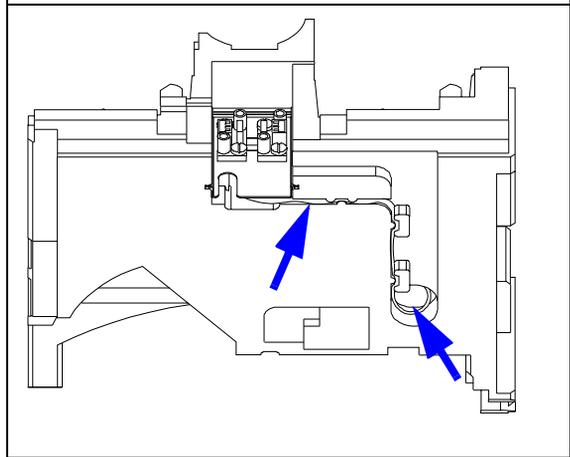


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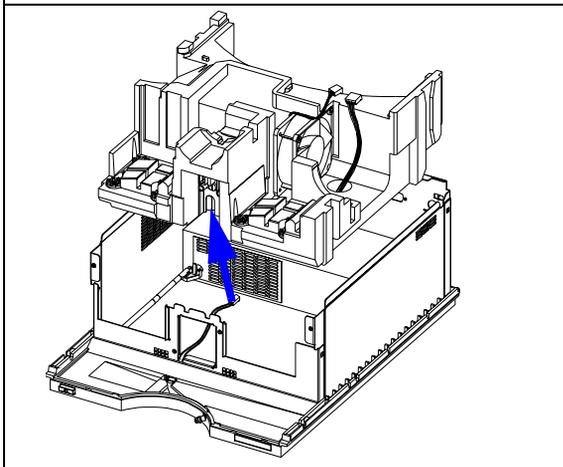
- 7** Push the connector plate of the SSV cable assembly into the slit of the bottom foam.



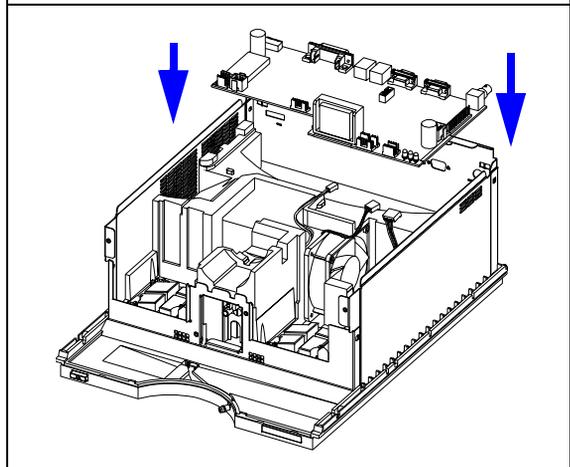
- 8** Place the cable in the slit of the lower side of the foam and lead it through the hole in the foam.



- 9** Slide the leak sensor cable through the bottom foam (underneath the newly installed SSV connector plate). Replace the bottom foam and fix the leak sensor cable in the foam.

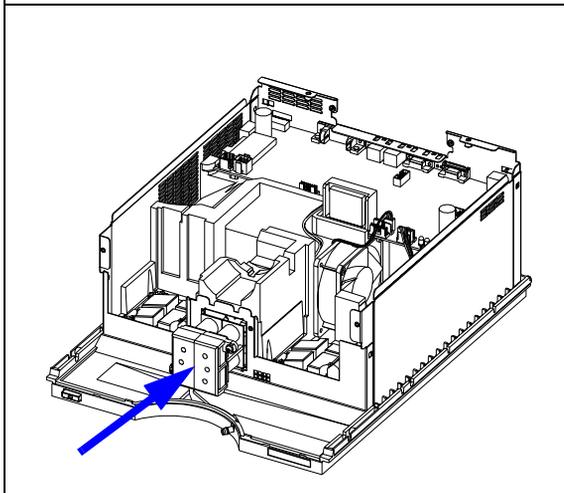


- 10** Reinstall the main board and reconnect all cables. The SSV cable will be connected to J30 on the board.

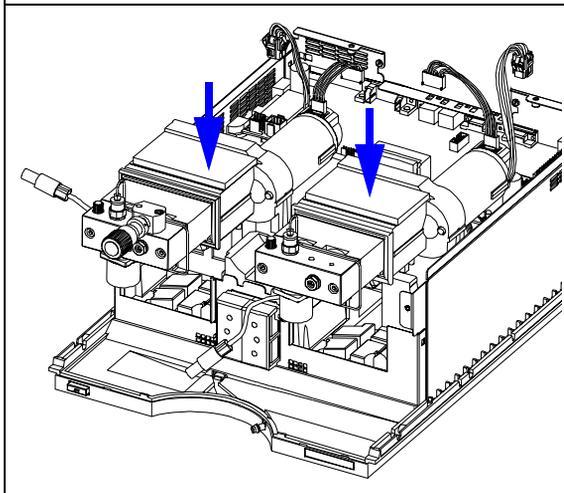


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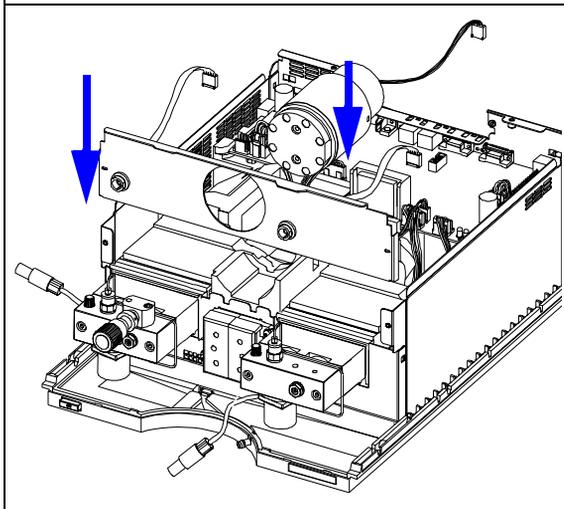
**11** Slide the SSV block with the two selection valve into its position and fix with the two screws.



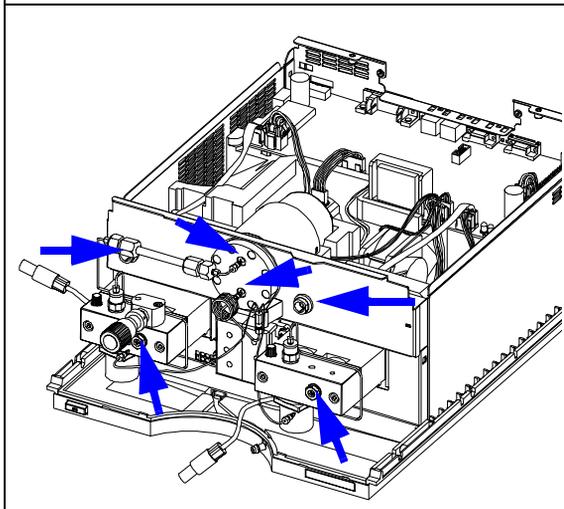
**12** Replace the two pump units and connect to the main board (J16, J 17, J12, J27).



**13** Place Z-panel into its position and replace the damper. Fix the Z-panel and reconnect the cables at the main board (J19, J28, J24).

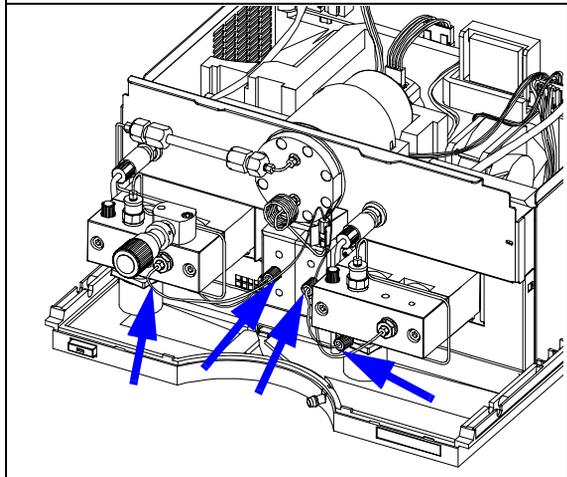


**14** Reconnect all capillaries, tubes and cables to the pump heads and the damper. Fix the mixing chamber in its holder.

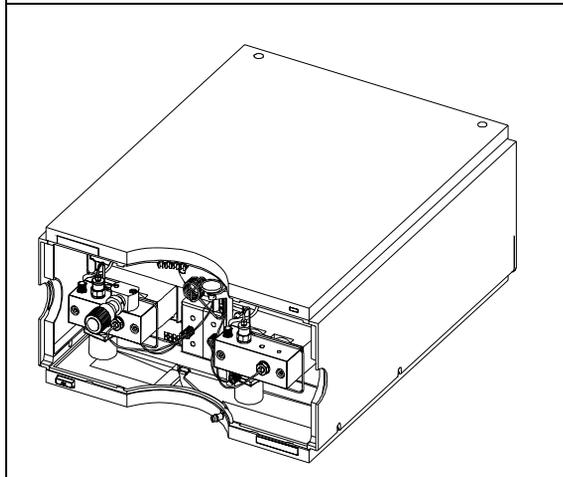


**Installing the Solvent Selection Valve Upgrade Kit**

**15** Connect the two connecting tubes between the middle positions of the SSV's and the active inlet valve.

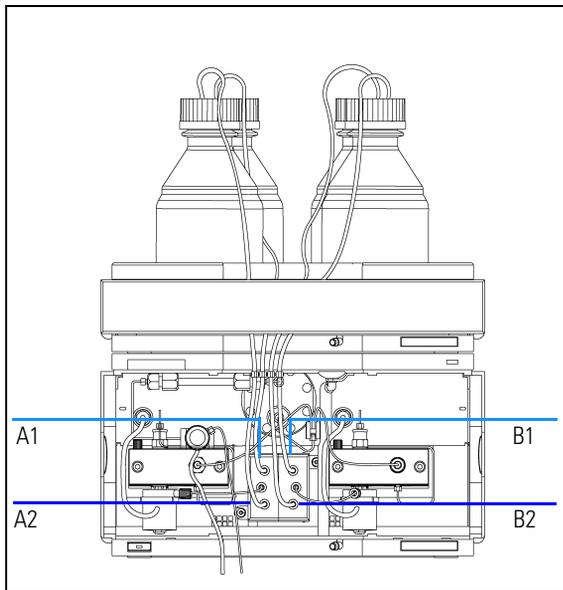


**16** Replace top foam, metal plate and top cover. Reinstall the leak funnel with the waste tube and re-locate the waste tube in the holder in the leak pan.



**On completion of this procedure:**

- 1** Place the binary pump back to its position in the stack, replace the solvent cabinet. Add the two additional bottles with the bottle head assemblies to the cabinet and connect the tubes to the solvent selection valve.
- 2** Connect the power cables to the pump and turn on the instrument.



G1360-90101