

Agilent G4328A 0–100 psi Split Splitless EPC Inlet

For the Agilent 7820A Gas Chromatograph Installation Instructions

CAUTION

This procedure explains how to install the 7820A 0–100 psi Split Splitless (SSL) EPC inlet.

Before installing the 7820A 0–100 psi Split Splitless (SSL) EPC inlet, update the GC firmware to revision **A.01.17** or higher and the GC driver to **A.03.02** or higher. Refer to [“Update the GC firmware revision”](#) and [“Update the GC driver version”](#) on page 3.

Parts Supplied

Table 1 Parts supplied

Description	Quantity	Part Number
Split/Splitless 0–100 PSI EPC Inlet	1	G4352-60501
Split/Splitless Warmup Assembly		G4352-60507
Cover, lower insulation	1	19243-00070
Capillary cup insulation	1	19243-00067
Capillary cup insulation top	1	19243-00068
Capillary cup insulation bottom	1	19243-00069
Screw, machine, M4 x 0.7 mm 12mm	2	0515-2711
Trap key	1	G3452-00005
Screw, machine, M4 x 0.7 mm 12mm	4	0515-2496
Insulation bottom	1	G3432-00003
Split/Splitless insulation block	1	G3452-00002
7820 SSL inlet ship kit		G4352-60550
Column hanger	1	
Liner, split/splitless, glass wool deactivated	1	
Low bleed septa, 11-mm (5/pk)	1	
Wrench for SSL inlet, nut angled	1	
O-rings (5/pk)	1	
7820 Inlet Accessory Package	1	G4352-60508



Parts Identification

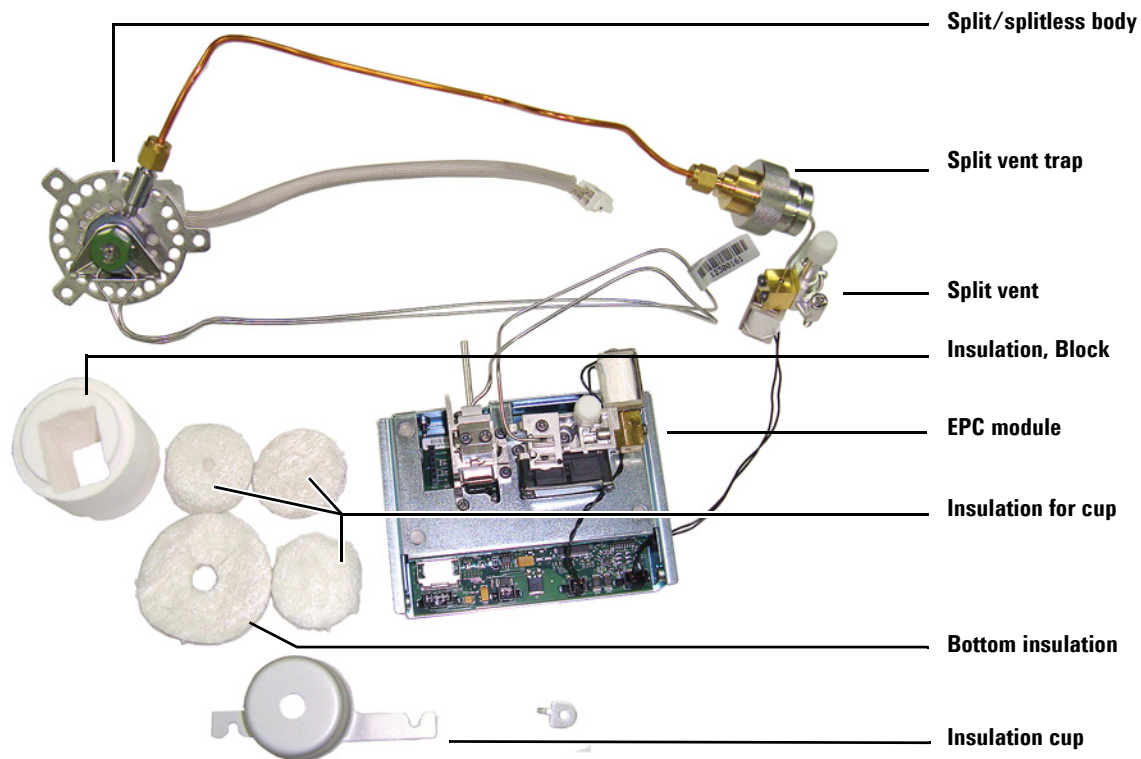


Figure 1 Split/splitless inlet parts identification

Tools Required

- T-15 Torx driver
- Diagonal sheet metal cutters
- 7/16-inch wrench

Installation Procedure

This procedure explains how to install the 0–100 psi split/splitless (SSL) inlet accessory on the Agilent 7820A Gas Chromatograph (GC).

WARNING

Refer to the Safety Manual that came with your Agilent 7820A Gas Chromatograph for hazards that may exist when maintaining your instrument.

Update the GC firmware revision

The 7820A 0–100 psi Split Splitless (SSL) EPC inlet requires 7820A GC firmware revision A.01.17 or higher. **Before installing the 7820A 0–100 psi Split Splitless (SSL) EPC inlet onto the GC, power on the GC and update the firmware to revision A.01.17 or higher.** Check the GC firmware revision as follows:

- 1 Connect to the GC with the software keypad.
- 2 Click [**Status**][**Clear**].

Alternately, power cycle the GC. The firmware version displays after the GC successfully reboots.

If the GC firmware version is earlier than **A.01.17**, use the Agilent GC Firmware Update Tool to update the firmware. To obtain the latest firmware revision, visit the Agilent website and search for GC firmware update.

Update the GC driver version

The 7820A 0–100 psi Split Splitless (SSL) EPC inlet requires the use of GC Driver version **A.03.02 or higher**. Check the GC Driver version used in your Agilent data system and update as needed.

NOTE

Customers who perform software qualification should consider their SOPs, risk assessment, and other regulatory considerations to determine whether the instrument drivers update requires a software requalification.

Agilent GC Drivers provide control of 7820 in the following Agilent data systems:

- G17xxFA GC/MS MassHunter Acquisition
- M84xxAA OpenLAB CDS
- M83xxAA OpenLAB CDS ChemStation Edition
- M82xxAA OpenLAB CDS EZChrom Edition

- G4691AA EZChrom Elite
- M207xBA Multi-Technique ChemStation

Prepare the GC

- 1 Connect to the GC with the software keypad.
- 2 Cool the GC to room temperature.
- 3 If this new inlet is replacing an existing inlet, even one of the same type, *unconfigure* the existing inlet (see the 7820A Advanced User Guide for details).
- 4 Turn off the GC and unplug its power cord. Turn off all gas supplies.
- 5 Remove the detector cover by raising it to vertical and disengaging it from the hinges, right side first.
- 6 Remove the two screws on the back of the right side panel and the one on the side. Slide the panel up and back to remove.
- 7 Remove top electronics cover by removing the screw on the side of the cover, and the screw in the back. Lift the cover off.
- 8 Remove the screw on the side of the pneumatics cover, and loosen the screw on the back. Remove the cover.
- 9 Remove the gray inlet cover by loosening the six captive screws.
- 10 Remove the EPC module bracket adjacent to the inlet EPC module by loosening the screw and lifting the bracket off.

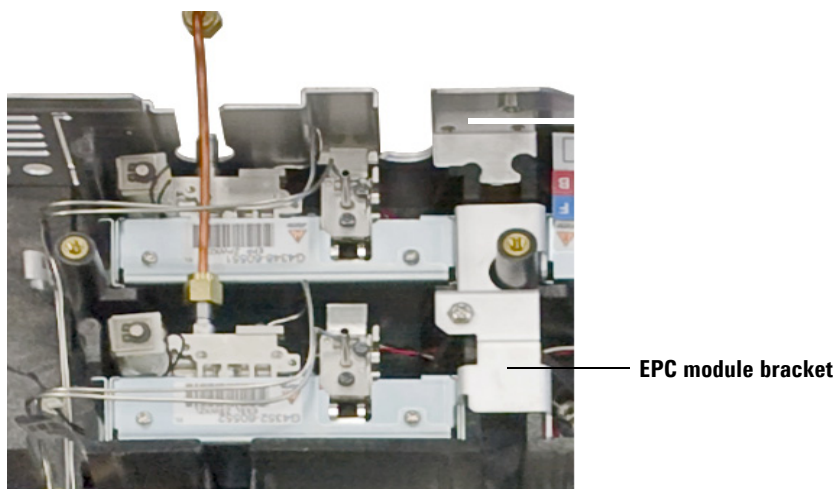


Figure 2 Locating the EPC module bracket

- 11 Put on the ESD wrist strap and attach the ground to the GC sheet metal frame for electrostatic protection.

Prepare the inlet mounting

It is assumed in the following instructions that the inlet location to be used has had no previous inlet installed. If there was a previous inlet, some of the following steps will already be done (make sure all previous inlet components have been removed and stored safely for possible future use). If a packed inlet was previously installed in this location, remove the metal plate in the oven covering the larger opening.

- 1 Remove the round metal cutout at this location using diagonal cutters. Make the cuts so that the metal nubs remain attached to the discarded metal circle.

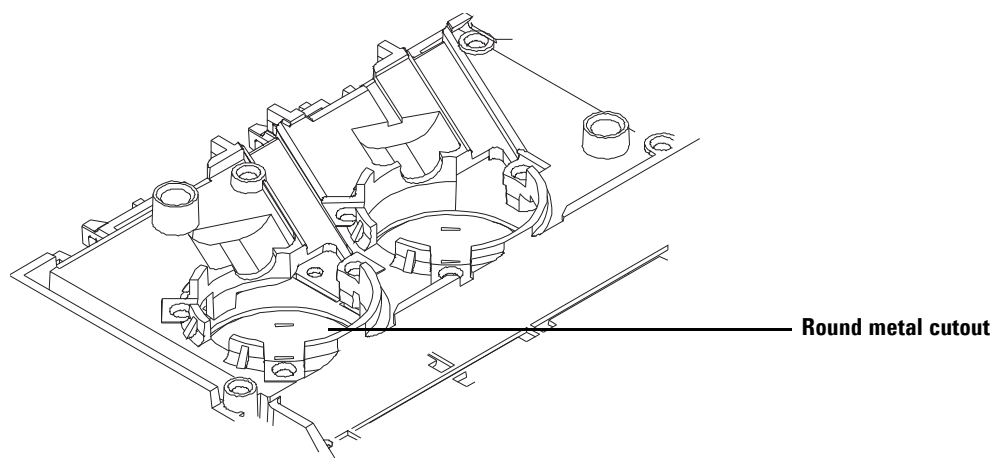


Figure 3 Inlet cutout removal

- 2 Remove the insulation plug from the exposed inlet position.

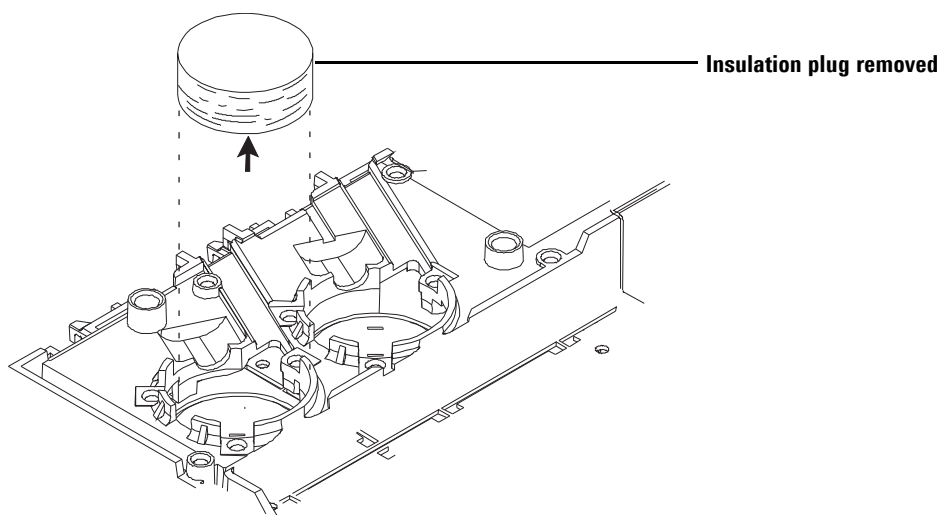


Figure 4 Insulation plug removal

- 3 Carefully remove the scribed circle of insulation from the oven top to create an opening into the oven: use a razor knife to cut out the insulation using the scribed circle as a guide.

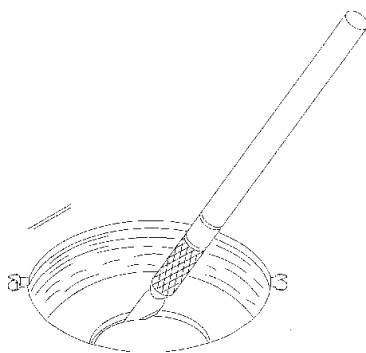


Figure 5 Inner insulation removal

Alternatively, pierce the insulation with a screwdriver. Rotate the screwdriver around the circumference of the scribed circle to remove excess insulation.

- 4 Clean up any insulation that falls inside the oven.

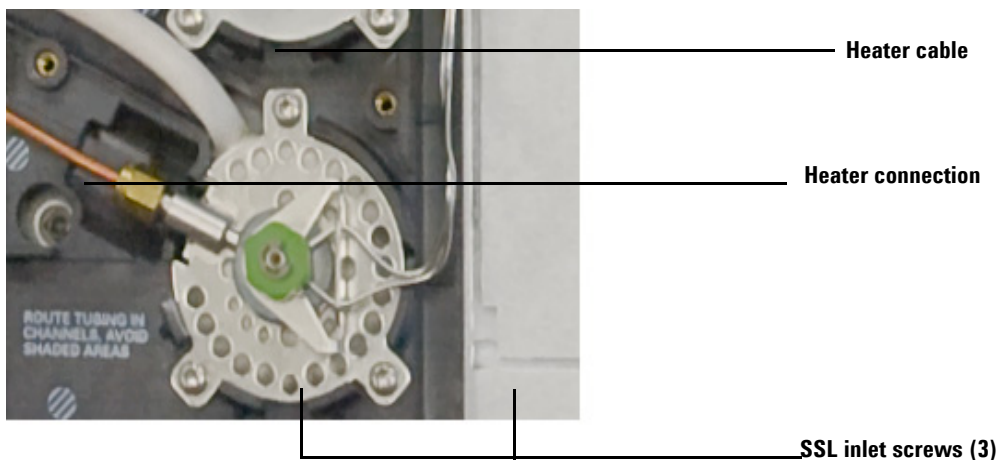


Figure 7 SSL inlet installed

Install the split vent assembly

- 1 Route the tubing from the inlet to the split vent trap as shown below, being careful that the tubing does not interfere with the left side cover placement.

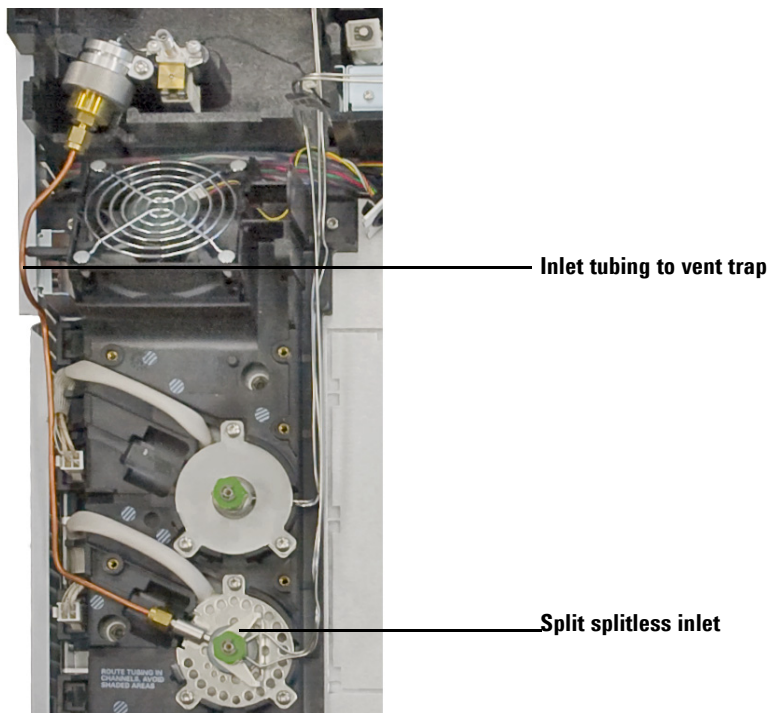


Figure 8 Routing the inlet tubing

- 2 Install the split vent filter into the appropriate housing, making sure that the flat sides on the split vent filter are vertical. The split vent filter will lock into place when properly installed. See [Figure 9](#).
- 3 Align the split vent valve assembly over the two screw holes and secure using two captive screws. See [Figure 9](#).
- 4 Install the split vent filter retaining clip with one screw to secure the split vent filter.

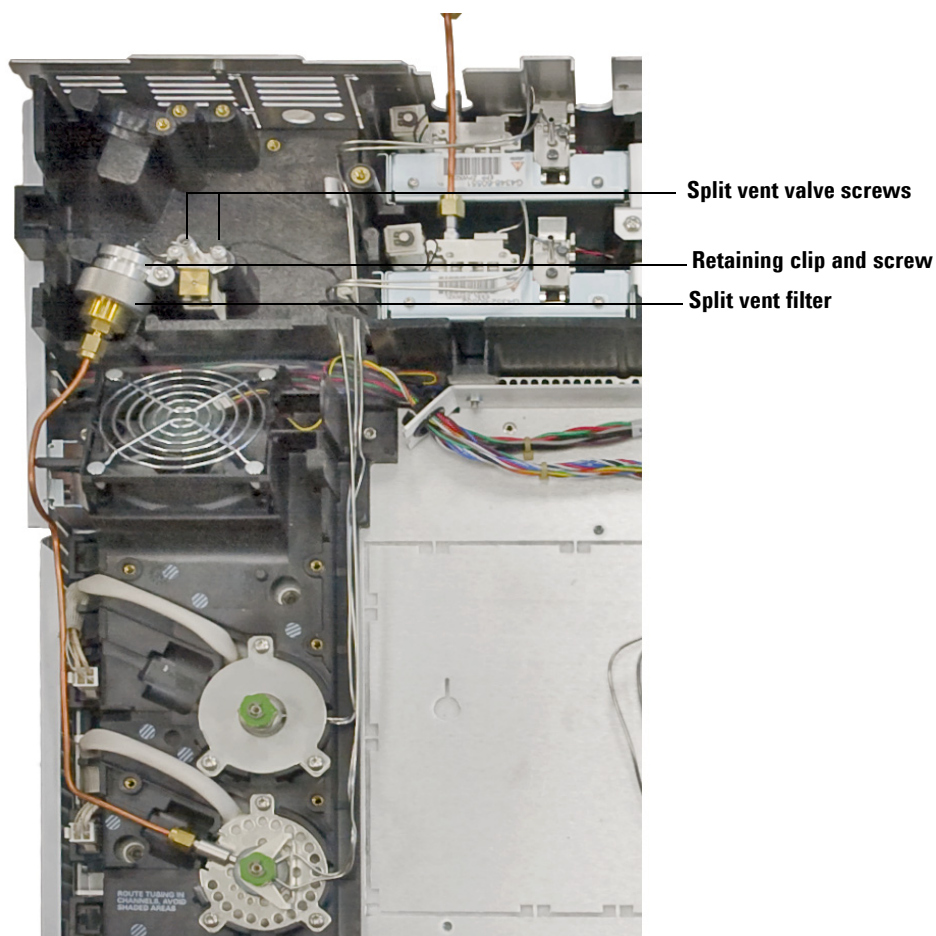


Figure 9 Split vent filter assembly fully installed

Install the EPC module

- 1 Locate the communications cable in the inlet module EPC bays area and plug it into the connector located on the EPC module's PC board. See [Figure 10](#).

Table 2 Inlet location and associated EPC information

Inlet location	EPC bay location	Communications bus connection
Front	forward	EPC1
Back	rearward	EPC2

- 2 Connect the split vent valve wire from the split vent assembly to the split vent valve connector on the EPC module.

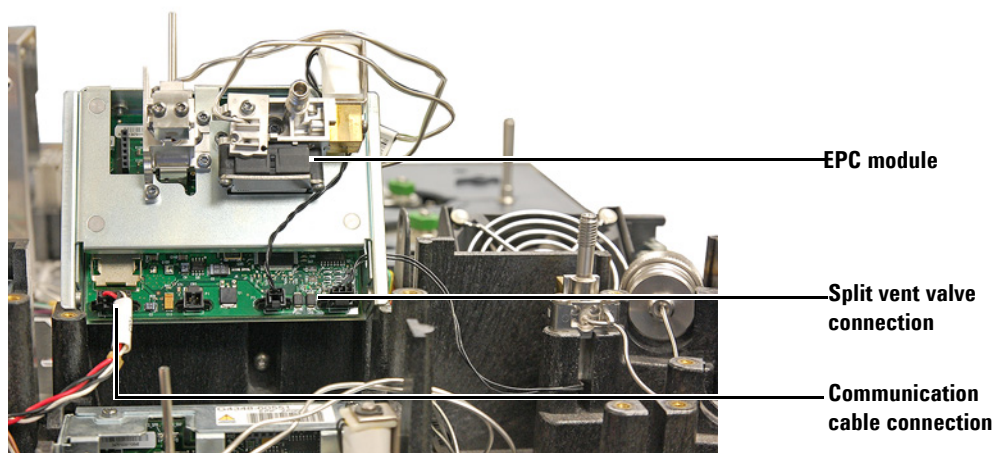


Figure 10 Communication cable and split vent valve wire connections on EPC module

- 3 Vertically slide the EPC module fully into its slot being careful not to pinch the wires.
- 4 Route tubing from the module through the large passage provided on the inlet side of the EPC bay.

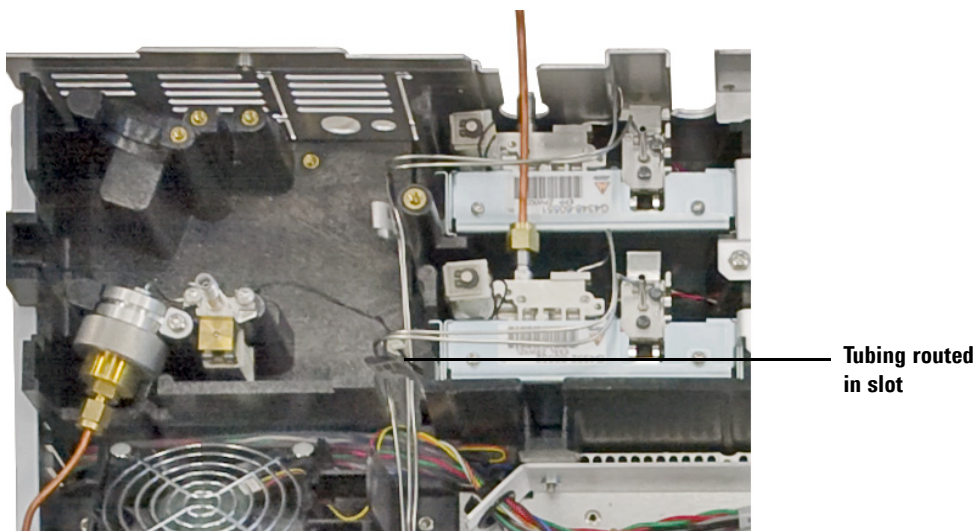


Figure 11 EPC module installed and pneumatic tubing properly routed

- 5 Attach the EPC module bracket and secure with a screw.

Installing the nutwarmer cup

- 1 Place the insulation in the nutwarmer cup.

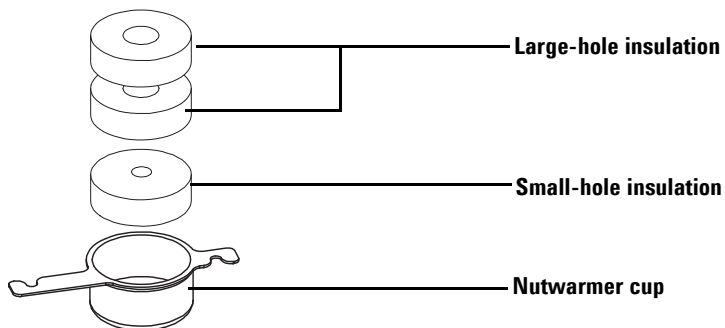


Figure 12 Placing the insulation in the nut warmer cup

- 2 From inside the oven, install the two heat-resistant screws in the cutouts adjacent to the inlet opening. Do not tighten the screws. Place the nutwarmer cup slots into the screws and tighten the two screws to complete installation.

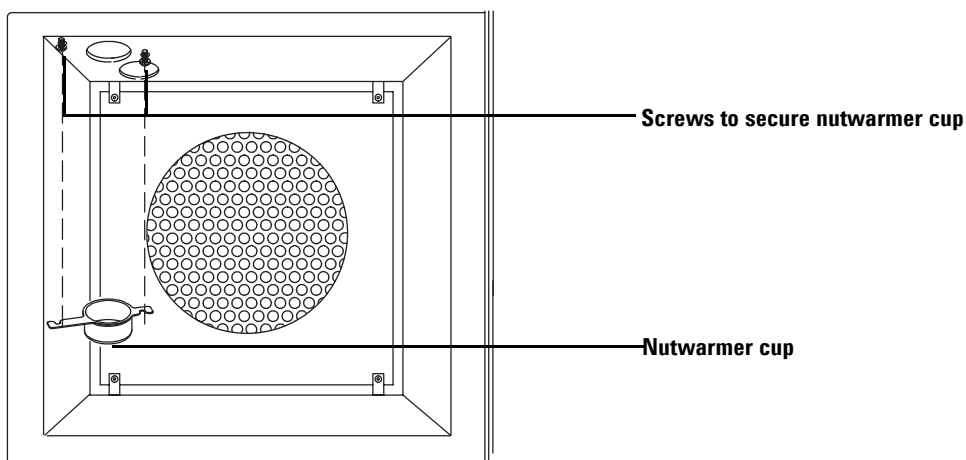


Figure 13 Installing the nutwarmer in the oven

Restore the GC to operating condition

- 1 Replace all instrument covers in the reverse order that they were removed.
- 2 Plug in the GC and turn on its power.
- 3 Make sure the GC is connected to the Agilent 7820A GC software, and access the GC operation keypad. For more information on connecting to the software, see the GC Advanced User Guide.
- 4 On the software keypad, click [**Config**] then [**Front Inlet**] or [**Back Inlet**].
- 5 On the unconfigured parameter, click [**Mode/Type**].
- 6 Click [**Enter**]. A caution message will appear instructing you to reboot.
- 7 Reboot the GC.
 - a Click [**Options**].
 - b Scroll to **Communications** and click [**Enter**].
 - c Scroll to **Reboot the GC?** and click [**On/Yes**] twice to reboot the GC and have the changes take effect.

- 8 The new EPC you have installed must be properly calibrated before the inlet is ready for application use. Calibrate it as follows:
 - a Press [**Options**], then scroll to [**Calibration**] and press [**Enter**].
 - b Scroll to **Pressure zero**.
 - c With the gases disconnected, press [**On/Yes**].
 - d Connect the carrier gas to the inlet.
 - e Configure the carrier gas type.
 - f Press [**Config**], then [**Front Inlet**] or [**Back Inlet**]. Scroll to the carrier gas type, then press [**Mode/Type**] to set the carrier gas type.
 - g Set gas source pressures and turn on the flow at the source. Check for leaks and correct any leaks. Typically, set carrier gas pressure to 550 kPa (80 psi). See the GC site preparation and installation manuals for details.
 - h Press [**Front Inlet**] or [**Back Inlet**] and verify the flow is turned off.
 - i Press [**Options**], then scroll to [**Calibration**] and press [**Enter**].
 - j Scroll to Flow zero and press [**On/Yes**].



Warranty

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