Preparing the 6850 Series II GC for 597x MSD Installation

Agilent 6850 Series II Network GC System

This installation sheet documents the procedures needed to prepare the 6850 Series II GC for 597x MSD installation. This procedure is intended for Agilent-trained service personnel only.

**NOTE**

This kit is not compatible with GCs configured for cryo cooling.

This kit contains:

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>250 µm Graphite ferrule</td>
<td>1</td>
</tr>
<tr>
<td>MSD heated transfer line cable</td>
<td>1</td>
</tr>
<tr>
<td>MS Ship kit*</td>
<td>1</td>
</tr>
<tr>
<td>MS Detector plate</td>
<td>1</td>
</tr>
<tr>
<td>Cable ties</td>
<td>2</td>
</tr>
<tr>
<td>M4 Machine screw, Torx T-20</td>
<td>2</td>
</tr>
<tr>
<td>Insulation detector blank</td>
<td>1</td>
</tr>
<tr>
<td>5973N-6850A Site Prep Manual</td>
<td>1</td>
</tr>
</tbody>
</table>

* The MS Ship kit contains additional items that will be needed to complete the setup.
Required tools

- T-20 Torx screwdriver
- Flathead screwdriver
- 9/32-inch open-end wrench
- 7-mm nut driver or open-end wrench

Overview

Before starting, review the safety information located at the end of this document.

1. Prepare the GC.
2. Remove the knockout plugs.

There are three possible procedures for step 3. The procedure you perform depends upon the GC’s current configuration. Please read these instructions carefully to ensure you perform the appropriate procedure for the given configuration.

3. Prepare the GC for installation of the heated transfer line cable.
4. Route the heated transfer line cable.
5. Restore the GC.
6. Complete installation to the 597x MSD.
Prepare the GC

**WARNING**
The first two steps of this procedure are very important. Working on a GC without first switching off and disconnecting power and waiting for the GC to cool can cause possible burns and exposure to dangerous voltages.

To prepare the GC:
1. Turn off the GC and disconnect its power cord.
2. Wait for the GC and all heated zones to cool.
3. Turn off gas supplies and disconnect lines to the inlet purge/split vents.
4. Remove the lid top cover.

![Diagram showing steps to prepare the GC](image-url)
Remove the knockout plugs

**WARNING**

The insulation around the oven is made of refractory ceramic fibers. To avoid inhaling fiber particles, we recommend the following safety procedures: ventilate your work area; wear long sleeves, gloves, safety glasses, and a disposable dust/mist respirator; dispose of insulation in a sealed plastic bag; wash your hands with mild soap and cold water after handling the insulation.

1. Locate the two circular caps (one large, one small) on the left side of the GC. The smaller knockout provides access for the MSD heater transfer line wires. The larger knockout provides the MSD with access to the oven.
2. Using a flathead screwdriver, pop out the two circular caps.
3. Carefully remove the insulation from the oven knockout. Make sure that no insulation remains.
4. Clean up and properly dispose of all the insulation that was just removed. Clean up the insulation on both the outside and inside of the GC.

Prepare the GC for installation of the heated transfer line cable

Depending upon the current configuration, the customer can choose to install the heated transfer line cable into the detector heater connection (recommended) or the auxiliary connection. The customer should choose ONE of the following options based on the GC’s current configuration:

- Detector installed; no auxiliary installed — Use the auxiliary connection.
- No detector installed; auxiliary installed — Use the detector connection.
- Detector installed; auxiliary installed — Completely remove ONE of the devices. Agilent recommends using the detector connection for the heated transfer cable, but this should be left up to the customer.

**To use the auxiliary connection**, remove the valve box and replace any needed inlet parts.

**To use the detector connection**

1. Remove the detector, flow module, and detector electronics board.

**CAUTION**

Board components can be damaged by static electricity; use a properly grounded static control wrist strap before gaining access to the detector electronics area and when handling the boards and any of the cables connecting to the boards.
1 Install the circular insulation blank into the detector opening in the lid. See the figure below.

2 Use two 18-mm long M4 screws to install the detector blanking plate over the insulation blank, as shown in the figure below.
Route the heated transfer line cable

1 Depending on which heated zone you intend to use (detector or auxiliary), plug the connection end of the heated transfer line cable into the appropriate heated zone connector.

2 Route the other end of the heated transfer line cable toward the back of the GC. If there is no detector flow module present, lower the cable down through the top of the lid where the detector flow module would be. Skip to step 3 below. If a detector flow module is present, perform steps a and b below.

   a Loosen the screws on the detector flow module and move it forward far enough to lower the heated transfer line cable through the top of the lid.

   b Replace the detector flow module back to its original position and retighten the screws. Be careful not to pinch any cable or wiring.

WARNING When routing the heated transfer line cable down through the top of the lid, be careful around the sharp edges of the opening. The sharp edges may cause damage to the heated transfer line cable, or worse, injury to the user.
3 Open the service lid. Locate the counterbalance cam in the left rear corner under the lid. Loosen the screw on the right side of the cam. This allows the stop plate to drop down.

4 Raise the lid until it is stopped by the safety cable.

5 Raise the stop plate and tighten the screw to lock the lid in the upright service position.

**WARNING** The lid is heavy. Always lock the lid when it is in the service position.

6 Remove the existing column (if present).
7 Loosen the two bottom screws on the detector electronics cover.

**CAUTION**

Board components can be damaged by static electricity; use a properly grounded static control wrist strap before gaining access to the detector electronics area and when handling the boards and any of the cables connecting to the boards.

8 Remove the top screw on the cover, then lift and remove the detector electronics cover.

9 Locate the heated transfer line cable that was sent down through the top cover and route it with the main wiring harness. Use cable ties to secure cable to wiring harness, if necessary. Be sure to position the cable so that it will not get caught in the cam or lid when opening and closing the lid.
10 Remove the sheet metal electronics cover. Loosen the two nuts and remove the two screws.

11 Route the heated transfer line cable over the oven exhaust duct and out through the small knockout located on the left side of the GC.

**CAUTION**
When routing the heated transfer line cable, make sure that the cable is free of snags and that it is not resting on any heated components.

12 Reinstall the sheet metal electronics cover and detector electronics cover.

**Restore the GC**

1 Lower the stop plate on the lid cam. Pull the lid forward until the cam follower rests on the curved surface of the cam. Raise the stop plate behind the cam follower and tighten the screw.

2 Close the lid. Be sure that the heated transfer line cable and the folded gas lines do not interfere with it.

3 Install the lid top cover.
Upon completion of these steps, the GC should look like the one pictured below.

Complete installation to the 597x MSD

The 6850 Series II GC is now ready for installation to the 597x MSD. Follow the instructions found in “G2570A 6850 GC/MSD System Setup and Installation”, part number G3170-90001.
A CAUTION notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a CAUTION notice until the indicated conditions are fully understood and met.

A WARNING notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a WARNING notice until the indicated conditions are fully understood and met.