

Installation Guide

**Electronic Pneumatics Control Board on a 6890 GC
Accessory G1557A**



Agilent Technologies

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Safety Information

The Agilent Technologies 6890 Gas Chromatograph meets the following IEC (International Electrotechnical Commission) classifications: Safety Class 1, Transient Overvoltage Category II, and Pollution Degree 2.

This unit has been designed and tested in accordance with recognized safety standards and designed for use indoors. If the instrument is used in a manner not specified by the manufacturer, the protection provided by the instrument may be impaired. Whenever the safety protection of the Agilent 6890 has been compromised, disconnect the unit from all power sources and secure the unit against unintended operation.

Refer servicing to qualified service personnel. Substituting parts or performing any unauthorized modification to the instrument may result in a safety hazard. Disconnect the AC power cord before removing covers. The customer should not attempt to replace the battery or fuses in this instrument. The battery contained in this instrument is recyclable.

Safety Symbols

Warnings in the manual or on the instrument must be observed during all phases of operation, service, and repair of this instrument. Failure to comply with these precautions violates safety standards of design and the intended use of the instrument. Agilent Technologies assumes no liability for the customer's failure to comply with these requirements.

WARNING

A warning calls attention to a condition or possible situation that could cause injury to the user.

CAUTION

A caution calls attention to a condition or possible situation that could damage or destroy the product or the user's work.



Indicates a hot surface



Indicates earth (ground) terminal

Sound Emission Certification for Federal Republic of Germany

Sound pressure $L_p < 68 \text{ dB(A)}$

During normal operation

At the operator position

According to ISO 7779 (Type Test)

Schallemission

Schalldruckpegel $L_P < 68 \text{ dB(A)}$

Am Arbeitsplatz

Normaler Betrieb

Nach DIN 45635 T. 19 (Typprüfung)

Overview

This section reviews the procedure for installing an electronic pneumatics control (EPC) board on an Agilent 6890 Gas Chromatograph (hereafter referred to as the GC.) Before following this procedure, refer to the safety information on the inside front cover.

Parts List

- EPC board
- 3 machine screws (M4 × 0.7 × 12 mm long) for connecting the EPC board to the pneumatics carrier

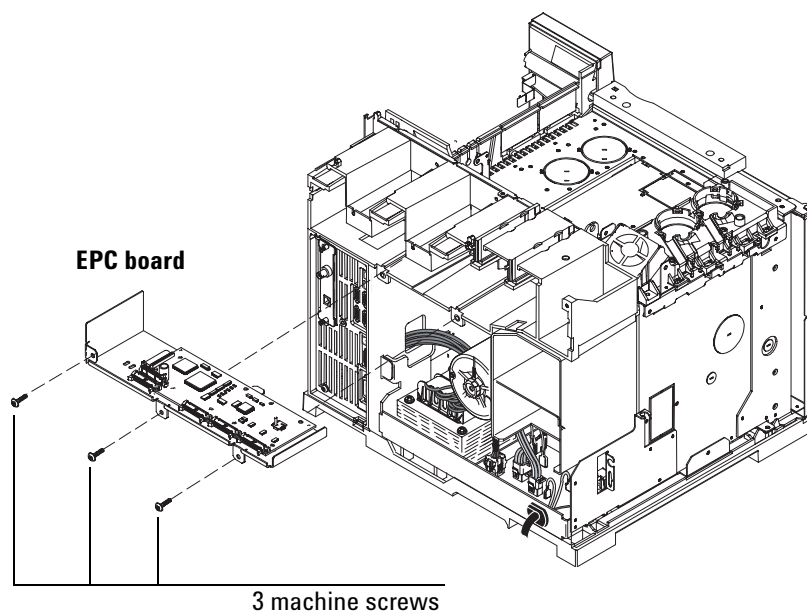
Required Tools

- Electrostatic protection such as grounded wrist strap (part no. 9300-0969 for large wrists or part no. 9300-0970 for small wrists)
- Torx T-20 screwdriver

Steps

1. Preparing the GC
2. Removing and installing the EPC board
3. Restoring the GC to operating condition

Overview



Preparing the GC

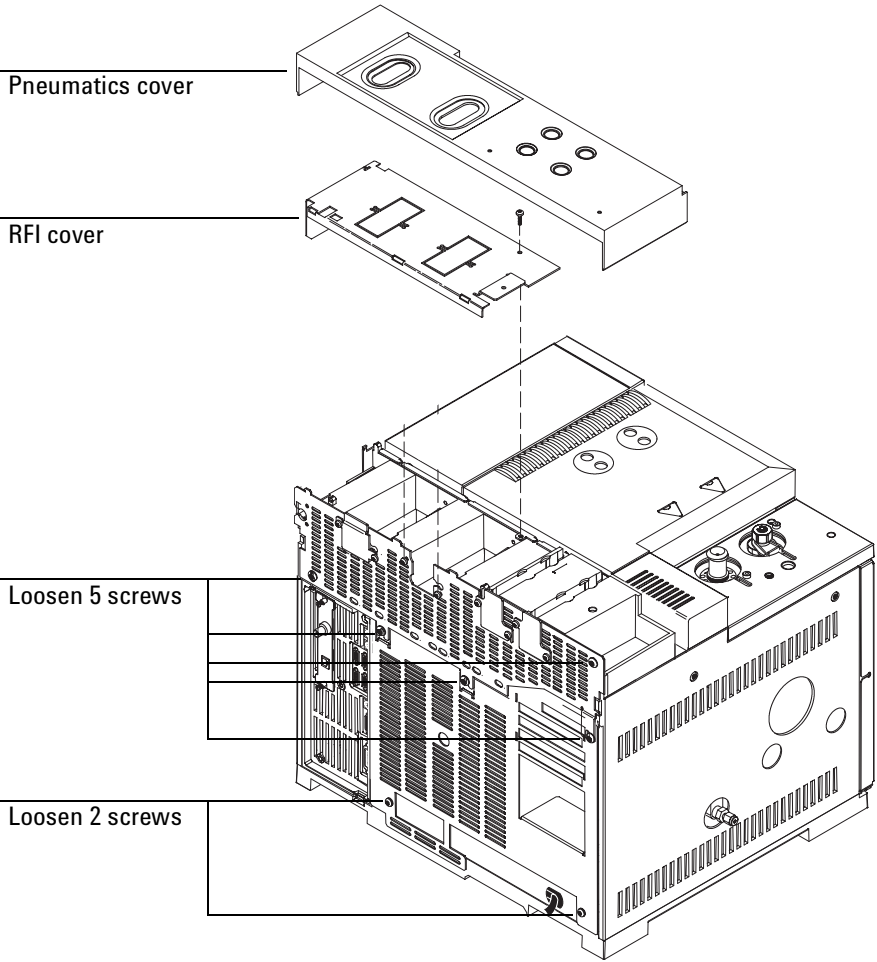
WARNING

Hazardous voltages are present in the mainframe when the GC is plugged in. Avoid a potentially dangerous shock hazard by unplugging the power cord before removing the side panels.

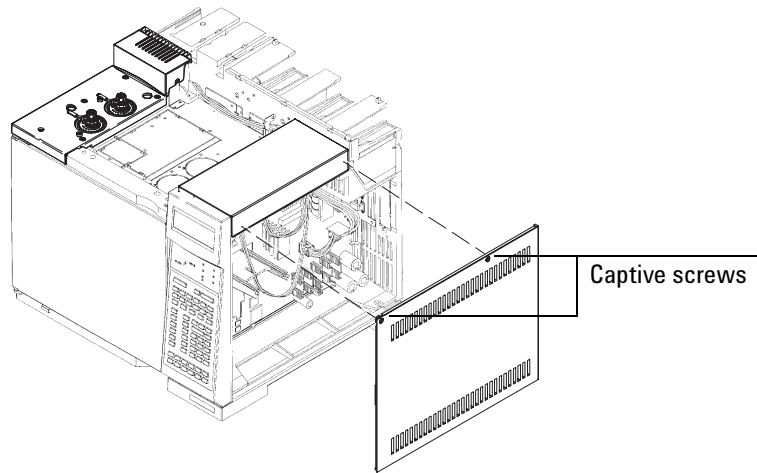
1. Turn off the GC and unplug the power cord. Allow time for all heated zones to cool and then turn off supply gases at their sources.

From the back of the GC (see figure on next page):

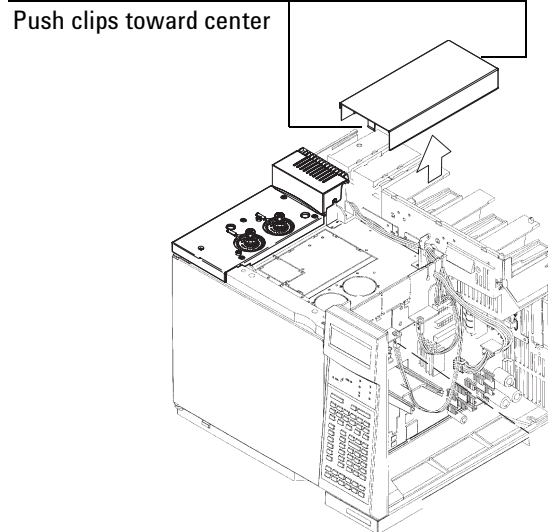
2. Unsnap and lift off the pneumatics top cover.
3. Remove the RFI cover. Remove the screw with a T-20 Torx screwdriver, slide the cover to the left until it disengages from the top rear panel, and remove it.
4. Loosen the five screws in the top rear panel with a T-20 Torx screwdriver. Grasp the panel at each end and gently lift it up and away from the GC. Be careful not to disrupt the supply tubing.
5. Remove the lower rear panel by loosening the two screws and sliding the panel down and off the GC.



6. Remove the electronics side cover. Loosen the two captive screws with a T-20 Torx screwdriver, slide the cover to the rear, and lift it off.

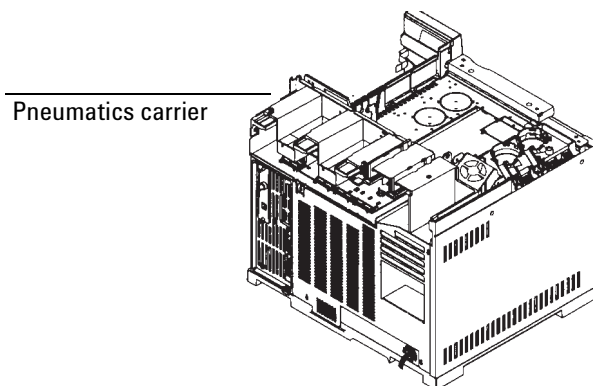


7. Remove the electronics top cover. Locate the clips underneath the cover and push them toward the center to disengage them.



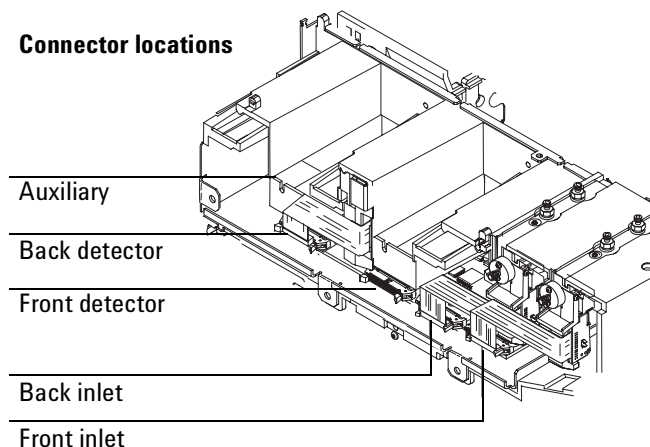
Removing and installing the EPC board

1. From the back of GC, locate the pneumatics carrier.



2. Unplug the inlet, detector, and auxiliary ribbon cables. Unlock the connectors by pushing the tabs away from the center.

Connector locations



Caution

Board components can be damaged by static electricity; use a properly grounded static control wrist strap when handling the board.

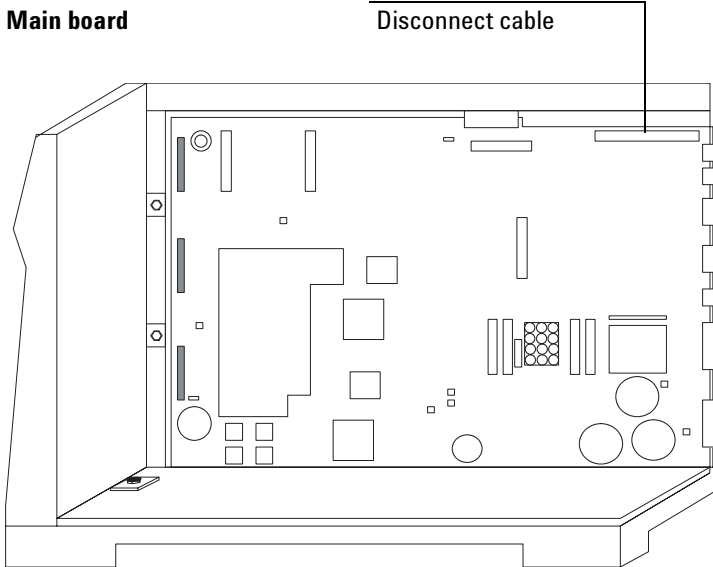
3. Locate the ribbon cable connecting the board to the main board. Unlock the connector by pushing the two tabs away from the center and unplug

Removing and installing the EPC board

the cable. If you have an INET or LAN card installed, look behind the card for the connector.

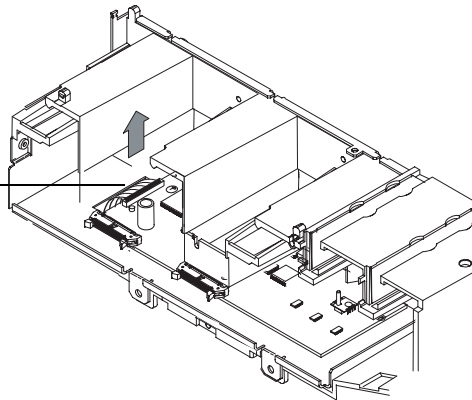
Main board

Disconnect cable



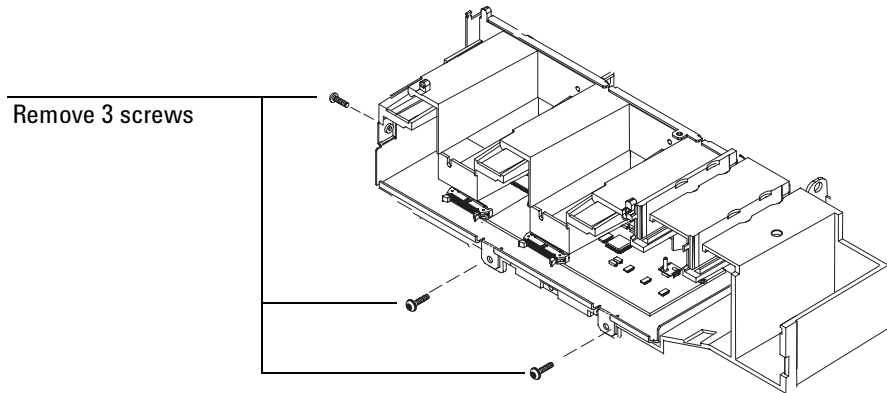
4. From the pneumatics carrier, locate the ribbon cable you unplugged in Step 2 and pull it through the slot.

Pull out EPC board
ribbon cable

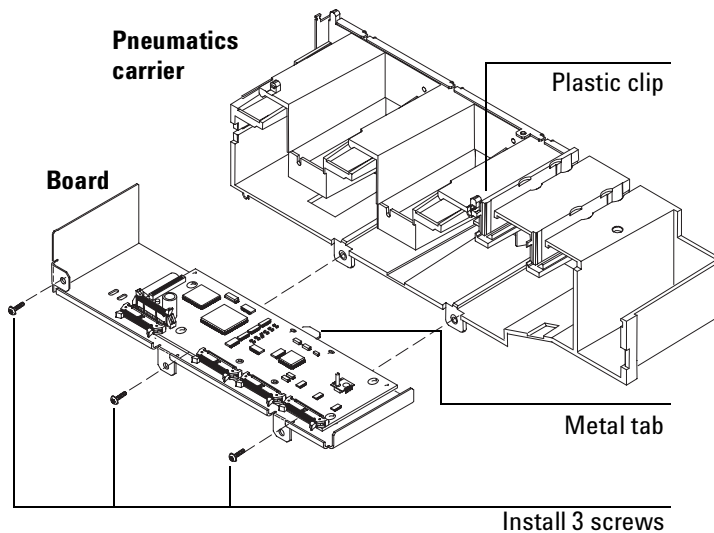


Removing and installing the EPC board

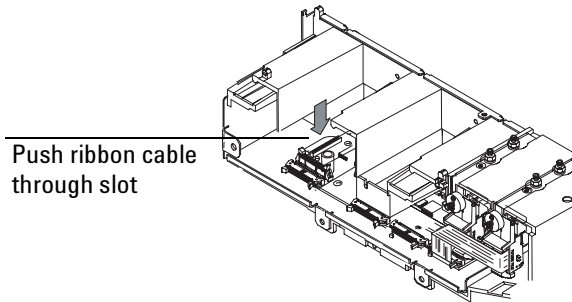
5. Remove the three screws holding the bracket to the pneumatics carrier with a T-20 Torx screwdriver and slide the board out of the carrier.



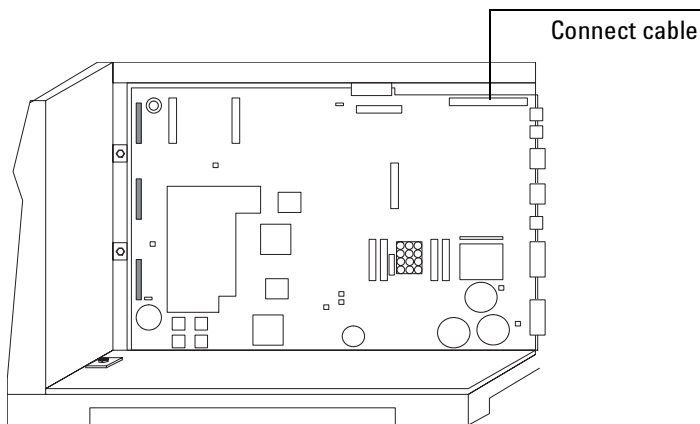
6. Carefully remove the EPC board from the static control bag. Locate the metal tab at the back of the board and the plastic clip on the pneumatics carrier.
7. Slide the board into the carrier so the metal tab fits under the plastic clip. Install three screws. Tighten them loosely with a T-20 Torx screwdriver. You will retighten them after the rear covers are installed.



8. Locate the slot to the left of the EPC board and push the ribbon cable through it.

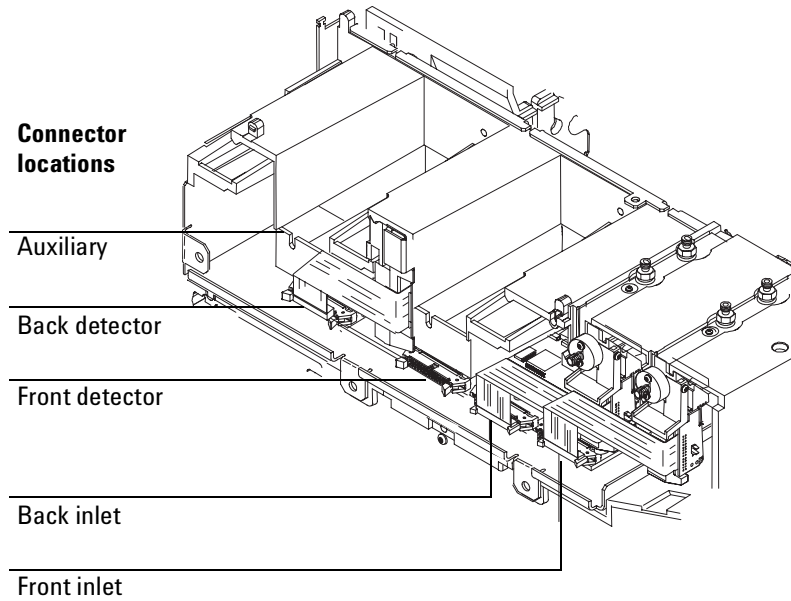


9. From the main board, locate the EPC board connector on the upper right-hand side. Make certain connector is in the open position. Plug the ribbon cable into the connector and push until the plug is firmly in place. Lock the connector by moving the tabs to the center of the connector until they click into place.



Removing and installing the EPC board

10. Plug in the inlet, detector, and auxiliary ribbon cables. Lock the connectors by pushing the tabs toward the center.



Restoring the GC to operating condition

1. Plug in the power cord and turn on the GC.
2. Check the Status board. If the Not Ready light is blinking, your EPC board may not be plugged in.
3. Press the [Status] key. If you see detector, inlet or aux Fault messages, you may have plugged the cables into the EPC board incorrectly.
4. Rezero the pressure sensors on all EPC inlets, detectors, and auxiliary pressure channels:
 - a. Make certain that all gases have been disconnected from the GC.
 - b. Press [Options] and scroll to Diagnostics →Electronics →Pneumatics board →Zero all p sensors.
 - c. Press [On] to zero all pressure sensors.
5. Turn the GC off again and unplug the power cord. Plumb gases to your detectors, inlets, and auxiliary pressure channels. See the *Site Preparation and Installation Manual* if you need help with this step.
6. Install the RFI cover.
7. Install the lower rear panel.
8. Install the top rear panel.
9. Install the pneumatics top cover.
10. Install the electronics side cover.
11. Install the electronics top cover.

Restoring the GC to operating condition



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This product is recyclable.

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