

# **Installing a G2916-61000 Injector Bracket on a 5890 Series II GC**

## **G2916-61000 Kit**

This document assumes that the Gas Chromatograph (GC) is either

- A 5890A GC which has been fully upgraded to a 5890 Series II instrument (“fully” means that both electronic and mechanical upgrades have been performed; a printed circuit board-only upgrade does not qualify).
- A 5890 Series II GC which was purchased as such.

This document contains the following information:

- Instructions for installing the injector mounting bracket for a 7683A or B Injector Module on a 5890 Series II GC.
- Instructions for aligning the injector bracket.



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# Parts supplied

The parts supplied in this kit are listed in Table 1. The kit provides extra screws and washers that may be needed if installing a tray on the bracket.

**Table 1**    Parts supplied

Part number	Description	Qunatity
G2916-80520	5890 injector bracket screw kit. Contains	1
	Screw, self-tapping	3
	Screw, M4 × 12 mm	2
	Washer, flat	2
8710-2430	Torx T-20 key	1
18597-20520	Standoff	2
18597-20735	Bushing	2
18597-40030	Bracket alignment tool	2
G2916-25010	5890 Injector mounting post	2
G2916-25060	Lid shaft	1
G2916-60500	Injector bracket assembly	1

# Tools required

- Open-end wrenches
- Flat blade screwdriver
- Diagonal side cutter
- No. 2 Pozidrive screwdriver
- Torx T-20 driver
- 7-mm nutdriver

## Before you start

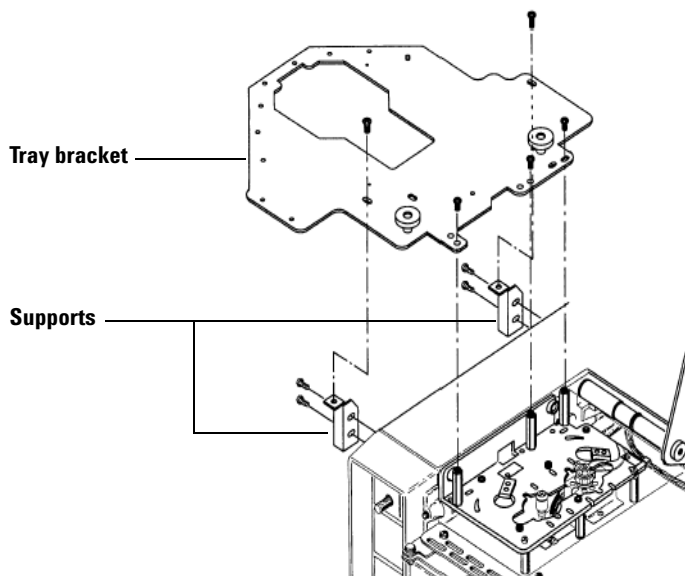
### WARNING

Allow the inlets and oven to cool before installing the injector bracket. The metal surfaces of the GC are very hot and could burn your skin. If you have a split/splitless inlet, you could damage the column and the alignment tools.

Turn off the gas flows before you remove the inlet nut or you may damage the packing in the inlet liner. Avoid contaminating the inlet while it is uncovered.

Before installing the injector bracket, you must:

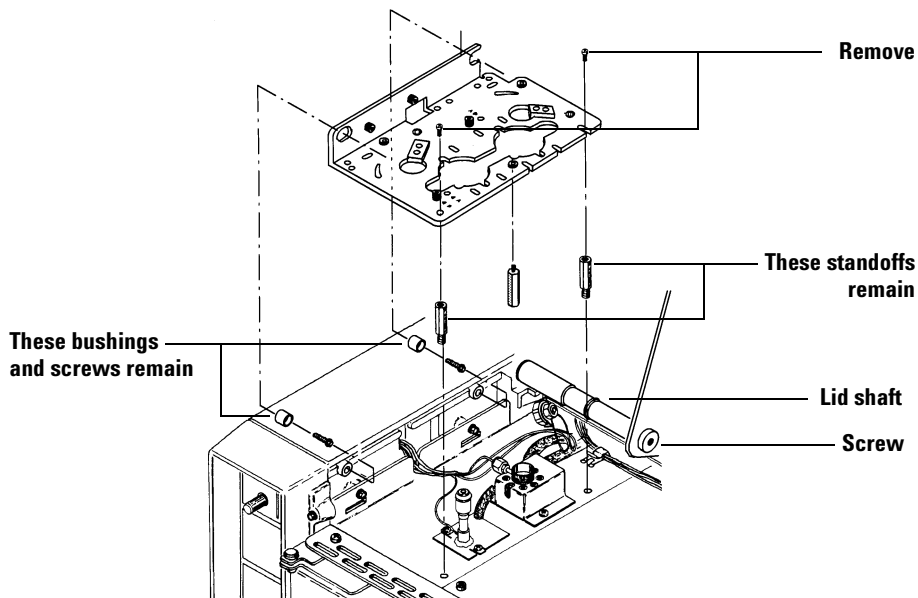
- 1 Remove existing injectors, tray, and ALS controller.
- 2 Remove any existing tray bracket and supports (Figure 1).



**Figure 1** Removing a tray bracket

- 3 Replace the existing lid shaft (Figure 2) with the new shaft from the bracket kit. The shaft is held by a screw on one end. You do not have to remove the cover to replace this part, just shift it out of the way.

- 4 If tubing for a split/splitless inlet is routed on top of the bracket, remove the inlet nut.
- 5 Remove the two screws attaching the bracket to the standoffs on the top of the GC. See Figure 2.



**Figure 2** Removing an injector bracket

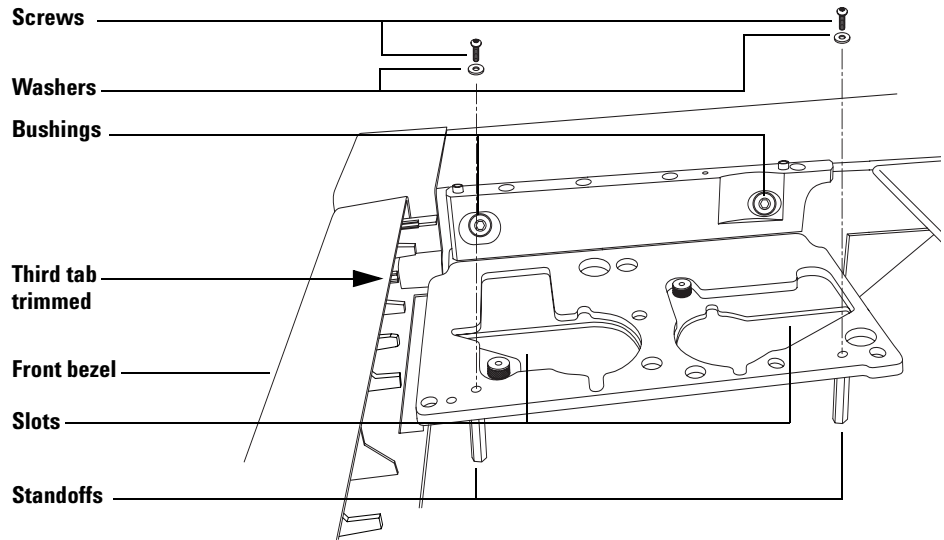
- 6 Remove the bracket.
- 7 Reinstall any inlet nuts that were removed.

**NOTE**

Do not remove the bushings shown in Figure 2 that pass through the bracket from the left or the standoffs that connect it to the top of the GC. These parts will be used to install the new bracket.

## Install the new injector bracket

- 1 Locate the plastic tabs on the back of the front bezel above the oven door. Trim the third tab from the left so that it is flush with the back edge of the bezel (Figure 3).



**Figure 3** Installing the injector bracket

- 2 If not present, install the two injector bracket bushings on the side frame of the GC using self-tapping screws (Figure 2). Do not overtighten the screws.
- 3 If not present, install two standoffs in the top of the GC. (Figure 3)
- 4 If a split/splitless inlet is present, attach the inlet nut and bend the thin tubing down close to the oven top. Examine the new injector bracket. The inlet tubing must be *under* the new bracket and should approach along the slots cut into the mounting bracket (see Figure 3).

### CAUTION

All inlet tubing and wiring must pass *under* the new bracket so that the injectors can install properly.

- 5** Install the injector bracket by inserting it over the side bushings and resting it on the standoffs (see Figure 3).
- 6** Install two screws and washers through the bracket into the standoffs to loosely hold the bracket (see Figure 3). Do not tighten the screws.

## Aligning the bracket

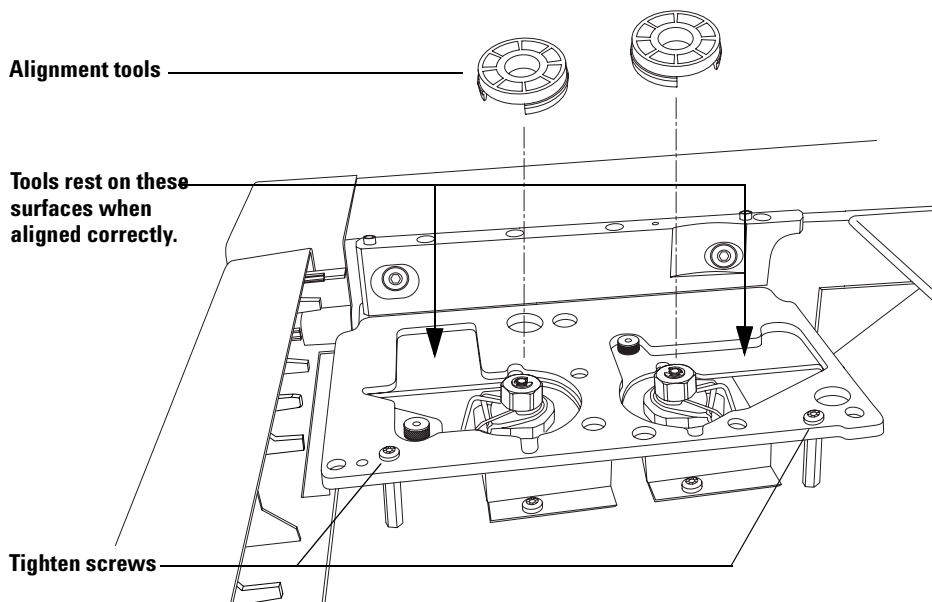
### NOTE

Bracket alignment is critical for proper sampler operation.

If you have an on-column inlet, install the cooling tower before starting alignment.

- 1 Place the plastic alignment tool(s), honeycombed side up, over the GC inlet(s). See Figure 4. Move the bracket until both alignment tools fit flush on the bracket.

If you cannot make them fit flush by moving the bracket, you will have to adjust the positions of the inlets. Loosen the two screws that hold the inlets to the oven top. Once aligned, tighten the two inlet screws.



**Figure 4** Aligning the injector bracket

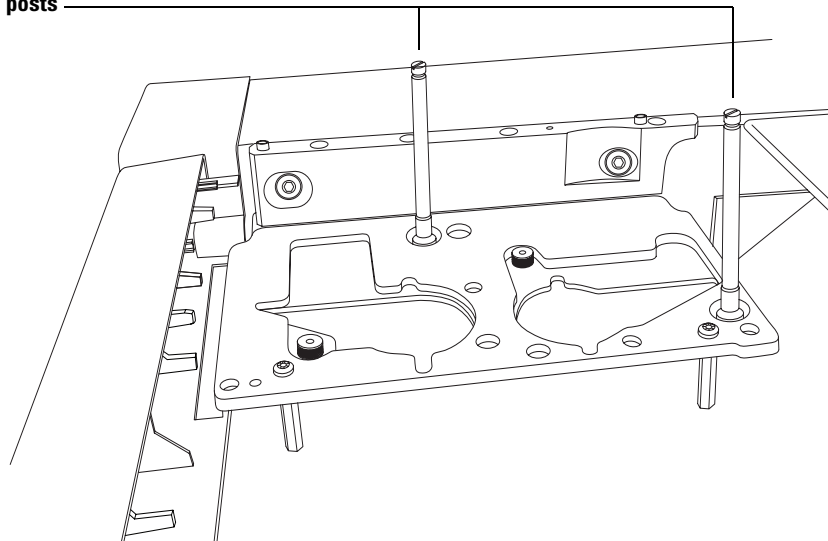
- 2 Tighten the two screws that hold down the bracket. Remove the alignment tools and save them for future adjustments.

## CAUTION

In the next step, use a flat blade screwdriver that snugly fits the slot in the top of the posts. An undersized blade can damage the post top and prevent the injector from mounting properly,

- 3 Install the injector mounting posts from the kit (Figure 5). Use a flat blade screwdriver that fits the slot in the top of the posts. Be careful not to damage the tops of the posts by using an undersized screwdriver. The post must be firmly tightened to the bracket to prevent injector movement.

Mounting posts



**Figure 5** Installing the mounting posts

## Check your work

- ✓ If the GC has a packed or split/splitless inlet, check the inlet nut.
- ✓ If the GC has an on-column inlet, be sure that you have removed the cooling tower from the septum nut base assembly.
- ✓ All inlet wiring and gas lines are routed under the bracket.
- ✓ All the screws, bushings, and mounting posts are in place.



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G2916-90010

First edition, July 2004

Printed in USA

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## WARNING

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.

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