Installing a G4514A Tray on an Agilent 7890 Series GC

for all Agilent 7693A systems and for the G4514-68000 Retrofit Kit

This document supplements the installation instructions provided with your 7693A Automatic Liquid Sampler (ALS) system. This document provides additional instructions for installing the G4514A Tray onto a 7890A or 7890B Gas Chromatograph (GC) using a modified injection port cover.

If installing a tray onto a 7890B GC: No modifications to the GC are needed. You will install the tray using parts provided with the ALS. Use these instructions to supplement the instructions provided with the ALS.

If installing a new tray onto a 7890A GC: You will replace the existing GC injection port cover with a new one. (The new injection port cover should be ordered when you order the new tray. If not, order part number G3430-60540.) Use these instructions to supplement the instructions provided with the ALS.

If installing the G4514-68000 Retrofit Kit onto an existing 7890A GC with 7693A ALS system with tray: You will replace the existing ALS tray support bracket assembly and the GC injection port cover with the parts provided in the retrofit kit as described in these instructions.

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Parts Referenced in this Document

The G4514A Tray includes the parts listed in Table 1 below.

Table 1 G4514A Tray Kit contents

Description	Part number	Quantity
Insulator, moulded, 0.344-in diameter	0340-1620	1
Tray support bracket assembly	G4514-60801	1
Screw, machine, M4 x 10 mm long	0515-0380	2
Key, hex (M3)	8710-0911	1

If you ordered the G4514-68000 Retrofit Kit, the kit includes the parts listed in Table 2.

Table 2 G4514-68000 Kit contents

Description	Part number	Quantity
Insulator, moulded, 0.344-in diameter	0340-1620	1
Tray support bracket assembly	G4514-60801	1
Screw, machine, M4 x 10 mm long	0515-0380	2
Key, hex (M3)	8710-0911	1
Injection port top cover assembly (inlet cover)	G3430-60540	1

Figure 1 shows the major parts referenced in this document and provided with the G4514A Tray or in the Retrofit Kit.

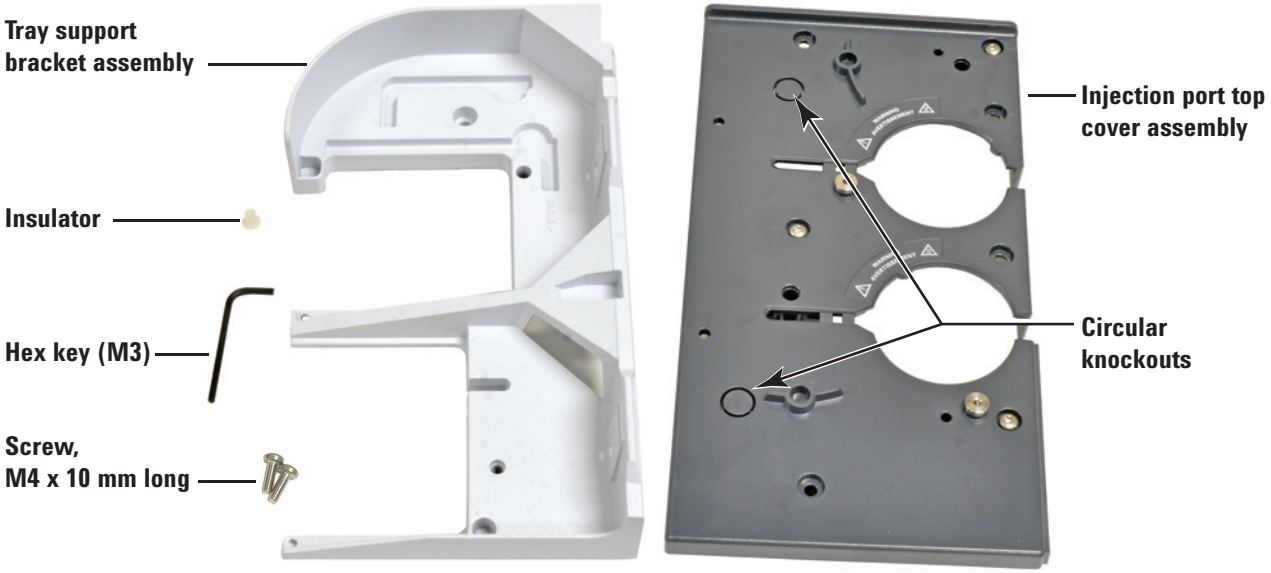


Figure 1 G4514A Installation parts

Prepare for Installation

The preparation required depends on whether this is a new installation or a change to an existing ALS installation.

New ALS installation

There are three changes to the installation instructions found in the *Agilent 7693A Automatic Liquid Sampler Installation, Operation and Maintenance* manual included with your ALS:

- Before beginning, prepare the GC as described in "Remove the Injection Port Cover" on page 5. These instructions replace topic "Prepare the GC Inlet Area" in the *Agilent 7693A Automatic Liquid Sampler Installation, Operation and Maintenance* manual.
- To install the ALS tray bracket, see "Install the Tray Mounting Bracket onto the Injection Port Cover" on page 6 instead of the instructions "Install the mounting bracket" in the *Agilent 7693A Automatic Liquid Sampler Installation, Operation and Maintenance* manual.
- After installing the tray to the mounting bracket, you will complete the steps described in this document before installing any cabling, injector mounting posts, or injectors.

Existing ALS installation

Installation requires that you remove any existing ALS system:

- Cool the GC inlets and column oven to a safe handling temperature. (Typically, set the inlets and oven to 40 °C and allow to cool.)
- Remove any installed injectors.
- Remove the tray, if present.
- Remove any injector mounting posts.
- Remove the tray support bracket from the existing injection port cover. **7693A**: Save the screws, including the 33.3 mm screw and insulator, for later use.

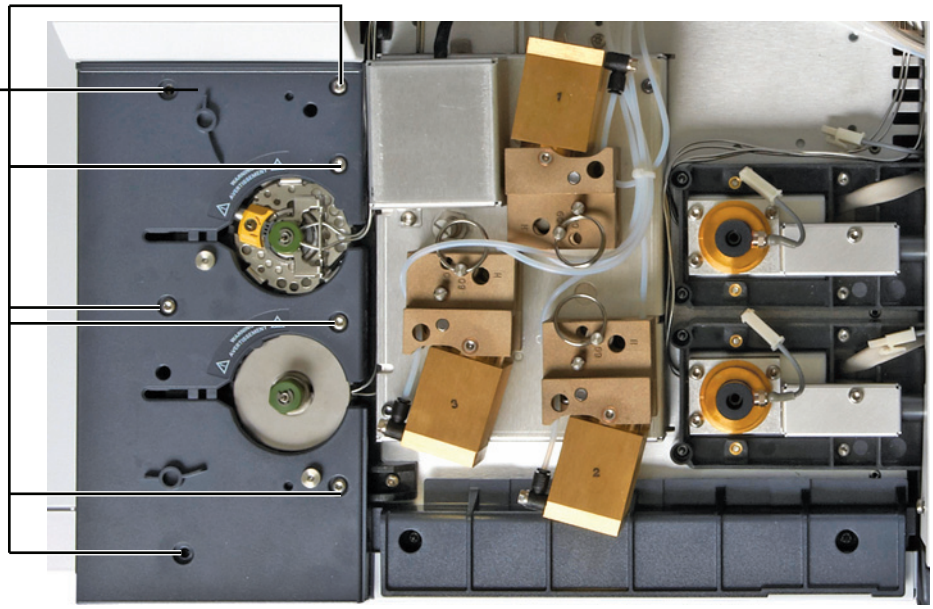
For general ALS installation details, see the instructions found in the *Agilent 7693A Automatic Liquid Sampler Installation, Operation and Maintenance* manual included with your ALS.

Remove the Injection Port Cover

For 7890A and 7890B GCs, remove the existing injection port cover.

1 Remove the screws that secure the injection port cover to the inlet chassis. Save the screws for later use.

- For a new installation, there are 7 screws.
- For an existing installation, remove any remaining screws.



For 7890A Only: Completely remove the seven (7) screws. Do not discard the screws. You will need them later.

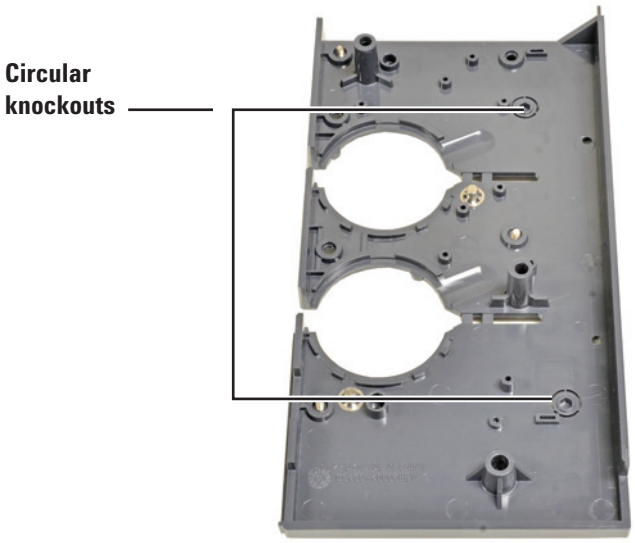
2 Lift the injection port cover from the GC.

Install the Tray Mounting Bracket onto the Injection Port Cover

For 7890B, reuse the injection port cover present on the GC.

For 7890A, use the injection port cover provided with the G4514-68000 kit or with the new G4514A Tray (depending on what was ordered). (The new injection port cover includes 2 round knockout plugs. See Figure 1 and step 1.)

1 Remove the two (2) knockouts from the injection port cover using a hex key or a screwdriver.



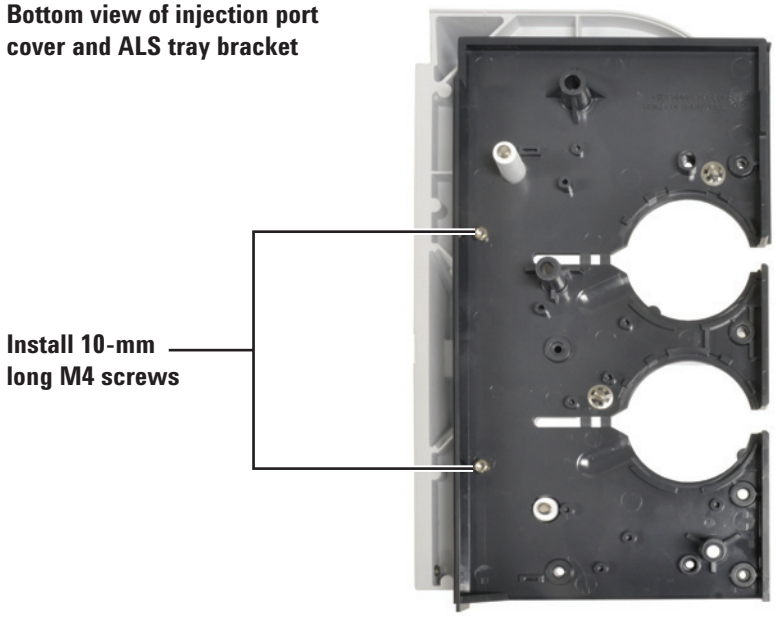
Bottom view



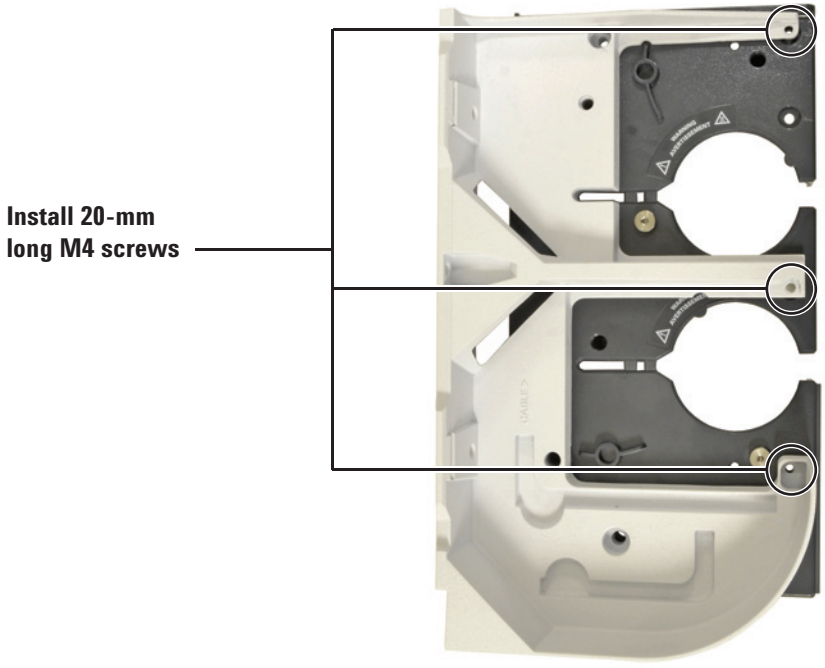
Knockouts removed

2 Using two M4 x 10-mm long screws, assemble the tray mounting bracket to the injection port cover. The standoffs in the tray mounting bracket protrude through the bottom of the injection port cover as shown.

Bottom view of injection port cover and ALS tray bracket



3 Install the cover and bracket assembly onto the GC using the three 20-mm long M4 screws provided with the tray.



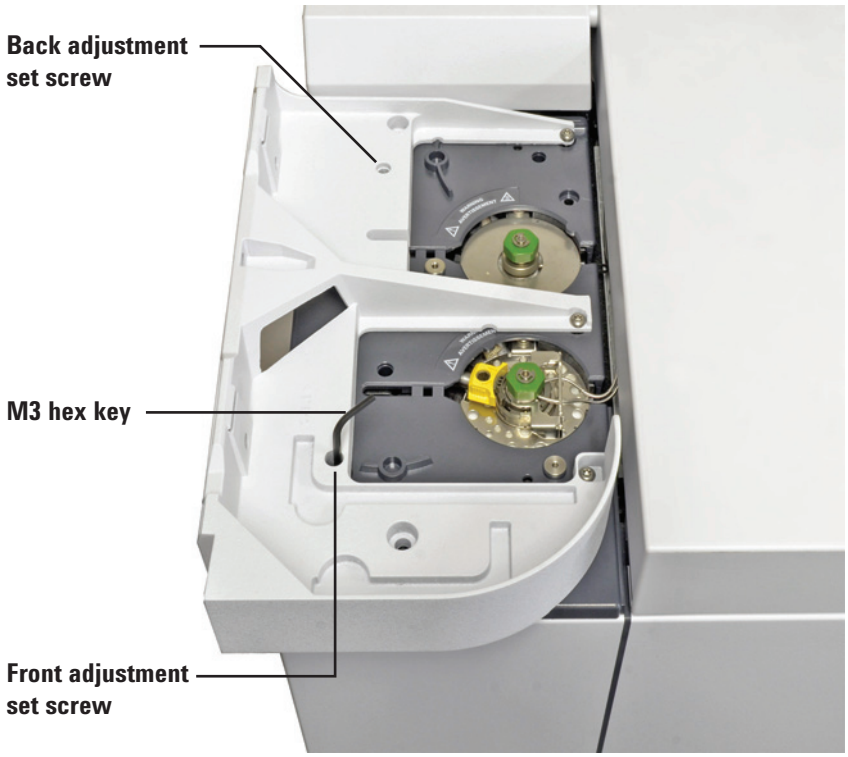
Install and Level the Tray

New ALS installations: Be sure to prepare the tray before installation. See the ALS documentation.

1 Install the tray to the ALS support bracket. (Do not connect cabling yet.) See the ALS documentation for details.

2 Visually check whether the tray is level. If the tray is not level, use the M3 hex key to adjust the front standoff as needed.

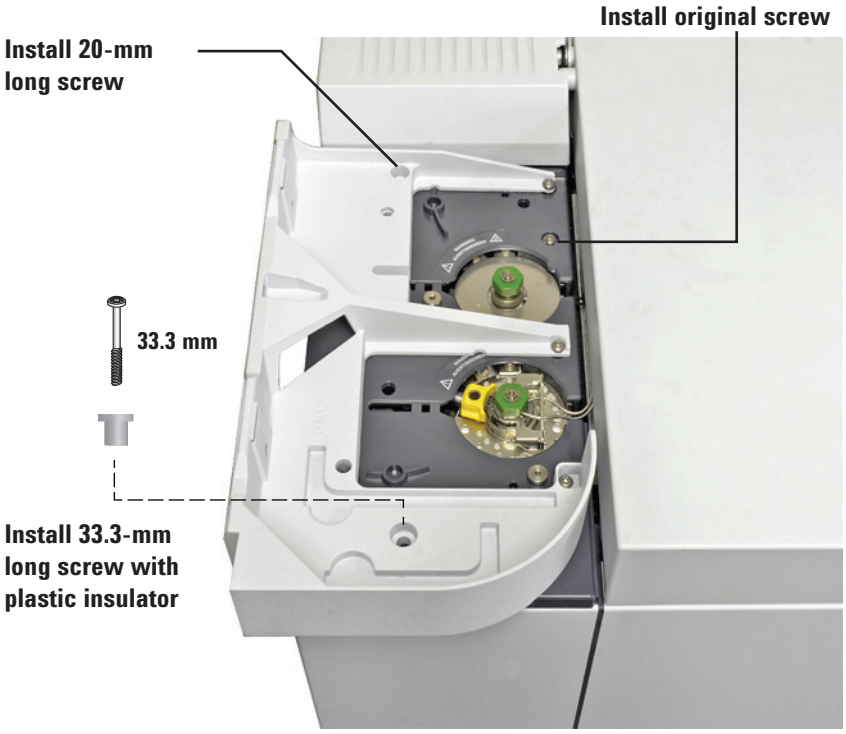
- Tighten the adjustment set screw to raise the left edge of the tray.
- Loosen the adjustment set screw to lower the left edge of the tray.



3 When the tray appears level, tighten the back adjustment set screw until it contacts the GC oven top.

The injection port cover and tray should now be stable.

4 Loosely install the long screw with the insulator into the hole shown below. Then tighten only until you feel slight resistance. (Overtightening can tilt the tray.)



5 Loosely install the last screws. Tighten only until you feel slight resistance. (Overtightening can move the injection port cover out of level, tilting the tray.)

Installation of the modified ALS support bracket is complete.

For a new installation, continue with the ALS installation instructions found in the ALS documentation.

For an existing installation, reinstall the injectors and cables.

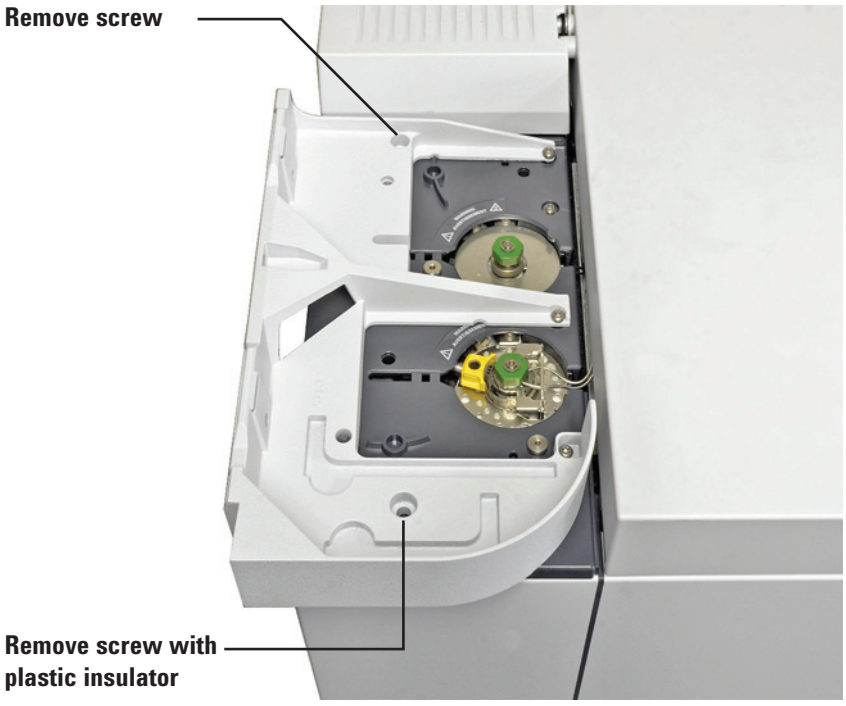
Maintaining Tray Level

After the initial installation, if the ALS tray appears out of level, straighten it as follows:

1 When not in a run, cool down the GC inlets.

2 Remove the injectors and injector mounting posts from the tray mounting bracket.

3 Remove the two screws shown below.



4 Use the M3 hex key to adjust the front adjustment set screw until the tray appears level, then tighten the back adjustment set screw until it contacts the GC oven top. See page 8.

5 Reinstall the 2 screws previously removed in page 10. Tighten only until you feel slight resistance. (Overtightening can tilt the tray.)

6 Reinstall the injector mounting posts and injectors.

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