

# TRACE 1310 Auxiliary Oven: Valve Actuator Cooling Kit Installation Guide

This guide provides instructions for installing the Valve Actuator Cooling Kit, PN 19071023 on your Thermo Scientific™ TRACE™ 1310 Auxiliary Oven equipped with rotary valves.

The installation of the kit is recommended to preserve maximum actuators lifetime when TRACE 1310 Auxiliary Oven is used at high temperature, between 150 °C and 270 °C. For temperature above 270 °C High temperature actuators are recommended and the cooling fans provided with the kit must not be used.

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## Preliminary Operations

Before starting the installation of the Valve Actuator Cooling Kit, the following preliminary operations must be carried out.

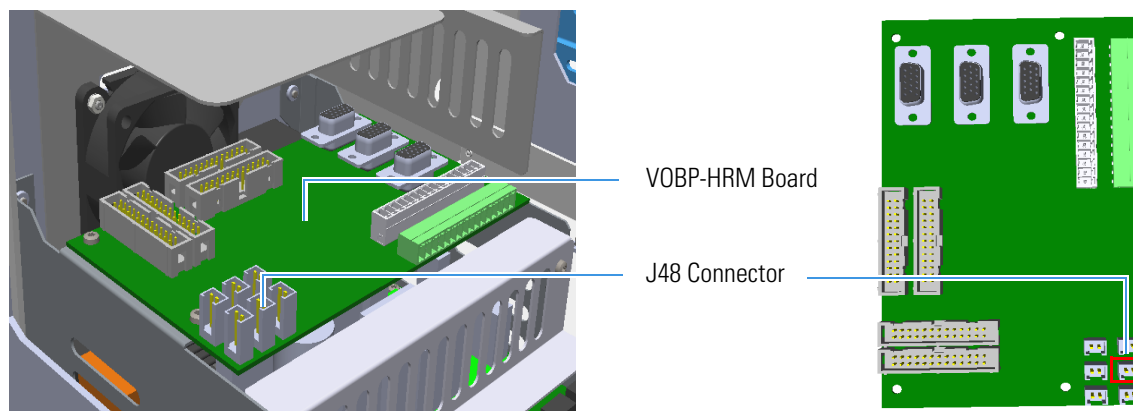
- Power Off both the TRACE™ 1300/1310 GC and the TRACE 1310 Auxiliary Oven, and disconnect the power cables.
- Uncouple the TRACE 1310 Auxiliary Oven from the TRACE 1300/1310 GC.



**CAUTION** Before starting and according to the configuration of your TRACE 1310 Auxiliary Oven, disconnect the inner tube from the GC oven, the columns, and all other components that prevent the uncoupling.

- Put away the TRACE™ 1310 Auxiliary Oven from TRACE 1300/1310 GC up to have enough space for accessing the connector marked **J48** on the VOBP-HRM Board located over the power section of the TRACE 1310 Auxiliary Oven. See [Figure 1](#).

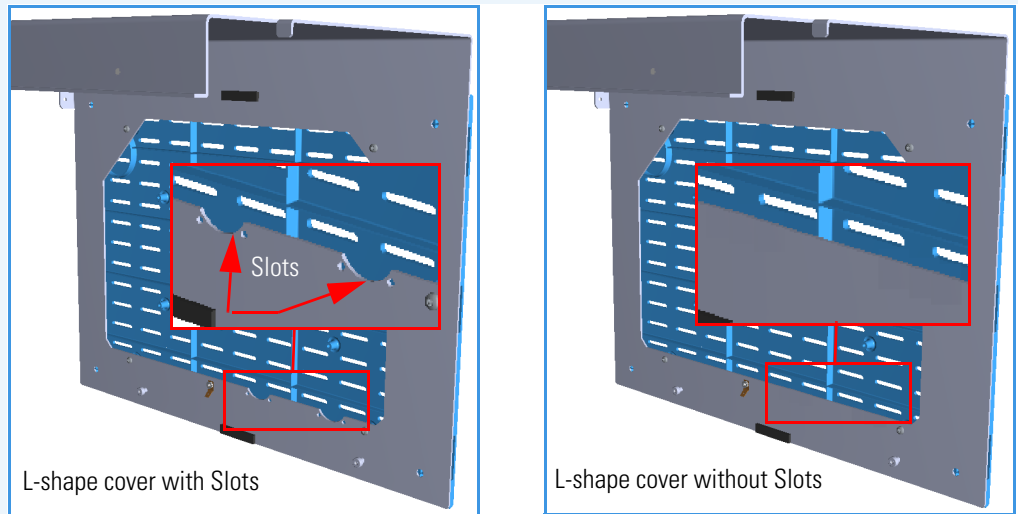
**Figure 1.** VOBP-HRM Board



## Installing the Cooling Fans

**IMPORTANT** There are two different procedures for installing the cooling fans according to the presence or not of two slots on the lower section of the L-shape cover. See [Figure 2](#).

**Figure 2.** L-shape Cover with and without Slots



If the two slots are present follows the procedure **A**, otherwise follows the procedure **B**. See “[Procedure A](#)” on [page 2](#) or “[Procedure B](#)” on [page 3](#).

**Note** Before starting Procedure A or B, remove the L-shape cover of the TRACE 1310 Auxiliary Oven and its blue side panel. The cooling fans must be installed on the internal side of the lower section of the L-shape cover.

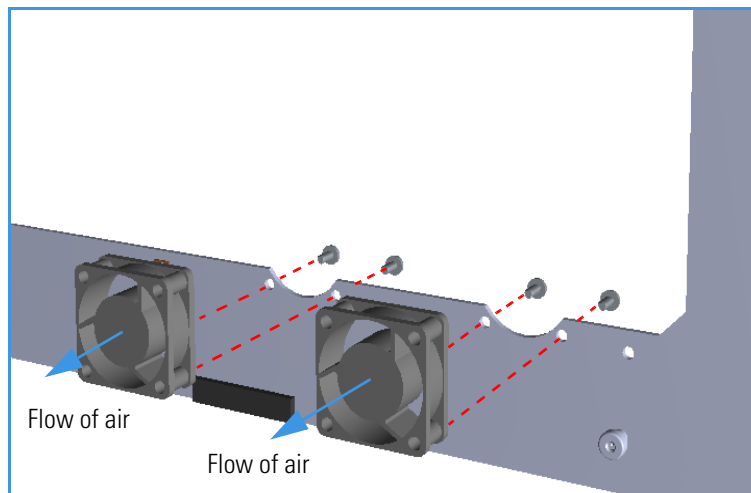
### Procedure A

The L-shape cover is provided with two slots and with the relevant holes for fixing the fans.

#### ❖ To install the cooling fans on the L-shape cover with slots

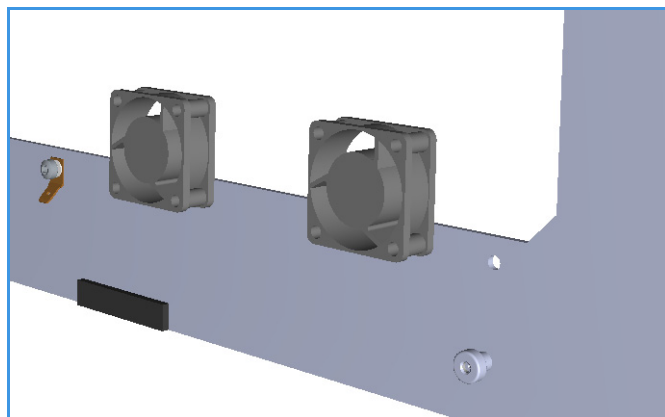
1. Place each fan in correspondence of a slot and fix the thread-forming screws provided using a T20 Torxhead screwdriver. See [Figure 3](#), [Figure 4](#), and [Figure 5](#).

**Figure 3.** Fans Installation on the L-shape Cover With Slots

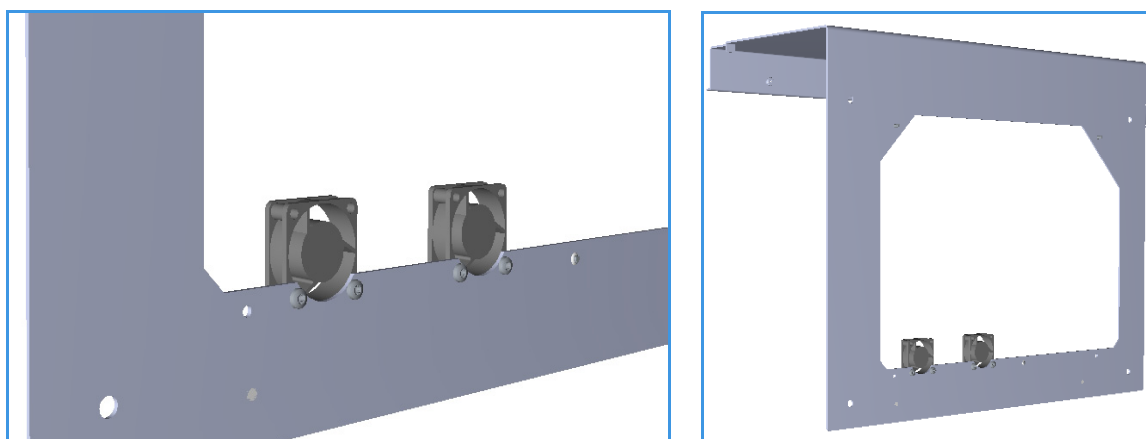


The arrow marked on the fan indicates the flow of air. It must be directed forwards the inside of the instrument.

**Figure 4.** Fans Installation on the L-shape Cover With Slots - Internal View



**Figure 5.** Fans Installation on the L-shape Cover With Slots - External View



2. Perform the electrical connections. See [“Electrical Connections”](#) on [page 5](#).

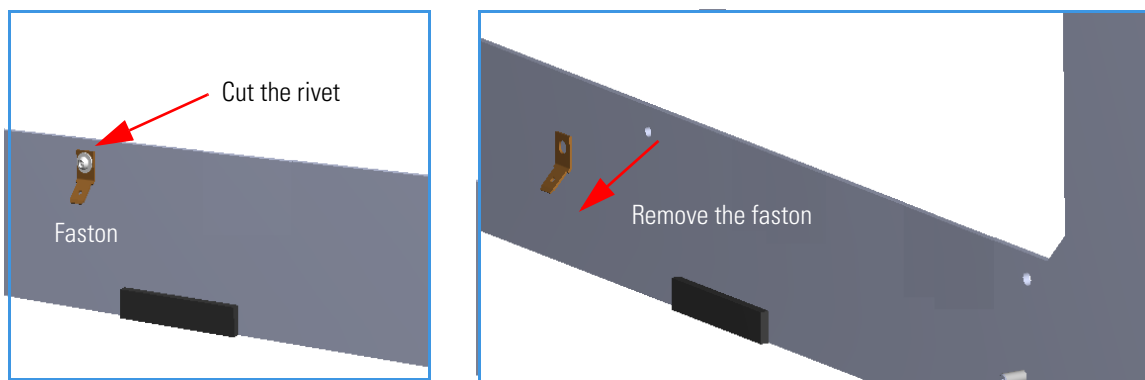
## Procedure B

The L-shape cover is not provided with two slots and with the relevant holes for fixing the cooling fans, then the dedicated support bracket must be installed.

### ❖ To install the cooling fans on the L-shape cover without slots

1. Disconnect the ground wire from its faston on the L-shape panel.
2. Using a nippers or other tool, cut the rivet that fix the ground wire faston connector on the L-shape panel, then remove the faston connector from its fixing hole. The fixing hole of the faston connector will be used to fix the support bracket for the fans. See [Figure 6](#).

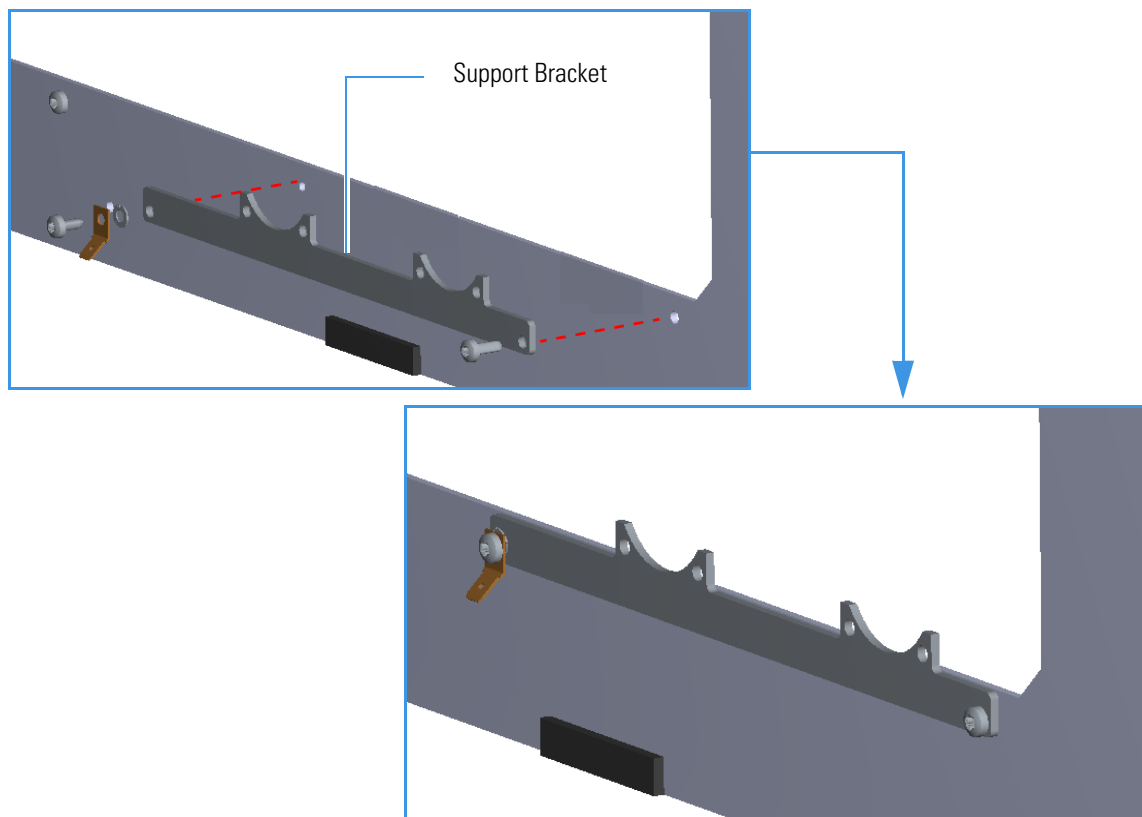
**Figure 6.** Faston Removal



**Note** The faston can be reuse. If during the faston results damaged, it must be replaced with the ones provided with the kit.

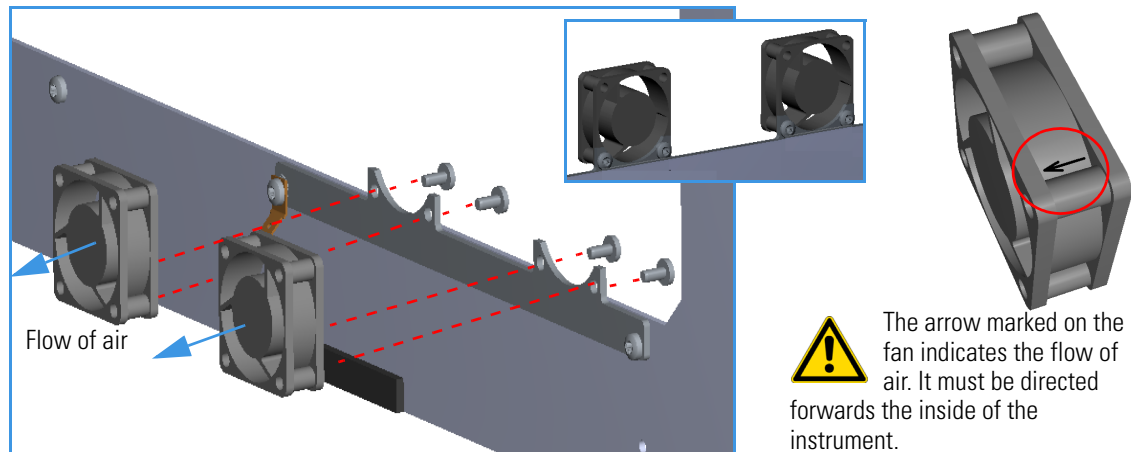
3. Place the cooling fans support bracket and fix it by using the two fixing screws provided interposing the faston with its washer. See

**Figure 7.** Fans Installation on the L-shape Cover Without Slots (1)



4. Place each fan in correspondence of its seat and fix the thread-forming screws provided using a T20 Torxhead screwdriver. See [Figure 8](#).

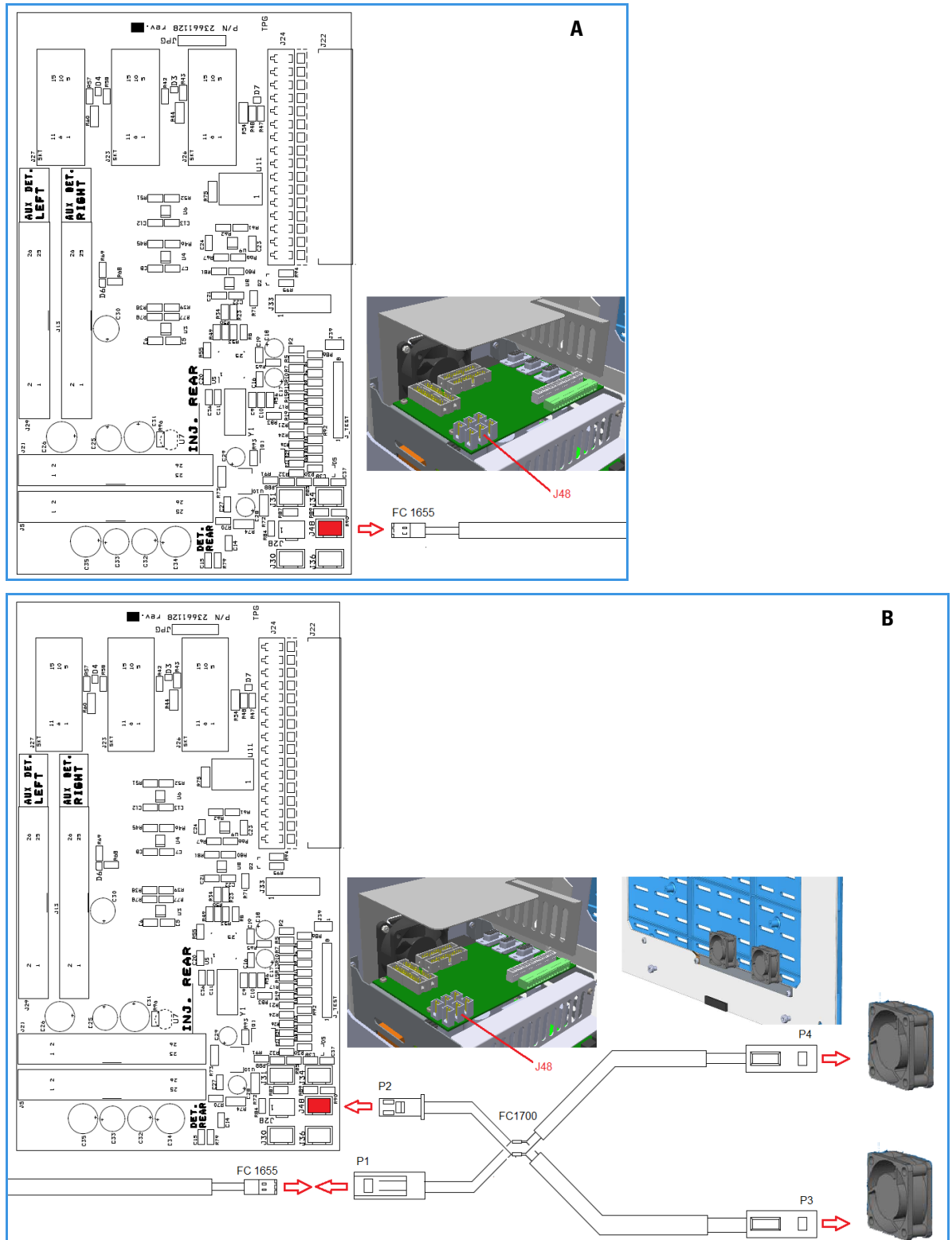
**Figure 8.** Fans Installation on the L-shape Cover Without Slots (2)



5. Perform the electrical connections. See [“Electrical Connections”](#) on [page 5](#)

Perform the electrical connection of the cooling fan according to the scheme of [Figure 9](#).

**Figure 9.** Electrical Connections



6. Disconnect the cable FC1655 from the connector marked J48 on the VOBP-HRM Board. See A of [Figure 9](#).

## Final Operations

7. Connect the cable **FC1655** to the connector **P1** of the cable **FC1700** provided with the kit. See **B** of [Figure 9](#).
8. Connect the connector **P2** of the cable **FC1700** to the connector marked **J48** on the **VOBP-HRM** Board. See **B** of [Figure 9](#).
9. Guide the two longer branches of the cable **FC1700** up to reach the two colling fans. See **B** of [Figure 9](#).
10. Connect the connector **P3** to a fan and the connector **P4** to the other. See **B** of [Figure 9](#).

At the end the installation of the Valve Actuator Cooling Kit, the following final operations must be carried out.

1. Replace and fix the blue side panel on the L-shape cover.
2. Reconnect the ground wire to its faston on the L-shape panel.
3. Replace the L-shape cover of the **TRACE 1310** Auxiliary Oven.
4. Recouple the **TRACE 1310** Auxiliary Oven to the **TRACE 1300/1310 GC** paying attention to reconnect all the components previously removed.
5. Power On the system.