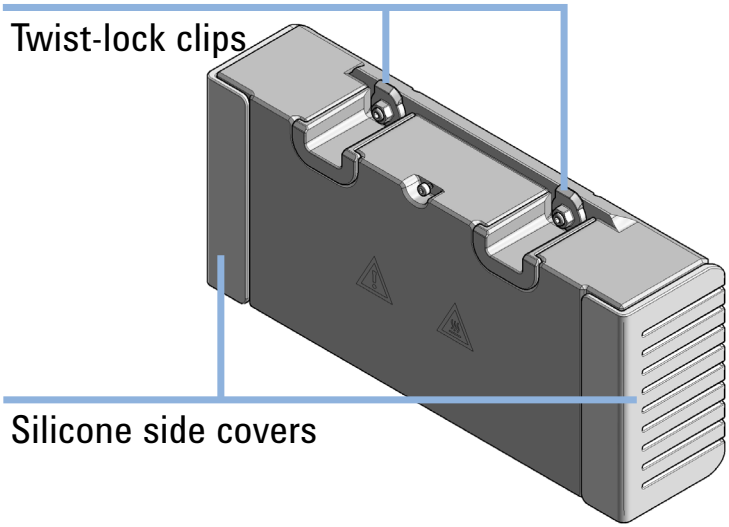
Agilent InfinityLab Thermal Equilibration Device Installation

Technical Note

In this note, the installation of a Thermal Equilibration Device into the Agilent Infinity III Multicolumn Thermostat (G7116A/B) is described.

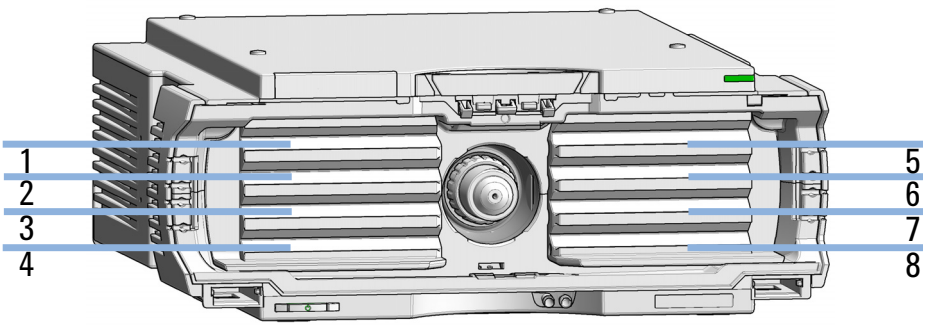
Delivery Checklist

p/n	Description
G7116-60013	InfinityLab Thermal Equilibration Device



Installation of the InfinityLab Thermal Equilibration Device

The InfinityLab Thermal Equilibration Device occupies the top row of the Multicolumn Thermostat (MCT) (1, 5). Therefore, Quick Connect Heat Exchangers and columns cannot be installed in the top row. Up to 6 columns can be installed in the MCT when two InfinityLab Thermal Equilibration Devices are installed at the same time.



Tools required	p/n	Description
	5023-2502	Hex driver SW-6.35, slitted

Preparations Install Quick Change Valve Head and columns according to the instructions in *Multicolumn Thermostat User Manual*.

NOTE Divider assembly cannot be installed in the MCT together with the Thermal Equilibration Device at the same time.

WARNING

Hot Surfaces

When an InfinityLab Thermal Equilibration Device is installed, it might be hot.

✓ **Allow the InfinityLab Thermal Equilibration Device to cool down before removing it and performing any procedures with column/valve installation/deinstallation.**

1 Check that the column in use is no longer than 30 cm.

NOTE

For columns up to 15 cm (without guard columns) one Thermal Equilibration Device is sufficient. For columns longer than 15 cm (or 15 cm with a guard column) two Thermal Equilibration Devices are required.

2 Place the InfinityLab Thermal Equilibration Device covering one or more installed columns in the way that the twist-lock clips are located at the top of the device.

3 Guide capillaries (and column ID tag cords, if installed) through silicone side covers.

4 To avoid obstruction of the capillary guidance, remove the side covers of the InfinityLab Thermal Equilibration Devices that point towards the valve.

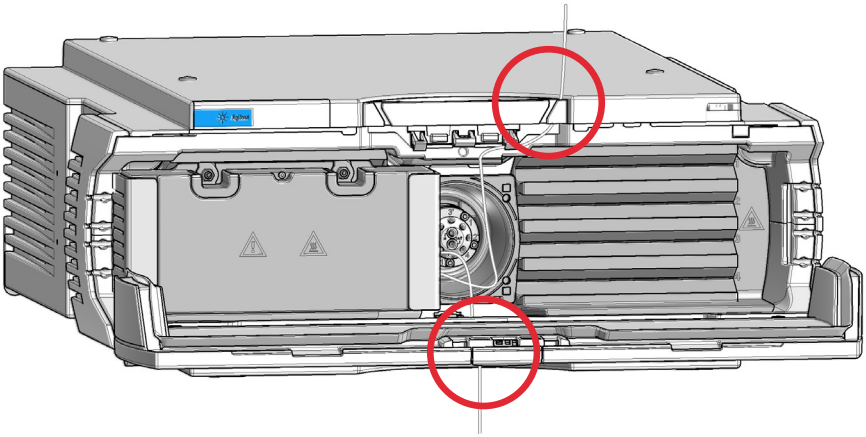
NOTE

This measure is only necessary if several columns are connected to the column selection valve and two InfinityLab Thermal Equilibration Devices are installed in one MCT.

5 Turn twist-lock clips with the hex-driver to fix the InfinityLab Thermal Equilibration Device in place.

6 Guide the capillaries through the recesses provided at the top and bottom of the module.

NOTE This measure prevents the capillaries from being squeezed through the doors.



7 Close the MCT door.

8 Let the system equilibrate before beginning the analysis.

Configure Thermal Equilibration Device in Chromatography Data System

With LC Drivers 3.5 (and above) it is now possible to track the use of the Thermal Equilibration Device (TED) in CDS.

Table 1 Requirements for configuring TED in CDS

	Version
LC Driver	3.5 SR2 and above
Firmware	B/D.07.35, C.07.30 and above
OpenLab CDS	2.6 and above
OpenLab ChemStation	C.01.10 and above
MassHunter Acquisition	11 and above

NOTE

Ensure that all Agilent LC modules in the LC system meet or exceed the minimum firmware requirements. Agilent proposes to use the latest available firmware set.

https://www.agilent.com/en-us/firmwareDownload?whid=69761

While up to two TEDs can be installed in G7116A and G7116B, only G7116B has the capability to have the left and the right tag reader devices installed. Therefore, only the TED installed on the left side can be traced with G7116A using the RFID tag.

Below you can find instructions on how to configure the TED with and without the RFID tag. Although the custom RFID tag without a pre-written information is available as a consumable, it is not possible to install it on the earlier generation of the TED which did not have the RFID tag with it. The custom RFID tag is intended for use with LC columns only.

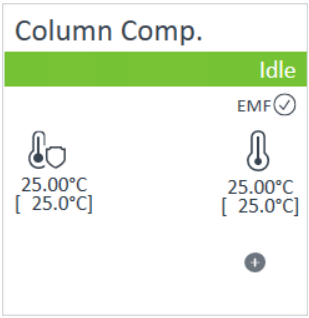
Configuration of Thermal Equilibration Device with the ID Tag

Preparations

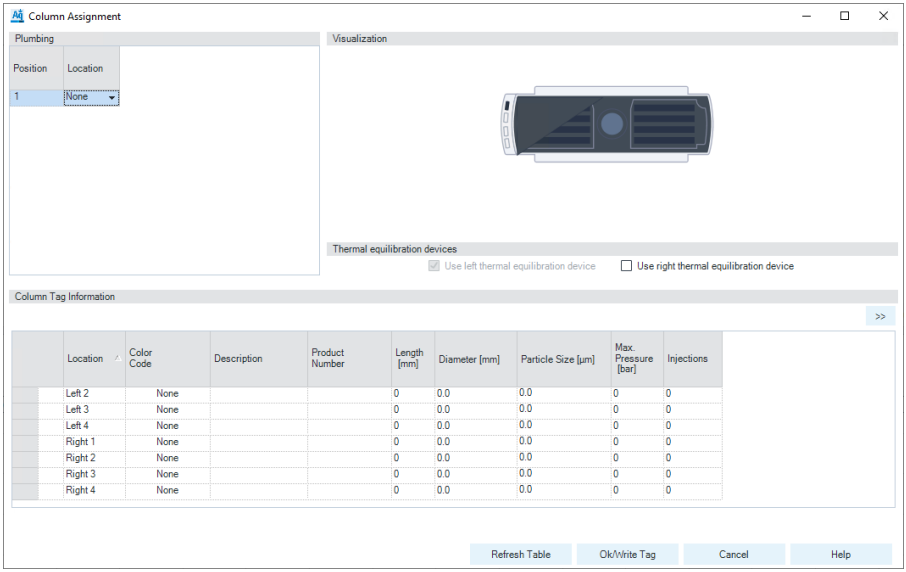
- The Thermal Equilibration Device (TED) installed in the column compartment as described in "Installation of the InfinityLab Thermal Equilibration Device" on page 3.
- The column ID tag reader is installed according to the instructions in Multicolumn Thermostat User Manual.

1 Insert the RFID tag of the TED in the column ID tag reader in the most top position corresponding to the first row blocked by the TED.

A shield symbol will appear on the Column Compartment tile of the user interface reflecting the installation. The following example shows appearance of the TED installation on the left side of the MCT.



In the **Column Assignment** window, the installed TED will appear on the **Visualization** panel as shown below. If Location Left 1 is selected in the **Plumbing** panel, a warning message will appear saying *Not possible to set more than one column to location Left 1*. At the same time, the row corresponding to Left 1 location in the **Column Tag Information** panel is no longer available.



NOTE

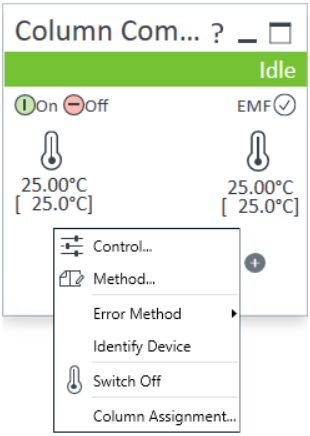
RFID tags of the TED are recognized only at the top positions of the tag reader devices. These positions correspond to locations in the MCT, Left 1 and Right 1. The TED blocks these locations and no column can be installed at the same time.

Configuration of Thermal Equilibration Device Without the ID Tag

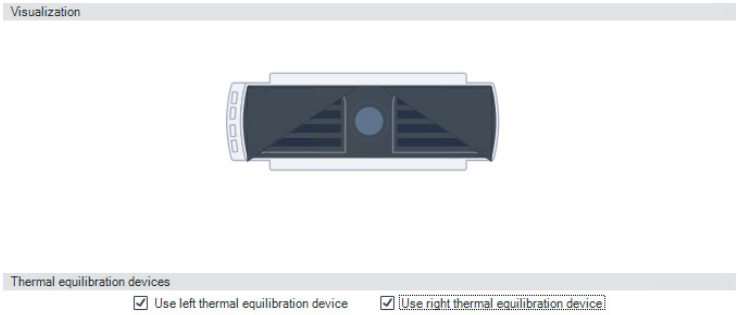
This procedure can be followed when there is no RFID tag available for the Thermal Equilibration Device (TED) or there is no tag reader device installed.

Preparations The Thermal Equilibration Device installed in the column compartment as described in "Installation of the InfinityLab Thermal Equilibration Device" on page 3.

1 Right-click the Column Compartment tile in the user interface and select **Column Assignment...**



2 In the section **Thermal equilibration devices**, select the side where the TED is installed.



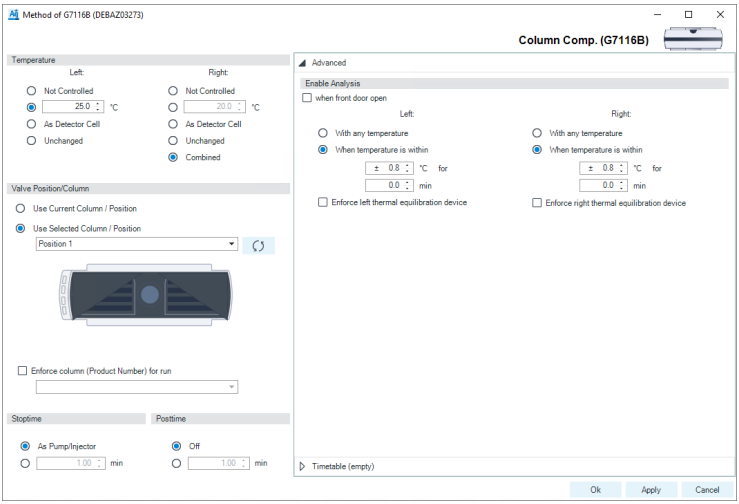
3 Click **Ok/Write Tag**.

A shield symbol will appear on the Column Compartment tile of the user interface reflecting the installation.

Left 1 and Right 1 locations in the MCT are blocked when the TED is installed on the left and/or right side of the MCT. No column can be installed at the same time. If location occupied by the TED is selected in the **Plumbing** panel of **Column Assignment**, a warning message will appear saying *Not possible to set more than one column to location Left 1*. At the same time, the row corresponding to location occupied by the TED in the **Column Tag Information** panel is no longer available.

Setting Up the Thermal Equilibration Device in the Method

1 To restrict the execution of the method to a system that is equipped with the Thermal Equilibration Device (TED), mark **Enforce thermal equilibration device** options in the **Advanced** settings of the column compartment.



If there is no TED installed, the column compartment goes into the Not Ready state and reports Not Ready condition: *Left/Right Equilibration Device missing*.

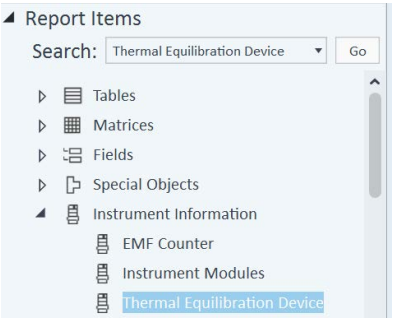
Reporting the Use of the Thermal Equilibration Device in OpenLab CDS and OpenLab ChemStation

For supported versions of the software, see Table 1 on page 6.

The user has a possibility to report whether the Thermal Equilibration Device (TED) was installed at the beginning and at the end of the analytical run.

These fields either can be added individually using **Diagnostic Data** at the **Injection** level of the **Report Items**. Alternatively, this information can be reported as a part of Column Compartment attributes using **Advanced Run Information** at the **Samples** level.

For OpenLab CDS versions 2.8 and above, the user can search in the **intelligent reporting** and find the Thermal Equilibration Device as shown below. This field can be added to the **report template**.



The information in this document also applies to Infinity II modules.

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