Agilent InfinityLab LC Series

Sample ID Reader Upgrade Kit

Installation Note

In this note, we describe how to install and use the Agilent InfinityLab Sample ID Reader Upgrade Kit (G7167-68110) with an Agilent Multisampler.

General Information

The Sample ID Reader Upgrade Kit can be installed into the lowest drawer position of any Agilent Multisampler. It enables scanning of 2D data matrix codes at the bottom of vials, ensuring efficient sample identification and tracking before and during the injection process.

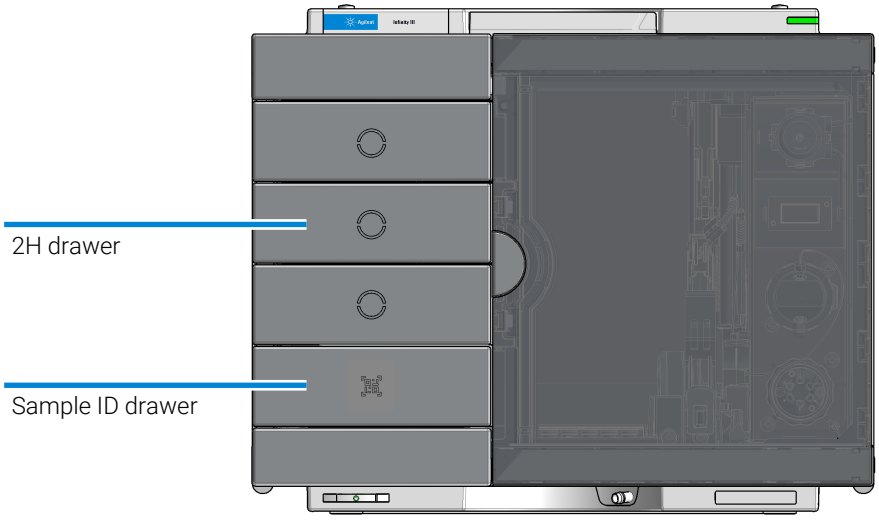


Figure 1: Multisampler with the Sample ID Reader installed and 3x 2 H drawer.

Warnings and Cautions

WARNING **Heart pacemakers**

Magnets could affect the functioning of pacemakers and implanted heart defibrillators.

A pacemaker could switch into test mode and cause illness.

A heart defibrillator may stop working.

— **Bearers of heart pacemakers or implanted defibrillators must stay off at least 55 mm from the magnets.**

CAUTION Magnetic fields

Magnets produce a far-reaching, strong magnetic field.

You can damage for example televisions, laptops, computer harddisks, credit cards, magnetic cards may be damaged as well.

— Keep magnets at least 25 mm away from devices and objects that could be damaged by strong magnetic fields.

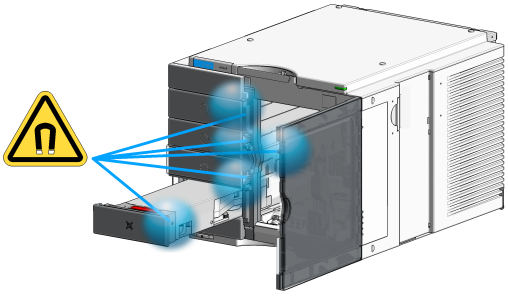


Figure 2: Position of magnets at the Multisampler with the Sample ID Reader installed.

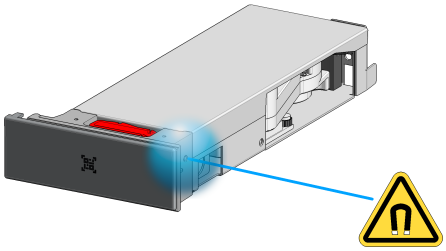


Figure 3: Position of the magnet at the Sample ID Reader drawer.

Delivery Checklist

The G7167-68110 (Agilent InfinityLab Sample ID Reader Upgrade Kit) contains the following items:

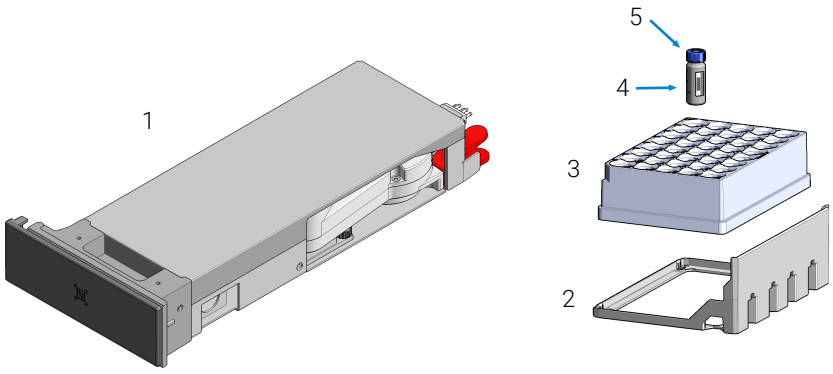


Figure 4: Agilent InfinityLab Sample ID Reader Upgrade Kit contents.

#	Qty.	p/n	Description
1	1	G7167-65001	Sample ID Reader drawer
	1	G7167-68001	Accessories for Sample ID
2	2	G7167-60205	Palette Sample ID

#	Qty.	p/n	Description
3	2	5431-0068	40-Vial-rack Sample ID
4	1	5182-0716-ID	Screw Cap Vial, 2 ml, amber glass, write-on spot, IDCert, 100/Pack
5	1	5190-7024	Screw Cap, PTFE/silicone, 100/pk
	1	9300-0761	Lens cleaning paper, lint free, 50/Pack
	1	G7167-90250	Installation Note
	1	G4756-60001	Sample ID Reader Media

Installing the Sample ID Reader Upgrade Kit

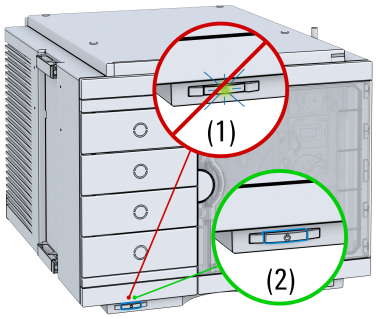
Tools required

Qty.	p/n	Description
1		Flat screwdriver

Parts required

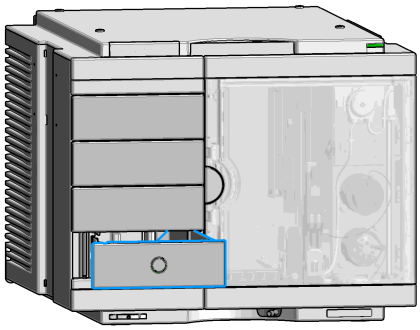
Qty.	p/n	Description
1	G7167-68110	Agilent InfinityLab Sample ID Reader Upgrade Kit

1 Switch off the module at the on/off switch.

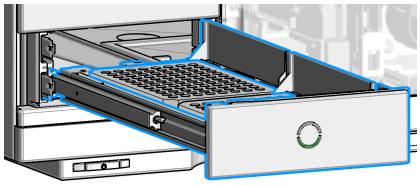


2 Remove the drawers installed in the Sample Hotel lowest positions (1x 3H drawer, 1x 2H drawer, or 2x 1H drawers).

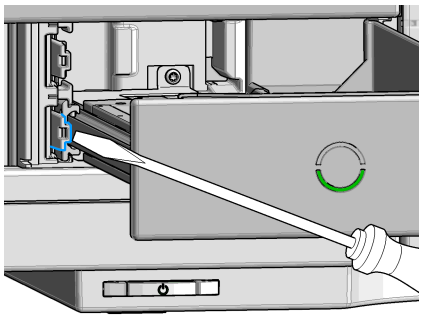
3 Open the drawer.



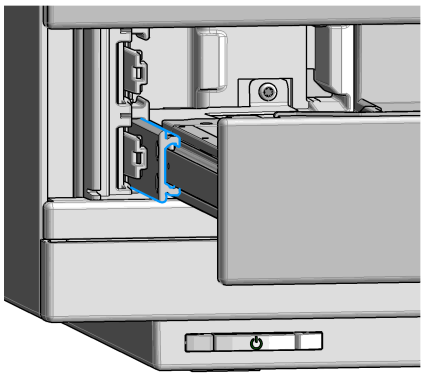
4 Pull the drawer completely out.



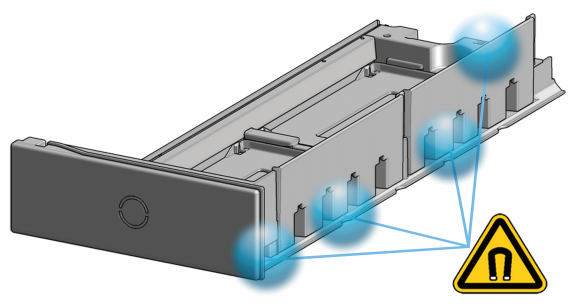
5 Unlatch the drawer: Use a screwdriver to press the clamping lever lightly to the left.



6 Remove the drawer from the rail guide.

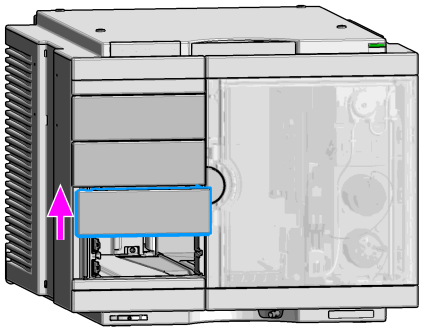


The drawer is now out of the hotel.



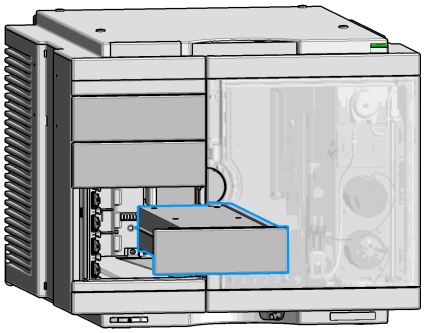
7 Remove at least one extra drawer or dummy drawer from the Sample Hotel.

8 Grab in the recession below the dummy drawer front panel and lift the left side.

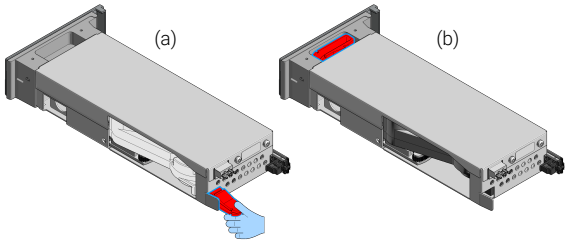


9 Remove the dummy drawer.

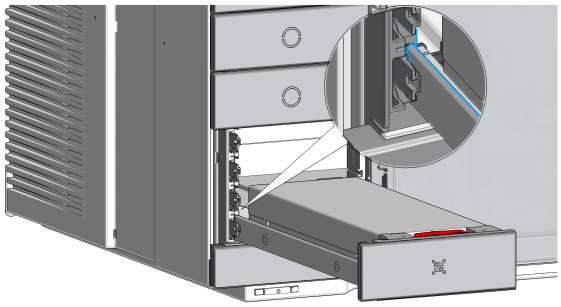
NOTE At this stage, remove all other dummies that will be replaced by hotel drawers.



10 Remove the transportation lock from the rear of the Sample ID Reader by pressing and pulling it (a). Store it in the compartment at the front (b).



11 Insert the Sample ID Reader drawer horizontally into the lowest position of the Sample Hotel. Make sure that the drawer rail is properly aligned with the hotel rail guide. A click sound indicates that the device is locked in place.



12 Reinstall the previously removed drawers and dummy drawers.

NOTE All positions of the Sample Hotel must be filled either with the Sample ID Reader drawer, regular drawers (1H, 2H, 3H), or dummies. The drawers must be installed from bottom to top.

13 Replace the original palettes from the drawers with the Sample ID compatible sample palettes provided in the accessory kit.

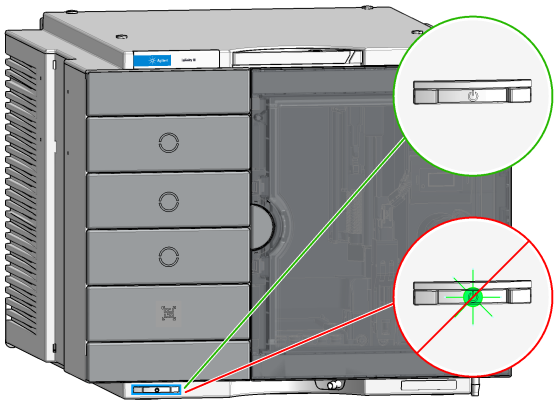
14 Switch on the module at the on/off switch. Wait until initialization is completed (this step might take several minutes) and the status LED is off (idle state).

NOTE If the Sample ID Reader drawer was shipped or stored at temperatures below 0° C, allow it to sit at room temperature (RT) for 10 hours before switching it on.

15 Update the instrument configuration and drawer configuration in the control software.

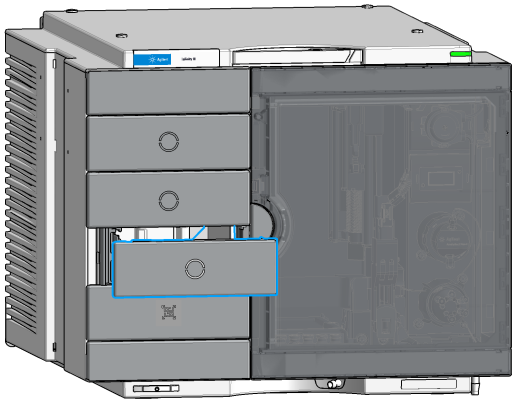
Uninstalling the Sample ID Reader Upgrade Kit

1 Switch off the module at the on/off switch.

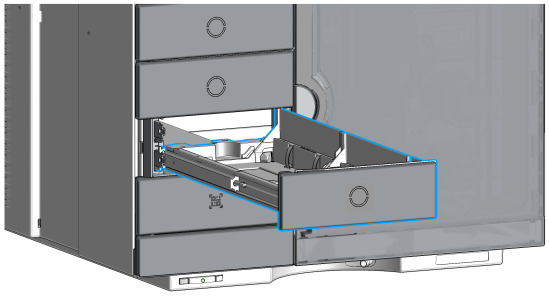


2 Remove the drawer installed above the Sample ID Reader.

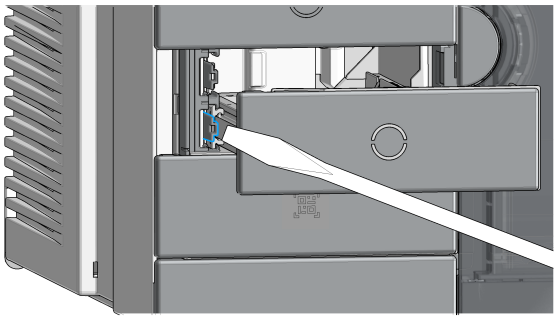
a Open the drawer.



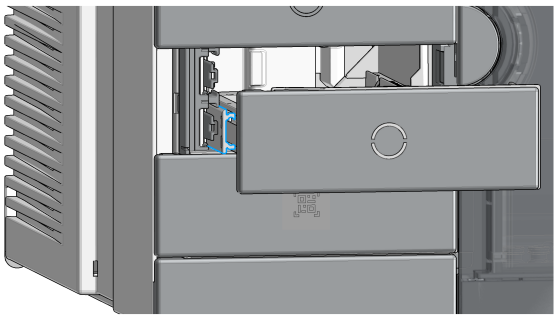
b Pull the drawer completely out.



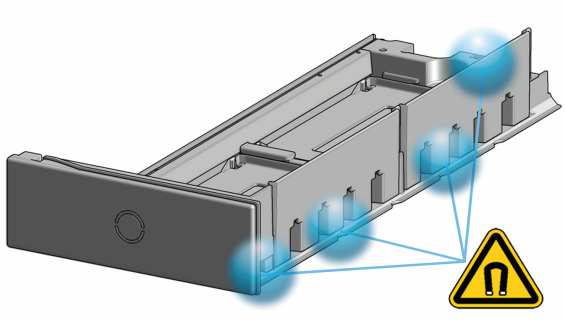
c Unlatch the drawer: Use a screwdriver to press the clamping lever lightly to the left.



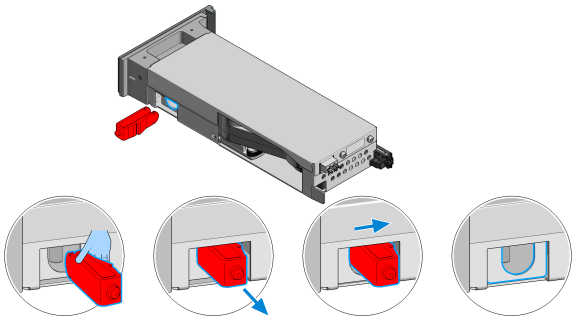
d Remove the drawer from the rail guide.



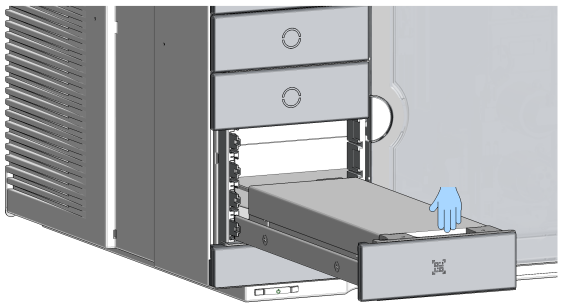
The drawer is now out of the hotel.



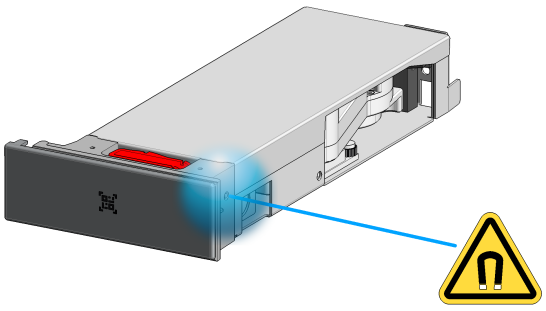
3 Unlock the Sample ID Reader drawer by using the transportation lock to pull the lever to the right and then backwards.



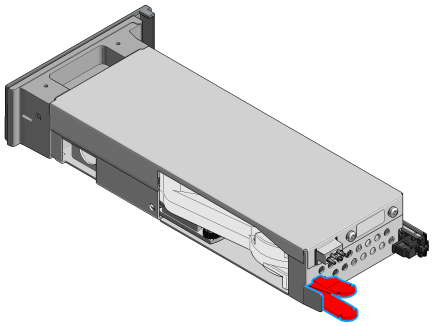
4 Remove the Sample ID Reader drawer from the rail guide. Ensure to only pull from the top of the drawer.



The Sample ID Reader drawer is now out of the hotel.



5 Lock the camera arm by installing the transportation lock at the back.



6 Store it protected from dust. For shipping back to factory, use the original packaging.

Configuration of the Sample ID Reader in the Control Software

Preparations

- LC driver 3.8.11 or higher is required.
- Multisampler firmware D.07.41 or higher is required.
- The Sample ID reader hardware is installed.

Software required

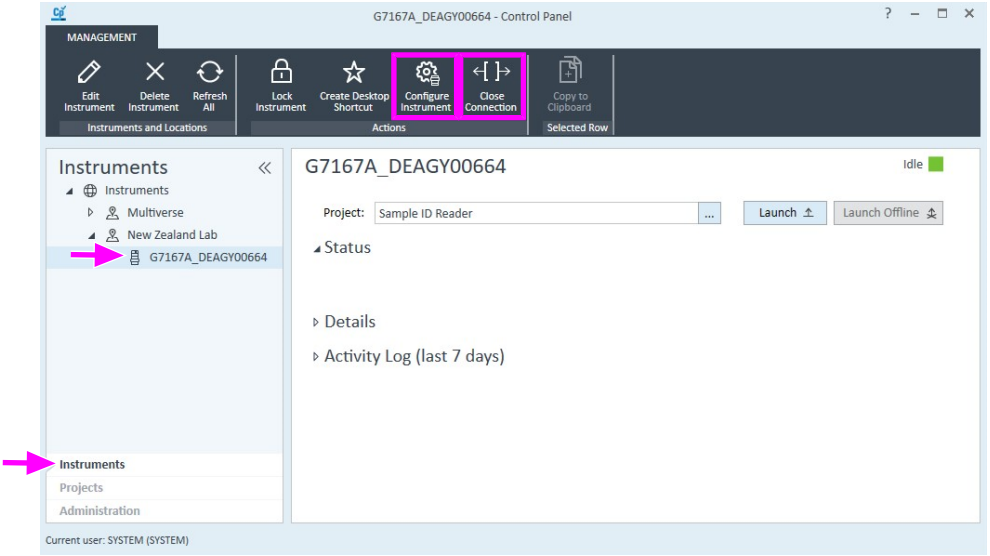
One of the following control software packages or higher is required:

- OpenLab CDS version 2.8 **OR**
- OpenLab ChemStation LTS 01.11 + Update 3 **OR**
- MassHunter for LC/QTOF 12.1 **OR**
- MassHunter for LC/TQ 12.2

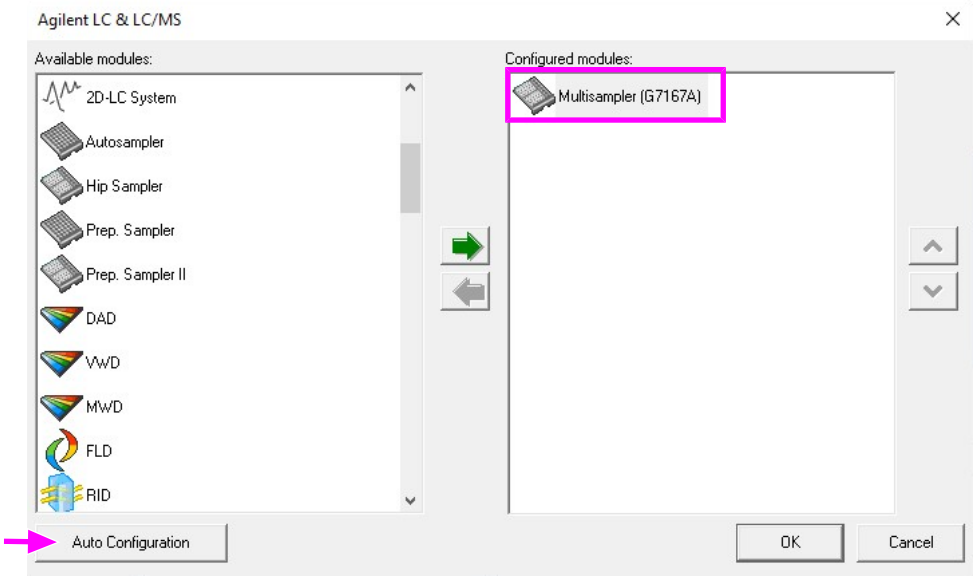
NOTE

ChemStation does not support all Sample ID Reader workflows, only barcode confirmation. See **Confirmation Workflow** (Using the Sample ID Reader in OpenLab CDS, step 4 on page 14)

1 Start OpenLab CDS Control Panel, select the corresponding system in the **Instruments** tab, **Close Connection** and then and click **Configure Instrument**.



2 When the configuration screen is loaded, perform an **Auto Configuration**.

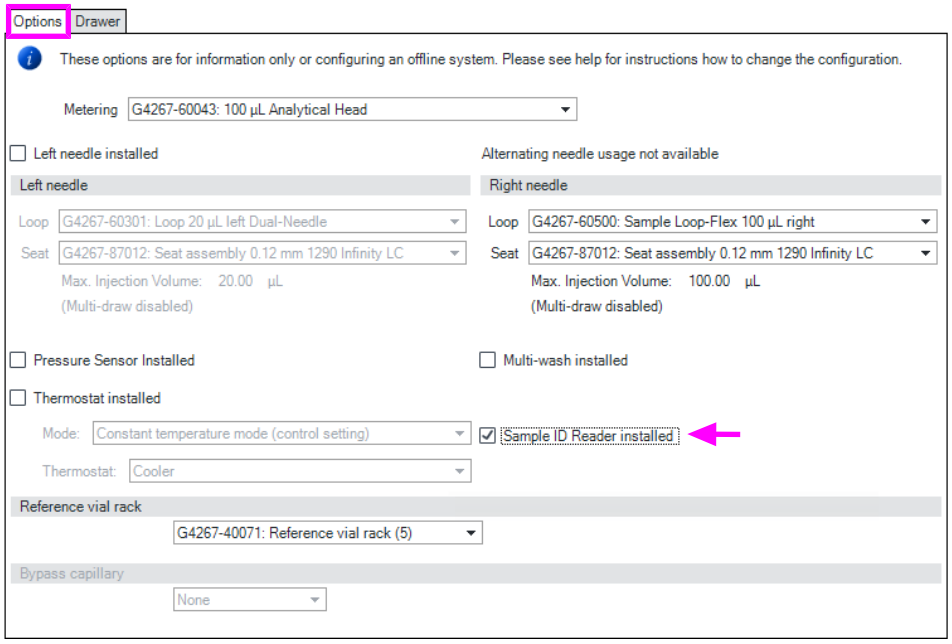


a Select either Host Name or IP address to enable automatic detection of the hardware configuration. For default IP address, use 192.168.254.11. The Sample ID Reader is automatically recognized, and no further action is required. Exit the configuration window by clicking **OK** and launch the Instrument from the Control Panel.

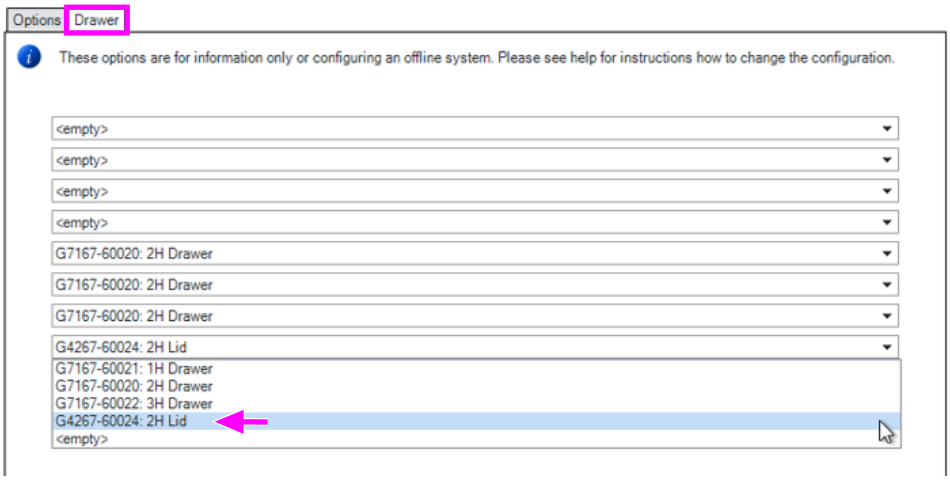
3 Alternatively to the **Auto Configuration**, you can also perform a **Manual Configuration**.

a To open the **Manual Configuration** window, double-click the Multisampler tile.

b On the **Options** tab, check **Sample ID Reader installed**.



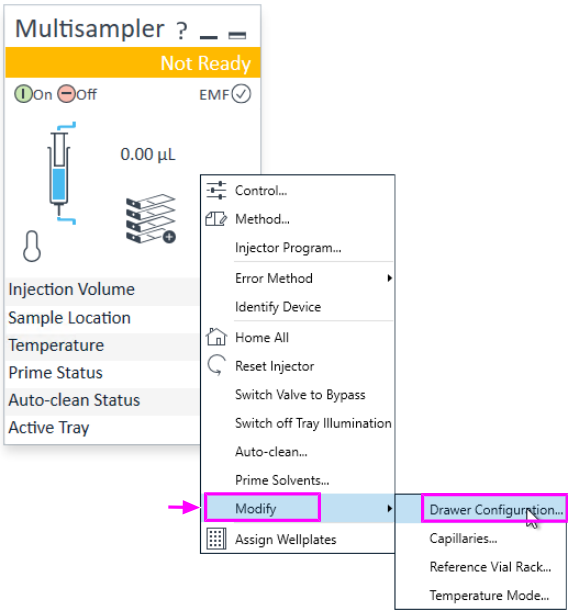
c On the **Drawer** tab, select **G4267-60024: 2H Lid** from the drop-down menu for the bottom drawer, corresponding to the Sample ID drawer.



d Update the remaining drawers to match your hardware configuration.

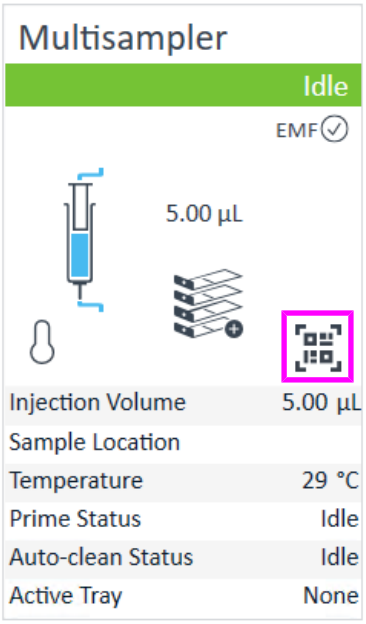
e Exit the configuration window by clicking **OK** and launch the Instrument from the Control Panel.

4 Update the drawer configuration by right-clicking on the Multisampler dashboard and selecting **Modifiy** > **Drawer Configuration**.



Using the Sample ID Reader

The proper installation and configuration of the Sample ID Reader is indicated by the presence of a QR-code icon in the Multisampler dashboard:



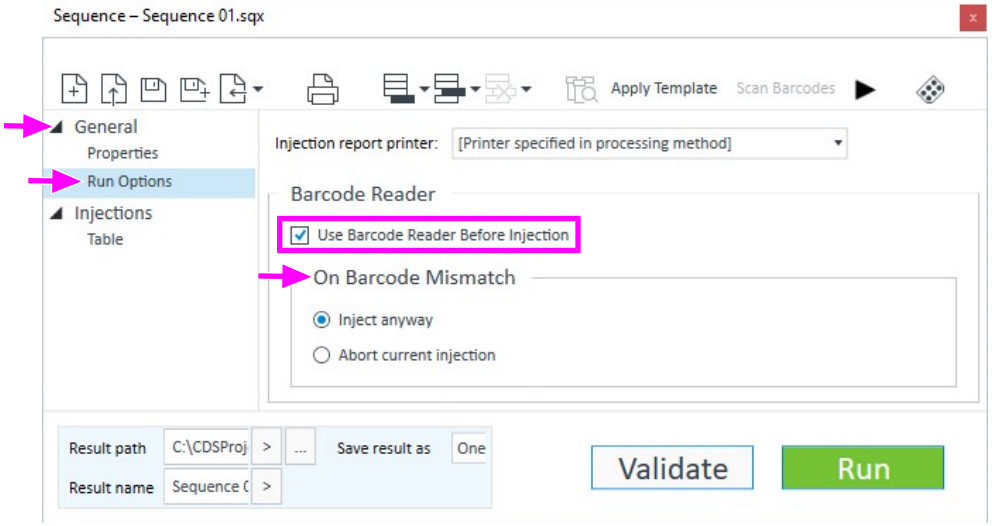
Opening a drawer or the Multisampler door will automatically prompt a rescan of any sample container located in that drawer or on the workspace, regardless of the presence of coded vials

The use of the barcode reader is a sequence parameter, therefore you can decide whether to read barcodes for each submitted sequence.

Using the Sample ID Reader in OpenLab CDS

1 On the Sequence layout, select **General** > **Run Options**, and check the option **Use Barcode Reader Before Injection**.

2 When there is a barcode mismatch, choose between **Inject anyway** and **Abort current injection** to inject or skip samples.

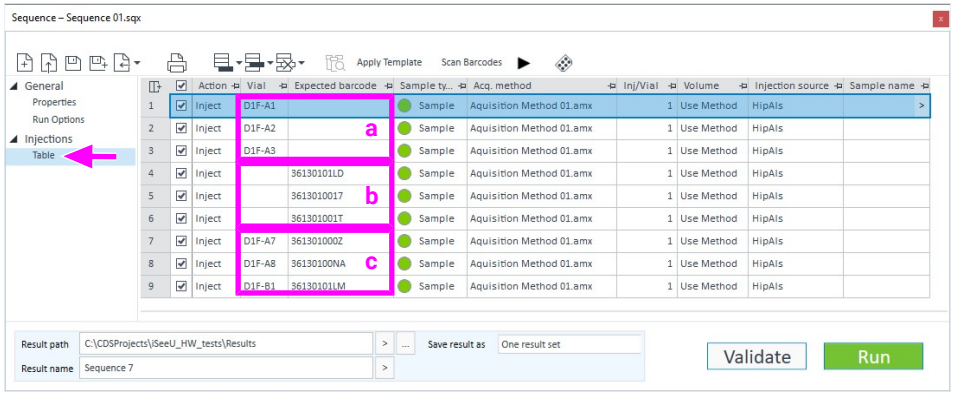


NOTE The option **Abort current injection** will abort the entire sequence if the sample with barcode mismatch is a callibration sample.

3 On the Sequence table, make sure the column **Expected barcode** is visible. If it is not, select it from the column chooser.

4 Populate each sequence line in one of the following three ways, depending on the vials used and the desired outcome. If coded vials are used, barcodes will be recorded.

- **a** *Vial location defined, expected barcode empty*: can be used with coded or non-coded vials. The vial must be placed in the defined position. If the vial is placed in the wrong position, the mismatch will not be detected.
- **b** **Any Place Workflow** - *Vial location empty, expected barcode defined*: coded vial required. The vial can be placed in any available position in the vial container.
- **c** **Confirmation Workflow** - *Vial location defined, expected barcode defined*: coded vial required. The vial must be placed in the defined position. If the vial is placed in the wrong position, a mismatch will be detected.



The Activity Log will record when there is a mismatch between expected vs. read barcodes.

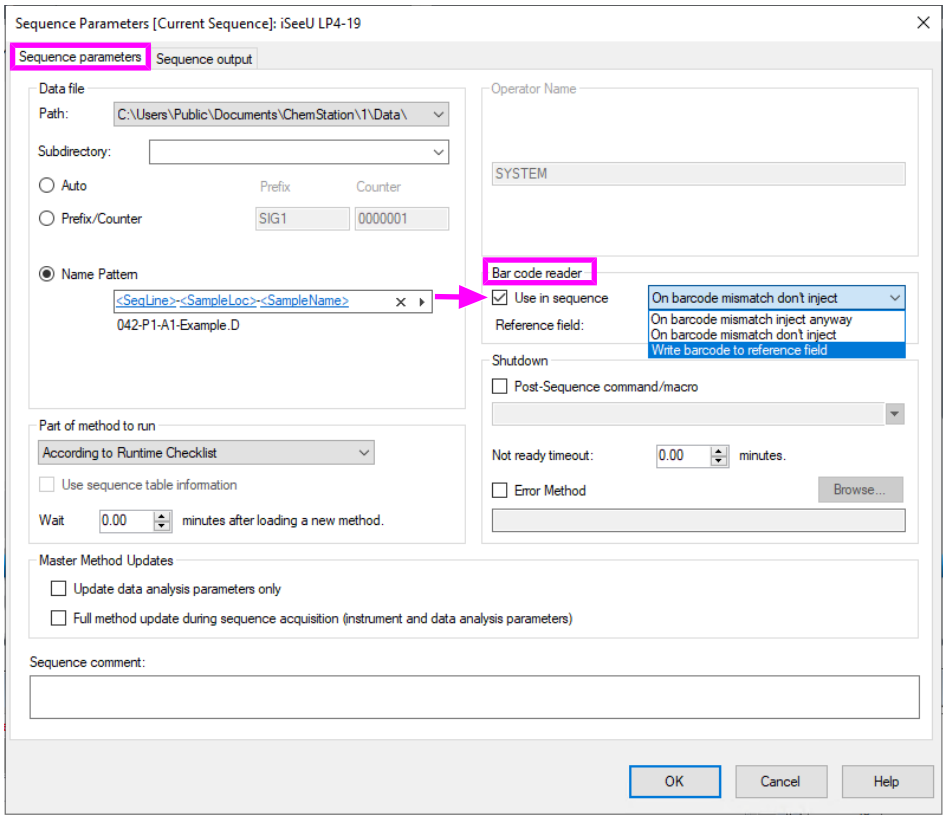
Using the Sample ID Reader in OpenLab ChemStation LTS

OpenLab ChemStation offers limited support to the Sample ID Reader, therefore a vial location must be specified for every sample on the Sequence table.

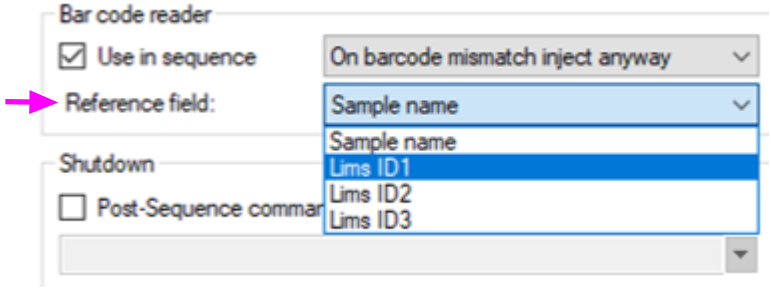
1 In the menu **Sequence**, go to **Sequence Parameters** and check **Bar code reader** > **Use in sequence**.

2 Use the drop-down menu to define how to handle barcode mismatches:

- **a** On barcode mismatch inject anyway
- **b** On barcode mismatch don't inject
- **c** Write barcode to the reference field



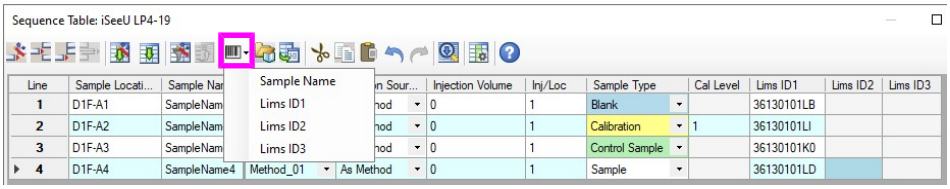
3 Define the **Reference field** (Sample name, Lims ID1, 2 or 3). The barcode will be displayed in this field.



NOTE

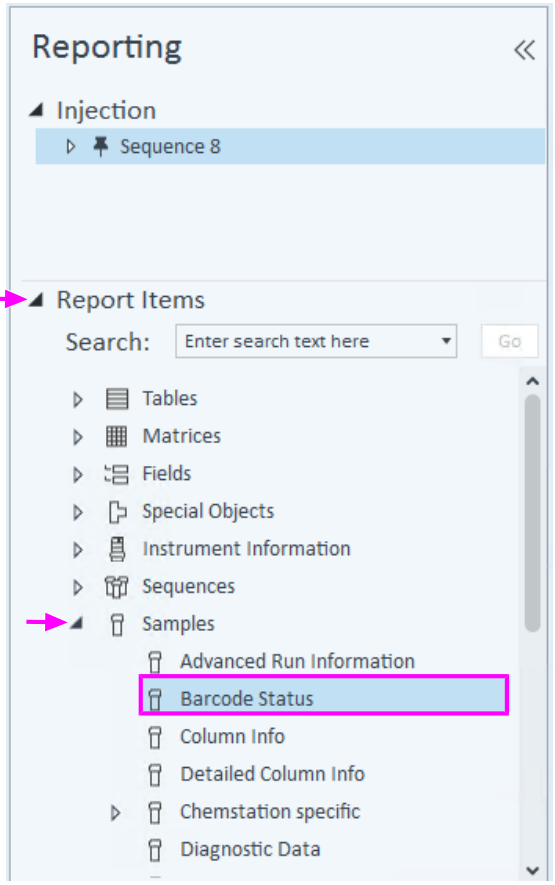
These same settings (**Use bar code reader** and **Reference field**) are also available in the menu **RunControl**, under **Sample Info**.

Alternatively, barcodes can be added directly to the sequence table by clicking the barcode icon.



Displaying barcode information on OpenLab reports

Barcode information can be added to any report with the Barcode Status (found under **Report Items** > **Samples** > **Barcode Status**).



This snippet displays the following information:

- Sample Name
- Expected Barcode
- Barcode (the read barcode)
- Status: barcode match, barcode mismatch, or not read (when the use of Barcode Reader is not enabled, or the expected barcode is not found)

Cleaning the Sample ID Reader

When

- In case of suspected condensation
- Barcodes cannot be read due to dust or buffer debris on the camera surface

Parts required

Qty.	p/n	Description
1	9300-0761	Lens cleaning paper, lint free, 50/Pack
1		Suitable solvents (Isopropanol and/or Distilled Water)
1		Disposable gloves

Preparations

- Finish any pending acquisition job.
- Lab Advisor 2.21 or higher is required.

1 Open Lab Advisor, select Service & Diagnostics > Tools > Sample ID Reader Cleaning Tool.

2 Follow the provided instructions.

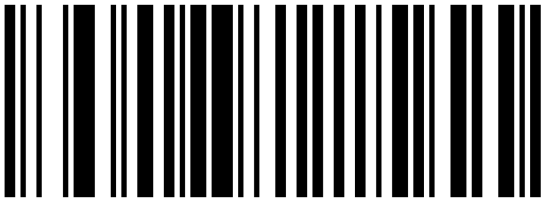
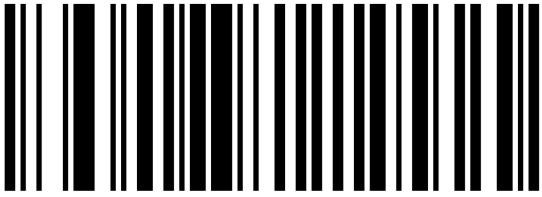
Compatible Consumables and Optional Items

p/n	Description
5182-0715-ID	Screw Top Vial, 2 mL, clear glass, write-on spot, IDCert, 100/Pack
5182-0716-ID	Screw Cap Vial, 2 ml, amber glass, write-on spot, IDCert, 100/Pack
5182-0543-ID	Crimp Top Vial, 2 mL, clear glass, write-on spot, IDCert, 100/Pack
5181-3376-ID	Crimp Top Vial, 2 mL, amber glass, write-on spot, IDCert, 100/Pack
5018-0003	Optional hand-held scanner (High density 2D Scanner DS4608)

Barcodes for Configuration

Barcodes for configuration of the 5018-0003 (Hand-held scanner (High density 2D Scanner DS4608)) :

Table 1: Barcodes

Set Factory defaults.	
Add an Enter key after scanned data.	
Disable beep after good decode.	
Enable beep after good decode.	

For use of the Sample ID Reader within the *Advanced Sample Linking*, please see the application note 5994-7570EN.

www.agilent.com

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Document No: D0032639 Rev. B

Agilent