

Agilent CrossLab Start Up Services

Agilent InfinityLab LC Series

Site Preparation Checklist

Thank you for purchasing an instrument from **Agilent Technologies**. CrossLab Start Up is focused on helping customers shorten the time it takes to start realizing the full value of their instrument investment.

Correct site preparation is the key first step in ensuring that your instruments and software systems operate reliably over an extended lifetime. This document is an **information guide and checklist** prepared for you that outlines the supplies, space, and utility requirements for the system set up in your lab.

Introduction

Customer Information

- If you have questions or problems in providing anything described as part of Customer Responsibilities below, please contact your local Agilent or partner support / service organization for assistance prior to delivery. In addition, Agilent and/or its partners reserve the right to reschedule the installation dependent upon the readiness of your laboratory.
- Should your site not be ready for whatever reasons, please contact Agilent as soon as possible to re-schedule any services that have been purchased.
- Other optional services such as additional training, operational qualification (OQ) and consultation for user-specific applications may also be provided at the time of installation when ordered with the system but should be contracted separately.
- Please refer to the other peripheral products (ie, samplers etc.) for site preparation requirements.

Customer Responsibilities

Ensure that your site meets the following specifications before the installation date. For details, see specific sections within this checklist, including:

- The necessary laboratory or bench space is available.
- The required **environmental conditions for the lab** as well as laboratory gases, tubing.
- The **power requirements** related to the product (e.g. **number & location** of electrical outlets).
- The **required operating supplies** necessary for the product and installation.
- While Agilent is delivering **Installation and Introduction** services, users of the instrument should be present throughout these services; otherwise, they will miss important operational, maintenance and safety information.
- Please consult the **Special Requirements and Other Considerations** section below for other product-specific information.
- HPLC grade (or better) solvents needed for installation (acetonitrile, isopropanol, and water).

Important Customer Web Links

- To access Agilent training and education, visit <https://www.agilent.com/chem/training> to learn about training options, which include online, classroom and onsite delivery. A training specialist can work directly with you to help determine your best options.
- To access the **Agilent Resource Center** web page, visit <https://www.agilent.com/en-us/agilentresources>.

The following information topics are available:

- Sample Prep and Containment
- Chemical Standards
- Analysis
- Service and Support
- Application Workflows
- The **Agilent Community** is an excellent place to get answers, collaborate with others about applications and Agilent products, and find in-depth documents and videos relevant to Agilent technologies. Visit <https://community.agilent.com/welcome>.
- Videos about specific preparation requirements for your instrument can be found by searching the **Agilent YouTube** channel at <https://www.youtube.com/user/agilent>.
- **Need to place a service call?**
<https://www.agilent.com/en/promotions/flexible-repair-options>

Site Preparation

Module List

Module identification: The module identifier (e.g. G7117A) can be found on the lower right side of the module front cover.

The information in this document applies to Infinity II and Infinity III modules.

| Module | Instrument Description |
|--------|--|
| G1170A | 1290 Valve Drive |
| G1328C | 1260 Manual Injector |
| G1364F | 1260 Analytical Fraction Collector |
| G1390B | Universal Interface Box II |
| G4208A | 1200 Instant Pilot |
| G4260B | 1260 Evaporative Light Scattering Detector |
| G4756A | InfinityLab Sample ID Reader |
| G5628A | 1260 Bio-inert Manual Injector |
| G5654A | 1260 Bio-inert Quaternary Pump |
| G5664B | 1260 Bio-inert Fraction Collector |
| G5668A | 1260 Bio-inert Multisampler |
| G7102A | 1290 Evaporative Light Scattering Detector |
| G7104A | 1290 Flexible Pump |
| G7104C | 1260 Flexible Pump |
| G7110B | 1260 Isocratic Pump |
| G7111A | 1260 Quaternary Pump VL |
| G7111B | 1260 Quaternary Pump |
| G7112B | 1260 Binary Pump |
| G7114A | 1260 Variable Wavelength Detector |
| G7114B | 1290 Variable Wavelength Detector |
| G7115A | 1260 Diode Array Detector WR |
| G7116A | 1260 Multicolumn Thermostat |

| Module | Instrument Description |
|-------------|--|
| G7116B | 1290 Multicolumn Thermostat |
| G7117A | 1290 Diode Array Detector FS |
| G7117B | 1290 Diode Array Detector |
| G7117C | 1260 Diode Array Detector HS |
| G7120A | 1290 High-Speed Pump |
| G7121A | 1260 Fluorescence Detector |
| G7121B | 1260 Fluorescence Detector Spectra |
| G7122A | 1260 Degasser |
| G7129A | 1260 Vialsampler VL |
| G7129B | 1290 Vialsampler |
| G7129C | 1260 Vialsampler |
| G7130A | InfinityLab Integrated Column Compartment |
| G7131A | 1290 Bio Flexible Pump |
| G7131C | 1260 Bio Flexible Pump |
| G7132A | 1290 Bio High-Speed Pump |
| G7137A | 1290 Bio Multisampler |
| G7137B | 1290 Hybrid Multisampler |
| G7162A | 1260 Refractive Index Detector |
| G7162B | 1290 Refractive Index Detector |
| G7165A | 1260 Multiple Wavelength Detector |
| G7167A | 1260 Multisampler |
| G7167B | 1290 Multisampler |
| G7167C | 1260 Hybrid Multisampler |
| G7167-60201 | InfinityLab Sample Thermostat |
| G7175A | InfinityLab Level Sensing |
| G7179A | InfinityLab Assist Interface |
| G7180A | InfinityLab Assist Hub |
| G7885A | 1260 Multi-Angle Light Scattering Detector |
| G7886A | 1260 GPC/SEC Column Thermostat |

| Module | Instrument Description |
|----------------|---|
| G7887A | GPC/SEC-Ready Kit |
| SQ/High-End MS | For the mass spectrometers, please refer to the corresponding documents for further information |

Dimensions and Weight

Identify the laboratory bench space before your system arrives based on the table below. Pay special attention to the total height and total weight requirements for all system components you have ordered and avoid bench space with overhanging shelves. Also pay special attention to the total weight of the modules you have ordered to ensure your laboratory bench can support this weight.

Special Notes

The following table provides dimensions and weight requirements.

- This product requires additional lifting assistance in order to be located in your lab due to its weight. Please discuss the arrangements for this activity with the service engineer **prior to installation**.

| Instrument Description | Weight | | Height | | Width | | Depth | |
|------------------------|--------------------------------------|--|--------|------|-------|------|-------|------|
| | kg | lbs | mm | in | mm | in | mm | in |
| G1170A | 1.9 | 4.3 | 90 | 3.54 | 90 | 3.54 | 300 | 11.8 |
| G1364F | 13.5 ¹ | 29.8 ¹ | 200 | 8 | 345 | 13.5 | 440 | 17.0 |
| G1390B | 0.9 | 2 | 165 | 6.5 | 135 | 5.3 | 55 | 2.2 |
| G4260B | 11 ² , 13 ³ | 24.3 ² , 28.7 ³ | 415 | 16.3 | 200 | 7.9 | 450 | 17.7 |
| G5654A | 14.5 | 32 | 180 | 7.1 | 396 | 15.6 | 436 | 17.2 |
| G5664B | 13.5 ¹ | 29.8 ¹ | 200 | 8 | 345 | 13.5 | 440 | 17.0 |
| G5668A | 22 ⁴ | 48.5 ⁴ | 320 | 12.6 | 396 | 15.6 | 468 | 18.4 |
| G7102A | 11 ² , 13 ³ | 24.3 ² , 28.7 ³ | 415 | 16.3 | 200 | 7.9 | 450 | 17.7 |
| G7104A | 16.1 | 35.5 | 180 | 7.1 | 396 | 15.6 | 436 | 17.2 |
| G7104C | 16.1 | 35.5 | 180 | 7.1 | 396 | 15.6 | 436 | 17.2 |
| G7110B | 12.6 | 28 | 180 | 7.1 | 396 | 15.6 | 436 | 17.2 |
| G7111A | 14.5 | 32 | 180 | 7.1 | 396 | 15.6 | 436 | 17.2 |
| G7111B | 14.5 | 32 | 180 | 7.1 | 396 | 15.6 | 436 | 17.2 |
| G7112B | 17.6 | 38.8 | 180 | 7.1 | 396 | 15.6 | 436 | 17.2 |
| G7114A | 11 | 24.3 | 140 | 5.5 | 396 | 15.6 | 436 | 17.2 |
| G7114B | 11 | 24.3 | 140 | 5.5 | 396 | 15.6 | 436 | 17.2 |

| Instrument Description | Weight | | Height | | Width | | Depth | |
|--------------------------|-----------------|-------------------|--------|------|----------------------------|------------------------------|-------|------|
| | kg | lbs | mm | in | mm | in | mm | in |
| G7115A | 12 | 26.5 | 140 | 5.5 | 396 | 15.6 | 436 | 17.2 |
| G7116A | 12.5 | 27.6 | 160 | 6.3 | 435 (460 ⁵) | 17.1 (18.1 ⁵) | 436 | 17.2 |
| G7116B | 12.5 | 27.6 | 160 | 6.3 | 435 (470 ⁶) | 17.1 (18.6 ⁶) | 436 | 17.2 |
| G7117A | 11.5 | 25.4 | 140 | 5.5 | 396 | 15.6 | 436 | 17.2 |
| G7117B | 11.5 | 25.4 | 140 | 5.5 | 396 | 15.6 | 436 | 17.2 |
| G7117C | 11.5 | 25.4 | 140 | 5.5 | 396 | 15.6 | 436 | 17.2 |
| G7120A | 21 | 46.3 | 200 | 7.9 | 396 | 15.6 | 436 | 17.2 |
| G7121A | 11.9 | 26.2 | 140 | 5.5 | 396 | 15.6 | 436 | 17.2 |
| G7121B | 11.9 | 26.2 | 140 | 5.5 | 396 | 15.6 | 436 | 17.2 |
| G7122A | 7 | 16 | 80 | 3.1 | 396 | 15.6 | 436 | 17.2 |
| G7129A | 19 ⁴ | 41.9 ⁴ | 320 | 12.8 | 396 | 15.6 | 468 | 18.4 |
| G7129B | 19 ⁴ | 41.9 ⁴ | 320 | 12.8 | 396 | 15.6 | 468 | 18.4 |
| G7129C | 19 ⁴ | 41.9 ⁴ | 320 | 12.8 | 396 | 15.6 | 468 | 18.4 |
| G7130A ⁷ | 1.8 | 4.0 | 86.5 | 3.4 | 396 | 15.6 | 106.5 | 4.2 |
| G7131A | 16.8 | 37.0 | 180 | 7.1 | 396 | 15.6 | 436 | 17.2 |
| G7131C | 16.8 | 37.0 | 180 | 7.1 | 396 | 15.6 | 436 | 17.2 |
| G7132A | 22.5 | 49.6 | 200 | 7.9 | 396 | 15.6 | 436 | 17.2 |
| G7137A | 22 ⁴ | 48.5 ⁴ | 320 | 12.6 | 396 | 15.6 | 468 | 18.4 |
| G7137B | 22 ⁴ | 48.5 ⁴ | 320 | 12.6 | 396 | 15.6 | 468 | 18.4 |
| G7162A | 15 | 33 | 180 | 7.1 | 396 | 15.6 | 436 | 17.2 |
| G7162B | 15 | 33 | 180 | 7.1 | 396 | 15.6 | 436 | 17.2 |
| G7165A | 12 | 26.5 | 140 | 5.5 | 396 | 15.6 | 436 | 17.2 |
| G7167A | 22 ⁴ | 48.5 ⁴ | 320 | 12.6 | 396 | 15.6 | 468 | 18.4 |
| G7167B | 22 ⁴ | 48.5 ⁴ | 320 | 12.6 | 396 | 15.6 | 468 | 18.4 |
| G7167C | 22 ⁴ | 48.5 ⁴ | 320 | 12.6 | 396 | 15.6 | 468 | 18.4 |
| G7167-60201 ⁷ | < 6kg | < 13.2 lbs | 205 | 8.1 | 340 | 13.4 | 370 | 14.6 |

| Instrument Description | Weight | | Height | | Width | | Depth | |
|------------------------|--|--|--------|-----|-------|------|-------|------|
| | kg | lbs | mm | in | mm | in | mm | in |
| G7175A | 8.9 | 19.6 | 169 | 6.7 | 441 | 17.4 | 396 | 15.6 |
| G7179A | 1.1 | 2.4 | 178 | 7.0 | 259 | 10.2 | 39.5 | 1.6 |
| G7180A | 4.4 | 9.7 | 61 | 2.4 | 396 | 15.6 | 441 | 17.4 |
| G7885A | 16.5 | 36.4 | 160 | 6.3 | 260 | 10.3 | 460 | 18.1 |
| G7886A | 12.5 ² , 16 ³ | 28 ² , 35.5 ³ | 600 | 24 | 177 | 7 | 345 | 14 |

¹ without thermostat

² non-cooled

³ cooled

⁴ without sample thermostat

⁵ width with column identification kit/left column ID tag reader

⁶ width with column identification kit/two column ID tag readers

⁷ is a fully integrated module, therefore it only contributes to the hosting module's weight

Equipment Positioning on the Bench

- The module dimensions and weight allow you to place the module on almost any desk or laboratory bench. It needs an additional 2.5 cm (1.0 inch) of space on either side and approximately 8 cm (3.1 inches) in the rear for air circulation and electric connections. The ELSD needs an additional approximately 15 cm (5.9 inches) of space in the rear for air circulation and electric connections. If the bench shall carry a complete HPLC system, make sure that the bench is designed to bear the weight of all modules. The autosampler module, especially with a sample thermostat installed, should be operated in a proper horizontal position.
- To calculate the height of the stack, sum the height of the individual modules of your stack.
- If a 5067-6871 (Solvent Cabinet Kit) is placed on top of the stack, add 2.5 cm (1.0 inches) floor level of the solvent cabinet, plus the height of the bottles, plus the height of bottle head assemblies in use.

The solvent cabinet has the following dimensions (height x depth x width):

92 x 436 x 396 mm (3.6 x 17.2 x 15.6 inches)

- If a G7175A Level Sensing is placed on top of the stack, add 6.0 cm (2.4 inches) floor level of the bottle plates in the module, plus the height of the bottles, plus the height of bottle head assemblies in use.

The Level Sensing module has the following dimensions (height x depth x width):

92 x 436 x 396 mm (6.7 x 17.4 x 15.6 inches)

- To ensure proper functionality, the area around the base of the G7175A Level Sensing must be kept clear of any objects. Additionally, no items should touch the solvent plates.

Environmental Conditions

Operating your instrument within the recommended temperature ranges ensures optimum instrument performance and lifetime.

Special Notes

- Performance can be affected by sources of heat & cold, e.g. direct sunlight, heating/cooling from air conditioning outlets, drafts and/or vibrations.
- The bench or supporting surface must be vibration free.
- The laboratory's ambient temperature conditions must be stable for optimum performance.
- Heat, cold, or vibration generated from other InfinityLab LC Series modules, which are installed according to instructions provided by Agilent Technologies, do not affect the performance of the LC system.

The following table may help you calculate the additional BTUs of heat dissipation from this new equipment. Maximums represent the heat given off when heated zones are set for maximum temperatures.

| Instrument Description | Operating Temperature Range °C (°F) | Operating Humidity Range % |
|--|---|--|
| G7102A, G4260B | 10 - 35 °C (50 - 95 °F), constant temperature | < 95 % r.h. at 40 °C (104 °F), non-condensing |
| G1170A, G1390B, G7104A, G7104C, G7110B, G7111A, G7111B, G5654A, G7112B, G7114A, G7114B, G7115A, G7116A, G7116B, G7120A, G7121A, G7121B, G7132A, G7131A, G7131C, G7162A, G7162B, G7165A, G7117A, G7117B, G7117C | 4 - 55 °C (39 - 131 °F), constant temperature | < 95 % r.h. at 40 °C (104 °F), non-condensing |
| G7130A | 4 - 55 °C (39 - 131 °F), constant temperature | < 95 % r.h. at 40 °C (104 °F), non-condensing ¹ |
| G7167A, G7167B, G7167C, G5668A, G7137A, G7137B, G7167-60201 | 4 - 40 °C (39 - 104 °F), constant temperature | < 95 % r.h. at 40 °C (104 °F), non-condensing ¹ |
| G7129A, G7129B, G7129C | 4 - 40 °C (39 - 104 °F), without Sample Thermostat up to 55 °C (131 °F) | < 95 % r.h. at 40 °C (104 °F), non-condensing ¹ |
| G7122A | 0 - 55 °C (32 - 131 °F), constant temperature | < 95 % r.h. at 40 °C (104 °F), non-condensing |

| Instrument Description | Operating Temperature Range °C (°F) | Operating Humidity Range % |
|------------------------|-------------------------------------|--|
| G1364F, G5664B | 4 - 40 °C (39 - 104 °F) | < 95 % r.h. at 25 - 40 °C (77 - 104 °F), non-condensing ¹ |
| G7885A | 10 - 30 °C (50 - 86 °F) | 20 - 80 % r.h. (non-condensing) |
| G7886A | 5 - 40 °C (41 - 104 °F) | 20 - 80 % r.h. |
| G7175A | 4 - 40 °C (39 - 104 °F) | < 95 % r.h. at 40 °C (104 °F), non-condensing |
| G7179A | 4 - 40 °C (39 - 104 °F) | < 90 % r.h., non-condensing |
| G7180A | 4 - 45 °C (39 - 113 °F) | < 95 % r.h. at 40 °C (104 °F), non-condensing |

¹ If a thermostat is installed, the upper humidity limit can be reduced. Please check your lab conditions to stay beyond dew point values for non-condensing operation.

Power Consumption

Special Notes

- If a computer system is supplied with your instrument, be sure to account for those electrical outlets.
- The heat dissipation can be calculated from the active power, using the following equation:
 $1 \text{ W} = 3.413 \text{ BTU/h}$

| Instrument Description | Line Voltage and Frequency V, Hz | Maximum Power Consumption VA | Maximum Power Consumption W |
|--|--|---------------------------------|--------------------------------|
| G1170A | 100 - 240 V (AC) ($\pm 10\%$) 50 or 60 Hz ($\pm 5\%$) | 20 VA | 4 W |
| G1390B | 100 - 240 V (AC) ($\pm 10\%$) 50 or 60 Hz ($\pm 5\%$) | 140 VA | 65 W |
| G7102A, G4260B | 100 - 240 V (AC) ($\pm 10\%$) 50 or 60 Hz ($\pm 5\%$) | 480 VA | 150 W |
| G7104A, G7104C, G7131A, G7131C | 100 - 240 V (AC) ($\pm 10\%$) 50 or 60 Hz ($\pm 5\%$) | 120 VA | 110 W |
| G7110B, G7111A, G7111B, G5654A | 100 - 240 V (AC) ($\pm 10\%$) 50 or 60 Hz ($\pm 5\%$) | 80 VA | 65 W |
| G7112B | 100 - 240 V (AC) ($\pm 10\%$) 50 or 60 Hz ($\pm 5\%$) | 90 VA | 74 W |
| G7114A, G7114B, G7162A, G7162B | 100 - 240 V (AC) ($\pm 10\%$) 50 or 60 Hz ($\pm 5\%$) | 80 VA | 70 W |
| G7116A, G7116B | 100 - 240 V (AC) ($\pm 10\%$) 50 or 60 Hz ($\pm 5\%$) | 150 VA | 150 W |
| G7115A, G7117A, G7117B, G7117C, G7165A | 100 - 240 V (AC) ($\pm 10\%$) 50 or 60 Hz ($\pm 5\%$) | 110 VA | 100 W |
| G7120A, G7132A | 100 - 240 V (AC) ($\pm 10\%$) 50 or 60 Hz ($\pm 5\%$) | 210 VA | 180 W |
| G7121A, G7121B | 100 - 240 V (AC) ($\pm 10\%$) 50 or 60 Hz ($\pm 5\%$) | 70 VA | 60 W |
| G7122A | 100 - 240 V (AC) ($\pm 10\%$) 50 or 60 Hz ($\pm 5\%$) | 30 VA | 30 W |
| G7129A, G7129B, G7129C | 100 - 240 V (AC) ($\pm 10\%$) 50 or 60 Hz ($\pm 5\%$) | 350 VA ¹ | 350 W ¹ |
| G7130A | | | 110 W |

| Instrument Description | Line Voltage and Frequency V, Hz | Maximum Power Consumption VA | Maximum Power Consumption W |
|---|--|--|--------------------------------|
| G7162A, G7162B | 100 - 240 V (AC) ($\pm 10\%$) 50 or 60 Hz ($\pm 5\%$) | 80 VA | 70 W |
| G7167A, G7167B, G7167C, G5668A, G7137A, G7137B | 100 - 240 V (AC) ($\pm 10\%$) 50 or 60 Hz ($\pm 5\%$) | 180 VA ² | 180 W ² |
| G1364F, G5664B | 100 - 240 V (AC) ($\pm 10\%$) 50 or 60 Hz ($\pm 5\%$) | 200 VA | 180 W |
| G7885A | 100 - 240 V (AC) 50 or 60 Hz | | 155 W |
| G7886A | 115 - 230 V ($\pm 10\%$) 50 or 60 Hz | 550 VA | |
| G7175A | 100 - 240 V (AC) ($\pm 10\%$) 50 or 60 Hz | 20 VA | 20 W |
| G7179A | IEEE 802.3bt Class 5 (42.5 - 57 VDC) | IEEE 802.3bt Class 5 (42.5 - 57 VDC, 0.5 A) | |
| G7180A | 100 - 240 V (AC) 50 or 60 Hz | 200 VA | |

¹ Maximum power consumption corresponds to a sampler with the Sample Thermostat and the Integrated Column Compartment installed.

² Maximum power consumption corresponds to a sampler with the Sample Thermostat installed.

- Use the correct power cord.
- For G7886A: If the selected voltage is not correct, change to the proper voltage setting by removing, inverting, and then re-entering the voltage selector cartridge.

Required Operating Supplies by Customer for Installation

Special notes

- For information on Agilent consumables, accessories, and laboratory operating supplies, please visit: <https://www.agilent.com/en-us/products/lab-supplies>

Special Requirements and Other Considerations

Solvent Requirements

Customer should have available HPLC grade solvents (acetonitrile, isopropanol, and water) with a dry residue below 1 ppm or MS grade solvents.

G7178A InfinityLab Assist Upgrade

InfinityLab Assist Hardware and Software Requirements

The following PC and software requirements are needed for viewing the browser user interface and running the chromatography data system (CDS).

Table 1: Software Requirements

| Specification Description | Details |
|--------------------------------|--|
| Operating system name, version | Windows 10 or 11, Enterprise or Professional, 64-bit |
| Web browser | Chromium-based browser (Chrome, Edge, etc.) with a version higher than 124 Safari-based browser with a version higher than 17.5.1 |

Table 2: Network Requirements

| Specification Description | Supported |
|--|--|
| Network type, bandwidth, speed, protocol, etc. | Internet Protocol Version 4 (TCP/IPv4) |
| IP Address | Static or DHCP Reservation |

The InfinityLab Assist is compatible with the following CDS software versions:

Table 3: Compatible Software Version

| Supported CDS Software | Minimum Software Versions |
|------------------------|---|
| OpenLab CDS 2.x | OpenLab CDS 2.6 OpenLab CDS 2.7 OpenLab CDS 2.8 OpenLab CDS 2.8 Update 3 for Client/Server (provides browser access) |
| MassHunter | LC-(Q)TOF MH 12.1 LC-TQ MH 12.2 |
| ChemStation | OpenLab ChemStation C.01.10 OpenLab ChemStation LTS C.01.11 |
| Empower | Empower 3 Feature Release 4, or higher Agilent Driver for Waters Empower 4.1 |
| Chromeleon | Chromeleon 7.2.10 MUf, or higher Chromeleon 7.3.1 Agilent Driver for Thermo Fisher Chromeleon 3.2 (LC Driver 3.9) |

Table 4: InfinityLab Assist Supported Modules

| Product Number | Description |
|----------------|-------------------------------|
| G1170A | 1290 Valve Drive |
| G1390B | Universal Interface Box |
| G4756A | Sample ID Reader |
| G5654A | 1260 Bio-inert Pump |
| G5668A | 1260 Bio-inert Multisampler |
| G6160B | Pro iQ MS |
| G6170A | Pro iQ Plus MS |
| G7104A | 1290 Flexible Pump |
| G7104C | 1260 Flexible Pump |
| G7110B | 1260 Isocratic Pump |
| G7111A | 1260 Quaternary Pump VL |
| G7111B | 1260 Quaternary Pump |
| G7112B | 1260 Binary Pump |
| G7114A | 1260 VWD |
| G7114B | 1290 VWD |
| G7115A | 1260 DAD WR |
| G7116A | 1260 Multicolumn Thermostat |
| G7116B | 1290 Multicolumn Thermostat |
| G7117A | 1290 DAD FS |
| G7117B | 1290 DAD |
| G7117C | 1260 DAD HS |
| G7120A | 1290 High-Speed Pump |
| G7121A | 1260 Fluorescence Detector |
| G7121B | 1260 FLD Spectra |
| G7129A | 1260 Vialsampler |
| G7129B | 1290 Vialsampler |
| G7129C | 1260 Vialsampler |
| G7130A | Integrated Column Compartment |

| Product Number | Description |
|----------------|---------------------------|
| G7131A | 1290 Bio Flexible Pump |
| G7131C | 1260 Bio Flexible Pump |
| G7132A | 1290 Bio High-Speed Pump |
| G7137A | 1290 Bio Multisampler |
| G7137B | 1290 Hybrid Multisampler |
| G7162A | 1260 RID |
| G7162B | 1290 RID |
| G7165A | 1260 MWD |
| G7167A | 1260 Multisampler |
| G7167B | 1290 Multisampler |
| G7167C | 1260 Hybrid Multisampler |
| G7175A | InfinityLab Level Sensing |

G4756A InfinityLab Sample ID Reader

Hardware and Software Requirements

The InfinityLab Sample ID Reader is compatible with the following CDS software versions, features might be limited:

Table 5: Compatible software versions

| Supported CDS Software | Software Versions |
|------------------------|--|
| OpenLab CDS 2.x | OpenLab CDS version 2.7 or higher |
| MassHunter | MassHunter for LC/QTOF 12.1 MassHunter for LC/TQ 12.2 |
| ChemStation | Openlab ChemStation LTS 01.11 + Update 3 or higher |

Table 6: Firmware and driver requirements

| Requirement | Minimum version |
|-------------|-----------------------|
| Firmware | 7.41 for Multisampler |
| Driver | 3.8 |

Table 7: InfinityLab Sample ID Reader supported modules

| Product Number | Description |
|----------------|--------------------------------|
| G3167A | 1260 Online Sample Manager |
| G3167B | 1290 Bio Online Sample Manager |
| G4767A | 1260 SFC Multisampler |
| G5668A | 1260 Bio-Inert Multisampler |
| G7137A | 1290 Bio Multisampler |
| G7137B | 1290 Hybrid Multisampler |
| G7167A | 1260 Multisampler |
| G7167B | 1290 Multisampler |
| G7167C | 1260 Hybrid Multisampler |

G7175A InfinityLab Level Sensing

Hardware and Software Requirements

The InfinityLab Level Sensing is compatible with the following CDS software versions:

Table 8: Compatible software versions

| Supported CDS Software | Software Versions |
|------------------------|---|
| OpenLab CDS 2.x | OpenLab CDS version 2.8 Update 07 or higher |

Table 9: Firmware and driver requirements

| Requirement | Minimum version |
|-------------|-----------------|
| Firmware | 7.42 for pump |
| Driver | 3.9 |

InfinityLab Level Sensing Supported Modules

The Pump must be 1260/1290 Infinity II or III pump.

G7102A ELSD, G4260B ELSD

Gas requirements

A supply of inert gas (typically nitrogen) is required to operate these detectors. The gas supply needs to be free of oil, humidity and particles, as such contaminations will create background noise in the chromatograms and may damage the built-in pressure sensor. In case of such noise, flush the gas lines for sufficient time (might take days) and use additional filters of 0.5 µm or less. The typical gas pressure is 4 bar (60 psi) and must be set by an external pressure regulator. Pure gas is not required as the gas is only used as a carrier for the solid sample particles. The gas inlets of the detector have an outer diameter of 4 mm (0.157 inches). The lab installation must therefore allow the installation of a tubing with 4 mm (0.157 inches) outer diameter. Gas consumption is typically 0.9 SLM to 3.25 SLM, depending on the detector settings

| Item description, (including dimensions etc.) | Vendor/Part Number (if applicable) | Recommended quantity |
|---|------------------------------------|----------------------|
| G7102A, G4260B ELSD Gas Nitrogen (typical) | N/A | N/A |

NOTE

Air can only be used for non-flammable solvents.

The mass flow controller is not calibrated for use with gases other than air or nitrogen.

Nitrogen should be of 98 % purity or better with a maximum pressure of 6.9 bar (100 psi).

For operation with other inert gases contact Agilent Technologies for advice.

Precautions: Solvent Vapors

Vapor sensors are used inside and outside the enclosure of the Agilent 1290 ELSD to alert the operator to solvent leaks. Liberal use of organic solvents in close proximity to the instrument may activate the vapor sensor, causing the instrument to shutdown.

Exhaust venting and drain requirements

The exhaust from the detector must be directed into a fume hood or exhaust vent. If a vacuum is used, it should be moderate so as to avoid turbulence in the optical chamber leading to a much reduced sensitivity of the detector. The potentially hazardous exhaust of evaporated solvent and sample must not be allowed to enter the laboratory atmosphere and any appropriate accessory like solvent filters should be disposed according to local environmental requirements.

If the extraction tube provided with the instrument is to be extended it is recommended that the diameter of the extension is increased to at least 50 mm (2 inches) diameter tubing so the extraction quality is not inhibited.

NOTE

Do not connect the exhaust vent directly to the detector.

This might cause either positive pressure or negative back pressure, both of which will impact the quality of your measurement results.

The drain tube must be directed to a waste container. The user is responsible for decontamination or recycling of any residue, according to local environmental requirements.

Further requirements

The 1290 ELSD (G7102A) and the 1260 ELSD (G4260B) can be controlled either via RS232 or via LAN. If the RS232 interface is used for control, the ELSD must be installed close to the control PC unless special data transmission systems are used. The length of the straight female/female RS232 cable supplied with both detectors is 2.9 m.

G7167-60201 Sample Thermostat

The Sample Thermostat uses isobutane (R600a) as refrigerant, which is environmentally friendly but flammable. Therefore, make some special considerations for the safe operation of the device:

- Keep open fire or sources of ignition away from the device.
- Ensure a room size of 1 m³ for every 8 g of R600a refrigerant inside the Sample Thermostat (total refrigerant loading is 30 g).
- Ensure adequate ventilation: typical air exchange of 25 m³/h per m² of laboratory floor area.
- Do not use mechanical devices or other means to accelerate the defrosting process.
- Keep the ventilation openings on the housing clear of any obstruction or blockage.

G7885A 1260 Multi-Angle Light Scattering Detector

Extra Customer Responsibilities

For the 1260 Infinity II/III Multi-Angle Light Scattering Detector, the following extra points must be provided:

- The required operating supplies necessary for the product and installation for aqueous applications (including capability of injecting 100 µL with a manual injector or autosampler).
 - Clean and sterile solvent bottle with 100 µm Triple-filtered Water (lab water of UHP 18 MOhm or LS/MS grade) containing 0.05 % sodium azide (Azide is optional).
 - 5022-2159 (Restriction capillary, SST 0.12 mm ID, 2 m long) .
 - In-Line Filter Assembly 0.5 µm cutoff (Agilent recommends: UCA431).
 - Agilent Advance GPC/SEC SUPREMA Lux 1000 Å, 8 x 300 mm, 5 µm (SUA0830051E3LS).
- The required operating supplies necessary for the product and installation for organic applications (including capability of injecting 100 µL with a manual injector or autosampler).
 - Clean and sterile solvent bottle with unstabilized tetrahydrofuran (THF).
 - 5022-2159 (Restriction capillary, SST 0.12 mm ID, 2 m long) .
 - In-Line Filter Assembly 0.5 µm cutoff (Agilent recommends: UCA431).
 - Agilent Advanced GPC/SEC SDV Lux 100000 Å, 8 x 300 mm, 5 µm (SDA0830051E5LS).

Stack Configurations

NOTE

Generally install a G7122A Degasser underneath the pump.

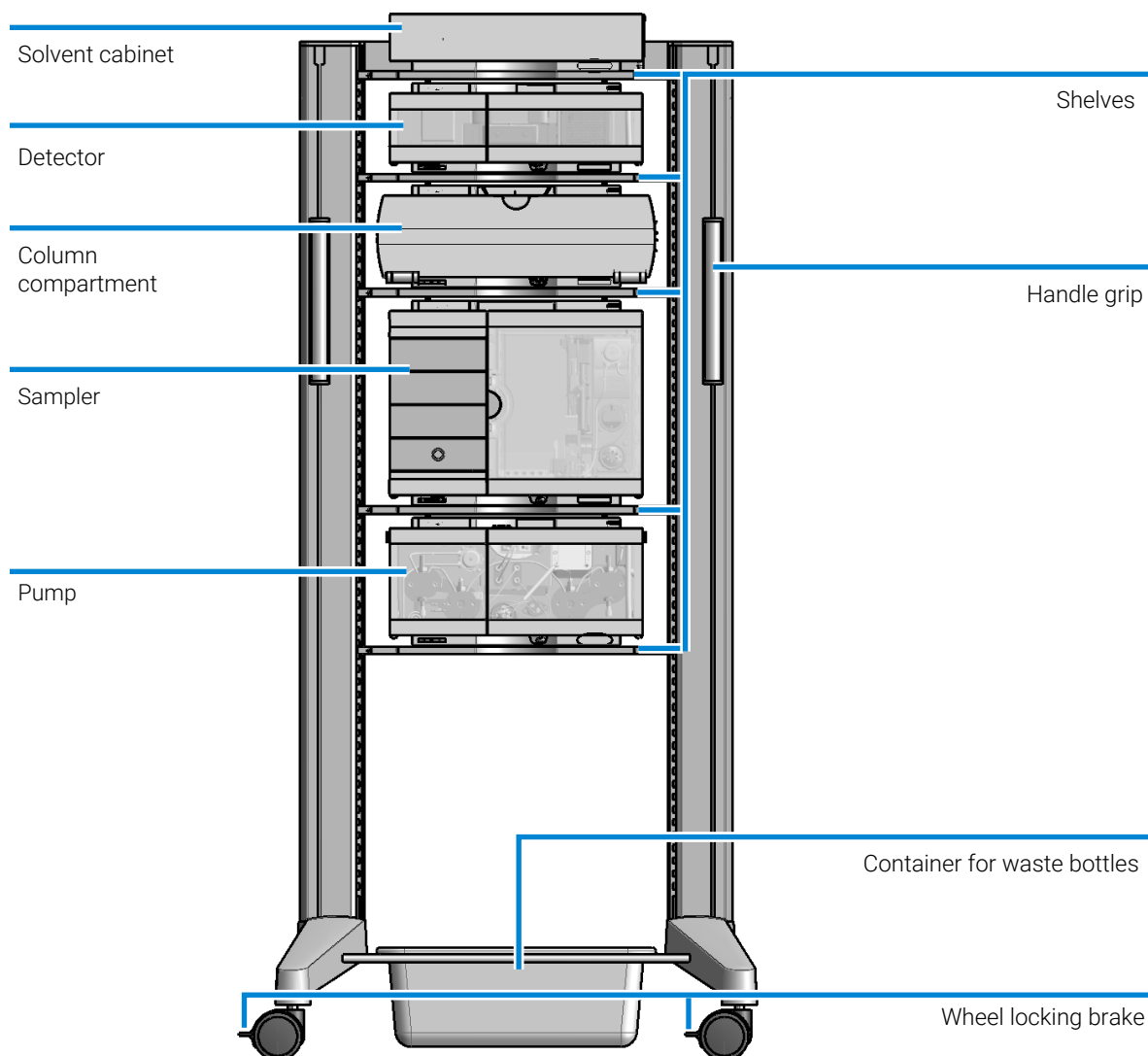


Figure 1: Agilent InfinityLab Flex Bench

NOTE

Fraction Collectors are stacked in their own separate stack.

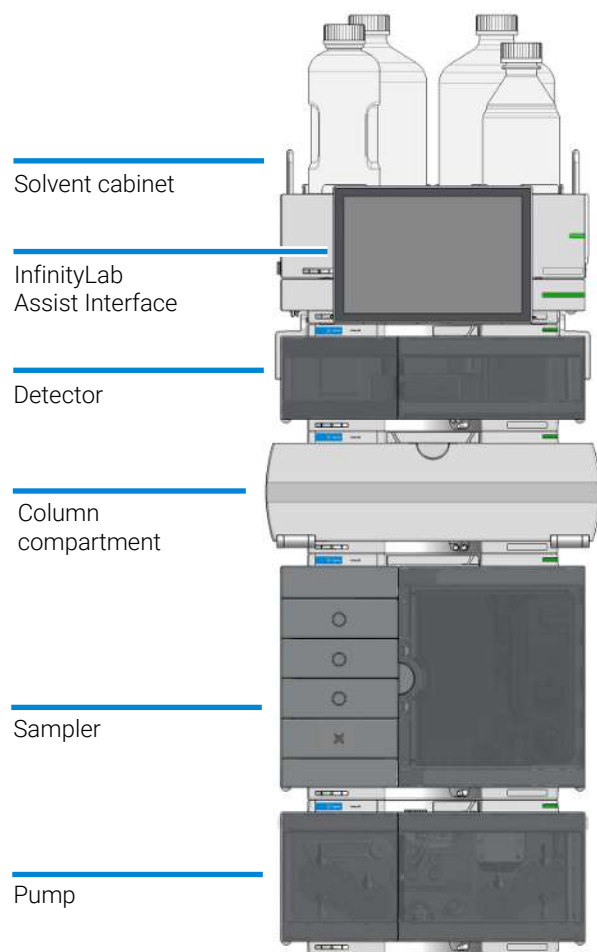


Figure 2: Single stack configuration (bench installation, example shows a Multisampler)

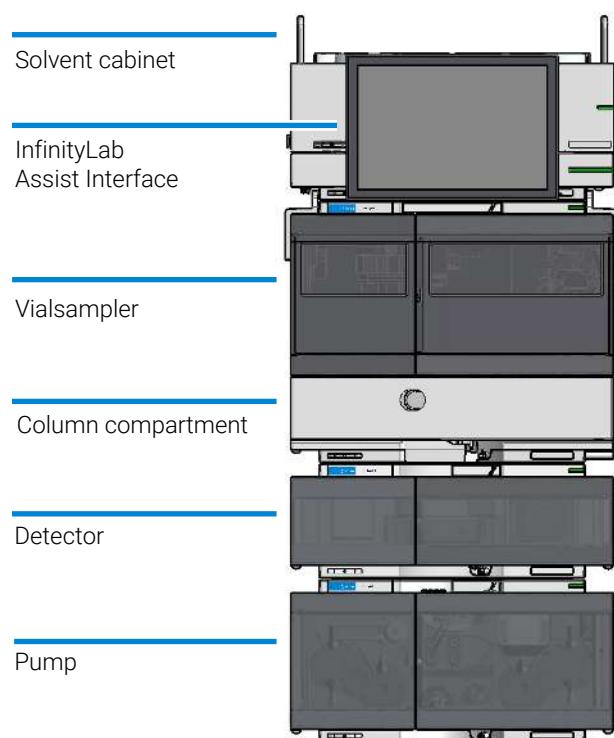


Figure 3: Single stack configuration (bench installation, example shows a Vialsampler with optional ICC installed)

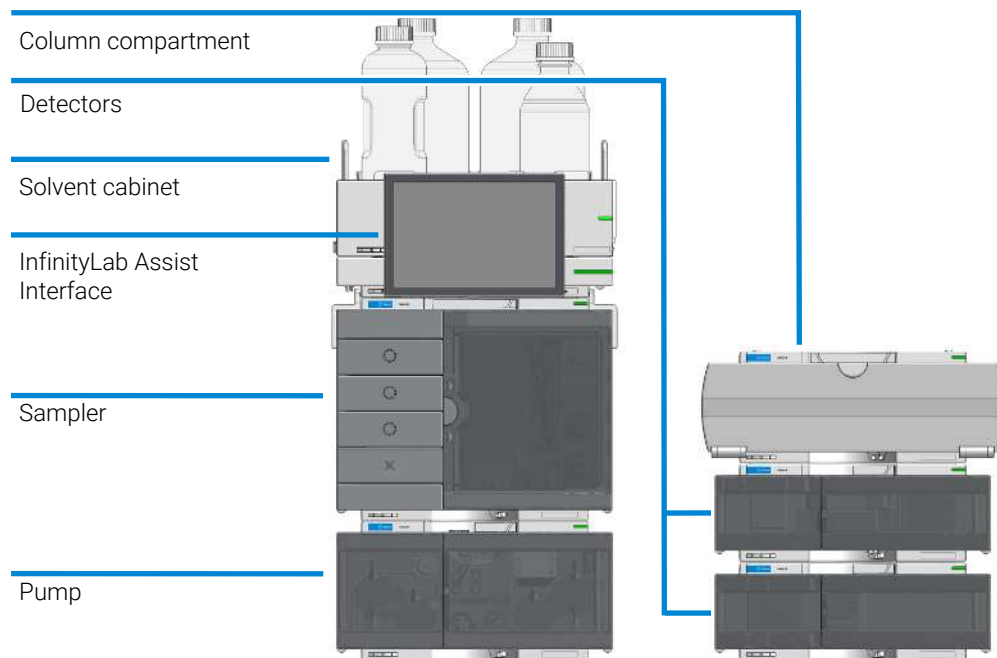


Figure 4: Two stack configuration (bench installation, example shows a Multisampler)

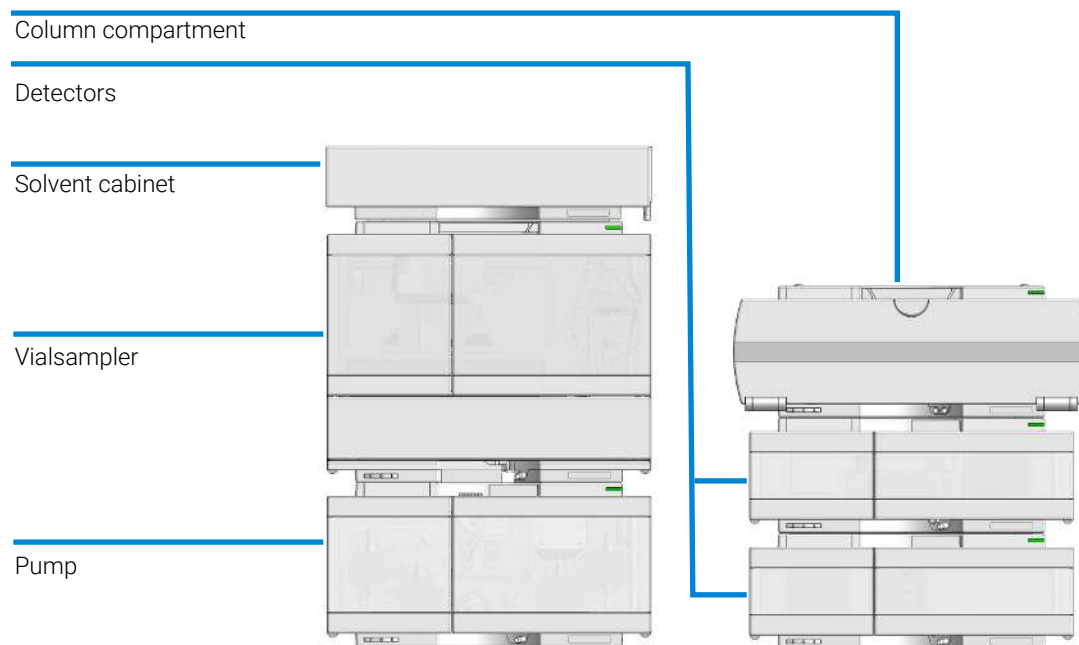


Figure 5: Two stack configuration (bench installation, example shows a Vialsampler coupled with a standalone column compartment)

Mixed Stack Configurations

NOTE

The optimal stack configuration may vary.

For details, refer to the documentation of the system in use. General recommendations for the Multisampler:

- Stack the Multisampler at the same position as recommended for other autosamplers
- Arrange the Multisampler coaxial to the other modules.

Tools

Your Agilent instrument comes with a few basic tools and consumables which are relevant to the specific configuration of your system.

Service Engineer Review (Optional)

Service Engineer Comments

If the Service Engineer completed a review of the Site Preparation requirements with the customer, the Service Engineer should complete the following Comments section.

If there are any specific points that should be noted as part of performing the site preparation review or other items of interest for the customer, please write in this box.

Site Preparation Verification

| | |
|--------------------------------------|--|
| Service Request Number: | Date of Service Completion: |
| Service Engineer Name: | Customer Name: |
| Service Engineer Signature: | Total number of pages in this document: |