Agilent CrossLab
From Insight to Outcome

Agilent CrossLab Start Up Services

Agilent InfinityLab LC Series SFC Introduction 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. Installation, Introduction and First Run Assist are service engagements to get your new instrument and lab productive. Success starts here.

The CrossLab Start Up Introduction is delivered after the installation and introduces the operation, ownership, maintenance and troubleshooting of the new system.

This Checklist guides you through the key aspects of owning and operating your instrument. A signed copy of this checklist is provided for your records.

The CrossLab Start Up First Run Assist is an optional customer driven activity performed under the guidance of the Agilent engineer and reinforces operational understanding. After the first result is reviewed, the service engineer recommends next steps in the path to success and optimum results.

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Introduction

Customer Information

Introduction is intended to give operators a basic overview of the operation and maintenance of new instruments and software systems and is not designed to be a substitute for a full operator-training course.

Further training, advice, and consultation can be found at https://www.agilent.com/en/training-events.

The following are **NOT** included in Introduction service (**unless explicitly ordered**):

- Training on basic PC operation, peripherals, and/or operating systems
- Training of groups larger than five people
- Customized method/application development or method optimization.
- Method transfer from other instrumentation
- Comprehensive training
- Troubleshooting and Maintenance training
- Macro programming, customized reports, databases, etc.
- Fundamentals/theory of instrument techniques
- First Run Assist – used to demonstrate the system workflow.
- **InfinityLab LC Series User Documentation**

  The InfinityLab LC Series User Documentation on the USB stick (delivered with the system) contains the introductory information, which will be used as a guide during introduction. Please make sure the InfinityLab LC Series User Documentation is available.

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Customer Responsibilities

Virtual introduction tutorial/eLearning is recommended for all participating end users.

Please follow along to confirm that applicable checklist tasks are executed during Introduction

The manuals/media delivered with the system will be used as a guide during Introduction.

- Please make sure that they are available.
- Please follow along to confirm that applicable checklist tasks are executed during Introduction.

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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

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Service Engineer's Responsibilities

- Provide a printed copy of the checklist to the customer to look at during Introduction.
- Discuss Introduction topics and agree upon focus areas with customer.
- Only complete and print out sections that relate to the system that has been installed.
- Complete empty fields with the relevant information.
- Complete the relevant checkboxes in the checklist using a "X" or tick mark ✓.
- Check "**Section not applicable**" check boxes to indicate services/tasks not delivered, as appropriate.
- Complete the **Service Review** section together with the customer.
- Complete the fields for page numbers at the foot of each selected page.
- Add relevant page numbers to selected pages and complete the total number of pages field in the Service Verification section.
- Complete Signature Page and attach Signature Page to Service Order.

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User Introduction

General Introduction

- ☐ Ensure that all user manuals, documentation, tools, etc. provided by or relevant to the system were installed during installation and before starting Introduction. These are excellent reference tools for the customer – both during the Introduction, and after the Installation and Introduction has been completed.
- ☐ Show where to find resources available (e.g. manuals, guides, Online Help, and videos) on the instrument system.
- ☐ **Note:** Indicate what may be loaded onto other PCs not directly interfaced with the instrument.
- ☐ Provide customer with **overview of their system** and its components, including hardware, Software configuration, PC configuration, and, if purchased, peripheral products such as Sampler, Barcode Reader, etc.
- ☐ Identify associated instrument and PC hardware connections (e.g. power, gases, communications, keyboard, mouse, display connections, and printer and LAN interface connections).
- ☐ Demonstrate how to use manuals, including the Online Help. If available, explain benefits of using HTML to search across multiple manuals/guides.
- ☐ If available, show list of videos available on basic instrument and software how-to tasks.
- ☐ Explain need for avoiding growth of algae within the system, which can create problems and high costs for customers, as this is not covered by the warranty or support contract (Customer is liable for repair charges).
- ☐ Explain need for stopping flow into the instrument when instrument is powered off.
- ☐ Explain availability of consumables, supplies, and accessories, e.g. columns, capillary kits for low dispersion systems, starter kits, tool kits, and maintenance parts.
- ☐ Give recommendations on solvents (solvent quality, possible degradation, growth of algae, pH range, buffer concentrations etc.).
- ☐ Give recommendations on correct storage of the system (flush with organic solvents etc.).
- ☐ Explain emulation mode, instrument control framework (ICF), and potential consequences for feature set (if applicable).

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Instrument Start-Up and Overview (guide customer to perform)

- ☐ Explain how to start up and close down the instruments/modules in the correct order.
- ☐ Give overview of the instrument and modes of operation (e.g. Status and Menus).
- ☐ Explain where to find the status indicators and what they mean.

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System Information

Instrument System Name and ID	
Instrument System Site and Location	

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Module List

Module identification: The module identifier (e.g. G7114A) 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
G4782A	1260 SFC Binary Pump
G4767A	1260 SFC Multisampler
G7167-60201	InfinityLab Sample Thermostat
G7116A	1260 Multicolumn Thermostat
G7116B	1290 Multicolumn Thermostat
G7114A	1260 Variable Wavelength Detector
G7114B	1290 Variable Wavelength Detector
G7115A	1260 Diode Array Detector WR
G7165A	1260 Multiple Wavelength Detector
G4260B	1260 Evaporative Light Scattering Detector
G7102A	1290 Evaporative Light Scattering Detector
G4301A	1260 SFC Control Module

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G7114A 1260 VWD, G7114B 1290 VWD, G7115A 1260 DAD, G7165A 1260 MWD

☐ **Section NOT Applicable**

☐ Explain the basic operating principle of the detector, its features, and key specifications.

☐ Explain detector settings in the Chromatography Data System.

☐ Explain back pressure and pH range limitations of the flow cells.

☐ Explain flow cell maintenance.

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G7102A 1290 ELSD, G4260B 1260 ELSD

- ☐ **Section NOT Applicable**
- ☐ Explain installation, especially installation of front drain to waste bottle, and rear exhaust tube.
- ☐ Explain why inert gas (typically nitrogen) must be used with inflammable solvents or samples.
- ☐ Explain how noble gases may give different performance. Explain the importance of setting the right pressure by using the correct pressure regulator, and avoiding pressure fluctuations.
- ☐ Explain how to avoid and check for leaks.
- ☐ Explain the operating principle of the ELSD.
- ☐ Explain the detection principle in contrast to UV/Vis (absorption vs. intensity of scattered light).
- ☐ Explain using the front panel keypad.
- ☐ Explain optimization for instrument sensitivity by monitoring solvent quality, gas cleanliness etc.
- ☐ Explain basic troubleshooting in case of baseline noise issues.
- ☐ Explain interfaces to third party instruments (if applicable).
- ☐ Explain “steam cleaning” procedure.
- ☐ Explain that no self repair is possible for internal parts due to safety reasons.

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G7116A 1260 MCT, G7116B 1290 MCT

- ☐ **Section NOT Applicable**
- ☐ Explain the basic operating principle of the column thermostat, its features, and key specifications.
- ☐ Explain temperature settings in the Chromatography Data System (CDS).
- ☐ Explain the role of Quick Connect Heat Exchangers.
- ☐ Explain the role of Quick Change Valve Head, how to set a position in the CDS (if applicable).
- ☐ Explain column ID tag readers (if applicable).
- ☐ Explain the Thermostat Test (via Service & Diagnostics) and Two Point Calibration (via Instrument Control, Special Commands) in Lab Advisor.
- ☐ Explain the functionality and usage of the column ID tags in Agilent CDS (if applicable).
- ☐ Explain the functionality and usage of the column ID tags in third party CDS (if applicable).

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G4767A 1260 SFC Multisampler

☐ **Section NOT Applicable**

☐ Explain the basic operating principle of the SFC Multisampler, features and key specifications.

☐ Explain the SFC Multisampler settings in the Agilent Control Software.

☐ Show the use and configuration of the Sample Hotel and drawer system, how to install and remove drawers, and explain which sample containers and vessels can be used with each type of drawer.

☐ Explain the needle wash function and solvent compatibility.

☐ Show where sample loop flex cartridges, the needle assembly, and seat assemblies can be configured in the CDS.

☐ Show proper leak concept. Show routing of waste tubing and condensation drain tubing.

☐ Explain the Service & Diagnostics features in Lab Advisor: Injector steps, Auto Referencing, Parking, and Maintenance Position.

☐ Explain how to use the following Instrument Control features in Lab Advisor: Clear Error, Sampler Reset, Drawer Configuration, and Park Position.

☐ Explain regular maintenance of purge pump, needle assembly, needle seat assembly, and rotor seal.

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G4767A 1260 SFC Multisampler with Sample Thermostat

☐ **Section NOT Applicable**

☐ Explain the basic operating principle of the Sample Thermostat as well as its key features and specifications.

☐ Show the available method and control settings for the Sample Thermostat in the CDS.

☐ Explain that the Sample Thermostat uses isobutane (R600a) as refrigerant, which is environmentally friendly but flammable, and thus, some special considerations should be taken into account during the operation of this device (no open fire or source of ignition, adequate room size with sufficient air ventilation capacity).

☐ Explain the importance of having proper condensate drainage concept and show how to route correctly the corresponding condensate tubings.

☐ Explain the importance of regular maintenance and cleaning of the Sample Thermostat, having special focus on the ventilation outlets, the condensate tubings, and waste containers.

☐ Explain how and when to use the Sample Cooler Function Test diagnostic feature in Lab Advisor.

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G4782A 1260 SFC Binary Pump

- ☐ **Section NOT Applicable**
- ☐ Explain the basic operating principle of the pump, its features, and key specifications.
- ☐ Explain pump settings in the Chromatography Data System (CDS).
- ☐ Explain solvent tables, solvent compressibility.
- ☐ Explain when and how to optimize compressibility settings.
- ☐ Explain procedures for priming and flushing the pump and system and changing solvents.
- ☐ Explain seal wash function (if applicable).
- ☐ Explain diagnostic features in Test Utility SW.
- ☐ Explain regular maintenance of purge valve and Inline Filter (PTFE frits) and solvent bottle filters.

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G4301A 1260 SFC Control Module

☐ **Section NOT Applicable**

☐ Explain the basic operating principle of the Control Module, its features, and key specifications.

☐ Explain Control Module settings in the Agilent Control Software.

☐ Explain the Control Module preventive maintenance.

☐ Explain tests can be done with Test Utility Software.

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Software Start-Up

- ☐ Show location of software.
- ☐ Demonstrate how to use the software.

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Create/Edit Method (guide customer to perform)

☐ Guide the customer to perform the key steps in creating or editing a method.

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Run Method (guide customer to perform)

☐ Guide the customer to perform the key steps in running a method.

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Parts Finder

☐ **Section NOT Applicable**

☐ Show how to access Parts Finder and demonstrate how to use it.

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Maintenance and Diagnostics

- ☐ Show how to register on Agilent SubscribeNet to download and order the latest software revision.
- ☐ Discuss the safe storage of the software media provided with the system.
- ☐ Describe the importance of data back-up and computer image backup.
- ☐ Discuss using Microsoft Backup and Restore as an option.
- ☐ Discuss the importance of disabling power management options and utilities that run automatically.
- ☐ Power Options: Put the computer to sleep = **Never**
- ☐ Determine any Windows Firewall requirements with the customer IT department. Ensure that Windows Firewall is **Turned on** and the "Notify me when Windows Firewall blocks a new program" = **Checked**.
- ☐ Windows Update: Check for updates but let me choose whether to download and install them.
- ☐ Explain steps required to capture problems/error messages to send to Agilent Technical Support.
- ☐ Show where to access the Troubleshooting and Maintenance Manual.
- ☐ Show how to access virtual instructional tools or software.
- ☐ Discuss when to perform normal user maintenance. Refer to the timetable in the Troubleshooting and Maintenance manual.
- ☐ Explain how to download and update any necessary customer-installable firmware.
- ☐ Explain available Service & Diagnostics in Lab Advisor.

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First Run Assist (Customer driven, assisted by Service Engineer)

☐ **Section NOT Applicable** (not on sales order, or not qualified or covered during the Instrument Introduction).

First Run Assist is a supervised first run of the instrument system performed by the customer.

- The purpose is to provide the customer the opportunity to perform and demonstrate understanding and competency in the critical steps when setting up a method and making a first run.
- It is not intended to create optimized end state results, like chromatograms or spectra, but to provide the first step for running an analysis.

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Service Review

- ☐ Attach available reports/printouts to this documentation.
- ☐ Complete the Service Engineer Comments section below, if applicable.
- ☐ Explain how to log an instrument service call and what support services are available.
- ☐ If not covered during the Installation, explain the Agilent Warranty policy.
- ☐ Perform a review of Agilent's website and web links listed in “Important Customer Web Links”.
- ☐ Discuss with the customer their training needs and present additional training options available through Agilent training and education and custom on-site consulting.
- ☐ Complete Signature Page and attach Signature Page to Service Order.

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Signature Page

Service Engineer Comments (optional)

If there are any specific points you wish to note as part of performing the installation or other items of interest for the customer, please write in this box.

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Service Verification

Service Request Number:

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Date Service Completed:

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Service Engineer Name:

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Customer Name:

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Service Engineer Signature:

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Customer Signature:

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Total number of pages in this document:

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