Release Note for Agilent LC and CE Drivers Revision A.02.15

Introduction

This release note provides important information for the release of Agilent LC and CE drivers A.02.15.

The Agilent LC and CE Driver A.02.15 CD contains both driver A.02.15 and driver A.02.14. Driver A.02.15 is required for new modules described in the next section and also includes bug fixes. Driver A.02.15 is currently only supported for OpenLAB CDS ChemStation Edition C.01.07 SR2 HF1, see section "Compatibility Matrix" on page 6 for details. If a more extensive compatibility matrix is needed without a need for new modules introduced with driver A.02.15, please use driver A.02.14. For details please refer to the Release Note for Driver A.02.14 in folder LC Drivers A.02.14.

List of New Modules and Features

This section lists new modules and describes key features from a driver perspective. For details about hardware products and applications, please refer to corresponding hardware and system manuals and application notes available from http://www.agilent.com or documentation shipped with new modules. Please note that not all modules or module options listed here may already be orderable or shipping. Driver packages may include future products.

Driver release A.02.15 supports the following Agilent InfinityLab LC Series modules:

Product Number	Name
G7159B	1290 Infinity II Preparative Open-Bed Fraction Collector
G7166A	1260 Infinity II Preparative Valve-Based Collector
G4734A	6-Position/14-Port 6-Column Selection Valve for Prep

Following new driver features are being introduced:

- Enable/disable fraction collection button
- Up to four different peak triggers now possible
- Enhanced trigger combinations to "AND", "OR", "AND/OR"
- Five new fraction modes available
- Option for volume-based fraction modes

- Fraction Collector Delay now available as method parameter
- Fraction Collector Delay can be set as time or volume
- End of fraction delay function to compensate for tailing peaks
- Enhanced functionality of Timetable
- Fraction Preview always accessible within the fraction collector method

1290 Infinity II Open-Bed Fraction Collector G7159B

The G7159B Open-Bed Fraction Collector is the newest fraction collector from Agilent and features an Open-Bed design for quick access to all fraction tubes. The fraction tubes are organized in containers, and the fraction collector bed can consist of up to six containers on up to three drawers. Eight different containers for four different fraction tube ODs and two different fraction tube lengths are available. The RFID-tags on each container allow automated and rapid update of the fraction collector bed configuration within the CDS. During a purification run the currently active drawer is locked and cannot be removed, while all the other drawers and containers can be removed and exchanged by other containers. A persistent bed calibration is available to ensure alignment between the robot and small outer diameter fraction tubes to avoid spilling.

Two different tubing kits are available, covering flow ranges up to 50 mL/min and up to 200 mL/min, respectively, and allow for bio-inert workflows.

The fraction collector features a fraction delay sensor for automatic determination of the optimal delay volume. The rapid vessel-to-vessel movement of the robot combined with a 20 µL low volume nozzle allows to maximize recovery and minimize carry-over. The built-in flush port in the back of the module allows rinsing of the nozzle between runs.

1290 Infinity II Valve-Based Collector G7166A

The compact G7166A Valve-Based Collector is the entry-level fraction collector which can also be used for high-volume fraction collection. This hosted module has ports for one inlet, 11 fractions and one outlet to waste. Each port is capable of collecting volumes of up to 5 L. Residual solvent can be removed from the fraction tubing by using an air blow out at the end of the run by using pressurized air. An additional rinsing function provides absolutely clean fraction tubings for the next purification run.

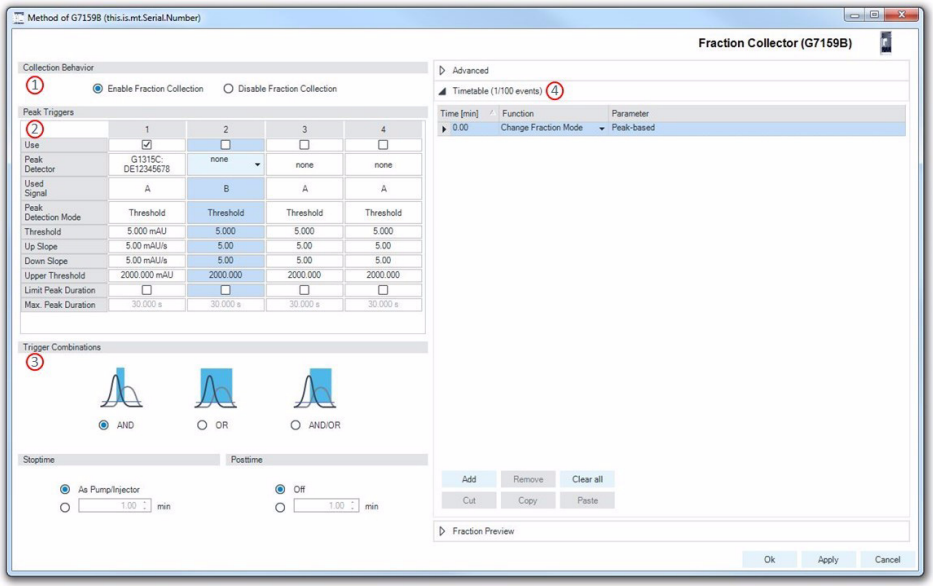
The built-in fraction delay sensor of the G7166A allows for automatic delay volume calibration for an optimum of sample recovery. The module is capable of using all available fraction collection modes, just like the Open-Bed Fraction Collector G7159B.

6-Column Selector G4734A

The G4734A 6-Position/14-Port Valve is designed to allow switching between up to 6 preparative columns. This versatile valve is rated for a maximum flow rate of up to 200 mL/min and can withstand a maximum pressure of 600 bar. The G4734A can also be used as clustering valve for Fraction Collectors.

New Driver Features

The screenshot below shows the default Fraction Collector method screen for the Open-Bed Fraction Collector G7159B.



Driver A.02.15 brings a lot of changes and new features compared to the Fraction Collectors of the G1364-Series:

1 In the section “Collection Behavior” there is now the option to enable or disable the Fraction Collector-part of the whole method.

2 The section “Peak Triggers” has been greatly improved. It is now possible to configure up to four different peak triggers, e.g. signal A and B from a Diode Array Detector. Peak Detection Modes such as “Threshold”, “Peak” or “Threshold and Peak” and the corresponding values can be set individually for each Peak Trigger.

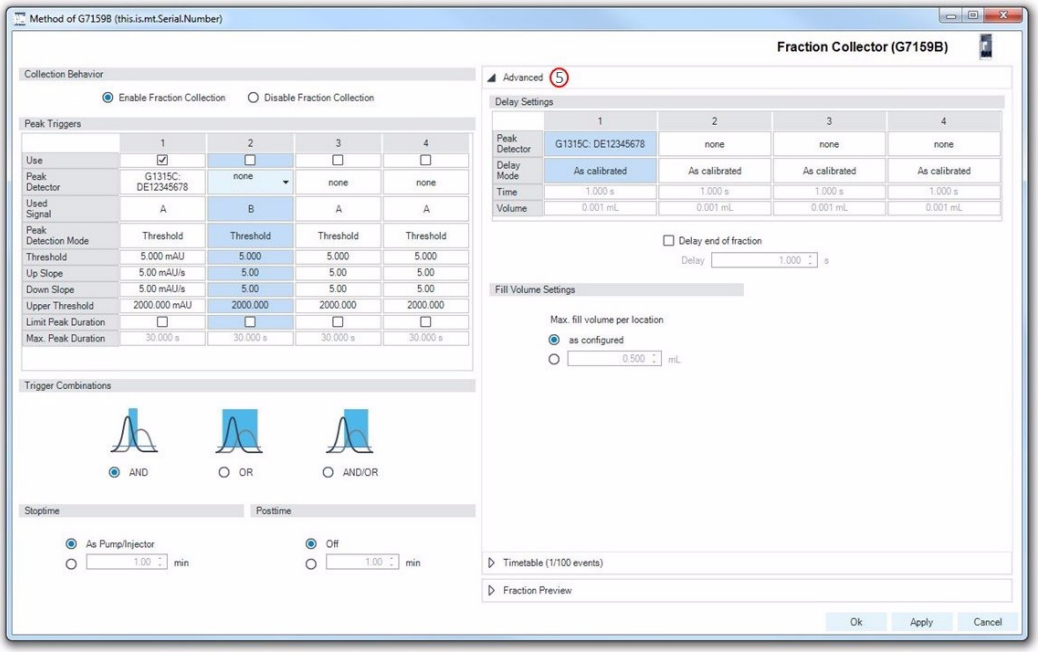
3 There are now three different Trigger combinations available for multiple detector setups:

- AND: Both collectors need to detect a peak at the same time to enable fraction collection. The collection will be stopped as soon as at least one detector can no longer detect a peak.
- OR: At least one of the peak detectors need to detect a peak to start the fraction collection. The collection will be stopped as soon as all peak detectors no longer detect a peak.
- AND/OR: Both collectors need to detect a peak to start fraction collection. The collection will be stopped as soon as all peak detectors no longer detect a peak.

While the first two trigger combinations have the same conditions for starting and stopping the collection, the third mode has the logical “AND” condition for starting the collection and the logical “OR” condition for stopping. This third mode is used for setups with peak detectors connected in series and is intended to help compensating for dispersion between the two detectors.

4 The timetable is now always active and has one entry by default activating peak-based fraction collection at 0.00 min. It is possible to switch between various

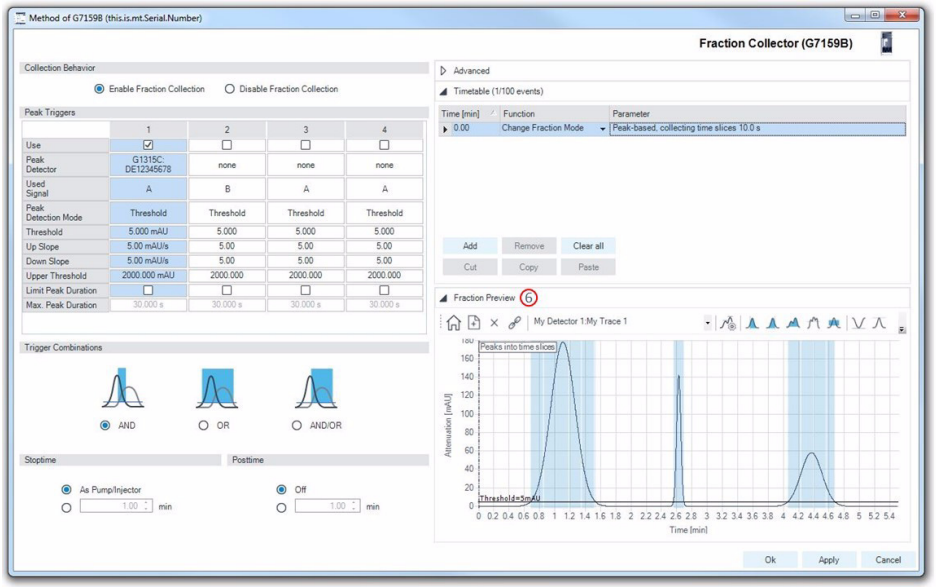
collection modes and set different thresholds or slopes depending on the time of the run.



5 In the advanced tab the user can change fraction collection delay parameters on a time or volume basis. Typically, one can use the values from the delay calibration, but those need to be changed when using a different flow rate in a mass-based setup or when using different columns with various inner diameters that require using different delay coils.

It is also possible to delay the end of a fraction collection by a time period. This is especially useful when running strongly dispersing compounds.

Like in the G1364-series it is still possible to define a different maximum fill volume for the fraction tubes.



6 The Fraction Preview is now accessible from within the method user interface. This function is especially useful when the user wants to do multiple injections of the same compound without changing any parameter.

Based on a previous run the screen above allows to explore various parameters such as threshold, slope, fraction collection mode etc. to directly see how many fractions the user can expect in the next run, and also see if the user might miss a peak.

HINT These new features will not be available on the G1364A/B/C/D by installing LC and CE drivers A.02.15. The new features only apply to the newly introduced fraction collection modules.

Compatibility Matrix

The compatibility matrix provides information about installation and execution prerequisites with respect to hardware, firmware, the operating system.

Supported Operating Systems

The following operating systems are supported:

- Windows 7 SP1 (32-Bit/64-Bit)
- Windows Server 2008 R2 (64-Bit)
- Windows 8.1 (32-Bit/64-Bit)
- Windows Server 2012 R2 (64-Bit)
- Winows 10 (32-Bit/64-Bit)

Drivers have been optimized for the Windows default font size (100%). Larger font sizes may require increasing the window size or may cause truncations.

Driver Localization

Drivers are available in US English, Chinese, Japanese and Brazilian-Portuguese.

Supported Chromatographic Data Systems (CDS)

This driver has been tested with:

OpenLAB CDS ChemStation Edition	C.01.07 SR2 HF 1 C.01.07 SR3 (release pending)

Agilent drivers can also be used with other CDSs such as OpenLAB 2, MassHunter workstation and third party CDSs through the instrument control framework (ICF). Such CDSs require dedicated installers not included to standard driver media. Some of the functionality offered by the drivers may be supported by all CDSs. Please refer to the corresponding CDS and ICF documentation.

NOTE

This driver release has been tested for backward compatibility of new 1260 Infinity II modules to previous CDS revisions. However not all previously released modules supported by this driver are also supported by all CDSs listed here. For detailed compatibility information, please refer to module hardware manuals.

Recommended firmware

Driver release A.02.15 has been tested and recommends the firmware set with following revisions or any later firmware:

Device	Firmware
Agilent 1100 Series, 1200 Series and 1200 Infinity	A.07.01
Agilent 1200 Series, 1200 Infinity and 1120 Compact LC	B.07.01
Agilent 1200 Infinity Hosted Modules	C.07.01
Agilent 1260/1290 Infinity II Modules	D.07.01

Please note that firmware set 07.01 contains firmware with later revisions, e.g. for new modules:

Table 1 Firmware with later revisions

Module	Module Firmware	Host module Firmware
1290 Infinity II Preparative Open-Bed Fraction Collector	D.07.10	
1260 Infinity II Preparative Valve-Based Collector	C.07.10	D.07.10

Please observe recommendations for firmware compatibility in “Appendix A: Modules and Minimum required firmware” on page 10.

NOTE Please note that a firmware update within set A/B/C/D.07.01 is required for all modules in that stack, not only new modules, as for example the fraction collector uses new detector features.

Impact Analysis

A driver update changes the part of the Chromatographic Data System, which is responsible for instrument control, such as instrument configuration, method parameters, control functions and instrument signals. The Agilent Software Development Lifecycle includes extensive quality tests of all new software features as well as regression tests for existing functionality. Therefore, driver upgrades are considered to be of low risk.

This section usually lists changes to existing software features that may require special attention for re-validation.

Table 2 KP

KPR#	SSB/SRB Problem Description Title
110	Fraction collector stop times do not end runs

If your driver upgrade includes several revisions, please verify the impact analysis for all revisions between the original and the final version. Specific advice is available for some versions.

Please contact your regulation officer which validation activities are required.

Installation

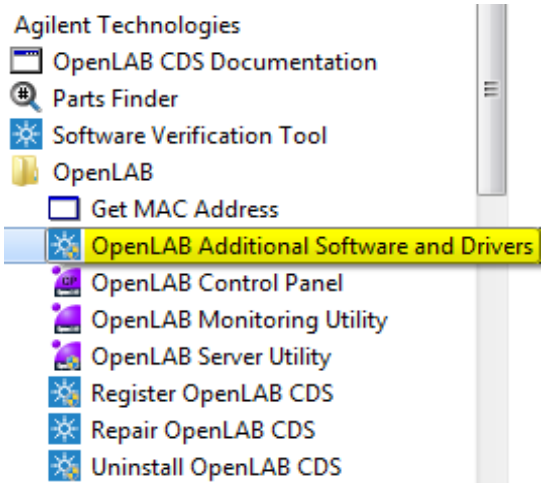
Before starting a driver installation or update, the firmware for the entire LC or CE system must be updated to the recommended firmware set, see section firmware compatibility in “Appendix A: Modules and Minimum required firmware” on page 10

If the Chromatography Data System (CDS) has already been installed, please check, if it is compatible to this driver revision. Then update the driver update if needed.

If no CDS is yet installed, please install a compatible CDS first using the CDS documentation observing prerequisites like CPU, memory and hard drive space. Usually, a driver will be installed by the CDS, which however may not be the latest one and may require a driver update in the next step.

OpenLAB CDS ChemStation Edition C.01.07	LC & CE Drivers A.02.15 [651]

For OpenLAB, please use "OpenLAB Additional Software and Drivers" for installing the driver from the Windows Start Menu.



Drivers for the ELSD are located in the "More Drivers" folder.

Other Documents

The driver DVD includes more documents with further information:

Software Status Bulletin (SSB): The Software Status Bulletin lists known limitations and incompatibilities and information about available fixes or workarounds for this and previous versions

Software Release Bulletin (SRB): The Software Release Bulletin bulletin is an excerpt from the SSB which lists issues which have been fixed with this revision.

SSB and SRB are included to the driver CD and can be found in folder documentation

The SSB is updated regularly. Please visit our Website for the latest version at http://www.chem.agilent.com/Library/Support/Patches/SSBs/LC_RC_Net.html.

The SRB is intentionally empty for this release. There are no documented bug fixes for this release.

Firmware and firmware documentation are available for download from http://www.chem.agilent.com/_layouts/agilent/downloadFirmware.aspx?whid=69761.

ELSD specific information is located in the folder “More Drivers\ELSD A.01.05”.

For detailed information on new modules and features, please refer to the driver online help (press F1 button in the driver user interface, e.g. in the module dashboard) and corresponding module manuals, which are available at http://www.agilent.com.

Updates

Agilent continuously improves its drivers, firmware and software and recommends using latest updates. If applicable, any updates or bug fix releases for this driver package are available from Subscribenet at https://agilent.subscribenet.com.

Appendix A: Modules and Minimum required firmware

In the following sections this guide summarizes the instruments and modules for which drivers are available from Agilent and lists the minimum required firmware.

Agilent uses several different firmware architectures, which are based on different underlying electronic architectures and are indicated by a different letter A/B/C/D:

Revision A:	Electronic architecture of Agilent 1100 Series, 1200 Series and 1200 Infinity modules. This is the architecture used by recent and historic modules.
Revision B:	Electronic architecture of many Agilent 1200 Series and 1200 Infinity modules. This architecture is used by many modules with high computing performance or data acquisition rates like recent VWD, DAD and MWD detectors or 1290 Infinity pumps.
Revision C:	This architecture is used by hosted modules. Hosted modules have a mainboard with reduced complexity and require a hosting module with revision B or D firmware.
Revision D:	This architecture is used by 1290 Infinity II modules like G7114B and G7117A/B detectors and G7167A/B Multisamplers.

Agilent recommends always using the most recent firmware revisions which include latest firmware features and improvements. Drivers are forward compatible with respect to firmware, i.e. the firmware can be updated without the need of updating the driver or CDS.

This table lists the minimum required firmware for all modules supported by the driver. For recommended firmware, please refer to “Recommended firmware” on page 7. Please note that all modules in a system need to use compatible firmware from one firmware set. Please refer to firmware documentation for details, see “Other Documents” on page 9.

Please note that using some driver features like valve-thermostat clusters and new temperature control modes require firmware updates beyond this list for related modules, see for details.

Agilent LC – Pumps

Product Number	Module Name	Minimum Required Firmware Revision
G1310A	1100 Series Isocratic Pump	A.06.10
G1310B	1260 Infinity Isocratic Pump	A.06.32
G1311A	1100 Series Quaternary Pump*	A.06.10
G1311B	1260 Infinity Quaternary Pump*	A.06.32
G1311C	1260 Infinity Quaternary Pump VL*	A.06.32
G1312A	1260 Infinity Binary Pump*	A.06.10
G1312B	1260 Infinity Binary Pump SL*	A.06.10
G1312C	1260 Infinity Binary Pump VL*	A.06.32
G1361A	1260 Infinity Preparative Pump Cluster with up to 4	A.06.50
G1376A	1260 Infinity Capillary Pump	A.06.10
G2226A	1260 Infinity Nanoflow Pump	A.06.10
G4204A	1290 Quaternary Pump*	B.06.50
G4220A	1290 Infinity Binary Pump*	B.06.23
G4220B	1290 Infinity Binary Pump VL*	B.06.43
G4302A	1260 Infinity SFC Binary Pump*	A.06.32
G5611A	1260 Infinity Bio-inert Quaternary Pump*	A.06.32
G7104A	1290 Infinity II Flexible Pump*	B.06.71
G7110B	1260 Infinity II Isocratic Pump	D.07.01
G7111A	1260 Infinity II Quaternary Pump VL*	D.07.01
G7111B	1260 Infinity II Quaternary Pump VL*	D.07.01
G7112B	1260 Infinity II Binary Pump*	D.07.01
G7120A	1290 Infinity II High Speed Pump*	B.06.71
G5654A	1260 Infinity II Bio-inert Quaternary Pump*	D.07.01

* Pump valve clusters are possible for marked pumps with up to 2 valves of type G1160A and/or G1170A

Agilent LC - Sampling Systems

Product Number	Module Name	Minimum Required Firmware Revision
G1313A	1100 Series Standard Autosampler	A.06.10
G1329A	1100 Series Standard Autosampler	A.06.10
G1329B	1260 Infinity Standard Autosampler	A.06.10
G1367A	1100 Series Well-plate Sampler	A.06.31
G1367B	1200 Series High Performance Autosampler	A.06.31
G1367C	1200 Series High Performance Autosampler SL	A.06.31
G1367D	1200 Series High Performance Autosampler SL+	A.06.31
G1367E	1260 Infinity High Performance Autosampler	A.06.32
G1377A	1260 Infinity High Performance Micro Autosampler	A.06.12
G1389A	1100 Series Micro Thermostatted Autosampler	A.06.10
G2258A	1260 Infinity Dual-Loop Autosampler	A.06.50
G2260A	1260 Infinity Preparative Autosampler (High flow)	A.06.50
G4226A	1290 Infinity Autosampler	A.06.31
G4303A	1260 Infinity SFC standard autosampler	A.06.54
G5667A	1260 Infinity Bio-inert Autosampler	A.06.32
G5668A	1260 Infinity II Bio-inert Multisampler	D.07.01
G7167A	1260 Infinity II Multisampler	D.06.60
G7167B	1290 Infinity II Multisampler	D.06.60
G7129A	1260 Infinity II Vialsampler	D.06.76
G7129B	1290 Infinity II Vialsampler	D.06.76
G7157A	1260 Infinity II Preparative Autosampler	D.07.01

Agilent LC – Column Compartments

Product Number	Module Name	Minimum Required Firmware Revision
G1316A	1260 Infinity Thermostatted Column Compartment	A.06.10
G1316B	1200 Series Column Compartment SL	A.06.10
G1316C	1200 Series Thermostatted Column Compartment SL*	A.06.14
G7116A	1260 Infinity II Multicolumn Thermostat	D.07.01
G7116B	1290 Infinity II Multicolumn Thermostat (firmware for host module in brackets)	C.06.75 (B.06.75/D.06.75)
G7130A	Integrated Column Compartment ICC	D.06.76

* Cluster with up to three G1316C with integrated 8pos/9port valves (products G4230A/B). Minimum two G1316C TCCs, the third TCC can be a G1316A, B or C.

Agilent LC – Detectors

Product Number	Module Name	Minimum Required Firmware Revision
G1314A	1100 Series Variable Wavelength Detector	A.06.10
G1314B	1200 Series Variable Wavelength Detector	A.06.10
G1314C	1200 Series Variable Wavelength Detector	A.06.10
G1314D	1200 Series Variable Wavelength Detector	B.06.32
G1314E	1290 Infinity Variable wavelength Detector	B.06.32
G1314F	1260 Infinity Variable wavelength Detector	B.06.32
G1315A	1100 Series Diode Array Detector	A.06.10
G1315B	1200 Series Diode Array Detector	A.06.10
G1315C	1200 Series Diode Array Detector VL+	B.06.30
G1315D	1200 Series Diode Array Detector VL	B.06.30
G1365A	1100 Series Multiple Wavelength Detector	A.06.10
G1365B	1100 Series Multiple Wavelength Detector	A.06.10
G1365C	1260 Infinity Multiple Wavelength Detector	B.06.30
G1365D	1260 Infinity Multiple Wavelength Detector VL	B.06.30
G1321A	1100 Series Fluorescence Detector (FLD)	A.06.10
G1321B	1260 Infinity Fluorescence Detector	A.06.32
G1321C	1260 Infinity Fluorescence Detector	A.06.54
G1362A	1260 Infinity Refractive Index Detector	A.06.10
G4212A	1290 Infinity Diode Array Detector	B.06.30

Product Number	Module Name	Minimum Required Firmware Revision
G4212B	G4212B 1260 Infinity Diode Array Detector	B.06.30
G4212A/B HDR-DAD Cluster	2x G4212A or 2x G4212B or a combination of 1x G4212A and 1x G4212B	B.06.57
G7114A	1260 Infinity II Variable Wavelength Detector	D.07.01
G7114B	1290 Infinity II Variable Wavelength Detector	D.06.70
G7115A	1260 Infinity II Diode Array Detector WR	D.07.01
G7117A	1290 Infinity II Diode Array Detector	D.06.70
G7117B	1290 Infinity II Diode Array Detector FS	D.06.70
G7117C	1260 Infinity II Diode Array Detector HS	D.07.01
G7117A/B HDR-DAD Cluster	2x G7117A or 2x G7117B or a combination of 1x G7117A and 1x G7117B	D.06.70
G7121A	1260 Infinity II Fluorescence Detector	D.07.01
G7121B	1260 Infinity II Fluorescence Detector Spectra	D.07.01
G7165A	1260 Infinity II Multiple Wavelength Detector	D.07.01
G4218A	1260 Infinity Evaporative Light Scattering Detector	1.3
G4260A	380-ELSD	25.00
G4261A	385-ELSD	25.00
G4260B	1260 Infinity Evaporative Light Scattering Detector	31.06
G4261B	1290 Infinity Evaporative Light Scattering Detector	31.06
G7102A	1290 Infinity II Evaporative Light Scattering Detector	31.06
G7162A	1260 Infinity II Refractive Index Detector	D.06.76
G7162B	1290 Infinity II Refractive Index Detector	D.06.76

Agilent LC – Valves, Valve Drives and Clusters

Product Number	Module Name	Minimum Required Firmware Revision
G1156A	1200 Series 6 Position / 7 Port Valve (400 bar)	A.06.02
G1157A	1200 Series 2 Position / 10 Port Valve	A.06.02
G1158A	1200 Series 2 Position / 6 Port Valve	A.06.02
G1158B	1200 Series 2 Position / 6 Port Valve (600bar)	A.06.02
G1159A	1200 Series 6 Position Selection Valve	A.06.02
G1160A	1100 Series Multiple Purpose Switching Valve (12 Position / 13 Port)	A.06.02

Product Number	Module Name	Minimum Required Firmware Revision
G1162A	1200 Series 2 Position/ 6 Port Micro Valve	A.06.02
G1163A	1200 Series 2 Position/ 10 Port Micro Valve	A.06.02
G1170A	1290 Infinity Valve Drive (firmware for host module in brackets)	C.06.40 (B.06.40/D.06.60)
VTC	Combinations of G7116B, G1170A and G1316C (valve or column hosts) and G1361A/B and G7130A (column hosts)	see table below

Valve Thermostat Cluster (VTC)

The Valve Thermostat Cluster is a combination of G7116B, G1170A and G1316C as valve or column hosts and G1316A/B and G7130A as column hosts.

Table 3 Minimum required firmware revisions:

Module	Minimum module FW	Minimum host module FW
G7116B	C.06.75	B.06.75/D.06.75
G1170A	C.06.75	B.06.75/D.06.75
G7130A (within G7129A/B)	D.06.76	n/a
G1316C	A.06.55	n/a
G1316A/B	A.06.10	n/a

Fraction Collectors

Prduct Number	Module Name	Minimum Required Firmware Revision
G1364A	1100 Series Automatic Fraction Collector Cluster of up to 3*	A.06.53
G1364B	1260 Infinity Fraction Collector (preparative-scale) Cluster of up to 3*	A.06.53
G1364C	1260 Infinity Fraction Collector (analytical-scale) Cluster of up to 3*	A.06.53
G1364D	1100 Series Micro Fraction Collector	A.06.53
G5664A	1260 Infinity Bio-inert fraction collector AS	A.06.53
G7159B	1290 Infinity II Preparative Open-Bed Fraction Collector	D.07.10
G7166A	1260 Infinity II Preparative Valve-Based Collector (firmware for host module in brackets)	C.07.10 (D.07.10)

* Any combination of G1364A/B/C or G5664A plus a fourth G1364A/B/C or G5664A for recovery can be clustered. Multiple individual Fraction Collectors are not supported

Agilent LC – Other Modules

Prduct Number	Module Name	Minimum Required Firmware Revision
G1390A	1100 Series Universal Interface Box (UIB)	A.06.02
G1390B	1200 Infinity Series Universal Interface Box II (firmware for host module in brackets)	C.06.53 (B.06.53/D.06.60)
G4227A	1290 Infinity Flexible Cube (firmware for host module in brackets)	C.06.52 (B.06.52/D.06.60)
G4240A	Chip Cube	A.06.36
G4301A	1260 Infinity Analytical SFC System	A.03.07

Agilent LC Systems

Product Number	Module Name	Minimum Required Firmware Revision
G4286A	1120 Compact LC, Isocratic	B.06.50
G4286B	1220 Infinity LC System Isocratic, Man. Inj., VWD, 600 bar	B.06.50
G4287A	1120 Compact LC, Isocratic with Oven and ALS	B.06.50
G4287B	1220 Infinity LC Isocratic, ALS, TCC, VWD, 600 bar	B.06.50
G4288A	1120 Compact LC, Gradient	B.06.50
G4288B	1220 Infinity LC Gradient, Man. Inj., VWD, 600 bar	B.06.50
G4289A	1120 Compact LC, Gradient with Oven	B.06.50
G4289B	1220 Infinity LC Gradient, ALS, TCC, VWD, 600 bar	B.06.50
G4290A	1120 Compact LC,Gradient with oven and ALS	B.06.50
G4290B	1220 Infinity LC Gradient, ALS, Man. Inj., TCC, VWD, 600 bar	B.06.50
G4291B	1220 Infinity LC Isocratic, Man. Inj., TCC, VWD, 600 bar	B.06.50
G4292B	1220 Infinity LC Isocratic, ALS, VWD, 600 bar	B.06.50
G4293B	1220 Infinity LC Gradient, ALS, VWD, 600 bar	B.06.50
G4294B	1220 Infinity LC Gradient, ALS, TCC, DAD, 600 bar	B.06.50
G4288C	1220 Infinity LC System VL, Gradient, Man. Inj. VWD, 400 bar	B.06.50
G4289C	1220 Infinity LC System VL, Gradient, Man. Inj. VWD, 400 bar	B.06.50

Product Number	Module Name	Minimum Required Firmware Revision
G4290C	1220 Infinity LC System VL, Gradient, ALS, TCC, VWD, 400 bar	B.06.50
G4293C	1220 Infinity LC System VL, Gradient, ALS, VWD, 400 bar	B.06.50

Agilent CE Firmware Information

Product Number	Module Name	Minimum Required Firmware Revision
G7150A	G7100 Capillary Electrophoresis II	B.06.25
G7151A	Diode Array Detector for CE	B.06.25

For firmware compatibility, please observe following requirements:

- Agilent releases LC firmware in sets for modules, which have been tested for interoperability. A set typically covers a range of firmware revisions, e.g. A/B/C/D.07.0x with variable values for x.
- All Agilent LC instrument firmware sets have been designed and tested to be fully backward compatible to Agilent chromatographic data systems (CDS).
- The module firmware in each set is fully compatible and interoperable with firmware for all other modules in the same set.
- Firmware of different modules is linked, e.g. between host modules (B/D-firmware) and hosted modules (C-firmware) or because of other dependencies (pump/autosampler, fraction collector/detector...). When upgrading firmware within a set, all modules in a system must be updated to the current firmware revision within that set.
- Agilent recommends keeping the LC instrument firmware always current in order to include latest improvements and bug fixes
- Do not mix firmware revisions from different sets. This has not been tested and may cause issues.
- For details, please refer to extensive information provided on web site http://www.agilent.com/en-us/firmwareDownload?whid=69761

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Revision 3.0