Agilent LC & CE Drivers 3.4

Release Note

Introduction

This release note summarizes information for release 3.4 of the LC and CE Drivers.

For the LC and CE Drivers, find the summary of major changes below.

For information about defect fixes, please see the additional documents Software Status Bulletin (SSB) and Software Release Bulletin (SRB).

Drivers and Documentation for Agilent ELSD can be found in the "More Drivers" folder.

Features and Changes

New Features

Support of new Agilent Infinity II Bio modules

LC & CE Drivers 3.4 add support to

- G7131A Agilent 1290 Infinity II Bio Flexible Pump
- G7131C Agilent 1260 Infinity II Bio Flexible Pump
- 5-Position/10-Port Bio ASM Valve (5320-0017)

Affected modules/drivers: G7131A, G7131C, Valve drives

Support of new Online Sample Manager

LC & CE Drivers 3.4 add support to

- G3167A Agilent 1260 Infinity II Online Sample Manager
- 3-Position/6-Port 800 bar Valve (5067-6680)

Affected modules/drivers: G3167A, Valve drives

Enhancements to Fraction Collectors and Fraction Collector Clusters

LC & CE Drivers 3.4 add support to

- Flow gradients during fractioning

Affected modules/drivers: fraction collectors and fraction collector cluster

Enhanced support of 2D-LC System Driver

LC & CE Drivers 3.4 come “ready for data acquisition” with 2D-LC systems where supported by the associated data system. This is in preparation of future MassHunter and OpenLab CDS releases that will provide extensive functionality around 2D-LC. Several new features have been added to the 2D-LC functionality.

Activating the 2D-LC System Driver will require a dongle-based license which will be made available at a later stage.

Affected modules/drivers: 2D-LC System

Support of ISET characterization 4.4

LC & CE Drivers 3.4 add support to ISET 4.4 which supports the Infinity II modules including the new bio modules (G7131A/C, G7132A and G7137A).

Affected modules/drivers: pumps and samplers

Continuous Improvement of the LC and CE Drivers

In addition to the new features, the following enhancements have been made to further improve existing features of the LC & CE Drivers.

Features and Changes

Added support to Windows Server 2016

LC & CE Drivers 3.4 now add support to Windows Server 2016 (64-Bit) installations.

Affected modules/drivers: All

Compatibility Matrix

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

Supported Operating Systems

The following operating systems are supported:

- Windows 8.1 (32-Bit/64-Bit)
- Windows Server 2012 R2 (64-Bit)
- Windows Server 2016 (64-Bit)
- Windows 10 (32-Bit/64-Bit)

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

NOTE Additional operating systems may be supported by the Chromatographic Data System in use. Any known issues with specific operating systems and the LC&CE Drivers are documented in the LC&CE Drivers Software Status Bulletin.

Driver Localization

The Agilent LC and CE Drivers are available in US English, Chinese, Japanese, Brazilian Portuguese, and Russian language.

NOTE Not all available languages may be supported by all CDSs. Please refer to the corresponding CDS and ICF documentation for further details.

Supported Chromatographic Data Systems

This version of the Agilent LC and CE Drivers is supported with:

Chromatographic Data System	Version
OpenLab CDS	2.6
OpenLab CDS ChemStation Edition	C.01.10 (Update 4 is recommended)
OpenLab CDS EZChrom Edition	None
Agilent MassHunter Acquisition for LC/TOF and Q-TOF	11.0

The LC and CE Drivers may also be offered with other media of the tested Chromatographic Data Systems (CDSs) and other third party CDSs through the instrument control framework (ICF). Such CDSs require dedicated installers that are not included in the stand-alone driver media.

NOTE Some of the functionality offered by the LC and CE drivers may not be supported by all CDSs. Please refer to the corresponding CDS and ICF documentation for further details.

Recommended Firmware

With the release of this driver version it is recommended to use the following firmware revisions:

Device	Recommended Firmware
Agilent 1100 Series, 1200 Series and 1200 Infinity	A.07.01 or later
Agilent 1200 Series, 1200 Infinity and 1120 Compact LC	B.07.34 or later
Agilent 1200 Infinity Hosted Modules	C.07.30 or later
Agilent 1260/1290 Infinity II Modules	D.07.34 or later

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.

Installation

Before starting a driver installation or update, it is recommended to update the firmware for the entire LC or CE system to the recommended firmware set described above.

Each module of the LC or CE system to use this driver version must at least be updated to the minimum required firmware. For a list of minimum required firmware per LC and CE Module, see section "Appendix A - Minimum required Firmware per LC module" on page 8.

If no CDS is 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.

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

To update the LC and CE drivers in OpenLab 2.x, double click the "OpenLab2_LC_Drivers.msi" and follow the instructions.

To update the LC and CE drivers in MassHunter double click the “Agilent_MassHunter_LC_Drivers.msi” and follow the instructions.

In OpenLab CDS ChemStation and EZChrom Editions, please use the tool "OpenLab Additional Software and Drivers" which you will find in your Windows Start Menu (All Programs - Agilent Technologies - OpenLab) for installing or updating the driver.

Other Documents

The driver USB drive includes more documents with further information:

- Software Status Bulletin (SSB): The Software Status Bulletin lists known limitations, incompatibilities and information about available fixes or workarounds for this and previous versions.
- Software Release Bulletin (SRB): The Software Release Bulletin is an excerpt from the SSB which lists issues which have been fixed with this revision.
- ELSD specific information can be found in folder “More Drivers\ELSD 1.8”.

Where to find additional information online

- SSB and SRB are included to the driver CD and can be found in the folder documentation.
- The SSB is updated regularly. Please visit our Website for the latest version at http://www.agilent.com/cs/library/support/Patches/SSBs/LC_RC_Net.html.
- Firmware and firmware documentation are available for download from http://www.agilent.com/en-us/firmwareDownload?whid=69761.
- 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

Appendix A - Minimum required Firmware per LC module

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	Description
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. The host firmware version is shown between () in the compatibility matrix in case of a hosted module.
Revision D:	This architecture is used by 1290 Infinity II modules like G7114B and G7117A/B detectors and G7167A/B Multisamplers.

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

For recommended firmware, please refer to “

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Recommended Firmware" on page 5. Please note that all modules in a system need to use compatible firmware from one firmware set. Refer to firmware documentation for details, see section "Other Documents" on page 6.

In general, the Agilent LC & CE drivers are backwards compatible down to the so called minimum required firmware version. Modules with identical Product Numbers are supported, even if the tables below list only the product name of the current model version. 1100 Series and 1200 Series models are supported on a best-effort basis.

The following table lists the minimum required firmware for all LC modules supported by the LC and CE Drivers. Please note that not all features might be available, if only the minimum required firmware is used.

Agilent LC – Pumps

Product Number	Product Description	min. required FW
G1310A	Agilent 1200 Isocratic Pump	A.06.10
G1310B	Agilent 1260 Infinity Isocratic Pump	A.06.30
G1311A	Agilent 1200 Quaternary Pump	A.06.10
G1311B	Agilent 1260 Infinity Quaternary Pump	A.06.10
G1311C	Agilent 1260 Infinity Quaternary Pump VL	A.06.30
G1312A	Agilent 1200 Binary Pump	A.06.10
G1312B	Agilent 1260 Infinity Binary Pump	A.06.10
G1312C	Agilent 1260 Infinity Binary Pump VL	A.06.30
G1361A	Agilent 1260 Infinity Preparative Pump	A.06.50
G1376A	Agilent 1260 Infinity Capillary Pump	A.06.10
G2226A	Agilent 1260 Infinity Nanoflow Pump	A.06.10
G4204A	Agilent 1290 Infinity Quaternary Pump	B.07.34 (NEW)
G4220A	Agilent 1290 Infinity Binary Pump	B.07.34 (NEW)
G4220B	Agilent 1290 Infinity Binary Pump VL	B.07.34 (NEW)
G4302A	Agilent 1260 Infinity SFC Binary Pump	A.06.10
G4782A	Agilent 1260 Infinity II SFC Binary Pump	D.07.28
G5611A	Agilent 1260 Infinity Bio-Inert Quaternary Pump	A.06.10
G5654A	Agilent 1260 Infinity II Bio-Inert Pump	D.07.28
G7104A	Agilent 1290 Infinity II Flexible Pump	B.07.34 (NEW)
G7104C	Agilent 1260 Infinity II Flexible Pump	B.07.34 (NEW)
G7110B	Agilent 1260 Infinity II Isocratic Pump	D.07.28
G7111A	Agilent 1260 Infinity II Quaternary Pump VL	D.07.28
G7111B	Agilent 1260 Infinity II Quaternary Pump	D.07.28
G7112B	Agilent 1260 Infinity II Binary Pump	D.07.28
G7120A	Agilent 1290 Infinity II High-Speed Pump	B.07.34 (NEW)
G7131A	Agilent 1290 Infinity II Bio Flexible Pump	B.07.34 (NEW)
G7131C	Agilent 1260 Infinity II Bio Flexible Pump	B.07.34 (NEW)
G7132A	Agilent 1290 Infinity II Bio High-Speed Pump	B.07.34 (NEW)
G7161A	Agilent 1260 Infinity II Preparative Binary Pump	D.07.20
G7161B	Agilent 1290 Infinity II Preparative Binary Pump	D.07.27

Agilent LC - Sampling Systems

Product Number	Product Description	min. required FW
G1313A	Agilent 1100 Autosampler	A.06.10
G1329A	Agilent 1200 Series Standard Autosampler	A.06.10
G1329B	Agilent 1260 Standard Autosampler	A.06.10
G1367A	Agilent 1100 Well-Plate Autosampler	A.06.31
G1367B	Agilent 1200 High Performance Autosampler	A.06.31
G1367C	Agilent 1200 High Performance Autosampler SL	A.06.31
G1367D	Agilent 1200 High Performance Autosampler SL+	A.06.31
G1367E	Agilent 1260 Infinity High Performance Autosampler	A.06.31
G1377A	Agilent 1260 High Performance Micro-Scale Autosampler	A.06.12
G1389A	Agilent 1100 Micro-Scale Autosampler	A.06.10
G2258A	Agilent 1260 Infinity Dual-Loop Autosampler	A.06.50
G2260A	Agilent 1260 Infinity Preparative Autosampler	A.06.50
G4226A	Agilent 1290 Infinity Autosampler	A.06.30
G4303A	Agilent 1260 Infinity SFC Standard Autosampler	A.06.54
G4767A	Agilent 1260 Infinity II SFC Multisampler	D.07.13
G5667A	Agilent 1260 Bio-Inert High Performance Autosampler	A.06.31
G5668A	Agilent 1260 Infinity II Bio-Inert Multisampler	D.07.27
G7129A	Agilent 1260 Infinity II Vialsampler	D.06.75
G7129B	Agilent 1290 Infinity II Vialsampler	D.06.75
G7129C	Agilent 1260 Infinity II Vialsampler	D.07.20
G7137A	Agilent 1290 Infinity II Bio Multisampler	D.07.33
G7157A	Agilent 1260 Infinity II Preparative Autosampler	D.07.01
G7158B	Agilent 1290 Infinity II Open-bed Sampler / Fraction Collector	D.07.28
G7167A	Agilent 1260 Infinity II Multisampler	D.07.27
G7167B	Agilent 1290 Infinity II Multisampler	D.07.27
G7169B	Agilent 1290 Infinity II Open-bed Sampler / Fraction Collector - Sampler Driver	D.07.34 (NEW)

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Agilent LC - Fraction Collectors

Product Number	Product Description	min. required FW
G1364A	Agilent 1260 Infinity Preparative-Scale Fraction Collector	A.06.53
G1364B	Agilent 1100 Fraction Collector	A.06.53
G1364C	Agilent 1260 Infinity Analytical-Scale Fraction Collector	A.06.53
G1364D	Agilent 1260 Infinity Micro-Scale Fraction Collector/Spotter	A.06.53
G1364E	Agilent 1260 Infinity II Preparative-Scale Fraction Collector	D.07.34 (NEW)
G1364F	Agilent 1260 Infinity II Analytical-Scale Fraction Collector	D.07.34 (NEW)
G5664A	Agilent 1260 Infinity Bio-Inert Fraction Collector	A.06.53
G5664B	Agilent 1260 II Infinity Bio-Inert Fraction Collector	D.07.34 (NEW)
G7159B	Agilent 1290 Infinity II Preparative Open-Bed Fraction Collector	D.07.34 (NEW)
G7166A	Agilent 1260 Infinity II Preparative Valve-Based Fraction Collector	C.07.30 (NEW) (B.07.34 / D.07.34)

Agilent LC - Column Compartments

Product Number	Product Description	min. required FW
G1316A	Agilent 1260 Infinity Thermostatted Column Compartment	A.06.10
G1316B	Agilent 1200 Thermostatted Column Compartment SL	A.06.10
G1316C	Agilent 1290 Infinity Thermostatted Column Compartment	A.06.14
G7116A	Agilent 1260 Infinity II Multicolumn Thermostat	C.07.01 (B.07.01 / D.07.01)
G7116B	Agilent 1290 Infinity II Multicolumn Thermostat	C.06.75 (B.06.75 / D.06.75)
G7130A	Agilent Infinity Integrated Column Compartment	D.06.75

Agilent LC – Detectors

Product Number	Product Description	min. required FW
G1314A	Agilent 1100/1200 Variable Wavelength Detector	A.06.10
G1314B	Agilent 1260 Infinity Variable Wavelength Detector VL	A.06.10
G1314C	Agilent 1260 Infinity Variable Wavelength Detector VL+	A.06.10
G1314D	Agilent 1260 Infinity Variable Wavelength Detector	B.06.30
G1314E	Agilent 1290 Infinity Variable Wavelength Detector	B.06.30
G1314F	Agilent 1260 Infinity Variable Wavelength Detector	B.06.30
G1315A	Agilent 1100/1200 Diode-Array Detector	A.06.10
G1315B	Agilent 1200 Diode-Array Detector	A.06.10
G1315C	Agilent 1260 Infinity Diode-Array Detector VL+	B.06.30
G1315D	Agilent 1260 Infinity Diode-Array Detector VL	B.06.30
G1321A	Agilent 1100/1200 Fluorescence Detector	A.06.10
G1321B	Agilent 1260 Infinity Fluorescence Detector	A.06.36
G1321C	Agilent 1260 Infinity Fluorescence Detector	A.06.54
G1329A	Agilent 1200 Series Standard Autosampler	A.06.10
G1362A	Agilent 1100/1200 Refractive Index Detector	A.06.10
G1365A	Agilent 1100 Multiple Wavelength Detector	A.06.10
G1365B	Agilent 1200 Multiple Wavelength Detector	A.06.10
G1365C	Agilent 1260 Infinity Multiple Wavelength Detector	B.06.30
G1365D	Agilent 1260 Infinity Multiple Wavelength Detector VL	B.06.30
G4212A	Agilent 1290 Infinity Diode-Array Detector	B.06.30
G4212B	Agilent 1290 Infinity Diode-Array Detector	B.06.30
G4218A	Agilent 1260 Infinity Evaporating Light-Scattering Detector	N/A
G4260A	380-ELSD	25.00
G4260B	Agilent 1260 Infinity II Evaporating Light-Scattering Detector	32.06
G4261A	385-ELSD	25.00
G4261B	Agilent 1290 Infinity II Evaporating Light-Scattering Detector	32.06
G7114A	Agilent 1260 Infinity II Variable Wavelength Detector	D.07.01
G7114B	Agilent 1290 Infinity II Variable Wavelength Detector	D.06.70
G7115A	Agilent 1260 Infinity II Diode Array Detector WR	D.07.01
G7117A	Agilent 1290 Infinity II Diode Array Detector FS	D.06.70
G7117B	Agilent 1290 Infinity II Diode Array Detector	D.06.70
G7117C	Agilent 1260 Infinity II Diode Array Detector HS	D.07.01
G7121A	Agilent 1260 Infinity II Fluorescence Detector	D.07.01
G7121B	Agilent 1260 Infinity II Fluorescence Detector Spectra	D.07.01
G7162A	Agilent 1260 Infinity II Refractive Index Detector	D.06.76
G7162B	Agilent 1290 Infinity II Refractive Index Detector	D.06.76
G7165A	Agilent 1260 Infinity II Multiple Wavelength Detector	D.07.01

Agilent LC - Valve Drives, Valves

Product Number	Product Description	min. required FW
G1157A	Agilent 1200 2-Position/10-Port Valve	A.06.02
G1158A	Agilent 1200 2-Position/6-Port Valve	A.06.02
G1158B	Agilent 1200 2-Position/6-Port Valve 600 Bar	A.06.02
G1159A	Agilent 1200 6-Position Switching Valve	A.06.02
G1160A	Agilent 1200 12-Position/13-Port Valve	A.06.02
G1162A	Agilent 1200 2-Position/6-Port Micro Valve	A.06.02
G1163A	Agilent 1200 2-Position/10-Port Micro Valve	A.06.02
G1170A	Agilent 1290 Infinity II Valve Drive	B.06.40
G9322A	Agilent 1260 Infinity II Clustering Valve	N/A
5067-4142	6 Col Selector 1200bar	N/A
5067-4143	6 Col Selector 600bar, BIO	N/A
5067-4144	2PS/10PT 600bar, Micro	N/A
5067-4145	2PS/10PT 600bar, Dual MBB	N/A
5067-4145	2ps-10pt (600bar, with 10-32 fittings)	N/A
5067-4146	6 Col Selector 600bar	N/A
5067-4147	12PS/13PT 200bar	N/A
5067-4148	2PS/6PT 600bar, BIO	N/A
5067-4157	2pos/10-port micro valve 1200 bar	N/A
5067-4159	12ps-13pt selection valve head (bio-inert)	N/A
5067-4170	2ps-8pt Valve for 2D-LC 1200bar	N/A
5067-4171	2ps-8pt Valve for 2D-LC 600bar	N/A
5067-4193	2ps-10pt, prep LC up to 200 ml/min, 600 bar	N/A
5067-4194	8ps-9pt, prep LC up to 200 ml/min, 600 bar	N/A
5067-4214	2ps/4pt-4pt, 1200 bar	N/A
5067-4233	8 Column selector valve	N/A
5067-4239	8/9 valve head	N/A
5067-4240	2/10 valve head	N/A
5067-4241	2/6 valve head	N/A
5067-4243	6 Column selector valve	N/A
5067-4244	8/2 valve head	N/A
5067-4266	combi-valve G4243A (5pos/10ports)	N/A
5067-4267	Prep 6 column selector 600 bar	N/A
5067-4273	6 Column selector valve NPL 1300 bar	N/A
5067-4279	4-column selector 800 bar	N/A
5067-4282	2pos/6port Valve Head 800 bar	N/A
5067-4283	2pos/10port Valve head 800 bar	N/A
5067-4284	6 column selector 800 bar	N/A
5067-4287	4 column selector SST 600 bar	N/A
5067-6680	3-Position/6-Port Valve 800bar (NEW)	N/A
5067-6682	2pos/10port 1300 bar Bio	N/A

Product Number	Product Description	min. required FW
5067-6711	2ps/14port Valve	N/A
5067-6722	6-pos/14-port preparative valve 600 bar	N/A
5320-0002	2ps-14pt Valve Head-S, 600bar, Prep	N/A
5320-0017	5-Position/10-Port Bio ASM Valve (NEW)	N/A

Agilent LC - Other Modules

Product Number	Product Description	min. required FW
G1390A	Agilent 1100 Series Universal Interface Box	N/A
G1390B	Agilent InfinityLab Universal Interface Box	C.06.53 (B.06.53 / D.06.60)
G4227A	Agilent 1290 Infinity II Flexible Cube	C.06.52 (B.06.52 / D.06.60)
G4240A	Agilent 1260 Infinity Chip Cube MS Interface	A.06.36
G4301A	Agilent 1260 Infinity II SFC Control Module	A.03.09
G7170B	Agilent 1290 Infinity II MS Flow Modulator	C.06.20 (B.06.20 / D.07.20)

Agilent LC - Combined LC Systems

Product Number	Product Description	min. required FW
G4286A	1120 Compact LC, Isocratic	B.06.21
G4286B	1220 Infinity LC System Isocratic, Man. Inj., VWD, 600 bar	B.06.21
G4287A	1120 Compact LC, Isocratic with Oven and ALS	B.06.50
G4287B	1220 Infinity LC System Isocratic, ALS, VWD and Oven 600 bar	B.06.50
G4288A	1120 Compact LC, Gradient	B.06.21
G4288B	1220 Infinity LC Gradient, Man. Inj., VWD, 600 bar	B.06.21
G4288C	1220 Infinity LC System VL, Gradient, Man. Inj. VWD, 400 bar	B.06.21
G4289A	1120 Compact LC, Gradient with Oven	B.06.50
G4289B	1220 Infinity LC Gradient, Man. Inj., VWD and Oven 600 bar	B.06.50
G4289C	1220 Infinity LC System VL, Gradient, Man. Inj. VWD, 400 bar	B.06.50
G4290A	1120 Compact LC, Gradient with Oven and ALS	B.06.50
G4290B	1220 Infinity LC Gradient, ALS, TCC, VWD, 600 bar	B.06.50
G4290C	1220 Infinity LC System VL, Gradient, ALS, TCC, VWD, 400 bar	B.06.50
G4291B	1220 Infinity LC System Isocratic, Man. Inj., VWD and Oven 600 bar	B.06.50
G4292B	1220 Infinity LC System Isocratic, ALS, VWD, 600 bar	B.06.21
G4293B	1220 Infinity LC Gradient, ALS, VWD, 600 bar	B.06.21
G4293C	1220 Infinity LC System VL, Gradient, ALS, VWD, 400 bar	B.06.21
G4294B	1220 Infinity LC Gradient, ALS, TCC, DAD, 600 bar	B.06.30

Agilent CE

Product Number	Product Description	min. required FW
G7150A	Agilent 7100 Capillary Electrophoresis System	B.06.25
G7151A	Agilent 7100 Capillary Electrophoresis System (DAD)	B.06.25

Agilent LC - Cluster Drivers

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

Product Description	Usage
Agilent Auto-scale Cluster Driver	Combines one G7158B with a G1170A Valve Drive and Prep Valve Pod (5320-0002)
Agilent 1200 Infinity Series High Dynamic Range DAD Solution	Combines two G4212A/B or two G7117A/B for high dynamic range DAD applications
Agilent Column Compartment Cluster Driver	A combination of up to three G1316A/B/C for combined valve and temperature control
Agilent Fraction Collector Cluster Driver	Combines up to three G1364A/B/C or G5664A with one G1364A/B/C or one G5664 for recovery. This cluster driver is considered obsolete. Please use for legacy support only.
Agilent Fraction Collector Cluster II Driver	A combination of Fraction Collectors for increased fraction and recovery capacity. Supports up to three G1364E/F, G5664B or G7159B as fraction collectors with up to 3x G7166A as recovery. Since LC&CE Drivers 3.2, this driver also supports one G7158B with up to two additional G7159B for fraction collection and up to three G7166A for recovery.
Agilent Preparative Pump Cluster Driver	Combines up to four G1361A
Agilent Pump Valve Cluster Driver	A combination of one of the following pumps with up to two G1160A or up to two G1170A and valves 5067-4147 or 5067-4159 Supported pumps: G1311x, G1312x, G4220x, G4204x, G4302x, G4782x, G5611x, G7111x, G7112x, G5654x, G7104x
Agilent Valve-Thermostat Cluster Driver	A combination of G7116B, G1170A for combined valve control plus a combination of G1316A/B/C, G7116B and G7130A for combined temperature control. Supports up to 32 columns.
Agilent 2D-LC System Driver	Combination of one 2D-capable pump G4220A or G7120A with up to four G1170A valve drives into a 2D-LC System Driver. The 2D-LC System Driver requires FW B/D.07.33 to be installed on the 2D-capable pump. The 2D-LC System Driver supports • one 5067-4214, 5067-4244 or 5067-4266 (ASM valve) as 2D-LC Valve pod. • up to two 5067-4142 or 5067-4273 as deck valve pods • an optional G1170A to hold one diverter valve • pre-defined capillaries for use as Transfer, loop or ASM Bridge capillaries • the definition of generic capillaries for custom-made loop capillaries. (requires Agilent LabAdvisor software to define generic capillaries) For a list of pre-defined loop capillaries, please contact Agilent.
Online Sample Manager Cluster Driver	Combine the sampler G3167A with a valve driver G1170A and the external sampling valve 5067-6680. • pre-defined capillaries for use as loop or seat capillaries

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