



# **Agilent OpenLAB Chromatography Data System**

**EZChrom and ChemStation Editions**

**Supported Instruments and  
Firmware Guide**



**Agilent Technologies**

## Notices

© Agilent Technologies, Inc. 2010-2012, 2013

No part of this manual may be reproduced in any form or by any means (including electronic storage and retrieval or translation into a foreign language) without prior agreement and written consent from Agilent Technologies, Inc. as governed by United States and international copyright laws.

## Manual Part Number

M8300-90013

## Edition

June, 2013

Agilent Technologies, Inc.

## Software Revision

This guide is valid for Agilent OpenLAB Chromatography Data System (CDS) version A.01.05.

## Warranty

**The material contained in this document is provided "as is," and is subject to being changed, without notice, in future editions. Further, to the maximum extent permitted by applicable law, Agilent disclaims all warranties, either express or implied, with regard to this manual and any information contained herein, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. Agilent shall not be liable for errors or for incidental or consequential damages in connection with the furnishing, use, or performance of this document or of any information contained herein. Should Agilent and the user have a separate written agreement with warranty terms covering the material in this document that conflict with these terms, the warranty terms in the separate agreement shall control.**

## Technology Licenses

The hardware and/or software described in this document are furnished under a license and may be used or copied only in accordance with the terms of such license.

## Restricted Rights Legend

If software is for use in the performance of a U.S. Government prime contractor subcontract, Software is delivered and licensed as "Commercial computer software" as defined in DFAR 252.227-7014 (June 1995), or as a "commercial item" as defined in FAR 2.101(a) or as "Restricted computer software" as defined in FAR 52.227-19 (June 1987) or any equivalent agency regulation or contract clause. Use, duplication or disclosure of Software is subject to Agilent Technologies' standard commercial license terms, and non-DOD Departments and Agencies of the U.S. Government will receive no greater than Restricted Rights as defined in FAR 52.227-19(c)(1-2) (June 1987). U.S. Government users will receive no greater than Limited Rights as defined in FAR 52.227-14 (June 1987) or DFAR 252.227-7015 (b)(2) (November 1995), as applicable in any technical data.

## Safety Notices

### CAUTION

A **CAUTION** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a **CAUTION** notice until the indicated conditions are fully understood and met.

### WARNING

A **WARNING** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a **WARNING** notice until the indicated conditions are fully understood and met.

# Contents

## Introduction 6

OpenLAB CDS Driver Information: 6

## Compact and VL Systems 7

OpenLAB CDS EZChrom Edition Compact System: 7

OpenLAB CDS EZChrom A.04.05 Compact System 7

OpenLAB CDS EZChrom Edition and ChemStation Edition VL System: 7

OpenLAB CDS EZChrom A.04.05 VL System 7

OpenLAB CDS ChemStation C.01.05 VL System 7

## Instrument LAN Interface Card for EZChrom and ChemStation Editions 8

## EZChrom Edition Firmware Support Information – Full Version 9

Agilent 1100/1200 LC: Enhanced Driver only 9

Agilent A/D 10

Agilent 1220 LC System 11

Agilent 1260 LC 12

Agilent 1290 LC 13

CTC Autosamplers (Agilent and CTC) with LC 14

Alltech Associates LC Detectors 15

Hitachi LaChrom LC 15

Hitachi LaChrom Elite LC 16

Hitachi LaChrom Ultra LC 16

Hitachi Chromaster LC 17

PerkinElmer Series 200LC 17

PerkinElmer Nelson Interfaces 17

Valco Valves 18

Waters Alliance 18

Waters Acquity 18

Waters Acquity H-Class 19

Compatibility with GC Hardware	20
Agilent GC	20
ALS Summary (auto injector, tray and associated controller)	20
7650 GC ALS hardware:	20
7693 ALS hardware:	21
7683B ALS hardware:	21
7683A ALS hardware:	21
Headspace support with GC:	22
Control of PAL sampler with GC	22
PerkinElmer Autosystem XL	23
Varian CP-3800	23
Varian 3900-GC	23
Varian Micro-GC	23
Inficon 3000 Micro GC	24

#### **EZChrom Compact Edition Firmware Support Information 25**

Compact Edition Compatibility with GC Hardware	25
Agilent 1120 Compact LC	25
Agilent 1220 LC System	26

#### **EZChrom VL Edition Firmware Support Information 27**

VL Compatibility with GC Hardware	27
Agilent 1120 Compact LC	27
Agilent 1220 LC System	28

#### **ChemStation Edition Firmware Support Information 29**

LC Instrument Related Note:	29
Agilent LC Modules: 11XX and 12XX	30
High Throughput Modules	34
Other Modules	35
Agilent 1120/1220LC Systems	36
Agilent 218/SD1 PrepLC Driver	36
Agilent Capillary Electrophoresis Driver	37

Compatibility with GC Hardware	37
GC ALS Summary (auto injector, tray and associated controller)	38
7650 ALS hardware:	38
7693 ALS hardware	38
7683B ALS hardware	38
7683A ALS hardware:	38
Headspace support with GC	39
Control of PAL sampler with GC	39
Agilent 35900 A/D Converter	39
Agilent 35900E A/D Converter support with Agilent Instruments	40
Agilent MS Driver for LC/MS Support	40
Waters Acquity	41
Waters Acquity H-Class	41
<b>ChemStation VL Edition Firmware Support Information</b>	<b>42</b>
VL Compatibility with GC Hardware	42
VL Compatibility with Agilent 1120 Compact LC (RC.net drivers)	42
VL Compatibility with Agilent 1220 LC System	43
<b>In This Book</b>	<b>44</b>

# Introduction

## OpenLAB CDS Driver Information:

This guide summarizes the supported instruments and firmware for the Agilent OpenLAB Chromatography Data System (CDS).

The instrument driver and firmware versions listed have been verified to work with EZChrom edition version A.04.05 and ChemStation edition version C.01.05. This guide should only be used for these versions. OpenLAB CDS ChemStation and EZChrom Editions provide two different software driver versions: Classic and RC.Net.

All instrument drivers are supported on Windows XP and Windows 7 SP1 32-bit / 64-bit unless otherwise noted.

<b>ChemStation Edition C.01.05</b>	<b>RC.Net Driver Package</b>
LC and CE Drivers	A.02.07
218/SD1 Prep LC Driver	A.01.01
GC Drivers	A.02.01 78xx Driver ver. 5.01 68xx Driver ver. 6.11
LC/MS Driver	Built into software

<b>EZChrom Edition A.04.05</b>	<b>RC.Net Driver Package</b>
LC Drivers	A.02.07
GC Drivers	A.02.01 78xx Driver ver. 5.01 68xx Driver ver. 6.11

Earlier driver and firmware versions than those listed here are not supported. If you have more recent firmware, consult with your instrument manufacturer to determine compatibility.

# Compact and VL Systems

## OpenLAB CDS EZChrom Edition Compact System:

OpenLAB CDS EZChrom Edition A.04.05 offers a Compact version. With OpenLAB CDS EZChrom Edition Compact there are restrictions in the functionality of the Workstation configuration and instrument control. The supported modules and firmware options for Compact are shown in the noted sections of this document (refer to table of contents).

### OpenLAB CDS EZChrom A.04.05 Compact System

- Supported with the workstation configuration only.
- Allows control of the Agilent 1120 and 1220 LC.
- Allows control of the Agilent 7820A GC.
- Allows control of the Agilent 490 Micro GC, the Varian 490-GC Micro-GC, and the Varian CP-4900 Micro-GC.

## OpenLAB CDS EZChrom Edition and ChemStation Edition VL System:

Both OpenLAB CDS EZChrom Edition and ChemStation Edition offer a VL System. The VL versions offer the full functionality of the Workstation configuration while restricting instrument control. The supported modules and firmware options for VL Systems are shown in the noted sections of this document for both the EZChrom and ChemStation Editions. A summary of the VL System is described below:

### OpenLAB CDS EZChrom A.04.05 VL System

- Supported with the Workstation configuration only.
- Offers full functionality of OpenLAB CDS EZChrom Edition software..
- Allows control of the 1120 and 1220 LC systems. Control of additional 1260 Infinity LC modules is supported with the exception of modular pumps.
- Allows control of the 7820A GC.
- Allows control of the Agilent 490 Micro GC, the Varian 490-GC Micro-GC, and the Varian CP-4900 Micro-GC

### OpenLAB CDS ChemStation C.01.05 VL System

- Supported with stand-alone Workstation configuration only.
- Offers full functionality of OpenLAB CDS ChemStation Edition software.
- Allows control of the 1120 and 1220 LC systems. Control of additional 1260 Infinity LC modules is supported with the exception of modular pumps.
- Allows control of the 7820A GC.
- LC-MS configurations are not supported

## Instrument LAN Interface Card for EZChrom and ChemStation Editions

Product	Hardware	Supported Firmware Version (minimum)	Notes
G1369C	Network Card	B.06.40	CAN support for hosted modules/CAN slave (e.g. G1170A Universal Valve Drive)  SW 7 and SW 8 must be in the OFF position on the G1369C LAN Card  10/100BaseT
G1369B	Network Card	A.01.01	SW 7 and SW 8 must be in the OFF position on the G1369C LAN Card  10/100BaseT
G1369A	Network Card	A.01.10	Board revision C.03.00 / FW A.01.10 only: supports 35900E ADC / GCs 6890 and 6850  Note: 1st rev. (firmware A.01.05) is NOT supported with GC or 35900E
J4100A	Jet Direct Card	K.08.32	10/100BaseT  Supported with ChemStation only



# EZChrom Edition Firmware Support Information – Full Version

## Agilent 1100/1200 LC: Enhanced Driver only

Module Type	Module Names	Communi- cations	Supported Firmware Versions (minimum)	Notes
System	1100/1200 LC	TCP/IP	N/A	
Isocratic, Binary and Quaternary Pump, including Solvent Selection Valve	G1310A, G1311A, G1312A	CAN Cable	A.06.32	
Binary Pump SL	G1312B	CAN Cable	A.06.32	
Preparative Pump	G1361A	CAN Cable	N/A	Not Supported
Preparative Micro/ Cap Pump	G1376A	CAN Cable	A.06.32	
Nano flow Pump	G2226A	CAN Cable	A.06.32	
Column Compartment, including Column Selection Valve	G1316A, G1316B (SL)	CAN Cable	A.06.32	Except G1316A#56 micro valve control
ALS, including Thermostatted option	G1313A, G1329A, B	CAN Cable	A.06.32	Except #21 multi-draw kit
Well-plate Samplers, including HiP and Thermostatted options	G1367A,B,C, D (+Opt. G1330A,B)	CAN Cable	A.06.32	
Well-plate Samplers, including micro and Thermostatted options	G1377A, B	CAN Cable	A.06.32	
Thermostatted Micro Autosampler	G1389A	CAN Cable	N/A	Not Supported
Preparative Autosampler	G2260A	CAN Cable	A.06.50 [003]	
Dual Loop Autosampler	G2258A	CAN Cable	A.06.50 [003]	
Plate Handler	G2257A	CAN Cable	N/A	Not Supported
Fraction Collector	G1364A	CAN Cable	A.06.53	
Fraction Collector	G1364B, C, D and G1330B	CAN Cable	A.06.53	
Fraction Collector cluster	up to 3x G1364 B/C, or G5664A plus 1x G1364 B/C, or G5664A as recovery FC	CAN Cable	A.06.53	
Fraction Collector	G5664A	CAN Cable	A.06.53	
External Valve	G1157A, G1158A/B, G1159A, G1160A		A.06.02	
External Valve	G1170A		B.06.40	

## Agilent 1100/1200 LC: Enhanced Driver only (cont.)

Module Type	Module Names	Communications	Supported Firmware Versions (minimum)	Notes
External Valve (Micro-)	G1162, G1163	CAN Cable	A.06.02	
External Contacts/ BCD board	G1351A		N/A	
200 Barcode reader	G2256A		N/A	Not Supported
TCC	G1316A, B, C	CAN Cable	A.06.32	
VW Detector	G1314A, B, C	CAN Cable	A.06.32	
VW Detector	G1314D, E	CAN Cable	B.06.32	Except RFID flow cell tag
MW Detector	G1365A, B	CAN Cable	A.06.32	
MW Detector	G1365C, D	CAN Cable	B.06.32	Except RFID flow cell tag
DA Detector	G1315A, B	CAN Cable	A.06.32	
DA Detector	G1315C,D	CAN Cable	B.06.32	Except RFID flow cell tag
Fluorescence Detector	G1321A	CAN Cable	A.06.32	2D only, spectral options not controlled
RI Detector	G1362A	CAN Cable	A.06.32	
ELSD Detector	G4218A	RS-232	V1.3, V1.4 (higher data rate)	
ELSD 380 Detector	G4260A	RS-232	25.0	
ELSD 385 Detector	G4261A	RS-232	25.0	
ELSD 1260 Detector	G4260B	RS-232	30.38	
ELSD 1290 Detector	G4261B	RS-232 / LAN	30.38	

## Agilent A/D

Instrument	Supported Firmware Version (minimum)	Notes
Agilent 35900E	E.01.02	TCP/IP
Agilent SS420X		RS-232

## Agilent 1220 LC System

Module Type	Module Names	Communication	Supported Firmware (minimum)	Notes
1220 Isocratic 600 bar	G4286B	TCP/IP	B.06.32 B.06.50	req for all 1220 with oven
1220 Isocratic 600 bar	G4287B	TCP/IP	B.06.32	Upgrade G4286B with oven and ALS. Use Lab Advisor to get new module number.
1220 Gradient 600 bar	G4288B	TCP/IP	B.06.32	
1220 Gradient 600 bar	G4289B	TCP/IP	B.06.32	Upgrade G4288B with oven. Use Lab Advisor to get new module number.
1220 Gradient 600 bar	G4290B	TCP/IP	B.06.32	
1220 Isocratic 600 bar	G4291B	TCP/IP	B.06.32	Upgrade 4286B with oven. Use Lab Advisor to get new module number.
1220 Isocratic 600 bar	G4292B	TCP/IP	B.06.32	Upgrade G4286B with ALS. Use Lab Advisor to get new module number.
1220 Gradient 600 bar	G4293B	TCP/IP	B.06.32	Upgrade G4288B with ALS. Use Lab Advisor to get new module number.
1220 with DAD	G4294B	TCP/IP	B.06.52	
1220 Isocratic 400 bar	G4288C	TCP/IP	B.06.32	
1220 Isocratic 400 bar	G4289C	TCP/IP	B.06.32	Upgrade G4288C with ALS. Use Lab Advisor to get new module number.
1220 Isocratic 400 bar	G4290C	TCP/IP	B.06.32	
1220 Isocratic 400 bar	G4293C	TCP/IP	B.06.32	Upgrade G4288C with ALS. Use Lab Advisor to get new module number.
RID	G1362A	CAN Cable	A.06.32	
FLD	G1321A	CAN Cable	A.06.32	
ELSD	G4218A	RS-232	V1.3, V1.4	V 1.4 for higher data rate
ELSD 380 Detector	G4260A	RS-232	25.0	
ELSD 385 Detector	G4261A	RS-232	25.0	
ELSD 1260 Detector	G4260B	RS-232	30.38	
ELSD 1290 Detector	G4261B	RS-232 / L:AN	30.38	

You will be able to configure 1100/1200/1260/1290 modules along with the 1220 Compact instrument. However, please note that a number of hardware configurations are limited due to functionality incongruity. Please contact support before adding an 1100/1200/1260/1290 module to a 1220 Compact to ensure compatibility.

**Agilent 1260 LC**

Module Type	Module Names	Communications	Supported Firmware Versions (minimum)	Notes
System	1260 LC		N/A	
Isocratic, Binary, Quaternary, and Prep Pump, including Solvent Selection Valve	G1310B, G1311B, G1312A, G1361A	CAN Cable	A.06.32	
Binary Pump SL	G1312B	CAN Cable	A.06.32	
Binary Pump VL	G1312C	CAN Cable	A.06.32	
Quaternary Pump VL	G1311C	CAN Cable	A.06.32	
Prep Pump Cluster	up to 4x G1361A	CAN Cable	A.06.32	
Column compartment , including Column Selection Valve	G1316A	CAN Cable	A.06.32	G1316A#56 micro valve control is not supported
ALS, including Thermostatted option	G1329A, 1329B (Thermostatted with Option G1330B)	CAN Cable	A.06.32	#21 multi-draw kit is not supported
Dual Loop sampler	G2258A	CAN Cable	A.06.32	
Prep Autosampler	G2260	CAN Cable	A.06.32	
ALS - Infinity High Performance Autosampler	G1367E (Thermostatted with Option G1330B)	CAN Cable	A.06.32	
VW Detector	G1314B, G1314C	CAN Cable	A.06.32	
VW Detector	G1314D	CAN Cable	B.06.32	
VW Detector	G1314F	CAN Cable	B.06.32	
DA Detector	G1315C, G1315D	CAN Cable	B.06.32	
DA Detector	G4212B	CAN Cable	B.06.32	
MW Detector	G1365C, G1365D	CAN Cable	B.06.32	
RI Detector	G1362A	CAN Cable	A.06.32	
FL Detector	G1321A, G1321B	CAN Cable	A.06.32	
ELSD Detector	G4218A	RS-232	V1.3, V1.4	(high data rate)
ELSD 380 Detector	G4260A	RS-232	25.0	
ELSD 385 Detector	G4261A	RS-232	25.0	
ELSD 1260 Detector	G4260B	RS-232	30.38	
Universal Interface Box 2	1390B			
Universal Valve Box	G1170A			

**Agilent 1290 LC**

Module Type	Module Names	Communications	Supported Firmware Versions (minimum)	Notes
System	1290 LC	TCP/IP	N/A	
Binary Pump , including Solvent Selection Valve	G4220A	CAN Cable	B.06.32	
Binary Pump VL	G4220B	CAN Cable	B.06.43	
1290 Quat Pump	G4204A	CAN Cable	B.06.50	
Column Compartment, Including Column Selection Valve	G1316C	CAN Cable	A.06.32	
Well-plate Autosampler	G4226A	CAN Cable	A.06.32	
Flexible Cube	G4227A	CAN Cable	B.06.52	
VW Detector	G1314E	CAN Cable	B.06.32	
DA Detector	G4212A	CAN Cable	B.06.32	
MW Detector	G1365C, G1365D	CAN Cable	B.06.32	
RI Detector	G1362A	CAN Cable	A.06.32	
FL Detector	G1321A , G1321B	CAN Cable	A.06.32	
ELSD Detector	G4218A	RS-232	V1.3, V1.4	higher data rate
ELSD 380 Detector	G4260A	RS-232	25.0	
ELSD 385 Detector	G4261A	RS-232	25.0	
ELSD 1290 Detector	G4261B	RS-232 / L:AN	30.38	

**CTC Autosamplers (Agilent and CTC) with LC**

<b>Instrument</b>	<b>Model</b>	<b>Supported Firmware Versions (minimum)</b>	<b>Notes</b>
LC – Agilent 1290 Infinity LC Injector HTS. Uses new xt platform.	G4277A	4.12 and higher	LAN
LC – Agilent 1290 Infinity LC Injector HTC. Uses new xt platform.	G4278A	4.12 and higher	LAN
LC - CTC Analytics HTC PAL Injection System	G4270-CTC	2.5.2	RS-232
LC - CTC Analytics HTS PAL Injection System	G4271-CTC	2.5.2	RS-232

## Alltech Associates LC Detectors

Module Type	Module Names	Communications	Supported Firmware Versions (minimum)	Notes
Detectors	ELSD-2000	RS-232C (A/D Converter also required)		
Detectors	CD-650	RS-232C (A/D Converter also required)	1.01.02	

## Hitachi LaChrom LC

Module Type	Module Names	Communication	Supported Firmware Versions (minimum)	Notes
System	D-7000 Interface Module (IFM)	GPIB	N/A	IE 8, XP, Win 7 32-bit only
A/D	D7000	(through IFM)	810-7014-00	IE 8, XP, Win 7 32-bit only
Pump	L7100	(through IFM)	810-7810-00	IE 8, XP, Win 7 32-bit only
Autosampler	L7200	(through IFM)	810-8300-04	IE 8, XP, Win 7 32-bit only
Autosampler	L7250	(through IFM)	810-8350-05	IE 8, XP, Win 7 32-bit only
Oven	L7300	(through IFM)	810-7760-03	IE 8, XP, Win 7 32-bit only
Detector	L7400	(through IFM)	810-8200-04	IE 8, XP, Win 7 32-bit only
Detector	L7420	(through IFM)	810-8250-02	IE 8, XP, Win 7 32-bit only
Detector	L7450	GPIB	N/A	IE 8, XP, Win 7 32-bit only
Detector	L7455	GPIB	810-4853-01	IE 8, XP, Win 7 32-bit only
Detector	L7480	(through IFM)	810-8100-02	IE 8, XP, Win 7 32-bit only
Detector	L7485	(through IFM)	810-7064-01	IE 8, XP, Win 7 32-bit only

## Hitachi LaChrom Elite LC

Module Type	Module Names	Communications	Supported Firmware Versions (minimum)	Notes
System	USB Interface Board (IFB)	USB	890-8190-01 or 891-8190-00	IE 8, XP, Win 7 32-bit only
Pump	L-2100, L-2130	(through IFB)	890-8110-02	IE 8, XP, Win 7 32-bit only
Autosampler	L-2200	(through IFB)	890-8121-00 or 890-8120-03	IE 8, XP, Win 7 32-bit only
Oven	L-2300	(through IFB)	890-8130-02	IE 8, XP, Win 7 32-bit only
Oven	L-2350	(through IFB)	890-8150-00	IE 8, XP, Win 7 32-bit only
Detector	L-2400	(through IFB)	890-8140-02	IE 8, XP, Win 7 32-bit only
Detector	L-2420	(through IFB)	890-8142-00	IE 8, XP, Win 7 32-bit only
Detector	L2450	(through IFB)	890-8145-00	IE 8, XP, Win 7 32-bit only
Detector	L-2455	(through IFB)	890-8146-00	IE 8, XP, Win 7 32-bit only
Detector	L2480	(through IFB)	890-8148-00	IE 8, XP, Win 7 32-bit only
Detector	L-2485	(through IFB)	890-8149-00	IE 8, XP, Win 7 32-bit only
Detector	L-2490	(through IFB)	1.01	IE 8, XP, Win 7 32-bit only
Detector	A/D	(through IFB)	890-8165-00	IE 8, XP, Win 7 32-bit only

## Hitachi LaChrom Ultra LC

Module Type	Module Names	Communications	Supported Firmware Versions (minimum)	Notes
System	USB Interface Board (IFB)	USB	891-8190-00	IE 8, XP, Win 7 32-bit only
Pump	L-2160U	(through IFB)	891-8110-00	IE 8, XP, Win 7 32-bit only
Autosampler	L-2200U	(through IFB)	891-8120-00 or 891-8128-00	IE 8, XP, Win 7 32-bit only
Detector	L-2400U	(through IFB)	891-8140-00	IE 8, XP, Win 7 32-bit only
Detector	L-2420U	(through IFB)	891-8142-00	IE 8, XP, Win 7 32-bit only
Detector	L-2455U	(through IFB)	891-8145-00	IE 8, XP, Win 7 32-bit only
Detector	L-2485U	(through IFB)	891-8148-00	IE 8, XP, Win 7 32-bit only



## Hitachi Chromaster LC

Module Type	Module Names	Communications	Supported Firmware Versions (minimum)	Notes
System	Interface Control Board (ICB)	USB	892-8190-02 or later	IE 8, XP, Win 7 32-bit only
Pump	Chromaster 5110	(through ICB)	892-8110-02 or later	IE 8, XP, Win 7 32-bit only
Autosampler	Chromaster 5210	(through ICB)	892-8120-01 or later	IE 8, XP, Win 7 32-bit only
Oven	Chromaster 5310	(through ICB)	892-8130-00 or later	IE 8, XP, Win 7 32-bit only
Detector	Chromaster 5410 UV	(through ICB)	892-8140-00 or later	IE 8, XP, Win 7 32-bit only
Detector	Chromaster 5420 UV-VIS	(through ICB)	892-8142-00 or later	IE 8, XP, Win 7 32-bit only
Detector	Chromaster 5430 Diode Array	(through ICB)	892-8145-01 or later	IE 8, XP, Win 7 32-bit only
Detector	Chromaster 5440 FL	(through ICB)	892-8148-00 or later	IE 8, XP, Win 7 32-bit only
Detector	Chromaster 5450 RI	(through ICB)	2.00 or later	IE 8, XP, Win 7 32-bit only
Detector	Analog Input Device	(through ICB)	892-8165-00 or later	IE 8, XP, Win 7 32-bit only

## PerkinElmer Series 200LC

Module Type	Module Names	Communications	Supported Firmware Versions (minimum)	Notes
Autosampler	Series 200, ISS-200 Autosampler	RS-232	1.08	
Pump	Series 200 pump	RS-232	2.43	
Detectors	Series 200 UV detector	RS-232	1.0	

## PerkinElmer Nelson Interfaces

Module Type	Module Names	Communications	Supported Firmware Versions (minimum)	Notes
A/D	940, 941A	RS-232	2.3	XP only
A/D	760	GPIB	N/A	XP only
A/D	950/950A	RS-232 or GPIB	2.7	XP only
	960/960A 970/970A	RS-232 or GPIB	2.4	XP only
	NCI 901/902	RS-232 or GPIB	3.4	XP only

## Valco Valves

Module Type	Module Names	Communications	Supported Firmware Versions (minimum)	Notes
Valve	EMHCA-CE, EMTCA-CE, EMHA-CE	RS-232	N/A	

## Waters Alliance

Module Type	Module Names	Communications	Supported Firmware Versions (minimum)	Notes
Integrated LC	2690 Separations Module	GPIB	1.20 or later	
Integrated LC	2695 Separations Module	GPIB	2.0.3 or later	
Detector	2487 Dual Wavelength Absorbance Detector	GPIB	1.01 or later	
Detector	996 PDA	GPIB	2.3 or later	
Detector	2996 PDA	GPIB	3.2 or later	

## Waters Acquity

Module Names	Communications	Supported Firmware Versions (minimum)	Notes
Sample Manager	LAN	1.50.318	Win 7 SP1 and Windows 2008 R2
Sample Organizer	LAN	1.50.159	Win 7 SP1 and Windows 2008 R2
Binary Solvent Manager	LAN	1.50.247	Win 7 SP1 and Windows 2008 R2
Column Manager (CM)	LAN	1.40.69	Win 7 SP1 and Windows 2008 R2
TUV Detector	LAN	1.50.2182	Win 7 SP1 and Windows 2008 R2
PDA Detector	LAN	1.51.6029	Win 7 SP1 and Windows 2008 R2
PDA Detector eLambda	LAN	1.51.6030	Win 7 SP1 and Windows 2008 R2
Fluorescence Detector	LAN	1.40.527	Win 7 SP1 and Windows 2008 R2
ELSD Detector	LAN	1.40.3827	Win 7 SP1 and Windows 2008 R2

**Waters Acquity H-Class**

<b>Module Names</b>	<b>Communications</b>	<b>Supported Firmware Versions (minimum)</b>	<b>Notes</b>
Sample Manager FTN	LAN	1.50.317	Win 7 SP1 and Windows 2008 R2
Sample Organizer	LAN	1.50.159	Win 7 SP1 and Windows 2008 R2
Quaternary Solvent Manager	LAN	1.50.237	Win 7 SP1 and Windows 2008 R2
Column Manager (CM-A)	LAN	1.50.106	Win 7 SP1 and Windows 2008 R2
Column Manager Aux	LAN	N/A	Win 7 SP1 and Windows 2008 R2
TUV Detector	LAN	1.50.2182	Win 7 SP1 and Windows 2008 R2
PDA Detector	LAN	1.51.6029	Win 7 SP1 and Windows 2008 R2
PDA Detector eLambda	LAN	1.51.6030	Win 7 SP1 and Windows 2008 R2
Fluorescence Detector	LAN	1.40.527	Win 7 SP1 and Windows 2008 R2
ELSD Detector	LAN	1.40.3827	Win 7 SP1 and Windows 2008 R2

## Compatibility with GC Hardware

### Agilent GC

Instrument	Model	Supported Firmware Version (minimum)	Notes
7890A	G3440A G3445A	A.01.15	
7890B	G3440B G3445B	B.02.00	GC ALS Controller Card must be A.02.13 to support EMF
7820A	G4350A	A.01.12.004	RTL, CFT, and method transfer are not supported
6890N	G1530N G1540N	N.06.07	
6890A 6890Plus	G1530A G1540A	A.03.08	GPIB and LAN supported; National Instruments IEEE-488 card RC.NET not supported with GPIB
6850 Serial # >= US10243001	G2630A	A.06.02	
6850 Serial # <= US00003200	G2630A	A.03.07	
6850 Handheld Controller	G2629A	A.05.06	For 7683A/B
490 Micro GC	G3581A	2.20 build 19606	TCP-IP
CP-4900 Micro-GC		1.40 build 45	TCP-IP
490-GC Micro-GC		1.40 build 45	TCP-IP
5890 Series II	5890	A.03.02	Provided for backward compatibility; out of support G1512A controller. See "EZChrom Edition Options Installation Guide" on Disk 5

### ALS Summary (auto injector, tray and associated controller)

#### 7650 GC ALS hardware:

Instrument	Model	Supported Firmware Version (minimum)	Notes
Injector	G4567A	A.10.02	

**7693 ALS hardware:**

<b>Instrument</b>	<b>Model</b>	<b>Supported Firmware Version (minimum)</b>	<b>Notes</b>
7693 Injector	G4513A	A.10.08	
7693 Tray	G4514A	A.10.16	
BCR/Mixer	G4515A	A.10.04	Heating/Mixing Only
External Controller	G4516A	A.01.06	6890 only
6890Plus ALS card upgrade	G4517A	A.01.06	6890 only
LVI Syringe Carriage	G4521A	n/a	
Cooling Accessory	G4522A	n/a	
Tray with BCR/Mixer	G4520A	A.10.16	Heating/Mixing Only

**7683B ALS hardware:**

<b>Instrument</b>	<b>Model</b>	<b>Supported Firmware Version (minimum)</b>	<b>Notes</b>
7683B Injector	G2913A	A.11.03	
7683B Tray	G2614A	A.02.01	
BCR/Mixer	G2615A	n/a	Mixing Only

**7683A ALS hardware:**

<b>Instrument</b>	<b>Model</b>	<b>Supported Firmware Version (minimum)</b>	<b>Notes</b>
7683A Injector	G2613A	A.10.07	
7683A Tray	G2614A	A.02.01	
BCR/Mixer	G2615A	n/a	Mixing Only

**Headspace support with GC:**

Instrument	Model	Supported Firmware Version (minimum)	Software Revision (minimum)	Notes
7697A Headspace	7697A	A.01.05.1	G7320AA B.01.03	RC.NET Driver Support Only
G1888 Headspace	G1888	A.01.10	M8220AA B.01.03	RC.NET Driver Support Only
Headspace	G1289B/ G1290B (7694B)	1.05	M8220AA B.01.03	Out of Support
Headspace	G1883A (7694E)	1.12	-	Not Supported

**Control of PAL sampler with GC**

Instrument	Model	Supported Firmware Version (minimum)	Software Revision	Notes
CTC Combi-PAL for Liquid and Headspace Injection (SPME Optional)	G6500-CTC	Agilent 2.6.8 or 4.1.5	G3377AA B.01.03	RC.NET Driver Support only
CTC Combi-PAL 80 cm for Liquid Injection (SPME, Headspace Optional)	G6501-CTC	Agilent 2.6.8 or 4.1.5	G3377AA B.01.03	RC.NET Driver Support only
CTC Combi-PAL 120 cm for Liquid Injection (SPME, Headspace Optional)	G6509-CTC	Agilent 2.6.8 or 4.1.5	G3377AA B.01.03	RC.NET Driver Support only
CTC GC-PAL for Liquid Injection (SPME Optional)	G6502-CTC	Agilent 2.6.8 or 4.1.5	G3377AA B.01.03	RC.NET Driver Support only
Agilent GC Sampler 80 cm for Liquid Injection (SPME, Headspace Optional)	G6501B	Agilent 4.1.5	G3382AA B.01.03	RC.NET Driver Support only
Agilent GC Injector 80 cm for Liquid Injection (SPME Optional)	G6502B	Agilent 4.1.5	G3377AA B.01.03	RC.NET Driver Support only
Agilent GC Sampler 120 cm for Liquid Injection (SPME, Headspace Optional)	G6509B	Agilent 4.1.5	G3377AA B.01.03	RC.NET Driver Support only

## PerkinElmer Autosystem XL

Module Type	Module Names	Communications	Supported Firmware Versions (minimum)
GC	Autosystem XL	RS-232	3.660
Inlets	Capillary, Programmable On-Column - Inlet Pgm Mode, Programmable On-Column - Oven Track Mode, Programmable Split/Splitless - Inlet Pgm Mode, Programmable Split/Splitless - Oven Track Mode	(Through GC)	N/A
Detectors	FID, ECD, TCD, PID	(Through GC)	N/A
Autosampler	(Built-in)	(Through GC)	3.70
Other	PPC	(Through GC)	2.24

## Varian CP-3800

Module Type	Module Names	Communication	Supported Firmware Versions (minimum)	Notes
GC	CP3800	TCP/IP (BNC type)	3.3.5D	
Detector	FID, ECD, TCD, TSD, uTCD, PFPD	(Through GC)	N/A	
Autosampler	CP8200, CP8400, CP8410	(Through GC)	N/A	

## Varian 3900-GC

Module Type	Module Names	Communication	Supported Firmware Versions (minimum)	Notes
GC	Integrated GC	TCP/IP	6.18	
Inlets	Split/Splitless, On Column	(Through GC)	N/A	
Detector	FID, TCD	(Through GC)	N/A	
Autosampler	CP8200, CP8400, CP8410	(Through GC)	N/A	

## Varian Micro-GC

Module Names	Communication	Supported Firmware Versions (minimum)	Notes
CP2002(P), CP2003(P)	RS-232	1.1, 1.2	
CP2003 Quad	2 RS-232 ports	1.22	

**Inficon 3000 Micro GC****NOTE**

The Inficon 3000 Micro GC (classic) driver is not supported on Win 7 AICs.

<b>Instrument</b>	<b>Communication</b>	<b>Supported Firmware Version (minimum)</b>	<b>Software Driver</b>	<b>Notes</b>
Micro GC Standard	RS-232	C0.02.12 or D0.02.08	Classic	Classic driver not supported on Win 7 AICs.
Micro GC Quad	RS-232 (2 ports required)	C0.02.12 or D0.02.08	Classic	Classic driver not supported on Win 7 AICs.
3000 Micro GC	TCP/IP	3.7	Classic	Classic driver not supported on Win 7 AICs.



## EZChrom Compact Edition Firmware Support Information

### Compact Edition Compatibility with GC Hardware

Instrument	Model	Supported Firmware Version (minimum)	Notes
7820A	G4350A	A.01.12.004	No Software Add-on support
490 Micro GC	G3581A	2.20 build 19606	TCP-IP
CP-4900 Micro-GC		1.40 build 45	TCP-IP
490-GC Micro-GC		1.40 build 45	TCP-IP

### Agilent 1120 Compact LC

Module Type	Module Names	Communications	Supported Firmware Versions (minimum)	Notes
1120 Isocratic	G4286A	TCP/IP	B.06.50	
1120 Isocratic	G4287A	TCP/IP	B.06.50	
1120 Gradient	G4288A	TCP/IP	B.06.50	
1120 Gradient	G4289A	TCP/IP	B.06.50	
1120 Gradient	G4290A	TCP/IP	B.06.50	
1100/1200 RID	G1362A	CAN Cable	A.06.32	
1100/1200 FLD	G1321A	CAN Cable	A.06.32	
1100/1200 ELSD	G4218A	RS-232	V1.3, V1.4 (higher data rate)	
ELSD 380 Detector	G4260A	RS-232	25.0	
ELSD 385 Detector	G4261A	RS-232	25.0	

## Agilent 1220 LC System

Module Type	Module Names	Communications	Supported Firmware Versions (minimum)	Notes
1220 Isocratic 600 bar	G4286B	TCP/IP	B.06.50	
1220 Isocratic 600 bar	G4287B	TCP/IP	B.06.50	Upgrade G4286B with Oven and ALS. Use Lab Advisor to get new module number.
1220 Gradient 600 bar	G4288B	TCP/IP	B.06.50	
1220 Gradient 600 bar	G4289B	TCP/IP	B.06.50	Upgrade G4288B with Oven. Use Lab Advisor to get new module number.
1220 Gradient 600 bar	G4290B	TCP/IP	B.06.50	
1220 Isocratic 600 bar	G4291B	TCP/IP	B.06.50	Upgrade G4286B with Oven. Use Lab Advisor to get new module number.
1220 Isocratic 600 bar	G4292B	TCP/IP	B.06.50	Upgrade G4286B with ALS. Use Lab Advisor to get new module number.
1220 Gradient 600 bar	G4293B	TCP/IP	B.06.50	Upgrade G4288B with ALS. Use Lab Advisor to get new module number.
1220 with DAD	G4294B		B.06.52	
1220 Isocratic 400 bar	G4288C	TCP/IP	B.06.50	
1220 Isocratic 400 bar	G4289C	TCP/IP	B.06.50	Upgrade G4288C with ALS. Use Lab Advisor to get new module number.
1220 Isocratic 400 bar	G4290C	TCP/IP	B.06.50	
1220 Isocratic 400 bar	G4293C	TCP/IP	B.06.50	Upgrade G4288C with ALS. Use Lab Advisor to get new module number.
RID	G1362A	CAN Cable	A.06.32	
FLD	G1321A	CAN Cable	A.06.32	
ELSD	G4218A	RS-232	V1.3, V1.4 (higher data rate)	
ELSD 380 Detector	G4260A	RS-232	25.0	
ELSD 385 Detector	G4261A	RS-232	25.0	

**You will be able to configure 1100/1200/1260/1290 modules along with the 1220 Compact instrument. However, please note that a number of hardware configurations are limited due to functionality incongruity. Please contact support before adding an 1100/1200/1260/1290 module to a 1220 Compact to ensure compatibility.**

## EZChrom VL Edition Firmware Support Information

### VL Compatibility with GC Hardware

Instrument	Model	Supported Firmware Version (minimum)	Notes
7820A	G4350B	A.01.12.004	No Software Add-on support
490 Micro GC	G3581A	2.20 build 19606	TCP-IP
CP-4900 Micro-GC		1.40 build 45	TCP-IP

### Agilent 1120 Compact LC

Module Type	Module Names	Communications	Supported Firmware Versions (minimum)	Notes
1120 Isocratic	G4286A	TCP/IP	B.06.50	
1120 Isocratic	G4287A	TCP/IP	B.06.50	
1120 Gradient	G4288A	TCP/IP	B.06.50	
1120 Gradient	G4289A	TCP/IP	B.06.50	
1120 Gradient	G4290A	TCP/IP	B.06.50	
1100/1200 RID	G1362A	CAN Cable	A.06.32	
1100/1200 FLD	G1321A	CAN Cable	A.06.32	
1100/1200 ELSD	G4218A	RS-232	V1.3, V1.4 (higher data rate)	
ELSD 380 Detector	G4260A	RS-232	25.0	
ELSD 385 Detector	G4261A	RS-232	25.0	

## Agilent 1220 LC System

Module Type	Module Names	Communications	Supported Firmware Versions (minimum)	Notes
1220 Isocratic 600 bar	G4286B	TCP/IP	B.06.50	
1220 Isocratic 600 bar	G4287B	TCP/IP	B.06.50	Upgrade G4286B with Oven and ALS. Use Lab Advisor to get new module number.
1220 Gradient 600 bar	G4288B	TCP/IP	B.06.50	
1220 Gradient 600 bar	G4289B	TCP/IP	B.06.50	Upgrade G4288B with Oven. Use Lab Advisor to get new module number.
1220 Gradient 600 bar	G4290B	TCP/IP	B.06.50	
1220 Isocratic 600 bar	G4291B	TCP/IP	B.06.50	Upgrade G4286B with Oven. Use Lab Advisor to get new module number.
1220 Isocratic 600 bar	G4292B	TCP/IP	B.06.50	Upgrade G4286B with ALS. Use Lab Advisor to get new module number.
1220 Gradient 600 bar	G4293B	TCP/IP	B.06.50	Upgrade G4288B with ALS. Use Lab Advisor to get new module number.
1220 Isocratic 400 bar	G4288C	TCP/IP	B.06.50	
1220 Isocratic 400 bar	G4289C	TCP/IP	B.06.50	Upgrade G4288C with ALS. Use Lab Advisor to get new module number.
1220 Isocratic 400 bar	G4290C	TCP/IP	B.06.50	
1220 Isocratic 400 bar	G4293C	TCP/IP	B.06.50	Upgrade G4288C with ALS. Use Lab Advisor to get new module number.
1220	G4294B	TCP/IP	B.06.50	
RID	G1362A	CAN Cable	A.06.32	
FLD	G1321A	CAN Cable	A.06.32	
ELSD	G4218A	RS-232	V1.3, V1.4 (higher data rate)	
ELSD 380 Detector	G4260A	RS-232	25.0	
ELSD 385 Detector	G4261A	RS-232	25.0	
ELSD 1260 Detector	G4260B	RS-232	30.38	
ELSD 1290 Detector	G4261B	RS-232/ LAN	30.38	

# ChemStation Edition Firmware Support Information

**NOTE**

On Agilent Instrument Controllers (AICs), OpenLAB CDS ChemStation Edition only supports instruments and modules connected exclusively via LAN. (GPIB, RS232, USB or any converter are not supported on AICs.)

OpenLAB CDS ChemStation Edition offers for LC instrumentation provides two different driver versions: Classic LC Drivers (Figure 1) and RC.Net Drivers (Figure 2).

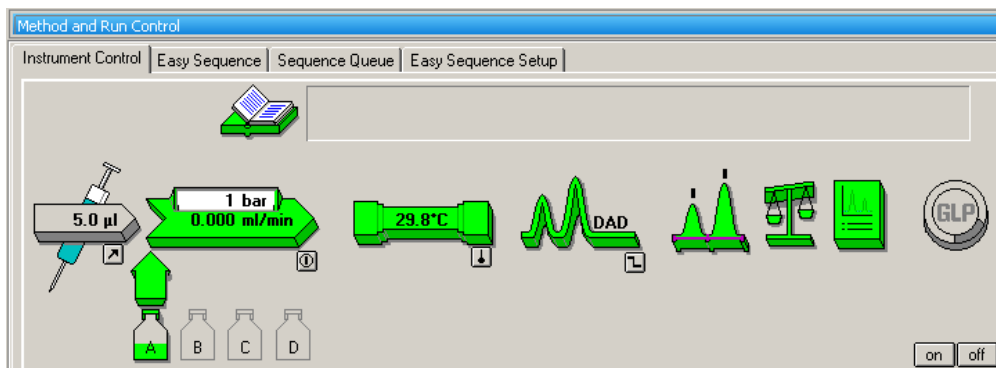


Figure 1 Classic LC Driver

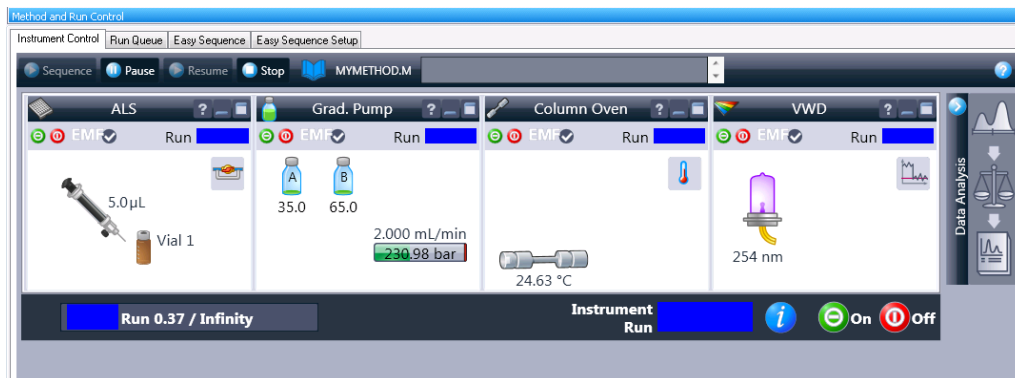


Figure 2 LC RC.NET Driver

## LC Instrument Related Note:

Please note that RC.NET drivers and Classic Drivers for the LC/CE modules cannot be run in the same ChemStation instrument. Combinations of modules in one instrument stack need to have one common driver class.

Classic Plus drivers are working in combination with both driver classes (RC.NET or Classic).

## Agilent LC Modules: 11XX and 12XX

Type	Product Number	Module Name	1100	1200	1260 Infinity	1290 Infinity	Min. Firmware Revision	Supported SW Drivers Classic	RC.Net
Sampler	G1313A	Standard Autosampler	x				A.06.32	x	x
Sampler	G1329A	Standard Autosampler	x	x	x		A.06.32	x	x
Sampler	G1329B	Standard Autosampler		x	x		A.06.32	x	x
Sampler	G2254A	Automation Interface	x	x	x		A.06.32	x	
Sampler	G1367A	Well-Plate Sampler	x				A.06.32	x	x
Sampler	G1367B	High Perf. Autosampler		x			A.06.32	x	x
Sampler	G1367C	High Perf. Autosampler SL		x			A.06.32	x	x
Sampler	G1367D	High Performance Autosampler SL+		x			A.06.32	x	x
Sampler	G1367E	High Performance Autosampler			x		A.06.32		x
Sampler	G2260A	Preparative Autosampler	x	x	x		A.06.50	x	x
Sampler	G2258A	Dual-Loop Autosampler	x	x	x		A.06.50	x	x
Sampler	G1377A	High Performance Micro Autosampler	x	x	x		A.06.32	x	x
Sampler	G1373A	Injector Purge Kit (includes the G1156A valve)		x	x		A.06.32	x	x
Sampler	G4226A	Autosampler				x	A.06.32		x
Sampler	G5667A	Bio-inert High Perf. Autosampler			x		A.06.32		x
Collector	G1364A	Fraction Collector	x				A.06.53	x	x
Collector	G1364B	Fraction Collector (PS)	x	x	x		A.06.53	x	x
Collector	G1364C	Fraction Collector (AS)	x	x	x		A.06.53	x	x
Collector	G1364D	Fraction Collector (µS)	x	x	x		A.06.53	x	x
Collector	G5664A	Fraction Collector (Bio/inert)			x	x	A.06.53		x
Pumps	G1310A	Isocratic Pump	x	x			A.06.32	x	x
Pumps	G1310B	Isocratic Pump			x		A.06.32		x
Pumps	G1311A	Quaternary Pump	x	x			A.06.32	x	x
Pumps	G1311B	Quaternary Pump			x		A.06.32		x
Pumps	G1311C	Quaternary Pump VL			x		A.06.32		x
Pumps	G1312A	Binary Pump	x	x	x		A.06.32	x	x
Pumps	G1312B	Binary Pump		x	x		A.06.32	x	x
Pumps	G1312C	Binary Pump VL			x		A.06.32		x
Pumps	G1376A	Capillary Pump	x	x	x		A.06.32	x	x

## Agilent LC Modules: 11XX and 12XX (continued)

Type	Product Number	Module Name						Min. Firmware Revision	Supported SW Drivers	
			1100	1200	1260 Infinity	1290 Infinity	Classic		RC.Net	
Pumps	G1361A	Preparative Pump	x	x	x		A.06.50	x	x	
Pumps	up to 4x G1361A	Prep Pump cluster			x	x	A.06.50		x	
Pumps	Up to 2x G1361A	Prep Pump cluster			x	x	A.06.32	x		
Pumps	G2225A	Nanoflow Pump	x	x	x		A.06.32	x		
Pumps	G4204A	1290 Quaternary Pump				x	A.06.50		x	
Pumps	G4220A	Binary Pump				x	B.06.32		x	
Pumps	G4220B	Binary Pump VL				x	B.06.43		x	
Pumps	G5611A	Bio -Quaternary Pump			x		A.06.32		x	
Detectors	G1314A	Variable Wavelength Detector	x				A.06.32	x	x	
Detectors	G1314B	Variable Wavelength Detector VL	x	x	x		A.06.32	x	x	
Detectors	G1314C	Variable Wavelength Detector VL Plus		x	x		A.06.32	x	x	
Detectors	G1314D	Variable Wavelength Detector		x	x		B.06.32	x	x	
Detectors	G1314E	Variable Wavelength Detector		x		x	B.06.32	x	x	
Detectors	G1314F	Variable Wavelength Detector			x		B.06.32		x	
Detectors	G1315A	Diode Array Detector	x				A.06.32	x	x	
Detectors	G1315B	Diode Array Detector	x	x			A.06.32	x	x	
Detectors	G1315C	Diode Array Detector VL+	x	x	x		B.06.32	x	x	
Detectors	G1315D	Diode Array Detector VL	x	x	x		B.06.32	x	x	
Detectors	G1365A	Multiple Wavelength Detector	x				A.06.32	x	x	
Detectors	G1365B	Multiple Wavelength Detector	x	x			A.06.32	x	x	
Detectors	G1365C	Multiple Wavelength Detector		x	x		B.06.32	x	x	
Detectors	G1365D	Multiple Wavelength Detector VL		x	x		B.06.32	x	x	
Detectors	G1321A	Fluorescence Detector	x	x			A.06.32	x	x	
Detectors	G1321B	Fluorescence Detector			x		A.06.32		x	
Detectors	G1362A	Refractive Index Detector	x	x	x		A.06.32	x	x	

## Agilent LC Modules: 11XX and 12XX (continued)

Type	Product Number	Module Name					Min. Firmware Revision	Supported SW Drivers	
			1100	1200	1260 Infinity	1290 Infinity		Classic	RC.Net
Detectors	G4218A *	ELSD Detector	x	x	x	x	25.0		x
Detectors	G4260A *	ELSD 380 Detector	x	x	x	x	25.0		x
Detectors	G4261A *	ELSD 385 Detector	x	x	x	x	25.0		x
Detectors	G4260B	ELSD 1260 Detector	x	x	x	x	30.38		x
Detectors	G4261B	ELSD 1290 Detector	x	x	x	x	30.38		x
Detectors	4212A	Diode Array Detector			x	x	B.06.32		x
Detectors	4212B	Diode Array Detector			x	x	B.06.32		x
Detectors	G1314B	Variable Wavelength Detector VL	x	x	x		A.06.32	x	x
Detectors	G1314C	Variable Wavelength Detector VL Plus		x	x		A.06.32	x	x
Detectors	G1314D	Variable Wavelength Detector		x	x		B.06.32	x	x
Detectors	G1314E	Variable Wavelength Detector		x		x	B.06.32	x	x
Detectors	G1314F	Variable Wavelength Detector			x		B.06.32		x
Detectors	G1315A	Diode Array Detector	x				A.06.32	x	x
Detectors	G1315B	Diode Array Detector	x	x			A.06.32	x	x
Compartments	G1316A	Thermostatted Column Compartment	x	x	x		A.06.32	x	x
Compartments	G1316B	Thermostatted Column Compartment SL		x			A.06.32	x	x
Compartments	G1316C	Thermostatted Column Compartment		x		x	A.06.32	x	x
Compartments	G4240A	Chip Cube MS Interface		x	x		A.06.32	x	
Cluster Driver	TCC Cluster	TCC Cluster			x	x	A.06.32	x	x
Cluster Driver		Pump Valve Cluster			x	x	A.06.32	x	x
Valves	G1156A	6Pos/7Port Valve (internal )		x			A.06.32	x	x
Valves	G1157A	2Pos/10Port Valve		x			A.06.32	x	x
Valves	G1163A	2Pos/10Port Valve (micro)		x			A.06.32	x	x
Valves	G1158A	2Pos/6Port Valve (Standard) 400 bar		x			A.06.32	x	x
Valves	G1158B	2-Position/6-Port Valve		x			A.06.32	x	x



## \*RS-232 Communications

## Agilent LC Modules: 11XX and 12XX (continued)

Type	Product Number	Module Name					Min. Firmware Revision	Supported SW Drivers	
			1100	1200	1260 Infinity	1290 Infinity		Classic	RC.Net
Valves	G1162A	2Pos/6Port Valve (Micro)		x			A.06.32	x	x
Valves	G1159A	6-Pos Column Selector Valve		x			A.06.32	x	x
Valves	G1160A	12-Position Selector Valve		x			A.06.32	x	x
Valves	G1170A	External Valve			x	x	B.06.40		x

## High Throughput Modules

Product Number	Module Name	1100	1200	1260 Infinity	1290 Infinity	Min. Firmware Revision	Supported SW Driver:	
							Classic	RC.Net
G2254A	Automation Interface	x	x	x		Hosting module to have FW A.06.32		
G2257A	Sample Capacity Extensions	x	x	x		A.06.32	x	
G4277A	LC – Agilent 1290 Infinity LC Injector HTS. Uses new xt platform.				x	4.12 and higher		x
G4278A	LC – Agilent 1290 Infinity LC Injector HTC. Uses new xt platform.				x	4.12 and higher		x
G4270-CTC	LC - CTC Analytics HTC PAL Injection System					2.5.2		x
G4271-CTC	LC - CTC Analytics HTS PAL Injection System					2.5.2		x
G6501B	GC - Agilent GC Sampler 80for Liquid Injection (SPME, Headspace Optional)					4.1.3 or 4.1.4		x
G6502B	GC - Agilent GC Injector 80 for Liquid Injection (SPME Optional)					4.1.3 or 4.1.4		x
G6509B	GC - Agilent GC Sampler 120for Liquid Injection (SPME, Headspace Optional)					4.1.3 or 4.1.4		x
G6500-CTC	GC - CTC Combi-Pal for Liquid and Headspace Injection (SPME Optional)					2.5.2, 2.6.8 or 4.1.3, 4.1.4		x
G6501-CTC	GC - CTC Combi-Pal for Liquid Injection (SPME, Headspace Optional)					2.5.2, 2.6.8 or 4.1.3, 4.1.4		x
G6509-CTC	GC - CTC Combi-Pal for Liquid Injection (SPME, Headspace Optional)					2.5.2, 2.6.8 or 4.1.3, 4.1.4		x
G6502-CTC	GC - CTC GC-Pal for Liquid Injection (SPME Optional)					2.5.2, 2.6.8 or 4.1.3, 4.1.4		x
G4227A	Flexible Cube				x	B.06.52		x Standalone
G4301A	Aurora SFC Fusion A5 Module					Aurora A.05.02.01		x (English Driver only)
G4302A	SFC Binary Pump				x	A.06.32		x (English Driver only)
G4303	SFC Autosampler				x	A.06.32		x (English Driver only)

## High Throughput Modules (continued)

Product Number	Module Name						Min. Firmware Revision	Supported SW Driver	
		1100	1200	1260 Infinity	1290 Infinity			Classic Plus	
35900E	Dual Channel A/D Interface Box						E.01.02	Classic Plus	
G1323B	Handheld Controller	x	x				B.05.01	No driver required	
G4208A	Series Instant Pilot		x				B.02.11	No driver required	
G1390A	Universal Interface Box						A.06.32	No driver required	
G1390B	Universal Interface Box II						A.06.53	RC.Net	
G1322A	Standard Degasser			x			n/a	No driver required	
G1379B	Micro Degasser			x			n/a	No driver required	
G1351A	External Contacts Board		x				n/a	No driver required	
G1330B	Thermostat	x	x		x		n/a	No driver required	
G2256A	Bar Code Reader	x	x	x			n/a	not supported with RC.Net	

## Other Modules

Product Number	Module Name						Min. Firmware Revision	Supported SW Driver	
		1100	1200	1260 Infinity	1290 Infinity			Classic	RC.Net
G4227A	Flexible Cube			x			B.06.52	x	
G4302A	SFC Binary Pump			x			A.06.32		X (English only)
G4303	ASFC Autosampler		x				A.06.32		X (English only)
35900E	Dual Channel A/D Interface Box						E.01.02	Classic Plus	
G1323B	Handheld Controller	x	x				B.05.01	No driver required	
G4208A	Series Instant Pilot		x				B.02.11	No driver required	
G1390A	Universal Interface Box						A.06.32	No driver required. Only supported with a G1364A-D	
G1322A	Standard Degasser			x			n/a	No driver required	
G1379B	Micro Degasser			x			n/a	No driver required	
G1351A	External Contacts Board		x				n/a	No driver required	
G1330B	Thermostat	x	x		x		n/a	No driver required	
G2256A	Bar Code Reader	x	x	x			n/a	No driver required	

## Agilent 1120/1220LC Systems

Module Names	Module Type	Supported Firmware	Notes
G4286A	1120 Compact LC	B.06.50	RC.NET
G4287A	1120 Compact LC	B.06.50	RC.NET
G4288A	1120 Compact LC	B.06.50	RC.NET
G4289A	1120 Compact LC	B.06.50	RC.NET
G4290A	1120 Compact LC	B.06.50	RC.NET
G4285B	1120 Compact LC	B.06.50	RC.NET
G4286B	1220 Infinity LC System	B.06.50	RC.NET
G4287B	1220 Infinity LC System	B.06.50	RC.NET
G4288B	1220 Infinity LC System	B.06.50	RC.NET
G4289B	1220 Infinity LC System	B.06.50	RC.NET
G4290B	1220 Infinity LC System	B.06.50	RC.NET
G4291B	1220 Infinity LC System	B.06.50	RC.NET
G4292B	1220 Infinity LC System	B.06.50	RC.NET
G4293B	1220 Infinity LC System	B.06.50	RC.NET
G4294B	1220 Infinity LC System with DAD	B.06.52	RC.NET
G4288C	1220 Infinity LC System VL	B.06.50	RC.NET
G4289C	1220 Infinity LC System VL	B.06.50	RC.NET
G4290C	1220 Infinity LC System VL	B.06.50	RC.NET
G4293C	1220 Infinity LC System VL	B.06.50	RC.NET

## Agilent 218/SD1 PrepLC Driver

Module Names	Module Type	Supported Firmware	Notes
Agilent 210	Pump	1.73 rev C	RC.NET
Agilent 218	Pump	1.1 rev B	RC.NET
Agilent SD1	Pump	2.2	RC.NET
Agilent 325 UV/VIS	Detector	2.07	RC.NET
Agilent 410	Autosampler	2.07	RC.NET
Agilent 440	Fraction Collector	1.31	RC.NET

### NOTE

Pumps, Autosampler and Fraction Collector are connected using the RS232 connections. The 325 Detector is connected using a LAN cable

## Agilent Capillary Electrophoresis Driver

Module Names	Module Type	Supported Firmware Version (minimum)	Notes
G7150A	G7100 Capillary Electrophoresis II	B.06.25	RC.NET
G7151A	Diode Array Detector for CE II	B.06.24	RC.NET
G1600A	Capillary Electrophoresis I (Mainframe)	2.3	Not Supported

## Compatibility with GC Hardware

Instrument	Model	Supported Firmware Version (minimum)	Notes
7890A	G3440A G3445A	A.01.15	
7890B	G3440B G3445B	B.02.00	GC ALS Controller Card must be A.02.13 to support EMF
7820A	G4350A	A.01.12.004	RTL, CFT, method transfer, and Easy SamplePrep are not supported
6890N	G1530N G1540N	N.06.07	N.06.07 needed for 7693A support
6890A 6890Plus	G1530A G1540A	A.03.08	GPIB and LAN supported; Agilent USB-GPIB Interface 82357B RC.NET not supported with GPIB
6850 Serial # >= US10243001	G2630A	A.06.02	A.06.02 needed for 7693A support
6850 Serial # <= US00003200	G2630A	A.03.07	A.03.07 needed for 7693A support
6850 Handheld Controller	G2629A	A.05.06	For 7683A/B
490 Micro GC	G3581A	2.20 build 19606	
5890 Series II	5890	A.03.02	provided for backward compatibility; out of support Must use Agilent USB-GPIB Interface 82357B G1512A controller Agilent IO Libraries Suite 16.1 found on Disk 3

**GC ALS Summary (auto injector, tray and associated controller)****7650 ALS hardware:**

<b>Instrument</b>	<b>Model</b>	<b>Supported Firmware Version (minimum)</b>	<b>Notes</b>
Injector	G4567A	A.10.02	

**7693 ALS hardware**

<b>Instrument</b>	<b>Model</b>	<b>Supported Firmware Version (minimum)</b>	<b>Notes</b>
7693 Injector	G4513A	A.10.08	
7693 Tray	G4514A	A.10.16	
BCR/Mixer	G4515A	A.10.04	
External Controller	G4516A	A.01.06	6890 only
6890Plus ALS card upgrade	G4517A	A.01.06	6890 only
LVI Syringe Carriage	G4521A	n/a	
Cooling Accessory	G4522A	n/a	
Tray with BCR/Mixer	G4520A	A.10.16	

**7683B ALS hardware**

<b>Instrument</b>	<b>Model</b>	<b>Supported Firmware Version (minimum)</b>	<b>Notes</b>
7683B Injector	G2913A	A.11.03	
7683B Tray	G2614A	A.02.01	
BCR/Mixer	G2615A	n/a	

**7683A ALS hardware:**

<b>Instrument</b>	<b>Model</b>	<b>Supported Firmware Version (minimum)</b>	<b>Notes</b>
7683A Injector	G2613A	A.10.07	
7683A Tray	G2614A	A.02.01	
BCR/Mixer	G2615A	n/a	

## Headspace support with GC

Instrument	Model	Supported Firmware Version (minimum)	Software Revision (minimum)	Notes
7697A Headspace	7697A	A.01.05.1	G7318AA B.01.03	RC.NET Driver Support Only
G1888 Headspace	G1888	A.01.10	G2924AA B.01.02 & B.01.03	RC.NET Driver Support Only
Headspace	G1289B/ G1290B (7694B)	1.05	G2924AA B.01.03	Out of Support
Headspace	G1883A (7694E)	1.12	--	Not Supported

## Control of PAL sampler with GC

Instrument	Model	Supported Firmware Version (minimum)	Software Revision	Notes
CTC Combi-Pal for Liquid and Headspace Injection (SPME Optional)	G6500-CTC	Agilent 2.6.8 or 4.1.5	G3382AA B.01.03	RC.NET Driver Support Only
CTC Combi-Pal 80 cm for Liquid Injection (SPME, Headspace Optional)	G6501-CTC	Agilent 2.6.8 or 4.1.5	G3382AA B.01.03	RC.NET Driver Support Only
CTC Combi-Pal120 cm for Liquid Injection (SPME, Headspace Optional)	G6509-CTC	Agilent 2.6.8 or 4.1.5	G3382AA B.01.03	RC.NET Driver Support Only
CTC GC-Pal for Liquid Injection (SPME Optional)	G6502-CTC	Agilent 2.6.8 or 4.1.5	G3382AA B.01.03	RC.NET Driver Support Only
Agilent GC Sampler 80 cm for Liquid Injection (SPME, Headspace Optional)	G6501B	Agilent 4.1.5	G3382AA B.01.03	RC.NET Driver Support Only
Agilent GC Injector 80 cm for Liquid Injection (SPME Optional)	G6502B	Agilent 4.1.5	G3382AA B.01.03	RC.NET Driver Support Only
Agilent GC Sampler 120 cm for Liquid Injection (SPME, Headspace Optional)	G6509B	Agilent 4.1.5	G3382AA B.01.03	RC.NET Driver Support Only

## Agilent 35900 A/D Converter

Instrument	Supported Firmware Version (minimum)	Notes
Agilent 35900E	E.01.02	LAN only

**Agilent 35900E A/D Converter support with Agilent Instruments**

Instrument	Supported with 35900E	Notes
7890A GC	Not Supported	Not Supported
7820A GC	Not Supported	Not Supported
6890 GC	Classic driver support only	3 <sup>rd</sup> and 4 <sup>th</sup> signal support
6850 GC	Classic driver support only	3 <sup>rd</sup> and 4 <sup>th</sup> signal support
11XX/12XX LC	Supported with both Classic and RC.NET	LAN only
7100 Electrophoresis	No	Not Supported
6100 Electrophoresis	Classic Driver Support only	LAN only

**Agilent MS Driver for LC/MS Support**

Model	Module Type	Supported Firmware	Supported Driver Type	Communications
G6110A	MSD	3.02.42	Classic Plus	LAN
G6120A	MSD	3.02.42	Classic Plus	LAN
G6130A	MSD	3.02.42	Classic Plus	LAN
G6140A	MSD	3.02.42	Classic Plus	LAN
G6120B	MSD	3.02.42	Classic Plus	LAN
G6130B	MSD	3.02.42	Classic Plus	LAN
G6150B	MSD	3.02.42	Classic Plus	LAN
G1956A	MS Detector For 1100/1200 LC	Not Supported	Not Supported	Not Supported
G1956B	MS Detector For 1100/1200 LC	Not Supported	Not Supported	Not Supported



## Waters Acquity

Module Names	Communications	Supported Firmware Versions (minimum)	Notes
Sample Manager	LAN	1.50.318	Win 7 SP1 and Windows 2008 R2
Sample Organizer	LAN	1.50.159	Win 7 SP1 and Windows 2008 R2
Binary Solvent Manager	LAN	1.50.247	Win 7 SP1 and Windows 2008 R2
Column Manager (CM)	LAN	1.40.69	Win 7 SP1 and Windows 2008 R2
TUV Detector	LAN	1.50.2182	Win 7 SP1 and Windows 2008 R2
PDA Detector	LAN	1.51.6029	Win 7 SP1 and Windows 2008 R2
PDA Detector eLambda	LAN	1.51.6030	Win 7 SP1 and Windows 2008 R2
Fluorescence Detector	LAN	1.40.527	Win 7 SP1 and Windows 2008 R2
ELSD Detector	LAN	1.40.3827	Win 7 SP1 and Windows 2008 R2

## Waters Acquity H-Class

Module Names	Communications	Supported Firmware Versions (minimum)	Notes
Sample Manager FTN	LAN	1.50.317	Win 7 SP1 and Windows 2008 R2
Sample Organizer	LAN	1.50.159	Win 7 SP1 and Windows 2008 R2
Quaternary Solvent Manager	LAN	1.50.237	Win 7 SP1 and Windows 2008 R2
Column Manager (CM-A)	LAN	1.50.106	Win 7 SP1 and Windows 2008 R2
Column Manager Aux	LAN	N/A	Win 7 SP1 and Windows 2008 R2
TUV Detector	LAN	1.50.2182	Win 7 SP1 and Windows 2008 R2
PDA Detector	LAN	1.51.6029	Win 7 SP1 and Windows 2008 R2
PDA Detector eLambda	LAN	1.51.6030	Win 7 SP1 and Windows 2008 R2
Fluorescence Detector	LAN	1.40.527	Win 7 SP1 and Windows 2008 R2
ELSD Detector	LAN	1.40.3827	Win 7 SP1 and Windows 2008 R2

## ChemStation VL Edition Firmware Support Information

### VL Compatibility with GC Hardware

Instrument	Model	Supported Firmware Version (minimum)	Notes
7820A	G4350B	A.01.12.004	No Software Add-on Support

### VL Compatibility with Agilent 1120 Compact LC (RC.net drivers)

Module Type	Module Names	Communications	Supported Firmware Versions (minimum)
1120 Isocratic	G4286A	TCP/IP	B.06.50
1120 Isocratic	G4287A	TCP/IP	B.06.50
1120 Gradient	G4288A	TCP/IP	B.06.50
1120 Gradient	G4289A	TCP/IP	B.06.50
1120 Gradient	G4290A	TCP/IP	B.06.50
1220	G4294B	TCP/IP	B.06.50
1100/1200 FLD	G1321A	CAN Cable	A.06.32
1100/1200 RID	G1362A	CAN Cable	A.06.32
1100/1200 ELSD	G4218A	RS-232	V1.3, V1.4 (higher data rate)
ELSD 380 Detector	G4260A	RS-232	25.0
ELSD 385 Detector	G4261A	RS-232	25.0
ELSD 1260 Detector	G4260B	RS-232	30.38
ELSD 1290 Detector	G4261B	RS-232 / LAN	30.38

## VL Compatibility with Agilent 1220 LC System

Module Type	Module Names	Communi-cations	Supported Firmware Versions (minimum)	Notes
1220 Isocratic 600 bar	G4286B	TCP/IP	B.06.50	
1220 Isocratic 600 bar	G4287B	TCP/IP	B.06.50	Upgrade G4286B with Oven and ALS. Use Lab Advisor to get new module number.
1220 Gradient 600 bar	G4288B	TCP/IP	B.06.50	
1220 Gradient 600 bar	G4289B	TCP/IP	B.06.50	Upgrade G4288B with Oven. Use Lab Advisor to get new module number.
1220 Gradient 600 bar	G4290B	TCP/IP	B.06.50	
1220 Isocratic 600 bar	G4291B	TCP/IP	B.06.50	Upgrade G4286B with Oven. Use Lab Advisor to get new module number.
1220 Isocratic 600 bar	G4292B	TCP/IP	B.06.50	Upgrade G4286B with ALS. Use Lab Advisor to get new module number.
1220 Gradient 600 bar	G4293B	TCP/IP	B.06.50	Upgrade G4288B with ALS. Use Lab Advisor to get new module number.
1220 Isocratic 400 bar	G4288C	TCP/IP	B.06.50	
1220 Isocratic 400 bar	G4289C	TCP/IP	B.06.50	Upgrade G4288C with ALS. Use Lab Advisor to get new module number.
1220 Isocratic 400 bar	G4290C	TCP/IP	B.06.50	
1220 Isocratic 400 bar	G4293C	TCP/IP	B.06.50	Upgrade G4288C with ALS. Use Lab Advisor to get new module number.
1220 gradient system with DAD	G4294B	TCP/IP	B.06.50	
RID	G1362A	CAN Cable	A.06.32	
FLD	G1321A	CAN Cable	A.06.32	
ELSD	G4218A	RS-232	V1.3, V1.4 (higher data rate)	
ELSD 380 Detector	G4260A	RS-232	25.0	
ELSD 385 Detector	G4261A	RS-232	25.0	
ELSD 1260 Detector	G4260B	RS-232	30.38	
ELSD 1290 Detector	G4261B	RS-232/ LAN	30.38	

## **In This Book**

This guide summarizes the supported instruments and firmware for operation of the Agilent OpenLAB Chromatography Data System (CDS).

**Manual Part Number**

**M8300-90013**

**Edition**

February 2013



**Agilent Technologies**