



Agilent MassHunter Workstation

Requirements Guide

Notices

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Software Revision

This guide is valid for MassHunter Acquisition for LC/TQ 12.0, MassHunter Acquisition for LC/TOF and LC/Q-TOF 11.0, MassHunter Qualitative Analysis 10.0, and MassHunter Quantitative Analysis 12.0.

Software Manufacturing



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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.

In This Book

This document details the minimum computer hardware, software, and network requirements as well as the minimum instrument firmware revisions required to run an Agilent MassHunter Workstation or Agilent MassHunter Networked Workstation. Also included are the supported instrument types and Windows operating system configurations.

Table 1 Terms and abbreviations used in this document

Term	Description
Content Management	Database to manage your analytical data. The database is provided as a component of OpenLab Server. Always used in Client/Server systems, optional for Workstations.
Control Panel	Control Panel for OpenLab Shared Services
Microsoft Control Panel	Part of the Microsoft Windows operating system

1 Hardware and Software Requirements

This chapter contains the hardware and software requirements for the different components of a MassHunter system.

2 Network Requirements

This chapter describes the network requirements that must be met in order to support the environmental computing needs of a MassHunter system.

3 Instrument Connections

This chapter provides information on the instruments supported by the current revision of MassHunter and the required respective instrument drivers and firmware revisions.

4 Software Compatibility

This chapter contains information on compatibility with other software.

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This chapter contains the hardware and software requirements for the different components of a MassHunter system.

Depending on the type of installation, you may need different hardware components. The following graphics show the required components for each scenario.

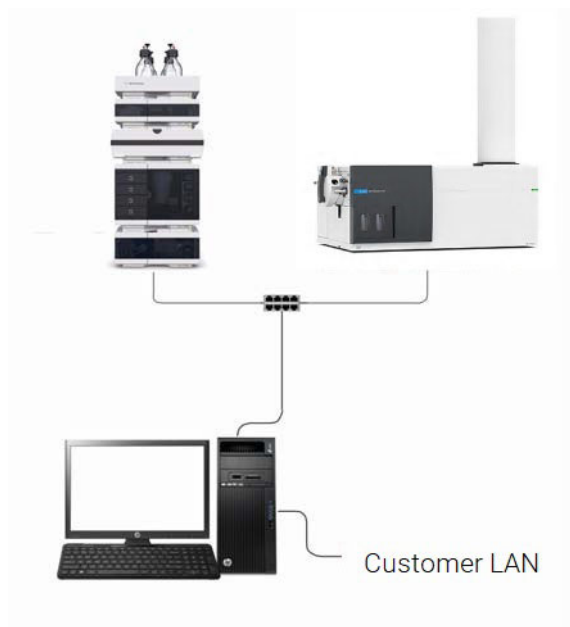


Figure 1. MassHunter Workstation

All required components are installed on the workstation.

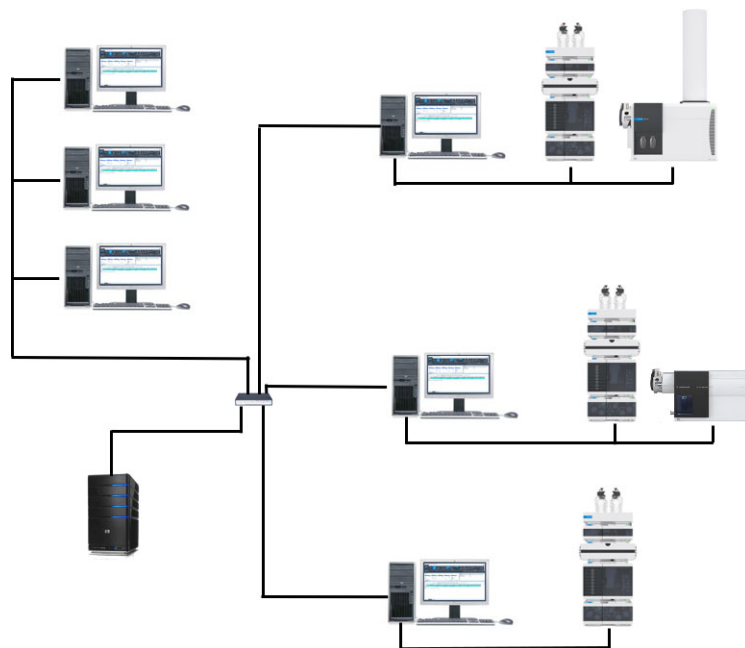


Figure 2. Networked Workstation system

The system includes both Networked Workstations and an OpenLab Server or OpenLab ECM XT server or ECM 3.x server.

Software

General Software Requirements

Component	Details
.NET framework	<ul style="list-style-type: none"> NET 3.5.1 must be enabled on systems running on Windows 8.1 or Windows 10 or Windows 11 <i>and</i> NET 4.7.2 or above (if needed, it will be installed automatically by the MassHunter Installer)
Web browser	<ul style="list-style-type: none"> Google Chrome 40 or higher Edge
Anti-virus software*	<ul style="list-style-type: none"> Microsoft Windows Defender

* The listed anti-virus software has been tested to be compatible with the MassHunter software described in this document. While other third-party AV solutions may also be compatible, they have not been tested, and compatibility cannot be guaranteed.

Windows Compatibility

Only these Windows operating systems are supported:

- Windows 10 Professional Semi-Annual Channel: 1909 or newer.
- Windows 10 Enterprise LTSC editions: 1809 or newer.
- Windows 11 Pro (or Pro for Workstations) General Availability Channel: 21H2 or newer.

Computer Hardware

Disk Space

Disk space requirements depend based on the number and type of instruments, archival frequency, and the method settings chosen for Acquisition. Agilent recommends providing enough disk space for one year of lab operation, in addition to the operating system and MassHunter Workstation requirements.

The MassHunter Workstation is available either with storage in the local file system (MassHunter Workstation) or on a remote OpenLab Server or OpenLab ECM XT server with built-in Content Management database (MassHunter Networked Workstation).

Note that on Networked Workstations, data is only temporarily stored in a secured location on the local computer until it is transferred to the OpenLab Server/ECM XT server.

PC Recommendation

Table 2 provides the *recommended* hardware configuration for MassHunter computers with a single LC/TOF or LC/Q-TOF instrument.

Table 1. Tested and recommended hardware configuration for Workstations and Networked Workstations for TOF/Q-TOF

Item	For all LC/Q-TOF except 6546	For 6546 only
Description	Standard MassHunter-ready Computer	High Capacity MassHunter-ready Computer
Processor speed (CPU)	Intel Xeon W-2123, 4 core, 3.6 GHz	Intel Xeon W-2235, 6 core, 3.8 GHz
Physical memory (RAM)	32 GB	64 GB
Hard disk	1 TB M.2 NVMe SSD - Primary (C:\) Boot. 4 TB × 2 RAID1 (4 TB) - Data (D:\)	1 TB M.2 NVMe SSD - Primary (C:\) Boot. 6 TB × 4 RAID10 (12 TB) - Data (D:\)
Graphic Resolution	1920 x 1080	1920 x 1080
USB port*	1 USB port required for installation	1 USB port required for installation
LAN card - House	Integrated Intel I217LM PCIe GbE Controller	1 Integrated Intel I217LM PCIe GbE Controller
LAN card - instrument†	Integrated Intel I217LM PCIe GbE Controller	1 Intel Ethernet 210-T1 PCIe

* If a USB port is not available, the installation media can be copied over the network or downloaded from <https://agilent.subscribenet.com>.

† A second LAN interface is required to isolate the instrument's data traffic from the local area network.

Existing MassHunter Workstations with the Agilent bundled Z4 G4 PC are supported with MassHunter Workstation 12.0 running in Workstation configuration only.

Table 2. Minimum hardware configuration for Workstations

Item	For All TQ systems
Description	Hewlett-Packard Z4 G4 Minitower
Processor speed (CPU)	Intel Xeon W-2123 (3.6 GHz, 8.25 MB cache, 4 cores)
Physical memory (RAM)	16GB (2x8GB) DDR4 2666 DIMM ECC Registered Memory
Hard disk	2 x 500GB 7200 RPM SATA 6G Hard Drive (RAID 1)
Graphic Resolution	1920 x 1080
USB port*	1 USB port required for installation
LAN card†	2 x Integrated Intel I219 and I210 PCIe GbE

* If a USB port is not available, the installation media can be copied over the network or downloaded from <https://agilent.subscribenet.com>.

† A second LAN interface is required to isolate the instrument's data traffic from the local area network.

Windows 10 and Windows 11 Configuration

When setting up a MassHunter computer for the first time, some actions and settings are required. The MassHunter installer configures Windows 10 with required and performance settings.

These instructions show Windows 10. The changes apply to Windows 11 as well.

Required Actions

These steps must be taken for a new Windows installation, before the software is installed.

- 1 In **Control Panel > System**, activate Windows with Microsoft.

Do this step only if the computer is customer-supplied. Computers from Agilent are already activated.

- 2 In **Windows Settings > Update and Security**, click **Check for updates** to check for updates and apply all patches.

Make sure all updates are downloaded and installed before you proceed.
Make sure that no reboot is pending.

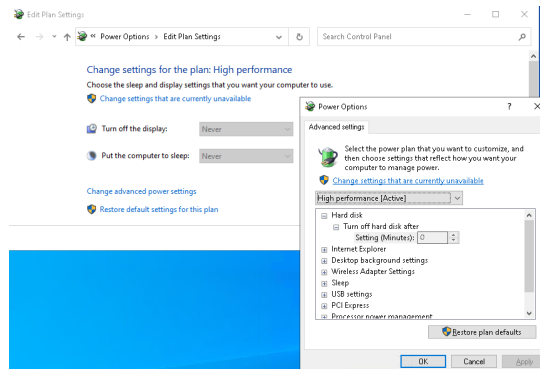
CAUTION

Windows Update must not have a pending installation during installation of MassHunter Workstation.

Required Settings

Windows Control Panel Options

- Power Options**
- Preferred plan = High performance.
 - Put the computer to sleep = Never.
 - Change advanced power settings > Hard disk > Turn off hard disk after > Minutes = 0 (never).



Administrative Tools

In **Local Security Policy > Local Policies > Security Options:**

- **Network Access: Sharing and security model for local accounts = Classic - local users authenticate as themselves.**

Date and Time

- Time zone of your computer's location.

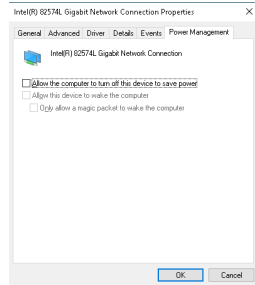
Network and Sharing Center

In **Change adapter settings > Local Area Connection > Properties > Configure > Power Management:**

- All check boxes cleared.

Hardware and Software Requirements

Required Settings



Programs and Features

In **Turn Windows features on or off**:

- **.NET Framework 3.5 (includes .NET 2.0 and 3.0)** = selected

This option requires an Internet connection.

NOTE

If this procedure does not work as expected, or the computer has no Internet access, install .NET 3.5 from the Windows installation media (see details for Windows 10 in <https://support.microsoft.com/en-us/kb/2734782>). If you do not have installation media, create them as described <https://www.microsoft.com/en-us/software-download/windows10>.

- **.NET Framework 3.5 (includes .NET 2.0 and 3.0) > Windows Communication Foundation Non-HTTP Activation** = selected

This setting makes sure that the net.tcp components are properly initialized, enable **Non-HTTP activation**

- **.NET Framework 4.6 Advanced Services** = selected.
- **Telnet Client** = selected.
- **TFTP Client** = selected.

NOTE

The system must be rebooted after Windows features are turned on.



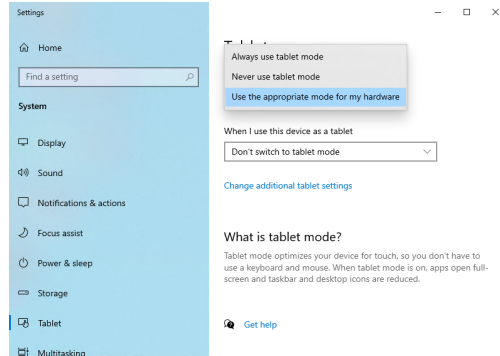
Windows Settings

System > Tablet Mode

- **When I sign in: Use desktop mode**

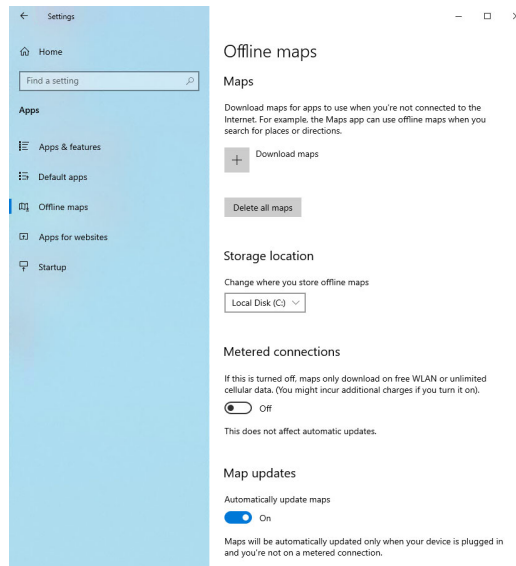
Hardware and Software Requirements

Required Settings



Apps > Offline Maps

- **Metered connections = Off**
- **Map updates = Off**



View > Navigation pane

Required Windows Explorer options

This Windows Explorer option is required.

- **Navigation Pane = selected.**

Performance Options



Control Panel

These Control Panel options enhance your system performance.

System >
Advanced
system settings

In **Advanced > Performance > Visual Effects:**

- **Adjust for best performance** = selected.
- For **Custom**, these are selected for better usability:
 - Smooth edges of screen fonts
 - Show shadows under mouse pointer
 - Show shadows under windows

In **Advanced > Performance > Advanced > Virtual Memory:**

- **Paging file size for each drive > Custom Size > Maximum Size** = 2 to 3 times the physical RAM on the PC. If available, use a drive different from the system installation drive to create the paging file.

In **Advanced > Performance > Advanced > Data Execution Prevention:**

- **Turn on DEP for essential Windows programs and services only** = selected.



Windows Settings

Personalization
> Colors

- **Transparency Effects** = Off



2

Network Requirements

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This chapter describes the network requirements that must be met in order to support the environmental computing needs of a MassHunter system.

Introduction

MassHunter systems rely on network infrastructure in order to support the communication between Networked Workstations and the OpenLab Server/ECM XT server. This communication is based on standard TCP/IP protocols. In order to provide optimum performance and uptime, the network must meet design criteria for available bandwidth, IP address assignment, name resolution and appropriate isolation of the lab subnet from the corporate network.

Refer to the *Agilent OpenLab Server and OpenLab ECM XT Hardware and Software Requirements Guide* (p/n D0007295) for more details about networking requirements.

LAN Connectivity

All MassHunter Networked Workstations include at least two 1 GB Ethernet network interfaces. One is reserved for PC-to-Instrument communication. The other is used to communicate with the OpenLab Server / ECM XT / ECM 3.x.

Note these LAN Connectivity requirements:

- For the 6546: a 10 GB Ethernet adapter is required for PC-to-instrument communication. In this configuration, high quality Cat 6 Ethernet over twisted-pair cables or better are required.
- NIC teaming¹: LAN cards should not be teamed on workstations, instrument controllers, or clients.
- Communication between the Networked Workstation and OpenLab Server/ECM XT must be on the same subnet. 1 GB Ethernet or greater connection is required.
- For TOF/Q-TOF instruments only: The OpenLab Server/ECM XT server/ECM 3.x server must be located on the same physical premises as the Networked Workstation. Co-located or off-premise/cloud-based servers are not supported.
- USB network adapters are not supported.

¹ Network Interface Card (NIC) teaming is also known as Load Balancing and Failover (LBFO)

LAN Power Management

Avoid data capture or transfer interruptions in your data acquisition system by making LAN communication cards available for instrument and system component communications.

Windows may be set to turn instruments/components off to save power while sleeping or hibernating. To change this setting:

- 1 In the Microsoft Control Panel, open the **Network and Sharing Center**.
- 2 Select **Change adapter settings**. Right-click **Local Area Connection**, and then click **Properties > Configure**.
- 3 Select the **Power Management** tab.
- 4 Clear the **Allow the computer to turn off this device to save power** check box.

Depending on the model of network adapter, the name of this option can also be **Energy efficient Ethernet**, **Power saving Ethernet mode**, or a similar name.

CAUTION

While applying Windows Updates, LAN Power Management might become reactivated. Be sure to check the LAN Power Management settings after all Windows Updates.

Firewall Settings

If you are using a third party firewall or anti-virus software on the network where MassHunter is installed, open these firewall ports to allow communication between the system components of MassHunter. These apply to workstations as well as to Client/Server systems as component communications rely on these communication channels:

Table 3. Firewall ports

Ports	Comment, required for
6570	SubscribeNet: active retrieval and release of product licenses
8084	Agilent OpenLab Licensing support
8085-8089	Alternative to port 8084 if that port is in use by another page or process

Table 3. Firewall ports (continued)

Ports	Comment, required for
8090	Hosts the viewing page of current license grants and consumptions found in the OpenLab Control Panel administration interface
27000-27009	Communication of license availability
30101	Store and retrieve instrument data
53971	Activity log messages display notification

The MassHunter Workstation installer will automatically open required ports on an enabled Windows firewall during installation.

NOTE

You will need to disable Windows Defender Firewall when you update the firmware.

Domain Requirements

Domains support the flow of information and user access rights across machines in the network. This means that all machines and instruments within the MassHunter Networked Workstation system must reside within the same domain or have the appropriate cross domain trusts to allow name based communications between all components in the system. In the case of a workstation installation, domains are only relevant if you are using a Windows domain-based authentication model. In this case the workstation or client must always be able to communicate with domain components in order to function as expected.

Installing MassHunter Workstation will apply network exceptions to the Windows firewall under the domain profile to result in a functional system. The components necessary to support MassHunter on a domain are:

- Domain controller – broadcasts the domain name and negotiates access to machines.
- Domain name server (DNS) – maintains records of what host names belong to which IP on the network. This component is always required for effective components communications in networked systems.
- Active directory – maintains the list of users and their access rights on the domain.

NOTE

The domain name server (DNS) must be able to resolve the IPv4 address of all instrument controllers and instruments. Any unresolved instrument controller or instrument will disrupt the functionality of MassHunter resulting in errors or delays. IPv6 is not supported and must be deactivated.

NOTE

MassHunter Workstation components must not be installed on the same machine as the domain controller.

The domain components above host a variety of services and settings that must be configured appropriately to allow communication across machines. The following services and settings will need to be configured to fit your domain. Your internal IT group is responsible for proper configuration of any custom domain solutions. These include settings for:

- Lookup zones and hostnames
- Group and security policies
- Subnet masks and Virtual LANs
- IP reservation (static or DHCP)

Environments with Proxy Servers

The OpenLab server must be accessible via http or https in the network. If you use proxy servers, verify that they can be accessed. If required, adjust the proxy settings.

Network Isolation

MassHunter Networked Workstations must be isolated from network environments that experience frequent failures due to faulty switching, viruses, or worms. If network isolation is not possible, the machines should be reconfigured and disconnected from the problematic network until these issues can be resolved. On an isolated network, name resolution services must be hosted by a separate machine to enable proper communications between system components by name.

Network Requirements

Specific Requirements for Compliant Systems

An isolated network is completely physically isolated, so that no LAN switch connections on the network are shared with the corporate network infrastructure. **Figure 3** shows a simple client/server topology.

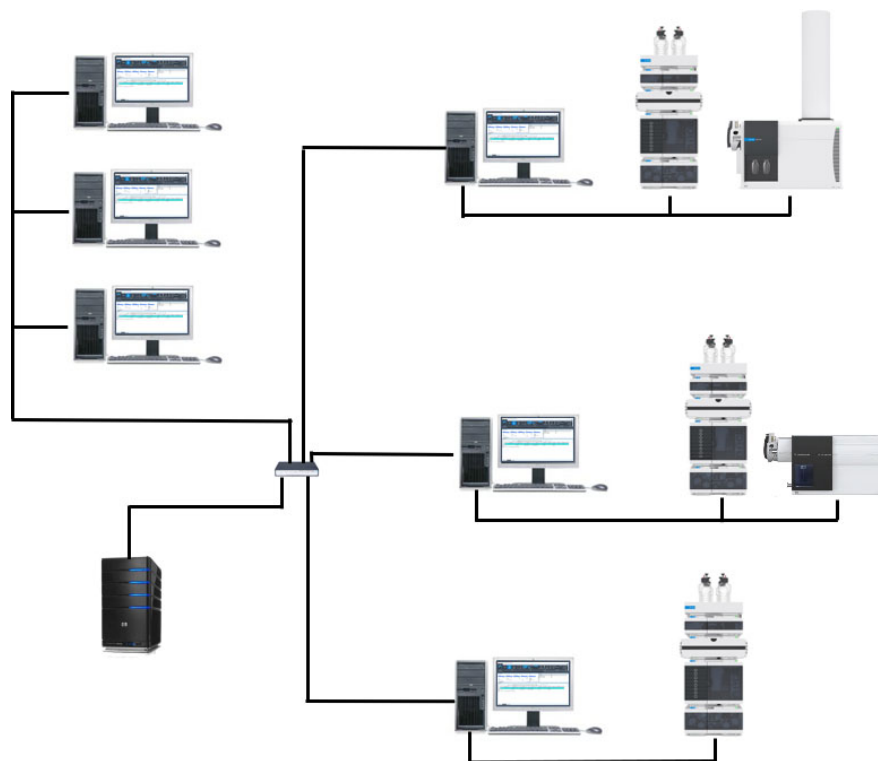


Figure 3. Sample client/server topology: Network Isolation

Specific Requirements for Compliant Systems

If you intend to use your system in a compliant environment, ensure the following settings related to time synchronization:

- Your network must have a time synchronization service to make sure that all systems are using a consistent and valid time.
- To ensure that users cannot change the time on a client system, users must not operate using an administrator account. This is important as the client time is used during buffered activity logging during network outages.



3 Instrument Connections

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This chapter provides information on the instruments supported by the current revision of OpenLab CDS and the required respective instrument drivers and firmware revisions.

RC.NET Drivers and OpenLab CDS

MassHunter can control instruments and modules that use **RC.NET** based driver software only.

Agilent and other vendors may release RC.net drivers independent of the MassHunter releases. Agilent recommends always using the most recent firmware revisions which include latest firmware features and improvements. Agilent driver software is forward compatible with respect to firmware, i.e. the firmware can be updated without the need of updating the driver or CDS.

More information on instrument drivers and firmware is available in the respective RC.net driver release notes.

The following Agilent instrument driver software revisions are part of the MassHunter Acquisition software package, and are installed by default with the software:

Table 4. Agilent driver packages shipped and installed with MassHunter 12.0

RC.net Instrument Driver	Driver Software Revision
Agilent LC	3.5
CTC PAL XT	B.01.08
Agilent TQ	3.0
Agilent TOF/Q-TOF	Not an RC.net driver

Additional **RC.NET** instrument drivers are supported with MassHunter 12.0 and will need to be installed separately.

Third Party Drivers

MassHunter Acquisition for 6400 Series Triple Quadrupole LC/MS or MassHunter Acquisition for Ultivo LC/TQ does not support third party instruments.

Agilent LC

Most Agilent LC Modules can be controlled with the current version of MassHunter Workstation. LC driver 3.5 has been tested with this revision and is installed by default with the software.

Recommended Firmware

Agilent recommends using current LC firmware sets with your MassHunter Workstation. The latest LC firmware sets are 7.xx. See [Table 5](#).

Firmware Set 7.xx can be downloaded from <http://www.agilent.com/en-us/firmwareDownload?whid=99818>.

NOTE

LC and CE firmware revisions are grouped into sets for each module or system. Firmware sets include just the latest firmware of each module.

Modules combined into one LC instrument always need to have firmware from the same set. Firmware of one set is fully compatible with your CDS that supports this firmware set. However, if one module uses a firmware revision lower than the specified Minimum Firmware Revision some functionality might not be supported.

NOTE

Do not mix firmware revisions from one set with older or newer sets. Firmware is not tested across set borders!

Table 5. Recommended firmware

Device	Recommended Firmware
Agilent 1100 Series, 1200 Series and 1200 Infinity	B.07.30 or later
Agilent 1200 Series, 1200 Infinity and 1120 Compact LC	B.07.30 or later
Agilent 1200 Infinity Hosted Modules	C.07.20 or later
Agilent 1260/1290 Infinity II Modules	D.07.33 or later

You need to upgrade all existing modules to the latest version only if

- you add a new LC module to the existing system (recommended).
- one of the existing modules requires an upgrade due to a bug fix solved with the latest release.

For more information on downloading the current LC firmware, please refer to the Agilent website at <http://www.agilent.com/en-us/firmwareDownload?whid=69761> (LC Firmware News and Downloads) and <http://www.agilent.com/en-us/firmwareDownload?whid=83974> (Firmware Update Tools & Procedures).

The tables that follow list the supported LC modules with the minimum required firmware. Please note that using some driver features like valve-thermostat clusters and new temperature control modes require firmware updates beyond the minimum required firmware for related modules. For more information please refer to the respective release notes.

Table 6. 1120 Compact LC / 1220 Infinity LC

1120 Compact LC / 1220 Infinity LC	Version
G4286A Compact LC	B.07.30 [005]
G4286B Infinity LC	B.07.30 [005]
G4286C Infinity LC	B.07.30 [005]
G4287A Compact LC	B.07.30 [005]
G4287B Infinity LC	B.07.30 [005]
G4288A Compact LC	B.07.30 [005]
G4288B Infinity LC	B.07.30 [005]
G4288C Infinity LC VL	B.07.30 [005]
G4289A Compact LC	B.07.30 [005]
G4289B Infinity LC	B.07.30 [005]
G4289C Infinity LC VL	B.07.30 [005]
G4290A Compact LC	B.07.30 [005]
G4290B Infinity LC	B.07.30 [005]
G4290C Infinity LC VL	B.07.30 [005]
G4291A Compact LC	B.07.30 [005]
G4291B Infinity LC	B.07.30 [005]
G4291C Infinity LC VL	B.07.30 [005]
G4292A Compact LC	B.07.30 [005]

Table 6. 1120 Compact LC / 1220 Infinity LC (continued)

1120 Compact LC / 1220 Infinity LC	Version
G4292B Infinity LC	B.07.30 [005]
G4292C Infinity LC VL	B.07.30 [005]
G4293A Compact LC	B.07.30 [005]
G4293B Infinity LC	B.07.30 [005]
G4293C Infinity LC VL	B.07.30 [005]
G4294B Infinity LC VL	B.07.30 [005]
G4294C Infinity LC VL	B.07.30 [005]

Table 7. 1260 Infinity LC

1260 Infinity LC	Version
G1156A 6-Position/7-Ports Valve	A.07.01 [001]
G1157A 2-Position/10-Ports Valve	A.07.01 [001]
G1158A 2-Position/6-Ports Valve (1100/1200)	A.07.01 [001]
G1158B 2-Position/6-Ports Valve	A.07.01 [001]
G1159A 6-Position Column Selector Valve	A.07.01 [001]
G1160A 12-Position Selector Valve	A.07.01 [001]
G1162A Micro Valve 2-Position/6-Ports	A.07.01 [001]
G1163A Micro Valve 2-Position/10-Ports	A.07.01 [001]
G1310A Isocratic Pump (1100/1200)	A.07.01 [001]
G1310B Isocratic Pump	A.07.01 [001]
G1311A Quaternary Pump (1100/1200)	A.07.01 [001]
G1311B Quaternary Pump	A.07.01 [001]
G1311C Quaternary Pump VL	A.07.01 [001]
G1312A Binary Pump (1100/1200)	A.07.01 [001]
G1312B Binary Pump	A.07.01 [001]
G1312C Binary Pump VL	A.07.01 [001]
G4302A SFC-Binary Pump	A.07.01 [001]
G1313A Autosampler (1100)	A.07.02 [005]

Table 7. 1260 Infinity LC (continued)

1260 Infinity LC	Version
G1314A Variable Wavelength Detector (1100/1200)	A.07.02 [001]
G1314B Variable Wavelength Detector VL	A.07.02 [001]
G1314C Variable Wavelength Detector VL+	A.07.02 [001]
G1314D Variable Wavelength Detector (1200)	B.07.33 [003]
G1314F Variable Wavelength Detector	B.07.33 [003]
G1315A Diode Array Detector (1100/1200)	A.07.02 [001]
G1315B Diode Array Detector (1100/1200)	A.07.02 [001]
G1315C Diode Array Detector VL+	B.07.33 [003]
G1315D Diode Array Detector VL	B.07.33 [003]
G1316A Thermostatted Column Compartment	A.07.02 [001]
G1316B Thermostatted Column Compartment SL (1200)	A.07.02 [001]
G1321A Fluorescence Detector (1100/1200)	A.07.02 [001]
G1321B Fluorescence Detector SPECTRA	A.07.02 [001]
G1321C Fluorescence Detector	A.07.02 [001]
G1329A Standard Autosampler (1100/1200)	A.07.02 [005]
G1329B Standard Autosampler	A.07.02 [005]
G1365A Multiple Wavelength Detector (1100/1200)	A.07.02 [001]
G1365B Multiple Wavelength Detector (1100/1200)	A.07.02 [001]
G1365C Multiple Wavelength Detector	B.07.33 [003]
G1365D Multiple Wavelength Detector VL	B.07.33 [003]
G1367A Well Plate Sampler (1100)	A.07.02 [005]
G1367B High Performance Autosampler (1200)	A.07.02 [005]
G1367C High Performance Autosampler SL (1200)	A.07.02 [005]
G1367D High Performance Autosampler SL+ (1200)	A.07.02 [005]
G1367E High Performance Autosampler	A.07.02 [005]
G1369C LAN Interface Card	B.07.33 [003]
G1376A Capillary Pump	A.07.01 [001]
G1377A Micro Well Plate Sampler	A.07.02 [005]

Table 7. 1260 Infinity LC (continued)

1260 Infinity LC	Version
G1389A Micro Autosampler	A.07.02 [005]
G1390A Universal Interface Box (UIB)	A.07.01 [001]
G1390B Universal Interface Box II (UIB II)	C.07.30 [001]
G2226A Nano Pump	A.07.01 [001]
G2254A Automation Interface	A.07.01 [001]
G4212B Diode Array Detector	B.07.33 [003]
G4220B Binary Pump	B.07.33 [003]
G4240A Chip Cube MS Interface	A.07.01 [001]
G4301A Controller SFC	B2_A.3.09 [005]
G4301A Controller SFC	C2_A.3.09 [005]
G4302A Binary Pump SFC	A.07.01 [001]
G4303A Standard Autosampler SFC	A.07.02 [005]
G5611A Bio-inert Quaternary Pump	A.07.01 [001]
G5667A Bio-inert HP ALS	A.07.02 [005]

Table 8. 1290 Infinity LC

1290 Infinity LC	Version
G1170A Universal Valve Drive*	C.07.30 [001]
G1314E Variable Wavelength Detector	B.07.33 [003]
G1316C Thermostatted Column Compartment†	A.07.02 [001]
G4204A Quaternary Pump	B.07.33 [003]
G4220A Binary Pump	B.07.33 [003]
G4212A Diode Array Detector	B.07.33 [003]
G4226A Autosampler	A.07.02 [005]
G4227A Flexible Cube	C.07.30 [001]

* A host may be required. For details see latest driver release note.

† 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.

Table 9. 1260/1290 Infinity II LC

1260/1290 Infinity II LC	Version
G4782A Binary Pump SFC	D.07.33 [003]
G4767A Multisampler SFC	D.07.33 [003]
G5654A Bio-inert Quaternary Pump	D.07.33 [003]
G5668A Bio-inert Multisampler	D.07.33 [003]
G7104A Quaternary Pump	B.07.33 [003]
G7104C Flexible Pump	B.07.33 [003]
G7110B Isocratic Pump	D.07.33 [003]
G7111A Quaternary Pump VL	D.07.33 [003]
G7111B Quaternary Pump	D.07.33 [003]
G7112B Binary Pump	D.07.33 [003]
G7114A Variable Wavelength Detector	D.07.33 [003]
G7114B Variable Wavelength Detector	D.07.33 [003]
G7115A Diode Array Detector	D.07.33 [003]
G7116A Multicolumn Thermostat	C.07.30 [001]
G7116B Multicolumn Thermostat	C.07.30 [001]
G7117A Diode Array Detector FS	D.07.33 [003]
G7117B Diode Array Detector	D.07.33 [003]
G7117C Diode Array Detector HS	D.07.33 [003]
G7120A Binary Pump	B.07.33 [003]
G7121A Fluorescence Detector	D.07.33 [003]
G7121B Fluorescence Detector SPECTRA	D.07.33 [003]
G7129A Vialsampler	D.07.33 [003]
G7129B Vialsampler	D.07.33 [003]
G7129C Vialsampler	D.07.33 [003]
G7132A Bio Binary Pump	D.07.33 [003]
G7137A Bio Multisampler	D.07.33 [003]
G7165A Multiple Wavelength Detector	D.07.33 [003]

Table 9. 1260/1290 Infinity II LC (continued)

1260/1290 Infinity II LC	Version
G7167A Multisampler	D.07.33 [003]
G7167B Multisampler	D.07.33 [003]

Table 10. Capillary Electrophoresis (CE)

Module	Version
G7100A Capillary Electrophoresis (CE)	B.07.30 [001]

Table 11. Other modules

Product Number	Module Name	Minimum Firmware Revision
G1330A	1100 Series Thermostat	n/a
G4277A	1290 Infinity LC Injector HTS	4.3.0
G1330B	1290 Infinity Thermostat	n/a
G4270-CTC	HTC PAL Auto sampler	Agilent 2 6.8 or 4.1.0
G4271-CTC	HTS PAL Auto sampler	Agilent 2 6.8 or 4.1.5
G7130A	Integrated Column Compartment ICC	D.06.76
VTC Valve Thermostat Cluster	Combinations of G7116B, G1170A and G1316C (valve or column hosts) and G1316A/B and G7130A	See LC Driver Release Notes: Valve-Thermostat Cluster
HDR-DAD Cluster	2x G4212A, 2x G4212B, 2x G7117A or 2x G7117B, or G7117A and 1x G7117B	B.06.57

Agilent LC/MS

Recommended Firmware

Always use the most recent Firmware or Embedded Software installation package that comes with the driver package.

Triple Quad LC/MS System

These Agilent LC/MS instruments can be controlled with MassHunter Workstation.

Table 12. 6400 Series Triple Quad LC/MS System

Product number	Description	Supported source	Autotune source	Checktune source
G6420A	6420 LC/TQ	• ESI	• ESI	• ESI
G6460C	6460C LC/TQ	• AJS	• AJS	• AJS
G6470A	6470 LC/TQ	• ESI	• ESI	• ESI
G6470B	6470 LC/TQ	• APCI • MMI • APPI • ChipCube		• APCI (6470 A/B only)
G6475A	6475 LC/TQ	• AJS • ESI • APCI • MMI • Nano ESI	• AJS • ESI • APCI • MMI	• AJS • ESI • APCI • MMI
G6495A	6495A LC/TQ	• AJS	• AJS	• AJS
G6495B	6495B LC/TQ	• ESI		• ESI
G6495C	6495C LC/TQ	• APCI • MMI • APPI • ChipCube		• APCI (6495C only)

Table 13. 6400 Series Triple Quad LC/MS System

Product number	Description	Supported source	Autotune source	Checktune source
G6465A	Ultivo LC/TQ	• AJS	• AJS	• AJS
G6465B	Ultivo LC/TQ	• ESI • APCI • MMI	• ESI • APCI • MMI	• ESI • APCI • MMI

LC/TOF and LC/Q-TOF System

These Agilent LC/TOF and LC/Q-TOF instruments can be controlled with MassHunter Workstation.

Table 14. Agilent LC/TOF Systems

Product number	Description	Note
G6224A	6224A Accurate-Mass TOF LC/MS	No support for AJS or Dual AJS Source
G6230A	6230A Accurate-Mass TOF LC/MS	
G6230B	6230B Accurate-Mass TOF LC/MS	

Table 15. Agilent LC/Q-TOF Systems

Product number	Description	Note
G6520B	6520B Accurate-Mass Q-TOF LC/MS	No support for AJS or Dual AJS Source
G6530A	6530A Accurate-Mass Q-TOF LC/MS	
G6530B	6530B Accurate-Mass Q-TOF LC/MS	
G6530C	6530C Accurate-Mass Q-TOF LC/MS	
G6538A	6538 Ultra High Definition (UHD) Accurate-Mass Q-TOF LC/MS	No support for AJS or Dual AJS Source
G6540A	6540 Ultra High Definition (UHD) Accurate-Mass Q-TOF LC/MS	
G6540B	6540 Ultra High Definition (UHD) Accurate-Mass Q-TOF LC/MS	
G6545A	6545A LC/Q-TOF	
G6545B	6545B LC/Q-TOF	
G6546A	6546 LC/Q-TOF	
G6549A	6545XT AdvanceBio LC/Q-TOF	
G6550A	6550 iFunnel Q-TOF LC/MS System	
G6550B	6550B iFunnel Q-TOF LC/MS System	
G6560A	6560 Ion Mobility LC/Q-TOF	
G6560B	6560 Ion Mobility LC/Q-TOF	

Drivers for non-Agilent Instruments

If any drivers are available for non-Agilent instruments, they will be available from SubscribeNet

Incompatible Instruments and Modules

The following tables summarize selected instruments or modules that can *not* be controlled with the current revision of MassHunter Workstation.

Incompatible LC and LC/MS Modules

Table 16. Incompatible LC and LC/MS Modules

Product Number	Module Name
G1361A	1260 Infinity Preparative Pump
G1364A/B/C/D	Fraction Collector / Fraction Cluster
G1364E	Fraction Collector (Prep)
G1364F	Fraction Collector (Analytical)
G1389A	Micro Sampler
G2258A	1260 Infinity Dual-Loop Autosampler
G2260A	1260 Infinity Preparative Autosampler (High flow)
G4218A, G7102A G4260A, G4260B G4261A, G4261B	Evaporative Light Scattering Detector (ELSD)
G5664A	1260 Infinity Bio-inert fraction collector AS
G5664B	Fraction Collector (BIO)
G7157A	1260 Infinity II Preparative Autosampler
G7158B	Preparative Open Bed Sampler/Collector
G7159B	Preparative Open Bed Fraction Collector
G7161A	1260 Infinity II Prep Binary Pump
G7161B	Binary Prep Pump
G7162A	Refractive Index Detector
G7162B	Refractive Index Detector Micro
G7166A	Valve-based Fraction Collector
G7170B	MS Flow Modulator

Incompatible CE Instruments

MassHunter Workstation cannot be used to control CE Instruments.



4 Software Compatibility

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This chapter contains information on compatibility with other Agilent or Non-Agilent Software.

Software

The MassHunter Workstation 12.0 software includes MassHunter Acquisition for LC/TQ 12.0, MassHunter Quantitative Analysis 12.0, and MassHunter Qualitative Analysis 10.0.

These programs are compatible with MassHunter Workstation 12.0:

- LabAdvisor for LC
- ACE
- Remote Advisor
- MassHunter WalkUp - TOF/Q-TOF only
- MassHunter IM-MS Browser - TOF/Q-TOF only
- MassHunter BioConfirm 12.0 - TOF/Q-TOF only
- MassProfiler Professional (MPP)
- RapidFire
- MOBILion Software¹ - *TOF/Q-TOF only*

¹ In a MOBILion MOBIE system, MOBIE EyeOn Software is used to acquire data in HRIM mode. MassHunter Data Acquisition is used to acquire data in Q-TOF mode.

Libraries and Databases

The following libraries and databases are compatible with MassHunter Workstation.

- G4975BA NIST 20 LC/MS/MS Library (includes NIST MS Search)
- G3878CA MassHunter Pesticide PCDL B.07.00 or higher
- G3876CA MassHunter Forensic/Toxicology PCDL B.07.00 or higher
- G3879CA MassHunter Veterinary Drugs PCDL B.07.00 or higher
- G6890CA MassHunter Extractables and Leachables PCDL B.07.00 or higher
- G5883CA MassHunter Mycotoxin and related Metabolites PCDL B.07.00 or higher
- G6882CA MassHunter Water Screening PCDL B.07.00 or higher
- G3874AA METLIN Metabolites PCDL
- G6825AA Personal METLIN Metabolite PCD
- Any user-created library
- G1733CA Pesticides tMRM DB
- G1734CA Forensics tMRM DB
- G1735CA Vet drug tMRM DB
- G1736AA PFAS MRM DB for LC/TQ
- G6412AA Metabolomics MRM DB

In This Book

This document details the minimum hardware, software, and network requirements, as well as minimum firmware required to run an Agilent MassHunter Workstation, and lists supported instruments. It includes operating system configuration.

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