Agilent Intuvo 9000GC Firmware

Release Notes – Revision 3.2.0.130

Notices

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Firmware/Software Revision

This guide is valid for the 3.2.0.130 revision of *Agilent Intuvo 9000GC Firmware*

Warranty

Technology Licenses

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.

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1   Document History

The table below lists all changes that have been made to this document.

Date	Version	Description
6th Feb 2020	Rev 1.00	Initial release.
29th May, 2020	Rev 1.1	Added 2.1.0 details.
14th August, 2020	Rev 1.2	Added 2.1.1.7 details.
28th Sep, 2020	Rev 1.2.1	Modified for external use.
23rd Nov, 2020	Rev 1.3	Added 2.2.0.287 details.
6th January, 2021	Rev 1.4	Added 2.2.1.4 details.
28th January 2021	Rev 1.5	Added 2.2.2.4 details
17th March 2021	Rev 1.6	Added 2.3.0.203
20th April 2021	Rev 1.7	Added 2.3.1.6
19th July 2021	Rev 1.7.1	Added SR 2.3.2.11
30th July 2021	Rev 1.7.2	Added SR 2.3.3.6
1st November 2021	Rev 1.7.3	Added 2.4.0.307
27th January 2022	Rev 1.7.4	Added 2.4.1.10
13th May 2022	Rev 2.0	New document format. Added 2.5.0.258
13th October 2022	Rev 2.01	Added 2.5.1.9 Hot Fix
9th January 2023	Rev 2.02	Added 2.6.0.306
8th May 2023	Rev 2.03	Added 2.7.0.207
15th September 2023	Rev 2.04	Added 2.8.0.219
24th January, 2024	Rev 2.04	Added 2.8.1.6
15th May 2024	Rev 2.05	Added 2.9.0.345
16th September 16, 2024	Rev 2.06	Added 3.0.0.181
5th February 2025	Rev 2.07	Added 3.0.3.21
18th June 2025	Rev 2.08	Added 3.1.0.380
16th September 2025	Rev 2.0.9	Added 3.2.0.130

2 Introduction

The purpose of this document is to provide users of the Agilent *Intuvo 9000 Gas Chromatograph* guidance to relevant support documentation that contains further levels of information and detail

Table 1 Terms and abbreviations used in this document

Terms	Description
SSB	Software Status Bulletin
CDS	Chromatographic Data System
U	Update
SP	Service Pack
HF	Hotfix
SR	Service Release
[xx]	Final Build Numbers of a released product
DSA	Data System Adapter

3 Compatibility

Supported Agilent Data Systems

OpenLab CDS (2.8, 2.7, 2.6, 2.5, 2.4 or higher)

OpenLab CDS ChemStation Edition (C.01.10, C.01.09, LTS)

GC/MS MassHunter Acquisition (10.2,10.1, 10.1 SR1 or higher)

(MassHunter 10.0 required to configure 8890 and 8860 GCs)

OpenLab CDS EZChrom Edition (A.4.10, A.04.09.)

Supported Agilent GC Driver

Agilent GC Driver (3.6 or higher. Current 4.2)

Agilent GC Driver (3.5 – Limited Support)

4   Support Information

- Agilent recommends using always the latest firmware revision of a firmware in order to avoid interoperability issues.
- Generally, Agilent recommends keeping the GC instrument firmware always current.

Notes for Agilent Intuvo 9000 controlled by non-Agilent Chromatography Data Systems (CDS)

- The 3rd-party CDS software vendor is responsible for compatibility testing with the respective CDS revision.
- The 3rd-party CDS software vendor defines the minimum firmware revision required for CDS compatibility.
- The 3rd-party CDS release notes issued by the respective CDS vendor may use different terminology for the firmware requirements such as "tested firmware", "supported firmware", "firmware requirements", "minimum tested firmware", etc.
- ICF: Instrument Control Framework for LC, Non-Agilent Software | Agilent
- Empower™: Agilent Drivers for Waters™ Empower™ | Agilent

OQ/PV - Validation Information

- If a firmware upgrade has been performed, normally no revalidation of the module/system is required. This is stated in the released Service Note applicable to the release.
- In addition, this information is stated further on in this document.

5 Agilent Intuvo 9000 GC Firmware – What's new?

What's new in 9000 GC Firmware 3.2.0.130

- Support upgradable EPC Modules.

6   Resolved Issues in revision 3.2.0.130

The current shipping firmware for the 8890A is 3.2.0.130

Released 10th September 2025
http://download.chem.agilent.com/firmware/9000_FW_3.2.0.130.tgz.gpg
To download this version, use GC Firmware Update Utility 3.2.8.0 or greater.
Updating to this firmware does not require instrument revalidation.

Service Note Number: D0137671

Issue Id	Current Behaviour	Resolution
045612	LUI incorrectly displaying text in inlet method pressure check diagnostic test	Resolved
046212	Printing Peak Evaluation Report- works on edge not on chrome GC FW 2.9.0.345	Resolved
046664	Headspace EPC Module FW Update Support	Resolved
046759	SCD shutdown/quick start not displayed on LUI screen	Resolved
046828	Allow user to disable SMB Share	Resolved
046832	LUI-'apply' button does not work on the SCD Change Oil EMF	Resolved
046867	Flowpath not displayed correctly on the BUI	Resolved
046875	System Checkout-Detector signal not displayed on real-time plot	Resolved
046880	Power Fail Automated Blank Run should only try once	Resolved
046883	Set Headspace Inlet to back apply failed	Resolved
046895	Rename mass spec transfer line signals	Resolved
046906	BrowserUI: update code to add the y-axis label on RT plot	Resolved
046910	8850/8890/9000 LUI - Disable start button when instrument is in sleep mode	Resolved
046918	BrowserUI_One event type not display	Resolved
046943	BrowserUI: In Method\Events 'Front Detector - undefined' is a Setpoint option for AO Signal Source. Unclear - Confusing.	Resolved
046959	PreRun Flow Test Log Message	Resolved
046973	Request signal for oven door sensor.	Added
047014	BUI Column holdup time is incorrectly reporting out of range	Resolved
047015	8890 LUI - Unconfiguring a column results in missing fields	Resolved

047037	Detector Evaluation Report not present - undefined error fw 3.0.3.21	Resolved
047062	LUI configuration allows invalid characters for hostname	Resolved
047067	Typo in MS configuration high vacuum pump type	Resolved
047080	BUI doesn't load, instruments in broken state after FW update.	Resolved
047089	Request to show inlet pressure during column bakeout maintenance procedure	Resolved
047096	Unable to change GC hostname from LUI	Resolved
047107	Include instrument name in Browser title bar	Added
047114	Lower range request for out segment of composite columns configuration	Resolved
047201	LUI/BUI missing Solvent Wash Mode A-A2, B-B2 for SCV Transfer turret	Resolved
047218	Ability for PSE to open GC logs	Resolved
047251	GC Firmware update tool revision 3.1.30.0 report error "Nothing to update ...." when upgrade 7697 firmware	Resolved
047262	False displayed message during Inlet Pressure zeroing	Resolved
047328	Automation Team requests feature to reset ALS programmatically	Resolved

7 Previous Versions

Firmware Release 3.1.0.380.

Released 16th June 2025
http://download.chem.agilent.com/firmware/9000_FW_3.1.0.380.tgz.gpg
To download this version, use GC Firmware Update Utility 3.1.30 or greater.
Updating to this firmware does not require instrument revalidation.

Service Note Number: D0132930

Issue Id	Current Behaviour	Resolution
043007	Peak Evaluation: SCD Burner and Reactor Cell Pressure in reference Chromatogram	Resolved
043673	Restricted split vent and resulting inlet overpressure does not shut down inlet	Resolved
045168	Selecting new pneumatic PID's from Browser User Interface (BUI) crashes BUI	Resolved
045581	MPV control code doesn't try to recover from BCD error state	Resolved
045685	Update the BUI wake/sleep method editor to make the configuration items read only	Resolved
045831	Inlet Pre Shutdown Warning in Split Operation	Resolved
046188	Label Detector type on GC online plot 2.9 fw	Resolved
046206	Instrument Status could include actual for Vial heater temp, countdown for Wait time, Mix time	Resolved
046209	8890 LUI Service Mode for PSD missing PID field	Resolved
046260	Investigate Buffer Reduction in Signal Path	Resolved
046280	Add error signals associated with thermal and pneumatic setpoint/actual signals	Resolved
046303	No way to see or edit user-defined EMFs from the LUI	Resolved
046304	No way to see or edit user-defined EMFs from the Browser UI	Resolved
046316	Add diagnostic signals for GC, HS, and APG line readiness	Resolved
046408	MMI and SSL have different pressure decay test instructions - fw 2.9.0.345	Resolved
046457	Pressure needed for Leak and Restriction Test cannot be achieved.	Resolved
046504	Gas ID with PPIP needs more purge flow/time	Resolved

046507	Instantaneous gas ID feature implemented as part of flow sensor auto-zero	Resolved
046509	8890 Septum Purge Zero also turns off the Total Flow.	Resolved
046511	Different PCM Configuration in WebUI and ChemStation	Resolved
046608	FID shown as 'not lit' on BUI when the flame is 'on'	Resolved
046691	Sample Overlap for Prepare sample after end of GC run is not working Correctly	Resolved
046693	LUI_ Big Start and Stop Buttons not show if press Pre-Run Icon not on Flow UI	Resolved
046751	Request to create a new Run Time Event for TCD filament lifetime prolong test	Resolved
046808	Hydrogen shutdown not displayed on LUI	Resolved
046822	Intermittent error occurs System Fault - Code: 0x00000800	Resolved
046843	LUI configuration items for 5977C were never setup, did not auto identify or present to user	Resolved
046931	Inlet Pre-Run Flow Test has variability in setpoint	Resolved
046937	Aborting maintenance procedure does not re-apply method setpoints	Resolved
046955	Peak Evaluation Method Comparison shows oven temperature program units as pressure units.	Resolved
046956	Peak Evaluation Method Comparison does not show changes in a ramped flow	Resolved

Revision 3.0.3.21is a Hot Fix and not released to manufacturing.

Released 5th February 2025
http://download.chem.agilent.com/firmware/9000_FW_3.0.3.21.tgz.gpg
To download this version, use GC Firmware Update Utility 3.0.1 or greater.
Updating to this firmware does not require instrument revalidation.

Service Note Number: D0127041

Issue Id	Current Behaviour	Resolution
0496366	GC system fault-Fault code, 0x00000200, Error code, 1000600a, sequence abort	Resolved
046421	GC with Modi connected showing MSD Diagnostic Tests	Resolved
046327	LCOMM Communication Issues with 5977	Resolved

046554	Cannot connect to browser for GCs with SCD	Resolved
046606	Phone BrowserUI Stuck on Loading Wheel Upon Startup	Resolved
046586	Latest VICI actuator requires GC FW changes to pass EFT	Resolved
046579	Waters: They report a need for 500 mL flow rate.	Resolved
046682	9000 GC System Fault - Code: 0x00000800	Resolved
046634	9000 screen will be freeze and makes a System Fault code: 0x00000800 when configure or uncofigure the NPD on the column configuration	Resolved
046633	Can't Download Diagnostic Data Collection csv	Resolved
046716	Phone UI: Instrument firmware revision is empty	Resolved
046717	Phone UI: Attempting to change language does not bring up language selection menu	Resolved
046544	H2 Sensor appears to be zeroing after each run. Adding time to the GC Cycle time	Resolved
046364	[Keypad suppport] Request to enable the support to 88xx auxiliary keypad on 8890	Resolved

Firmware Version 3.0.0.181

Released 12th September 2024
http://download.chem.agilent.com/firmware/9000_FW_3.0.0.181.tgz.gpg
To download this version, use GC Firmware Update Utility 3.0.1 or greater.
Updating to this firmware does not require instrument revalidation.

Service Note Number: D0120312

Issue Id	Current Behaviour	Resolution
041981	Detector Evaluation Enhancement - Detector Evaluation initial and final baseline should not fail because user selects Zero Signal	Resolved
043867	Option to enter maintenance mode and not cool the transferline if there is an MS	Resolved
044109	Consider adding sleep/wake button to LUI power menu	Added
044226	Request to add Gas Supply Pressure check back - in addition to method supply pressure check	Added
044562	Pulsed Pressure Help updates - available in English only for GC FW 2.7	Added
044756	Enhancement request-print the serial number of the main parts	Resolved
045091	UI: Inlet and Detector Name Rendering	Resolved

045387	8697: System reported "flow not ready" and "Pressure not reday" after every injection when purge time starts	Resolved
045411	NPD bead adjustment LUI popup	Resolved
045541	Maintenance Mode Options- remain cool or return to previous operating conditions	Resolved
045903	PSD pressure does not turn off during guided GC maintenance tasks 2.8.1.6 firmware	Resolved
045925	8697: Appended line on a sequence doesn't start	Resolved
045942	LUI method screen jumps back to original screen after making changes.	Resolved
046020	Add message to turn off split flow for thermal desorber in inlet leak and restriction test	Resolved
046027	Change EPC Setpoint resolution to 0.001 psi throughout 0 - 150 psi range	Resolved
046124	EMF issue causing GC/MS instrument to disconnect	Resolved
046139	Add Health Report section chooser for Serial Numbers	Resolved
046153	Helium Conservation Module declared as 'broken' if range for uninstalled pressure sensor is not in EEPROM	Resolved
046173	Display flickers during boot up before the backlight is turned on	Resolved
046211	Chromatographic Trend Plot- Peak Evaluation (BUI) Cannot select analyte in dropdown	Resolved
046232	LUI displays incorrect value after resetting EMF counter	Resolved
046249	Browser: Method Not Valid Using PTV with No Heater	Resolved
046288	Function: Run starts without the correct value during set Oven Standby	Resolved
046311	8697: Instrument is stuck in the Aborting state after a HS sequence is aborted	Resolved

Firmware Version 2.9.0.345
Released 13th May 2024
http://download.chem.agilent.com/firmware/9000_FW_2.9.0.345.tgz.gpg
To download this version, use GC Firmware Update Utility 2.10.9.0 or greater.
Updating to this firmware does not require instrument revalidation.

Service Note Number: D0115821

Issue Id	Current Behaviour	Resolution

40912	Troubleshooting-revert troubleshooting changes	Resolved
42742	Troubleshooting wizard does not clear previous changes after restarting Troubleshooting	Resolved
43245	8890/9000 LUI Should Show QQQ MAC Address	Resolved
43442	HydroInert Ion Source collision gas flow defaults needed for 7000E	Resolved
43479	Review High Inlet Pressure Maintenance and Diagnostics	Resolved
43759	HydroInert: Allow configuration of HydroInert ion source on SQ and prevent runs if configured carrier gas is Helium	Message informs user that H2 must be configured as the carrier gas.
43760	HydroInert: Allow configuration of HydroInert ion source on TQ and prevent runs if configured carrier gas is Helium	Message informs user that H2 must be configured as the carrier gas
44218	Method Supply pressure check not found in 'help'.	Resolved
44372	BCR Mismatch Stuck in Loop	Resolved
44357	Investigate Helium Conservation Module Purge Time	Purge time added to allow gas to be equilibrated.
44431	Troubleshooting - No Peaks - No Flame is OK	System will now check to see if Flame is lit
44838	BrowserUI Events Do not work through Reverse Proxy	Resolved
44850	Download button not working with gather log files-BUI	Resolved
44867	[G4567A ALS: Solvent Wash Mode: A-A2,B-B2 and A-A6,B-B6 are not supported in G4567 ALS.	A-A2,B-B2 and A-A6,B-B6 are not supported. No action taken.
44894	Trend Plotting-Last data point cut off on the LUI	Resolved

44926	CDS Blank Eval Failure/Abort on Failure holds instrument Not Ready until cleared from Browser or Touchscreen	Resolved
44944	BUI: The Performance Evaluation Report does not include the vial position.	Resolved
44988	System Health Report: Add Oven Configuration Details	Resolved
45053	Oven going into Standby mode after a run has been started.	The Oven Standby parameters should not apply once a run has started. Resolved.
45101	Large Volume Syringe Carriage Air Gaps	Resolved
45219	BUI/LUI: User Zero Calibration Values for QQQ Quench and Collision Gas	Parameters removed from screen.
45239	Incorrect max ramped column flow value	Resolved
45256	8697 & 8697 XL - The function of vial vent between extractions does not work in Multiple extraction mode	Resolved
45318	PSD Calibration Purge Title	Parameter set to Purge Flow.
45327	"Setpoint Changed During Run" in run log at the end of HS Sequence	Ability to change a parameter during the run carries over the Run Log incorrectly during the next run. Resolved.
45361	Request to provide driver interface to "Park / Unpark" HeadSpace for 8697	Park parameter added to OL.
45388	Inlet maintenance does not automatically depressurize inlet	Resolved.
45563	Browser Run Time Events table is not holding the selected Event Type	Resolved.

45607	BUI wake method loads the wrong one when the Wake Up button is pressed	Resolved.
45616	System Health Report provides the wrong syringe size in the report	Resolved
45699	Touchscreen EMF Reset screen will not close; multiple pages are being opened on double click	Resolved
45755	LUI: Initial Startup Screens - Hide if not new instrument	Resolved
45770	HSS Transferline can now be edited.	Resolved
45779	Convert inlet EPC module temperature units to degrees C in low level signal	Resolved
45787	BrowserUI's "Start System Setup" doesn't start System setup on the BrowserUI	Resolved.
45793	Possible security risk exposing devmem2 to non-root users	Resolved
45808	Browser: User Input Ranges Not Rejected For User Interaction	Resolved
45810	SCD with Hydrogen carrier gas has trouble when oxidizer gas not present	Resolved.
45827	Change default Inlet Settings to reduce helium usage	Default valves changed to splitless
45828	Update Open Source License Text available via BrowserUI	Resolved
45884	Browser Injection Mode Total syringe Volume used has wrong max: 50%, should be 75%	Resolved
45926	MSD parameters not present on LUI	Resolved

Firmware Version 2.8.1.6

Released 23th January, 2024
http://download.chem.agilent.com/firmware/9000_FW_2.8.1.6.tgz.gpg
To download this version, use GC Firmware Update Utility 2.9.12.0 or greater.
Updating to this firmware does not require instrument revalidation.

Service Note Number: D0110164

Issue Id	Current Behaviour	Resolution
044977	Ignore Blank Start Requests While Already Running	Resolved
045243	Events information cannot be changed in FW 2.8.0.219	Resolved

Released 25th August, 2023.

Updating to this firmware does not require instrument revalidation.

8890A 2.7.1.2 firmware was released as a Hot Fix to resolve one issue.

The firmware was to fix an error with an 9000/8797 Headspace sampler combination.
The error "Waiting for Shutter" was reported.
The fault was an erroneous one that would occur during a sequence which would then abort with the Shutter error.
In all instances the issue was not related to the Shutter but, in most cases, a failing inlet Prerun flow test.

The firmware was not released to manufacturing and only delivered to customers that reported the issue.

This Hot Fix will be included in all future firmware revisions such as 2.8.0.219

Firmware Version 2.8.0.219
Released 20th September, 2023
http://download.chem.agilent.com/firmware/9000_FW_2.8.0.219.tgz.gpg
To download this version, use GC Firmware Update Utility 2.8.10.0 or greater.
Updating to this firmware does not require instrument revalidation.

Service Note Number: D0036917

Issue Id	Current Behaviour	Resolution
033267	Config Changed Event not raised to DSA. Adding or removing a Smart Key or changing a column dimension is not propagated to the DSA	Resolved
041095	Argon for Carrier gas and TCD make up gas	Added
041468	Trend Analysis-Implement color coding for the 'filter chips' in the legend	Resolved
042024	Translation Issue	Resolved
042487	Make Browser interface Home screen mimic Touchscreen home screen	Resolved
043339	HW missing error and operations stopped if no detector selected	Resolved
043484	Firmware Update Utility-add error if the 'temp' file starts to fill up	Resolved
043554	Firmware update while instrument in maintenance mode not allowed. Display message.	Resolved
043773	Peak Evaluation Integrate should not clear all Peak Names and CAS #s	Resolved

043856	BrowserUI Startup Time improved.	Resolved
043916	Dash missing for connected PC name on BUI and LUI	Resolved
044000	Request new diagnostic test "QA: Thermal Runaway Test"	Added
044107	Customer requests run time elapsed on LUI during run. Elapsed time and time left can be toggled.	Added
044122	Option to load method from GC or a method saved to the GC for Sleep or wake method in the scheduler	Added
044162	TCD Warning, detector Temperature < 130C message confusing.	Modified
044206	9000 Guard Chip cannot be selected from Browser	Resolved
044227	Inlet leak and restriction test failing due to restriction being too large	Resolved
044319	Support HYDROINERT_EI MS source type	Added
044343	Translation Issue	Resolved
044363	HEC control over TCD configuration in user interfaces. TCD gas config should be greyed out if HEC enabled	Resolved
044384	Headspace: No detail info for headspace after abort running	Resolved
044387	Gas ID test was pass, but no information added to System Health Rerport	Resolved
044412	Need to change GC parameters during a run. New feature in GC Feature Selection. Change is method dependent.	Added
044416	EMF Alert: Unknown Device Component	Resolved
044427	Add a sleep and a wake button to Browser much like DSA functionality	Resolved
044462	Browser System Fault after Editing Running Sequence, saving, Editing again and saving.	Resolved
044552	Reported column calibration date when installing column key reports future date	Modified
044565	LUI Method Tab Missing Syringe Size	Resolved
044592	PSD rate set to 150psi/min.	Modified
044631	Subnet Mask Validation. Invalid Subnet could be entered	Resolved
044667	Browser Perform Maintenance for Inlets does not include Replace Septum when HS is configured	Resolved.
044689	EMF/Diagnostics cannot be viewed on the Browser	Resolved
044710	TCD Filament calibration not working correctly.	Resolved
0447329	8697 - Reporting ""sample probe restriction" warning while leak and restriction test passed well	Resolved
044770	Manufacturing Data Location Creation for SP1 Analyser info	Added
044725	Shutter Error erroneously occuring	Resolved.
044791	Helium Conservation Module now supported	Added

| 044831 | 8890/9000 LUI: Display Client Proxy URL | Added. |
| 044834 | Venting MSD/powering down GC cleared MS venting method from GC | Resolved |

Firmware Version 2.7.0.207
Released 5th May, 2023
Service Note Number: D0032457

What's new in Intuvo 9000 GC Firmware 2.7.0.207?

- Added support for the new Headspace XL
- Added support for the new Hydrogen switch (Helium Conservation Module)
- Added capability to print the maintenance log from the Browser Interface
- Added retention time on the peak evaluation chromatogram
- Added display of baselines in peak evaluation reference chromatograms within the browser
- Added use of headspace as an injection source for peak evaluation
- Modified the Browser Interface handling of Detector evaluation/peak evaluation check boxes to be similar to the GC Driver (DSA)
- Added Pre-run flow test information into Help and user manuals
- Defect Fixes and Enhancements

2.7.0.207 Intuvo Firmware

Released 5th May, 2023
http://download.chem.agilent.com/firmware/9000_FW_2.7.0.207.tgz.gpg
To download this version, use GC Firmware Update Utility 2.8.10.0 or greater.
Updating to this firmware does not require instrument revalidation.

Service Note Number: D0032457

Issue Id	Current Behaviour	Resolution
034857	Ability to use/create a composite columns in browser UI	Resolved
039520	Troubleshooting: Diagnostic Test for Detector Checkouts	Resolved
041955	Plotted Signals not aligning on the Browser	
042323	DSA shows config change upon GC reboot if connected to DSA	Resolved
042753	Gateway will change if the last group of numbers is larger than 127	Resolved

043166	Peak Evaluation - Display baseline features in Manage Reference Chromatogram Plot	Resolved
042322	New limits for XCD Vacuum check	Modified
043628	Pulsed Split Injection with HS. System does not have enough total flow to reach their pulse pressure when the system starts preparing.	Resolved
043661	8697 HS: Tray FW not downgradable.	Resolved
043667	Firmware download to selector. Progress remains at 0%	Resolved
043677	Column Install/Bakeout modes improved	Resolved
043705	View Error text added to warning bar	Modified
043762	Temperature Equilibration Time added to MMI parameters	Modified
043799 043814 043816 043821 043822 043841 043862	Peak Evaluation Bug Fixes.	Resolved
043815	Gas ID Check added to Helium Conservation Module	Modified
043824	Pulsed Inlet Parameters added to GCxGC	Modified
043877	Valve Box Limit Not Implemented	Resolved
043881	User Configuarable Heater minimum rate issue	Resolved
043888	MMI Cryo Configuration Mismatch	Resolved
043890	XCD Burner PIDs changed	Modified
043902	Unable to print Sleep/Wake Methods	Resolved
043917	PPIP Inlet Flow changes after Oven Program is edited.	Resolved
043935	Number of Runs should not be resettable after factory reset.	Resolved
043939	GC will not allow user to change carrier gas configuration on LUI, Browser, or OpenLab	Resolved
043973	HSS. Run aborted when system is not ready	Resolved
043998	Helium Conservation Module; BUI shows incorrect gas type	Resolved
044016	8890 PPIP; Changing Septum Purge Value will affect Flow parameters of the inlet. Only when no column is configured. Parameter name changed to reflect situation.	Modified.
044052	User Troubleshooting added to FID ignition failure	Modified
044053	Allo GC to monitor pressure during maintenance tasks	Modified
044121	APG Stop signal not sent at end of run	Resolved

044127	FW 2.6.0.306 allows the selection of 5977 and 5977B but not 5977C	Resolved.
044154	Valve State added to Diagnostic Signal	Modified
044161	Helium Conservation Module; If installed but not plumbed, this leads to pneumatics shutdowns.	Resolved
044210	8890 with PDHID loses communication to OLCDS when FW is updated.	Resolved
044221	LUI actuals do not show Inlet Total Flow and Pressure as Setpoint OFF when they are.	Resolved
044248	XCD Burner Temperature report incorrectly	Resolved.
044249	Configuration of a 7697 Transferline causes the 8890 to lock up	Resolved.
044356	Front/Back mounted XCD and side mounted FID connot easily be configured.	Configure XCD first, reboot, manually configure FID.

2.6.0.306 9000 Firmware.
Released January 2023

What's new in 9000 GC Firmware 2.6.0.306?

- o Updated peak evaluation functionality for DSA and OLCF plugin 1.3 support
- o Enhanced Maintenance procedures with daisy-chained capability
- o Upgraded BrowserUI framework version to latest supported version
- o Added Service Mode to BrowserUI
- o Enhanced log gathering support
- o Defect Fixes and Enhancements

Service Note D0028241

Issue Id	Current Behaviour	Resolution

039003	Detector Evaluation does not support 8697 headspace OQPV checkout	Now supported
040878	Ability to add notes to a reference chromatogram	
042302	Web UI Gasifier disappear in method when loading an old method w/o Gasifier	Corrected
042310	Sleep/Wake methods give error when associated with a Blank Evaluation	Corrected
042322	MSD Configuration: Provide option to correctly configure MS Transfer Line if it was missed during First Time Setup	Corrected
042339	Put Inlet/Detector type in the diagnostic Tabs	Corrected
042707	Instruments stuck in diagnostic mode	Corrected
042863	BUI-saving a method hanging if method name contains a /	Corrected
042896	Allow a sample to be run in conditioning method- need a place to put the sample vial location.	Related to Peak Evaluation. Resolved
042915	"Clear Peak Evaluation" Behavior	Resolved
043019	Vacuum Control quick tasks in Browser Interface with SCD are not working properly	Browser refresh issue. Resolved.
043020	SCD Off Function says it turns off oxidizer flow but it does not turn off oxidizer flow	Resolved
043032	XCD Ozone Pneumatic leak test on the BUI requires a browser refresh during the test	Resolved
043047	Limit the number of peaks those can exists in Reference chromatogram.	Only 100 peaks allowed. Resolved.
043070	LUI: MSD Config Screen Update on Changes	Resolved.
043071	GC LUI is not updated with the latest MS firmware	Resolved.
043073	GC LUI takes awhile before it shows MS is disconnected	Resolved.

043074	Maintenance task - change column with SCD does not turn off H2 before cooling	Previous behaviour changed. Resolved
043085	Browser does not update method setpoints	Resolved.
043151	Uncheck DHCP should clear IP address fields	Resolved.
043160	GC auto configuration doesn't handle multiple simultaneous EPC changes	Cannot add a module to an invalid configuration. Issue resolved.
043163	XLSI does not properly auto configure	Resolved.
043169	Browser: Missing Inlet Transfer Line Heater Configuration	Resolved.
043170	Changes to MMI maintenance procedure for 'Clean bottom seal'	Manual updated.
043217	MSD communication will not disable-7010	Resolved
043258	Collision cell aux channel gas type not set correctly	Resolved
043333	Manual configuration of New Hardware such as an EPC module is cleared if cancel is evoked.	Resolved.
043364	Install column button on the BUI is not installing the correct column	Resolved.
043418	XCD Does not auto configure or unconfigure	Issue due to XCD/FID Heater configuration. Resolved.
043440	MS Serial number not shown when LVDS is configured for 7000E/7010C GCMS TQ	Resolved.
043456	Inlet Total Flow Actual shows 0mL/min	Resolved.
043485	LUI-screen jumbled with 3 columns configured	Resolved.
043541	Revisit Tank Pressure Test	Method Pressure/Tank Pressure tests redefined.
043573	System Health Report does not include Maintenance Information	Resolved.
043578	Sequence did not start when using the Browser UI	Resolved.
043580	Diagnostic tests have two close buttons that do different things.	Resolved.

043582	Closing diagnostic tests leaves them running and the GC status in Diagnostic Mode.	Resolved.
043583	Maintenance Log should inform which column was installed or trimmed	Information to be added to Log File.
043623	Purge flow to split vent parameter not available on BUI	Resolved.
043653	Remove Tank Pressure Test for 2.6.0	Tank pressure test replaced with Method pressure test. Will look into better test in future firmware.
043665	7000E/7010C: When DHCP is enabled checkbox becomes grayed out and unchecked, and sometimes disappears entirely.	Resolved.
043694	Browser does not show Blank Eval reports; sometimes Peak and Detector Eval also are empty	Resolved.
043700	Incorrect cryo cooling liquid shown in inlet method on LUI	Resolved.
043727	Progress always display 99% when the maintenance are done.	Resolved.
043776	Oven On Safety Delay Not Implemented	Five second delay added to purge H2 from oven during shutdown as per 7890.
043851	Instrument: Line voltage zero cross out of range error	Resolved.
043863	High CPU usage issue due to automated split vent restriction test	Resolved.
043999	GCxGC Inject time cannot be set above 99 seconds	Resolved.

2.6.0.303 9000 Firmware.
Released December 20022

A handful of 8890 GCs may have been released with the above firmware. This firmware is identical to version 2.6.0.306 with the exception of one fix for oven zero cross. This fix was leter removed from 2.6.0.306 due to quality concerns causing premature oven failures when customer power is poor. We have chosen not to display this firmware on A.com.

2.5.1.9 8890 Firmware.
Released October 20, 2022
http://download.chem.agilent.com/firmware/9000_FW_2.5.1.9.tgz.gpg

To download this version, use GC Firmware Update Utility 2.6.3.0 or greater.
Updating to this firmware does not require instrument revalidation.

Service Note Number: D00

Issue Id	Current Behaviour	Resolution
043399	ALS starts to prepare for run when oven is in standby mode	Issue corrected
043539	Certain EPC modules can have EEPROM ID Code corruption after power cycle - and module is no longer recognized by GC	Issue corrected

2.5.0.258 9000 Firmware
Released May 20022

http://download.chem.agilent.com/firmware/9000_FW_2.5.0.258.tgz.gpg
To download this version, use GC Firmware Update Utility 2.6.3.0 or greater.
Updating to this firmware does not require instrument revalidation.

Service Note Number: D001

Issue Id	Current Behaviour	Resolution
042393	Unable to turn off PCM backpressure during run	Run Time event added to turn PCM backpressure off during run.
042593	1000600a error reported	Issue caused by incorrect column configuration. Issue fixed.
042787	Excessively high flow coming out of the FID during inlet maintenance when using H2 as the carrier gas.	Inlet maintenance now works using the following steps. Splitting: Column Flow of 4mL/min with high split flow

		(controls in forward pressure and split vent is opened via a set duty cycle to avoid building up inlet pressure) to purge the inlet volume (26 seconds) Pressurizing: Splitless mode with 5mL/min column flow (or the user method column flow, whichever is higher) to build up pressure in inlet (20 seconds) Purging: Keep the settings if under control, otherwise lower the column flow. Hold for 3 void times, capped at 15 minutes. The exceptions to these rules are as follows: • If there is no column installed on the inlet, only step one is performed • If a MSD is connected, steps 2 & 3, use constant flow of 4mL/min instead of high pressure
042975	Multiple failure reports that 8890 inlet EPCs failed for pressure decay test	Problem caused by misunderstanding regarding the septum purge valve. New instructions being supplied to the Pressure Decay Test procedure.

2.4.1.10 9000 Firmware
Released December 2021
http://download.chem.agilent.com/firmware/9000_FW_2.4.1.10.tgz.gpg

To download this version, use GC Firmware Update Utility 2.4.3.0 or greater. (Current version 2.5.5.0)
Updating to this firmware does not require instrument revalidation.
Service Note Number: D00

Changes/Fixes made since the last version. (2.4.0.307)

Issue ID	Title
041950	Adding firmware support for GigaDevice QSPI
042318	GCMS: Allow Missing configuration condition to be dismissed if MS is not available over LVDS on GC start up
042319	GCMS LDVS: Provide a mechanism for the user to manually re-trigger connection attempt to establish LVDS communication.
042320	GCMS: Enhancement request to periodically poll MS to establish LVDS communication
042301	Column Outlet pressure value ignored, and ambient pressure used.
042340	2.4.0.307 firmware incompatible with 3.3 SR1 Driver
042382	Add classifier database content to the Trend Analysis Database content when gather logs.
042309	Localisation Updates
042371	Firmware update fails if environment needs to be updated
042443	User Configurable Heater cannot be set to 450 degC

2.4.0.307 9000 Firmware

Released November 2021
http://download.chem.agilent.com/firmware/9000_FW_2.4.0.307.tgz.gpg
To download this version, use GC Firmware Update Utility 2.4.3.0 or greater. (Current version 2.5.5.0)
Updating to this firmware does not require instrument revalidation.

Service Note Number:

Enhancements

new functionality for Trend Analysis
updates for Peak Evaluation
updates for Troubleshooting
Touchscreen Sequences
Feature Selection
LUI branding updates
Remove support for use of Microsoft Internet Explorer (IE) client browser to access GC Browser UI

Changes/Fixes made since the last version. (2.3.3.6)

Issue ID	Title
037946	HEC gas selection change freezes GC if updated in the Browser
038060	Inlet labelling incorrect.
038449	Method Download fails after rebooting GC.
039545	Automatic Gas Identification feature for 8890/9000 Diagnostics
040953	Remote software needs to lock out the user from remotely restarting an offending zone after a H2 shutdown
041020	Browser Run Log does not include entry about Blank Evaluation failure
041260	Browser, Signal Plot view, there are multiple 'Start Run' indication lines for a single start
041261	Browser signal display not matching OpenLab display
041715	Browser EMF Details always require browser hard refresh to display any new information in EMF Details Trend Plot
041747	Detector Evaluation Report Modelling Results
041756	Browser System Log uses internal terms 'LUI', 'BrowserUI' after Feature Selection application
041757	Touchscreen System Log uses internal terms 'LUI', 'BrowserUI' after Feature Selection application
041759	Browser System Setup\Date and Time Changes are not disabled after Feature Selection disables this function
041760	Browser displays unclosable outsized method listing on selecting Load Reference Chromatogram from method's disabled Peak Evaluation
041761	Browser running Troubleshooting for disabled Peak Evaluation method just disappears, Status shown as 'Cancelled'

041762	Touchscreen does not enable Start button for CDS Manual Injection when Feature Selection is disabled for Touchscreen Start button
041763	Browser method's Config\Columns has unnecessary lock badge with Peak Evaluation (only) disabled in GC Feature Selection; does not block access
041764	Browser Run and Sequence Logs do not mention that a previously Peak Eval enabled method has had Peak Eval disabled
041765	Browser will not Print method
041766	Touchscreen Help for Enabled Local Sequence needs a specific topic
041767	Browser Help topic System Settings needs to address new feature 'Local Sequence'
041768	Touchscreen with Local Sequence enabled will not show sequence created after enabling
041769	Browser Sequence Log logs nothing about browser Pause or Resume events
041789	Inconsistent displays of logged-on user
041792	Peak Evaluation - Acquisition/Reference Chromatogram method comparison shows active method as "CurrentMethod_dynmc_name"
041795	7650A injector: "Injection timeout" pops up when the plunger speed is 20 ul/min.
041797	Installing column with smart key causes LUI to crash
041801	Blank Evaluation Trend Plot sees no valid methods
041811	Ignore Ready Screen disappearing while performing maintenance task
041813	Peak Evaluation - Update Reference Chromatogram should not require a ref chrom name input to proceed
041821	TCD: TCD should be "Reference flow", not "air flow".
041824	Browser FID Leakage Current Check diagnostic test does not proceed
041825	Browser Start maintenance from Diagnostic Plot does not Start anything
041829	Browser Maintenance Replace Septum is either not running Leak & Restriction Test or it is not logging
041831	Troubleshooting - Peak Resolution Issue

041852	Browser Perform maintenance to replace inlet Septum states incorrectly that it will run the Septum Purge test
041853	Perform maintenance to Replace Inlet Septum reads '100% Complete' throughout the process
041861	Troubleshooting - verification run using wrong ALS
041866	Browser and Touchscreen do not show any badge indicators when Gas Identification Test detects a mismatch
041876	BUI - Tables not displaying properly
041878	Browser UI - Column Configuration page is blank.
041879	BUI - Cannot change column outlet from dropdown
041887	Browser plot remains active when disabled from (CDS) Feature Selection
041888	Disable Touchscreen/Browser Sequence continues to allow display of a disabled Touchscreen Sequence tab
041893	System Fault - Please Reboot; High CPU Usage
041894	Browser Diagnostics Inlet Gas ID test disappears after updating Gas Type
041896	Browser Maintenance EMF Details plot displays legend oddly and differently between module types; reopens without any text or plot
041902	7693ALS: ALS light change back to ON status after power cycling.
041983	8355 Does not Turn off Ozone Power when Insufficient Flow Detected
041986	BUI Help: Table of checkout parameters for FPD+ doesn't appear (again)
042019	Instrument Method/Config changes parameters untranslated on trend plot report
042174	Low vial pressure allows leaky vial to pass.
042181	Peak Evaluation: Peak resoultion trend plot can not display correctly

2.3.3.6 9000 Firmware

Released July 2021
http://download.chem.agilent.com/firmware/9000_FW_2.3.3.6.tgz.gpg
To download this version use GC Firmware Update Utility 2.4.3.0 or greater.
Updating to this firmware does not require instrument revalidation.
Service Note Number: D00

Changes/Fixes made since the last version. (2.3.2.11)

Issue ID	Title
040619:	Multiple TCD filament broken cases are reported
041693:	UTC +9:30 time zone unavailable for selection in GC 3.5
041836	System Setup froze on Headspace Configure Interface

2.3.2.11 9000 Firmware

Released July 2021

http://download.chem.agilent.com/firmware/9000_FW_2.3.2.11.tgz.gpg

To download this version use GC Firmware Update Utility 2.4.3.0 or greater.

Updating to this firmware does not require instrument revalidation.

Service Note Number

Changes/Fixes made since the last version. (2.3.1.6)

Add Support of the Pyrolizer

Issue ID	Title
041487:	Invalid Leap Year Handling in WSDL
041407:	The applied Bead Current reported in the EMF is different from the Bead current reported in diagnostics
041448:	Inlet Sampler: LUI shows empty screen after reboot
041597:	System fault n- please reboot - Error code 1000600a and System fault 0x00100000
041601:	Manual Injection data remains on the instrument
041447:	Inlet Sampler: LUI Shows Config Setpoints that should be invisible

2.3.1.6 9000 Firmware

Released March 2021

http://download.chem.agilent.com/firmware/9000_FW_2.3.1.6.tgz.gpg

To download this version use GC Firmware Update Utility 2.4.3.0 or greater.

Updating to this firmware does not require instrument revalidation.

Service Note Number

Changes/Fixes made since the last version. (2.3.0.203)

Issue ID	Title
41086	Multiple feedback received for Electronics Fault - Error code 1000600b

2.3.0.203 9000 Firmware

Released March 2021

http://download.chem.agilent.com/firmware/9000_FW_2.3.0.203.tgz.gpg

To download this version use GC Firmware Update Utility 2.4.3.0 or greater.

Updating to this firmware does not require instrument revalidation.

Enhancements.
Support for the 8697 Headspace Sampler
Instrument Intelligence: Troubleshooting
Support 32 oven ramps and 33 plateaus. Negative ramps will continue to be allowed.

Changes/Fixes made since the last version. (2.2.2.4)

Issue ID	Title
36059	AO events always seem to Signal Zero at time of first AO event
38233	Request addition of BUI method to individual results folders for documentation purposes
38332	Lost connection on downloading detector compensated signal or running sample with this signal
38383	Blank and Detector Evaluation Reports from Browser do not factor in time zone of the browser
39547	Customer reported that front NCD showing wave baseline periodically about 3~4 weeks
39624	Web Browser UI: Valved injections are not working correctly
40062	The screen display freeze happened sometimes on multiple GCs when the online signal on touch screen is selected
40178	WebUI: next line in sequence should be locked during sample overlap runs
40213	LUI maintenance cannot finish normally
40242	Method\Performance\Peak Evaluation, reference chromatogram timestamp are not consistent with original one
40765	GatherLogs Status not always returning proper value
40858	Browser not upload Sleep/Wake changed methods to the browser after changes are made in Sleep/Wake method in driver
40899	Browser Run Status Injections column shows multiple ALS injections oddly: first is 1 of 1; second is 0 of 1
41077	OLCDS Sequence table ignores Sample type 'Sample' if injection source is Blank; runs Blank Evaluation invalidly

2.2.2.4 9000 Firmware

Released January 2021
http://download.chem.agilent.com/firmware/9000_FW_2.2.2.4.tgz.gpg
To download this version use GC Firmware Update Utility 2.3.3.0 or greater.
Updating to this firmware does not require instrument revalidation.
Service Note Number 8890 Series GC 028

Changes/Fixes made since the last version. (2.2.1.4)

Issue ID   Title
039547 Front NCD showing Baseline wave.

2.2.1.4 9000 Firmware

Released December 2020
http://download.chem.agilent.com/firmware/9000_FW_2.2.1.4.tgz.gpg
To download this version use GC Firmware Update Utility 2.3.3.0 or greater.
Updating to this firmware does not require instrument revalidation.

Changes/Fixes made since the last version. (2.2.0.287)
Issue ID   Title
040502 OS Crash when installing Collision Cell module.

2.2.0.287 9000 Firmware

Released November 2020
http://download.chem.agilent.com/firmware/9000_FW_2.2.0.287.tgz.gpg
To download this version use GC Firmware Update Utility 2.3.3.0 or greater.
Updating to this firmware does not require instrument revalidation.

Enhancements.

Peak Evaluation.
The self-aware and GC intelligence features of the Agilent Intuvo 9000 and 8890
GC systems continue to be expanded. With firmware 2.2, an initial version of Peak
Evaluation that expands the GC Performance section of the methods to allow
users to enter chromatographic attributes for monitoring on up to 10 peaks in
sample chromatograms is released.

GC Browser Phone Interface

A browser interface optimized for mobile viewing on either iOS or Android phones
now provides status information including remaining run time and a static plot of
the last 20 minutes of detector data.

Phone Interface Home Screen

New Updated GC Specifications

 The following GC specifications for Intuvo 9000, 8890 and 8860 have been updated to help make you more competitive in bids/tenders. Note: MMI is for Intuvo 9000 and 8890 only.

	OLD Agilent GC Spec	NEW Agilent GC Spec	Shimadzu 2030	Thermo 1310
Max Inlet Split Ratio (SSL, MMI)	7,500:1	12,500:1	9,999.9:1	12,500:1
Max ECD Data Rate	50 Hz	500 Hz	500 Hz	300 Hz
Max FPD+ Data Rate	200 Hz	500 Hz	500 Hz	300 Hz

Added Security to Set Browser UI PIN At Touchscreen

A PIN must be used at the Browser to enable it to connect to a GC. The PIN is set at the GC touchscreen.

- The previous GC firmware allowed up to 4 numerical digits to be entered for a PIN

- The new firmware (rev. 2.2) allows up to 4-8 numerical digits to be entered for a PIN if additional security is desired

Changes/Fixes made since the last version. (2.1.1.7)

Issue ID	Title
035788	Oven cryo timeout can only be cleared by power cycling the GC.
035046	User validation of Static IP information.
036069	Add copy/paste functionality to BUI sequence editor.
037235	Add or insert sequence line during sequence running BUI
037468	Minor adjustment for button on IE browser.
038094	Sequence Name not displayed on LUI for CDS Headspace Sequences.
038216	Request addition of 'pause sequence' button in BUI.
038335	WebUI: column dimensions displayed incorrectly after being changed.

038635 Using Signal Events from Browser causes no data at all to be collected for that signal (Freeze and Resume).
038738 Data not integrating in DA Express.
039243 Excessive Safety Flow Shut off with all gasses needs to apply just to H2.
039280 LUI live plot of detector signal eventually causes high CPU usage.
039386 Method save fails to display tab with errors when changing column flow.
039462 The "Tools" menu is missing in firmware revision 2.1.0.626.
039504 Browser does not support configuration of 2 FPD and 2 ECD detectors.
039536 Change MS network setting behavior from the LUI.
039615 SCD Diagnostic Signal - Reactor, Pressure Setpoint does not plot.
039617 There is zero information in the Help system for the 8890 "Disc Storage full" message or how to recover.
039749 Modify GC Access PIN to allow for 4 to 8 digits.
039878 Customer Complaint that the Start button on the LUI of the 8890 is small and difficult to push during a manual injection.
039968 Aborting sequence from LUI while a vial is in the heater will cause subsequent runs to fail with tray error.
040168 Browser UI- Unable to select Load Default Setpoints.
040171 Split Vent Restriction Test - wrong valve appears to be controlled.
040212 NO "Resume" button display after click "Pause".
040410 BUI Help_some linkage are wrong linked

2.1.1.7 9000 GC Firmware
Released August 2020 (not released to manufacturing - Service Fix only)
https://download.chem.agilent.com/firmware/9000_FW_2.1.1.7.tgz.gpg
To download this version use GC Firmware Update Utility 2.2.23.0 or greater.
Updating to this firmware does not require instrument revalidation.

Changes/Fixes made since the last version. (2.1.0.626)

Issue ID   Title
039345 Inlet bleeding pressure at end of run even if Purge time is set to 999.99. In version 2.1.0.626, if the purge time was set to 999.99, the inlet would bleed pressure at the end of the run. This was causing issues with the Markes Thermal Desorber. Inlet now does not bleed at end of run.
039367 User is unable to enter the Inlet Maintenance from the LUI. Selecting the Inlet tab will revert you back to the previously entered field and not the inlet field.
039370 Browser: User Configurable Heater Parameters under Service Mode
039427 Unable to download inlet PID from the LUI.
039458 Help does not find any hits when searching

2.1.0.626 9000 GC Firmware

Released May 2020
Updating to this firmware does not require instrument revalidation.
Changes/Fixes made since the last version. (2.0.0.391)
To download this version use GC Firmware Update Utility 2.2.23.0 or greater.
Enhancements
Added chromatographic attributes for the DSA and Browser.
Improved phone UI features.
Updated Help and Localisation (Chinese, Russian, Japanese, Brazilian Portuguese)

Changes/Fixes made since the last version. (2.1.0.626)

Issue ID	Title
033244	Icon for GC Power On and Communication is misleading
035024	FW does not appear to be rejecting out of spec thermal aux zones
035367	Improve image quality in user documentation
035513	Pre-run flow test should report observed leak rate.
035713	Not ready message pointing to the wrong zone.
035736	NCD- add a message to remind user to turn on pump in order to set detector gases like hydrogen/oxygen
036228	BI/F and LUI signal descriptions on status listing are different
036978	LUI: ECD method missing read only column flow
036982	LUI: Events table Position column truncated when used for signal selection
037042	[8890][LUI][English] Signal list shows cropped signal name
037048	LUI: Cannot change MSD Setpoint
037068	LUI converts pressure ramp rate to supposedly invalid value
037160	GC0260 -NCD: Browser actual did not have right 'Hydrogen Flow'
037193	Gas configuration with channel partner detectors
037265	DSA Signal "None" converted to "Test Plot" on GC
037282	The Confirmation info dialog of Reset All is missing with FPD detector under Maintenance on 8890
037303	When reset the EMF value of "Photomultiplier tube injection", only one log entry "Back detector, photomultiplier tube on Maintenance" occur on 8890BUI and data system.

037304	When the EMF value of "Photomultiplier tube on" is 0, reset the value again, no Maintenance log will show on 8890.
037381	Method Name not cleared on LUI at the end of a sequence
037443	Response not consistent between Browser Ui and DSA for Performance: Enable Blank Evaluation enable is inactive
037542	Auto Prep Run not available on the LUI
037559	Intermittently reports system error " 0x0000400"
037580	Overlap issue will happen if expand the table of contents too long
037639	Vial location display in Sample Queue are not correct for actual
037645	9000 or 88xx Browser method activates Blank Evaluation Enable boxes for all detectors, though only a single detector signal is selected
037683	WebUI: Oven Ramp Editor missing labels after changing Hold Time
037772	Leaving Manual injection from Browser unstarted gives no indicator; blocks any connection from data system or data system configuration; requires GC restart
037849	WebUI: Unable to edit columns from Method Editor
037858	There are always unread logs displayed on Run Log Tab
037919	LUI service mode values aren't always updating
037923	Locking column removes calibration and changes column type
037931	OLCDS ALS sequences display Sequence names on LUI or Browser Status bar really long with appended date, untruncated
038085	ALS Calibration Error 346 does not have useful message
038129	For VI, split/spitless mode cannot be set properly
038141	Terminology difference: Browser Settings is 'Aux Heater'; touchscreen Settings is 'Thermal Zones'
038149	XCD in 'standby' causes GC fault
038152	Excessive Swap Usage causes signal buffer full and data system disconnection
038160	Communicating and Following 7697 does not sync clock to GC Clock time
038205	MSD-D Comm not connecting properly
038232	Browser IF needs to display the Pre-Run Flow Test for COC Inlet
038234	System broke BUI method file, currently unusable, looks empty
038236	Loading corrupted BUI method does not warn user, no error message

038937	BUI_No error if download method within Air gas type for PCM or Aux PCM though they are configured in the flow
038938	BUI_Forward or Backward Pressure for Aux PCM Control Mode is not translated
038942	No Diagnostics signals display for PCM and Aux PCM
038971	unsuccessful connection to GC when Gasifier is installed in 8890.
038985	Vial range on Reference Chromatogram Run Parameters dialog should adjust to match actual configured injectors
038986	Printing Preview report name not consistent with actual Peak Evaluation Report
039002	could not download method from BUI and DSA
039018	FPD+ does not seem to recognize/control to 'Lit Offset'
039033	Browser Sequence Log does not log anything about Sequence aborted because of DSA control during sequence
039040	BUI_Setpoint for Multi-position Valve is incorrect in Event
039041	BUI_Valve parameters not correct display in the status
039044	8890 goes offline and then to monitor mode-no data is stored.
039045	GC Shutdown response when configured Sample pathway's Inlet gas type to He
039047	GC Shutdown response when configured Sample pathway's Inlet gas type to H2
039056	There are no diagnostic signals for Hydrogen sensor in DSA.
039060	LUI_8890_9000_Always freezing after change the language
039071	Browser Events table offers unaccepted Setpoint option for AO Signal Zero Event type
039091	LUI_No Diagnostics Condition display when Inlet Cryo Timeout
039093	WebUI: Unable to Save Method because of Peak Evaluation
039104	The entry for Peak Evaluation if Set Action on Failure to Continue is not completely.
039115	Disc Storage Full Up Warning pop up with 88x0 GC

2.0.2.8 9000 GC Firmware

Released January 2020
Updating to this firmware does not require instrument revalidation.
Changes/Fixes made since the last version. (2.0.0.391)

Issue ID   Title
037664 Sequence aborted by rear injection timeout.
037804 Intermittent ALS remain in busy state and sequence aborted with GCMS system.
037892 Not Able to communicate with the Injector
038025 GC not waiting for readiness prior to injection. Using an 'external device' to hold the system not ready, the instrument will not wait for readiness (i.e. wait for GC to become ready) before injecting a sample.
038027 BUI does not wait for readiness to begin sample prep. (related to 038028)
038028 Cannot start run from BUI.
038095 Variable function of plunger speed cannot be set and jump back to fast/slow automatically.

2.0.0.391 9000 GC Firmware

Released October2019. Changes/Fixes made since the last version. (1.2.0.13)
Enhancements
added support for the Integrated xCD
added support for the Integrated SCD
added support for the Integrated NCD
added support for the Integrated FID-SCD
added support for the Integrated FID-NCD
added support for Clock table programming
added support for Sleep/Wake

Issue ID   Title
034635 Detector Evaluation needs a way to cross reference .ch file to the corresponding filter type for dual FPDs
034801 Inlet flow setpoints on LUI are not correct when no column is configured to SSL inlet.
034996 On the touchscreen, tuning the thermal zone is inconvenient on the PID screen because it always returns to the top.
035025 Browser UI loses its place when a change is made to valve config.
035057 Overlap sequence with barcodes reads mismatched vial three times (Inactive)
035063 Browser UI Sequence has "DA method, amount, Level" column even if DA express is not available.
035149 LUI: Service Mode Setup: Heater 0 showing up as available
035189 Browser UI Shows Heater for No Heater PTV

035190 LUI shows temperature setpoints for PTV without heater.

035247 Browser UI - Must press minus sign twice before combo box will accept negative sign.

035287 Touch Screen shows zero values for linear velocity and holdup time when the column is a composite column.

035295 LUI "owner" not cleared after disconnect.

035322 Run Log is not showing the time and date stamp when accessed from the Touchscreen.

035332 On the Touch Screen Mode is blank initially on the VI when the split line is plumbed.

035506 Browser Interface Locale settings change back to English after Brower Interface reopening.

035509 Column randomly un-configures itself when using column smart key.

035520 Pre-run flow test is aborting current run instead of aborting the next line in the sequence.

035524 8890 GC gets stuck in conditioning method.

035526 Browser UI: Register Column should happen before column conditioning when column is changed.

035542 Detector Gas Flow Runtime Events are missing.

035548 Parts Finder Loaded Incorrect MSD.

035604 Removing columns from the Browser UI does not work correctly.

035687 Method name display in LUI or Browser UI not displayed.

035712 Ignore ready for Aux PCM channel does not work.

035800 Browser UI not uploading Fast Cooldown state from GC.

035802 Entering PID values resets all settings in user configurable parameters.

035806 Diagnostic Procedure to Tune User Configurable Zone needs to be fixed.

035836 Maintenance servicing of HS items do not log to Maintenance Logs (GC Driver, LUI, Browser)

035859 Oxygen is available to configure as gas type when a column is configured with an Aux EPC.

035877 It is not possible to set up a negative flow using Aux EPCs.

035878 TCD Switching comes on with above 130 degrees without selecting filament on or flows on.

035885 Gas type is not display for Aux EPC channels only on the Browser UI.

035888 8890 Browser UI: Unable to add a third ramp to the Aux EPC Channel when a column is not configured.-

035891 Browser UI: Ramp table values are not updated when the pressure units are switched from bar to kPa.

035923 Blank evaluation test for ECD cannot pass on parameter of "Total peak area".

036095 Detector Pressure diagnostics signals are not working properly.

036232 APG Remote Ready line does not pull GC not ready.

036397 Ability to set inlet pressure to 100 psi from the GC Driver with MMI.

036653 High CPU Usage and slow LUI response in Diagnostics and Maintenance modes.
036914 Column outlet pressure cannot be set and resets to 0 in the GC Driver when the column outlet set to "other".
036925 When a column is configured front inlet to PSD and the pressure is turned off at the inlet, the pressure also turns off at the PSD.
036927 Abort current run from Browser interface and Touchscreen which is acquired from GC driver violate the audit requirement.
037267 Unable to add Run Table Event for NPD Detector Hydrogen in the Browser UI.
037415 When using GC Driver to acquire data, the method parameters are "editable" on Browser interface and show "Method download successful" though actually does not work.
037623 "Host not ready " is not available on 8890/60 with MassHunter software.

1.2.0.13 9000 GC Firmware

Released April 2019.
firmware (version 1.0.61) as listed in the following TeamTracks. No new functionality was added in this firmware version.

Issue ID   Title
35602 Browser UI sequence and method entry fields need to be sanitized.
35603 Setting up packed columns from the bowser does not work.
the 7890 GC.
35652 Compressed air cryo not configurable option for inlet cryo
35708 There needs to be a way to clear the GC back to original state as received.
35720 Can't clear cryo fault on Thermal Aux
35722 Air cryo behavior incorrect
35734 When packed column is configured, the user can not set the length, diameter and thickness.
35783 User config thermal aux missing screens in setup
35786 Issues with new PCM Inlet heater config screens
35801 Cannot set "D" term < 1 for user config thermal aux PID's
35804 PCM Inlet configurations settings not saving
35807 User config thermal aux heating to slowly (2)
35851 Invalid Setpoints - Nominal Power

1.0.6.1 9000 GC Firmware
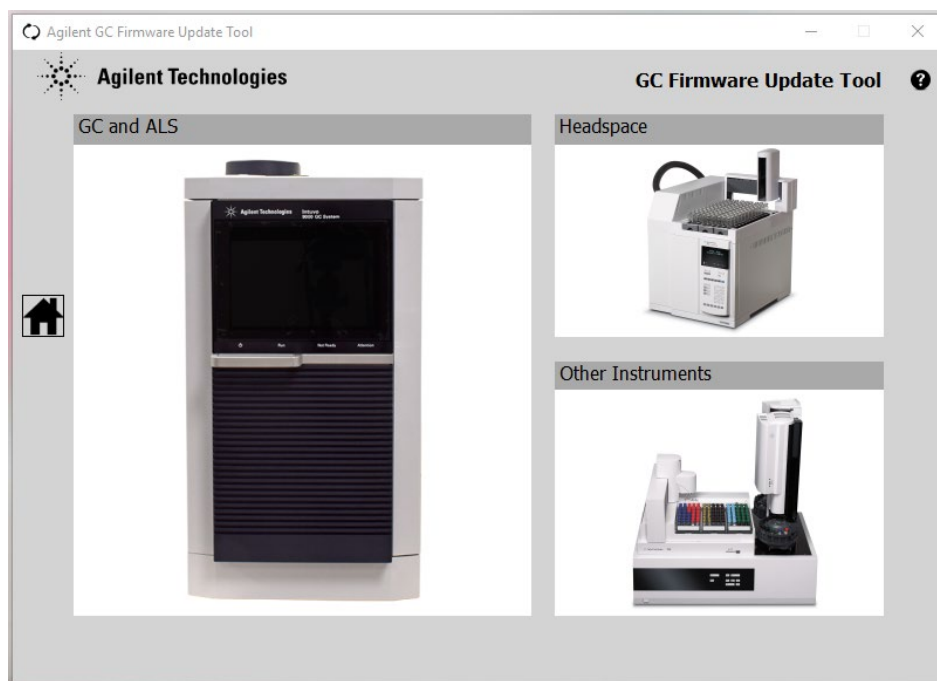*Initial release February 2019.*
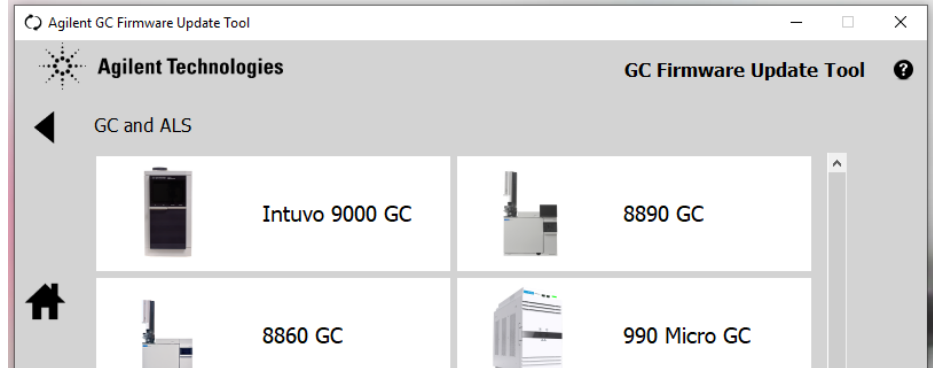
8   Firmware Update Program.

It is not possible to downgrade firmware from revision 2.X to revision 1.X
The GC firmware update program is supplied as part of the Firmware Update
Package.
Always use the latest version of the update tool. The current FW update Utility is
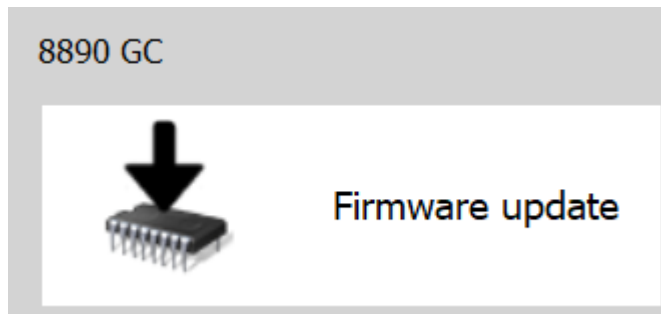3.2.8.0
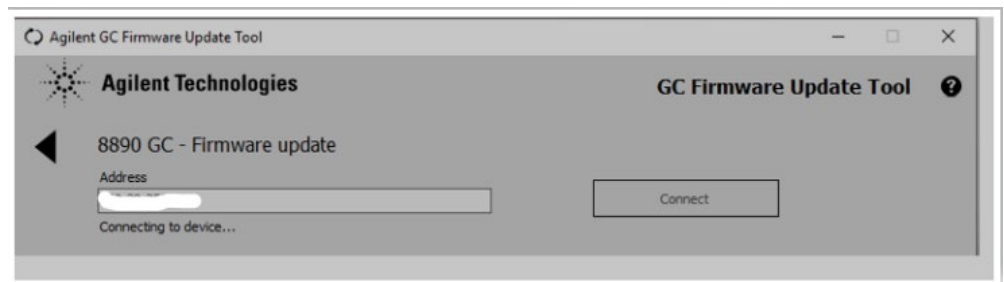After the program has been loaded and executed the following screen appears.

This enables the user to select which instrument type needs to have its firmware
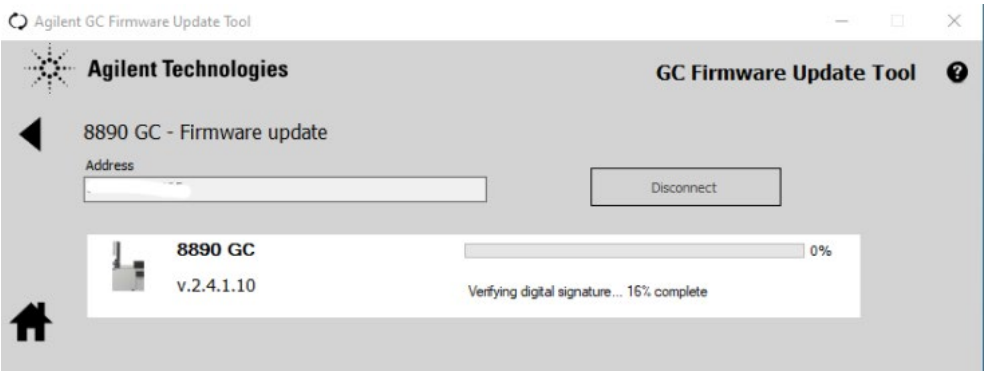downloaded. In this case we select the GC and ALS.

The 9000 GC is chosen from the Product menu.
The next screen allows us to either modify firmware or PID values for the EPC modules.
Firmware update is selected.

After choosing to update firmware, you must then enter the IP address of the 9000 that you wish to connect to and then press Connect.

Information such as current installed firmware will then be displayed.

Press Update.
A Windows Explorer directory will then appear and you must select the firmware revision that needs to be downloaded.
If the required firmware version is not displayed then you can "browse" your harddrive to find it.
The firmware file has the structure 9000_FW_X.X.X.tgz.gpg

Name	Status	Date modified	Type	Size
GC Driver 3.0.503	⊘ ৪	6/13/2019 9:19 AM	File folder	
8890_FW_1.2.0.13.tgz.gpg	⊘ ৪	5/2/2019 3:26 PM	GPG File	1,585,266 KB
8890_FW_2.0.2.8.tgz.gpg	⊘ ৪	12/3/2019 1:27 PM	GPG File	1,968,109 KB
Firmware_Update_Program_setup.exe	⊘ ৪	12/21/2018 3:29 PM	Application	36,474 KB

After you have selected the correct file the firmware will automatically be downloaded.
After the download is finished the GC will reboot and the firmware update is complete.

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