Agilent Intuvo 9000 GC Firmware

Release Notes – Revision 2.8.1.6

Notices

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Firmware/Software Revision

This guide is valid for the 2.8.1.6 revision of *Agilent Intuvo 9000 GC Firmware*

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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 24, 2024	Rev 2.04	Added 2.8.1.6

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 (2.7, 2.6, 2.5, 2.4)

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 (3.9, 3.8, 3.7, 3.6, 3.5.)

Agilent GC Driver (3.4 – 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 GC 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.

Waters

Waters have recently released their latest Agilent driver, instrument Control Framework
(ICF) Version 2.6 Update 2 in Empower 3
For GC Control: This release adds support for Agilent GC and the 7697A Headspace sampler. The supported GCs are:

- New: 8860 GC
- New: 8890 GC
- Intuvo 9000 GC
- 6850 GC
- 6890N GC (Note that 6890A and 6890+ must have had LAN cards added)
- 7820 GC
- 7890A & 7890B GCs
- 7697A Headspace Sampler

NOTE - Be careful to not confuse the Agilent driver, Instrument Control Firmware, (ICF) with the Waters Native driver, ICS, Instrument Control Software.
Both are allowed by Waters and both can be installed on the same system at the same time.

Thermo Fisher

Thermo Fisher have recently released their latest Agilent driver, instrument control software
Chromeleon 7.2

This release adds support for Agilent GC and the 7697A Headspace sampler. The supported GCs are:

- Intuvo 9000 GC
- 6850 GC
- 6890N GC (Note that 6890A and 6890+ must have had LAN cards added)
- 7820 GC
- 7890A & 7890B GCs
- 8860 GC
- 8890 GC
- 7697A Headspace Sampler

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 2.8.1.6?

- Bug Fixes as detailed below.

6 Resolved Issues in revision 2.8.1.6

The current shipping firmware for the Intuvo 9000 is 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

7 Previous Versions

This section details previous versions of 8890A firmware giving release notes

Released 25th August, 2023.
Updating to this firmware does not require instrument revalidation.

9000A 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 2.9.12.0 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.

044681	8890 Method parameters not locked with Empower.	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/8890_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 8890 Firmware.
Released January 2023

What's new in 8890 GC Firmware 2.6.0.306?

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

Service Note D0028241

Issue Id	Current Behaviour	Resolution
032606	8890 LUI does not display currently running Sequence, Method, or Sample Names if run from DSA	Issue corrected
039003	Detector Evaluation does not support 8697 headspace OQPV checkout	Now supported
040878	Ability to add notes to a reference chromatogram	
041982	Inaccurate composite column flow on TD. There is no way to set a temp for xfer line configured as "In-Segment".	Corrected
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
042885	XCD e-Introduction on 8890 if XCD present	Supported
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

043046	Add Trim Column to COC inlet maintenance	Resolved
043047	Limit the number of peaks those can exists in Reference chromatogram.	Only 100 peaks allowed. Resolved.
043054	8860 and 8890 do not show the tray / Bar code reader firmware in the Health Report	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.
043152	8890 BUI - Can't save sequence	
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.
043183	Unable to reconnect to 8890 after Reference Chromatogram is completed by the Peak Eval Plug-in	Resolved
043217	MSD communication will not disable-7010	Resolved
043228	Browser Service Mode for 8890 has no listing; only HW Config setup	Resolved
043258	Collision cell aux channel gas type not set correctly	Resolved
043267	8890 GC Lockup issue when removing and reconnecting 8697 headspace sampler	Used when customer wants to turn off HSS and only use GC. Resolved.

043284	Unit with 2 PSDs configured such that one was inoperative.	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.
043406	8890 - 2.5.0.258 lock up if the leak test fails	Issue due to no presence of an ALS. 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 8890 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/8890_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: D0026234

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 8890 Firmware
Released May 20022

http://download.chem.agilent.com/firmware/8890_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: D0022311

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.
042746	8890 with LTM reports Invalid Flow path, but is functional, works correctly	Issue resolved.
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
042937	Inlet pressure target value is incorrect when tried PPIP Pressure decay test	Correct values entered. Issue resolved.
042938	8890 5977, the MS configuration ""goes away" when LVDS is connected.	Invalid network strings coming from the MS. Issue resolved
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 8890 Firmware
Released December 2021
http://download.chem.agilent.com/firmware/8890_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: D0016596

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

Issue ID	Title
041950	Adding firmware support for GigaDevice QSPI
042255	8890 starts before IRD.
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
042321	GCMS: When the IP address of MS is changed over LVDS from 8860 warn the user to not power cycle until the network config change is complete.
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.
NA	Improve Gasifier/ Sample Selector II performance.
042309	Localisation Updates
042344	8890 freezes using Helium Conservation Module with "Use Nitrogen".
042371	Firmware update fails if environment needs to be updated
042396	Inlet pressure is large negative value in 8860 Inlet OQPV Pressure Decay test
042443	User Configurable Heater cannot be set to 450 degC

2.4.0.307 8890A Firmware

Released November 2021
http://download.chem.agilent.com/firmware/8890_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.
038124	H2 Sensor calibration check - Not displayed
038449	Method Download fails after rebooting GC.
039545	Automatic Gas Identification feature for 8890/9000 Diagnostics
040586	Chiller cannot be enabled in 8890 touchscreen
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
041140	Browser with VI in Direct Injection mode offers Gas Saver invalidly
041141	Browser UI - Post Run is not available for Packed Columns.
041152	VI Split Vent Trap Injections EMF is not incrementing
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
041758	8890 GC does not reboot after disabling/enabling GC Features; requests seem to be honored anyway
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
041984	For Markes Control, doesn't keep the High Flow value after any configuration
041986	BUI Help: Table of checkout parameters for FPD+ doesn't appear (again)

042019	Instrument Method/Config changes parameters untranslated on trend plot report
042038	8890 LUI: Four buttons in Sequence should function as BUI
042174	Low vial pressure allows leaky vial to pass.
042181	Peak Evaluation: Peak resoultion trend plot can not display correctly
042233	8890 not injecting

2.3.3.6 8890 Firmware

Released July 2021
http://download.chem.agilent.com/firmware/8890_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: D0012805

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

Issue ID **Title**

040619: Multiple TCD filament broken cases are reported
041452: Selector: when selector is loading sample, after pressing Stop button on the 8890 touchscreen, the warning message under the selector maintenance should be modified.
041694: Strange status happen on 8890 LUI
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 8890 Firmware

Released July 2021
http://download.chem.agilent.com/firmware/8890_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
041630: Column connection error caused infinite loop in code
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
041362: 8890/8860 “Electronics Fault” Error code 1000600b -> System Fault Error code 1000600a
041376: NCD with 8890 Quick Start Wizard "Heater and Flow stabilization" timeout too short (5 sec)
041447: Inlet Sampler: LUI Shows Config Setpoints that should be invisible

2.3.1.6 8890 Firmware
Released March 2021
http://download.chem.agilent.com/firmware/8890_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
41233	APG remote on 8890 does not send stop signal when run is done
41188	Problems with CryoTrap operation

2.3.0.203 8890 Firmware
Released March 2021
http://download.chem.agilent.com/firmware/8890_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.
Service Note Number D0009076

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
39228	Is Hydrogen Sensor Auto schedule calibration feature support

39547 Customer reported that front NCD showing wave baseline periodically about 3~4 weeks
39620 Web Browser: Gas Sampling valve set up in Position 4 does not show up in the injection list
39624 Web Browser UI: Valved injections are not working correctly
39735 8890 disconnects from system when column compensation (FID) is selected.
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
40284 Nexus touchscreen should not accept IP's with leading zeroes
40344 8890 Oven Fan doesn't slow down after timeout
40396 Record multiple fan failure logs
40498 ONLY Valve 1 (GSV) and Valve 2 (GSV) can be displayed as Injection Source under sequence table.
40552 8890 can't set "sample depth" with a decimal point
40746 ALS Tray X-Bind Test is not available on 8890
40765 GatherLogs Status not always returning proper value
40651 Firmware 2.2.1.4, cant "ADD" a LTM (AUX4) if there is an existing LTM (AUX3)
40789 8890A FID makeup gas flow can't reach setpoint using PPIP
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 8890A Firmware

Released January 2021
http://download.chem.agilent.com/firmware/8890_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.
039735 8890 Disconnects when Column Compensation is selected
038332 8890 Disconnects on download of Column Compensated signal.

2.2.1.4 8890A Firmware

Released December 2020
http://download.chem.agilent.com/firmware/8890_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.
Service Note Number 8890 Series GC 027
Changes/Fixes made since the last version. (2.2.0.287)

Issue ID	Title
040402	LTM cannot be connected using Aux 4
040502	OS Crash when installing Collision Cell module.

2.2.0.287 8890A Firmware

Released November 2020
http://download.chem.agilent.com/firmware/8890_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.
Service Note Number 8890 Series GC 025

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.

Easy SamplePrep and Menu-Driven SamplePrep

Easy Sample Prep

- **Automates** basic sample preparation techniques
- **Simplifies** building and execution of sample prep program with easy drag and drop programming

- Available for 8890 (7890, 6890 too) with OpenLAB CDS and OpenLAB ChemStation

Menu-Driven Sample Prep

- **Standard sample preparation control, displayed in list form**
- **Available for 8890 (7890, 6890 too) with MassHunter and OpenLAB EZChrom**

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.
034968 8890 BUI does not upload signal events from the instrument.
035046 User validation of Static IP information.
035646 Nexus analog out signal goes high when TCD filament is turned off.
035882 8890 BUI: Unable to configure settings for user config thermal aux.
036034 BUI missing User Configurable parameters for both Inlets and Thermal Zones.
036069 Add copy/paste functionality to BUI sequence editor.
037001 8890 Channel Partner PCM inlet rate is possibly incorrect.
037171 8890 touchscreen and Browser Actuals for Column 1 and 2 Flow shows setpoint 0.000 mL/min for Scheduler methods.
037235 Add or insert sequence line during sequence running BUI
037468 Minor adjustment for button on IE browser.
037775 8890 Browser is not checking for max volume of 75% syringe size when using sandwich modes.
037988 8890 touchscreen inconsistent in display of H2 Sensor's H2 Concentration: ppm in Actuals and Plot, % in Service Mode.
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).
038653 LTM-Override column max not working.
038738 Data not integrating in DA Express.
038959 Customers complain "Prerun", "Start" and "Stop" key are too small and not sensitive on 8890 touchscreen.
039097 8890 Browser UI - Real time Event to change the Thermal Aux Temperature is not available..
039100 BrowserUI and LUI do not show Readiness setting for LTM.
039134 Could not connect 8890 by DSA happen again.
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.
039286 8890 Oven Fan Failures not Reported.

039327 8890 - customer requests t be able to turn the warning beep off, like the 7890.
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.
039534 ENHANCEMENT REQUEST - 8890 - Customer wants to set the Blos bead current to 50 pA.
039536 Change MS network setting behavior from the LUI.
039543 8890 2.1 firmware gives Error on Quick start for SCD.
039610 8890 is locked in a loop with Diagnostics, Automated Blank Run.
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.
039675 8890 Touchscreen - Service Mode Valve Box is not correctly showing the Actual Value or Duty Cycle values.
039678 8890 Touchscreen: Service Mode : Detector : FID : Thermal shows Castle Temperature for the FID on the 8890.
039711 8890 Frozen LUI when adding/removing PCM.
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.
039992 8890 drives APG Stop line at normal end of run.
040052 8890 MMI: Inlet bleeding pressure at end of run even if Purge time is set to 999.99.
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".
040292 8890 “Host System Not Ready” should remain as long as the data system (MH) does not have a sequence running.
040383 8890 - Ambient Pressure Diagnostic Signal is test plot not Ambient Pressure.
040410 BUI Help_some linkage are wrong linked

2.1.1.7 8890A GC Firmware

Released August 2020 (not released to manufacturing - Service Fix only)
https://download.chem.agilent.com/firmware/8890_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.
Service Note Number 8890 Series GC 020

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
039401	8890A Inlets Maintenance screen is wrong
039427	Unable to download inlet PID from the LUI.
039458	Help does not find any hits when searching

2.1.0.626 8890A GC Firmware

Released May 2020

Updating to this firmware does not require instrument revalidation.

Service Note Number 8890 Series GC 012

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.

Added support for the Gasifier II

Updated Help and Localisation (Chinese, Russian, Japanese, Brazilian Portuguese)

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

Issue ID	Title
032864	8890 Browser Diagnostics\ Available Tests lists Back Inlet before Front Inlet
033244	Icon for GC Power On and Communication is misleading
033908	8890 PTV no options for choosing inlet liner in browser UI
034293	8890 LUI and browser are not showing the correct Status when a Manual run is started from browser sequence: should be Prerun (purple)
034716	8890 SSL no provisions for installing a liner in BUI

034827	8890 Browser fails to update Real Time Plot, unless the cache is cleared
034895	8890 Browser Sequence table allows Valve injection Source when no GSV's are configured;
035024	FW does not appear to be rejecting out of spec thermal aux zones
035114	8890 does not completely release ownership to DSA if DSA connects during a run; Monitor mode persists even after closing session
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
035914	8890 Browser has no way to Lock Columns
035915	8890 Browser has no way to Calibrate a column
036100	GC Status is showing column flow rates for packed columns configured to a PCM
036228	BI/F and LUI signal descriptions on status listing are different
036269	8890 touchscreen offers Back ALS Calibration when none exists
036286	The green circle hint won't disappear even when you have reviewed all of the logs entries under Logs on 8890 LUI
036543	The Date/Time should be displayed entirely under Instrument Service Mode on 8890 LUI
036572	8890 DSA does not show 'No BCD' when no MPV BCD cable is present
036619	8890 Clock table should offer the user-entered Valve Name instead of a number
036688	The sample name on 8890LUI and BUI only show the front sample name when running dual injection sequence by driver on Chemstation C0110
036978	LUI: ECD method missing read only column flow
036982	LUI: Events table Position column truncated when used for signal selection
037041	[8890][LUI] Actuals plot doesn't respond correctly to pressure units change
037042	[8890][LUI][English] Signal list shows cropped signal name
037048	LUI: Cannot change MSD Setpoint
037055	8890 PSD: Invalid range on LUI
037068	LUI converts pressure ramp rate to supposedly invalid value

037076 8890 PSD Browser: No Ramped Pressure, includes invalid Constant Flow

037124 8890 BUI: Thermal Aux listed incorrectly in method/config/misc

037131 8890SCD0400- FID-SCD: Pump purging for 100 counts not implemented

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

037283 8890 Browser Plot Signal list for PSD Diagnostics includes invalid Purge Pressure options, extra Flow Duty Cycle; inconsistent with DSA

037285 8890 Browser Method Edit Signals list of PSD Diagnostics lists all PSD Pressure and PSD Purge options twice

037291 8890 SCD0400 (FID-SCD): Title of SCD should be read as [Aux SCD on front or back FID], missing the word front or back (LUI and Browser)

037294 8890 SCD0400-FID-SCD: System health report for the SCD lacks hydrogen (Upper) flow (LUI, Browser & Chemstation) [8890 & 8860]

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.

037310 8890 touchscreen Valve screen shows no setpoint for MPV: should be position or 'No BCD' if not cabled

037351 8890: Browser UI signal source table can't retrieve some diagnostics settings from DSA signal source table

037360 8890 CO2 MMI Cryo can't reach -70°C

037372 8890 AO Signal events do not seem to execute from browser

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

037604 8890 - Cannot reconfigure a 120 volt 8890 to have a 220 volt oven

037620 Set/Clear Syringe missing on 8890 Method Editor OLCDS 2.4

037631 8890 there is no "Apply" on the screen when you update modules.

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

037659 Instrument Thermal Fault, Current on Circuit Too High an Inlet Fan Fault on 8890

037661 Additional 8890 browser sessions not working after Mass Hunter sequence started

037683 WebUI: Oven Ramp Editor missing labels after changing Hold Time

037713 8890 split/splitless abbreviation

037715 8890 Hydrogen sensor： Hydrogen sensor calibration record is not updated in diagnostic test result under system health report.

037716 8890 Hydrogen sensor: after the hydrogen sensor is calibrated, there are no records under maintenance log/ system log.

037717 8890 Hydrogen sensor: the 'ON' is not functional in Browser Interface.

037760 The “Age” term is untranslated on the GC 8890 LUI < Maintenance < Back Injector –PP < Details.

037764 The “Select Method” box dialogue is not localized on the GC 8890 LUI < DA Express

037772 Leaving Manual injection from Browser unstarted gives no indicator; blocks any connection from data system or data system configuration; requires GC restart

037795 8890 Browser method download does not honor a previously locked column

037801 8890 Browser Column Configuration incorrectly includes 6 different LTM column types

037849 WebUI: Unable to edit columns from Method Editor

037854 8890 Browser will not configure Columns; attempts inactivate Calibrate button

037858 There are always unread logs displayed on Run Log Tab

037910 Config screen on 8890 unresponsive during hardware upgrade

037919 LUI service mode values aren't always updating

037923 Locking column removes calibration and changes column type

037924	8890 DSA does not save any column calibration results, though they have been downloaded
037929	8890, GC driver 3.0.652 does not accept syringe sizes of 0.5 uL
037931	OLCDS ALS sequences display Sequence names on LUI or Browser Status bar really long with appended date, untruncated
037934	8890 Touchscreen Maintenance Log displays communicating HS injection count Servicing with 6 zeroes after decimal point; should be integer
037940	8890 Touchscreen and DSA Maintenance Logs do not log any service of 7697 EMF resets unless reset from the touchscreen
037941	FW update is resetting all 8890 syringe sizes to 1 uL
037944	Frozen 8890 LUI
037954	8890 System Health Report Past Instrument Alerts always seems to log state of Hydrogen Shutdowns as 'Cancelled' when they were resolved
037955	8890 System Health Report Diagnostic Test Results shows no details for a H2 Sensor Calibration Check
037959	H2 Sensor Calibration initiated from Browser completes, but does not update time stamp on System Health Report
037960	Initiating H2 Sensor calibration from Browser clears Bottle Log number and Expiration Date from touchscreen
037976	8890 touchscreen Calibration\H2 Sensor has 'Auto Schedule' checkbox that should have been removed
037977	8890 Browser Calibration\H2 Sensor has 'Auto Schedule' checkbox that should have been removed
037978	8890 Browser has no Actuals for H2 Sensor: ADC, Resistance, H2 Concentration
037998	8890 Status shows no change for any Calibration; should change to Not Ready: Calibration Running/ Recovering/ etc. (as 7890 does)
038001	8890 H2 Sensor Bottle Expiration date has no format entry pattern, though touchscreen requires YYYY-MM-DD
038034	8890 BUI: Not ready alerts not clearing when instrument becomes ready
038037	For purged splitter with PCM on 8890, column #2 flow mode is not reflected on screen and web interface of the 8890 GC, though actual behavior of the system is as if is controlling column #2 in constant flow mode
038074	8890 - SCD: Constant flow mode with pressure set point not matching actual value

038085 ALS Calibration Error 346 does not have useful message

038087 8890 Touchscreen: column outlet cannot be downloaded to the GC Local UI.

038109 Plot on 8890 LUI allows decimal point to be entered, but then no following digits are allowed

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

038165 8890 Septum failure during sample overlap displays ALS 453 error in Mass Hunter

038202 8890 ALS error messages not logged in touchscreen run log

038205 MSD-D Comm not connecting properly

038231 8890 DSA Hydrogen Sensor Print Calibration Report info differs and is in error from info on touchscreen

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

038237 Running a BUI sequence with corrupted method does not abort, runs default conditions

038265 Unable to turn blank evaluation on for Aux Det 2

038267 Column outlet pressure cannot be set from 8890 Touchscreen, while it works from GC Driver

038275 Request modification or clarification of the 'stop run / stop sequence' behaviors on LUI

038305 Unable to run sequences from Web Browser

038327 8890: GC Drive will be offline for a while (~5s) and then back to idle when loading detector compensation signal. Injection aborted.

038328 Removing both ALS towers on 8890 causes Instrument: Command Failed

038330 High CPU Usage; System Fault - Please reboot

038333 8890 Browser Blank Evaluation Load Default Setpoints does not load any default values

038335 WebUI: column dimensions displayed incorrectly after being changed

038340 Blank Evaluation analysis encountered an error. Missing detector signal information

038351 Pressing stop on LUI crashed sequence

038352 Stopping sequence from DSA did not stop sequence properly

038355 GC's dropping connection and unable to communicate

038358 Blank Evaluation Failure Action not set correctly

038373 Touchscreen Sequence Log advises of Blank run analysis when Detector Evaluation is run from Browser

038375 Detector Position is incorrectly reported in the Blank Evaluation Report.

038376 Blank Evaluation values are not in display units.

038380 Blank Evaluation Failed: Report column Failed Criteria is 'null' for each item from touchscreen and browser

038382 Blank Evaluation Action on Failure: Abort does not abort sequence on Failure

038391 Blank Evaluation Setpoints Error: Default Setpoints are not available from the GC

038393 Browser Sequence Options includes incorrect 'Skip sample' for Blank evaluation failure Recoverable Errors; should be 'Continue sequence'

038394 Blank evaluation Pass or Fail is not logged to touchscreen or browser Run Logs

038395 Detector Evaluation Report returned by FW is empty

038397 Browser Method does not disable Blank Evaluation or warn when non-detector signal is selected

038399 Browser allows enabling of Blank Evaluation for detectors that do not have a related signal selected on Signals page

038403 DSA does not upload Blank Evaluation state or Time window End time

038405 Browser saved method inconsistent with DSA-saved method for Blank Evaluation Failure Action

038427 8890 LUI not updating flow paths with config change

038457 Touchscreen offers no way to escape Shutdowns; Detector evaluation condition was present and undismissed

038483 When using a capillary column with a purged packed inlet the inlet control mode is incorrectly linked to the column mode.

038502	Touchscreen shows 'System Fault - Please Reboot'
038507	Browser Detector Evaluation screen is showing 2 drop-down boxes for Checkout Sample; Can select 2 signals; Cannot select Checkout for Signal #2 alone
038622	8890 GC going offline when downloading method with OpenLab 2.4
038624	Browser Blank Evaluation screen will not activate Load Default Setpoint button when enabled
038627	Changing filter option from 'Gas Clean Carrier Gas Filter Saturated' condition proceeds only to step 2; Dismiss leaves GC in inescapable Diagnostic Mode
038629	8890 touchscreen does not acknowledge presence of newly cabled Gas Clean Filter USB
038631	DSA shows 8890 as Offline if connecting to GC in Diagnostic Mode
038632	8890 slows down with High CPU when ALS is poorly seated
038634	Browser Signal Event Table Time range is -infinity to +infinity; should be 0-999.99 min
038635	Using Signal Events from Browser causes no data at all to be collected for that signal (Freeze and Resume?)
038655	8890 Blank Eval Analysis encountered/reported an error when told to do Blank Eval, Pass or Fail
038665	Browser offers competing 'Actions on Failure for Blank Evaluation': options are present in both method and Sequence Options
038667	Inconsistent ranges for Blank Evaluation Baseline Analysis between browser and DSA: browser is restricted, DSA is not
038676	BUI_Blank line display on the siganl event drop down lists
038707	Function Readiness for Front Inlet-S/SL not correctly upload from DSA to Touchscreen
038722	Test case No Perform Maintenance button on the BUI for Valve and MS
038768	Request to get Peak Evaluation Report returns Detector Evaluation Report
038785	Measured Temperature not apply correctly in oven calibration in Touchscreen
038794	MPV: Missing Message when MPV has never been configured on the 8890
038809	Could not run sequence and could not connect to GC after Connected to GC while browser sequence is running

038815 VAR partner JAS observes 8890 syringe speed is same w/PTV or Septumless PTV

038854 Prep run not function as expected

038878 Pressure is incorrect when perform 8890A Inlet diagnostics test using "kPa"

038887 [Functional] The Service due age value of ALS Syringe age on LUI is inconsistent with on data system

038913 Cannot edit method using the Browser on 8890 or 9000 units

038920 System will not switch to MSD Vent method automatically and though cannot lower down the GC temperature zone, eg, MSD transfer line, inlet temp

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

039070 Can´t connect to 8890 system

039071 Browser Events table offers unaccepted Setpoint option for AO Signal Zero Event type

039076 8890 Extend run does not correctly close data acquisition when run is complete
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 8890A GC Firmware

Released January 2020
Updating to this firmware does not require instrument revalidation.
Service Note Number 8890 Series GC 012
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
037922 8890-7000: Collision Cell Aux channel cannot work properly during post-column backflush. During the backflush process, the pressure of inlet cannot hold at about 2psi, leading to a pre-shutdown alert. Meanwhile, the pressure of Collision cell aux channel cannot reach to the setpoint as well. eg, 40psi
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 8890A 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
added support for the LTM II (firmware supports this but also need hardware to support this)

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.
035234 Browser Interface show Remote Start for all valve positions, GC Driver for 7 through 10, and the Touch Screen 7 and 8.
035247 Browser UI - Must press minus sign twice before combo box will accept negative sign.
035278 Cannot manually zero septum purge from LUI. on the 8890 GC.
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.
035459 88x0 Local Data Storage link typo.
035506 Browser Interface Locale settings change back to English after Brower

Interface reopening.
035509 Column randomly un-configures itself when using column smart key.
035519 8890 Pre-run flow test running after injection.
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.
035735 New PID parameters for Splitless injection with G3449A needed.
035759 PPIP Pressure Setpoint should be removed in Flow control mode in touchscreen.
035779 Need to add Chinese Input Method for Remote Advisor Input in 8890 Touchscreen.
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.
035816 8860/8890 LUI: the status should be Not Ready when the SSL inlet is waiting for pre-run and purging under Splitless mode.
035825 8860/8890: when running an inlet Pressure Decay Test, the actual inlet pressure is different between in Browser Interface and in Touchscreen.
035826 8860 Browser Interface: In the browser, the GC has 10 available valve positions while in CDS 2 it has 8.
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".
035990 8890 GC Driver Instrument Actuals shows non-existent 'Tray Chiller/Heater: -327 degrees C'.

036015 The setpoint of column 1 will not change under constant flow mode no matter what the column outlet is, MSD or other detectors.
036046 Liner database access is missing when connecting to a 8890 (appears with both OpenLab CDS and OpenLab CDS ChemStation).
036079 8890 SSL liner change does not appear in maintenance log or change EMFs .
036095 Detector Pressure diagnostics signals are not working properly.
036103 8890 in ICF: HS in Follow GC/Comm mode does not turn heated zones on after selecting Turn Instrument On; does not load Wake method no matter the GC setting.
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.

1.2.1.10 8890A GC Firmware (Released as point patch only for certain customers - not released to manufacturing

Released August 2019.

Issue ID Title
036672: Oven Cryo will not become ready
037086: QQQ Aux channel backflush goes into shutdown
037194: "Oven heating too slowly" observed at several customer sites

1.2.0.13 8890A GC Firmware

Released April 2019.
Firmware version 1.2.0.13 fixes some issues in the initial release of the 8890 firmware (version 1.0.61) as listed in the following TeamTracks. No new functionality was added in this firmware version.

Issue ID	Title
35226	Test Case: 88xx Channel Partner Inlet System - Cryo options not present for PCM Inlet with cryo valve configured
35262	Manufacturing Utility Can't Configure Valvebox
35417	The H2 sensor cannot be autoconfigured
35432	Excess Flow Shutdown in Released 8890 FW can be invoked during normal use of the Markes Unit-xr Thermal Desorber
35596	Column outlet pressure cannot be set and resets to 0 in the GC Driver when outlet set to other
35599	8890 display freezes when set the packed column flow
35602	Browser UI sequence and method entry fields need to be sanitized.
35603	Setting up packed columns from the bowser does not work.
35606	Autoconfigure with AIB board (option 206) in B-Det position doesn't work
35611	8890 doesn't support oven cryo autoconfiguration
35616	8890 doesn't support DFPD autoconfiguration
35628	8890 auto-configuration issue
35641	Analog out on LUI does not show actual output signal value
35650	Analog output signal on 8890 and 8860 GCs is very small compared to 7890 GCs.
35651	Analog output signal Zero setting is +- 5000000 instead of +-500000 like the 7890 GC.
35652	Compressed air cryo not configurable option for inlet cryo
35653	Changing the Zero value on the 8890 Analog Output does not change baseline output.
35670	Aux Detector 2 heater autoconfiguration issue
35685	User config thermal aux heating too slowly
35695	8860 Browser Interface: Method name with a space at the end can't be loaded or deleted
35708	There needs to be a way to clear the GC back to original state as received.
35719	Oven type mismatch
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.
35748	Oven cryo does not control properly: oven actual temperature oscillates +/- 1.5C
35749	8890: Air cryo not turning on for PCM inlet
35782	8890 System fault 1.2.0.9 FW
35783	User config thermal aux missing screens in setup
35786	Issues with new PCM Inlet heater config screens

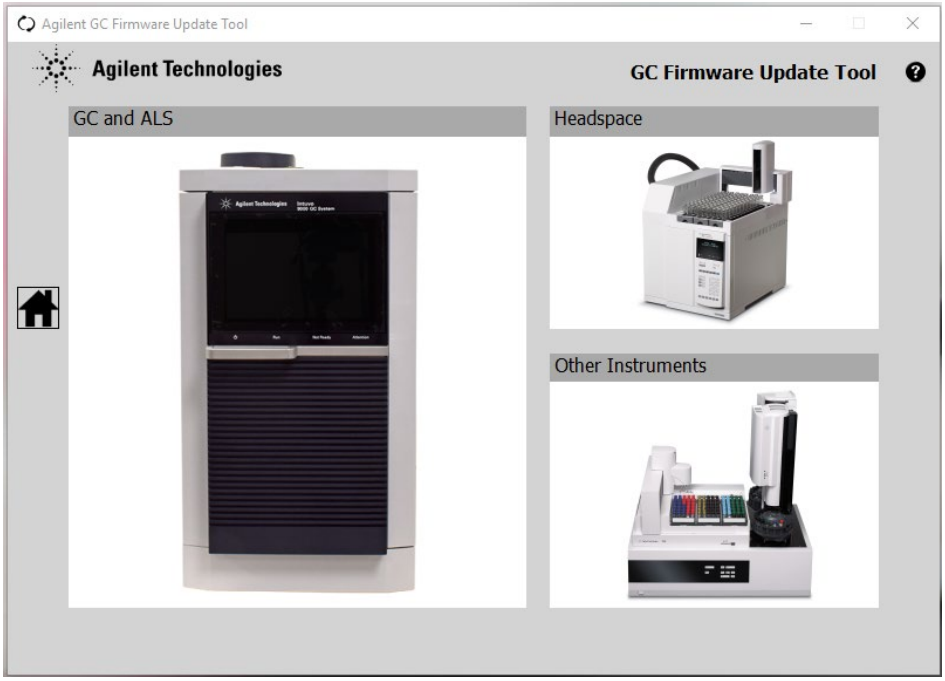
35801 Cannot set "D" term < 1 for user config thermal aux PID's
35804 PCM Inlet configurations settings not saving
35807 User config thermal aux heating to slowly (2)
35851 Invalid Setpoints - Nominal Power

1.0.6.1 8890A GC Firmware

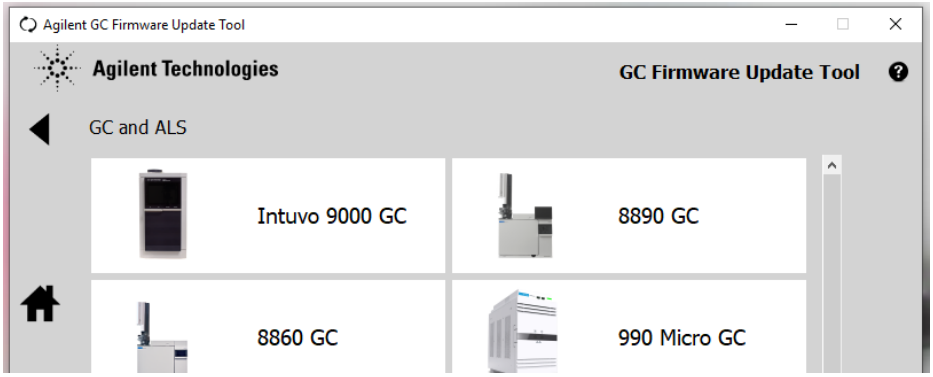
Initial release February 2019.

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 2.8.10.0.
After the program has been loaded and executed the following screen appears.

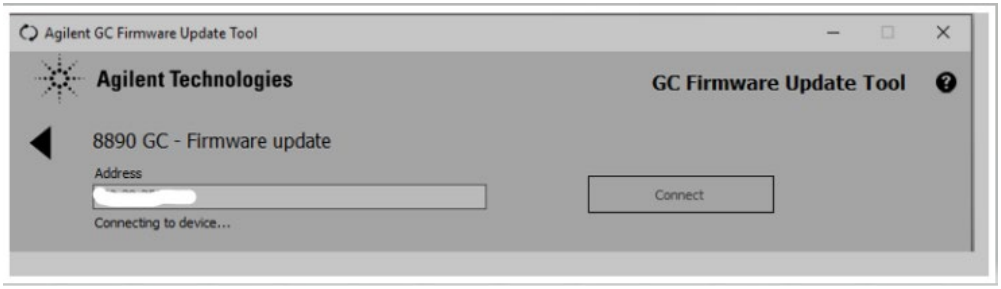


This enables the user to select which instrument type needs to have its firmware downloaded. In this case we select the GC and ALS.

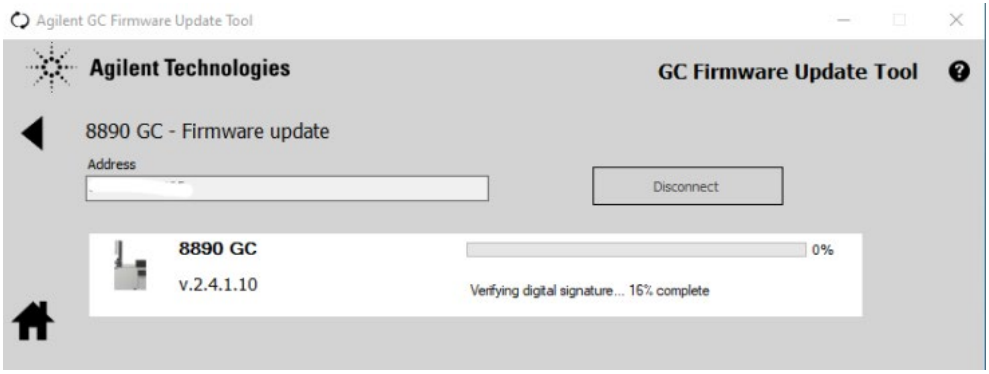


The 8890 GC is chosen from the Product menu.
The next screen allows us to either modify firmware or PID values for the EPC modules.
Firmware update is selected.

After choosing to update firmware, you must then enter the IP address of the 8890 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 8890_FW_X.X.X.tgz.gpg

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