

PN: 689011 Rev-I

Heller Oven Windows-XP Software Version log for HC1 controller

<u>Software Version</u>	<u>Description: (Features added / Bugs Fixed)</u>
4.0.0.0 11-20-2005	<ul style="list-style-type: none"> <li>- Continuation from 3.0.1.7 version from HC1 controller</li> <li>- TCP/IP communication using Ethernet with HC2 controller</li> <li>- With HC2 controller if controller is running without oven program, then after oven program turns on the running recipe can be recovered in oven program.</li> <li>-</li> </ul>
4.0.0.1 Feb-27-06	<ul style="list-style-type: none"> <li>- ActiveX function issue fixed for GEM-SECS</li> </ul>
4.0.0.2 Mar-27-06	<ul style="list-style-type: none"> <li>- Rail exercise feature added (HC1 control only)</li> <li>- Board sense delayed output for water spray</li> </ul>
4.0.0.3 Apr-27-06	<ul style="list-style-type: none"> <li>- Added 2<sup>nd</sup> Custom alarm</li> <li>- Added option to use flux heater as standard heater (same as 3.0.1.7c); for 1913 model oven.</li> <li>-</li> </ul>
4.0.0.3a Jun-27-06	<ul style="list-style-type: none"> <li>- Bug fixed: when a comm cable w/o timer is used, previous version was giving communication error message when trying to reload recipe.</li> <li>- Bug Fixed: on some computers Edit mode was not functioning in previous version.</li> <li>-</li> </ul>
4.0.0.4 7-13-2006	<ul style="list-style-type: none"> <li>- HC2 firmware with watch-dog</li> <li>-</li> </ul>
4.0.0.5 Aug-9-2006	<ul style="list-style-type: none"> <li>- Barcode reader features (For HC1 controller only)</li> <li>- ActiveX function: check added for incorrect recipe path for recipe save.</li> <li>- New ActiveX function added for returning alarm code; requested by Heller-Korea for Samsung Remote monitoring project.</li> <li>- Edit mode issue fix. Edit mode was not functioning on some computers.</li> <li>- Note: For HC1 control only</li> <li>-</li> </ul>
4.0.0.5a Aug-29-06	<ul style="list-style-type: none"> <li>- Feature added: Delayed-Timed Output (for Compal spl. CBS)</li> <li>- HC2 control is disabled</li> <li>- Barcode errors are added to Alarm screen</li> <li>-</li> </ul>
4.0.0.6 Sep-14-06	<ul style="list-style-type: none"> <li>- HC2 and HC1 controls are enabled.</li> <li>- Watchdog system is added in HC2 driver</li> <li>- Computer control rail encoder connection issue fixed in HC2 driver. With old driver encoder was reading backward with standard default wiring.</li> <li>- Custom Alarm function issue fixed. Earlier version driver always worked as active Low input.</li> <li>- Fixed: Global blower output % issue on new recipe load: On old version when new recipe load o/p should be 100% for 15sec then go to % per recipe, but it was 0% for 15sec then goes to assigned %.</li> <li>- Added a message when program starts to check oven program version and HC2 driver version</li> <li>- Feature added to save the last used recipe path.</li> </ul>

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	<ul style="list-style-type: none"> <li>- Fixed: In event log screen when opening previous event log a message was displaying asking "...is this correct recipe?". This message display is removed.</li> <li>- Message added when HC2 communication is lost and HC2 reboots.</li> <li>- Renamed Hc2AutoUpdater.exe to Hc2DriverUpdate.exe and added feature so HC2 can reboot by itself if 4.0.0.6 or later drivers are installed.</li> </ul>
<p>4.0.0.7 Oct-16-06</p>	<ul style="list-style-type: none"> <li>- Registry entries are moved to a file structure for option timers, file path etc.</li> <li>- Fixed: Cool zone1 heater was not functioning in 4.0.0.6</li> <li>- Audible alarm option added for backup belt feature for HP</li> <li>- ActiveX function for belt speed set-point is updated to provide accurate SP in decimal.</li> </ul>
<p>4.0.0.8 Dec-28-06</p>	<ul style="list-style-type: none"> <li>- Samsung requested changes</li> <li>- -Autoclean recipe reminder</li> <li>- -Board stop warning auto acknowledgement</li> <li>- -Message to move rail when program starts and opening new recipe</li> <li>- -Setup wizard can be open as read only when oven program is running</li> <li>- Cooldown mode Set-point can set in setup wizard</li> <li>- Dansensor link for closed loop control is fixed for Unicode text version</li> <li>- Fixed: Solid light tower option was disabled in previous version</li> <li>- In HC2 control audible alarm is working now; was not working in 4.0.0.7</li> <li>- Oven barcode program (version 1.3) is compatible with 4.0.0.8</li> <li>- In setup wizard Rail setup issue fixed when using Jog mode. If all rails set to jog mode then was not able to switch back to automatic mode.</li> <li>- In setup wizard wherever there is a selection dropdown box it lists all digital inputs and outputs, earlier version list was limited.</li> <li>- Digital IO-log option in HC1 is enabled; was disabled in previous version</li> <li>- Event log entry is updated for SP change; it logs previous value also</li> <li>-</li> </ul>
<p>4.0.0.9 Rev-A ECN060162-000 Jan-04-2007</p>	<ul style="list-style-type: none"> <li>- Fixed: a crash related to multiple autoclean reminder messages</li> <li>- Fixed: Comp Ctrl Rail issue: on a first recipe load when click to move rail and load another recipe before rail homes and click no to move rail. Now if SP changed rail moves from where it is without going home.</li> </ul>
<p>4.0.1.0 Rev-B ECN070030-000 Jan-24-2007</p>	<ul style="list-style-type: none"> <li>- Fixed Bug: if old recipes are used then sometimes zone1 SP changes to 0. Recipes from previous version were not getting updated properly. This caused channel shift sometimes and therefore caused incorrect alarms and channel behavior.</li> <li>- Fixed Bug: Gen4 (service reminder) option: When DIN-15 is low; the door open message continuously pops up every second. Also the change filter reminder message pops up even if a message is already displayed.</li> <li>- Setup wizard page1: selection choices are removed for "Password protect overview studio": (now its password protected by default) and "Remove access to display settings".</li> <li>- Data log file will log belt speed PV in two digit decimals; earlier versions decimal points were not logged.</li> <li>- If autopurge/standby feature is enabled then during purge time light tower will not turn yellow. In earlier versions during purge light was turning yellow.</li> </ul>

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4.0.1.1	<ul style="list-style-type: none"> <li>- Fixed Bug: N2 button was not functioning when only supervisor level have N2 button access and engineer level loads recipe. In this case when supervisor logs again N2 button is still inactive. Either by restarting the program or loading recipe will allow supervisor to operate N2 button.</li> </ul>
4.0.1.2 Rev-C May-14-2007 ECN070109	<ul style="list-style-type: none"> <li>- HC2 controller recipe startup group issue is fixed. Once a while start up sequence does not advance and get stuck at group1.</li> <li>- A rare crash related to calendar schedule setup is fixed.</li> <li>- Fixed Bug: once a while a message for more than 4 zones are running at 100% was displayed on new recipe load.</li> <li>- Fixed Bug: when Heat SP changed, Analog fan and Global blower o/p goes 100% for 15sec (set time). This behavior is changed to not affect blower control outputs on heat set point change.</li> <li>- Fixed Bug: Issue was when clicked no to move rail, light tower will turn green even if rail SP and PV are not in tolerance.</li> <li>- Feature added: If there are boards in oven (board count enabled) and user wants to load cooldown via software, the cooldown will be delayed till all boards are cleared the oven. Light tower will be flashing green during this period and smema will not accept new boards.</li> <li>-</li> </ul>
4.0.1.3 Jun-25-2007	<ul style="list-style-type: none"> <li>- Computer control rail homing sequence is fixed for 4-rail config. Home In-Out-In-Out.</li> <li>- Fine tune the animation for conveyor with with4-rail config. Communication cable with timer board need to use to get correct animation and board drop alarms. (Fixes are made for HC1 controller only).</li> </ul>
4.0.1.4 CO49896	<ul style="list-style-type: none"> <li>- Blower fan fault feature updated to have warning option</li> <li>- Bug: DegF: when temperature unit changed to Deg F, the temperature in cooldown mode are not correct. This is related to Cooldown SP in setup wizard.</li> <li>-</li> </ul>
4.0.1.5 Aug-15-2007 Not released	<ul style="list-style-type: none"> <li>- RPM blower speed control</li> <li>- Light tower indication when communication loss on HC2 controller</li> <li>- Added 1913 model</li> </ul>
4.0.1.6 Rev-D Oct-15-2007 ECN-070153	<ul style="list-style-type: none"> <li>- Special changes as per CO50810</li> <li>- - option: additional password protection for N2 button. Pop-up password window when turning on-off N2</li> <li>- - option: allow to change autoclean interval time during oven program run</li> <li>- - option: autoclean reminder can be disabled/enabled in setup wizard.</li> <li>- - option: autoclean start time delay after boards clear the sensor plus settable distance(time).</li> <li>- - auto acknowledge PPM level alarm display message</li> <li>- All blower control groups to have single/L-M-H selectable</li> <li>- RPM blower speed file selection</li> <li>- Feature added: Blower failure Warning/Alarm with selectable delay time</li> <li>- Added 1707 model</li> <li>-</li> </ul>

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4.0.1.6	<ul style="list-style-type: none"> <li>- Software code added to read a line status for serial communication during program startup</li> <li>-</li> </ul>
4.0.1.6a Rev-E Nov-15-2007 ECN-070181	<ul style="list-style-type: none"> <li>- Fixed: Issue related to cool zone3. Channel name for cool3 was not displaying, instead it was displaying previously accessed channel</li> <li>- Fixed: Overview screen for R-L models with cool zone heater</li> </ul>
4.0.1.7 Rev-F Jan-14-2008 ECN-080006	<ul style="list-style-type: none"> <li>- HC2 drivers are updated to import HC1 driver updates from 4.0.1.6a</li> <li>- Fixed: ActiveX functions for reporting recipe name and accepting heat &amp; belt set-points from third party program was not functioning in previous version.</li> <li>- Fixed: Korean setup wizard was not functioning in 4.0.1.6.</li> <li>- Fixed: PPM alarm auto-acknowledge for multi-channel Dansensor after channel scan.</li> </ul>
4.0.1.7a Rev-G Feb-06-08 ECN-080018	<ul style="list-style-type: none"> <li>- Fixed: CBS Up/Down with feedback option was causing light tower to stay yellow in CBS up position even if with proper feedback.</li> <li>- Fixed: Warning, alarm, hi-process settings in channel setup were not saving in 4.0.1.7 version.</li> </ul>
4.0.1.7e Mar-31-2008	<ul style="list-style-type: none"> <li>- Fixed an issue for barcode option; recipe was getting loaded even with boards in oven. (4.0.1.7c)</li> <li>- CC rail related issue is fixed. When clicked no to move rail and change SP afterward rail was not moving.</li> <li>- In Manual hardware mode light tower can be green; removed a message to move rail in manual mode. PV window stays gray in manual hardware mode. (4.0.1.7d)</li> <li>- Fixed: a crash related to date roll over at midnight which existed in 4017c/d.</li> <li>- Feature: Dansensor connection error message without "OK" or "Close" button so it will be active until connection is re-established. This is selectable feature.</li> </ul> <p>Note: HC2 drivers are not updated</p>
4.0.1.8 Rev-H Apr-25-2008 ECN-080040	<ul style="list-style-type: none"> <li>- HC2 drivers are updated as per 4.0.1.7e upgrades</li> <li>- Feature: A delay added for new recipe load after board in count becomes 0.</li> <li>- HC2 ctrl: blower fail warning option added; it was not implemented in earlier version.</li> <li>- Log event added for recipes loaded by external program like Barcode.</li> <li>-</li> </ul>
4.0.1.9 May-29-2009	<ul style="list-style-type: none"> <li>- This version is for HC1 controller only</li> <li>- Add: Auto log-off to operate mode option</li> <li>- Add: Auto-acknowledge warning option when click on warning message.</li> <li>- VIP mode for Heller-Korea</li> <li>- Update HC1 communication code to solve intermittent comm. Loss issue with certain new brand PC.</li> <li>- Update 1913 model with cool zone heater for KIC (Active X control)</li> </ul>
4.0.2.0 Nov-11-2009	<ul style="list-style-type: none"> <li>- This version is for HC1 controller only</li> <li>- Updated barcode option functionality to work with single lane Smema for HC1 controller.</li> </ul>

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4.0.2.1 Nov-22-2010 (Rev-I)	This version is for HC1 controller only <ul style="list-style-type: none"><li>- Fixed auto-lube option; it was not working in 4.0.1.9 and 4.0.2.0 version</li><li>- Added new feature: Idle mode standby recipe or cooldown. Oven will load standby recipe or cooldown after oven is idle (no boards in oven) for set time</li><li>- Added event to log running recipe name after date rollover event</li></ul>