

## **HemoSphere Advanced Monitor Release Notes**

The following is a list of known device implementation anomalies and troubleshooting steps associated with the listed software release version. The software version is listed on the Versions screen (Settings  $\rightarrow$  Help  $\rightarrow$  Versions). These issues are continually updated and compiled as a result of ongoing product improvements.

## HemoSphere advanced monitor anomalies for software release version 2.00.000.117

Known anomaly	Cause	Suggested actions
If physiological alarms are silenced and then un-silenced, the medium priority alarm tone (e.g. CO high alert) is being sounded first for a couple of seconds before the high priority alarm tone (e.g. $ScvO_2$ low alert).	Parameters with a fast update rate (e.g. less than 2 seconds for $ScvO_2$ in this case) are not immediately unsilenced when the audible alarms are re-enabled.	The issue resolves itself after approximately 2 seconds. No user intervention is required.
White horizontal dashed reference line at 0.8 does not appear on Graphical Trends graph for ${\rm Ea}_{\rm dyn}$ as expected.	The value scale labels (the y-axis) of the value 0.75 mark has been rounded to 0.8 and displayed as 0.8.	Update the upper and lower limits of the y-axis scale to have a larger range.
Tabular Trends does not scroll to specific monitored time.	Tabular trend Scroll back uses a trended parameter variable to find the monitoring start time.	View data on trend screen.
User activity on data download popup screens (specifically the numeric keypad for passwords and case report) do not reset the 2-minute inactivity timer.	A 2-minute inactivity timeout was not implemented for these popups in the software.	If the popup closes before data is completely entered, reopen popup.
While monitoring on the Focused graphical trends screen, an Intervention Analysis (IA) marker displays when the graph is updated instead of when the marker was created. There is between a 2 and 59 second delay of marker display on this monitoring screen.	The marker is created with the correct time and information, however on the focused graphical trend screen, new markers do not appear until a screen refresh.	Wait for the intervention marker to appear, use a Graphical Trend Time interval of less than 30 minutes, or view marker on a different graphical trends monitoring screen.
Adjusting the SV target during an active GDT tracking session does not horizontally center the trend graphs relative to the current time.	Adjusting and locking in a new SV target value does not shift the trend graphs. The current time will not be centered on the x-axis of the trend graphs.	Restart the GDT session to resolve issue.
Technology cable and module disconnection faults are not cleared when a valid cable/module is connected.	Port/slot disconnection faults are not correctly clearing when a new technology connected to the recently disconnected hardware port/slot.	Touching the Alarm Silence button will clear faults.
"Fault: iCO – Injectate Temperature Out of Range, Check Probe" is superseded by "Alert: iCO – Warm Injectate".	The warm injectate iCO alert deactivated the injectate temperature out range iCO fault.	Adjust temperature of injectate to be within range of 0 to 30 degrees Celsius (0 $^{\circ}$ C < IT < 30 $^{\circ}$ C).
If an HPI High Alert popup appears while on the Advanced Settings screen, touching More Info to view the the HPI secondary screen and then the back button navigates to the Clinical Tools menu instead of back to the Advanced Settings menu.	While on any Clinical Tools screen, back navigation takes the user to the Clinical Tools menu regardless of the original navigation path.	Manually navigate back to the Advanced Settings menu.
While monitoring CO through invasive monitoring mode, and CVP and MAP using two pressure cables, swap the pressure transducer signals on the Zero & Waveform screen and then disconnect the pressure cable monitoring MAP. Both MAP and CVP initially disconnect and timestamp. Shortly after, CVP value is displayed and SVR and SVRI values clear.	MAP and CVP parameters are associated with port number. When pressure signals are swapped, the port association is not updated.	Once MAP is reconnected and zeroed, the issue resolves and SVR will be displayed.
Patient CCO Cable Test fails	A communication error has occurred.	Run the Patient CCO Cable Test again.

Known anomaly	Cause	Suggested actions
Countdown timer on CCO Start/Stop button indicates an initial countdown of 3 minutes and 20 seconds.	Initial countdown timer value is hardcoded to the normal cold start time value even in 'Warm Start' conditions.	Wait for the first 3:20 timer to expire. After the initial 3 minute and 20 second timer expires, timer will return to 57 seconds per CO value.
WiFi software fails to update.	This occurs rarely with v49 of the wireless card firmware and is related to a kernel sizing issue.	No troubleshooting currently available.
The audio tone pulse spacing for alerts varies slightly from what might be expected. Time between tone pulses are approximately 50 ms longer than intended and 5 seconds shorter between repeating tones.	The existing alert audio file has pulse spacing of 260 to 290 ms and is played in 10 second intervals.	No troubleshooting steps currently available. All alarms are still audible to the user.



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