

### System Alarms (Traps)

**Traps:** Certain events can automatically send an SNMP trap (also referred to as a Notification) when they occur. Available traps that can be sent are listed in the table below.

**Associated OIDs (fourth column of table below):** SNMP traps (Notifications) just define alerts that can be automatically sent when a specific event occurs. Traps and the variables they report cannot be polled using an SNMP Get. However, there may be another object available that reports the current status that is associated with that particular trap. For example, the "Time Synchronization" trap is sent when loss of sync occurs. An SNMP Get of the trap can't be performed. But there may be an associated object available that can be polled for the current sync status.

**Clear traps:** Some events (such as a loss of Sync) have an associated "Clear" trap that is sent when the event has cleared (Sync has been restored for example). These are indicated below with a correlating fill color. Other events (such as changing from one input reference to another) do not have a "Clear" condition associated with it. These traps are displayed below with no fill color.

SNMP Trap	Trap name	OID Number	Major or Minor alarm classification	Indicates	OID (if one is available) to perform an SNMPGet for this associated current status	Recommended actions if trap is sent <small>*See the note below about the time stamp for each log entry</small>
"Time Synchronization"	ssEvtV2TimeSync	1.3.6.1.4.1.18837.3.1.3.0.2	Major alarm	The unit has either entered or left the synchronized state	<b>Sync Status</b> (Refer to "unit's sync state" in the "SNMPGets-Sets" tab): <b>.1.3.6.1.4.1.18837.3.2.2.1.5</b>	Note this alarm is classified as a Major alarm condition and will result in the Major alarm/trap also being asserted. Has the SecureSync been recently rebooted/power cycled (as indicated by a "The Unit Has Rebooted" entry in the <b>Tools-&gt; Events</b> page of the browser and/or associated <b>Reboot</b> trap)? This alarm is asserted for two primary reasons, including after each boot-up (it should clear shortly thereafter). If the SecureSync wasn't recently rebooted, it lost Time Sync status some time ago (due to all of its input references being lost/declared not valid). In this scenario, the Time Sync alarm would have been preceded by an <b>"In Holdover"</b> alarm/trap (and associated Minor alarm/trap), asserted when all inputs were initially lost. See if the <b>"GPS Antenna Problem"</b> alarm was also asserted (as indicated in the <b>Tools -&gt; Alarms</b> page of the browser) and/or the associated <b>"GPS Antenna"</b> trap also being sent. Refer to the <b>"GPS Antenna"</b> trap in this table for additional info. If the SecureSync is normally synced with GPS satellites (via an antenna attached to the rear panel), refer to the "SecureSync GPS Reception troubleshooting" guide (available on our website at: <a href="http://spectracom.com/Support/HowCanWeHelpYou/Library/tabid/59/Default.aspx?EntryId=315">http://spectracom.com/Support/HowCanWeHelpYou/Library/tabid/59/Default.aspx?EntryId=315</a> ).
"Holdover"	ssEvtV2Holdover	1.3.6.1.4.1.18837.3.2.3.0.2	Minor alarm	The unit has either entered or left the holdover state.	<b>Holdover Mode</b> (Refer to "Holdover" in the "SNMPGets-Sets" tab): <b>.1.3.6.1.4.1.18837.3.2.2.1.6</b>	Note this alarm is classified as a Minor alarm condition and will result in the Minor alarm/trap also being asserted. Recently, all available input references have been lost/declared no valid. See if the <b>"GPS Antenna Problem"</b> alarm was also asserted (as indicated in the <b>Tools -&gt; Alarms</b> page of the browser) and/or the associated <b>"GPS Antenna"</b> trap also being sent. Refer to the <b>"GPS Antenna"</b> trap in this table for additional info. If the SecureSync is normally synced with GPS satellites (via an antenna attached to the rear panel), refer to the "SecureSync GPS Reception troubleshooting" guide (available on our website at: <a href="http://spectracom.com/Support/HowCanWeHelpYou/Library/tabid/59/Default.aspx?EntryId=315">http://spectracom.com/Support/HowCanWeHelpYou/Library/tabid/59/Default.aspx?EntryId=315</a> ).
"Frequency Error"	ssEvtV2FrequencyError	1.3.6.1.4.1.18837.3.2.3.0.3	Major alarm	The frequency output error exceeds specifications.	N/A	Note this alarm is classified as a Major alarm condition and will result in the Major alarm/trap also being asserted. See if any other alarms were also asserted recently or at the same time. Has the time SecureSync been recently rebooted/power cycled (as indicated by <b>"The Unit Has Rebooted"</b> entries in the <b>Tools-&gt; Events</b> page of the browser and/or associated <b>Reboot</b> trap being sent). This alarm is asserted for several reasons, including after each boot-up and should normally clear within a few minutes thereafter. In software versions 5.2.1 and below, is NTP the selected input (indicated on the <b>Home</b> page of the browser)? In earlier versions, this alarm normally remains continuously asserted when its synced to other time servers. View/Search the <b>Tools -&gt; Alarms</b> page of the browser for possible <b>"In Holdover"</b> alarms and the <b>Tools -&gt; Events</b> page of the browser for possible <b>"Reference Change"</b> entries (losing all input references or switching between references can cause the Frequency Error alarm to be asserted).
"Frequency OK"	ssEvtV2FrequencyOK	1.3.6.1.4.1.18837.3.2.3.0.4	N/A	The frequency output error meets specifications.	N/A	N/A. Alarm has cleared.
"User-defined Minor Alarm"	ssEvtV2UserMinorAlarm	1.3.6.1.4.1.18837.3.2.3.0.5	Minor alarm	The user-programmable minor alarm timeout has been asserted.	<b># Satellites being tracked</b> (Refer to "# Satellites being tracked" in the "SNMPGets-Sets" tab): <b>.1.3.6.1.4.1.18837.3.2.2.1.1.8</b>	Note this alarm is classified as a Minor alarm condition and will result in the Minor alarm/trap also being asserted. Indicates the GNSS receiver is tracking fewer satellites than the user-specified minimum number of satellites to alert on (as configured in the <b>Management -&gt; Notifications</b> page of the browser, <b>GPS</b> tab). This number may have been set unreasonably too high (often, numbers above "4", as it's not uncommon for only 4 or 5 satellites to be in view at any given time). See how many satellites the GNSS receiver is currently tracking ( <b>Interfaces-&gt; GNSS 0</b> page of the browser. if the receiver is tracking less than about 4 satellites with the antenna mounted outdoors, refer to the "SecureSync GPS reception troubleshooting" guide (available on our website at: <a href="http://spectracom.com/Support/HowCanWeHelpYou/Library/tabid/59/Default.aspx?EntryId=315">http://spectracom.com/Support/HowCanWeHelpYou/Library/tabid/59/Default.aspx?EntryId=315</a> ).
"User-defined Minor Alarm Clear"	ssEvtV2UserMinorClear	1.3.6.1.4.1.18837.3.2.3.0.6	N/A	The user-programmable minor alarm timeout has been reset.	N/A	Note this alarm is classified as a Minor alarm condition and will result in the Minor alarm/trap also being asserted. Indicates the GNSS receiver is tracking fewer satellites than the user-specified minimum number of satellites to alert on (as configured in the <b>Management -&gt; Notifications</b> page of the browser, <b>GPS</b> tab). This number may have been set unreasonably too high (often, numbers above "4", as it's not uncommon for only 4 or 5 satellites to be in view at any given time). See how many satellites the GNSS receiver is currently tracking ( <b>Interfaces-&gt; GNSS 0</b> page of the browser. if the receiver is tracking less than about 4 satellites with the antenna mounted outdoors, refer to the "SecureSync GPS reception troubleshooting" guide (available on our website at: <a href="http://spectracom.com/Support/HowCanWeHelpYou/Library/tabid/59/Default.aspx?EntryId=315">http://spectracom.com/Support/HowCanWeHelpYou/Library/tabid/59/Default.aspx?EntryId=315</a> ).
"User-defined Major Alarm"	ssEvtV2UserMajorAlarm	1.3.6.1.4.1.18837.3.2.3.0.7	Major alarm	The user-programmable major alarm timeout has been asserted.	<b># Satellites being tracked</b> (Refer to "# Satellites being tracked" in the "SNMPGets-Sets" tab): <b>.1.3.6.1.4.1.18837.3.2.2.1.1.8</b>	Note this alarm is classified as a Major alarm condition and will result in the Major alarm also being asserted. Indicates the GNSS receiver is tracking fewer satellites than the user-specified min number of satellites to alert on (as configured in the <b>Management -&gt; Notifications</b> page of the browser, <b>GPS</b> tab). This number may have been set unreasonably too high (often, numbers above "4", as it's not uncommon for only 4 or 5 satellites to be in view at any given time). See how many satellites the GNSS receiver is currently tracking ( <b>Interfaces-&gt; GNSS 0</b> page of the browser. if the receiver is tracking less than about 4 satellites with the antenna mounted outdoors, refer to the "SecureSync GPS reception troubleshooting" guide (available on our website at: <a href="http://spectracom.com/Support/HowCanWeHelpYou/Library/tabid/59/Default.aspx?EntryId=315">http://spectracom.com/Support/HowCanWeHelpYou/Library/tabid/59/Default.aspx?EntryId=315</a> ).
"User-defined Major Alarm Clear"	ssEvtV2UserMajorClear	1.3.6.1.4.1.18837.3.2.3.0.8	N/A	The user-programmable major alarm timeout has been reset.	N/A	N/A. Alarm has cleared.
"GPS Antenna"	ssEvtV2GpsAntenna	1.3.6.1.4.1.18837.3.2.3.0.9	Minor alarm	The GPS antenna state has changed (antenna is disconnected, short or open occurring in the antenna cable).	<b>Antenna Sense</b> (Refer to "Antenna Sense" in the "SNMPGets-Sets" tab): <b>.1.3.6.1.4.1.18837.3.2.2.1.1.17</b>	Note this alarm is classified as a Minor alarm and will result in the Minor alarm also being asserted. Indicates the internal GNSS receiver has detected either an open or short in the antenna coax cable (between the SecureSync and its antenna, or the antenna is not connected to the SecureSync. Can also be asserted due to surge damage to the GNSS receiver. Refer to the "SecureSync GPS Reception troubleshooting" guide (available on our website at: <a href="http://spectracom.com/Support/HowCanWeHelpYou/Library/tabid/59/Default.aspx?EntryId=315">http://spectracom.com/Support/HowCanWeHelpYou/Library/tabid/59/Default.aspx?EntryId=315</a> ).
"Minor Alarm"	ssEvtV2MinorAlarm	1.3.6.1.4.1.18837.3.2.3.0.10	N/A	The system Minor alarm has changed state.	<b>Minor Alarm</b> (Refer to "Minor Alarm" in the "SNMPGets-Sets" tab): <b>.1.3.6.1.4.1.18837.3.2.2.1.1.13</b>	This alarm is asserted each time an alarm that is classified as a Minor alarm condition is asserted. Find out what other Alarm(s) were also asserted at that time (as reported in the <b>Tools -&gt; Alarms</b> page of the web browser). Refer to that Alarm type in this table.
"Major Alarm"	ssEvtV2MajorAlarm	1.3.6.1.4.1.18837.3.2.3.0.11	N/A	The system Major alarm has changed state.	<b>Major Alarm</b> (Refer to "Major Alarm" in the "SNMPGets-Sets" tab): <b>.1.3.6.1.4.1.18837.3.2.2.1.1.14</b>	This alarm is asserted each time an alarm that is classified as a Major alarm condition is asserted. Find out what other Alarm(s) were also asserted at that time (as reported in the <b>Tools -&gt; Alarms</b> page of the web browser). Refer to that particular alarm type in this table.
"Reference Change"	ssEvtV2RefChange	1.3.6.1.4.1.18837.3.2.3.0.12	N/A	The selected input time reference has changed.	N/A	Note this alarm is classified as a Major alarm condition and will result in the Major alarm/trap also being asserted. Verify why the higher priority reference was lost/declared not valid. If the SecureSync is normally synced with GPS satellites (via an antenna), refer to the "SecureSync GPS reception troubleshooting" guide (available on our website at: <a href="http://spectracom.com/Support/HowCanWeHelpYou/Library/tabid/59/Default.aspx?EntryId=315">http://spectracom.com/Support/HowCanWeHelpYou/Library/tabid/59/Default.aspx?EntryId=315</a> ).
"1PPS Error"	ssEvtV21ppsError	1.3.6.1.4.1.18837.3.2.3.0.13	Major alarm	The 1PPS output error exceeds specifications.	N/A	Note this alarm is classified as a Major alarm and will result in the Major alarm/trap also being asserted. In order for this alarm to be asserted, the MaxTFO value must have been changed from the factory default value of "15" in the <b>Management -&gt; Disciplining</b> page of the browser). It may have been set to too low of a number. Dependant on the type of oscillator installed, in general it shouldn't be set to a number less than "4". View/Search the <b>Tools -&gt; Alarms</b> log page of the browser for possible <b>"In Holdover"</b> and/or <b>"Time Sync"</b> alarms (and associated traps being sent). If the SecureSync is normally synced via IIRIG input, verify the IIRIG source/generator is locked to an external reference (such as GPS). This can result in excessive jitter of the selected 1PPS input reference.
"1PPS OK"	ssEvtV21ppsOK	1.3.6.1.4.1.18837.3.2.3.0.14	N/A	The 1PPS output error no longer exceeds specifications.	N/A	N/A. Alarm has now cleared.
"Hardware Error"	ssEvtV2HWEError	1.3.6.1.4.1.18837.3.2.3.0.15	Major alarm	The timing system hardware is impaired.	N/A	Note this alarm is classified as a Major alarm condition and will result in the Major alarm/trap also being asserted. Send the unit's logs to Spectracom for review/confirmation that an RMA Number to return the SecureSync to Spectracom is likely needed.

<b>"Oscillator Alarm" (applicable to Rubidium oscillator only, if installed)</b>	ssEvtV2OscillatorAlarm	1.3.6.1.4.1.18837.3.2.3.0.16	Major alarm	The oscillator is requires maintenance. This typically indicates that the oscillator is within 10% of the edge its adjustable range (TCXO and OCXO) or the oscillator module lamp needs service.	N/A	Note this alarm is classified as a Major alarm condition and will result in the Major alarm/trap also being asserted. Send the unit's logs to Spectracom for review/confirmation that an RMA Number to return the SecureSync to Spectracom is likely needed. Note this alarm/trap can also be asserted if there is excessive jitter on its selected input reference (such as an IRIG source not locked to an external reference, for instance).
<b>"Oscillator OK" (applicable to Rubidium oscillator only, if installed)</b>	ssEvtV2OscillatorOK	1.3.6.1.4.1.18837.3.2.3.0.17	N/A	The oscillator no longer requires maintenance. This typically indicates that the oscillator adjustment value has changed and is now greater than 10% from the edge of its adjustable range.	N/A	N/A. Alarm has now cleared.
<b>"Reboot"</b>	ssEvtV2Reboot	1.3.6.1.4.1.18837.3.2.3.0.18	N/A	The system has rebooted.	N/A	If the SecureSync wasn't intentionally either rebooted or power cycled, verify input power connections and power source.
<b>"Auth (Authentication) Error" (disabled by Factory default)</b>		1.3.6.1.2.1.1.3.0	N/A	The Auth Error trap is sent when there is an SNMP authentication error on an SNMP query.	N/A	Verify the SNMP user/community names (configured in the NTP time server) match the user/community names configured in the SNMP Manager polling the time server.
<b>"High Temperature, Minor Alarm (software versions 5.3.1 and above)</b>	ssEvtV2MaxTempMinorAlarm	.1.3.6.1.4.1.18837.3.2.3.0.19	Minor alarm	The "CPU Temperature" exceeded max temperature alarm threshold (as configured in the Tools -> System Monitor page of the browser)	<b>CPU Temperature</b> (Refer to "CPU Temp" in the "SNMPGets-Sets" tab): .1.3.6.1.4.1.18837.3.2.2.1.19	View the "CPU Temperature" in the <b>Tools -&gt; System Monitor</b> page of the browser. Verify ambient temperature and front panel cooling fan operation
<b>High Temperature, Minor Alarm, Cleared (software versions 5.3.1 and above)</b>	ssEvtV2MaxTempMinorClear	.1.3.6.1.4.1.18837.3.2.3.0.20	N/A	The "CPU Temperature" is below the temperature alarm threshold (as configured in the Tools -> System Monitor page of the browser)	<b>CPU Temperature</b> (Refer to "CPU Temp" in the "SNMPGets-Sets" tab): .1.3.6.1.4.1.18837.3.2.2.1.19	N/A. Alarm has now cleared.
<b>High Temperature, Major Alarm (software versions 5.3.1 and above)</b>	ssEvtV2MaxTempMajorAlarm	.1.3.6.1.4.1.18837.3.2.3.0.21	Major alarm	The "CPU Temperature" exceeded max temperature alarm threshold (as configured in the Tools -> System Monitor page of the browser)	<b>CPU Temperature</b> (Refer to "CPU Temp" in the "SNMPGets-Sets" tab): .1.3.6.1.4.1.18837.3.2.2.1.19	View the "CPU Temperature" in the <b>Tools -&gt; System Monitor</b> page of the browser. Verify ambient temperature and front panel cooling fan operation
<b>High Temperature, Major Alarm, Cleared (software versions 5.3.1 and above)</b>	ssEvtV2MaxTempMajorClear	.1.3.6.1.4.1.18837.3.2.3.0.22	N/A	The "CPU Temperature" is below the temperature alarm threshold (as configured in the Tools -> System Monitor page of the browser)	<b>CPU Temperature</b> (Refer to "CPU Temp" in the "SNMPGets-Sets" tab): .1.3.6.1.4.1.18837.3.2.2.1.19	N/A. Alarm has now cleared.

**\* Note about time stamps for all of the log entries:**  
The time stamp for each log entry is in UTC time scale (not local time). A "local time offset based on region /DST time correction for UTC offset needs to be added/subtracted to the time of a log entry to convert it to local time. For example, subtract 4 hours from the time of each log entry when in Eastern Time Zone and while in DST.