

Appendix 1: Reporting Codes in CID and SIA

All possible event codes are listed below to assist control rooms in building a panel template.

Group Number will be reported when the event applies to an area/partition. Otherwise, Group Number will be 00 to indicate a control panel/system fault. Group Number range is 00 to 99.

Point ID Number will be reported if extended Contact ID is enabled in the system options and if the event can identify a specific zone or device. Otherwise, point ID will be 000 to indicate a control panel/system fault. Point ID Number range for:

- User Number is 000 to 999
- Device ID is 000 to 255 when referencing expansion modules on NX / Hills Reliance
- Device ID is 000 to 499 when referencing expansion modules on Hills Reliance XR
- Device ID is 000 to 256 when referencing hardwired or wireless zones

CID Codes

Alarm/ Restore	CID	Point ID	Description
E	100	Area Number: 01-96	Manual Medical
R	100	Area Number: 01-96	Manual Medical Restore
E	102	Area Number: 01-96, User ID: 001-999	Guard Tour Fail
E	110	Area Number: 01-96, Zone Number: 001-512	Fire Alarm
R	110	Area Number: 01-96, Zone Number: 001-512	Fire Alarm Restore
E	115	Area Number: 01-96	Manual Fire
R	115	Area Number: 01-96	Manual Fire Restore
E	120	Area Number: 01-96	Keypad Panic
E	120	Area Number: 01-96, Zone Number: 001-512	24 Hour Panic Alarm
R	120	Area Number: 01-96, Zone Number: 001-512	24 Hour Panic Alarm Restore
E	121	Area Number: 01-96	Duress
E	122	Area Number: 01-96	Manual Silent Panic
E	123	Area Number: 01-96	Manual Audible Panic
E	124	Area Number: 01-96	Duress
E	130	Area Number: 01-96, Zone Number: 001-512	Burg Alarm
R	130	Area Number: 01-96, Zone Number: 001-512	Burg Alarm Restore
E	134	Area Number: 01-96, Zone Number: 001-512	Entry/Exit Alarm
R	134	Area Number: 01-96, Zone Number: 001-512	Entry/Exit Alarm Restore
E	137	Device ID: 000	Panel Box Tamper – box tamper triggered on control panel
E	137	Device ID: 001-499	Tamper – box tamper triggered on expander or zone

Alarm/ Restore	CID	Point ID	Description
E	137	Device ID: 999	Rapid Pulse – panel stopped responding after Entry Delay started
R	137	Device ID: 000-999	Box Tamper Restore
E	301	Device ID: 000-999	Mains Fail Event
R	301	Device ID: 000-999	Mains Fail Event Restore
E	302	Device ID: 000	Low System Battery Event
R	302	Device ID: 000	Low System Battery Event Restore
E	302	Device ID: 001-999	Expander Low Battery
R	302	Device ID: 001-999	Expander Low Battery Restore
E	304	Device ID: 000-999, Zone Number: 001-512	Checksum Failure
R	304	Device ID: 000-999, Zone Number: 001-512	Checksum Failure Restore
E	305	Channel ID: 000-016	Watchdog Reset – check cabling or power to device
E	310	Device ID: 000-999	Ground Fault
R	310	Device ID: 000-999	Ground Fault Restore
E	312	Device ID: 000-999	Over Current / Aux Over Current Fault – too much power is being drawn, disconnect extra devices, check wiring for short circuit
R	312	Device ID: 000-999	Over Current Restore
E	320	Device ID: 000-999	Siren Tamper – check siren enclosure
R	320	Device ID: 000-999	Siren Tamper Restore
E	333	Device ID: 000-999	Expander Trouble / Device Failure
R	333	Device ID: 000-999	Device Failure Restore
E	337	Device ID: 000-999	DC Fail
R	337	Device ID: 000-999	DC Fail Restore
E	344	Device ID: 000-499	Wireless Jam – RF interference detected, perform site survey or check repeater(s)
R	344	Device ID: 000-499	Wireless Jam Restore
E	350	Channel ID: 999	Total Communications Fail
R	350	Channel ID: 999	Total Communications Restore
E	350	Channel ID: 997	Total Communications Fail, due to battery fail
R	350	Channel ID: 997	Total Communications Restore, periodic wake up on AC power loss
E	351	Channel ID: 999	IP Communications Fail
R	351	Channel ID: 999	IP Communications Restore
E	351	Channel ID: 998	Cellular Communications Fail
R	351	Channel ID: 998	Cellular Communications Restore
E	351	Device ID: 000-999	Power Supply Fault
R	351	Device ID: 000-999	Power Supply Fault Restore
E	354		Fail To Communicate
E	374	Area Number: 01-96, Zone Number: 000-512	Exit Error
E	380	Area Number: 01-96, Zone Number: 000-512	Sensor Trouble
R	380	Area Number: 01-96, Zone Number: 000-512	Sensor Trouble Restore
E	381	Area Number: 01-96, Zone Number: 000-512	Loss of RF Supervision / RF Zone Lost
R	381	Area Number: 01-96, Zone Number: 001-512	Loss of RF Supervision Restore

Alarm/ Restore	CID	Point ID	Description
E	383	Area Number: 01-96, Zone Number: 001-512	Tamper
R	383	Area Number: 01-96, Zone Number: 001-512	Tamper Restore
E	384	Area Number: 01-96, Zone Number: 001-512	Sensor Low Battery
R	384	Area Number: 01-96, Zone Number: 001-512	Sensor Low Battery Restore
E	391	Area Number: 01-96, Zone Number: 001-512	Zone Inactivity
R	391	Area Number: 01-96, Zone Number: 001-512	Zone Inactivity Restore – zone activity detected, supervision restored
E	401	Area Number: 01-96, User ID: 001-999	Open / Disarm
R	401	Area Number: 01-96, User ID: 001-999	Close / Arm in Away
E	401	User ID: 001-999	First Open
R	401	User ID: 001-999	Last Close
E	406	Area Number: 01-96, User ID: 001-999	Cancel
E	421	Channel ID: 000-016	Valid Code Out Schedule
E	422	Area Number: 01-96, User ID: 001-999	User Activated Output
E	441	Area Number: 01-96, User ID: 001-999	Partial Open / Disarm from Stay
R	441	Area Number: 01-96, User ID: 001-999	Partial Close / Arm in Stay
E	451	Area Number: 01-96, User ID: 001-999	Early Opening – area disarmed before opening window
R	452	Area Number: 01-96, User ID: 001-999	Late Closing – area armed after the opening window
E	453	User ID: 001-999	Fail To Open – area not disarmed at start of opening window
E	454	User ID: 001-999	Fail To Close / Late To Close – area not armed at start of closing window
E	459	Area Number: 01-96, User ID: 001-999	Recent Close
E	466	Area Number: 01-96, User ID: 001-999	Technician Arrival
R	466	Area Number: 01-96, User ID: 001-999	Technician Left
E	531	Device ID: 000-999	Device Unbypass
E	532	Device ID: 000-999	Device Bypass
E	570	Area Number: 01-96, Zone Number: 001-512	Bypass
R	570	Area Number: 01-96, Zone Number: 001-512	Bypass Restore
E	601	User ID: 001-999	Manual Test
E	602	000	Automatic Test
E	607	User ID: 001-999	Start Walk Test
R	607	User ID: 001-999	End Zone Test
E	609	000	Video Event
E	627	User ID: 001-999, default 256	Start Program
E	628	User ID: 001-999, default 256	End Program
E	641	Area Number: 01-96, Zone Number: 001-512	Activity Monitor Fail

SIA Codes

Alarm/ Restore	SIA	Point ID	Description
E	MA	Area Number: 01-96	Manual Medical
R	MA	Area Number: 01-96	Manual Medical Restore
E	JK	Area Number: 01-96, User ID: 001-999	Guard Tour Fail
E	CL	Area Number: 01-96, User ID: 001-999	Man Down Rearm
E	FA	Area Number: 01-96, Zone Number: 001-512	Fire Alarm
R	FR	Area Number: 01-96, Zone Number: 001-512	Fire Alarm Restore
E	FA	Area Number: 01-96	Manual Fire
R	FA	Area Number: 01-96	Manual Fire Restore
E	PA	Area Number: 01-96	Keypad Panic
E	PA	Area Number: 01-96, Zone Number: 001-512	24 Hour Panic Alarm
R	PR	Area Number: 01-96, Zone Number: 001-512	24 Hour Panic Alarm Restore
E	HA	Area Number: 01-96	Duress
E	HA	Area Number: 01-96	Manual Silent Panic
E	PA	Area Number: 01-96	Manual Audible Panic
E	HA	Area Number: 01-96	Duress
E	BA	Area Number: 01-96, Zone Number: 001-512	Burg Alarm
R	BR	Area Number: 01-96, Zone Number: 001-512	Burg Alarm Restore
E	BA	Area Number: 01-96, Zone Number: 001-512	Entry/Exit Alarm
R	BR	Area Number: 01-96, Zone Number: 001-512	Entry/Exit Alarm Restore
E	TA	Device ID: 000	Panel Box Tamper – box tamper triggered on control panel
E	TA	Device ID: 001-499	Tamper – box tamper triggered on expander or zone
E	TA	Device ID: 999	Rapid Pulse – panel stopped responding after Entry Delay started
R	TR	Device ID: 000-999	Box Tamper Restore
E	AT	Device ID: 000-999	Mains Fail Event
R	AR	Device ID: 000-999	Mains Fail Event Restore
E	YT	Device ID: 000	Low System Battery Event
R	YR	Device ID: 000	Low System Battery Event Restore
E	YT	Device ID: 001-999	Expander Low Battery
R	YR	Device ID: 001-999	Expander Low Battery Restore
E	YF	Device ID: 000-999, Zone Number: 001-512	Checksum Failure
R	YG	Device ID: 000-999, Zone Number: 001-512	Checksum Failure Restore
E	YW	Channel ID: 000-016	Watchdog Reset – check cabling or power to device
E	FT	Device ID: 000-999	Ground Fault
R	FR	Device ID: 000-999	Ground Fault Restore

Alarm/ Restore	SIA	Point ID	Description
E	YI	Device ID: 000-999	Over Current / Aux Over Current Fault – too much power is being drawn, disconnect extra devices, check wiring for short circuit
R	YJ	Device ID: 000-999	Over Current Restore
E	YA	Device ID: 000-999	Siren Tamper – check siren enclosure
R	YH	Device ID: 000-999	Siren Tamper Restore
E	ET	Device ID: 000-999	Expander Trouble / Device Failure
R	ER	Device ID: 000-999	Device Failure Restore
E	YT	Device ID: 000-999	DC Fail
R	YR	Device ID: 000-999	DC Fail Restore
E	XQ	Device ID: 000-499	Wireless Jam – RF interference detected, perform site survey or check repeater(s)
R	XH	Device ID: 000-499	Wireless Jam Restore
E	NT	Channel ID: 999	Total Communications Fail
R	NR	Channel ID: 999	Total Communications Restore
E	NT	Channel ID: 997	Total Communications Fail, due to battery fail
R	NT	Channel ID: 997	Total Communications Restore, periodic wake up on AC power loss
E	LT	Channel ID: 999	IP Communications Fail
R	LR	Channel ID: 999	IP Communications Restore
E	LT	Channel ID: 998	Cellular Communications Fail
R	LR	Channel ID: 998	Cellular Communications Restore
E	LR	Device ID: 000-999	Power Supply Fault
R	LR	Device ID: 000-999	Power Supply Fault Restore
E	EE	Area Number: 01-96, Zone Number: 000-512	Exit Error
E	BT	Area Number: 01-96, Zone Number: 000-512	Sensor Trouble
R	BR	Area Number: 01-96, Zone Number: 000-512	Sensor Trouble Restore
E	FT	Area Number: 01-96, Zone Number: 000-512	Fire Trouble
R	FR	Area Number: 01-96, Zone Number: 000-512	Fire Trouble Restore
E	BS	Area Number: 01-96, Zone Number: 000-512	Loss of RF Supervision / RF Zone Lost
E	FS	Area Number: 01-96, Zone Number: 001-512	Fire Supervision
R	BR	Area Number: 01-96, Zone Number: 001-512	Loss of RF Supervision Restore
R	FR	Area Number: 01-96, Zone Number: 001-512	Fire Supervision Restore
E	TA	Area Number: 01-96, Zone Number: 001-512	Tamper
R	TR	Area Number: 01-96, Zone Number: 001-512	Tamper Restore
E	XT	Area Number: 01-96, Zone Number: 001-512	Sensor Low Battery
R	XR	Area Number: 01-96, Zone Number: 001-512	Sensor Low Battery Restore
E	NA	Area Number: 01-96, Zone Number: 001-512	Zone Inactivity
R	NS	Area Number: 01-96, Zone Number: 001-512	Zone Inactivity Restore – zone activity detected, supervision restored

Alarm/ Restore	SIA	Point ID	Description
E	OP	Area Number: 01-96, User ID: 001-999	Open / Disarm
R	CL	Area Number: 01-96, User ID: 001-999	Close / Arm in Away
E	OP	User ID: 001-999	First Open
R	OP	User ID: 001-999	Last Close
E	OC	Area Number: 01-96, User ID: 001-999	Cancel
E	DP	Channel ID: 000-016	Valid Code Out Schedule
	DV	Channel ID: 000-016	Valid Code Expired
E	DG	Area Number: 01-96, User ID: 001-999	User Activated Output
E	OP	Area Number: 01-96, User ID: 001-999	Partial Open / Disarm from Stay
R	CG	Area Number: 01-96, User ID: 001-999	Partial Close / Arm in Stay
E	OK	Area Number: 01-96, User ID: 001-999	Early Opening – area disarmed before opening window
R	CJ	Area Number: 01-96, User ID: 001-999	Late Closing – area armed after the opening window
E	OI	User ID: 001-999	Fail To Open – area not disarmed at start of opening window
E	CI	User ID: 001-999	Fail To Close / Late To Close – area not armed at start of closing window
E	CR	Area Number: 01-96, User ID: 001-999	Recent Close
E		Area Number: 01-96, User ID: 001-999	Technician Arrival
R	YZ	Area Number: 01-96, User ID: 001-999	Technician Left
E	UU	Device ID: 000-999	Device Unbypass
E	UB	Device ID: 000-999	Device Bypass
E	B	Area Number: 01-96, Zone Number: 001-512	Bypass
R	U	Area Number: 01-96, Zone Number: 001-512	Bypass Restore
E	RX	User ID: 001-999	Manual Test
E	RP	000	Automatic Test
E	TS	User ID: 001-999	Start Walk Test
R	TE	User ID: 001-999	End Zone Test
E		000	Video Event
E	LB	User ID: 001-999, default 256	Start Local Program
E	RB	User ID: 001-999, default 256	Start Remote Program
E	LX	User ID: 001-999, default 256	End Local Program
E	RS	User ID: 001-999, default 256	End Remote Program
E	NA	Area Number: 01-96, Zone Number: 001-512	Activity Monitor Fail

Appendix 2: Point ID Number for Legacy NX / Hills Reliance Expansion Modules

The tables below list the Point ID Number that will be reported for each expander that has a trouble condition if expanded Contact I.D. is enabled system options. Point ID Number range is 1 – 255.

Keypad Point ID Number Table								
Keypad	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
1	192	193	194	195	196	197	198	199
2	200	201	202	203	204	205	206	207
3	208	209	210	211	212	213	214	215
4	216	217	218	219	220	221	222	223
5	224	225	226	227	228	229	230	231
6	232	233	234	235	236	237	238	239
7	240	241	242	243	244	245	246	247
8	248	249	250	251	252	253	254	255

NX-216 Zone Expander							
Note: Must power down before changing address/starting zone number							
	Point ID Number Reported	Starting Zone Number	Switch 1	Switch 2	Switch 3	Switch 4	
1 st	023	9	ON	OFF	OFF	When set ON, disables upper 8 zones on NX-216 module	
2 nd	016	17	OFF	ON	OFF		
3 rd	017	25	ON	ON	OFF		
4 th	018	33	OFF	OFF	ON		
5 th	019	41	ON	OFF	ON		

NX-216E Zone Expander								
Note: Must power down before changing address/starting zone number								
	Point ID Number Reported	Starting Zone Number	Switch 1	Switch 2	Switch 3	Switch 4	Switch 5	Switch 6
1 st	022	1	OFF	OFF	OFF	OFF	OFF	When set ON, disables upper 8 zones on NX-216E module
2 nd	023	9	ON	OFF	OFF	OFF	OFF	
3 rd	016	17	OFF	ON	OFF	OFF	OFF	
4 th	017	25	ON	ON	OFF	OFF	OFF	
5 th	018	33	OFF	OFF	ON	OFF	OFF	
6 th	019	41	ON	OFF	ON	OFF	OFF	
7 th	020	49	OFF	ON	ON	OFF	OFF	
8 th	021	57	ON	ON	ON	OFF	OFF	
9 th	096	65	OFF	OFF	OFF	ON	OFF	

10 th	097	73	ON	OFF	OFF	ON	OFF
11 th	098	81	OFF	ON	OFF	ON	OFF
12 th	099	89	ON	ON	OFF	ON	OFF
13 th	100	97	OFF	OFF	ON	ON	OFF
14 th	101	105	ON	OFF	ON	ON	OFF
15 th	102	113	OFF	ON	ON	ON	OFF
16 th	103	121	ON	ON	ON	ON	OFF

NX-408E / NX-416E / NX-448E Wireless Receiver Address Settings						
	Point ID Number Reported	Switch 1	Switch 2	Switch 3	Switch 4	
1 st	032	ON	OFF	ON	OFF	
2 nd	033	OFF	ON	ON	OFF	
3 rd	034	ON	ON	ON	OFF	
4 th	035	OFF	OFF	OFF	OFF	
5 th	036	ON	OFF	OFF	OFF	
6 th	037	OFF	ON	OFF	OFF	
7 th	038	ON	ON	OFF	OFF	
8 th	039	OFF	OFF	ON	OFF	

NX-507E / NX-508E Relay / Output Expander						
	Point ID Number Reported	Switch 1	Switch 2	Switch 3	Switch 4	Max no. of NX-507E / NX-508E modules supported Reliance 8 = 3 Reliance 12\128 = 8
1 st	024	ON	ON	OFF	When set to OFF disables tamper feature	
2 nd	025	OFF	OFF	ON		
3 rd	026	ON	OFF	ON		
4 th	027	OFF	ON	ON		
5 th	028	ON	ON	ON		
6 th	029	OFF	OFF	OFF		
7 th	030	ON	OFF	OFF		
8 th	031	OFF	ON	OFF		

NX-320 Remote Power Supply				
	Point ID Number Reported	Switch 1	Switch 2	Switch 3
1 st	084	OFF	OFF	OFF
2 nd	085	ON	OFF	OFF
3 rd	086	OFF	ON	OFF
4 th	087	ON	ON	OFF
5 th	088	OFF	OFF	ON
6 th	089	ON	OFF	ON
7 th	090	OFF	ON	ON
8 th	091	ON	ON	ON

Appendix 3: Point ID Number for Hills Reliance XR Expansion Modules

The Point ID Number reported from Hills Reliance XR identifies the device category and the device number. Point ID Number range is 000 – 499.

Point ID Number Table		
Device Category	Point ID Number Reported	Point ID Range
Panel	000	000
Keypad	1xx	101 – 199
Input Expander	2xx	201 – 299
Output Expander	3xx	301 – 399
Power Supply	4xx	401 – 499

Examples:

- E137 00 102 is Keypad Tamper on Keypad 2
- E333 00 204 is Expander Trouble on Input Expander 4
- E312 00 401 is Aux Power Over Current Fault on Power Supply 1

Note for sites with both NX and XR Expansion Modules

On sites with a combination of both legacy NX and Hills Reliance XR expansion modules, the installer should ensure all expansion devices have unique device IDs.

Example:

1. Replace existing NX panel with new Hills Reliance XR panel.
2. Existing NX keypad 2 in area 2 will report as NX device ID 201 (see Appendix 2).
3. Add new Hills Reliance XR input expander, would normally report as XR device ID 201.
4. Installer should re-number existing NX keypad 2 to keypad **3**, in area 2 (device 209). Or re-number new input expander as device 202.

Appendix 4: Point ID Number for UltraSync Path Monitoring

Single and dual path monitoring are enabled by provisioning the panel on the UltraSync Portal with the appropriate Service Grade. UltraSync will then monitor each path for heartbeats from the panel.

If UltraSync does not receive a valid heartbeat within the Service Grade time for the relevant path, then it will mark that path as failed. A path fail event may be sent to the control room once the path filter time in the Service Grade expires. The path fail event may be:

- sent on the available path (for dual path systems with one path available),
- generated and sent by UltraSync Cloud (when no path is available),
- sent when the path is restored (and retry timers have not been exhausted).

Even if total communication path failure occurs and the panel is offline, UltraSync Cloud will still deliver path failure events to the control room according to the Service Grade profile. This provides true path monitoring for panels.

	Surgard Contact ID		Surgard SIA	
	Path Fail	Path Restore	Path Fail	Path Restore
Total Comms Fail <i>No heartbeats have been received on any provisioned path by UltraSync.</i>	E350 00 999	R350 00 999	NT999	NR999
AC Fail causing Comms Fail <i>Loss of AC power, communicator has been shut down to extend run-time on battery, periodic events from panel/server.</i>	E301 00 000 <i>(power outage, on battery)</i> E301 00 997 <i>(periodic, no heartbeat, on battery)</i> E350 00 997 <i>(comms fail, battery flat)</i>	R301 00 000 <i>(power and com. restored)</i> R350 00 997 <i>(periodic wake up)</i>		
IP Comms Fail <i>Panel detects Ethernet/WiFi path is unavailable, event sent on next available path.</i>	E351 00 999	R351 00 999	LT999	LR999
Cellular Comms Fail <i>Panel detects cellular path is unavailable, event sent on next available path.</i>	E351 00 998	R351 00 998	LT998	LR998
Rapid Pulse <i>Panel stopped responding after Entry Delay started</i>	E137 00 999	R137 00 999	TA999	TH999
Periodic 24 Hour Test Message		E602 00 000		RP

Note: The events that appear on UltraSync Portal under Event History, include both panel and server generated events that UltraSync Cloud sends to the control room. This means the control room may receive multiple path fail events depending on which paths are available, and at what time they restore.

Appendix 5: Service Grades

Service grades define the level of supervision that a provisioned device will meet, as well as the enabled features.

Typically, they will be designed around various security standards eg UL in America, EN in Europe, and AS in Australia.

Creation of Service Grades

Service grade definitions are created and maintained by UHS administrators in consultation with customer requirements.

Service Grade Parameters

When a panel first connects to the server (or after an extended period of being offline), selected parameters are sent to the panel according to the provisioning details. This allows the possibility of faster installation (Zero Touch Configuration) by reducing the number of items required to be programmed on-site.

Service grade parameters are controlled by the server, not the panel. This means the installer is unable to change the parameters below in panel programming. An authorised user with access to the UltraSync Portal is able to change these remotely by selecting a different Service Grade for the panel.

Server-related Parameters

- Feature code – features can be enabled/disabled based on customer requirements. For example, remote upgrade, access via app, and video verification.
- Polling period – this is the supervision window for total communication path. This value is the one most closely related to “alarm polling rate”. If a panel does not communicate within this period, a path fail message is reported to the control room.

Device-related Parameters

- Heartbeat Period (IP or cellular) – the device will send heartbeats to UltraSync at this rate in seconds. For a dual path device, the secondary path will be also tested at this rate.
- Heartbeat ACK Timeout – if the device does not get a reply from UltraSync to a heartbeat, it will wait this many seconds before trying again.
- Heartbeat Retries – the number of times the device will try sending heartbeats. Once this number is exceeded, the path is marked as failed, then the panel will try alternatives (eg other UltraSync servers or secondary path).
- Reporting Filter – the duration of time during which a path fail report will be delayed from reporting to the control room from UltraSync. IP and cellular paths can have separate values.

Service Grade Example

AU Grade 2.5 Dual Path

IP Feature code = All Features Enabled

Cellular Feature code = All Features Enabled

IP Polling Period = 3600 seconds

Cellular Polling Period = 3600 seconds

IP Heartbeat Period = 40 seconds

IP Heartbeat ACK Timeout = 10 seconds

IP Heartbeat Retries = 3

IP Reporting Filter = 315360000 seconds (never)

Cellular Heartbeat Period = 600 seconds

Cellular Heartbeat ACK Timeout = 10 seconds

Cellular Heartbeat Retries = 3

Cellular Reporting Filter = 315360000 seconds (never)

A heartbeat comms check is performed every 40 seconds on Ethernet, and every 10min on cellular. If the heartbeat is not acknowledged within 10 seconds (eg internet is down, or temporary network congestion) the panel will automatically retry up to 3 times. If it fails 3 times consecutively, the panel will automatically switch to the secondary path.

The “Reporting Filter” is the time at which the panel will attempt to report a single path fail to the central station for dual path service grades. As true path monitoring is being performed, UltraSync can accurately determine when the path is unavailable. This may generate a higher than expected number of path fail events that must be handled by the control room (e.g. notify the end user). Use this “Reporting Filter” to suppress local notification (e.g. panel beeping and push notifications) and reporting of temporary internet disconnections, until the end of the reporting filter time.

If the path does not restore within an hour (3600 seconds) UltraSync will report the path fail to the central station to meet the Australian Standard for Class 2 polling. The panel does not need to be online for this message to be sent to the central station.

Additionally, the path from UltraSync server to the central station is being polled and the platform expects an ACK from the automation software. Currently this is set to a time of 1 hour. This ensures the complete path from panel, to server, to central station, to automation software is working. If the poll is not acknowledged multiple times, the tech support team for UltraSync will contact the central station to check the path and automation software.

Polling rate vs Heartbeats

In a traditional PSTN alarm panel, the panel is programmed to make a test call (i.e. a poll) to the control room at a regular interval (e.g. once a week). The control room would only know there may be a problem with the communication path when it does not receive this message, and that could be a long period of time.

Australian Standards AS/NZS 2201.5:2008 provides for a range of polling rates to supervise the alarm transmission path. The polling rate selected should match the level of burglary risk. Polling rates include:

- Class 2 - 60 Minute Polling Supervision
- Class 3 - 120 Second Polling Supervision

- Class 4 - 60 Second Polling Supervision
- Class 5 - 20 Seconding Polling Supervision

Connectivity status is unknown in-between each poll. So more frequent polling provides greater customer assurance and lower risk.

For Class 2/3/4, UltraSync technology can poll the device at higher levels than what is required by Australian Standards. These polls are called “heartbeats”, these are optimised low-bandwidth messages from the panel to the UltraSync server and acknowledged back to the panel.

By using frequent heartbeats, applying a retry timer, and a reporting filter, we are able to:

- provide true path monitoring – frequent heartbeats mean we know when the path is potentially down before the next statutory poll.
- monitor both paths simultaneously – often only the primary path is polled, if the secondary path is also down but the status is unknown then a switch over could fail without notification to the control room until it is too late.
- proactively manage communication paths and switch when necessary – UltraSync will typically switch paths before an issue is noticed by the customer or control room, this delivers higher reliability than covered by using Australian Standard poll rates alone.
- extremely fast switching to a secondary path (if available) with minimal downtime
- reduce false alarms and reduce traffic to control room by automatically retrying failed heartbeats.
- inform the control room of exactly which path is down and when it restores.
- advise the control room with a separate message when all paths are down.
- provide a “smash and grab” alert when entry delay has been triggered and the panel stops responding – polling alone would mean the control room must wait until the next poll is scheduled (e.g. 12 hours later) before considering there is a problem.
- still meet each country’s requirements for a variety of poll rates and reporting of communication path failure.
- maintain cost-optimized plans due to our high speed, low-bandwidth messaging technology.
- provide flexibility for installation – panels can have service grades assigned remotely and equipment does not need to be swapped.

UltraSync-enabled products provide greater reliability and assurance of reliable alarm communication to control rooms. Selected products also feature dual SIM to improve reliability even if one carrier is unavailable.

Osborne-Hoffman Reporting

All panels and communicators normally require provisioning of the service grade to allow normal operation.

Some units support reporting to OH receivers without provisioning. These products may allow configuration of selected parameters in the communicator instead of on the server. Refer to the documentation that comes with those products.

Appendix 7: Zone Programming

Reporting Zone Codes

The CID / SIA event code reported for each zone can be selected from the table below. Each report consists of an event code and the zone number generating the alarm.

Refer to the panel manual for up-to-date details. It is typically programmed under Settings – Zones – Zone Options. To change the event code reported for all zones of a specified zone type, edit Advanced – Zone Options – Zone Report Event.

Programmed Event Code	Contact ID	SIA	Description
0	Use default code for Zone Type	Use default code for Zone Type	
1	110	FA	Fire Alarm
2	120	PA	Panic Alarm
3	130	BA	Burglary Alarm
4	131	BA	Perimeter Alarm
5	132	BA	Interior Alarm
6	133	UA	24 Hour (Safe)
7	134	BA	Entry/Exit Alarm
8	135	BA	Day/Night Alarm
9	150	UA	Non Burglary 24 Hour
10	121	HA	Duress Alarm
11	122	HA	Silent Panic
12	100	MA	Auxiliary Alarm
13	123	PA	Audible Panic Alarm
14	137	TA	Tamper Alarm
15	602	RP	Periodic Test
16	151	GA	Gas Detected
17	158	KA	High Temp
18	154	WA	Water Leakage
19	140	QA	General Alarm
20	140	SA	General Alarm
21	159	ZA	Low Temp
22	158	KH	High Temp
23	115	FA	Fire Alarm Pull Station

Zone Options

		Zone Options												Zone Reporting					Zone Contact Options	
Default Number	Default Name	Bypassed Stay Mode Forced Arm Enabled Bypass Cross Zone EOL Automatic Zone Test Night Mode Zone Inactivity Test Follow Any Armed Partition Final Set Door Single EOL Delayed in Stay												Alarms Alarm Restores Bypass-Unbypass Zone Lost-Low Battery Zone Trouble and Restore					Normally Open Fast Loop	Zone Report Event
1	Bypass	Y Y												Y	Y	Y	Y	Y		130:BA
2	Bypass Stay	Y	Y	Y	Y								Y	Y	Y	Y	Y		132:BA	
3	Bypass – Forced Arm	Y Y Y												Y	Y	Y	Y	Y		130:BA
4	Bypass – Cross Zone	Y Y Y												Y	Y	Y	Y	Y		130:BA
5	Fire	Y Y												Y	Y	Y	Y	Y		110:FA
6	Panic	Y Y												Y	Y	Y	Y	Y		120:PA
7	Silent Panic	Y												Y	Y	Y	Y	Y		122:HA
8	Normally Open no EOL	Y												Y	Y	Y	Y	Y	Y	130:BA
9	Normally Closed no EOL	Y												Y	Y	Y	Y	Y		130:BA
10	Gas Detected	Y												Y	Y	Y	Y	Y		151:GA
11	High Temp	Y												Y	Y	Y	Y	Y		158:KA
12	Water Leakage	Y												Y	Y	Y	Y	Y		154:WA
13	Low Temp	Y												Y	Y	Y	Y	Y		159:ZA
14	High Temp	Y												Y	Y	Y	Y	Y		158:KH
15	Fire Alarm Pull Station	Y												Y	Y	Y	Y	Y		115:FA
16	Night Mode	Y	Y			Y	Y						Y	Y	Y	Y	Y		135:BA	
17	Final Set Door	Y			Y	Y							Y	Y	Y	Y	Y		130:BA	

		Zone Options												Zone Reporting					Zone Contact Options		
Default Number	Default Name	Bypassed Stay Mode	Forced Arm Enabled	Bypass	Cross Zone	EOL	Automatic Zone Test	Night Mode	Zone Inactivity Test	Follow Any Armed Partition	Final Set Door	Single EOL	Delayed in Stay	Alarms	Alarm Restores	Bypass-Unbypass	Zone Lost-Low Battery	Zone Trouble and Restore	Normally Open	Fast Loop	Zone Report Event
18	Medical	Y			Y									Y	Y	Y	Y	Y			100:MA
19	Blank	Y	Y		Y									Y	Y	Y	Y	Y			130:BA
20	Blank	Y	Y		Y									Y	Y	Y	Y	Y			130:BA
21	Blank	Y	Y		Y									Y	Y	Y	Y	Y			130:BA
22	Blank	Y	Y		Y									Y	Y	Y	Y	Y			130:BA
23	Blank	Y	Y		Y									Y	Y	Y	Y	Y			130:BA
24	Blank	Y	Y		Y									Y	Y	Y	Y	Y			130:BA
25	Blank	Y	Y		Y									Y	Y	Y	Y	Y			130:BA
26	Blank	Y	Y		Y									Y	Y	Y	Y	Y			130:BA
27	Blank	Y	Y		Y									Y	Y	Y	Y	Y			130:BA
28	Blank	Y	Y		Y									Y	Y	Y	Y	Y			130:BA
29	Blank	Y	Y		Y									Y	Y	Y	Y	Y			130:BA
30	Blank	Y	Y		Y									Y	Y	Y	Y	Y			130:BA
31	Blank	Y	Y		Y									Y	Y	Y	Y	Y			130:BA
32	Blank	Y	Y		Y									Y	Y	Y	Y	Y			130:BA

Zone Types

Default Number	Default Name	Zone Attribute	Siren Attribute	Keypad Sounder	Report delay	No Keypad Display	Momentary Switch	Zone Inhibit	Swinger Shutdown
Armed									
1	Day Zone	Instant	Yelping	Y	Y	N	N	N	Y
2	24 Hour Audible	Instant	Yelping	Y	Y	N	N	N	Y
3	Entry Exit Delay 1	Entry 1	Yelping	Y	Y	N	N	N	Y
4	Entry Exit Delay 2	Entry 2	Yelping	Y	Y	N	N	N	Y
5	Follower	Handover	Yelping	Y	Y	N	N	N	Y
6	Instant	Instant	Yelping	Y	Y	N	N	N	Y
7	24 Hour Silent	Instant	Silent	N	Y	N	N	N	Y
8	Fire Alarm	Fire	Fire	Y	N	N	N	N	N
9	Entry Exit Delay 1 Auto-Bypass	Entry 1	Yelping	Y	Y	N	N	Y	Y
10	Entry Exit Delay 2 Auto-Bypass	Entry 2	Yelping	Y	Y	N	N	Y	Y
11	Instant Auto-Bypass	Instant	Yelping	Y	Y	N	N	Y	Y
12	Event Only	Event Only	Silent	N	N	Y	N	N	N
13	Momentary Key Switch	Keyswitch	Silent	N	N	N	Y	N	N
14	Latching Key Switch	Keyswitch	Silent	N	N	N	N	N	N
15	CO Detector	Instant	Four Pulse	Y	N	N	N	N	N
16	Exit Terminate	Exit Terminate	Silent	N	N	N	N	N	N
17	Holdup	Holdup Delay	Silent	N	N	N	N	N	N
18	24 Hour Local Sounder	Instant	Silent	Y	N	N	N	N	N

Default Number	Default Name	Zone Attribute	Siren Attribute	Keypad Sounder	Report delay	No Keypad Display	Momentary Switch	Zone Inhibit	Swinger Shutdown
Disarmed									
1	Day Zone	Local	Silent	Y	N	N	N	N	N
2	24 Hour Audible	Instant	Yelping	Y	Y	N	N	N	Y
3	Entry Exit Delay 1	Event Only	Silent	N	N	N	N	N	N
4	Entry Exit Delay 2	Event Only	Silent	N	N	N	N	N	N
5	Follower	Event Only	Silent	N	N	N	N	N	N
6	Instant	Event Only	Silent	N	N	N	N	N	N
7	24 Hour Silent	Instant	Silent	N	Y	N	N	N	Y
8	Fire Alarm	Fire	Fire	Y	N	N	N	N	N
9	Entry Exit Delay 1 Auto-Bypass	Event Only	Silent	N	N	N	N	N	N
10	Entry Exit Delay 2 Auto-Bypass	Event Only	Silent	N	N	N	N	N	N
11	Instant Auto-Bypass	Event Only	Silent	N	N	N	N	N	N
12	Event Only	Event Only	Silent	N	N	Y	N	N	N
13	Momentary Key Switch	Keyswitch	Silent	N	N	N	Y	N	N
14	Latching Key Switch	Keyswitch	Silent	N	N	N	N	N	N
15	CO Detector	Instant	Four Pulse	Y	N	N	N	N	N
16	Exit Terminate	Event Only	Silent	N	N	N	N	N	N
17	Holdup	Holdup Delay	Silent	N	N	N	N	N	N
18	24 Hour Local Sounder	Instant	Silent	Y	N	N	N	N	N

Appendix 7: History Events

The table below lists events that can appear in the event log.

History Event	History Event	History Event
24 Hour Alarm	Expander Low Battery	Siren Tamper Restore
24 Hour Alarm Restore	Restore	Start Listen In
Abort	Fail To Close	Start Local Program
Activity Monitor fail	Fail to Open	Start Remote Program
Alarm Aborted	Fire Alarm	Start Walk Test Mode
Automatic Test	Fire Alarm Restore	Start Zone Test
Battery Low Event	Fire Maintenance Alarm	System Device Bypassed
Battery Low Event Restore	Fire Maintenance Alarm Restore	System Device Unbypassed
Box Tamper	Fire Supervision	System Shut Down
Box Tamper Restore	Fire Supervision Restore	System Turn On
Burg Alarm	First Open	Tamper
Burg Alarm Restore	Ground Fault	Tamper Restore
Bypass	Ground Fault Restore	Technician Arrival
Bypass Restore	Guard Tour Fail	Technician Left
Cancel	Code pad Lockout	Telephone Fault
Checksum Fault	Last Close	Telephone Fault Restore
Checksum Fault Restore	Late Closing	Trouble
Clock Changed	Late Opening	Trouble Restore
Close	Mains Fail Event	User Activated Output
Communication Failure	Mains Fail Event Restore	Valid Code Entered
Communication Failure Restore	Man Down	Valid Code expired
Cross Zone initial trip	Manual Audible Panic	Valid Code lost
Cross Zone initial trip Restore	Manual Fire	Valid Code out of Schedule
Device Enrolled	Manual Auxiliary	Valid Code Void
Device Failure	Manual Silent Panic	Walk Test Fail
Device Failure Restore	Manual Test	Walk Test Pass
Door Access	Manual Test Restore	Watchdog Reset
Door Access Denied	Open	Wireless Jam
Door Forced	Output Activated	Wireless Jam Restore
Door Forced	Output Restored	Wireless Supervision
Door Propped	Over Current	Wireless Supervision Restore
Door Propped	Over Current Restore	Zone Activity Supervision
Duress	Partial Close	Zone Activity Supervision Restore
Early Opening	Partial Open	
Early Opening	Power Up	
End Listen In	Power Up Restore	
End Local Program	Recent Close	
End Remote Program	Remote Program Fail	
End Walk Test Mode	Reserved	
End Zone Test	Reserved Zone Event Types/Restores	
Exit Error	Zone Low Battery	
Expander AC Loss	Zone Low Battery Restore	
Expander AC Loss Restore	Serial Bus Expansion Event	
Expander Low Battery	Siren Tamper	

Event Reporting Class Table

Class Name	Description
Bypass/Bypass Restore	Zone has been isolated
Cancel	Alarm cancelled by user disarming panel
Communication Failures	Communication path unavailable
Don't care	Used for devices that do not classify events
Fire Alarm	A fire device created an alarm
Fire Restore	A fire device restored from alarm
Log Only	Informational event logged in panel event history, not sent to control room
Non-Fire Alarm	A non-fire device created an alarm. This includes auxiliary, panic, and burg.
Non-Fire Restore	A non-fire device restored from alarm
Open/Close	An area was turned on / off
Power Trouble	Mains and battery trouble
Program Mode	Local or remote programming
Recent Close/Abort	System was recently armed, and went into alarm
Zone Trouble/restore	Low battery or wireless supervision
System trouble/Restore	A system trouble event or restore
Tamper/Tamper Restore	A tamper alarm or tamper restore
Test Reports	Manual or automatic test event
Zone Trouble/Restore	A fire zone or day zone is in trouble or restored from trouble