Table 43: Functions available for programmable buttons (Key #1 and Key #2)

Function	Description
Activate	The first press turns on outputs in any number of correlation groups. The button LED turns on. The second press turns off these same outputs and the button LED.
Disable	The first press disables any number of correlation groups, correlation group members, or both. The button LED turns on. The second press enables the same set of correlation groups and correlation group members and turns off the button LED. The Disable function operates differently based on the whether you choose Correlation Groups, Members of Correlation Group, or Both. The default value is Members. • If you choose Disable Correlation Group: An LCD message indicates that Corr Grp xxx is disabled All outputs (including relay and sounder bases) are turned off and the disabled correlation group stops operating **Note:** Detector bases that are configured to be activated by their attached detector cannot be disabled through group disable operation. • If you choose Members of Correlation Group: An LCD message identifies the Disabled members. Disabling members of a correlation group does not disable relay or sounder bases. Active devices cannot be enabled through a programmable button. To enable these devices, press the Menu button and choose Control>Enable Device. • If you choose Both: The correlation group stops operating and all members are disabled. An LCD message identifies the Disabled members.
Unlatch	Unlatches all latched outputs system-wide.
Restore	Restores outputs in any number of correlation groups to their normal state. (Disabled or latched devices must be enabled or unlatched before they can be restored.)
None	Removes any function associated with the button.
Alarm ON	Used for manual evacuation in the Canadian Marketplace. Pressing the Alarm ON button places the control panel in the alarm condition, activates all drillable outputs which include all notification appliance circuits and all sounder bases, signals the central station with CID 115. The panel still responds to initiating device circuits that are activated while sounding a manual evacuation. The Alarm ON event is restored upon panel reset. If Alarm ON is initiated while reset is in progress, the event will be restored at the end of reset. To meet CAN/ULC-S527requirements, User Key 1 default is Alarm ON when the Canadian marketplace is selected.

Programmable button function priority

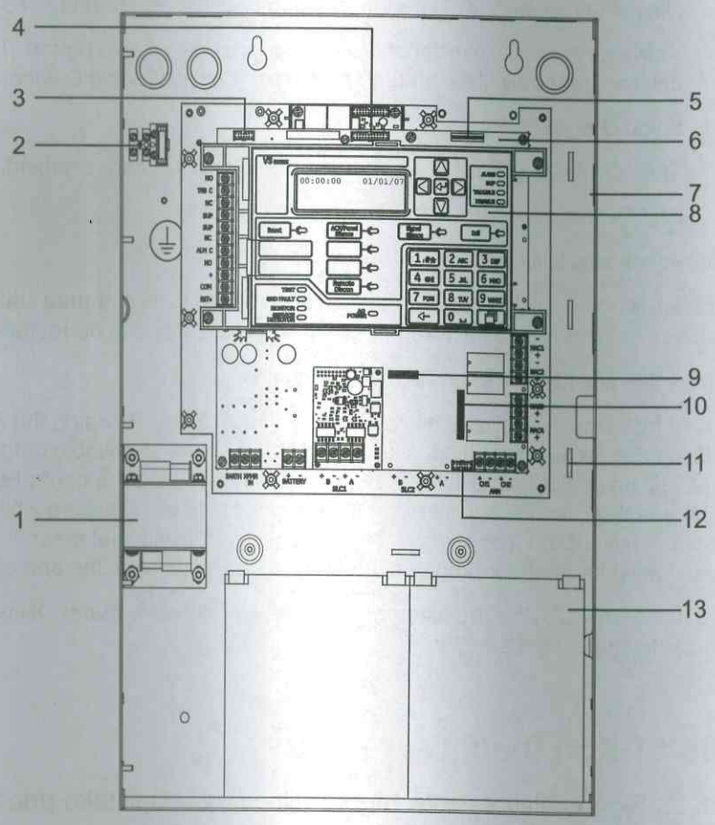
- Operations such as Signal Silence, Auto Signal Silence, and Drill take priority over Activate, Restore, and Disable.

- Activate, Restore, and Disable take priority over in-suite signal silence.
- A single Restore or Disable takes priority over one or more Activates.
- Restore or Group Disable only affects devices from correlation groups that have been added to the list for that button.
- Although an Activate button can turn on both latched and unlatched devices, it can only turn off unlatched devices. Latched outputs remain active until you press a button programmed for Unlatch. Until the output has been unlatched, the panel displays an "Outputs are Latched" monitor event message.
- The Disable and Restore commands do not affect active latched outputs until after the Unlatch button has been pressed. Until the output has been unlatched, the panel displays an "Outputs are Latched" monitor event message.

Component descriptions

The control panel contains the following components.

Figure 56: Component layout



Item
1
2
3
4
5
6
7
8
9
10
11
12
13

Even

Table 44:
Event typ
Alarm

Item	Description
1	Transformer: Changes 120 or 230 volt AC supply voltage to 24 volt AC.
2	Main AC wiring block and fuse holder: Provides connections for 120 or 230 volt AC (primary power) from dedicated service. Includes a primary power fuse (5 A).
3	RS-232 card connector (J3): Provides a connection for the optional RS-232 card for connecting a printer or downloading from the configuration utility.
4	Dialer card connection (J8): Provides a connection for the optional dialer card.
5	Ethernet card connector (J1): Provides a connection for the optional Ethernet card.
6	Main circuit board: Provides connections for all circuits. Also includes the operator interface.
7	Panel backbox enclosure: Houses the panel electronics and standby batteries. In some cases, the batteries may be housed in an external battery cabinet (BC-1).
8	Operator interface: Includes operator controls, LED indicators, and control buttons
9	SLC card connector (J14): Provides a connection for an additional SLC card (only on the VS4 panel).
10	Class A card connector (J2): Provides a connection for the optional Class A card (only on the VS1 panel)
11	Tie wrap mounts: Used to secure wires and to help maintain proper separation between power-limited and nonpower-limited conductors
12	LED expander connector (J6): Provides a connection for the optional LED expander
13	Standby batteries: Provide secondary/standby power to the panel electronics in the absence of primary power

Events with event messages

Table 44: Events with event messages

Event type		LCD	Printer [1]
Alarm	**Active type reporting**		
	Input smoke	Alarm active	SMK ACT
	Input smoke verified	Alarm active	SMK ACT
	Input heat	Heat alarm	HEAT ACT
	Input heat rate of rise	Heat alarm	HEAT ACT
	Input duct alarm	Alarm active	DUCT ACT
	Input pull station	Pull station alarm	PULL ACT
	Input waterflow	Waterflow	WFLW ACT
	Input waterflow retard	Waterflow	WFLW ACT
	CO alarm	Gas CO active	COAL ACT

Event type		LCD	Printer [1]
	Zone alarm	Alarm active	ALRM ACT
	Zone waterflow	Alarm active	ALRM ACT
	Alarm ON	Alarm active	ALRM ACT
	Supervisory type reporting		
	Input duct alarm	Supervisory	DUCT ACT
	CO supervisory	Gas CO active	
	Zone supervisory	Supervisory	SUPV ACT
	Input supervisory latching	Supervisory	SUPV ACT
	Input supervisory nonlatching	Supervisory	SUPV ACT
	Monitor type reporting		
	CO monitor	Gas CO active	COMO ACT
	Zone monitor	Monitor	MON ACT
	Input monitor	Monitor	MON ACT
	Outputs are latched	Outputs are latched	Outputs are latched
	Prealarm reporting	Prealarm	PALM ACT
	Alarm verify reporting	Alarm verify	ALMV ACT
	Maintenance alert reporting	Maint. alert	MANT ACT
Trouble	All devices	Trouble	TRBL ACT
Disable	All devices	Disable	DSBL ACT
Test	All devices	Test	TEST ACT

[1] See "Event printout examples" below for an example of how events appear when printed.

Event printout examples

Event information is printed each time an event takes place provided a printer is connected to the system. The following is an example of what the event information looks like on the printout and a description of each piece of information printed for an event.

Annunciator event

```
TRBL ACT | 18:00:07 01/01/2007     A:008
Annunciator 08
```

Where:

TRBL ACT = Trouble event
18:00:07 01/01/2007 = Time and date the event took place
A:008 = Annunciator 08
Annunciator 08 = Label (could be the default label or a custom label)

Internal

```
MON ACT
Loop 2
```

Where:

MON AC

18:00:18
E:010 = E
Loop 2 in

Zone eve

```
ALRM AC
Zone 08
```

Where:

ALRM AC
18:00:34
Z:008 = Z
Zone 08 =

Device e

```
ALRM AC
Loop 1
```

Where:

ALRM AC
18:00:34
L:1 = Loo

D:124 = D

Loop 1 D

Internal event (panel or loop event)

```
MON ACT  | 18:00:18 01/01/2007      E:010
Loop 2 Initializing
```

Where:

MON ACT = Monitor event

18:00:18 01/01/2007 = Time and date the event took place
E:010 = Event 010 (see "Event ID numbers and descriptions" on page 156)
Loop 2 initializing = Label (could be the default label or a custom label)

Zone event

```
ALRM ACT | 18:00:34 01/01/2007      Z:008
Zone 08
```

Where:

ALRM ACT = Alarm event
18:00:34 01/01/2007 = Time and date the event took place
Z:008 = Zone 08
Zone 08 = Label (could be the default label or a custom label)

Device event

```
ALRM ACT | 18:00:34 01/01/2007 L:1 D:124
Loop 1 Device 124
```

Where:

ALRM ACT = Alarm event
18:00:34 01/01/2007 = Time and date the event took place
L:1 = Loop 1

D:124 = Device 124

Loop 1 Device 124 = Label (could be the default label or a custom label)

Event ID numbers and descriptions

Table 45: Event ID numbers and descriptions

ID	Event description
000	Loop 1 initialization: Loop 1 is starting up
001	Loop 1 fault: A short or open was detected on loop 1 affecting the communications between the panel and the devices on the loop
002	Loop 1 map fault: A mapping fault was detected on loop 1 while the panel was mapping the devices
003	Loop 1 card fault: The loop 1 card is not present or it is not working properly
004	Loop 1 uncfgrd alarm: A device on loop 1 that is not programmed went into alarm
005	Loop 1 uncfgrd trouble: A device on loop 1 that is not programmed went into trouble
006	Loop 1 map mismatch: The loop 1 map in RAM and the loop 1 map in the database do not match
007	Loop 1 over limits: There are too many devices on loop 1
008	Loop 1 device 000: A device on loop 1 has an address set to zero
009	Loop 1 mapping: Loop 1 is mapping devices
010	Loop 2 initialization: Loop 2 is starting up
011	Loop 2 fault: A short or open was detected on loop 2 affecting the communications between the panel and the devices on the loop
012	Loop 2 map fault: A mapping fault was detected on loop 2 while the panel was mapping the devices
013	Loop 2 card fault: The loop 2 card is not present or it is not working properly
014	Loop 2 uncfgrd alarm: A device on loop 2 that is not programmed went into alarm
015	Loop 2 uncfgrd trouble: A device on loop 2 that is not programmed went into trouble
016	Loop 2 map mismatch: The loop 2 map in RAM and the loop 2 map in the database do not match
017	Loop 2 over limits: There are too many devices on loop 2
018	Loop 2 device 000: A device on loop 2 has an address set to zero
019	Loop 2 mapping: Loop 2 is mapping devices
020	Loop 3 initialization: Loop 3 is starting up
021	Loop 3 fault: A short or open was detected on loop 3 affecting the communications between the panel and the devices on the loop
022	Loop 3 map fault: A mapping fault was detected on loop 3 while the panel was mapping the devices
023	Loop 3 card fault: The loop 3 card is not present or it is not working properly
024	Loop 3 uncfgrd alarm: A device on loop 3 that is not programmed went into alarm
025	Loop 3 uncfgrd trouble: A device on loop 3 that is not programmed went into trouble
026	Loop 3 map mismatch: The loop 1 map in RAM and the loop 3 map in the database do not match
027	Loop 3 over limits: There are too many devices on loop 3
028	Loop 3 device 000: A device on loop 3 has an address set to zero
029	Loop 3 mapping: Loop 3 is mapping devices
030	Loop 4 initialization: Loop 4 is starting up
031	Loop 4 fault: A short or open was detected on loop 4 affecting the communications between the panel and the devices on the loop

ID	Event description
032	Loop 4 map fault: A mapping fault was detected on loop 4 while the panel was mapping the devices
033	Loop 4 card fault: The loop 4 card is not present or it is not working properly
034	Loop 4 uncfgrd alarm: A device on loop 4 that is not programmed went into alarm
035	Loop 4 uncfgrd trouble: A device on loop 4 that is not programmed went into trouble
036	Loop 4 map mismatch: The loop 4 map in RAM and the loop 4 map in the database do not match
037	Loop 4 over limits: There are too many devices on loop 4
038	Loop 4 device 000: A device on loop 4 has an address set to zero
039	Loop 4 mapping: Loop 4 is mapping devices
040	System startup: The control panel is starting up
041	Program mode: The control panel is in program mode
042	Reset: The control panel is resetting
043	Reset/Sil inhibit: Reset/silence inhibit is activated
044	Panel silence: The control panel buzzer was silenced
045	Signal silence: The control panel NACs have been silenced
046	Drill: The control panel is in the drill state
047	Walk test: The control panel is in the walk test state
048	Test fire: A smoke or heat detector is being tested
049	Clear history: The control panel's event history was cleared
050	Time: The control panel's time was modified
051	Date: The control panel's date was modified

ID	Event description
052	Common disable: A disable event is taking place on the control panel
053	Common trouble: A trouble event is taking place on the control panel
054	Ground fault: The panel detected a ground fault
055	Battery charger: The panel detected a battery charger trouble condition. The charger may not be able to charge the batteries.
056	Battery low: The batteries are low on charge
057	Battery missing: The battery is no longer connected
058	AC power: There is a problem with the panel's AC power
059	Aux. power 1: The control panel detected a trouble condition on the continuous AUX power circuit 1
060	Aux. power 2: The control panel detected a trouble condition on the resettable AUX power circuit 2
061	System AC power: There is a problem with the panel's AC power and/or a remote auxiliary/booster's AC power
062	Common alarm: An alarm event is taking place on the control panel
063	Common supervisory: A supervisory event is taking place on the control panel
064	Common monitor: A monitor event is taking place on the control panel
065	Common trouble for telco dialer: A trouble event, other than a DACT delivery fault is taking place on the control panel
066	Common trouble for network dialer: A trouble event, including a DACT delivery fault is taking place on the control panel
067	Outputs Are Latched: Outputs in the system are in latched condition
068	Alarm ON: The control panel is in the manual evacuation state.

ID	Event description
069	Self test fault: A fault was detected while testing the panel's internal subsystems (memory, flash, code, etc.)
070	Internal fault: The control panel detected an internal hardware or software error
071	Dialer dsbl/rem disc: The dialer was disabled by the Remote Disconnect button
072	Dialer line 1 fault: A ground fault or line fault was detected on line 1 of the dialer
073	Dialer line 2 fault: A ground fault or line fault was detected on line 2 of the dialer
074	Dialer delivery fail: The dialer failed to deliver a message to the receiver or CMS **Note:** If the Dialer is configured as dual line, the delivery fault is representative of both the lines and shall be reported only when delivery via both lines fail. If delivery via one line has failed and successful via the other, no faults shall be reported on the panel.
075	Dialer normal test: A dialer test was conducted when the panel was in a normal state
076	Dialer abnormal test: A dialer test was conducted when the panel was in an off-normal state
077	Dialer configuration: The dialer is not programmed or has unverified changes
078	Net Receiver 1 Primary Communication Trouble: Communications between the panel and network receiver 01 failed
079	Net Receiver 2 Primary Communication Trouble: Communications between the panel and network receiver 02 failed
080	Net Receiver 3 Primary Communication Trouble: Communications between the panel and network receiver 03 failed
081	Net Receiver 4 Primary Communication Trouble: Communications between the panel and network receiver 04 failed
082	Net Receiver 5 Primary Communication Trouble: Communications between the panel and network receiver 05 failed

ID	Event description
083	Net Receiver 6 Primary Communication Trouble: Communications between the panel and network receiver 06 failed
084	Net Receiver 7 Primary Communication Trouble: Communications between the panel and network receiver 07 failed
085	Net Receiver 8 Primary Communication Trouble: Communications between the panel and network receiver 08 failed
086	Net Conf Fault 01: The panel failed to communicate with the network receiver 01 after a configuration change
087	Net Conf Fault 02: The panel failed to communicate with the network receiver 02 after a configuration change
088	Net Conf Fault 03: The panel failed to communicate with network receiver 03 after a configuration change
089	Net Conf Fault 04: The panel failed to communicate with network receiver 04 after a configuration change
090	Net Conf Fault 05: The panel failed to communicate with network receiver 05 after a configuration change
091	Net Conf Fault 06: The panel failed to communicate with network receiver 06 after a configuration change
092	Net Conf Fault 07: The panel failed to communicate with network receiver 07 after a configuration change
093	Net Conf Fault 08: The panel failed to communicate with network receiver 08 after a configuration change
094	IPGateway Trouble: IP Gateway configuration is invalid
095	DHCP Communication Fault: Panel fails to communicate with DHCP server
096	DNS Communication Fault: Panel fails to communicate with DNS server
097	Net Receiver 1 Secondary Communication Trouble: Communications between the panel and network receiver 01 failed

ID	E
098	N T pa
099	N T pa
100	N Tr pa
101	N Tr pa
102	N Tr pa
103	N Tr pa
104	N Tr pa
105	IP Ga wa
106	IP Ga wa
107	IP Ga was
108	IP Gai was
109	IP Gai was
110	IP Gar was
111	IP Gar was

ID	Event description
098	Net Receiver 2 Secondary Communication Trouble: Communications between the panel and network receiver 02 failed
099	Net Receiver 3 Secondary Communication Trouble: Communications between the panel and network receiver 03 failed
100	Net Receiver 4 Secondary Communication Trouble: Communications between the panel and network receiver 04 failed
101	Net Receiver 5 Secondary Communication Trouble: Communications between the panel and network receiver 05 failed
102	Net Receiver 6 Secondary Communication Trouble: Communications between the panel and network receiver 06 failed
103	Net Receiver 7 Secondary Communication Trouble: Communications between the panel and network receiver 07 failed
104	Net Receiver 8 Secondary Communication Trouble: Communications between the panel and network receiver 08 failed
105	IP Dialer Account 1 Normal Test: A Sur-Gard test was conducted when the panel was in a normal state
106	IP Dialer Account 2 Normal Test: A Sur-Gard test was conducted when the panel was in a normal state
107	IP Dialer Account 3 Normal Test: A Sur-Gard test was conducted when the panel was in a normal state
108	IP Dialer Account 4 Normal Test: A Sur-Gard test was conducted when the panel was in a normal state
109	IP Dialer Account 5 Normal Test: A Sur-Gard test was conducted when the panel was in a normal state
110	IP Dialer Account 6 Normal Test: A Sur-Gard test was conducted when the panel was in a normal state
111	IP Dialer Account 7 Normal Test: A Sur-Gard test was conducted when the panel was in a normal state

ID	Event description
112	IP Dialer Account 8 Normal Test: A Sur-Gard test was conducted when the panel was in a normal state
113	IP Dialer Account 1 Abnormal Test: A Sur-Gard test was conducted when the panel was in an off-normal state
114	IP Dialer Account 2 Abnormal Test: A Sur-Gard test was conducted when the panel was in an off-normal state
115	IP Dialer Account 3 Abnormal Test: A Sur-Gard test was conducted when the panel was in an off-normal state
116	IP Dialer Account 4 Abnormal Test: A Sur-Gard test was conducted when the panel was in an off-normal state
117	IP Dialer Account 5 Abnormal Test: A Sur-Gard test was conducted when the panel was in an off-normal state
118	IP Dialer Account 6 Abnormal Test: A Sur-Gard test was conducted when the panel was in an off-normal state
119	IP Dialer Account 7 Abnormal Test: A Sur-Gard test was conducted when the panel was in an off-normal state
120	IP Dialer Account 8 Abnormal Test: A Sur-Gard test was conducted when the panel was in an off-normal state
121	Fw Dwnld in Progress: Firmware update is successfully initiated from the panel and firmware update utility
122	Fw Download Aborted: Firmware update is aborted due to connectivity loss (or) user has aborted download from either panel or update utility
123	Fw Download Failed: Firmware update failed to store the Image.bin into panel flash memory
124	Fw Download Completd: Firmware update is successfully completed
125	Cloud Provision Fault: The Cloud Provision Fault occurs when the Panel Fails to Register with the Cloud

ID	Event description
126	Cloud Communication Fault: The Cloud Communication Fault occurs when the Panel Fails to communicate with Cloud
127	Panel Certificate Fault: The Panel Certificate Fault occurs when there is no security Certificate on the panel
128	NAC 1 trouble: An open or short was detected on NAC 1 or there is a problem with the EOL
129	NAC 2 trouble: An open or short was detected on NAC 2 or there is a problem with the EOL
130	NAC 3 trouble: An open or short was detected on NAC 3 or there is a problem with the EOL
131	NAC 4 trouble: An open or short was detected on NAC 4 or there is a problem with the EOL
132	Printer trouble: The printer is either offline, out of paper, or disconnected
133	Annunciator 1 trouble: An open or short was detected on annunciator 1
134	Annunciator 2 trouble: An open or short was detected on annunciator 2
135	Annunciator 3 trouble: An open or short was detected on annunciator 3
136	Annunciator 4 trouble: An open or short was detected on annunciator 4
137	Annunciator 5 trouble: An open or short was detected on annunciator 5
138	Annunciator 6 trouble: An open or short was detected on annunciator 6
139	Annunciator 7 trouble: An open or short was detected on annunciator 7
140	Annunciator 8 trouble: An open or short was detected on annunciator 8
141	Zone 1 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone1)

ID	Event description
142	Zone 2 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected on zone 2)
143	Zone 3 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 3)
144	Zone 4 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 4)
145	Zone 5 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 5)
146	Zone 6 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 6)
147	Zone 7 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 7)
148	Zone 8 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 8)
149	Zone 9 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 9)
150	Zone 10 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 10)
151	Zone 11 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 11)
152	Zone 12 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 12)
153	Zone 13 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 13)
154	Zone 14 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 14)
155	Zone 15 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 15)

ID	
156	
157	
158	
159	
160	
161	
162	
163	
164	

ID	Event description
156	Zone 16 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 16)
157	Zone 17 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 17)
158	Zone 18 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 18)
159	Zone 19 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 19)
160	Zone 20 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 20)
161	Zone 21 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 21)
162	Zone 22 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 22)
163	Zone 23 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 23)
164	Zone 24 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 24)
165	Zone 25 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 25)
166	Zone 26 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 26)
167	Zone 27 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 27)
168	Zone 28 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 28)
169	Zone 29 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 29)
170	Zone 30 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 30)
171	Zone 31 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected in zone 31)
172	Zone 32 (active, trouble, disable, prealarm, alarm verify, maintenance alert, or test was detected on zone 32)
173 to 371	CorrGrp nnn: Correlation group nnn is disabled through User key which is configured as Disable (Group/Both) Note: nnn represents the correlation group number (001 to 199).

Viewing event details

The off-normal events that take place in the system contain event information that is displayed on the LCD screen. Additional information is available on a secondary screen called the Event Details screen.

To display the event details screen:

1. When an event takes place, press Enter on the front panel.
2. View the event details.

   For a description of the information displayed on the screen, see "LCD display screen" on page 142. The event details screen is displayed for 15 seconds if there is no activity and then returns to the previous screen.

   Note: Use the up and down arrow keys to scroll through multiple events.

Resetting the panel

Pressing Reset restores the fire alarm system to the normal state provided that there are no active devices or circuits. The Reset command does not restore disabled or latched devices. Disabled devices must be enabled and latched output devices must be unlatched before they can be restored.

Latched devices are restored when they are unlatched, provided the alarm that triggered the output no longer exists. However, when a user tries to restore the unlatched outputs via the user key or control menu, the output is restored regardless of the alarm condition. Also, when signal silence inhibit or reset inhibit is enabled, the system will not restore until the silence or reset inhibit period lapses.

WARNING: To avoid possible injury or loss of life, do not reset the fire alarm system until the appropriate authority determines that it is safe to do so.

To reset the panel:

1. Press the Reset button.

When you reset the panel:

- "Reset" displays on the top-right of the LCD, alternating with the active and disabled points display.
- The Reset LED lights.
- Devices in an off-normal state remain in their off-normal state until the element causing their off-normal state clears.

- When
  off.
- If the
  in dete
  after r
- Disabl
- Reset

Silen

The pane
Pressing

- Silenc
- Ackno
- Silenc
  the LC

To silenc

1. Deterr
   details
   event
2. Press
   annun

Silen

WARNIN
cause of t

To silenc

1. Press

Silenci

Pressing t
waterflow
visible not
signal sile
until the re

- When the reset process is complete, "Reset" clears from the LCD and the Reset LED turns off.
- If the condition causing an "Alarm Active" condition has not cleared (smoke is still present in detector chamber, pull station was not reset, etc.) the panel remains in an alarm state after resetting and the NACs and other outputs do not reactivate.
- Disabled devices and zones remain disabled after the panel is reset.
- Resetting the panel does not log off user level one or user level two access.

Silencing panel and annunciator buzzers

The panel buzzer sounds whenever an event message is received at the control panel. Pressing the Ack/Panel Silence button:

- Silences the buzzer on the control panel and all remote annunciators.
- Acknowledges all current event messages.
- Silences the panel buzzer on all remote annunciators. If more than one event is queued, the LCD displays event 001.

To silence the buzzer:

1. Determine what event caused the buzzer to sound by pressing Enter to view the event details. This displays the loop number, device address, and a detailed description of the event type
2. Press the Ack/Panel Silence button on the panel, or the Ack/Silence button on any remote annunciator.

Silencing notification appliances

WARNING: Do not silence notification appliances until the building is fully evacuated and the cause of the alarm has been determined.

To silence or resound notification appliances:

1. Press the Signal Silence button.

Silencing NACs manually

Pressing the Signal Silence button turns off all silenceable NACs unless activated by a waterflow device or waterflow zone. Depending on system programming, some audible or visible notification appliances may not turn off when the Signal Silence button is pressed. If a signal silence inhibit was programmed, then pressing the Signal Silence button will not work until the reset inhibit timer expires. See "What is in-suite signal silence?" on page 41.

When you silence the signals:

- The Signal Silence LED lights to indicate that the notification appliances are off.
- If Genesis horn/strobe or horn-only devices are used on NACs programmed for Genesis operation, Signal Silence silences the horns and strobes based on system programming. Pressing Signal Silence a second time while the panel is in an alarm state causes the signals to turn on again.

Silencing NACs automatically

Two options let you silence NACs automatically: Auto Signal Silence and Suite Signal Silence (in-suite signal silence). Both work by starting a timer when an event activates the NACs. The NACs are allowed to sound until the timer expires, after which they are automatically silenced.

The Auto Signal Silence option

Auto Signal Silence can be enabled when programming the panel. It affects all silenceable NACs connected to the panel. The elapsed time can be set for 5 to 30 minutes. See "Activating and restoring sensor bypass" on page 168.

The Suite Signal Silence option

The Suite Signal Silence option enables or disables in-suite signal silence for the selected correlation group. This option affects only silenceable NACs associated with the correlation groups. For more information on this programming option, see "Programming in-suite signal silence" on page 92.

NACs that cannot be silenced

NACs configured as latched outputs cannot be silenced. This includes any device configured as:

- Continuous Non-Silenceable Latched (Cont NS Latch)
- Supervised Outputs Latched (SupOut Latch)
- Continuous Non-Silenceable Class A Latched (Cont NS ClA Latch)
- Supervised Outputs Class A Latched (SupOut ClA Latch)

In addition, NACs activated by devices programmed as waterflow cannot be silenced until the activated devices are restored to normal via a panel reset. After the waterflow device events restore, the Signal Silence button or the auto signal silence timer can silence the NACs if there are other events causing the NACs to activate. Waterflow activations do not invoke in-suite signal silence.

Cond

A lamp te
that you c

To condu

1. Displa
2. Choos
3. Press
4. Verify
proper

Activa

Activating
done to te
turns it off

Notes

- Input
"Invali
- Disabl
restori
- Latche
output

To activa

1. Press
2. Enter
3. Choos
4. Choos
5. Choos

Note:

6. Enter
7. Press
8. Press

— or -

Press

Conducting a lamp test

A lamp test lights all of the LEDs on the panel and the LED annunciator and tests the LCD so that you can verify proper operation. LEDs stay on for 15 seconds.

To conduct a lamp test:

1. Display the Test. menu
2. Choose Lamp Test.
3. Press Enter.
4. Verify that all LEDs on the panel, the LCD, and the LED annunciator (if used) work properly.

Activating and restoring output devices

Activating an output device on a signaling line circuit (SLC) turns on its output. This is typically done to test individual strobes, horns, and other notification appliances. Restoring the device turns it off again.

Notes

- Input devices cannot be activated. If you attempt to activate an input device, the message "Invalid device" is displayed.
- Disabled devices must be manually enabled and then restored. See "Activating and restoring sensor bypass" on page 168.
- Latched outputs must be manually unlatched and then restored. See "Unlatching latched output device" on page 166.

To activate or restore an output device:

1. Press the Menu button and choose Control.
2. Enter a level one password.
3. Choose Activate/Restore.
4. Choose Device.
5. Choose the loop the device is on.

   Note: If the panel only has one loop, the loop selection screen does not display.
6. Enter the device ID for the device that you want to activate or restore.
7. Press Enter.
8. Press Cancel to return to the previous menu.

   — or —

   Press the Menu button to exit menu mode.

Unlatching latched output devices

Latched outputs are devices that are configured to shut down air handlers and dampers automatically when an alarm activates, and to keep them shut down until they are manually unlatched and restored. For this reason, devices configured as latched output devices must be manually unlatched and then restored.

When outputs have been latched, the panel generates an "Outputs are latched" event. The unlatch command affects all latched output devices system-wide. You can assign the Unlatch Outputs command to a programmable key on the front panel or to a Class A or B Signature input module circuit with one of the devices listed on page 100.

To unlatch latched output devices:

1. Press the Unlatch Outputs button on the control panel (if programmed).

   — or —

   Press the Unlatch Outputs module button (if programmed).

Activating and restoring panel NACs

Activating a notification appliance circuit (NAC) turns on its outputs. Restoring the NAC turns them off again. This is typically done for testing purposes.

Note: Disabled NACs must be manually enabled and then restored. See "Activating and restoring sensor bypass" on page 168.

To activate a panel NAC:

1. Press the Menu button and choose Control.
2. Enter a level one password.
3. Choose Activate/Restore.
4. Choose Panel NAC.
5. Select the NAC that you want to activate.
6. Press Enter.
7. Press Cancel to return to the previous menu.
   — or —
   Press the Menu button to exit menu mode.

Notes

- Disabled devices must be manually enabled and then restored. See "Activating and restoring sensor bypass" on page 168.
- Latched output devices must be manually unlatched and then restored. See "Unlatching latched output device" above.

Activating and restoring sensor bypass

Use the Activate Sensor Bypass option to stop the photoelectric element on the PHS/PHD detector from generating supervisory messages on the LCD, while still using the heat element of the same PHS/PHD. Sensor Bypass is applicable to PHS/PHD devices with device type as "Heat + Smoke Supv Latching," or "Heat + Smoke Supv Nonlatching," only.

Use the Restore Sensor Bypass option when both the heat and smoke (photoelectric) elements of the PHS/PHD return to normal operation. Activation messages for either condition appear on the LCD.

When Sensor Bypass is activated, the system displays an alarm message only when the heat element activates. For example, when a large event is planned that allows smoking or pyrotechnics in a ballroom that has a PHS/PHD detector installed; you may choose to bypass the smoke element to prevent false activations while still using the heat element to detect a fire.

When a device is off-normal and you attempt to activate or restore sensor bypass, the system displays a warning message. When the activate sensor bypass option is applied to a device, the system responds as follows:

- The common trouble LED turns on.
- The LCD displays an event to indicate that the device is bypassed.
- The common Trouble LED flashes and the panel goes into a trouble state.
- The common Trouble relay changes state.
- The active point indicators on the LCD increment.
- Resetting the panel has no effect on sensor bypass activated devices, but removing all power from the panel clears the sensor bypass and restores the device.

To activate sensor bypass:

1. Press the Menu button and choose Control.
2. Enter a level one password.
3. Choose Activate/Restore.
4. Choose Sensor Bypass.
5. Select the device that you want to bypass.
6. Press Enter.
7. Press Cancel to return to the previous menu.

   — or —

   Press the Menu button to exit menu mode.

Activating and restoring gas accelerated response

Use the Activate Gas Accelerated Response option to turn on the accelerated response mode. Use the Restore Gas Accelerated Response option to turn off the accelerated response mode.

Under normal conditions, it takes approximately four minutes at 400 PPM of CO before a CO detector activates. This mimics the normal absorption rate of CO in the bloodstream. When testing a CO device, you can put the CO detectors in the CO accelerated response mode, which shortens the time to activation to be between four to eight seconds at 400 PPM of CO.

You can activate a gas accelerated response on devices that have a CO sensor. See Table 11 on page 53. Once activated, the gas accelerated response on that device remains active for four hours, unless you manually restore it, or the device returns from a communication fault.

Along with CO, for Optica detectors the smoke can also be tested with an accelerated response.

Note: When adding devices in a zone, the recommended count is 25 devices. In this way the number of timers running within the firmware for tracking the test time is limited to 25, minimizing the load on the system.

To activate a device accelerated response:

1. Press the Menu button and choose Control.
2. Enter a level one password.
3. Choose Activate/Restore.
4. Choose Device Accel Resp.
5. Select the device that you want to accelerate.
6. Press Enter.
7. Press Cancel to return to the previous menu.

   — or —

   Press the Menu button to exit menu mode.

To activate a zone accelerated response:

1. Press the Menu button and choose Control.
2. Enter a level one password.
3. Choose Activate/Restore.
4. Choose Zone Accel Resp.
5. Select the zone that you want to accelerate.
6. Press Enter.
7. Press Cancel to return to the previous menu.

   — or —

   Press the Menu button to exit menu mode.

Disabling and enabling devices

Disabling a device does not prevent it from activating, but it does prevent event messages originating at the device from being displayed, printed, or reported off-premises. Devices are typically disabled during maintenance. Remember to enable the device as soon as you have finished working with it.

Note: Disabling the devices will override the sensor bypass.

The Reset command does not restore disabled or latched devices. Disabled devices must be enabled and latched output devices must be unlatched before they can be restored. The Reset command also does not restore sensor bypass devices, which must be enabled.

When a device is disabled:

- When the device you are disabling is active, a warning message displays.
- The common Disable LED turns on.
- The LCD displays an event to indicate that the device is disabled.
- The common Trouble LED flashes and the panel goes into a trouble state.
- The common Trouble relay changes state.
- The disabled and active points indicators on the LCD increment. The event is transmitted off-premises, if programmed to do so.
- Resetting the panel has no effect on disabled devices, but removing all power from the panel clears the disable and enables the device.

To disable or enable a device:

1. Press the Menu button and choose Control.
2. Enter a level one password.
3. Choose Enable/Disable.
4. Choose Device.
5. Choose the loop the device is on.

   Note: If the panel only has one loop, the loop selection screen does not display. Go to the next step.
6. Enter the device ID for the device that you want to disable or enable.
7. Press Enter.
8. If the device is active, acknowledge the warning message by selecting Continue to disable the device or Cancel to exit.

   The device is disabled and a message indicating that the device is disabled is displayed on the LCD.
9. Press Cancel to return to the previous menu.

— or —

Press the Menu button to exit menu mode.

Disabling and enabling zones

Zones are typically disabled while maintenance is performed to prevent event messages originating from the zone from being displayed, printed, or reported off-premises. Disabling a zone does not prevent activations in the zone. All devices in the zone continue to function normally.

Note: Remember to enable the zone as soon as you have finished working with it. Resetting the panel does not restore disabled zones. These must be manually enabled and then restored.

When you disable a zone:

- The common Disable LED turns on
- On a zone/device system, the LCD displays disabled messages for the zone and all of the devices in the zone
- On a zone only system, the LCD displays a disabled message for the zone
- The common trouble LED flashes and the panel goes into a trouble state
- The common trouble relay changes state
- The disabled and active points indicators on the LCD increment
- If you are using an LED display expander, the zone LEDs blink for the disabled zone
- Resetting the panel has no effect on a disabled zone, but removing all power from the panel enables the zone
- If the zone you are disabling contains devices that are active, a warning message is displayed

To disable or enable a zone:

1. Press the Menu button and choose Control.
2. Enter a level one password.
3. Choose Enable/Disable.
4. Choose Zone.
5. Select the zone that you want to disable or enable.
6. Press Enter.
7. If devices in the zone are active, acknowledge the warning message by selecting Continue to disable the zone or Cancel to exit.

   The zone is disabled.
8. Press Cancel to return to the previous menu.

— or —

Press the Menu button to exit menu mode.

Disabling and enabling panel events

Disabling a panel event prevents the messages that are sent when the event occurs from being displayed, printed, or reported off-premises. Events are typically disabled while maintenance is performed. Remember to enable the event as soon as you have finished working.

Not all panel events can be disabled. Panel events that cannot be disabled are labeled as "forbidden." The following table lists panel events that can be disabled.

Table 46: Panel events that can be disabled

Event	ID
Ground fault	054
Battery charger	055
Battery low	056
Battery missing	057
AC power	058
System AC power	061
Aux. power 1	059
Aux. power 2	060
Dialer line 1 fault	072
Dialer line 2 fault	073
Net Conf Fault 01	086
Net Conf Fault 02	087
Net Conf Fault 03	088
Net Conf Fault 04	089
Net Conf Fault 05	090
Net Conf Fault 06	091
Net Conf Fault 07	092
Net Conf Fault 08	093

To disable or enable a panel event:

1. Press the Menu button and choose Control.
2. Enter a level one password.

3. Choose Enable/Disable.
4. Choose Panel Event.
5. Enter the ID number of the event type to disable or enable.

   See "Event ID numbers and descriptions" on page 156 for event descriptions and the list above for the events that can be disabled.
6. Press Enter.
7. Press Cancel to return to the previous menu.

   — or —

   Press the Menu button to exit menu mode.

When you disable an event:

- The common Disable LED turns on
- The common Trouble LED flashes and the panel goes into a trouble state
- The common Trouble relay changes state
- The disabled and active points indicators on the LCD increment
- The LCD displays a message indicating that the event is disabled.

Disabling and enabling loop events

Disabling a loop event prevents it from being displayed, printed, or reported off premises. This is typically done during maintenance. For example, you might want to disable the Loop 1 unconfigured alarm event, if you are switching out a detector. Remember to enable the event as soon as you have finished working.

When you disable a loop event:

- The common Disable LED turns on
- The common Trouble LED flashes and the panel goes into a trouble state
- The common Trouble relay changes state
- The disabled and active points indicators on the LCD increment.
- The LCD displays a message indicating which loop event is disabled.

Not all events can be disabled. Those that cannot are labeled as "forbidden." The following table lists events that can be disabled.

Table 47: Loop events that can be disabled

Event	ID
Loop 1 fault	001

Event
Loop 2 fault
Loop 3 fault
Loop 4 fault
Loop 1 card
Loop 2 card
Loop 3 card
Loop 4 card
Loop 1 unco
Loop 2 unco
Loop 3 unco
Loop 4 unco
Loop 1 unco
Loop 2 unco
Loop 3 unco
Loop 4 unco

To disable

1. Press t
2. Enter a
3. Choose
4. Choose
5. Select t

   See "Ev above f
6. Press E
7. Press C

   — or —

   Press th

Event	ID
Loop 2 fault	011
Loop 3 fault	021
Loop 4 fault	031
Loop 1 card fault	003
Loop 2 card fault	013
Loop 3 card fault	023
Loop 4 card fault	033
Loop 1 unconfigured alarm	004
Loop 2 unconfigured alarm	014
Loop 3 unconfigured alarm	024
Loop 4 unconfigured alarm	034
Loop 1 unconfigured trouble	005
Loop 2 unconfigured trouble	015
Loop 3 unconfigured trouble	025
Loop 4 unconfigured trouble	035

To disable or enable a loop event:

1. Press the Menu button and choose Control.
2. Enter a level one password.
3. Choose Enable/Disable.
4. Choose Loop Event.
5. Select the loop event type that you want to disable or enable.

   See "Event ID numbers and descriptions" on page 156 for event descriptions and the list above for the events that can be disabled.
6. Press Enter.
7. Press Cancel to return to the previous menu.

   — or —

   Press the Menu button to exit menu mode.

Disabling and enabling panel NACs

Disabling a panel NAC prevents activations from being displayed, printed, or reported off premises. This is typically done during maintenance. Remember to enable the NAC as soon as you have finished working.

NACs that have been disabled are not restored when the panel is reset. They must be enabled and then restored.

NACs configured as latched output devices are not restored when the panel is reset. They must be manually unlatched and then restored.

When you disable a panel NAC:

- The common Disable LED turns on
- The LCD displays a message indicating that the NAC is disabled
- The disabled and active points indicators on the LCD increment
- The common Trouble LED flashes and the panel goes into a trouble state
- The common Trouble relay changes state.

To disable or enable a panel NAC:

1. Press the Menu button and choose Control.
2. Enter a level one password.
3. Choose Enable/Disable.
4. Choose Panel NAC.
5. Select the NAC that you want to disable or enable.
6. Press Enter.

   The NAC is disabled and a message indicating that the NAC is disabled is displayed on the LCD.
7. Press Cancel to return to the previous menu.

   — or —

   Press the Menu button to exit menu mode.

Disabling and enabling the dialer and network

Disabling the dialer, network CMS connection, or any panel or device NACs configured as City Tie prevents transmission of events to the central monitoring station (CMS).

When you enable the dialer and network CMS connection:

- The Remote Disconnect LED turns off
- The message “Dialer Dsbl/Rem Disc” on the LCD disappears

- The
- The

To disa

1. Pres
2. Ente

Initi

Pressir
prograr
active.

Note: [

To sta

1. To

   The
   on

2. To

   The
   circ

Note:

Con

A walk
conditi
device

Zones
remair
and dc
device

Notes

- Wa
- Wa
  act

- The disabled points indicator on the LCD decrements
- The active points indicator on the LCD decrements

To disable or enable the dialer and network card:

1. Press Remote Disconnect.
2. Enter a level one password.

Initiating a fire drill

Pressing Drill activates all audible and visible notification appliances according to the panel programming, but does not activate the alarm relay. The Drill LED indicates that the function is active.

Note: Drill does not operate when the panel has an active alarm or supervisory event.

To start and stop a fire drill:

1. To start a drill, press and hold the Drill button for two seconds.

   The Drill button LED turns on indicating that the drill is active, and the control panel turns on all notification appliance circuits.
2. To stop the drill, press the Drill button again.

   The Drill button LED turns off, and the control panel turns off all notification appliance circuits.

Note: The drill command is also available from the menu, under Control.

Conducting a walk test

A walk test lets you test individual zones or devices without having to create an actual alarm condition. You can conduct a walk test in silent or audible mode. In silent mode, the audible devices (NACs) do not sound.

Zones should be placed in walk test one at a time. This allows the balance of the system to remain in service. When a device is activated for testing, it remains active throughout the test and does not restore until the walk test is ended. When the walk test is ended, all of the tested devices restore.

Notes

- Walk test does not operate when the panel has an active alarm event.
- Walk test will not start if a Remote AC Fail Trouble or Local AC Power Trouble event is active.

- Walk test affects mainboard NACs only. Any addressable device configured for NAC operation is not included in the walk test.

When you enter walk test mode:

- The Test LED flashes for a silent walk test and is steady for an audible walk test.
- Walk Test is displayed on the LCD. Walk Test is replaced with the device activation message during the period the device is activated while in walk test mode.
- The panel enters a trouble state. There is no fire protection for the zone in walk test. If an unselected zone or device goes into alarm or trouble, all programmed outputs operate as programmed.

Zones and devices behave as follows during walk test:

- For alarm events, the appropriate panel and annunciator LEDs and buzzers turn on. In the audible (NAC) test mode a four-second pulse sounds for NAC types: continuous nonsilenceable, continuous silenceable, Genesis nonsilenceable, Genesis with audible silence only, and Genesis with audible and visible silenceable on the audible devices. A single 3-3-3 cycle sounds for NAC types: temporal nonsilenceable, temporal silenceable, coder basic, coder continuous, coder 120spm, and coder temporal on the audible devices.
- For trouble events, the appropriate LEDs and the buzzers turn on. In the audible (NAC) test mode a two-second pulse sounds on the audible devices.
- For ground fault events, the appropriate LEDs and the buzzers turn on. In the audible (NAC) test mode, a two-second pulse sounds on the audible devices.
- All device activations are latched until the walk test is ended or the panel is reset. When the walk test is ended, it takes approximately eight seconds for the devices to restore. If the device being tested is in a zone and does not restore, the zone does not reset.
- If auxiliary power is resettable, the auxiliary power is interrupted while the zone is reset.
- Input zones programmed as waterflow with retard require 10 to 15 seconds of activation to initiate the test signals.
- Devices programmed as alarm verify and *not in test mode* go directly into alarm if activated (the alarm verification process is bypassed).
- Once a device is tested, restore the device. For example, if you are testing a pull station, reset the pull station before testing the next device.

The panel terminates walk test if:

- The zone or device being tested remains inactive for 30 minutes
- The walk test is stopped by the user

To start a walk test:

1. Press the Menu button and choose Test.
2. Choose Walk Test Silent or Walk Test Audible.

3. Enter a level one password.
4. Choose either All Devices or Zone.
5. If you chose Zone, enter the zone ID for the zone to be tested.
6. Choose Start.
7. Conduct the walk test.
8. Press Cancel to return to the previous menu.

   — or —

   Press the Menu button to exit menu mode.

Note: To see the activation and restoration of all walk test events, the panel must be reset *prior* to ending the walk test. Once the reset is complete, you can end the walk test and view a walk test report.

To end a walk test:

1. Press the Menu button and choose Test.
2. Choose Walk Test Silent or Walk Test Audible.
3. Choose either All Devices or Zone.
4. If you chose Zone, enter the zone ID of the zone where you are ending the walk test.
5. Choose End to turn off the walk test. All of the devices that were activated in the test are restored at this time.
6. Press Cancel to return to the previous menu.

   — or —

   Press the Menu button to exit menu mode.

Cha
Rep

Summary

This chapt

Content

Basic step
History rep
Walk Test
Device Ma
System St
Correlatior
Correlatior
Zone repor
System Cc
Internal St
Device Def
Diagnostic
Internal Fa
Releasing
Canceling

Chapter 4
Reports

Summary

This chapter describes how to create the panel's available reports.

Content

Basic steps for viewing and printing reports 180
History report 180
Walk Test report 181
Device Maintenance report 182
System Status report 183
Correlation Groups report 183
Correlation Group Configuration report 183
Zone report 184
System Configuration report 184
Internal Status report 185
Device Details report 185
Diagnostics reports 186
Internal Fault report 187
Releasing report 188
Canceling a report 188

Basic steps for viewing and printing reports

To view or print a report:

1. Press the Menu button and choose Reports.
2. Select the report that you want to run.
3. Supply values for the options requested.
4. Choose either:

   LCD: The report is displayed on the LCD.

   — or —

   Printer: The report is printed on the connected printer. If you do not have a printer, this option is not available.
5. If you selected LCD, press Cancel twice to return to the reports menu, when you have finished viewing the report.
6. Choose another report to view.

   — or —

   Press the Menu button to exit menu mode.

Notes

- You must have a printer connected to the panel to print a report.
- Requesting a report while another report is being printed or displayed on the LCD stops the current report (even if it has not finished) and starts the new report that you requested.

History report

The panel maintains latest 1,000 system or user events in non-volatile memory. The event record contains the event time, the event type, the event state, and the device address (for device events). The event time is the time and date of the event activation or restoration. The event types are alarm, trouble, supervisory, monitor, and test activations or disable. The event state is either activation or restoration. The device address is the address for the device that caused the event. Some events do not have a device address listed, such as the type of events listed in the "Event ID numbers and descriptions" topic on page 156. These are "pseudo" type events. History reports can be viewed on the LCD or printed.

Note: Common Trouble NetWK and Common Trouble TELCO active/restore events will display in the history report whenever there is a "Common trouble" event activated/restored.

There are three types of history reports you can generate:

- All: Includes all events in the report

- Alarm: Includes only alarm events in the report
- Date forward: Lets you enter a starting date for the report. The report includes all events from that date forward.

To view an All or Alarm History report:

1. Press the Menu button and choose Reports.
2. Choose History.
3. Choose either All or Alarm.

To view a Date Forward History report:

1. Press the Menu button and choose Reports.
2. Choose History.
3. Choose Date Forward.
4. Enter the starting date for the report (month/day/year).

Walk Test report

The Walk Test report extracts all test events for the last walk test stored in history. Walk test reports can be printed or viewed on the LCD.

Notes

- You cannot view a walk test report while conducting a walk test.
- The walk test report includes all events (walk test and all other events) to show whether other events occurred during the walk test.
- The walk test report cannot be viewed from history after restarting the panel.
- To include the activation and restoration of all walk test events in the walk test report, the panel must be reset *prior* to ending the walk test. Once the reset is complete, you can end the walk test and view a walk test report.

To view a Walk Test report:

1. Press the Menu button and choose Reports.
2. Choose Walk Test.

Device Maintenance report

The panel provides a Device Maintenance report of all detectors in the system. The report can include: all detectors, all detectors over 20% dirty, or all detectors over 80% dirty. The report displays the device, along with its dirty percentage and sensitivity setting. Device Maintenance reports can be printed or viewed on the LCD.

Note: On an unconfigured system with a full load of CO devices, after the system has been configured, it takes approximately 1.5 hours to retrieve the CO running days data from all devices. For subsequent restarts,without reprogramming, the delay in reporting the running days is less than 5 minutes.

To view a Device Maintenance report:

1. Press the menu button and choose Reports.
2. Choose Device Maintenance.
3. Choose one of the following:

   All Devices
   Devices >= 20% Dirty
   Devices >= 80% Dirty.

Notes

- CO detectors have a lifespan of six years. They report the number of months left until end of life (EOL) on the LCD and in maintenance reports. When a CO detector has less than six months until EOL, the LCD displays a maintenance alert. When the months until EOL reach zero, the LCD restores the maintenance alert and issues an EOL trouble for the device. For combination detectors, the system detects and reports the percent dirty separate from the CO number of months until EOL.
- COD, HCD, PCD, and PHCD detectors have a lifespan of ten years. They report the number of months left until end of life on the LCD and in maintenance reports. When a CO detector has less than six months until EOL, the LCD displays a maintenance alert. When the months until EOL reach zero, the LCD restores the maintenance alert and issues an EOL trouble for the device. For combination detectors, the system detects and reports the percent dirty separate from the CO number of months until EOL.

System Status report

The panel provides a System Status report for all active points in the system. The report can include: all active points, all alarm points, all supervisory points, all trouble points, all disabled points, or all other points. System status reports can be printed or viewed on the LCD.

To view a System Status report:

1. Press the Menu button and choose Reports.
2. Choose System Status.
3. Choose one of the following:

   All
   Alarm
   Supervisory
   Trouble
   Disable
   Other

Correlation Groups report

The panel provides a report for each correlation group in the system. The Correlation Group report shows all of the devices, zones, and NACs that are assigned to a correlation group. Correlation group reports can be printed or viewed on the LCD.

To view a Correlation Groups report:

1. Press the Menu button and choose Reports.
2. Choose Correlation Groups.
3. Enter the number of the correlation group for which you want a report.

Correlation Group Configuration report

The Correlation Group Configuration report lists:

- All correlation groups with in-suite signal silence enabled.
  — or —
- All correlation groups with an activation count greater than 1. This provides information on correlation groups programmed for special applications.
- The Delay report displays a list of correlation groups from which the Reset is configured as Function Activate or Restore.

To view a Correlation Group Configuration report:

1. Press the menu button and choose Reports.
2. Choose Corr Group Config.
3. Choose one of the following:

   Suite Sig Sil

   Activation Count

   — or —

   Delay

Zone report

The panel provides a Zone report that lists all of the devices that are in a selected zone. The report lists the devices by the device label.

To view a zone report:

1. Press the Menu button and choose Reports.
2. Choose Zone.
3. Choose the zone for which you want a report.

System Configuration report

The panel provides a System Configuration report that displays the current configuration of the system. There are seven system configuration reports displaying the information shown below. System configuration reports can be printed or viewed on the LCD.

All report: Displays all panel, device, loop, zone, event, and dialer configuration information.

Panel operation report: Displays firmware version, marketplace, language, AC fail delay, reset inhibit, zone re-sound, auto signal silence, in suite silence time, port CU, key #1, key #2, aux power reset, lock remote read, AC voltage, date format, daylight savings, minutes offset, day start, night start, mapping, LCD banner, IP (IP address), MSK (subnet mask), and GWY (gateway), and event notification type configuration information.

Panel configuration report: Displays dialer, network, printer, annunciator class, annunciator, and NAC configuration information.

Devices report: Displays function, type, zone, label, follow, day sensitivity, night sensitivity, day pre-alarm percent, night pre-alarm percent, correlation groups, and event notification configuration information.

Loop/zone configuration report: Displays loop class, zone, device, mapping, and correlation group configuration information.

Event configuration report: Displays loop event and panel event configuration information.

Dialer configuration report: Displays central monitoring station event notification settings for the points in the system.

To view a System Configuration report:

1. Press the Menu button and choose Reports.
2. Choose System Configuration.
3. Choose:
   All
   Panel Operation
   Panel Configuration
   Loop/Zone Config
   Devices
   Event Config
   Dialer Config

Internal Status report

The panel provides an Internal Status report that displays the current values for AC voltage, battery voltage, and battery charge current. Internal Status reports can be printed or viewed on the LCD.

To view an Internal System Status report:

1. Press the Menu button and choose Reports.
2. Choose Internal Status.

Device Details report

A Device Details report displays a device count that reports how many devices are connected to the system. The report can also display the serial number for each device connected to the system.

To view the device count on the system:

1. Press the Menu button and choose Reports.
2. Choose Device Details.
3. Choose Device Count.

To view device serial numbers:

1. Press the menu button and choose Reports.
2. Choose Device Details.
3. Choose Serial #.

Diagnostics reports

There are two Diagnostics reports designed to show the communication performance of the devices on a loop.

Comm Retries report

This report lets you display a list of devices that have required two, three, or four consecutive communication poll retries. It lists the devices that could potentially generate a communication fault by showing the maximum number of retries for the current hour and a summary of the past 24 hours.

The report can be used to identify devices with intermittent communication faults. A device appearing in this report is an indication that the wiring to the device is suspect. To investigate problem devices, inspect the wiring between the problem device and another device not in the report. Inspect this section of wiring for problems such as loose connections and intermittent wiring breaks.

Note: The current hour retries can be cleared and updated by running the Loop Comm Check diagnostic. (See "Loop comm check" on page 192 for more information.)

Response Quality report

This report lists the devices that are communicating at or below a quality percentage that you specify. By entering different percentages, you can troubleshoot device communications on a loop.

The panel periodically stores the measurement of the response for individual devices during communication polling. The report displays the result of the latest poll as a percentage, where 100% is the best response (maximum possible pulse strength) and anything less than 44% means that the device failed a communication poll and could potentially generate a communication fault.

Devices appearing in this report are an indication that the wiring to the devices is questionable or that the devices themselves are questionable. To investigate problem devices, inspect the wiring between the problem device and another device not in the report. Inspect the wiring for problems such as exceeding wiring specifications (see "Addressable device loop wiring" on page 12 for more information), loose connections, and intermittent wiring breaks and shorts.

To view a Comm Retries diagnostic report:

1. Press the menu button and choose Reports.
2. Choose Diagnostics.
3. Choose Comm Retries.

To view a Response Quality diagnostic report:

1. Press the Menu button and choose Reports.
2. Choose Diagnostics.
3. Choose Response Quality.
4. Enter the quality percentage (0 to 100).

   This is a communication percentage value that is used to display the device's minimum recorded pulse strength percentage. Enter "80" to list devices that are communicating up to 80 percent of their maximum pulse strength. Enter "50" to list devices that are communicating up to 50 percent of their maximum pulse strength (devices communicating better than 50% are not included in the report).

Internal Fault report

The Internal Fault report displays information about an internal fault event (event ID 69) that has occurred in the system. The report contains information that is important for technical support when troubleshooting the internal fault event and should typically only be run when you are asked to do so by a technical support representative.

To view an Internal Fault report:

1. Press the menu button and choose Reports.
2. Choose Int. Fault.

Releasing report

The Releasing report displays the correlation group, activation count and delay time

To view a Releasing report:

1. Press the menu button and choose Reports.
2. Choose Releasing.
3. Choose the releasing device for which you want a report.
4. Choose the releasing device for which you want a report.

Canceling a report

Once a report is sent to the LCD or printer, you can cancel the report so that it stops printing on the printer or displaying on the LCD.

To cancel a report:

1. Press the Menu button and choose Reports.
2. Choose Cancel Reports.
3. Choose Yes to cancel the report. Choose No to continue with the report.
4. Continue working with reports,

   — or —

   Press the Menu button to exit menu mode.

Chapter 5
Diagnostics, maintenance, and testing

Summary

This chapter provides diagnostics, preventive maintenance, and testing information.

Content

Preventive maintenance schedule 190
Fast Ground Check 190
Recalibrate device 190
Flash Device LED 191
Loop comm check 191
Control panel testing 192
    Canadian tests for grounds, opens, and shorts 193
Electronic testing of a device (test fire) 193
SA-DACT testing 194
Conducting a lamp test 195
Starting and stopping a walk test 195
Using HyperTerminal 197
Replacing a device in alarm 199

Preventive maintenance schedule

Refer to the NFPA 72 section on Inspection, Testing, and Maintenance, the Canadian Electrical Code Part I, CAN/ULC-S524, or CAN/ULC-S536 for more information on required inspection and testing methods and frequencies for fire alarm systems and devices. For detector sensitivity and functionality testing, refer to the detector manufacturer's installation instructions.

Fast Ground Check

Use Fast Ground Check to quickly check the system for ground faults. During normal operation the system checks for ground faults every thirty seconds and reports them by flashing the Ground Fault LED. When you are troubleshooting ground faults on the system, you may not want to wait thirty seconds for the system to perform the ground fault check. Use the Fast Ground Check to decrease the system ground fault check time to every four seconds. The fast ground check will be effective after a time period of thirty seconds since the initiation of the fast ground check. This allows you to troubleshoot your ground faults much quicker and determine if they were actually corrected.

Note: Once you solve the ground faults in the system, turn off the Fast Ground Check. The system automatically turns off the Fast Ground Check after thirty minutes from its start.

To turn on and off Fast Ground Check:

1. Press the menu button and choose Diagnostics.
2. Enter a level two password.
3. Choose Fast Ground Check.
4. Choose Start to turn on Fast Ground Check or choose End to turn off Fast Ground Check.

Recalibrate device

The Recalibrate command resets a detector's environmental compensation and dirtiness level. You can use this command after cleaning to immediately see whether the device was cleaned properly. Allowing the panel to recognize that the device has been cleaned and recalibrate it automatically takes considerably more time. A device trouble will return, indicating that more cleaning is required. If the device is cleaned, the corresponding device trouble will clear.

To recalibrate a device:

1. Press the menu button and choose Diagnostics.
2. Enter a level two password.

3. Choose Recalibrate Device.
4. Choose the loop the device is on.

   Note: If the panel only has one loop, the loop selection screen does not display. Go to the next step.
5. Choose the number of the device that you want to recalibrate.
6. Press Enter.

Flash Device LED

Flash Device LED is used to help in troubleshooting to locate a device on a loop by flashing the device's LED (detectors flash red LED, modules flash green LED). For example, if you do not know the location of the device, you can flash the LED for that device address. This will cause the LED to flash, making it easy for you to find the device.

To start and stop flashing a device LED:

1. Press the menu button and choose Diagnostics.
2. Enter a level two password.
3. Choose Flash Device LED.
4. Choose the loop the device is on.

   Note: If the panel only has one loop, the loop selection screen does not display. Go to the next step.
5. Choose the number of the device.
6. Choose Start to begin flashing the device LED or choose End to stop flashing the device LED.

Loop comm check

Loop Comm Check is used to determine which loop devices are not communicating. When you run this command, the system checks the device communications on the system's device loops. The devices that are not communicating are listed in a report that you can then use to troubleshoot the problem. Once a report is generated, it remains in memory until another report is generated. This lets you access the latest report in Reports menu > Diagnostics > Loop Comm Check.

To do a loop comm check:

1. Press the Menu button and choose Diagnostics.

2. Enter a level two password.
3. Choose Loop Comm Check.

   You can monitor the progress of the check on the Diagnostics screen.
4. Once the check is complete, choose "Continue" to go to the report Diagnostics screen, and then continue with the next step.

   — or —

   Choose "Back" to return to the Diagnostics menu. If you choose Back, you have to go to the Reports menu > Diagnostics > Loop Comm Check to see the report once the report is created.

   Note: This process may take considerable time depending on how large the system is. If it takes longer than four minutes (log on time expiration), the system automatically logs you off if there is no activity. Should this occur, you must log on again and go to the Reports section to view the diagnostic report, once it is generated.
5. Choose Loop Comm Check.
6. Choose either:

   LCD: This displays the report on the LCD.

   — or —

   Printer: The sends the report the printer (if one is connected to the panel). If you do not have a printer, this option is not available.
7. If you selected LCD, press Cancel twice to return to the reports menu, when you have finished viewing the report.
8. Press the Menu button to exit menu mode.

Control panel testing

Before starting, notify all areas where the alarm sounds and off-premises locations that receive alarm and trouble transmissions that testing is in progress.

Records of all testing and maintenance shall be kept as required by the AHJ.

- Required tools:
  Listed aerosol smoke (photo detectors)
  Magnehelic gauge (duct detectors)
  Carbon monoxide test gas (CO detectors)
  Heat gun (heat detectors)
  Slotted screwdriver, insulated
  Digital multimeter
  12 in. (30.5 cm) jumper lead with alligator clips

Panel door key
Sound level meter

- A complete check of installed field wiring and devices should be made at regular intervals in accordance with NFPA 72, Canadian Electrical Code Part I, ULC-S524, and ULC-S536 requirements. This includes testing all alarm and supervisory initiating devices and circuits and any off-premises connections.
- Panel operation should be verified in the alarm, supervisory, and trouble modes.
- To ensure that the panel can operate correctly when primary power is lost, the batteries should be inspected and tested periodically. Batteries should be replaced (at a minimum) every four years.

Canadian tests for grounds, opens, and shorts

ULC requires that you test ground fault, open circuit, and short circuit indications.

For ground fault tests, short one leg of the circuit to chassis ground and verify that the system Ground Fault LED and Trouble LEDs turn on.

For NAC open circuit tests, remove the end-of-line resistor from the last device on the circuit and verify that the system Trouble LED turns on.

For NAC short circuit testing, place a short across the NAC output terminals and verify that the system Trouble LED turns on.

For AUX power short circuit testing, place a short across the AUX power output's plus (+) and minus (−) terminals and verify that the system Trouble LED turns on.

For annunciator communications testing, place a short across channel 1 (+ and −) and verify that the system Trouble LED turns on. Repeat for channel 2.

Electronic testing of a device (test fire)

A test fire is a test activation of a smoke or heat detector or input module. A test fire can be conducted to test for proper operation of a detector or input module and its programming. When a detector is test fired, the panel sends a command to the detector at which time the detector simulates a smoke or heat buildup, causing an actual activation of the detector. When an input module is test fired, the panel sends a command to the module causing the module to simulate an activation (alarm, supervisory, or monitor).

Notes

- A test fire is not an equivalent substitute for required functional testing per NFPA 72. In all cases, the manufacturer's documented testing procedures should be followed in accordance with all applicable codes, standards, and methods approved by the AHJ
- NAC responses activate as programmed.

To test fire a device:

1. Press the Menu button and choose Test.
2. Choose Test Fire.
3. Enter a level one password.
4. Choose the loop the device is on.

   Note: If the panel only has one loop, the loop selection screen does not display. Go to the next step.
5. Enter the device number of the device you want to test fire.
6. Press Enter.
7. Choose Start to start the test.
8. When you have finished, press Reset (or repeat steps 1 to 7 and choose End) to clear the test alarms and return the system to normal.
9. Press Cancel to return to the previous menu.

   — or —

   Press the Menu button to exit menu mode.

SA-DACT testing

A dialer test is a test of the telephone line for each dialer account. When a dialer is tested, a normal or abnormal test message (depending on the state of the system) is sent to the selected account. If the dialer is set up for dual line operation, a test message is sent to both lines regardless of the success of the transmission for either account.

Note: Before conducting a test, configure the dialer's accounts for proper operation.

To conduct a dialer test:

1. Press the control panel's Menu button.
2. Choose Test.
3. Choose Dialer.
4. Enter a level one password.
5. Select the account that you want to test.
6. Press Enter.

   The test message is sent to the CMS account that you selected. For verification of the CMS account receiving the test message, you must be in contact with the CMS account during the test. Nothing is displayed on the LCD.

7. Press Cancel to return to the previous menu.

   — or —

   Press the Menu button to exit menu mode.

Conducting a lamp test

A lamp test lights all of the LEDs on the panel and the LED annunciator and tests the LCD so that you can verify proper operation. LEDs stay on for 15 seconds.

To conduct a lamp test:

1. Press the menu button and choose Test.
2. Choose Lamp Test.
3. Press Enter.
4. Verify that all LEDs on the panel, the LCD, and the LED annunciator (if used) work properly.

Starting and stopping a walk test

A walk test lets you test individual zones or devices without having to create an actual alarm condition. You can conduct a walk test in silent or audible mode. In silent mode, the audible devices (NACs) do not sound. In audible mode, only the panel onboard NACs activate. Addressable devices configured for use as a NAC are not affected.

Zones should be placed in walk test one at a time. This allows the balance of the system to remain in service. When a device is activated for test, it remains active throughout the test and does not restore until the walk test is ended. When the walk test is ended, all of the tested devices restore.

Note: Walk test does not operate when the panel has an active alarm event.

When you enter walk test mode:

- The Test LED is steady for an audible walk test and flashes for a silent walk test.
- Walk Test is displayed on the LCD. Walk Test is replaced with the device activation message during the period the device is activated while in walk test mode.
- The panel enters a trouble state. There is no fire protection for the zone in walk test. If an unselected zone or device goes into alarm or trouble, all programmed outputs operate as programmed.

Zones and devices behave as follows during walk test.

- For alarm events, the appropriate panel and annunciator LEDs and buzzers turn on. In the audible (NAC) test mode a four-second pulse sounds for NAC types: continuous nonsilenceable, continuous silenceable, Genesis nonsilenceable, Genesis with audible silence only, and Genesis with audible and visible silenceable on the audible devices. A single 3-3-3 cycle sounds for NAC types: temporal nonsilenceable, temporal silenceable, coder basic, coder continuous, coder 120spm, and coder temporal on the audible devices.
- For trouble events, the appropriate LEDs and the buzzers turn on. In the audible (NAC) test mode a two-second pulse sounds on the audible devices.
- For ground fault events, the appropriate LEDs and the buzzers turn on. In the audible (NAC) test mode, a two-second pulse sounds on the audible devices.
- All device activations are latched until walk test is ended or the panel is reset. When walk test is ended, it takes approximately eight seconds for the devices to restore. If the device being tested is in a zone and does not restore, the zone does not reset.
- If auxiliary power is resettable, the auxiliary power is interrupted while the zone is reset.
- Input zones programmed as waterflow with retard require 10 to 15 seconds of activation to initiate the test signals.
- Devices programmed as alarm verify and *not in test mode* go directly into alarm if activated (the alarm verification process is bypassed).
- Restore each device after testing. For example, if you are testing a pull station, reset the pull station before testing the next device.

The panel terminates walk test if:

- The zone or device being tested remains inactive for 30 minutes.
- The walk test is stopped by the user.

To start a walk test:

1. Press the Menu button and choose Test.
2. Choose Walk Test Silent or Walk Test Audible.
3. Enter a level one password.
4. Choose either All Devices or Zone.
5. If you chose Zone, enter the zone ID for the zone you are going to conduct the walk test.
6. Choose Start.
7. Conduct your walk test.
8. Press Cancel to return to the previous menu.

   — or —

   Press the Menu button to exit menu mode.

Note: To see the activation and restoration of all walk test events, the panel must be reset *prior* to ending the walk test. Once the reset is complete, you can end the walk test and view a walk test report.

To end a walk test:

1. Press the Menu button and choose Test.
2. Choose Walk Test Silent or Walk Test Audible.
3. Choose either All Devices or Zone.
4. If you chose Zone, enter the zone ID of the zone for which you are going to end the walk test.
5. Choose End to turn off the walk test. All of the devices that were activated in the test are restored at this time.
6. Press Cancel to return to the previous menu.

   — or —

   Press the Menu button to exit menu mode.

Using HyperTerminal

HyperTerminal is a program that comes with your Windows operating system as an installable option. You can use it to connect to other computers, Telnet sites, bulletin board systems (BBSs), online services, and host computers. HyperTerminal connections are made using a modem, a null modem cable (used to emulate modem communication), or an Ethernet connection. When installed, HyperTerminal is typically found on the Accessories menu (Start > All Programs > Accessories > Communications).

HyperTerminal is a useful tool for gathering information from the control panel through an RS-232 port or USB connection in order to troubleshoot system faults. The information gathered can be saved as a plain text file (TXT extension) and submitted electronically to technical support for evaluation.

Note: To use HyperTerminal, you must have the optional SA-232 or SA-USB Interface Card installed in the control panel. To avoid getting a printer trouble, set the panel's printer option to Unsupervised before connecting your computer to the SA-232 or SA-USB card.

Setting up a HyperTerminal connection

Before you can gather information from the control panel you must set up a HyperTerminal connection.

To set up a HyperTerminal connection:

1. Start HyperTerminal.
2. In the Connection Description dialog box, type a name for the connection in the Name box then click OK.
3. In the Connect To dialog box, select the COM port you are using to connect your laptop computer to the control panel, and then click OK.
4. In the COM port's Properties dialog box, set the port settings as described below, and then click OK.

   Bits per second: 9600
   Data bits: 8
   Parity: None
   Stop bits: 1
   Flow control: None
5. On the File menu, click Save to save your connection settings.

Capturing a report

The history report provides useful information for troubleshooting system faults. You should always have this information available before calling technical support.

To capture a report:

1. On the Transfer menu, click Capture Text.
2. In the File box in the Capture Text dialog box, type a name for the captured text file. Example: History Report. The TXT file extension is added automatically.

   If you want to save the file somewhere other than the default location, click the Browse button, navigate to the desired location, and then name the file.
3. Click Start.
4. On the front panel, go to the main menu, choose Reports, and then choose the report you want captured.
5. On the Print Output menu, choose Printer to send the report to HyperTerminal.
6. Wait until the report transfer is complete.
7. On the Transfer menu, click Capture Text, and then Stop.

Replacing a device in alarm

You can replace a device with a new device of the same type while it is in alarm. You may need to do this when the device is faulty or for troubleshooting purposes. If you replace a device while it is in alarm, the device and control panel operate as follows:

- When the device in alarm is removed, the control panel remains in alarm and a trouble event displays.
- When installed, the new device does not go into alarm, but the LCD displays a second trouble event when the panel detects the new.
- When the control panel resolves the new device, the alarm condition restores and the two trouble events clear from the control panel.

Note: If the device causing the alarm is reinstalled, the device goes into alarm and the alarm condition does not restore.