KIDDE COMMERCIAL

EVOLVE User Guide

P/N 3102928-EN • REV 002 • ISS 09OCT25

Contact information

For contact information, see www.kidde-esfire.com.

Content

Important information

Regulatory information

This product has been designed to meet the requirements of NFPA 70 *National Electric Code*, NFPA 72 *National Fire Alarm and Signaling Code,* NFPA 720 *Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment*, Canadian Electrical Code, Part 1, ULC S524 *Standard for the Installation of Fire Alarm Systems*, ULC 5537 *Standard for the Verification of Fire Alarm Systems*, and CAN/ULC 561 *Installation and Services for Fire Signal Receiving Centres and Systems*.

Limitation of liability

To the maximum extent permitted by applicable law, in no event will Walter Kidde Portable Equipment, LLC be liable for any lost profits or business opportunities, loss of use, business interruption, loss of data, or any other indirect, special, incidental, or consequential damages under any theory of liability, whether based in contract, tort, negligence, product liability, or otherwise. Because some jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damages the preceding limitation may not apply to you. In any event the total liability of Walter Kidde Portable Equipment, LLC shall not exceed the purchase price of the product. The foregoing limitation will apply to the maximum extent permitted by applicable law, regardless of whether Walter Kidde Portable Equipment, LLC has been advised of the possibility of such damages and regardless of whether any remedy fails of its essential purpose.

Installation in accordance with this manual, applicable codes, and the instructions of the authority having jurisdiction is mandatory.

While every precaution has been taken during the preparation of this manual to ensure the accuracy of its contents, Walter Kidde Portable Equipment, LLC assumes no responsibility for errors or omissions.

Advisory messages

Advisory messages alert you to conditions or practices that can cause unwanted results. The advisory messages used in this document are shown and described below.

WARNING: Warning messages advise you of hazards that could result in injury or loss of life. They tell you which actions to take or to avoid in order to prevent the injury or loss of life.

Caution: Caution messages advise you of possible equipment damage. They tell you which actions to take or to avoid in order to prevent the damage.

Note: Note messages advise you of the possible loss of time or effort. They describe how to avoid the loss. Notes are also used to point out important information that you should read.

FCC compliance statement

This equipment can generate and radiate radio frequency energy. If the equipment is not installed in accordance with this manual, it may cause interference to radio communications. This equipment has been tested and found to comply with the limits for Class A computing devices pursuant to Subpart B of Part 15 of the FCC Rules. These rules are designed to provide reasonable protection against such interference when this equipment is operated in a commercial environment. Operation of this equipment is likely to cause interference, in which case the user, at their own expense, will be required to take whatever measures may be required to correct the interference.

SA-DACT FCC information

Cautions

- To ensure proper operation, this dialer must be installed according to the enclosed installation instructions. To verify that the dialer is operating properly and can successfully report an alarm, it must be tested immediately after installation, and periodically thereafter, according to the enclosed test instructions.
- In order for the dialer to be able to seize the phone line to report an alarm or other event when other customer equipment (telephone, answering system, computer modem, etc.) connected to the same line is in use, the dialer *must* be connected to a properly installed RJ-31X jack. The RJ-31X jack must be connected in series with, and ahead of, all other equipment attached to the same phone line. Series installation of an RJ-31X jack is depicted in the wiring diagram. If you have any questions concerning these instructions, you should consult your telephone company or a qualified installer.

Testing

When programming emergency numbers or making test calls to emergency numbers, remain on the line and briefly explain to the dispatcher the reason for the call. When system maintenance, testing or modifications could result in the transmission of signals from the fire alarm system to a supervising station, consult the supervising station to determine the best time to send these signals (i.e., “off-peak” hours).

Compliance

- This dialer complies with Part 68 of the FCC rules and the requirements adopted by the Administrative Council for Terminal Attachments (ACTA). A label attached to the dialer contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this information must be provided to the telephone company.
- The plug and jack used to connect the dialer to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by ACTA. The dialer must be connected to a compliant RJ-31X or RJ-38X jack using a compliant cord. If a modular telephone cord is supplied with the dialer, it is designed to meet these requirements. See installation instructions for details.
- A ringer equivalence number (REN) is used to determine how many devices you can connect to a telephone line. If the total REN value for all devices connected on a telephone line exceeds that allowed by the telephone company, the devices may not ring on an incoming call. In most (but not all) areas the total REN value should not exceed 5.0. To be certain of the total REN value allowed on a telephone line, contact the local telephone company.
- For products approved after July 23, 2001, the REN is part of the product identifier in the format US:AAAEQ##TXXXX. The digits ## represent the REN without a decimal point. Example: 03 is a REN of 0.3. For earlier products, the REN is listed separately.
- If the dialer is harming the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. If advance notice isn’t practical, the telephone company will notify you as soon as possible. You will also be advised of your right to file a complaint with the FCC, if you believe it is necessary.
- The telephone company may make changes to its facilities, equipment, operations, or procedures that could affect the operation of the dialer. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.
- If you are experiencing problems with the dialer, contact the manufacturer for repair or warranty information. If the dialer is harming the telephone network, the telephone company may request that you disconnect the dialer until the problem is resolved.
- The dialer contains no user serviceable parts. In case of defects, return the dialer for repair.
- You may *not* connect the dialer to a public coin phone, or a party line service provided by the telephone company.

Industry Canada information

Note: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational, and safety requirements. Industry Canada does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user disconnect the equipment.

Caution: Users should not attempt to make connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate

---

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Note: The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirements that the sum of the Load Numbers of all the devices does not exceed 100.

Intended audience

The intent of this document is to provide trained and authorized personnel with technical, operational, service, and maintenance information.

Life safety system limitations

The purpose of an automatic life safety system is to provide early detection and warning of a developing fire. There are a number of uncontrollable factors that can prevent or severely limit the ability of an automatic life safety system to provide adequate protection. As such, an automatic life safety system cannot guarantee against loss of life or loss of property.

Two main causes of system failures are improper installation and poor maintenance. The best way to minimize these types of system failures is to have only trained life safety system professionals design, install, test, and maintain your life safety system in accordance with national and local fire codes.

Life safety systems will not operate without electrical power. As fires frequently cause power interruption, we suggest that you discuss ways to safeguard the electrical system with your local fire protection specialist.

Chapter 1
Introduction

Summary

This chapter provides information about your EVOLVE control panel to give you a basic understanding of its operation.

Content

System overview

The EVOLVE control panel operates as a stand-alone panel in a Class B/DCLB, Class A/DCLA, or Class X/DCLC system. The panel is programmed using the EVOLVE-CU.

The EVOLVE user interface includes indicators and operator controls that allow you to respond quickly in emergency situations. The user interface gives you the ability to view event details and system reports, and to enable and disable devices and groups. With the qualified fire privilege PIN (user log on credential), you can activate and restore sensitivity settings, test system devices, and perform other tasks.

Cybersecurity

The EVOLVE control panel provides levels of protection and the flexibility to deploy in a manner that can help with cybersecurity protections. The system's flexibility allows the installer to work with the building owner and local IT professionals to match the system to their IT and cybersecurity needs. It is recommended that longer and complex alphanumeric passwords are used.

- Airgap: EVOLVE has multiple levels of physical security that can be used to meet simple airgap requirements in systems without firewalls.
- Access and authentication: Access to an EVOLVE system is based on industry standards, best practices. First a physical barrier, the locked door, provides a barrier to the system. To gain access to higher level system operations, at least a seven-digit ID/password entry is required. All control panel access is role-based; a user can only perform actions explicitly allowed by the permissions policy.
- External Connectivity: While the EVOLVE control panel has built-in firewall protection; it works in tandem with the site IT infrastructure. Therefore, the site should always include its own commercial firewall to protect the building network or intranet. It is recommended that longer and complex alphanumeric passwords are used.

EVOLVE LCD user interface

The EVOLVE inner door includes the LCD user interface for the EVOLVE control panel. The interface is comprised of an alphanumeric LCD screen, operator controls, and LED indicators.

User interface command controls and indicators descriptions

The LCD screen on the user interface provides command control and indicators relevant to system operation. See Table 1 on page 3 for a description of each control and indicator.

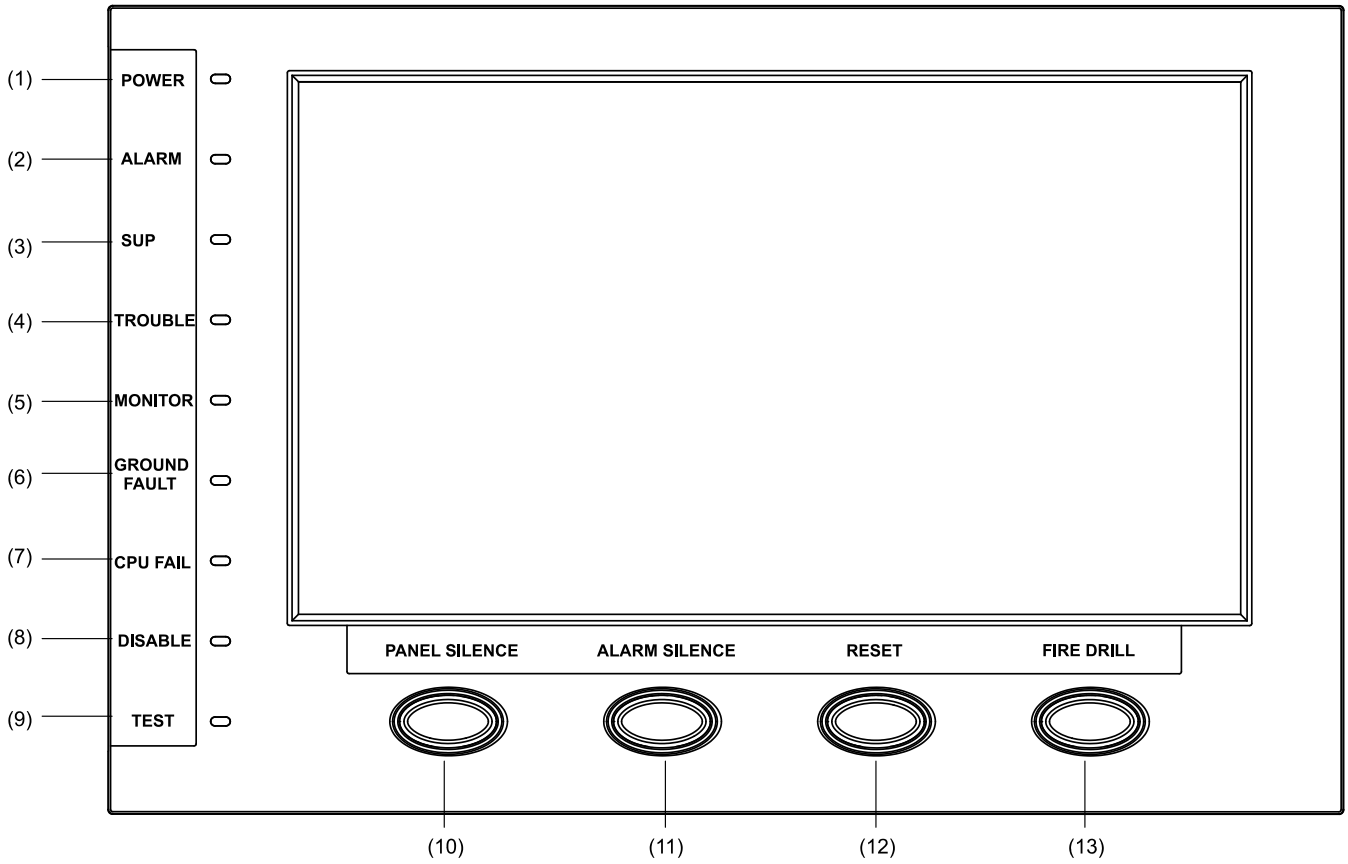


Table 1: Command controls and indicators descriptions

Item	Control/Indicator	Description
1	POWER indicator	Green LED. The indicator provides the power status. The indicator is set by the selected marketplace: **Power Always On:** A steady LED indicates that either primary power or standby power are present. An off LED indicates that both primary power and standby power are missing. **Power Follows AC:** A steady LED indicates that primary power is present and off when primary power is missing. An off LED indicates that standby power is present or is missing. **Power Only If Available AC and Battery:** A steady LED indicates that both primary power and standby power are present. An off LED indicates that either primary power or standby power are missing.
2	ALARM indicator	Red LED. Flashes when there is an active alarm event on any loop. On steady once acknowledged.
3	SUP indicator	Yellow LED. Flashes when there is an active supervisory event on any loop. On steady once acknowledged.
4	TROUBLE indicator	Yellow LED. Flashes when there's a fault with a monitored circuit or system component or when a circuit is disabled. On steady once acknowledged.
5	MONITOR indicator	Yellow LED. Flashes when there is an active monitor event on any loop. On steady once acknowledged.
6	GROUND FAULT indicator	Yellow LED. On steady when a ground fault is active.
7	CPU FAIL indicator	Yellow LED. On steady to indicate a microprocessor or memory failure as defined by regulatory agencies. An off LED indicates that CPU communications has been restored.

Item	Control/Indicator	Description
8	DISABLE indicator	Yellow LED. Flashes when there is a disabled circuit or device. On steady once acknowledged.
9	TEST indicator	Yellow LED. Flashes when there is an active Service Group or test event. On steady when all active test events have been acknowledged.
10	PANEL SILENCE button	Pressing the Panel Silence button silences the system buzzer and acknowledges the alert signal.
11	ALARM SILENCE button	Pressing Alarm Silence a second time unsilences/reactivates any silenced outputs.
12	RESET button	Pressing the Reset button executes a system reset process to return the system to normal if all alarms have cleared.
13	FIRE DRILL button	Pressing the Drill button for two seconds activates all common alarm outputs, and any other outputs configured for drill activation. Pressing the Drill button a second time cancels the drill response and deactivates all active drill outputs. Pressing Alarm Silence during an active Drill cancels the drill response and deactivates all active drill outputs.

LCD screen indications

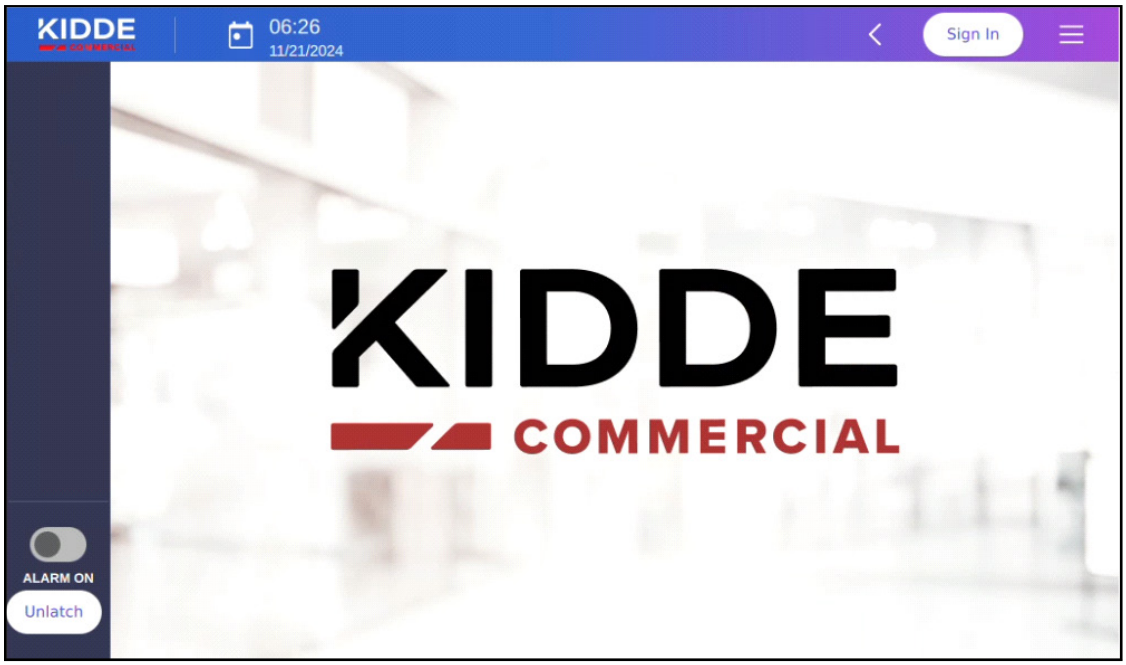
The LCD screen on the user interface provides information relevant to the current functional condition of the control panel. There are two screen modes: system normal and system off-normal.

System normal screen

System normal (Figure 1 on page 5) means that the control panel is in a normal or startup state. In this state, the LCD screen is clear of any event messages.

Note: If your control panel has been configured to include quick action buttons, you will see them in the bottom left corner of the system normal display.

Figure 1: System normal LCD screen



System off-normal

System off-normal (Figure 2 on page 6) means the control panel has entered an alarm, emergency, trouble, supervisory, building, monitor, disabled, ground fault, or test state. In this state, event messages automatically display on the screen that provide information about the events. Up to eight events can be displayed on the screen, which includes the most recent event.

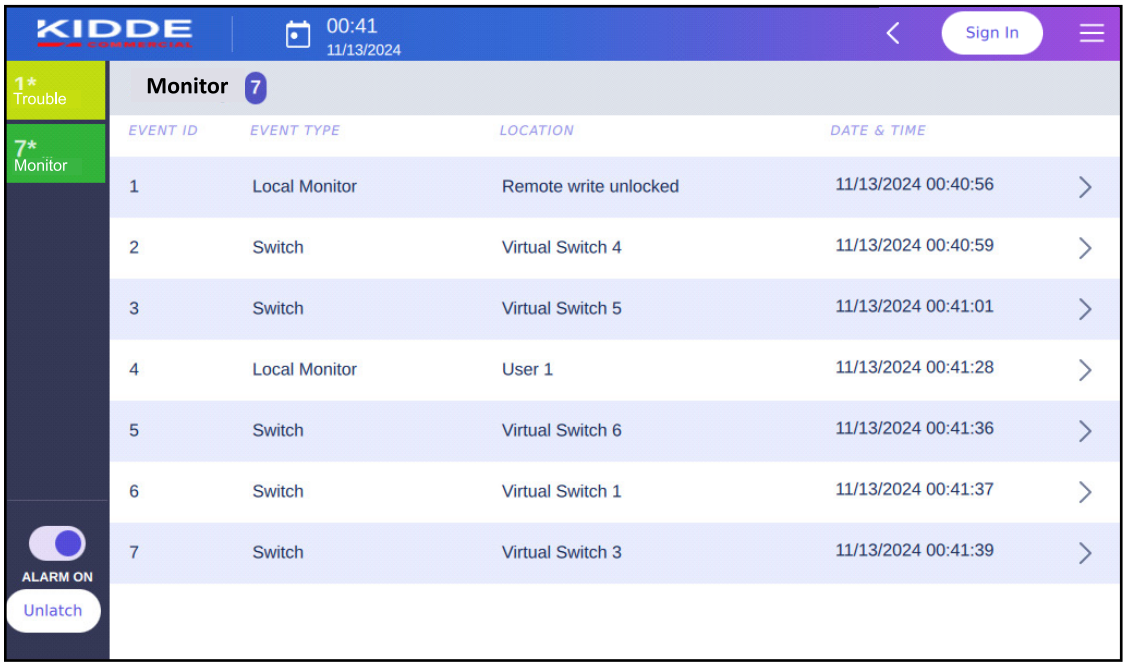
If your control panel has been configured to include quick action buttons, you will see them in the bottom left corner of the system normal display. Up to two quick action buttons can be configured to perform system operations.

Note: The off-normal screen only displays when events are activated. It does not display when events are restored.

The panel operates in off-normal mode any time an event is introduced into the system. When this happens, the panel:

- Changes contact positions on appropriate common relays
- Activates alarm outputs (for alarm events only)
- Turns on the appropriate LEDs and the panel buzzer
- Executes the appropriate programmed output response for the input that signaled the event
- Communicates event information to the LCD screen
- Sends a record of the event to the control panel’s history log
- Transmits event messages to a central monitoring station as programmed
- Prints event information on the printer if one is connected to the panel

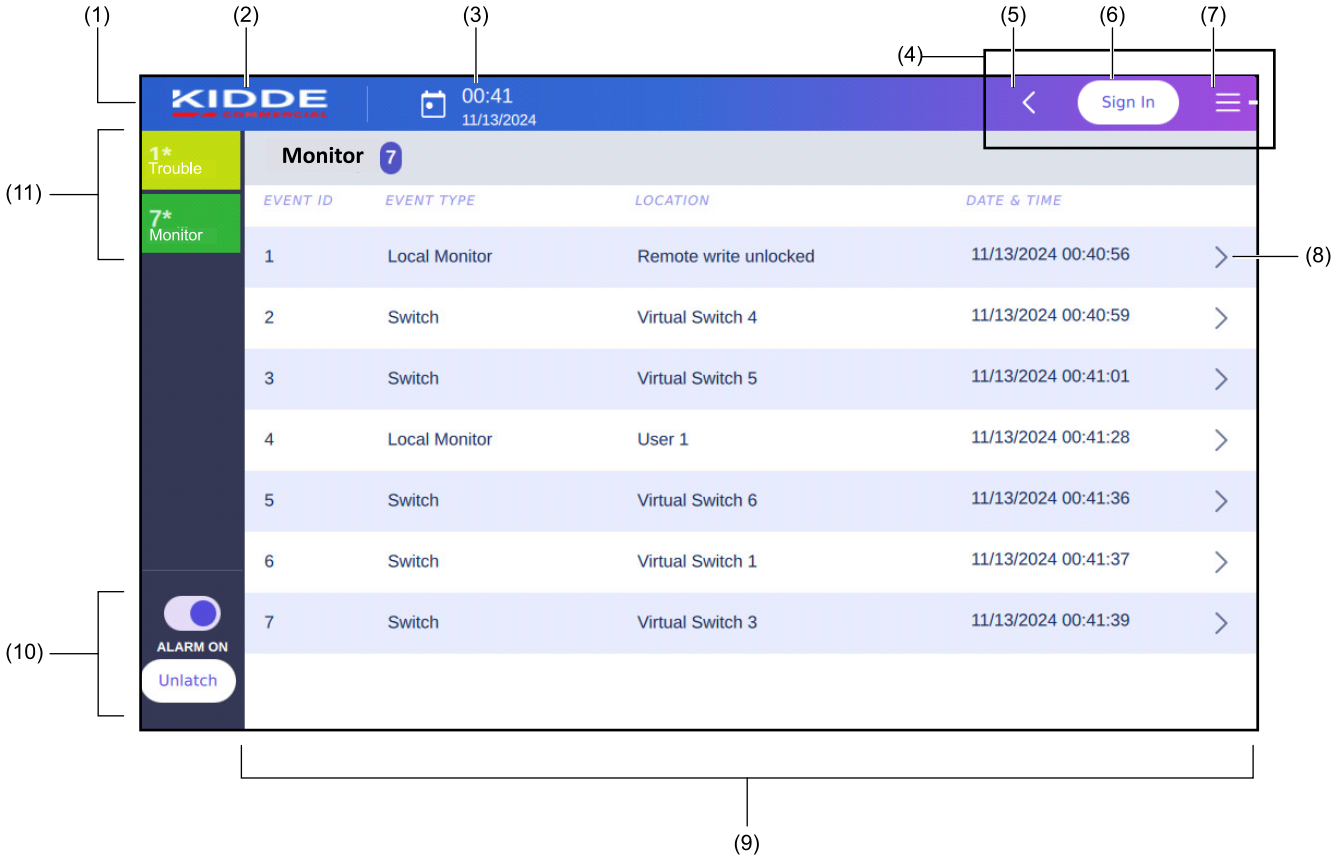
Figure 2: System off-normal LCD screen



LCD screen operator controls

The LCD screen displays event activity, provides on-screen action and command buttons, and access to system conditions, control panel settings, and system information.

Figure 3: LCD screen operator controls



(1) Banner bar
(2) Brand logo
(3) Date and time
(4) Navigation tools
(5) Back to previous screen button
(6) Sign In button (shows the Fire User U icon when a user is logged on)
(7) Menu button
(8) Detail Report button
(9) Information screen
(10) Quick action virtual buttons
(11) Event indicators (queues) with event counters (counter shows as 99+ when the event count exceeds 1,000)

LCD screen user interface icons and control buttons

The user interface includes icons, some of which act as operator control buttons. Table 2 below provides descriptions of the icons that you may see.

Table 2: Operator interface icon and option button descriptions

Icon	Description
U	User button. Displays when a user is logged on to the control panel. Tap to log off from the control panel or to change a user password.
☰	Menu button. Tap to display a list of selectable control panel actions. (See Table 4 on page 8 for descriptions of menu selections.)
>	Details button. Tap to go to event details.
<	Go back button. Tap to go back to previous screen.
★	Appears next to the event indicator counters, designating there are unacknowledged or new events since the control panel was last silenced.

Icon	Description
	Refresh button. Displays on report screens. Tap to refresh screen.
⌘	Command & Controls button. Displays on a report screen. Tap to display a list of dynamic selectable command and control actions. (See Table 8 on page 14 for description of the options.)
	Print button. Displays on a report screen when a printer has been configured in the EVOLVE-CU project. Tap to send the report to a configured printer.
	Close window button. Displays on popup windows. Tap to close the window.
	Virtual switch toggle button. Displays when a virtual switch has been configured as a Toggle switch in the EVOLVE-CU project. Tap to toggle a virtual switch between off and on.
	Previous/next button. Displays on a report screen. Tap to go to next or previous screen of a report.

Banner bar navigation tools

The banner bar includes the Kidde brand logo, the system date and time, and navigation tools. The navigation tools are described in Table 3 below.

Table 3: Banner bar navigation tools

Item	Description
Back button	Provides ability to go back to the previous screen.
Sign In button	Provides access to the control panel log on screen. **Note:** When a user is logged on, the Fire User button U displays.
Fire User button	Provides access to changing the user password and to logging off from the control panel.
Menu button	Provides access to control panel commands and reports, virtual switches, control panel access for project downloads, and to find a specific device. (See Table 4 below for details.)

LCD screen Menu button options

The control panel Menu button ☰ on the banner bar provides access to commands and actions that can be performed from the control panel. See Table 4 below for the options included in the Menu.

Table 4: LCD screen Menu button options

List	Minimum fire/user privilege level	Description
Alternate language toggle	0	Switches the names on LCD screen buttons, lists, indicators, and the text in primary event message to the EVOLVE-CU configured alternate language. (Example: English | Español.)
Panel Commands	0	• Indicator Test: Activates a color-cycle test for the LCD, all control panel LEDs, and installed control-display module LEDs.
	0	• Reset All: Resets all networked nodes. When activated, the Reset control button indicator flashes.
	1	• Freeze: When activated, the system freezes and archives up to 10,000 of the most recent events so that they cannot be overwritten. They can, however, be erased when the Clear history command is activated. To view or print a Freeze History archive, see “Freezing the events history” on page 29.

List	Minimum fire/user privilege level	Description
	1	• Toggle Alternate Sensing: Switches detector alarm sensitivity levels from primary to alternate or from alternate to primary, whichever is currently active.
	1	• Lock Incoming Network: Blocks IP read communications between the EVOLVE-CU and the control panel.
	1	• Unlock Incoming Network: Removes the block on communication between the EVOLVE-CU and the control panel.
	1	• Set Date and Time: Opens a window that lets you set the system time and date.
	2	• Clear: When activated, event indicator counters reset on the LCD screen and the list of events that occurred on the control panel since it was placed into service, or the last time the history file was cleared, is erased. This includes unfreezing and erasing archived history.
	2	• Reboot All: Future release
	2	• Reboot: Restarts the local control panel without removing power.
	2	• Start R-Series Firmware Download: Activates the firmware download to K-R-Series annunciators. The download can take up to 20 minutes for each annunciator.
	2	• Cancel R-Series Firmware Download: When activated, the download to K-R-Series annunciators is cancelled.
	2	• Switch to Default Configuration: Clears the downloaded project from control panel.
Find Device	0	Displays an interface keyboard that allows you to enter the device address. • NNN: Node number • CCC: Hardware/module address • DDDD: Device point address
Virtual Switches	0	Displays six programmable virtual switches. A virtual switch must be programmed in the EVOLVE-CU to be active. They can be configured to: • Activate inputs, outputs, zones, logic, groups • Initiate correlations (Disable function, Unlatch operation, manual evacuation • Initiate a Service Group **Note:** Up to two virtual switches can be programmed in the EVOLVE-CU as Quick Action switches. See Figure 3, item 10 on page 7.
Panel Reports	0	• Status: Lists active events and disabled points from the selected node.
	0	• Status Test: Lists off-normal devices under test.
	0	• Status Disabled: Lists all addressable points that are in the disabled state.
	0	• History report: Lists up to the last 30,000 events (10,000 latest events, 10,000 alarm events, 10,000 frozen events) processed by the selected node in reverse chronological order, from the current date to the beginning of the previous month. The date range for the report is shown on the report screen.
	0	• History Alm (Alarm): Lists the event name, time, date, and location text for all alarm events in reverse chronological order, from the current date to the beginning of the previous month. The date range for the report is shown on the report screen.
	0	• History Trbl (Trouble): Lists the event name, time, date, and location text for all trouble events in reverse chronological order, from the current date to the beginning of the previous month. The date range for the report is shown on the report screen.
	0	• History Sup (Supervisory): Lists the event name, time, date, and location text for all supervisory events in reverse chronological order, from the current date to the beginning of the previous month. The date range for the report is shown on the report screen.

List	Minimum fire/user privilege level	Description
	0	• Maintenance: Lists the %Dirty value for all of the detectors on a signaling line circuit for the selected node. For CO detectors the report includes CO Life Left Months or CO DAY Running. The report includes each detector's model type, primary and alternate alarm sensitivity values, and, if programmed, a location description.
	0	• Maintenance Dirty: Lists all addressable smoke detectors that have a %Dirty value 80% and greater. A smoke detector that is more than 80% dirty should be noted for possible cleaning or replacing.
	0	• Maintenance Not Clean: Lists all addressable smoke detectors that have a %Dirty value of 20% and greater. Smoke detectors that are more than 20% dirty should be cleaned or replaced as soon as possible
	0	• Device Maintenance: Lists the %Dirty value for a specific detector. For CO detectors the report includes CO Life Left Months or CO DAY Running. The report includes the detector's model type, primary and alternate alarm sensitivity values, and, if programmed, a location description
	0	• System Info: Lists the control panel firmware version, EVOLVE-CU version, and hardware configurations.
	0	• License Info: License information report. Lists EVOLVE control panel third-party and open-source software and licensing.
	0	• Revision: Lists the revision level of the configuration components in the local control panel, including CPU, hardware and operator layer modules.
Access PIN	0	Allow Config Updates One Hour: Provides a validation code that unblocks the Remote Write command for one hour to permit database changes. The code must be entered in the EVOLVE-CU to allow database downloads from a programming computer to the CPU in the EVOLVE control panel.
	0	Allow Config Updates Eight Hours: Provides a validation code that unblocks the Remote Write command for eight hours to permit database changes. The code must be entered in the EVOLVE-CU to allow database downloads from a programming computer to the CPU in the EVOLVE control panel.
	2	Allow Config Updates Forever: Provides a validation code that unblocks the Remote Write command for an unlimited amount of time to permit database changes. The code must be entered in the EVOLVE-CU to allow database downloads from a programming computer to the CPU in the EVOLVE control panel.

System operation

The basic function of the EVOLVE control panel is to monitor status changes in the life safety system and to activate outputs according to the site-specific software. Status change signals, also called events, are classified by type and mapped into event queues.

Operator alert signals

In coordination with visual event notifications on the user interface, the control panel employs an audible signal to alert the operator of off-normal system conditions for active event conditions. Different operator alert signal patterns are assigned to the event queues. Table 5 below shows the signal patterns used in the US Market. Note that the market setting for your control panel may result in different patterns.

Note: The operator alert signal may automatically sound a reminder signal, if supported by the market.

Table 5: Operator alert patterns (US Market patterns shown)

Event queue	Operator alert pattern
Alarm / Emergency	3 pulses every 4 seconds
Supervisory / Building	2 pulses every 4 seconds
Trouble	1 pulse every 4 seconds
Monitor	1 pulse every 16 seconds
Ground Fault	1 pulse every 4 seconds
CPU Fail	On steady
Disable	1 pulse every 4 seconds
Test	1 pulse every 4 seconds

Event indicators and event counters

The event indicators (queues) that display on the LCD screen are determined by the system marketplace. Events in the queues can pass through to a configured printer.

The event counters display the number of events in the event queue. If the number of events in the event queue exceeds 1,000, the count displays as 99+. A star designates that there are unacknowledged or new events since the control panel was last silenced.

Note: The market setting determines which event types go into each event queue, and their priority (see Table 6 below).

The event queues display in order of priority based on programming and market settings. Event types are mapped to the queues based on the project's market setting. Table 6 below shows the event types that go into each event queue, and their priority, for the US market.

Table 6: Event type-to-queue for US market

Event queue	Priority	Max Events	Event type
Alarm	1	2,000	Alarm, Pull, Heat, Waterflow, Stagetwo, Zone, AND, Matrix, HeatAlarm
Emergency	2	2,000	Emergency, COAlarm, COAlarm3, ComboAlarm3
Supervisory	3	2,000	Supervisory, PreAlarm [1], Valve, Gatevalve, Tamper, COSupervisory, COSupervisory3, SmokeSupervisory
Trouble	4	2,000	TroubleOpen, TroubleShort, LocalTrouble, Dirtyhead, Devicecommunication
Building	5	1,000	Temperature, Power, Signal, Damper, Fan, Door
Disable	6	2,000	Disablement, SensorBypass, Testevent, ObjectRunning, Servicegroup
Ground Fault	7	500	Groundfault

Event queue	Priority	Max Events	Event type
Monitor	8	2,000	AlarmVerify, PreAlarm [1],Station, MaintenanceAlert, RelayConfirmation, Monitor, LocalMonitor, Switch, TimeControl, InstructionText, COMonitor, COMonitor3, Temperature, Power, Signal, Interlockfeedback, InterlockFBFailure, Interlock, Damper, Fan, Door

[1] PreAlarm events appear in the Supervisory queue but are considered Monitor events, which do not trigger the supervisory relay. PreAlarm events appear in the “History” report as monitor events.

Event display priorities

New events of the types listed below, if set as a high priority event type during system programming, will interrupt the current LCD screen and immediately switch the display to the queue of the new event type, overriding any user timeout.

- Alarm
- Emergency

Event message lists

Event message lists allow you to view details of messages to help locate points that are in an abnormal state. When the system signals a status change, the control panel posts the event message for the point that activated the event in the appropriate event message list.

An event message consists of four columns of text that identify the activated event: Event ID, Event Type, Location, Date & Time. Figure 4 below shows an example of the event message screen.

Figure 4: Event message

User fire access levels

Certain user interface controls and functions are password protected and have a fire privilege level that is determined by the market setting or programming administrator. The fire privilege levels are summarized in Table 7 on page 13.

Table 7: Fire/user privileges by access level

Fire/user privilege level	Privileges
0 (default; no user sign in required)	• Panel Silence button • Alarm Silence button • Reset button • Drill button • Event details • Reports • Indicator Test • Reset All • Find Device • Virtual Switch (activate) • Access PIN (one/eight hour) • Toggle language primary/secondary
001	All level 0 privileges, plus: • Start/cancel test • Set system time and date • Devices (activate/restore) • Devices (enable/disable) • Switches (enable/disable) • Logic groups (enable/disable) • Freeze history • Lock Incoming Network • Unlock Incoming Network • Toggle alternate sensitivity • Change level 001 password
002	All level 0 and 1 privileges, plus: • Clear history • Reboot/Reboot All (restart) • Change level 002 and level 001

Using the touch screen

The EVOLVE LCD touch screen provides interactive operator controls. You can

- *tap* buttons on the banner bar and within the information screens to open screens where you can apply system operations and system functions,
- *swipe* left, right, up, or down on the screen to reveal offscreen information on the screen, and
- *drag* the scroll bar on the side of the information screen, to see offscreen event messages.

Device and logic group command and control tools

You can issue commands to individual devices and logic groups from a report screen and after finding a device by using the Find Device function. The tools are accessed by tapping the Command & Control ⌘ button that is displayed on a device Detail Report screen, as well as other report screens. The pop-up window displays a list of

selectable dynamic commands that can be issued. See Table 8 below for the options included in the Command & Control list.

Table 8: Device and logic group Command & Control tools

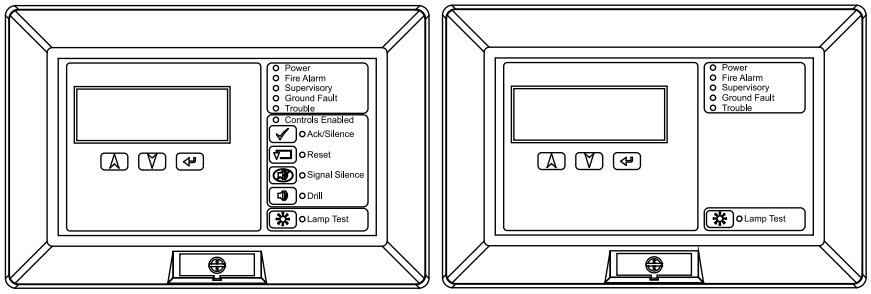
List	Minimum fire/user privilege level	Description
Device Maintenance	0	Lists the %Dirty value for the selected detector. For CO detectors the report includes CO Life Left Months or CO DAY Running. The report includes the detector's model type, primary and alternate alarm sensitivity values, and, if programmed, a location description.
Disable	1	Disables a device.
Enable	1	Enables a device.
On	1	Activates an input/output device.
Off	1	Restores an input/output device.
Active 1 Test	2	Places a Signature device into alarm state for verification testing.
Active 2 Test	2	Places a Signature device into prealarm state for verification testing.
Trouble Test	2	Places a Signature device into trouble state for verification testing.
Accelerate Test On	2	Places a Signature CO detector or Signature optical smoke detector into accelerated sensing rates for testing purposes.
Accelerate Test Off	2	Returns a Signature CO detector or Signature optical smoke detector under test to normal sensing rates.
Activate	1	Activates AND groups and command lists.
Restore	1	Restores AND groups and command lists.
Activate Service Group	1	Starts a service group test for an alarm input device that is part of the service group. Service groups allow alarm input devices to be activated without placing the system into alarm.
Restore Service Group	1	Stops a Service group test.
Steady	1	Turns on a control-display LED to steady
Fast	1	Turns on a control-display LED to fast blink.
Slow	1	Turns on a control-display LED selected to slow blink.
Off	1	Turns off the control-display LED.

K-R-Series remote annunciators

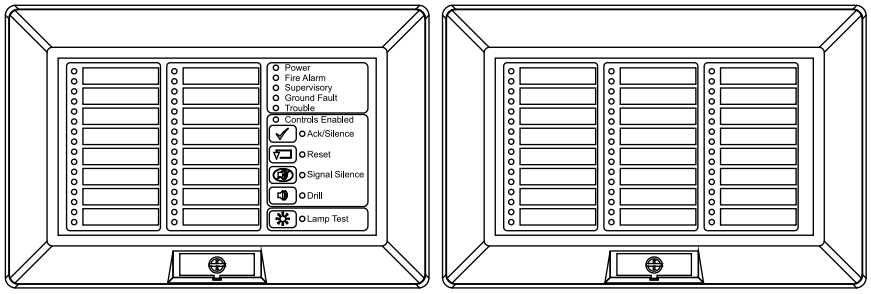
K-R-Series remote annunciators are EVOLVE control panel accessories that communicate with the control panel through RS-485 communication. The annunciators provide common control switches, system status indicators, zone event messages, and zone status indicators at remote locations throughout the protected premises.

EVOLVE control panel compatible K-R-Series remote annunciator models are shown in Figure 5 on page 15. For details on using K-R-Series annunciators, see *K-R-Series Remote Annunciator Technical Reference Manual* (P/N 3102921).

Figure 5: Compatible K-R-Series remote annunciators



K-RLCD-C K-RLCD



K-RLED-C K-RLED24

Model	Description
K-RLCD-C-2	Remote LCD text annunciator with common controls and indicators.
K-RLCD-2	Remote LCD text annunciator with indicators (no common controls).
K-RLED-C-2	Remote LED annunciator with common controls and 16 pairs of programmable LEDs. The first 12 pairs are dedicated red-over-yellow LEDs. The last four pairs can be configured in the EVOLVE-CU as red-over-yellow LEDs or as yellow-over-yellow LEDs.
K-RLED24-2	Remote annunciator LED expander with 24 pairs of programmable LEDs. The top 12 pairs are dedicated red-over-yellow LEDs. The bottom 12 pairs can be configured in the EVOLVE-CU as red-over-yellow LEDs or yellow-over-yellow LEDs.

Chapter 2
Basic operating instructions

Summary

This chapter provides instructions for operating the basic features of your EVOLVE control panel. Basic features are those that typically do not require a fire privilege PIN.

Content

Changing the LCD screen to an alternate language

For control panels configured for an alternate language, you can toggle between the primary and alternate language using the language option in the Menu ☰. The language option shows the primary and alternate language. For example, English | Española.

When the alternate language button is tapped, the names on LCD screen buttons, lists, and indicators and the text in primary event messages switches to the alternate language.

Notes

- Custom event message text does not switch to the alternate language.
- The LCD screen defaults to the primary language at control panel startup.

To change the LCD screen to the alternate language:

1. Tap the Menu ☰ button.
2. Tap the alternate language button to toggle between the primary alternate language.

Silencing and acknowledging the operator alert signal

The control panel sounds the operator alert signal when an event message is posted into one of the event message queues. Pressing the Panel Silence button acknowledges the event message and silences the operator alert signal. The operator alert signal automatically re-sounds when a new event message is posted or when the system panel silence cancel timer expires (typically 24 hours).

Table 9 below describes the behavior of event messages.

Table 9: Event message behavior for Local and Proprietary modes

Scenario	Local mode
No new events have activated since the last time the control panel was silenced.	The highest priority event queue displays.
New events have activated since the last time the control panel was silenced.	The first new, highest priority event displays and the buzzer sounds.
An active non-latching event is restored.	The event clears from the display queue.

Note: For nonlatching events, the operator alert signal automatically silences when the event is restored. For example, when a trouble clears.

To silence and acknowledge the operator alert:

1. Press the Panel Silence operator control button.

Silencing alarm signals

WARNING: Death or serious injury. The protected premises may be occupied. Do not silence alarm signals or reset the control panel unless you are authorized to do so and only after all occupants have been evacuated.

Pressing the Alarm Silence operator control button silences all audible alarm signals and, if configured, all visual alarm signals. Pressing the button a second time turns back on the signals.

Pressing the Alarm Silence operator control button *does not* silence alarm signals under the following conditions:

- When a waterflow alarm switch is active and the system is configured to prevent silencing alarm signals when a waterflow alarm switch is active.
- When the system is configured to delay the silencing of alarm signals (Alarm Silence Inhibit property), in which case the Alarm Silence button may not be operational for up to five minutes following the first alarm event.

Silenced outputs automatically re-sound when:

- The Alarm Silence button is pressed a second time
- Another alarm input activates
- Another alarm input in the same zone activates, unless the system is configured to prevent alarm signals from re-sounding

To silence alarm signals:

1. Press the Alarm Silence operator control button.

Resetting the control panel

WARNING: Death or serious injury. The protected premises may be occupied. Do not reset the control panel until the proper authorities have determined that the threat of fire is no longer present.

Resetting the control panel restores the system to its normal state, provided all latched inputs have been restored before the end of the reset cycle.

If alarm signal initiating devices have not been restored before the end of the reset cycle:

- Active alarm signals will remain active
- Silenced alarm signals will remain silenced

Notes

- The Reset button may be inoperable for up to three minutes following the first alarm event.
- The Reset button does not affect disabled points or manually overridden functions.

To reset the control panel:

1. Press the Reset operator control button.

Viewing and printing event details

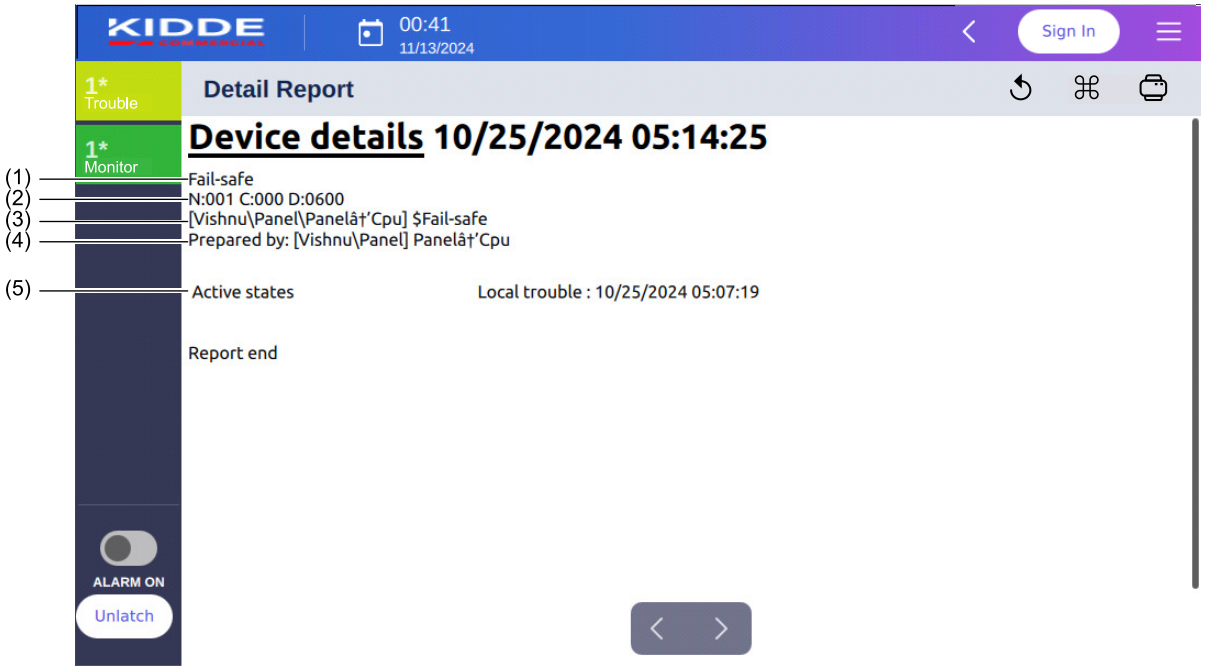
A Detail Report provides information that identifies a device that generated a system event and the event type (Figure 6 below). Event details are accessed from an event on the off-normal screen or from the Find Device screen.

Device details: If a device activation causes an event, the Details screen shows the active device's label, device address, and the off-normal state.

Logic group details: If a group activation causes an event, the Details screen shows the state of the device, device address, and device message, which is usually the device location.

Instruction text details: For certain system events or pseudo points, additional information text may be displayed.

Figure 6: Event Detail Report



Legend
(1) Location text
(2) Device address
(3) Path
(4) Node running the report
(5) Event type

Note: The printer button displays if a printer has been configured during control panel programming.

To view and print device details from the off-normal screen:

1. On the off-normal screen, tap Detail Report > button. The Detail Report displays.
2. To print the report, tap the print button on the Detail Report.
3. To return to the previous screen, tap the go back < button on the Detail Report.

To view device details from an event list:

1. Tap the Menu button.
2. Tap Find Device, and then use the interface keyboard to enter the device address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.

Tap Find. The Detail Report displays.

3. To print the report, tap the print button on the Detail Report.
4. To return to the previous screen, tap the go back button on the Detail Report.

Viewing and printing system reports

Reports are used to check the current condition or history of the EVOLVE life safety network. EVOLVE system reports can be viewed and printed from either the control panel LCD screen or from the computer running the EVOLVE-CU programming utility.

Accessing system reports on the control panel

Table 10 below lists the reports that you can access from the control panel. The report displays on the LCD screen and can also be printed to a local printer.

Table 10: Reports accessed from the control panel

Report type	Description
Status	Lists all active events and disabled points from the selected node.
Status Test	Lists all off-normal devices under test.
Status Disabled	Lists of addressable points that are disabled.
History [1]	Lists the last 30,000 events and operator commands (10,000 latest events, 10,000 alarm events, 10,000 frozen events) processed by selected node from the current date to the beginning of the previous month.
History Alm (Alarm) [1]	Lists the event name, time, date, and location text for all alarm events from the current date to the beginning of the previous month
History Trbl (Trouble) [1]	Lists the event name, time, date, and location text for all trouble events from the current date to the beginning of the previous month.
History Sup (Supervisory) [1]	Supervisory: Lists the event name, time, date, and location text for all supervisory events from the current date to the beginning of the previous month.
Maintenance	Lists the %Dirty value for all of the smoke detectors on a signaling line circuit. The report also includes each smoke detector's model type, primary and alternate alarm sensitivity values, and, if programmed, a location description.
Maintenance Dirty	Lists all addressable smoke detectors that have a %Dirty value of 80% and greater. A smoke detector that is more than 80% dirty should be noted for possible cleaning or replacing.
Maintenance Not Clean	Lists all addressable smoke detectors that have a %Dirty value of 20% and greater. Smoke detectors that are more than 20% dirty should be cleaned or replaced as soon as possible. **Note:** The %Dirty value is an indication of a smoke detector's ability to compensate for environmental conditions. Smoke detectors with higher percentages are less able to compensate.
Maintenance Device	Lists the %Dirty value for a single smoke detector. For CO detectors the report includes CO Life Left Months or CO DAY Running. The report also includes the smoke detector's model type, primary and alternate alarm sensitivity values, and location description.
System Info	Provides a project description that includes the control panel MAC address required for communication between the EVOLVE-CU and control panel, and project versioning numbers. The System Information report content is described below. • IP/DNS node name: Shows the MAC address of the installed CPU (node). • System Up Time: Shows the date and time the system was started. • History frozen: Shows the date and time the Freeze history command was issued.

Report type	Description
	• First Event Date: Shows the date and time of the first system event. • Most Recent Alarm Date: Shows the date and time of the most recent alarm. • Total history count: Shows a count of events or operator instructions processed by the control panel. • Alarm history count: Shows a count of how many times the control panel has entered the alarm condition.
License Info	The License Information report provides a list of open source and third-party software used in the EVOLVE control panel.
Revision	Provides system database information and installed hardware information. The hardware shown on the list is dependent on the devices installed in the control panel cabinet. **Initial information:** • Market: Shows the EVOLVE-CU market setting • Configuration Utility: Shows the EVOLVE-CU version • Configuration Version: Shows the EVOLVE-CU project version number. • Configuration time stamp: Shows the date and time that the EVOLVE-CU project was created or modified. • Configuration schema: Shows the EVOLVE-CU firmware-to-software interface version. • Configuration messaging: Shows the EVOLVE-CU internal messaging protocol version. • Firmware: Shows the EVOLVE-CU firmware version. **LRM x information:** • LRM type • Firmware version and date • Bootloader version and date • Database version and date **CPU shows:** • CPU type • Firmware version and date • Bootloader version and date.

[1] History reports list the most recent events or operator instructions processed by the control panel for the previous month to current or since its history was cleared. To view all months, use the EVOLVE-CU reports feature.

If the Freeze History command has been activated, the system freezes and archives up to 10,000 of the most recent events so that they cannot be overwritten. To view or print a Freeze History archive, see “Freezing the events history” on page 29.

When the Clear History command has been activated, event indicator counters reset on the LCD screen and the list of events that occurred on the control panel since it was placed into service, or the last time the history file was cleared, is erased. This includes unfreezing and erasing archived history.

The report is structured with the most recent event or instruction listed first.

To view or print reports from the control panel LCD:

1. Tap the Menu ☰ button.
2. Tap Panel Reports, and then tap the desired report.

   Note: To view more reports swipe left or right on the screen.
3. To print the report, tap the print button on the Detail Report.

   Note: The print button appears when the control panel is configured for a printer.
4. To return to the previous screen, tap the go back < button on the Detail Report.

To view device reports:

See “Viewing and printing event details” on page 20.

Activating alarm signals manually

The EVOLVE drill feature lets you activate alarm signals manually without putting the control panel into alarm. When you activate a drill, all audible alarm signals turn on and, if configured, all visual alarm signals, but other automatic fire alarm responses are not activated. The alarm signals remain active until the drill is canceled.

To activate a drill:

1. Press the Fire Drill operator control button.

To cancel a drill:

1. Press the Fire Drill operator control button.

Testing the system and devices

Test commands are used to perform periodic inspection tests on the control panel.

Performing an indicator test (lamp test)

Use the Indicator Test command to verify the operation of the LCD screen, LED indicators, and any installed control-display module LEDs. The Indicator Test command temporarily turns on the operator alert signal, all LED indicators, and every pixel on the LCD screen.

Notes

- For a control panel that has control-display modules installed, a switch (button) on the module may be programmed to activate the indicator test. If so, the switch would be labeled accordingly.
- The indicator test function may be programmed for a fire privilege level password; however, the default setting is no PIN required.

To activate an indicator test:

1. Tap the Menu ☰ button, and then tap Panel Commands.
2. In the Panel Commands list, tap Indicator Test.

   A color-cycle test starts for the LCD, control panel LEDs, and installed control-display module LEDs.

Control-display modules

Control-display modules provide additional operator interface capability. The EVOLVE-24L series modules provide pockets for inserting custom labels. The labels can be printed using the EVOLVE-CU configuration utility.

Model [1]	Description
EVOLVE-24L	24 indicators
EVOLVE -24L12S	24 indicators and 12 switches
EVOLVE -24L18S	24 indicators and 18 switches
EVOLVE -24L24S	24 indicators and 24 switches

The switches on a control-display module use one of three operating modes.

- **Toggle:** The state of the switch changes each time the switch is pushed (i.e., off to on or on to off). Toggle switches are commonly used to control two-state operations such as on/off, open/close, speaker select, telephone select, etc.
- **Momentary:** The switch is on only while pressed by the operator. Momentary switches are typically used to activate functions that are self-restoring. Examples include lamp test, function reset, and test sequence.

You may find multiple switch modes on a single control-display module. Consult your site-specific documentation for additional information.

Chapter 3
Advanced operating instructions

Summary

This chapter provides instructions for operating the advanced features of your EVOLVE control panel. Advanced features alter system operation and require fire privilege 001 access or greater.

Content

Logging on and off the control panel

For user interface controls and functions that are password protected, you will be required to log on.

A user log on credential (PIN) is comprised of the 3-digit user ID (fire/user privilege level) assigned by the system administrator and a user-created password. The password can be up to 16 alpha numeric characters.

To log on to the control panel:

1. Tap the Sign In button in the banner bar navigation tools.
2. Enter your 3-digit user ID provided by the administrator and your password.

   The Sign In button changes to the User icon.

To log off from the control panel:

1. On the Action bar, tap the User icon, and then tap Sign Out.

Establishing control panel-to-EVOLVE-CU communication

Some User ID level tasks may require communication between the control panel and the EVOLVE-CU that is used for programming the control panel, downloading configuration settings to the control panel, and uploading reports data from the control panel.

Follow the steps in this topic to establish control panel-to EVOLVE CU communication, when it is required.

Notes

- Access to the project computer used to program the control panel is required.
- The USB port on the electronics assembly CPU main board requires a Type C cable. For connecting the control panel to the project computer for programming, a USB-C to USB-C or USB-C to USB-A cable is required.
- The Windows-based Remote Network Driver Interface Specification (RNDIS) driver is required on the project computer to provide the programming interface between the computer and CPU. Refer to the *EVOLVE-CU Release Notes* for instructions on installing the RNDIS driver.
- To avoid possible failure of the download process due to a login/logout error, any Wi-Fi or other network adapters should be disabled on the project computer. Only the USB RNDIS connection should be enabled during the download process.
- A Remote Write Unlocked local monitor event appears in the Other queue and the operator alert signal sounds when the control panel is unlocked. Both are restored to normal after the control panel is restored to its default setting when the access is cancelled by the programmer or the access period expires.

To connect communication between the EVOLVE control panel and the EVOLVE-CU:

1. Disable or disconnect any Wi-Fi or other network adapters on the project computer. Only the USB RNDIS connection should be enabled during the download process.
2. Connect the Type C end of a USB cable to the J2 or J3 USB port on the CPU. See Figure 7 on page 27.
3. Connect the other end of the cable to the USB port on the computer with the project database.
4. From the control panel LCD screen:

   In the Navigation tools on the Banner bar, tap the Menu button, and then tap Access PIN.

On the Access PIN screen, tap 1 Hour Access PIN or 8 Hour Access PIN, to obtain an EVOLVE-CU required access code that will allow read access.

5. From the EVOLVE-CU:

   On the Home tab, click Enter PIN.

   Enter the PIN, and then click Validate.

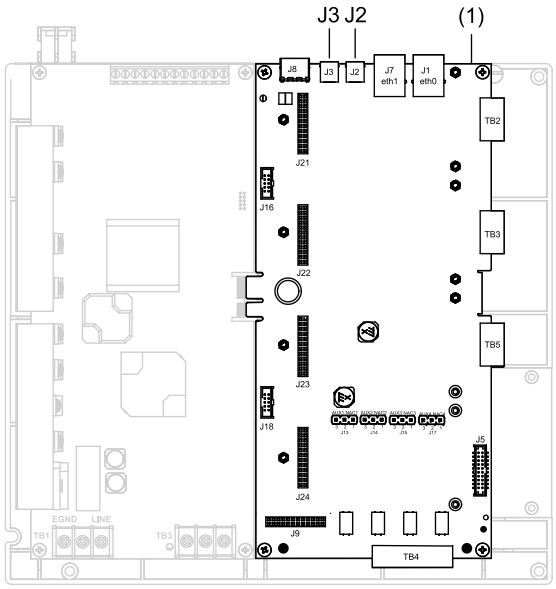
   On the Home tab, click Query Network, and then Refresh. The query returns network information that includes node MAC addresses. The window remains open until you close it.

6. Disconnect communication when you have finished downloading/uploading data:

   From the control panel LCD screen, tap the Menu ☰ button, and then Access PIN, Cancel Access. This will block read access.

   Disconnect the USB cable from the control panel and computer.

Figure 7: Download ports on the control panel CPU board



(1) CPU board

Changing user passwords

Notes

- User ID 001 can change their own password.
- User ID 002 (administrator) can change their own password and the password for user ID 001.

To change your user ID 001 password:

1. Tap the Sign In button in the banner bar navigation tools.
2. Enter user ID 001 and your password, and then tap Sign In.
3. Tap the User button U, and then tap Change Password.
4. In the New Password box, enter the new password, and then enter it again in the Confirm Password box.

   The password can be up to 16 alpha numeric characters.

5. Click Change Password.

To change the user password for ID 001 and ID 002 as administrator:

1. Tap the Sign In button in the banner bar navigation tools.
2. Sign in as user ID 002 (administrator), and then tap Sign In.
3. Tap the User button U, and then tap Reset Password.
4. Select the user ID number.
5. In the New Password box enter the new password, and then tap Reset Password.

   Note: If you are resetting the user ID 001 password, it is recommended you advise them to change the password to a personal password.

To reset an unknown administrator password (user ID 002):

1. If the administrator does not know their password, contact Edwards Technical Support at +1 800 655 4497 to reset the password.
2. After regaining control panel access, it is recommended that you change the temporary password provided by Kidde Commercial Technical Support.

Setting the system date and time

The control panel incorporates a system clock to time stamp events and to activate time controls. The time is presented in 24-hour format. The date format is determined by the EVOLVE-CU project property setting. The default format is presented in month-day-year.

Note: Only users with fire privilege 001 and higher can access the system clock function.

To set the system date and time:

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button.
2. Tap Panel Commands, and then tap Set Date & Time.
3. Use the interface rotary pad to select the date and time.

   The default format is YYYYMMDD hhmm. Where,

   YYYY = 4-digit year
   MM = 2-digit month
   DD = 2-digit day
   hh = 2-digit hour
   mm = 2-digit minutes

   Note: The time is entered in 24-hour format, for example:

   0000 = midnight
   0100 = 1:00 a.m.
   1200 = noon
   1300 = 1:00 p.m.
   2359 = 11:59 p.m.
4. Tap Issue Command. The date and time at the top of the user interface screen immediately changes.

Rebooting the control panel

Rebooting the system reinitializes it without removing power.

Note: Only users with fire privilege 002 can access the reboot function.

To reboot the system:

1. Sign in as fire privilege 002, and then tap the Menu ☰ button.
2. Tap Panel Commands, and then tap the Reboot command.

Note: The Reboot All command will be available in a future release. 3. Tap Issue Command.

Clearing the alarm history

Caution: Clearing the control panel history file permanently deletes all history data for the control panel.

The alarm history counter keeps track of how many times the control panel has entered the alarm condition. Clearing the history resets the event indicator counters on the LCD screen (Figure 2 on page 6) and erases the list of events that occurred on the control panel since it was placed into service or the last time the history file was cleared.

Notes

- Only users with fire privilege 002 can access the clear history function.
- Clearing the alarm history also unfreezes and erases archived history.

To clear the alarm history:

1. Sign in as fire privilege 002, and then tap the Menu ☰ button.
2. Tap Panel Commands, the Clear History command, and then Issue Command.

Freezing the events history

When the Freeze History command is activated, the system archives the most recent events (up to 10,000) so that they cannot be overwritten.

Notes

- Only users with fire privilege 001 and higher can access the freeze history function.
- You need to connect the control panel to the programming computer in order to view or print the freeze history archive.

To freeze event history:

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button.
2. Tap Panel Commands, the Freeze History command, and then Issue Command.

To view or print events in the freeze history archive:

1. Enable control panel-to-EVOLVE CU communication as instructed in “Establishing control panel-to-EVOLVE-CU communication” on page 26.
2. From the control panel LDC screen:

   Tap the Menu ☰ button, and then Panel Reports.

   Tap the System Info button.

   On the System Info screen, find History Frozen and note the date and time that the Freeze history command was issued.
3. From the EVOLVE-CU:

   In the Active Project panel, click the Panels > Panel category of the node from which you want the events freeze history.

   On the Reports tab, click Events, and then select History.

   In the Panel Report – History dialog box, configure the report properties.

   - Start Time: Enter the desired begin date and time.
   - End Time: Enter the History Frozen information noted in step 2 above.

   Click Get Report. The history report displays listing events that occurred within the specified timeframe.
4. Disconnect control panel-to-EVOLVE CU communication when you have finished downloading:

   From the control panel LCD screen, tap the Menu ☰ button, and then Access PIN, Cancel Access. This will block read access.

   Disconnect the USB cable from the control panel and computer.

Disabling and enabling devices

Devices include input and output circuits, detectors, and modules. Disabling a device isolates it from the system. While the device is disabled, the EVOLVE control panel logs the status change signals, but is prevented from processing the signals until the device is enabled. For example, the control panel does not activate an alarm event when you activate a disabled detector, but it will after the detector is enabled.

The control panel keeps track of how many times you disable a device without enabling it. You must enable a device the same number of times you disable it in order to return the device to its original condition. The Status Disabled report provides a counter that shows the number of times the device was manually disabled.

Notes

- You cannot disable a device configured as a common alarm output.
- Disabling all of the devices in a Zone group automatically disables the Zone group. Enabling each device in a Zone group automatically enables the Zone group.
- Disabling the device address for the dialer or a dialer account deletes all event messages sent to that account before they are transmitted. The dialer still transmits the account’s test-abnormal message and any message that was in the dialer queue before the account was disabled.
- When you enable a device, all indicators and outputs activated by the device will reactivate.

To disable an active device:

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button

2. Tap Find Device, and then use the interface keyboard to enter the target device address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Disable command, and then tap Issue Command.

To enable a device:

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button.
2. Tap Find Device, and then use the interface keyboard to enter the target device address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Enable command, and then tap Issue Command.

   Note: Enable the device the same number of times that you disabled it. If necessary, view the Status Disabled report to see the manual disable counter (Menu ☰ > Panel Reports > Status Disabled).
5. A warning screen appears before enabling the device. Note that the panel will go into alarm if you enable a disabled device that is still in alarm state. Tap OK to enable the device or Cancel to cancel the action.

Disabling and enabling devices

Devices include input and output circuits, detectors, and modules. Disabling a device isolates it from the system. While the device is disabled, the EVOLVE control panel logs the status change signals, but is prevented from processing the signals until the device is enabled. For example, the control panel does not activate an alarm event when you activate a disabled detector, but it will after the detector is enabled.

The control panel keeps track of how many times you disable a device without enabling it. You must enable a device the same number of times you disable it in order to return the device to its original condition. The Status Disabled report provides a counter that shows the number of times the device was manually disabled.

Notes

- You cannot disable a device configured as a common alarm output.
- Disabling all of the devices in a Zone group automatically disables the Zone group. Enabling each device in a Zone group automatically enables the Zone group.
- Disabling the device address for the dialer or a dialer account deletes all event messages sent to that account before they are transmitted. The dialer still transmits the account's test-abnormal message and any message that was in the dialer queue before the account was disabled.
- When you enable a device, all indicators and outputs activated by the device will reactivate.

To disable a device:

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button
2. Tap Find Device, and then use the interface keyboard to enter the LRM address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Disable command, and then tap Issue Command.

To enable a device:

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button.

2. Tap Find Device, and then use the interface keyboard to enter the LRM address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Enable command, and then tap Issue Command.

   Note: Enable the device the same number of times that you disabled it. If necessary, view the Status Disabled report to see the manual disable counter (Menu ☰ > Panel Reports > Status Disabled).
5. A warning screen appears before enabling the device. Note that the panel will go into alarm if you enable a disabled device that is still in alarm state. Tap OK to enable the device or Cancel to cancel the action.

Disabling and enabling logic groups

Groups are required in order to execute certain system functions, but groups bear no physical relationship to the system. For example, smoke detectors can be assigned to the same Zone group even though they are not attached to the same wire run.

Disabling a group isolates it from the system. While the group is disabled, the EVOLVE control panel is prevented from processing status change signals from every device in the group until the device is enabled. For example, in a Zone group, the control panel does not activate an alarm event when you activate a disabled detector, but it will after the detector is enabled.

The control panel keeps track of how many times you disable a logic group without enabling it. You must enable a logic group the same number of times you disable it in order to return the group to its original condition. The Status Disabled report provides a counter that shows the number of times the device was manually disabled.

Note: If you disabled a Zone logic group by disabling all of the devices in the zone, enabling the zone enables all of the devices in the zone.

The logic groups are listed below.

- Zone group: A collection of input devices that are grouped in the database to provide a unique response separate from their individual device responses. Zone groups can be configured to go into alarm when any member of the group goes active or when any device in the group goes into trouble.
- AND group: A collection of devices that are grouped in the database to provide a group response that is separate from that of its member devices. An AND group activates when a specified number of devices change to a specified state. The specified state can be alarm, supervisory, trouble, monitor, or not active (NA). AND groups can be configured to signal an alarm, supervisory, trouble, or monitor condition upon activation.
- Service group: A collection of devices that are grouped together in the database to provide a unique response for testing purposes. When enabled, the Service group automatically disables the member device's normal alarm response and provides a common alternate test response.
- Command group: A collection of commands and the group of devices you want the command to target.
- Base group: A collection of relay and sounder bases.
- Event Routing: A collection of event routing to Central Monitoring Station (CMS) accounts.

To disable a group:

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button
2. Tap Find Device, and then use the interface keyboard to enter the group address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Disable command, and then Issue Command.

To enable a group:

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button.
2. Tap Find Device, and then use the interface keyboard to enter the group address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Enable command, and then Issue Command.

   Note: Enable the group the same number of times that you disabled it. If necessary, view the Status Disabled report to see the manual disable counter (Menu ☰ > Panel Reports > Status Disabled).

Testing the system and devices

Test commands are used to perform periodic inspection tests on the control panel.

Testing Signature devices

Use commands accessed from the control panel LCD screen to remotely place a Signature device into the alarm, prealarm, monitor, supervisory, or trouble condition for testing purposes. Signature devices include all detectors and modules. To test a Signature device, the device must be connected to a signaling line circuit.

Note: For latching devices, you must reset the control panel to restore the tested device to its normal state. Nonlatching devices restore automatically without resetting the control panel.

To place a Signature CO or optical smoke detector into test state:

1. Sign in as fire privilege 002, and then tap the Menu ☰ button
2. Tap Find Device, and then use the interface keyboard to enter the device address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Accelerate Test On command, and then Issue Command.
5. Return the detector to normal sensing rates by tapping the Command & Controls ⌘ button on the Detail Report screen and issuing the Accelerate Test Off command.

To place a Signature device into test state:

1. Sign in as fire privilege 002, and then tap the Menu ☰ button
2. Tap Find Device, and then use the interface keyboard to enter the device address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Test Trouble command, and then Issue Command.

To place a Signature device into alarm, monitor, or supervisory state:

1. Sign in as fire privilege 002, and then tap the Menu ☰ button
2. Tap Find Device, and then use the interface keyboard to enter the device address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Activate 1 Test command, and then Issue Command.

To place a Signature device into prealarm state:

1. Sign in as fire privilege 002, and then tap the Menu ☰ button
2. Tap Find Device, and then use the interface keyboard to enter the device address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Activate 2 Test command, and then Issue Command.

Testing alarm input devices

In order to test an alarm input device, the device must be part of a Service group that was created in the EVOLVE-CU during programming. Service groups allow alarm input devices to be activated without placing the system into alarm. The protected premises may be divided into more than one Service group to make testing possible without leaving the entire premises unprotected.

Note: The alarm input test automatically times out after approximately 1-hour of inactivity.

To put a Service group into test:

1. Sign in as fire privilege 002, and then tap the Menu ☰ button
2. Tap Find Device, and then use the interface keyboard to enter the group address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Activate Service Group command, and then Issue Command.
5. Stop the test by tapping the Command & Controls ⌘ button on the Detail Report screen and issuing the Restore Service Group command.

Changing output states

Open the Command & Control pop-up window from the Detail Report to issue On and Off commands that change the output state of relays, NAC circuit outputs, and audio amplifiers.

To activate an output state:

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button
2. Tap Find Device, and then use the interface keyboard to enter the device address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the On command, and then Issue Command.
5. Restore to normal sensing rates by tapping the Command & Controls ⌘ button on the Detail Report screen and issuing the Accelerate Test Off command.

To restore a relay output state:

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button
2. Tap Find Device, and then use the interface keyboard to enter the device address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Off command, and then Issue Command.

Changing a smoke detector alarm sensitivity threshold

Intelligent addressable smoke detectors are configured with two alarm sensitivity thresholds: primary and alternate. The alarm sensitivity setting determines how much smoke is needed for the automatic fire detectors to sense a fire alarm condition. This allows you to increase or reduce an individual detector's sensitivity at various times of the day, dependent upon, environmental conditions, occupancy, manufacturing processes, etc.

A time control is commonly used to automatically switch alarm sensitivity thresholds. However, you can manually switch alarm sensitivity thresholds by using a command button.

Primary alarm sensitivity threshold

Typically, the primary alarm sensitivity threshold is set to a lower threshold. This threshold is commonly used for a daytime operation to reduce the occurrence of nuisance alarms when a facility is occupied, or when environmental conditions may create prealarm conditions.

Alternate alarm sensitivity threshold

The alternate alarm sensitivity threshold sets the *secondary threshold* at which the smoke detector activates an alarm event. Typically, the alternate threshold is set to a higher sensitivity threshold. This threshold is commonly used for a nighttime or weekend operation when the facility is unoccupied.

Alarm sensitivity settings

Alarm sensitivity settings are expressed in percent of smoke obscuration per foot. The setting defines the threshold at which the detector will change to the alarm state when the smoke in its sensing chamber exceeds the obscuration per foot threshold. The alarm sensitivity levels for Signature devices are described below.

Note: When smoke detectors having both ionization and photoelectric elements are used, the sensitivity setting applies to both elements.

- Most: Activates an alarm event when the smoke level reaches approximately 1.0 %/ft. obscuration (0.7 %/ft. for ionization detectors)
- More: Activates an alarm event when the smoke level reaches approximately 2.0 %/ft. obscuration (1.0 %/ft. for ionization detectors)
- Normal: Activates an alarm event when the smoke level reaches approximately 2.5 %/ft. obscuration (1.2 %/ft. for ionization detectors)
- Less: Activates an alarm event when the smoke level reaches approximately 3.0 %/ft. obscuration (1.4 %/ft. for ionization detectors)
- Least: Activates an alarm event when the smoke level reaches approximately 3.5 %/ft. obscuration (1.6 %/ft. for ionization detectors, 2.46 %/ft. for a SIGA-SD Duct Smoke Detector)

Toggling the sensitivity threshold

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button.
2. Tap the Toggle Alternate Sensing command, and then Issue Command.
3. To switch back to primary alarm sensitivity:

   Tap the Toggle Alternate Sensing again, and then Issue Command.

Disabling and enabling control-display modules

Disabling and enabling control-display modules

Disabling a control-display module isolates it from the system. While disabled, changes to the module's state are not processed. When the module is disabled, a Disabled Active event shows in the Trouble queue.

Enabling a control-display module re-establishes it as part of the system. When enabled, any changes in state that occurred while the module was disabled are not processed.

To disable the control-display module:

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button
2. Tap Find Device, and then use the interface keyboard to enter the control-module address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Disable command, and then Issue Command.

To enable the control-display module:

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button
2. Tap Find Device, and then use the interface keyboard to enter the control-module address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Enable command, and then Issue Command.

Disabling and enabling control-display module elements

Control-display module switches

To disable the control-display module switch:

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button
2. Tap Find Device, and then use the interface keyboard to enter the target switch address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Disable command, and then Issue Command.

To enable the control-display module switch:

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button
2. Tap Find Device, and then use the interface keyboard to enter the target switch address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Enable command, and then Issue Command.

Control-display module LEDs

To disable the control-display module LED:

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button
2. Tap Find Device, and then use the interface keyboard to enter the target LED indicator address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Disable command, and then Issue Command.

To enable the control-display module LED:

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button
2. Tap Find Device, and then use the interface keyboard to enter the target LED indicator address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Enable command, and then Issue Command.

To set the control-display module LED mode:

1. Sign in as fire privilege 001 or higher, and then tap the Menu ☰ button
2. Tap Find Device, and then use the interface keyboard to enter the target LED indicator address. Where, NNN = Node number, CCC = Hardware/module address, DDDD = Device point address.
3. On the Detail Report screen, tap the Command & Controls ⌘ button.
4. Tap the Enable command, and then select one of the following:
   - Steady (turns on the LED to steady)
   - Fast (turns on the LED to fast blink)
   - Slow (turns on the LED to slow blink)
   - Off LED (turns off the LED)
5. Tap Issue Command.

Chapter 4
Preventive maintenance and testing

Summary

This chapter provides instruction for maintaining and testing the EVOLVE control panel.

Content

Visual inspections

Perform visual inspections in accordance with Table 11 below, or more often if required by the local AHJ. See Table 13 on page 42 for test methods.

Table 11: Visual inspection schedule

Component	Frequency	Recommended procedure
Radiant energy fire detectors	Monthly	Inspect the equipment for any visible signs of damage or other changes that may adversely affect performance. Clean if necessary.
Supervisory signal devices	Monthly	Verify that the module's green LED flashes. Ensure there are no changes that may adversely affect equipment performance.
Waterflow devices	Monthly	Verify that the module's green LED flashes. Ensure there are no changes that may adversely affect equipment performance.
Batteries	Semiannually	Inspect batteries for corrosion or leakage. Verify that the battery connections are tight and secure. Clean the connections, if required. Replace batteries every 5 years, or sooner if conditions warrant.
Control panel trouble signals	Semiannually	Ensure there are no changes that may adversely affect equipment performance.
Duct detectors	Semiannually	Inspect the equipment for any visible signs of damage or other changes that may adversely affect performance.
Electromechanical releasing devices	Semiannually	Ensure there are no changes that may adversely affect equipment performance.
Fire extinguishing systems or suppression systems	Semiannually	Ensure there are no changes that may adversely affect equipment performance.
Fire alarm boxes	Semiannually	Inspect the equipment for any visible signs of damage or other changes that may adversely affect performance.
Heat detectors	Semiannually	Inspect the equipment for any visible signs of damage or other changes that may adversely affect performance. Clean if necessary.
Smoke detectors	Semiannually	Inspect the equipment for any visible signs of damage or other changes that may adversely affect performance. Clean if necessary.
Interface equipment	Semiannually	Inspect the equipment for any visible signs of damage or other changes that may adversely affect performance.
Alarm notification appliances	Semiannually	Verify that the module's green LED flashes. Ensure there are no changes that may adversely affect equipment performance.
Supervising station control panel transmitters	Semiannually	Ensure there are no changes that may adversely affect equipment performance.
Control panel	Annually	Inspect the equipment for any visible signs of damage or other changes that may adversely affect performance.
Fiber optic cable connections	Annually	Inspect the cables for any visible signs of damage, loose connections, or other changes that may adversely affect performance.

Routine maintenance and tests

Perform routine maintenance and tests in accordance with Table 12 below or more often if required by the local AHJ. See Table 13 on page 42 for test methods.

Notes

- Before starting testing, notify all areas where the alarm sounds and off premises locations that receive alarm and trouble transmissions that testing is in progress.
- Keep records of all testing and maintenance on the protected premises for a period of at least five (5) years.
- A complete check of installed field wiring and devices should be made at regular intervals, in accordance with NFPA 72 and ULC 524 requirements. This includes testing all alarm and supervisory alarm initiating devices and circuits, and any off premise connections.
- Control panel operation should be verified in the alarm, supervisory, and trouble modes.
- For SIGA and SIGA2 Signature Series detector testing and maintenance procedures, refer to *Signature Series Detector Application Bulletin* (P/N 270145).

Maintenance schedule

Table 12: Routine maintenance schedule

Component	Initial and Reacceptance	Other
Control equipment [1]	Y	Quarterly/Annually
Batteries [2]	Y	Annually
Control panel trouble signals	Y	Annually
Fiber optic cable connections	Y	Annually
Smoke detectors	Y	Annually
Heat detectors	Y	Annually
Fire alarm boxes	Y	Annually
Supervisory signal devices (except valve tamper switches)	Y	Quarterly
Waterflow devices	Y	Semiannually
Valve tamper switches	Y	Semiannually
Fire extinguishing systems or suppression systems	Y	Annually
Interface equipment	Y	Annually
Audible notification appliances	Y	Annually
Textual audible notification appliances (speakers)	Y	Annually
Visible notification appliances	Y	Annually
Off-premises transmission equipment	Y	Quarterly
Supervising station fire alarm system transmitters	Y	Annually

[1] Test control equipment quarterly when it is not connected to a supervising station.

[2] Replace batteries every five years or sooner if conditions warrant.

Table 13: Routine maintenance and tests

Component	Test	Test methods
Control panel	Visual inspection	Inspect the equipment for any visible signs of damage or other changes that may adversely affect performance.
	Initial and Reacceptance	1. Verify that the control panel indicates open, short, and ground faults for all notification appliance circuits, initiating device circuits, and signaling line circuits. 2. Verify that the control panel activates all evacuation signals and auxiliary functions according to the site specific software. 3. Verify that all controls and indicators function as intended. 4. Disconnect the primary (mains) power. Verify that the control panel indicates an AC power failure.
	Quarterly/Annual	Test one-fourth of the entire system every three months such that the entire system is tested in a one year period or test the entire system once each year.
Standby batteries	Visual inspection	Inspect batteries for corrosion or leakage. Verify that the battery connections are tight and secure. Clean the connections, if required. Replace batteries every 5 years or sooner if conditions warrant.
	Initial and Reacceptance	1. With the control panel powered up, and with the batteries connected and fully charged, verify that the voltage across the battery terminals is the correct voltage in accordance with the battery manufacturer's specifications. 2. With the control panel under full load, disconnect the primary (mains) power. Wait until the standby operation time requirement passes then activate all alarm signals. Verify that the alarm signals remain active for at least 5 minutes for horns and strobes or 15 minutes for audio in the US, whichever is greater.
	Annual	1. With the control panel powered up, and with the batteries connected and fully charged, verify that the voltage across the battery terminals is the correct voltage in accordance with the battery manufacturer's specifications. 2. Test the capacity of the batteries using a battery tester suitable for the amp-hour rating of the batteries.
Smoke detectors	Visual inspection	1. Verify that the detector’s green LED flashes if programmed to do so. 2. Inspect the equipment for any visible signs of damage or other changes that may adversely affect performance. Clean if necessary.
	Initial and Reacceptance	1. Remove the detector from its base. Verify that the control panel displays a trouble message that correctly identifies the detector. 2. Activate the detector. Verify that the detector’s red LED flashes and the control panel displays an alarm message that correctly identifies the detector. 3. If the detector is installed in a relay base, verify the correct operation of the relay. 4. Run a Device Maintenance Report on all the smoke detectors in the system. Verify that all sensitivity levels fall within acceptable limits. Keep a printed copy for your records.

Component	Test	Test methods
	Annual	1. Activate the detector. Verify that the detector's red LED flashes and the control panel displays an alarm message that correctly identifies the detector. 2. If the detector is installed in a relay base, verify the correct operation of the relay. 3. Run a Device Maintenance Report on all the smoke detectors in the system. Verify that all sensitivity levels fall within acceptable limits. Keep a printed copy for your records.
Heat detectors	Visual inspection	1. Verify that the detector's green LED flashes. 2. Inspect the equipment for any visible signs of damage or other changes that may adversely affect performance. Clean if necessary.
	Initial and Reacceptance	**Caution:** Directing heated air at a single point may permanently damage the heat detector. Wave the hair blower slowly back and forth approximately 1 in. from the heat entry slots. 1. Remove the detector from its base. Verify that the control panel displays a trouble message that correctly identifies the detector. 2. Activate the detector using a commercial grade (1200 to 1500 W) hair blower. Verify that the detector's red LED flashes and the control panel displays an alarm message that correctly identifies the detector. 3. If the detector is installed in a relay base, verify the correct operation of the relay.
	Annual	**Caution:** Directing heated air at a single point may permanently damage the heat detector. Wave the hair blower slowly back and forth approximately 1 in. from the heat entry slots. 1. Activate the detector using a commercial grade (1200 to 1500 W) hair blower. Verify that the detector's red LED flashes and the control panel displays an alarm message that correctly identifies the detector. 2. If the detector is installed in a relay base, verify the correct operation of the relay.
Duct detectors	Visual inspection	Inspect the equipment for any visible signs of damage or other changes that may adversely affect performance.
	Initial and Reacceptance	Activate the equipment. Make sure the control panel correctly identifies the device.
	Semiannual	Activate the equipment. Make sure the control panel correctly identifies the device.
Fire alarm boxes	Visual inspection	Inspect the equipment for any visible signs of damage or other changes that may adversely affect performance.
	Initial and Reacceptance	Activate the equipment. Make sure the control panel correctly identifies the device.
	Semiannual	Activate the equipment. Make sure the control panel correctly identifies the device.

Component	Test	Test methods
Alarm input modules (except waterflow switch inputs)	Visual inspection	Verify that the module's green LED flashes. Ensure that there are no changes that may adversely affect equipment performance.
	Initial and Reacceptance	1. Open the circuit. Verify that the control panel displays a trouble message that correctly identifies the module. 2. Short each side of the circuit to ground one at a time. Verify that for each short the control panel displays a ground fault message that correctly identifies the module. 3. Activate the module. Verify that the module's red LED flashes and the control panel displays an alarm message that correctly identifies the module.
	Annual	Activate the module. Verify that the red LED flashes and the control panel displays an alarm message that correctly identifies the module.
Waterflow switch input modules	Visual inspection	Verify that the module's green LED flashes. Ensure that there are no changes that may adversely affect equipment performance.
	Initial and Reacceptance	1. Open the circuit. Verify that the control panel displays a trouble message that correctly identifies the module. 2. Short each side of the circuit to ground one at a time. Verify that for each short the control panel displays a ground fault message that correctly identifies the module. 3. Activate the module. Verify that the module's red LED flashes and the control panel displays an alarm message that correctly identifies the module.
	Semiannual	Activate the module. Verify that the module's red LED flashes and the control panel displays an alarm message that correctly identifies the module.
Supervisory input modules (except valve tamper inputs)	Visual inspection	Verify that the module's green LED flashes. Ensure that there are no changes that may adversely affect equipment performance.
	Initial and Reacceptance	1. Open the circuit. Verify that the control panel displays a trouble message that correctly identifies the module. 2. Short each side of the circuit to ground one at a time. Verify that for each short the control panel displays a ground fault message that correctly identifies the module. 3. Activate the module. Verify that the module's red LED flashes and the control panel displays a supervisory message that correctly identifies the module.
	Quarterly	Activate the module. Verify that the module's red LED flashes and the control panel displays a supervisory message that correctly identifies the module.
Valve tamper input modules	Visual inspection	Verify that the module's green LED flashes. Ensure that there are no changes that may adversely affect equipment performance.
	Initial and Reacceptance	1. Open the circuit. Verify that the control panel displays a trouble message that correctly identifies the module. 2. Short each side of the circuit to ground one at a time. Verify that for each short the control panel displays a ground fault message that correctly identifies the module. 3. Activate the module. Verify that the module's red LED flashes and the control panel displays a supervisory message that correctly identifies the module.
	Semi-annual	Activate the module. Verify that the module's red LED flashes and the control panel displays a supervisory message that correctly identifies the module.
Releasing modules	Visual inspection	Verify that DS2 flashes and DS4 is on. Ensure that there are no changes that may adversely affect equipment performance.

Component	Test	Test methods
	Initial and Reacceptance	**WARNING:** Disconnect all wiring on TB4 (RELEASE 1 and RELEASE 2) when servicing or testing the system. Disabling points does not prevent activation of the release circuits. Failure to follow these instructions may result in loss of life, serious injury, or property damage. 1. Verify that the control panel indicates open, shorts, and ground faults for each of the circuits. 2. Verify that the release initiation circuit activates the release circuits as intended, and that all required signals are indicated on the control panel. 3. Verify that the manual release switch, if used, activates the release circuits as intended, and that all required signals are indicated on the control panel. 4. Verify that the abort switch, if used, prevents the release circuits from activating as intended.
	Semiannual	**WARNING:** Disconnect all wiring on TB4 (RELEASE 1 and RELEASE 2) when servicing or testing the system. Disabling points does not prevent activation of the release circuits. Failure to follow these instructions may result in loss of life, serious injury, or property damage. 1. Verify that the release initiation circuit activates the release circuits as intended, and that all required signals are indicated on the control panel. 2. Verify that the manual release switch, if used, activates the release circuits as intended, and that all required signals are indicated on the control panel. 3. Verify that the abort switch, if used, prevents the release circuits from activating as intended.
Audible notification appliances	Visual inspection	Ensure that there are no changes that may adversely affect equipment performance.
	Initial and Reacceptance	Measure and record sound pressure levels throughout the protected area to ensure the minimum audibility requirements of NFPA 72 are met. Confirm synchronization of outputs within each notification zone per NFPA 72.
	Annual	Measure and record sound pressure levels throughout the protected area to ensure the minimum audibility requirements of NFPA 72 are met. Confirm synchronization of outputs within each notification zone per NFPA 72
Textual audible notification appliances (speakers)	Visual inspection	Ensure there are no changes that may adversely affect equipment performance.
	Initial and Reacceptance	Measure and record sound pressure levels of the required tone(s) preceding the textual audible (voice) message throughout the protected area to ensure the minimum audibility requirements of NFPA 72 are met. Verify that audible information is distinguishable and understandable.
	Annual	Measure and record sound pressure levels of the required tone(s) preceding the textual audible (voice) message throughout the protected area to ensure the minimum audibility requirements of NFPA 72 are met. Verify that audible information is distinguishable and understandable.
Visible notification appliances	Visual inspection	Ensure that there are no changes that may adversely affect equipment performance.
	Initial and Reacceptance	Verify that the appliance locations are in accordance with the approved layout and are set for the correct candela rating. Verify that each appliance flashes. Verify synchronization of the light output between devices as required by NFPA 72.
	Annual	Verify that each appliance flashes. Verify synchronization of the light output between devices as required by NFPA 72.

Component	Test	Test methods
Off-premises transmission equipment	Visual inspection	Ensure that there are no changes that may adversely affect equipment performance.
	Initial and Reacceptance	1. Activate an alarm initiating device. Verify that the off-premises location receives an alarm signal. 2. Create a trouble condition. Verify that the off-premises location receives a trouble signal. 3. Activate a supervisory device. Verify that the off-premises location receives a supervisory signal. 4. If the module is configured to transmit alarm signals and trouble signals over the same dedicated pair of wires, create a trouble condition, and then activate an alarm initiating device. Verify that the off-premises location receives an alarm signal and a trouble signal.
	Semiannual	1. Activate an alarm initiating device. Verify that the off-premises location receives an alarm signal. 2. Create a trouble condition. Verify that the off-premises location receives a trouble signal. 3. Activate a supervisory device. Verify that the off-premises location receives a supervisory signal. 4. If the module is configured to transmit alarm signals and trouble signals over the same dedicated pair of wires, create a trouble condition, and then activate an alarm initiating device. Verify that the off-premises location receives an alarm signal and a trouble signal.
Digital alarm communicator transmitter (DACT)	Visual inspection	Inspect the equipment for any visible signs of damage or other changes that may adversely affect performance.
	Initial and Reacceptance	1. Activate an alarm input while using the primary telephone line for a telephone call. • Verify that the supervising station receives the correct signal. • Verify completion of the transmission attempt occurs within 90 seconds. 2. Disconnect the primary telephone line and connect the secondary telephone line. • Verify that the control panel indicates a DACT trouble message. • Verify that the DACT transmits the trouble signal to the supervising station within 4 minutes of detecting the fault. 3. Disconnect the secondary telephone line and connect the primary telephone line. • Verify that the control panel indicates a DACT trouble message. • Verify that the DACT transmits the trouble signal to the supervising station within 4 minutes of detecting the fault.
	Semiannual	Same as initial and reacceptance testing.

System trouble and maintenance log

Date	Time	Event	Initial

Record of completion

NFPA 72 requires a Record of Completion be filled out at the time of system acceptance and approval and revised when changes to the system are made. You can download a copy of the form from the NFPA website (www.nfpa.org).

After completing the Record of Completion form, mount it near the fire alarm control panel or give it to the building representative.

Appendix A
System addresses

Summary

This appendix provides a list of logical addresses for system modules and devices.

Content

Address formats

EVOLVE addresses are in NNNCCCDDDD format, where:

- NNN is the node number. The node number is assigned when the installer downloads the CU database into the control panel.
- CCC is the hardware/module address. The node number and hardware/module address make up the hardware/module logical address.
- DDDD is the Device point address. The node number, hardware/module logical address, and device point address make up the device or circuit's logical address.

Hardware and module addresses

Hardware and modules have a physical address and a logical address. The physical address identifies the card's location in the panel. The logical address identifies the card in the CPU database.

For a control panel with one node, see Figure 8 on page 51 and Table 14 on page 51.

Figure 8: Logical addressing (one node)

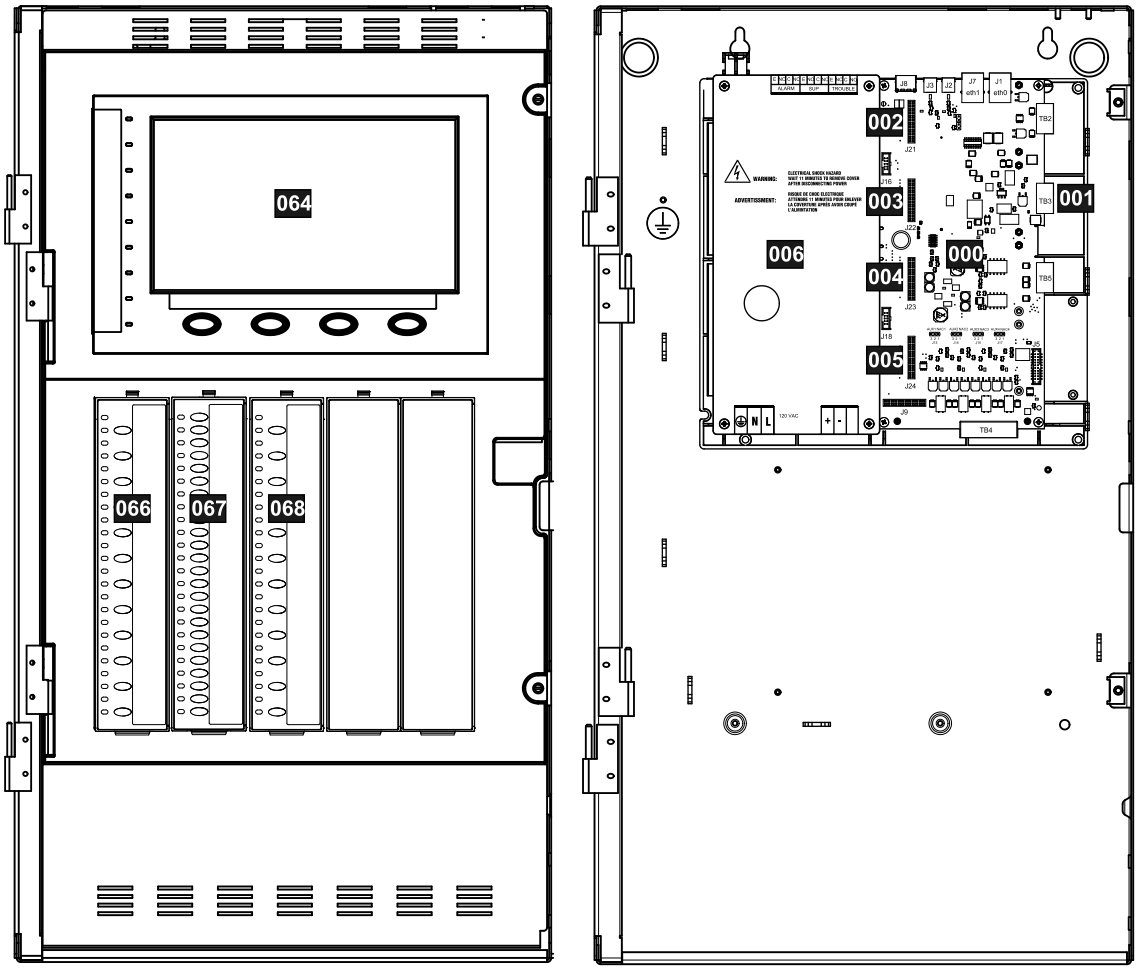


Table 14: Logical addressing (one node)

Card	Logical address
Operator layer modules on the inner door frame assembly	
User interface with LCD main display	NNN064(065)
Control-display modules	NNN066 to NNN068
Hardware main electronics assembly	
CPU board	NNN000
Onboard SLC circuit	NNN001
Expander modules (slots 1 to 4)	NNN0002 to NNN005
Power supply board	NNN006

Hardware layer device addresses

Table 15 below lists the device addresses for points on the EVOLVE hardware layer.

Table 15: EVOLVE hardware layer device addresses

Card	Device or circuit	Address
NAC/AUX	NAC/AUX 1 NAC/AUX 2 NAC/AUX 3 NAC/AUX 4	NNN0000697 NNN0000698 NNN0000699 NNN0000700
Onboard loop controller (single loop) [1]	Detectors Modules	NNN0011001 to NNN0011125 NNN0011126 to NNN0011250
Expansion slot 1 [1]		
Loop 1	Detectors Modules	NNN0021001 to NNN0021125 NNN0021126 to NNN0021250
Loop 2	Detectors Modules	NNN0022001 to NNN0022125 NNN0022126 to NNN0022250
Expansion slot 2 [1]		
Loop 1	Detectors Modules	NNN0031001 to NNN0031125 NNN0031126 to NNN0031250
Loop 2	Detectors Modules	NNN0032001 to NNN0032125 NNN0032126 to NNN0032250
Expansion slot 3 [1]		
Loop 1	Detectors Modules	NNN0041001 to NNN0041125 NNN0041126 to NNN0041250
Loop 2	Detectors Modules	NNN0042001 to NNN0042125 NNN0042126 to NNN0042250
Expansion slot 4 [1]		
Loop 1	Detectors Modules	NNN0051001 to NNN0051125 NNN0051126 to NNN0051250
Loop 2	Detectors Modules	NNN0052001 to NNN0052125 NNN0052126 to NNN0052250

[1] For SLC pseudo points, see Appendix B “Pseudo points table” on page 61.

Control-display device addresses

The tables in this section list switch and indicator addresses that the system assigns to operator layer control-display modules.

Table 16 below lists the device addresses for points on the EVOLVE operator layer. See also Figure 9 below.

Figure 9: EVOLVE operator layer control-display modules

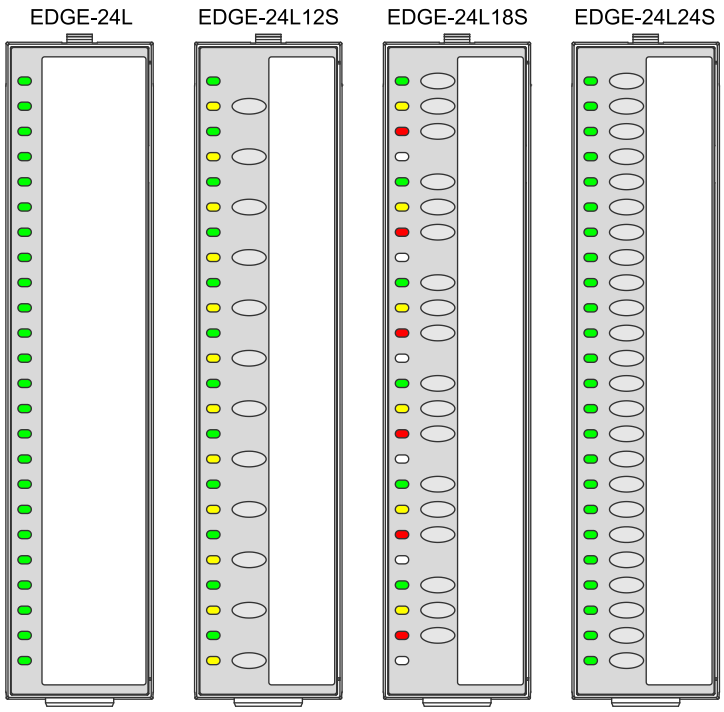


Table 16: EVOLVE operator layer device addresses

Module type	Switch group	Switch address	Indicator	Indicator address
EVOLVE-24L	N/A	N/A	1 to 24	0129 to 0152
EVOLVE-24L12S	1	0002	1	0129
	-	-	2	0130
	2	0004	3	0131
	-	-	4	0132
	3	0006	5	0133
	-	-	6	0134
	4	0008	7	0135
	-	-	8	0136
	5	0010	9	0137
	-	-	10	0138
	6	0012	11	0139
	-	-	12	0140
	7	0014	13	0141
	-	-	14	0142

Module type	Switch group	Switch address	Indicator	Indicator address
	8	0016	15	0143
	-	-	16	0144
	9	0018	17	0145
	-	-	18	0146
	10	0020	19	0147
	-	-	20	0148
	11	0022	21	0149
	-	-	22	0150
	12	0024	23	0151
	-	-	24	0152
EVOLVE-24L18S	1	0001	1	0129
	2	0002	2	0130
	3	0003	3	0131
	–	–	4	0132
	4	0005	5	0133
	5	0006	6	0134
	6	0007	7	0135
	–	–	8	0136
	7	0009	9	0137
	8	0010	10	0138
	9	0011	11	0139
	–	–	12	0140
	10	0013	13	0141
	11	0014	14	0142
	12	0015	15	0143
			16	0144
	13	0017	17	0145
	14	0018	18	0146
	15	0019	19	0147
	–	–	20	0148
	16	0021	21	0149
	17	0022	22	0150
	18	0023	23	0151
	–	–	24	0152
EVOLVE-24L24S	1 to 24	0001 to 0024	1 to 24	0129 to 0152

Remote annunciator device addresses

Table 17 below lists the device addresses for LEDs and switches on K-RLED-C-2 remote annunciators and K-RLED24-2 expanders. See also Figure 10 below.

Figure 10: K-RLED models LED numbering

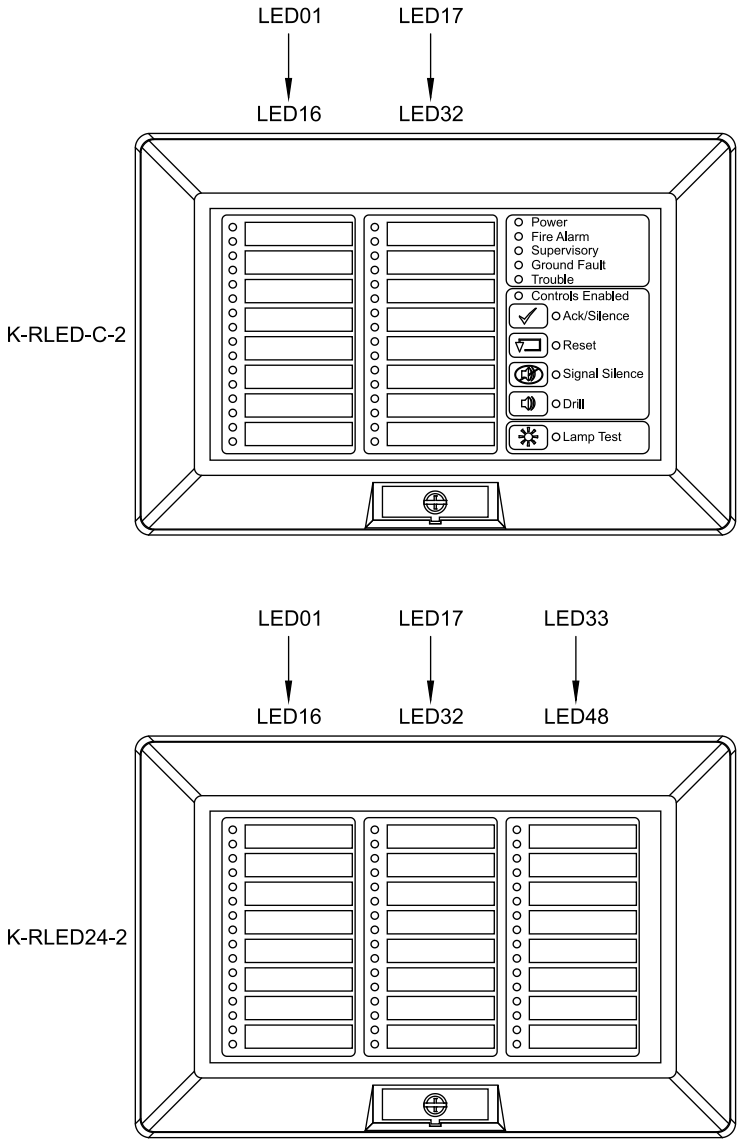


Table 17: K-R-Series remote annunciator device addresses

No.	Annunciator	LED or switch	Address
1	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP040201 to PP040232 PP020249 to PP040264
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP040301 to PP040348 PP040349 to PP040372
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP040401 to PP040448 PP040449 to PP040472

No.	Annunciator	LED or switch	Address
2	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP040501 to PP040532 PP020549 to PP040564
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP040601 to PP040648 PP040649 to PP040672
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP040701 to PP040748 PP040749 to PP040772
3	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP040801 to PP040832 PP020849 to PP040864
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP040901 to PP040948 PP040949 to PP040972
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP041001 to PP041048 PP041049 to PP041072
4	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP041101 to PP041132 PP021149 to PP041164
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP041201 to PP041248 PP041249 to PP041272
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP041301 to PP041348 PP041349 to PP041372
5	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP041401 to PP041432 PP021449 to PP041464
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP041501 to PP041548 PP041549 to PP041572
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP041601 to PP041648 PP041649 to PP041672
6	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP041701 to PP041732 PP021749 to PP041764
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP041801 to PP041848 PP041849 to PP041872
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP041901 to PP041948 PP041949 to PP041972
7	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP042001 to PP042032 PP022049 to PP042064
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP042101 to PP042148 PP042149 to PP042172
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP042201 to PP042248 PP042249 to PP042272
8	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP042301 to PP042332 PP022349 to PP042364
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP042401 to PP042448 PP042449 to PP042472
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP042501 to PP042548 PP042549 to PP042572
9	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP042601 to PP042632 PP022649 to PP042664
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP042701 to PP042748 PP042749 to PP042772
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP042801 to PP042848 PP042849 to PP042872

No.	Annunciator	LED or switch	Address
10	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP042901 to PP042932 PP022949 to PP042964
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP043001 to PP043048 PP043049 to PP043072
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP043101 to PP043148 PP043149 to PP043172
11	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP043201 to PP043232 PP043249 to PP043264
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP043301 to PP043348 PP043349 to PP043372
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP043401 to PP043448 PP043449 to PP043472
12	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP043501 to PP043532 PP043549 to PP043564
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP043601 to PP043648 PP043649 to PP043672
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP043701 to PP043748 PP043749 to PP043772
13	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP043801 to PP043832 PP043849 to PP043864
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP043901 to PP043948 PP043949 to PP043972
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP044001 to PP044048 PP044049 to PP044072
14	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP044101 to PP044132 PP044149 to PP044164
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP044201 to PP044248 PP044249 to PP044272
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP044301 to PP044348 PP044349 to PP044372
15	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP044401 to PP044432 PP044449 to PP044464
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP044501 to PP044548 PP044549 to PP044572
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP044601 to PP044648 PP044649 to PP044672
16	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP044701 to PP044732 PP044749 to PP044764
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP044801 to PP044848 PP044849 to PP044872
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP044901 to PP044948 PP044949 to PP044972
17	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP045001 to PP045032 PP045049 to PP045064
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP045101 to PP045148 PP045149 to PP045172
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP045201 to PP045248 PP045249 to PP045272

No.	Annunciator	LED or switch	Address
18	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP045301 to PP045332 PP045349 to PP045364
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP045401 to PP045448 PP045449 to PP045472
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP045501 to PP045548 PP045549 to PP045572
19	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP045601 to PP045632 PP045649 to PP045664
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP045701 to PP045748 PP045749 to PP045772
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP045801 to PP045848 PP045849 to PP045872
20	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP045901 to PP045932 PP045949 to PP045964
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP046001 to PP046048 PP046049 to PP046072
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP046101 to PP046148 PP046149 to PP046172
21	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP046201 to PP046232 PP046249 to PP046264
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP046301 to PP046348 PP046349 to PP046372
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP046401 to PP046448 PP046449 to PP046472
22	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP046501 to PP046532 PP046549 to PP046564
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP046601 to PP046648 PP046649 to PP046672
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP046701 to PP046748 PP046749 to PP046772
23	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP046801 to PP046832 PP046849 to PP046864
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP046901 to PP046948 PP046949 to PP046972
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP047001 to PP047048 PP047049 to PP047072
24	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP047101 to PP047132 PP047149 to PP047164
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP047201 to PP047248 PP047249 to PP047272
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP047301 to PP047348 PP047349 to PP047372

No.	Annunciator	LED or switch	Address
25	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP047401 to PP047432 PP047449 to PP047464
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP047501 to PP047548 PP047549 to PP047572
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP047601 to PP047648 PP047649 to PP047672
26	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP047701 to PP047732 PP047749 to PP047764
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP047801 to PP047848 PP047849 to PP047872
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP047901 to PP047948 PP047949 to PP047972
27	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP048001 to PP048032 PP048049 to PP048064
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP048101 to PP048148 PP048149 to PP048172
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP048201 to PP048248 PP048249 to PP048272
28	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP048301 to PP048332 PP048349 to PP048364
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP048401 to PP048448 PP048449 to PP048472
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP048501 to PP048548 PP048549 to PP048572
29	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP048601 to PP048632 PP048649 to PP048664
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP048701 to PP048748 PP048749 to PP048772
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP048801 to PP048848 PP048849 to PP048872
30	K-RLED-C-2	LED01 to LED32 SW01 to SW16	PP048901 to PP048932 PP048949 to PP048964
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP049001 to PP049048 PP049049 to PP049072
	K-RLED24-2	LED01 to LED48 SW01 to SW24	PP049101 to PP049148 PP049149 to PP049172

Logic group addresses

Table 18 below lists the addresses for EVOLVE logic groups.

Table 18: EVOLVE logic group addresses

Logical output	Address
Command lists	0000220001 to 0000220999
Zone groups	0000250001 to 0000250999
Service groups	0000260001 to 0000260100
AND groups	0000270001 to 0000270999
Base groups [1]	000CCC0501 to 0000000599

[1] The hardware/module address is determined by the device configuration of the Base group’s associated SLC.

Appendix B
Pseudo points table

Summary

This appendix provides pseudo point addresses, sources, and descriptions that can be used to troubleshoot pseudo point events.

Content

Pseudo points

The table in this appendix provides pseudo point addresses, event types, sources, and descriptions that can be used to troubleshoot pseudo point events.

View the event's message details on the LCD screen to identify the pseudo point address. Cross-reference the pseudo point address to the Address column in Table 19 below to find details about the pseudo point.

Note: For instructions on how to view event details, see "Viewing and printing event details" on page 20.

Table 19: EVOLVE pseudo points

Address	Label	Device type	Source	Description
0001	Startup	Startup	EVOLVE Control panel	Control panel is energized, or operator initiated a restart.
0001	Switch 1	Common control switch	EVOLVE LCD	User interface control button 1 pressed.
0002	First Alarm	First alarm	EVOLVE Control panel	Control panel or any control panel in the same network routing group changed to the alarm state.
0002	Switch 2	Common control switch	EVOLVE LCD	User interface control button 2 pressed.
0003	First Supervisory	First supervisory	EVOLVE Control panel	Control panel or any control panel in the same network routing group changed to the supervisory state.
0003	Switch 3	Common control switch	EVOLVE LCD	User interface control button 3 pressed.
0004	First Trouble	First trouble	EVOLVE Control panel	Control panel or any control panel in the same network routing group changed to the trouble state.
0004	Switch 4	Common control switch	EVOLVE LCD	User interface control button 4 pressed.
0005	First Monitor	First monitor	EVOLVE Control panel	Control panel or any control panel in the same network routing group changed to the monitor state.
0006	Evacuated	Evacuation	EVOLVE Control panel	Operator pressed a switch that executed the EvacuationOn command.
0007	Drilling	Drill	EVOLVE Control panel	Operator pressed a switch that executed the DrillOn command.
0009	Alarm Silenced	Alarm silence	EVOLVE Control panel	Operator pressed a switch that executed the AlarmSilenceOn command.
0010	Two Stage Timer Expiration	Two stage timer expiration	EVOLVE Control panel	Control panel's second stage activation timer expired.
0011	Resetting	Reset	EVOLVE Control panel	Operator pressed a switch that executed the ResetOn command.
0012	R1	R1	EVOLVE Control panel	First phase of the 3-phase reset cycle starts.
0013	R2	R2	EVOLVE Control panel	Second phase of the 3-phase reset cycle starts.
0014	R3	R3	EVOLVE Control panel	Third phase of the 3-phase reset cycle starts.

Address	Label	Device type	Source	Description
0015	First Disable	First disable	EVOLVE Control panel	First point on a control panel or any control panel in the same network routing group changed to disable state.
0016	Service Group Active	Service group active	EVOLVE Control panel	Operator enabled a Service Group from the control panel.
0017	Two Stage Timer Active	Two stage timer active	EVOLVE Control panel	Control panel's second stage activation timer started.
0019	CMS First Trouble	CMS first trouble	EVOLVE Control panel	First point on a control panel or any control panel in the same network routing group changed to CMS trouble state.
0020	Alarm Silence Inhibit	Signal silence inhibit	EVOLVE Control panel	Control panel's alarm silence inhibit timer expired.
0021	Alternate Sensing Mode	Alternate sensing mode	EVOLVE Control panel	Control panel's alternate sensing (sensitivity) mode activated.
0026	Remote Read Locked	Local monitor	EVOLVE Control panel	Remote disconnect operation executed.
0027	Remote Write Unlocked	Local monitor	EVOLVE Control panel	IP write communications between the EVOLVE-CU and the control panel is unblocked.
0028	Panel Silence	Local monitor	EVOLVE Control panel	N/A (future use)
0032	Unconfigured	General alarm	EVOLVE Control panel	Alarm on a control panel is incompatible with system programming. Update the project configuration to include the control panel.
0033	First Interlock	FirstInterlock	EVOLVE Control panel	China marketplace only. Signals when the first time interlock is activated on a node.
0034	First Interlock Feedback	FirstInterlock feedback	EVOLVE Control panel	China marketplace only. Signals when the first time interlock feedback is activated on a node.
0035	First Interlock FB Failure	FirstInterlockFB Failure	EVOLVE Control panel	China marketplace only. Signals when the first time interlock feedback failure is activated on a node.
0129	AC Power Indicator	Common control indicator	EVOLVE LCD	For internal use only.
0130	Alarm Indicator	Common control indicator	EVOLVE LCD	For internal use only.
0131	Supervisory Indicator	Common control indicator	EVOLVE LCD	For internal use only.
0132	Trouble Indicator	Common control indicator	EVOLVE LCD	For internal use only.
0133	Monitor Indicator	Common control indicator	EVOLVE LCD	For internal use only.
0134	Ground Fault Indicator	Common control indicator	EVOLVE LCD	For internal use only.
0135	CPU Fail Indicator	Common control indicator	EVOLVE LCD	For internal use only.

Address	Label	Device type	Source	Description
0136	Disable Indicator	Common control indicator	EVOLVE LCD	For internal use only.
0137	Test Indicator	Common control indicator	EVOLVE LCD	For internal use only.
0138	Indicator 1	Common control indicator	EVOLVE LCD	For internal use only.
0139	Indicator 2	Common control indicator	EVOLVE LCD	For internal use only.
0140	Indicator 3	Common control indicator	EVOLVE LCD	For internal use only.
0141	Indicator 4	Common control indicator	EVOLVE LCD	For internal use only.
0600	Fail-safe	Fail safe	CPU board	A module or slot has bent pin on the rails, module incorrectly installed or a defective CPU, can cause the Fail Safe Event. Remove one module off the rail at the time, and power up the system after each and see if the Fail Safe Event returns. Continue this process until the faulty piece of hardware is located. The Fail Safe Event changes to the active state when a device asserts the rail alarm-not line and the CPU board on the main electronics assembly has not registered an alarm event. If the failure persists, contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0600	Annunciator	Local trouble	Power supply board EVOLVE-SLC-250 EVOLVE-SLC-500 SA-DACT	Module is faulty, missing, or not properly configured. Review the project configuration to assure it matches the board and module installation. Check all connections and positions of modules in the hardware and operator layers. If the failure persists, contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0601	Loop Controller Reset Extension	Loop reset extension	CPU board	Loop controller stayed in reset mode longer than expected. Power down the node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node. If the failure persists, contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.

Address	Label	Device type	Source	Description
0601	LRM Communication	Local trouble	Power supply board EVOLVE-SLC-250 EVOLVE-SLC-500 SA-DACT	Communication failure on the chassis rail. Verify all LRMs in the configuration are physically installed on the chassis. If so, power down the problem node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node. If the failure persists, contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0601	CAN Communication	Local trouble	EVOLVE 24L series EVOLVE LCD	Communication failure on the UI frame assembly rail. Verify all operator layer modules in the configuration are physically installed on the chassis Once the configuration is checked, power down the problem node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node. If the failure persists, contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0601	R-Series Communication	Local trouble	K-R-Series annunciator	Communication failure between the panel and remote annunciator. Verify remote annunciators in the configuration are physically installed. If so, power down the problem node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node. If the failure persists, contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0602	Service Device Supervision	Service device supervision	CPU board	Operator canceled Service Group test while a circuit under test remained active. Clear the active state of the device under test before canceling the Service Group.

Address	Label	Device type	Source	Description
0602	Firmware Mismatch	Local trouble	Power supply board EVOLVE-SLC-250 EVOLVE-SLC-500 SA-DACT EVOLVE 24L series	Mismatch between module firmware and EVOLVE-CU database. Perform a complete EVOLVE-CU download. If the trouble persists, review the download results and events to the node failed to update. Locate the modules that have failed and perform a revision report on the panels with failures. Check history for other troubles such as Download Fail and CAN or LRM communication failures. If any exist, power down the node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node and retry the download. If the failure persists, contact Kidde Commercial Technical Support prior to replacing the module in question. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0603	User Triggered	User trouble	CPU board	Operator forced a trouble into the system.
0603	Download Fail	Local trouble	EVOLVE-SLC-250 EVOLVE-SLC-500 SA-DACT	Firmware download to the module failed. Perform a complete EVOLVE-CU download. If the trouble persists, review the download results and events to see if the node failed to update. Locate the modules that have failed and perform a revision report. Check history for other troubles such as CAN or LRM communication failures. If any exist, power down the node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node and retry the download. If necessary and possible, retry the download while connected directly to the node. If the failure persists, contact Kidde Commercial Technical Support prior to replacing the module in question. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.

Address	Label	Device type	Source	Description
0604	External Database Incompatibility	External database incompatibility	CPU board	Different database is in the control panel. Perform a complete EVOLVE-CU download, including firmware. If the trouble persists, review the download results and events to see the node failed to update. Perform a Revision report. Check history for other troubles such as network communication failures. If any exist, power down the node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node and retry the download. If necessary, and possible, retry the download while connected directly to the node. If the failure persists, contact Kidde Commercial Technical Support prior to replacing the module in question. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0604	Unhandled Condition, Restart required	Local trouble	Power supply board EVOLVE-SLC-250 EVOLVE-SLC-500 SA-DACT EVOLVE 24L series K-R-Series annunciator	The CPU board on the main electronics assembly experienced an unexpected failure. This could have been due to an internal fault. Review the event history for specific details. Restart the node. If restart does not clear the issue, review the event history and record the internal fault details including the info text and contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review. **Note:** Reset required [1]
0605	Reboot Fault, Reset Required	Reboot fault	CPU board	The CPU board on the main electronics assembly is interrupted unexpectedly. The CPU board experienced an unexpected restart. This could have been due to a watchdog failure or internal fault. Review the event history for specific details. **Note:** Reset required [1]
0605	Data	Local trouble	Power supply board EVOLVE-SLC-250 EVOLVE-SLC-500 SA-DACT EVOLVE 24L series K-R-Series annunciator	Corrupt configuration or invalid module. The project configuration does not match the existing installed hardware or has been corrupted either during transfer or for some other reason. Review the event history details to determine the relevant module. Check the module revision and type to be sure it is compatible with the current panel version. Replace or reconfigure as needed.

Address	Label	Device type	Source	Description
0606	Code	Local trouble	Power supply board EVOLVE-SLC-250 EVOLVE-SLC-500 SA-DACT EVOLVE 24L series K-R-Series annunciator	Corrupt executable program. The panel firmware has been corrupted either during transfer or for some other reason. Review the EVOLVE-CU project and panel firmware versions to be sure you are using the latest versions compatible with the installed hardware (see product release notes). Retrieve the proper version from the My-Eddie website if necessary and import the firmware into the EVOLVE-CU. Verify within the project that the node is configured for the correct firmware version and download the project to the system. If the failure persists, contact Kidde Commercial Technical Support prior to replacing any nodes. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0607	SDC 1 Supervision	Local trouble	EVOLVE-SLC-250 EVOLVE-SLC-500	Loose card connection on the CPU expansion slot. Power down the system and check all hardware and operator layer connections. Make sure all modules are seated properly and the configuration matches what is physically installed. Repower the system.
0608	Watchdog Violation	Task failure	CPU board	EVOLVE task failed to execute properly. The CPU board on the main electronics assembly experienced an unexpected restart caused by a watchdog failure or internal fault. Review the event history for specific details. The watchdog failure may have been a result of another issue. Reboot the system.
0608	SDC 2 Supervision	Local trouble	EVOLVE-SLC-250 EVOLVE-SLC-500	Loose card connection on the CPU expansion slot. Power down the system and check all hardware and operator layer connections. Make sure all modules are seated properly and the configuration matches what is physically installed. Repower the system.
0609	Configuration	Local trouble	Power supply board EVOLVE-SLC-250 EVOLVE-SLC-500 EVOLVE 24L series K-R-Series annunciator	Module is in the wrong rail slot. For K-R-Series annunciator, the configuration does not match the actual hardware or the expander is not communicating with the annunciator. Verify the configuration matches what is physically installed. Power down the system and check all hardware and operator layer connections. Make sure all modules are seated properly. Repower the system.

Address	Label	Device type	Source	Description
0609	Configuration Mismatch	Local trouble	CPU board	Card in slot xx cannot perform as programmed. The project database and node is not the same version. Review the events and Revision report at the node to determine if it has the incorrect version. Re-execute the project download. If possible, connect directly to that node.
0610	Rail Voltage	Local trouble	Power supply board	• Rail voltage is >30 VDC or <21 VDC • Excessive rail current load • Faulty or misadjusted rail Power down the system and check all hardware layer (LRM) connections. Make sure all modules are seated properly and verify the power supply connections are secure. Repower the system. If the problem persists, review the detailed history to check for a specific LRM with communication or power issues. Power down and remove any card(s) with power or communications issues. Repower the system. If the problem persists, contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0610	LCD Supervision	Local trouble	EVOLVE LCD	Internal wiring fault detected on the LCD module or low backlight current, contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0610	R-Series Class A	Local trouble	K-R-Series annunciator	Communication with K-R-Series annunciators configured as redundant Class B/DCLA failed. Check RS-485 wiring on CPU board and annunciators.
0611	Rail Voltage Below Battery	Local trouble	Power supply board	Excessive rail current load. Power down the system and check all hardware layer connections. Make sure all modules are seated properly and verify the power supply connections are secure. Repower the system. If the problem persists, review the detailed history to check for a specific LRM with communication or power issues. Power down and remove any card(s) with power or communications issues. Repower the system. If the problem persists, contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.

Address	Label	Device type	Source	Description
0611	Annun Rail Voltage Fault	Local trouble	EVOLVE LCD	UI detects less than 6.2V on its power line. Power down the system. Verify enclosure vents are clear and there are no loose connections. Repower the system. If the problem persists, contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0611	R-Series Annun Firmware Mismatch	Local trouble	K-R-Series annunciator	Mismatch between K-R-Series annunciator CPU firmware and EVOLVE-CU database. Perform a firmware download from the Panel Commands menu on the EVOLVE control panel user interface. Refer to the *EVOLVE Technical Reference Manual* (P/N 3102926) for updating R-Series annunciator firmware. If the trouble persists, review the download results/events to see if the annunciator failed to update. If necessary and possible, retry the download while connected directly to the node. If the failure persists, contact Kidde Commercial Technical Support prior to changing hardware. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0612	Heat Sink Temperature	Local trouble	Power supply board	Power supply is too hot • Clogged enclosure vents • Heat sink not fastened properly Power down the system. Verify enclosure vents are clear and there are no loose parts in the power supply. Repower the system. If the problem persists, contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0612	LCD Backlight Fault	Local trouble	EVOLVE LCD	High/Low backlight current for the LCD touch screen. Check the HDMI cable connection.

Address	Label	Device type	Source	Description
0612	R-Series Annun Download Fail	Local trouble	K-R-Series annunciator	Firmware download to the K-R-Series annunciator CPU failed. Perform a complete EVOLVE-CU download. If the trouble persists, review the download results and events to see if the annunciator firmware failed to update. Locate the annunciators that have failed and perform a revision report. If necessary and possible, retry the download while connected directly to the node. If the failure persists, contact Kidde Commercial Technical Support prior to replacing the module in question. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0613	Low Battery Cutoff	Local trouble	Power supply board	Battery voltage is below 19.5 VDC when on standby battery. This is a latched trouble condition with non silenceable buzzer. The system will shut down when the Low Battery cutoff timer expires unless AC is provided. Reconnect AC to the system.
0613	Buzzer Fault, Restart Required	Local trouble	EVOLVE LCD	Invalid buzzer pattern received from CPU to LCD. **Note:** Reset required [1]
0614	AC	Local trouble	Power supply board	AC line voltage is below 95 VAC at 50/60 Hz. Power down the system. Check the building AC voltage. Check the AC cable wiring to the power supply board.
0615	Battery	Local trouble	Power supply board	• Open detected on wiring. • Battery voltage is below 20.4 V. • Battery internal resistance too high (load test failure). Check battery wiring connections. If AC is not connected, reconnect AC and let the batteries charge back up to appropriate levels. If AC is connected, load test the batteries prior to replacing them.
0617	Power Supply	Local trouble	Power supply board	• Loose connection between the power supply and CPU. • Defective power supply. Power down the system. Check wiring between the power supply and monitor card. Repower the system. If the problem persists, contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.

Address	Label	Device type	Source	Description
0619	Driver Power Supply	Local trouble	Power supply board	Defective power supply card or monitor card. Power down the system. Check wiring between the power supply and monitor card. Repower the system. If the problem persists, contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0620	Battery Internal Resistance	Local trouble	Power supply board	Measured battery internal resistance is out of bounds
0621	Charger Pump	Local trouble	Power supply board	Charger pump voltage is above 30V.
0622	Rail Overcurrent	Local trouble	Power supply board	Current measured beyond 11 A specification.
0623	Battery Charger Circuit	Local trouble	Power supply board	Battery charger circuit not functional.
0624	Manufacturing Mode	Local trouble	Power supply board	Power supply in manufacturing mode where there is no task supervision. **Note:** Used in factory and not for end customer.
0625	System Overcurrent	Local trouble	Power supply board	Power supply has detected a system over current.
0628	Database Sync	Card database incompatibility	CPU board	CPU reporting mismatch between actual data and expected data. Perform a complete EVOLVE-CU download including firmware to the EVOLVE system. If the trouble persists, review the download results/events to see if the node failed to update. Check history for other troubles such as network communication failures. If any exist, power down the node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node and retry the download. If necessary and possible retry the download while connected directly to the node. If the failure persists, contact Kidde Commercial Technical Support prior to replacing the hardware. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.

Address	Label	Device type	Source	Description
0647	Annunciator	Local trouble	CPU board	Internal wiring fault on node. Verify all operator layer modules in the configuration are physically installed on the chassis. If so, power down the problem node and check all connections, power and communications, including making sure any loop cards are seated properly. Power up the node. If the failure persists, contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0648	Ground	Ground fault	CPU board	• Wiring fault. • Conductor connected to data card has continuity to ground. Follow steps to find the connection to earth ground.
0649	Audio	Local trouble	CPU board	Short or open detected on a riser. Check wiring to and from the audio riser and audio source. Restart the node. If the trouble persists contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0650	Internal, Restart Required	Local trouble	CPU board	Module failure. If the fault persists or returns, review the event history and record the internal fault details. Contact Kidde Commercial Technical Support. **Note:** Restart required [1]
0651	Database	Local trouble	CPU board	Corrupt database. Perform a complete EVOLVE-CU download to the EVOLVE system. If the trouble persists, review the download results/events to see if the node failed to update. Check history for other troubles such as network communication failures. If any exist, power down the node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node and retry the download. If necessary and possible, retry the download while connected directly to the node. If the failure persists, contact Kidde Commercial Technical Support prior to replacing the hardware. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.

Address	Label	Device type	Source	Description
0652	Code	Local trouble	CPU board	Corrupt executable program. Perform a complete EVOLVE-CU download including firmware to the EVOLVE system. If the trouble persists, review the download results/events to see if the node failed to update. Check history for other troubles such as network communication failures. If any exist, power down the node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node and retry the download. If necessary and possible, retry the download while connected directly to the node. If the failure persists, contact Kidde Commercial Technical Support prior to replacing the hardware. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0653	Download In Progress	Local trouble	CPU board	EVOLVE-CU database download in progress or incomplete. If this event persists after an EVOLVE-CU download for more than 1 hour, perform a complete EVOLVE-CU download including firmware to the EVOLVE system. If the trouble persists, review the download results/events to see if any nodes failed to update. Check history for other troubles such as network communication failures. If any exist, power down the node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node and retry the download. If necessary and possible, retry the download while connected directly to the node. If the failure persists, contact Kidde Commercial Technical Support prior to replacing the hardware. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.

Address	Label	Device type	Source	Description
0654	Unexpected Module	Local trouble	CPU board	Undefined module detected. Review the configuration against what is physically installed in the cabinet. Correct, as necessary. If the failure persists, contact Kidde Commercial Technical Support prior to replacing the hardware. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0655	Invalid Instruction, Reset Required	Local trouble	CPU board	• Invalid instruction for programmed response. • Corrupt database. If restart does not clear the issue, perform a complete EVOLVE-CU download including firmware to the system. If the trouble persists, review the download results/events to see if the node failed to update. Check history for other troubles such as network communication failures. If any exist, power down the node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node and retry the download. If necessary and possible retry the download while connected directly to the node. If the failure persists, contact Kidde Commercial Technical Support prior to replacing the hardware. Have the node diagnostics, panel history, and copy of the exported project available for technical support review. **Note:** Restart required [1]
0656	Main Program Fault	Local trouble	CPU board	CPU detected internal fault on the main board. If restart does not clear the issue, review the event history and record the internal fault details including the info text, and then contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review. **Note:** Restart required [1]
0657	Communication	Local trouble	CPU board	Communication failed between CPU daughter card and CPU. Contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.

Address	Label	Device type	Source	Description
0658	eth0 Ground	Ground fault	CPU board	Ground fault on eth0. Follow steps to find the connection to earth ground on the ethernet wiring.
0659	eth1 Ground	Ground fault	CPU board	Ground fault on eth1. Follow steps to find the connection to earth ground on the ethernet wiring.
0662	usb0 Network Link	Local trouble	CPU board	USB cable not connected to USB port on the node card, an unexpected device or the EVOLVE-CU is connected to the USB port. This pseudo point will report when the EVOLVE-CU is connected to the EVOLVE. If that is not the case, verify nothing unexpected is connected to the USB port. Verify the configuration matches the actual node to node USB connections.
0663	usb1 Network Link	Local trouble	CPU board	USB cable not connected to USB port on the node card, an unexpected device or the EVOLVE-CU is connected to the USB port. This pseudo point will report when the EVOLVE-CU is connected to the EVOLVE. If that is not the case, verify nothing unexpected is connected to the USB port. Verify the configuration matches the actual node to node USB connections.
0664	usb Power Current Overload	Local trouble	CPU board	Connected device consuming too much current from the USB. Make sure the USB cables between nodes in the cabinet are connected properly. If the problem persists, contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0665	Power Supply Fault	Local trouble	CPU board	• Loose or missing cable between power supply and CPU. • Defective power supply. If the problem persists, contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.

Address	Label	Device type	Source	Description
0669	Main Board Database Fault	Local trouble	CPU board	Corrupt database on the CPU board. Perform a complete EVOLVE-CU download including firmware to the system. If the trouble persists, review the download results/events to see if the node failed to update. Check history for other troubles such as network communication failures. If any exist, power down the node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node and retry the download. If necessary and possible, retry the download while connected directly to the node. If the failure persists, contact Kidde Commercial Technical Support prior to changing hardware. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0670	Main Board Code Fault	Local trouble	CPU board	Corrupt firmware on the CPU board. Perform a complete EVOLVE-CU download including firmware to the system. If the trouble persists, review the download results/events to see if the node failed to update. Check history for other troubles such as network communication failures. If any exist, power down the node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node and retry the download. If necessary and possible, retry the download while connected directly to the node. If the failure persists, contact Kidde Commercial Technical Support prior to changing hardware. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.

Address	Label	Device type	Source	Description
0670	Executing Bootloader	Local trouble	EVOLVE-SLC-250 EVOLVE-SLC-500	EVOLVE-CU attempting download. If the trouble persists for more than 60 minutes, review the download results and events to see if the node failed to update. Locate the modules that have failed and perform a revision report. Verify the versions installed are supported as defined in the EVOLVE-CU release notes. Check history for other troubles such as LRM communication failures. If any exist, power down the node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node and retry the download. If necessary and possible, retry the download while connected directly to the node. If the failure persists, contact Kidde Commercial Technical Support. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0671	Main Board Config Supervision Fault	Local trouble	CPU board	Bad microcode configuration on the CPU. Perform a complete EVOLVE-CU download including firmware to the system. If the trouble persists, review the download results/events to see if the node failed to update. Check history for other troubles such as network communication failures. If any exist, power down the node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node and retry the download. If necessary and possible, retry the download while connected directly to the node. If the failure persists, contact Kidde Commercial Technical Support prior to changing hardware. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0671	Line SDC 1	Local trouble	EVOLVE-SLC-250 EVOLVE-SLC-500	Wiring fault on SLC 1. Check loop 1 wiring on the relevant SLC module for short or open circuits.
0672	Network Neighbor Authentication Fault	Local trouble	CPU board	N/A (future use)

Address	Label	Device type	Source	Description
0672	Map Flaw SDC 1	Local trouble	EVOLVE-SLC-250 EVOLVE-SLC-500	• Mismatch detected between actual data and expected data on SLC 1 • Defective wiring on SLC 1 (e.g., un-tightened wire terminals) • Defective device on SLC 1 Verify detectors, modules and base types installed on the SLC match the configuration. Check event history for any related device communication issues. Check and correct any wiring issues. Measure AC and DC inductance on the SLC wiring. Make use of the SIGA-HDT to diagnose the fault. Perform an upload to the EVOLVE-CU of the Signature Data. Correct any mapping errors and redownload the updated project to the control panel.
0673	Main Board Firmware Mismatch	Local trouble	CPU board	Mismatch between CPU firmware and EVOLVE-CU database. Perform a complete EVOLVE-CU download including firmware to the system. If the trouble persists, review the download results/events to see if the node failed to update. Check history for other troubles such as network communication failures. If any exist, power down the node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node and retry the download. If necessary and possible, retry the download while connected directly to the node. If the failure persists, contact Kidde Commercial Technical Support prior to changing hardware. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0673	Mapping In Progress SDC 1	Local monitor	EVOLVE-SLC-250 EVOLVE-SLC-500	SLC1 currently mapping field devices.
0674	Mapping Off SDC 1	Local monitor	EVOLVE-SLC-250 EVOLVE-SLC-500	SLC1 mapping manually disabled

Address	Label	Device type	Source	Description
0674	FWAL Under Attack	Local monitor	CPU board	One or more of the Ethernet ports is experiencing an overload of messages, possibly a cyberattack. The services on the ETH port are temporarily stopped until the messages stop or return to normal. The local IT department should be notified and all building network routers, switches, and firewalls should be checked and settings updated for proper protections. **Note:** The following options are preferred for Internet connection. 1. Use a wired connection as opposed to an unmanaged switch. Routers ensure that clients receive network traffic intended just for them. 2. It is not recommended to use a switch, but if a managed switch is used, configure the port used to be isolated so traffic from/to other clients is not sent. 3. To isolate network traffic, set up a VLAN.
0675	Performance Fault	Local trouble	CPU board	N/A (future use)
0675	Maintenance Alert SDC 1	Local monitor	EVOLVE-SLC-250 EVOLVE-SLC-500	Dirty detector on SLC1. Detector has become dusty or dirty. Follow recommended cleaning procedures
0676	Unprogrammed Device SDC 1	General alarm	EVOLVE-SLC-250 EVOLVE-SLC-500	Device on SLC1 circuit not defined in EVOLVE-CU is in alarm or trouble state. Remove the relevant device or add it to the project configuration.
0677	Ground SDC 1	Ground fault	EVOLVE-SLC-250 EVOLVE-SLC-500	• Wiring fault on SLC1. • Conductor connected to SLC1 data card has continuity to ground. Run the SIGA-HDT Ver. 1.8 or later with compatible firmware on the SLC to diagnose the fault. Check wiring on the SLC and devices for connections to ground.
0678	Restoring Line SDC 1	Local monitor	EVOLVE-SLC-250 EVOLVE-SLC-500	N/A
0678	eth0 Isolate Fault	Non-supervised output	CPU board	Isolates eth0 port to determine which Ethernet link is generating a ground fault.
0679	eth1 Isolate Fault	Non-supervised output	CPU board	Isolates eth1 port to determine which Ethernet link is generating a ground fault.

Address	Label	Device type	Source	Description
0680	Fail Safe Database	Local trouble	CPU board	Control panel in fail safe mode due to corrupted database or unexpected unit behavior (CPU is able to communicate with LRMS and recover). Perform a complete EVOLVE-CU download to the system. If the trouble persists, review the download results/events to see if the node failed to update. If any failures exist, power down the node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node and retry the download. If the failure persists, contact Kidde Commercial Technical Support before replacing any hardware. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0680	Unused SDC 1	Local trouble	EVOLVE-SLC-250 EVOLVE-SLC-500	N/A
0681	Line SDC 2	Local trouble	EVOLVE-SLC-250 EVOLVE-SLC-500	Wiring fault on SLC 2. Check loop 2 wiring on the relevant SLC module for short or open circuits.
0681	Test Logging	Non-supervised output	CPU board	N/A (future use)
0682	Internal, Reset Required	Local trouble	CPU board	For internal use only. **Note:** Restart required [1]
0682	Map Flaw SDC 2	Local trouble	EVOLVE-SLC-250 EVOLVE-SLC-500	• Mismatch between actual data and expected data on SLC 2 • Defective wiring on SLC 2 • Defective device on SLC 2 Verify detectors, modules and base types installed on the SLC match the configuration. Check event history for any related device communication issues. Check and correct any wiring issues. Measure AC and DC inductance on the SLC wiring. Make use of the SIGA-HDT to diagnose the fault. Perform an upload to the EVOLVE-CU of the Signature Data. Correct any mapping errors and redownload the updated project to the control panel.
0683	Internal, Reset Required	Local trouble	CPU board	CPU ran into an unexpected internal failure. • Contact Kidde Commercial Technical Support before replacing any hardware. Have the node diagnostics, panel history, and copy of the exported project available for technical support review. Note: Restart required [1]
0683	Mapping In Progress SDC 2	Local monitor	EVOLVE-SLC-250 EVOLVE-SLC-500	SLC 2 currently mapping field devices.

Address	Label	Device type	Source	Description
0684	CAN Download In Progress	Local trouble	CPU board	EVOLVE-CU database download in progress to devices on UI frame assembly rail.
0684	Mapping Off SDC2	Local monitor	EVOLVE-SLC-250 EVOLVE-SLC-500	SLC2 mapping manually disabled.
0685	CPU Card	Local trouble	CPU board	Main CPU board mismatch. Review the configuration and verify the CPU type is configured correctly. Perform a complete EVOLVE-CU download to the system. If the trouble persists, review the download results/events to see if the node failed to update. If failure exists, power down the node and check all connections, power, and communications, including making sure all loop cards are seated properly. Power up the node and retry the download. If the failure persists, contact Kidde Commercial Technical Support before replacing any hardware. Have the node diagnostics, panel history, and copy of the exported project available for technical support review.
0685	Maintenance Alert SDC 2	Local monitor	EVOLVE-SLC-250 EVOLVE-SLC-500	Dirty detector on SLC 2. Detector has become dusty or dirty. Follow recommended cleaning procedures.
0686	Configuration Utility Logged In	Local monitor	CPU board	EVOLVE-CU log on to control panel executed. If this appears but there is no active EVOLVE-CU connection to the node, reboot the fire system.
0686	Unprogrammed Device SDC 2	General alarm	EVOLVE-SLC-250 EVOLVE-SLC-500	Device on SLC 2 not defined in EVOLVE-CU is in alarm or trouble state. Remove the relevant device or add it to the project configuration.
0687	Ground SDC 2	Ground fault	EVOLVE-SLC-250 EVOLVE-SLC-500	• Wiring fault on SLC 2. • Conductor connected to SLC 2 data card has continuity to ground. Run the SIGA-HDT Ver. 1.8 or later with compatible firmware on the SLC to diagnose the fault. Check wiring throughout the system for connections to ground.
0687	Network	Local trouble	CPU board	Expected node is not communicating on the network. Check network wiring to and from the node. Download the project configuration directly to the node that is not communicating on the network.
0688	Restoring Line SDC2	Local monitor	EVOLVE-SLC-250 EVOLVE-SLC-500	N/A
0688	Unexpected CAN Device	Local trouble	CPU board	N/A (future use)
0689	Unexpected ASD device	Local trouble	CPU board	N/A (future use)

Address	Label	Device type	Source	Description
0690	Unused SDC 2	Local trouble	EVOLVE-SLC-250 EVOLVE-SLC-500	N/A
0690	Lamp Test	Local monitor	CPU board	Lamp test has been activated at the node.
0691	Map Mismatch SDC 1	Local trouble	EVOLVE-SLC-250 EVOLVE-SLC-500	Mismatch between actual data and expected data on SLC 1. Verify detectors, modules and base types installed on the SLC match the configuration. Check event history for any related device communication issues. Check and correct any wiring issues. Rerun the mapping operation.
0691	Auxiliary 2	Local trouble	CPU board	Overcurrent condition detected on Aux2 of the main board.
0692	Map Mismatch SDC 2	Local trouble	EVOLVE-SLC-250 EVOLVE-SLC-500	Mismatch between actual data and expected data on SLC2. Verify detectors, modules and base types installed on the SLC match the configuration. Check event history for any related device communication issues. Check and correct any wiring issues. Rerun the mapping operation.
0692	Auxiliary	Local trouble	CPU board	Overcurrent condition detected on Aux1 of the main board.
0693	Extra Devices SDC 1	Local trouble	EVOLVE-SLC-250 EVOLVE-SLC-500	Number of devices on SLC 1 exceeds maximum allowed. Reduce the number of devices connected to the SLC, 125 or less modules and 125 or less detectors.
0693	R-series Network Download in Progress	Local trouble	K-R-Series annunciator	EVOLVE-CU firmware download to remote annunciators in progress.
0694	Extra Devices SDC 2	Local trouble	EVOLVE-SLC-250 EVOLVE-SLC-500	Number of devices on SLC 2 exceeds maximum allowed. Reduce the number of devices connected to the SLC, 125 or less modules and 125 or less detectors.
0695	INF Mode Bypassed SDC 1	Local trouble	EVOLVE-SLC-250 EVOLVE-SLC-500	Inhibition of device LED flashing was bypassed (LEDs will flash according to state) **Note:** Applies to DH and DS nonmapping devices
0696	INF Mode Bypassed SDC2	Local trouble	EVOLVE-SLC-250 EVOLVE-SLC-500	Inhibition of device LED flashing was bypassed (LEDs will flash according to state) **Note:** Applies to DH and DS nonmapping devices

Address	Label	Device type	Source	Description
0697	NAC 1	Local trouble	CPU board	NAC 1 circuit short/open/overcurrent conditions. **Note:** In cases where the system first detects a short followed by an overcurrent, and eventually followed with an open fault detection, the system may display three troubles for the same NAC number: Trouble Short, Local Trouble, and Trouble Open. A system reset is required to restore any resolved troubles.
0698	NAC 2	Local trouble	CPU board	NAC 2 circuit short/open/overcurrent conditions. **Note:** In cases where the system first detects a short followed by an overcurrent, and eventually followed with an open fault detection, the system may display three troubles for the same NAC number: Trouble Short, Local Trouble, and Trouble Open. A system reset is required to restore any resolved troubles.
0699	NAC 3	Local trouble	CPU board	NAC 3 circuit short/open/overcurrent conditions. **Note:** In cases where the system first detects a short followed by an overcurrent, and eventually followed with an open fault detection, the system may display three troubles for the same NAC number: Trouble Short, Local Trouble, and Trouble Open. A system reset is required to restore any resolved troubles.
0700	NAC 4	Local trouble	CPU board	NAC 4 circuit short/open/overcurrent conditions. **Note:** In cases where the system first detects a short followed by an overcurrent, and eventually followed with an open fault detection, the system may display three troubles for the same NAC number: Trouble Short, Local Trouble, and Trouble Open. A system reset is required to restore any resolved troubles.
0777	Telephone Calls In	Local monitor	CPU board	N/A (future use)
0778	Page By Telephone	Audio source	CPU board	N/A (future use)
0779	All Call Active	Audio source	CPU board	N/A (future use)
0780	All Call Minus Active	Audio source	CPU board	N/A (future use)
0781	Page To Evacuated	Audio source	CPU board	N/A (future use)
0782	Page To Alerted	Audio source	CPU board	N/A (future use)
0783	Page To Emergency	Audio source	CPU board	N/A (future use)
0784	Page To Other	Audio source	CPU board	N/A (future use)

Address	Label	Device type	Source	Description
0785	External Audio To Page	Audio source	CPU board	N/A (future use)
0786	External Audio To All	Audio source	CPU board	N/A (future use)
0787	External Audio to Page/Auxiliary/General	Audio source	CPU board	N/A (future use)
0788	External Audio To Evacuated	Audio source	CPU board	N/A (future use)
0789	External Audio To Alerted	Audio source	CPU board	N/A (future use)
0790	External Audio To Emergency	Audio source	CPU board	N/A (future use)
0791	External Audio To Auxiliary	Audio source	CPU board	N/A (future use)
0792	External To Other	Audio source	CPU board	N/A (future use)
0800	AUDTEL Firmware Mismatch	Local trouble	CPU board	N/A (future use)
0801	AUDTEL Communication	Local trouble	CPU board	N/A (future use)
0802	AUDTEL Integrity	Local trouble	CPU board	N/A (future use)
0803	AUDTEL Data	Local trouble	CPU board	N/A (future use)
0804	AUDTEL Code	Local trouble	CPU board	N/A (future use)
0805	AUDTEL Configuration	Local trouble	CPU board	N/A (future use)
0806	AUDTEL MIC	Local trouble	CPU board	N/A (future use)
0807	AUDTEL Riser	Local trouble	CPU board	N/A (future use)
0808	Telephone Riser On	Non-supervised output	CPU board	N/A (future use)
0809	Audio Input	Audio source	CPU board	N/A (future use)
0810 – 0812	Audio Input 2 - Audio Input 4	Audio source	CPU board	N/A (future use)
0813	Preamplifier	Audio source	CPU board	N/A (future use)
0814	Preamplifier Channel	Local relay	CPU board	N/A (future use)
0815 - 0821	Preamplifier 1 Channel 2 - Preamplifier 1 Channel 8	Local relay	CPU board	N/A (future use)
0822	Preamplifier 1 Channel Page	Local relay	CPU board	N/A (future use)
0823	Preamplifier 2	Audio output	CPU board	N/A (future use)
0824	Preamplifier Channel (1)	Local relay	CPU board	N/A (future use)

Address	Label	Device type	Source	Description
0825 - 0831	Preamplifier 2 Channel 2 - Preamplifier 2 Channel 8	Local relay	CPU board	N/A (future use)
0832	Preamplifier 2 Channel Page	Local relay	CPU board	N/A (future use)
0833	Preamplifier 3	Audio output	CPU board	N/A (future use)
0834	Preamplifier Channel (2)	Local relay	CPU board	N/A (future use)
0835 - 0841	Preamplifier 3 Channel 2 - Preamplifier 3 Channel8	Local relay	CPU board	N/A (future use)
0842	Preamplifier 3 Channel Page	Local relay	CPU board	N/A (future use)
0843	Preamplifier 4	Audio output	CPU board	N/A (future use)
0844	Preamplifier Channel (3)	Local relay	CPU board	N/A (future use)
0845 - 0851	Preamplifier 4 Channel 2 - Preamplifier 4 Channel8	Local relay	CPU board	N/A (future use)
0852	Preamplifier 4 Channel Page	Local relay	CPU board	N/A (future use).
2001	Telephone Line 1 Fault	Local trouble	CPU board	DACT Line 1 Voltage Out of Range.
2002	Telephone Line 1 Ground Fault	Ground Fault	CPU board	DACT Line 1 Ground Fault.
2003	Dialer Line 1 Phone Fault	Local trouble	CPU board	DACT Line 1 No Phone Present
2004	Dialer Line 2 Fault	Local Trouble	CPU board	DACT Line 2 Voltage Out of Range
2005	Dialer Line 2 Ground Fault	Ground Fault	CPU board	DACT Line 2 Ground Fault
2006	Dialer Line 2 Phone Fault	Local Trouble	CPU board	DACT Line 2 No Phone Present
2007	Dialer Line 1 Test Transmit Failed	Local Monitor	CPU board	DACT Line 1 Fail Message transmission.
2008	Dialer Line 2 Test Transmit Failed	Local Monitor	CPU board	DACT Line 2 Fail Message transmission.
2009	Dialer Account 1 Msg Transmit Failed	Local Trouble	CPU board	DACT failed to transmit a message to Account 1.
2010	Dialer Account 2 Msg Transmit Failed	Local Trouble	CPU board	DACT failed to transmit a message to Account 2.
3001	User	Local monitor	CPU board	User log on input

Address	Label	Device type	Source	Description
3002 - 3020	User (1) - User (19)	Local monitor	CPU board	User x log on input
4001 - 4006	Virtual Switch 1 - Virtual Switch 6	Local Monitor	CPU board	Virtual switch activation.
4101 - 4130	Unconfigured R-Series module 1 - Unconfigured R-Series module 30	Local trouble	K-R-Series annunciator	The K-R-Series annunciator is connected but not configured. Add the annunciator to the CU project and configure it.

[1] If the event persists after a panel reset, call Kidde Technical Support at +1 888 244 9979.