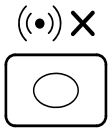
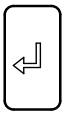
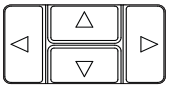
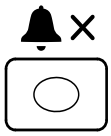
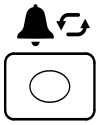
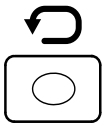
Operating Manual

This manual provides operating instructions for the Sigma ZXT UL Releasing Fire Control Panel.

These operating instructions are based on the standard panel configuration.

How To	Do This	Display	Comments
Test Lamps	Press this button for at least 3 secs	- All LEDs will illuminate - LCD will cycle colors Red, Green, Blue	Panel buzzer operates while button is pressed. Release the button to stop the lamp test.
Silence Panel Buzzer	Press the silence buzzer button 	- No indications	The panel internal buzzer turn off.
Enable Buttons via Keyswitch	Insert Key and turn clockwise	- User Menu will appear on LCD	Panel internal buzzer beeps twice every seven seconds
Enable Buttons via Passcode	Press the Enter button  Enter passcode when prompted using cursor keys 	- User Menu will appear on LCD	Panel internal buzzer beeps twice every seven seconds
Silence Alarms	Press the Silence Alarms button 	- Alarm indications will be displayed - NAC silenced LED will illuminate	Alarm notification devices will turn-off. (Configuration dependent)
Re-sound Alarms	Press the Re-sound alarms button 	Alarm indications will be displayed NAC silenced LED will turn-off	Silenced alarm notification devices will re-activate.

How To	Do This	Display	Comments
Reset	Press the Reset button 	Active alarm and trouble indications clear.	Panel outputs return to their normal standby state. Alarms and troubles will reactivate if their cause is still active.
Disable a Zone	Go to User Menu Select “Enable/Disable” menu option, press ↵ Select “FACP zones” menu option, press ↵ Select zone number and press ↵ Select “Disabled” Option and press ↵	General Disablement LED illuminates Supervisory LED illuminates Relevant Zone Trouble/On Test/Disabled LED illuminates LCD shows details of the zone disabled	Panel buzzer will operate continuously when zone is disabled, but can be silenced using the Silence Panel Buzzer button
Enable a Zone	Go to User Menu Select “Enable/Disable” menu option, press ↵ Select “FACP zones” menu option, press ↵ Select zone number and press ↵ Select “Enabled” Option and press ↵	Associated Zone Disablement indications clear	Check status of zone before enabling to prevent unwanted activations.
Put a Zone Into Test	Go to User Menu Select “Test Zones” menu option, press ↵ Select zone number and press ↵ Select “In Test” Option and press ↵	Test Mode Active LED illuminates Relevant Zone Trouble/On Test/Disabled LED illuminates LCD shows the number of zones in test	
Take a Zone Out of Test	Go to User Menu Select “Test Zones” menu option, press ↵ Select zone number and press ↵ Select “Normal” Option and press ↵	Associated Zone test mode indications will clear	
Change Panel Operating Mode	Insert key and turn to the required mode	LEDs above keyswitch will illuminate to indicate the mode selected.	In Auto the extinguishing can be released by activation of automatic detection zones or Manual Release operation. In Manual mode extinguishant can be released by Manual Release operation only. If the switch is in the Auto position and the LEDs indicate Manual operation, there is a different "Mode" input with "Manual" selected. All "Mode" inputs must have "Auto" selected for the system to be in Auto mode.

How To	Do This	Display	Comments
Manually Release Extinguishant	Pull down yellow flap and press the red button behind 	Pre-Activated/Activated LED illuminated Manual Release LED illuminated LCD shows Stage 2 Alarm and countdown timer	Caution! Manual Release should only be operated when the release of extinguishing is required in a fire condition.
Switch from Main to Reserve Cylinder Output	Go to User Menu Select “Reserve Selection” menu option, press ↵ Select “Yes” option, press ↵	Reserve selected LED will illuminate	This function will only be available if the panel has been configured as a Main and Reserve cylinder system. Where NAC2 operates as a second extinguisher output.
Disable Extinguishant Output	Go to User Menu Select “Enable/Disable” menu option, press ↵ Select “Extinguishant Subsystem” menu option, press ↵ Select “Exting Release” menu option and press ↵ Select “Disabled” Option and press ↵	General Disablement LED will illuminate Extinguishant Disablement LED will illuminate Supervisory LED will illuminate LCD shows extinguishant O/P(s) disabled	This disables the extinguishing output only. If triggered the panel will still proceed through its release stages but will NOT operate the output to release the extinguishant. Panel buzzer will operate continuously when extinguishant output is disabled, but can be silenced using the Silence Panel Buzzer button.
Enable Extinguishant Output	Go to User Menu Select “Enable/Disable” menu option, press ↵ Select “Extinguishant Subsystem” menu option, press ↵ Select “Exting Release” menu option and press ↵ Select “Enabled” Option and press ↵	Associated indications will clear	Caution! Do not enable the extinguishant output if stage 2 alarms or greater are active as this will trigger an unwanted discharge.
Disable Manual Release	Go to User Menu Select “Enable/Disable” menu option, press ↵ Select “Extinguishant Subsytem” menu option press ↵ Select “All Man Release” menu option and press ↵ Select “Disabled” Option and press ↵	General Disablement LED will illuminate Supervisory LED will illuminate LCD shows “All Manual Release Disabled”	All Manual Release functions will be disabled. Panel buzzer will operate continuously when Manual Release is disabled, but can be silenced using the Silence Panel Buzzer button

How To	Do This	Display	Comments
Enable Manual Release	Go to User Menu Select “Enable/Disable” menu option, press ↵ Select “Extinguishant Subsystem” menu option, press ↵ Select “All Man Release” menu option and press ↵ Select “Enabled” Option and press ↵	All Manual Release disablement indications will clear	
Manually activate Extract Fan	Go to User Menu Select “Extraction Fan” menu option, press ↵ Select “On” option, press ↵	Extract Fan On LED will illuminate	This option only appears in the User Menu if such an output is configured. The output will automatically deactivate (and Extract Fan On LED will clear) after a predetermined period of time. (Configurable)
Manually De-activate Extract Fan	Go to User Menu Select “Extraction Fan” menu option, press ↵ Select “Off” option, press ↵	Extract Fan On LED will clear	This option only appears in the User Menu if such an output is configured. The output will deactivate immediately.
Disable Extract Fan output	Go to User Menu Select “Enable/Disable” menu option, press ↵ Select “Extinguishant Subsystem” menu option, press ↵ Select “Extraction Fan” menu option and press ↵ Select “Disabled” Option and press ↵	General Disablement LED will illuminate Supervisory LED will illuminate LCD shows Extraction Fan is disabled	This option only appears in the User Menu if such an output is configured. The Extract Fan output is disabled, and will remain inactive under all conditions during the disablement. Panel buzzer will operate continuously when extract fan output is disabled, but can be silenced using the Silence Panel Buzzer button.
Enable Extract Fan Output	Go to User Menu Select “Enable/Disable” menu option, press ↵ Select “Extinguishant Subsystem” menu option, press ↵ Select “Extraction Fan” menu option and press ↵ Select “Enabled” Option and press ↵	All Extract Fan disablement indications will clear	This option only appears in the User Menu if such an output is configured.
Disable Relay Outputs	Go to User Menu Select “Enable/Disable” menu option, press ↵ Select “Relays” menu option, press ↵ Select the relay to be disabled from the list and press ↵ Select “Disabled” Option and press ↵	General Disablement LED will illuminate Supervisory LED will illuminate LCD shows details of which relay is disabled	The associated relay is disabled. If active, the relay will return to its "inactive" state. Panel buzzer will operate continuously when one or more relay outputs are disabled, but can be silenced using the Silence Panel Buzzer button.

How To	Do This	Display	Comments
Enable Relay Outputs	Go to User Menu Select “Enable/Disable” menu option, press ↵ Select “Relays” menu option, press ↵ Select the relay to be enabled from the list and press ↵ Select “Enabled” Option and press ↵	Associated Disabled Relay indications will clear	
Disable Monitored Inputs	Go to User Menu Select “Enable/Disable” menu option, press ↵ Select “Monitored inputs” menu option, press ↵ Select the inputs to be disabled from the list and press ↵ Select “Disabled” Option and press ↵	General Disablement LED will illuminate Supervisory LED will illuminate LCD shows details of which input is disabled	The associated input is disabled. If active or in a Trouble condition, the input will return to its "inactive" state. Panel buzzer will operate continuously when one or more monitored inputs are disabled, but can be silenced using the Silence Panel Buzzer button.
Enable Monitored Inputs	Go to User Menu Select “Enable/Disable” menu option, press ↵ Select “Monitored inputs” menu option, press ↵ Select the inputs to be disabled from the list and press ↵ Select “Enabled” Option and press ↵	Associated disablement indications relating to Monitored Input will clear	If the input is in an off-normal condition, the panel will, once again, indicate the off-normal condition.
Disable Programmable Inputs	Go to User Menu Select “Enable/Disable” menu option, press ↵ Select “Panel inputs” menu option, press ↵ Select the panel input to be disabled from the list and press ↵ Select “Disabled” Option and press ↵	General Disablement LED will illuminate Supervisory LED will illuminate LCD shows details of which input is disabled	
Enable Programmable Inputs	Go to User Menu Select “Enable/Disable” menu option, press ↵ Select “Panel inputs” menu option, press ↵ Select the panel input to be disabled from the list and press ↵ Select “Enabled” Option and press ↵	All disablement indications relating to Programmable Input will clear.	

Inspecting Batteries

The fire control panel contains sealed lead acid batteries to provide standby power in the event of mains failure. Standby batteries have a life expectancy of 3 to 5 years.

Standby batteries should be inspected annually to confirm the connection integrity to the Sigma ZXT UL Releasing Fire Control Panel.

Standby batteries should be tested annually in accordance with the battery manufacturer's recommendations to determine their suitability for continued standby operation.

Replacing Standby-Batteries

Battery replacement should be considered after 3 years and batteries should be replaced no later than 5 years.

Batteries should be replaced with sealed lead acid batteries that meet or exceed the required battery capacity for the system:

Power Sonic PS1270 F2, Sealed Lead Acid, 12VDC 7Ah

Power Sonic PS12180 F2, Sealed Lead Acid, 12VDC 18Ah

Related Documentation

The following documents shall be used to provide additional information for installing and operating the Sigma ZXT UL Releasing Fire Control Panel:

- Installation and Operation Manual, Man-1456
- Wiring Diagram, Man-1459
- UL Compliance Label, Lab-2308

Emergency Contact

IN THE EVENT OF TROUBLE
CONTACT
NAME
ADDRESS
CITY
STATE
ZIP
TELEPHONE

Basic Operating Instructions

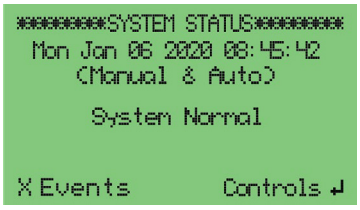
Frame the operating instructions overleaf and mount on the wall next to the control panel.

NOTE: These operating instructions are based on the Sigma ZXT UL Releasing Fire Control Panel in factory configuration. Therefore any changes from the factory panel configuration will require these instructions to be modified before use.

SIGMA ZXT UL RELEASING CONTROL PANEL BASIC OPERATING INSTRUCTIONS

STANDBY CONDITION

In standby condition the LCD will be as shown:



The green power LED and the Auto mode LED will be illuminated.

AUTO AND MANUAL MODES

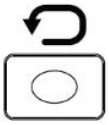
The Sigma ZXT UL can be operated in Auto or Manual mode, depending on the position of the Mode Select keyswitch, the selected mode will be indicated by the appropriate LED and on the LCD. In manual mode only the Extinguishant Release button or a Manual Release Pull Station will activate the extinguishant release.

ACCESS LEVEL INDICATIONS

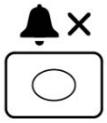
Access level will be indicated by the LCD color and audible beeps:
Access Level 1 - Green LCD, No beeps
Access Level 2 - Turquoise LCD, 2 beeps every 5 secs
Access Level 3 - Blue LCD, 3 beeps every 5 secs

MANUAL CONTROLS

User controls are only available at Access Level 2. To enter Access Level 2 requires operation of the ENABLE keyswitch or a User passcode.

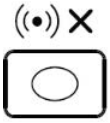


Operation of the RESET button at Access level 2 will return the module to the normal standby state and return all outputs to their inactive state. Any conditions that are still active following a reset will reactivate the relevant events and outputs on the panel.

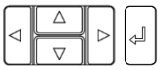


Operation of the Silence Alarms button at Access Level 2 will silence the NACs. Operation will be indicated by the NAC silenced LED.

Operating the Re-sound Alarm button at Access level 2 will re-sound the NACs.



Operation of the Sounder Silence button at Access Level 2 will silence the panels internal buzzer. It will not silence NACs.



Used to navigate through menus and enter passcodes.

Press and hold the Lamp Test button, the panel buzzer will activate, the LCD color will cycle between Blue, Red and Green and all facia LEDs will illuminate. No outputs will be operated.

X key is also used to navigate back through various LCD screens.

LED Indicators:

Fire Indicators - Indicate Active fire events.

Trouble Indicators - Indicate Troubles with the system.

Disablement Indicators - Indicating functions on the system that have been inhibited.

General System Status Indicators - Indicating status of Power, Delays, Extract fans.

IN THE EVENT OF AN ALARM

When an Alarm occurs, take the following actions:

1. **Evacuate the area.**
2. **Notify the proper authorities immediately and state the nature and location of the emergency.**
3. **Be prepared to provide directions to firefighters.**

IN THE EVENT OF A COINCIDENCE RELEASE

When a zone alarm is activated, the panel enters a preactivated state:

- 1st stage Alarms activate
- Common Fire and relevant Zone Fire LED blink
- LCD displays Zone Alarm info and Stage 1 Pre-Activated
- Buzzer activates
- Pre-Activated/Activated LED blinks
- Fire relay activates

When a second zone alarm is activated, the panel enters a pre-release state:

- 2nd stage Alarms activate
- LCD displays Stage 2 Activated and Countdown timer
- Buzzer continues to sound
- Pre-Activated/Activated LED illuminate steady

Once the Stage 2 countdown has finished, the module enters the releasing state:

- Stage Alarms activate
- The LCD displays Stage 3 Discharging and release duration time

Once the release of extinguishant has been confirmed, the module enters the released state:

- LCD displays Stage 4 Discharged
- Released LED is illuminated
- Released relay is active

IN THE EVENT OF A MANUAL RELEASE

Following the operation of a Manual Release device:

- 2nd stage Alarms activate
- LCD displays Stage 2 Activated and Countdown timer
- Buzzer activates
- Pre-Activated/Activated LED illuminates steady

Once the Stage 2 countdown has finished, the module enters the releasing stage:

- 3rd Stage Alarms activate
- LCD displays Stage 3 Discharging and release duration timer

Once the release of extinguishant has been confirmed, the module enters the released state:

- LCD displays Stage 4 Discharged
- Released LED is illuminated
- Released relay is active

ABORT SWITCH OPERATION

Extinguishing release can be halted during stage 2 - Countdown timer, by operation of an Abort Switch installed as part of the extinguishing system. When the Abort switch is active the panel will display as follows:

- Countdown timer stops
- Abort Alarms activate
- Abort Operated LED is illuminated
- Abort relay is active

Releasing the Abort switch will continue the release process.

A *manual release* will override an active *abort.*

An *abort* will override an active *manual release.*

IN THE EVENT OF A TROUBLE

Warning! Trouble conditions may affect the panels ability to release extinguishant. Contact the Authorized Service Personnel to investigate and clear trouble conditions immediately. In a Trouble condition the panel will indicate the following:

- General Trouble LED illuminates
- The LED indicating the specific type of trouble illuminates
- LCD displays detailed Trouble information
- Trouble Relay is Active

MAINTENANCE RECOMMENDATIONS

Regularly scheduled maintenance should be performed annually by your service company. Or more frequently as may be required by your AHJ.

Maintenance such as replacement of fuses, batteries etc. should only be carried out by your service company.

KEY LOCATIONS

The Sigma ZXT UL keys can be found in the following locations:

Enable Access Key: _____

Mode Select Key: _____

Sigma ZXT UL: Panel Key: _____

EMERGENCY CONTACT:

Name: _____

Phone: _____

FIRE SERVICE:

Phone: _____