

Programming Manual



10-068, Cheetah[®] Xi

Addressable Fire Suppression Control System



P/N 06-651
Rev. 2, December 2016

Fike[®]

SOLUTIONS

- / Fire Protection
- / Explosion Protection
- / Overpressure Protection
- / Pressure Activation

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1.1 ABOUT THIS MANUAL

This manual is intended for those individuals who are responsible for the programming of the Fike Cheetah Xi Addressable Control System. It provides a detailed description of how use the control panels configuration menus to field-program the systems operating parameters. Changes to the system configuration shall only be made by a factory trained and certified technician.

1.2 PRODUCT SUPPORT

If you have a question or encounter a problem not covered in this manual, you should first try to contact the distributor that installed the protection system. Fike has a worldwide distribution network. Each distributor sells, installs, and services Fike equipment. Look on the inside of the door, left side, there should be a sticker with an indication of the distributor who sold the system. If you cannot locate the distributor, please call Fike Customer Service for locating your nearest distributor, or go to our web-site at www.fike.com. If you are unable to contact your installing distributor or you simply do not know who installed the system you can contact Fike Fire Alarm Product Support at (800) 979-FIKE (3453) Option 2, 1 Monday through Friday, 8:00 AM to 4:30 PM CST.

1.3 SAFETY INFORMATION


Important safety admonishments are used throughout this manual to warn of possible hazards to persons or equipment.

WARNING

Warnings are used to indicate the presence of a hazard which will or may cause personal injury or death, or loss of service if safety instructions are not followed or if the hazard is not avoided.

Caution

Cautions are used to indicate the presence of a hazard which will or may case damage to the equipment if safety instructions are not followed or if the hazard is not avoided.

 **Notes:** Notes indicate the message is important, but is not of a Warning or Caution category. These notes can be of great benefit to the user and should be read.

1.4 RELATED DOCUMENTATION

To obtain a complete understanding of the specific features of the Cheetah Xi or to become familiar with related functions in general, refer to the documentation listed below. Please reference the most current version or the version noted on the label located on the product.

Exhibit 1-1: Related Documentation

Document Title	Part Number
Cheetah Xi Addressable Fire Suppression Control System Installation Manual	06-356
Cheetah Xi Addressable Fire Suppression Control System Operation & Maintenance Manual	06-356-2

1.5 REVISION HISTORY

Document Title: Cheetah Xi Addressable Fire Suppression System Programming Manual

Document Reorder Number: 06-651

Revision	Section	Date	Reason for Change
0	All Sections	04/2012	Separated manual into separate Installation, Operation and Programming Manuals, updated configuration screens to reflect product additions/changes.
1	Sections 1, 2, 4, and Appendix A	08/2013	Added programming features for AHU restart.
2	All Sections	12/2016	Added VESDA Modbus HLI and new FAAST detectors; Firmware V7.20

2.1 UNDERSTANDING CHEETAH Xi

The Cheetah Xi system is equipped with an extensive list of configuration parameters. Changes to these parameters can be made either directly at the panel using its integral configuration menus, or by using the system's PC configuration software C-Linx. Not all of the system operating parameters can be set using the panel's configuration menus. Section 4.0 of this manual provides a complete description of the configuration parameters that can be changed at the panel.

To set all operating parameters for the system, you must use the panel's PC programming software C-Linx. Section 2.2 provides a complete listing of the programming features that are available through C-Linx for your reference. Refer to Fike document 06-448, "C-Linx Configuration Software" for software details.

It is important to keep in mind that any changes made to the system configuration directly through the panel's configuration menus will only be stored within the panel's on-board memory. To retain a back-up copy of the system programming, you should download the latest configuration settings from the panel each time you service the system.

2.2 SOFTWARE PROGRAMMING FEATURES

The following tables identify the configurable features that can be changed by using the panel's programming software C-Linx. The table also identifies features that are available, but not permitted to be used per the Cheetah Xi system's UL listing.

Exhibit 2-1: Programming Features

NOTICE TO USERS, INSTALLERS, AUTHORITIES HAVING JURISDICTION, AND OTHER INVOLVED PARTIES					
This product incorporates field-programmable software. In order for the product to comply with the requirements in the Standard for Control Units and Accessories for Fire Alarm Systems, UL 864, certain programming features or options must be limited to specific values or not used at all as indicated below.					
Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Main Board Configuration Options					
MISC.	<i>Miscellaneous Options</i>				
	AC Trouble Delay	Y	0-30 hours, (Default 2)	1-3	
	Abort Type	N	1 – 6 (Default 2)	1-4	
	Voice Panel Priorities				
	• Alarm	Y	1-251 (Default 4)		6
	• Test Alarm	Y	2-252 (Default 5)		6
	• Supervisory	Y	3-253 (Default 6)		6
	• Process	Y	4-254 (Default 7)		6
	Fan Restart	Y	Automatic /Manual		
	Drill/Silence/Acknowledge	N	Enabled / Disabled	Enabled	1,2
	Auto Message	Y	Enabled / Disabled		
	Walktest	Y	Enabled / Disabled		
	<i>Supervision Options</i>				
	Transformer	Y	120VAC / 240VAC		
	Loop Style (SLC)	Y	4,6 , or 7 (A, B, or X)		
	Ground Fault Level 1	N	Enabled / Disabled	Enabled	2
	Ground Fault Level 2	N	Enabled / Disabled	Enabled	2, 3
	Main Battery	N	Supervised / Unsupervised	Supervised	
	Auxiliary Battery	N	Supervised / Unsupervised	Supervised	
	Auxiliary Loop Module Present	Y	Enabled / Disabled		
	Auxiliary Power Module Present	Y	Enabled / Disabled		
	Eclipse Device Error Trouble	Y	Enabled / Disabled	Enabled	4
	AHU Fire Dept Key Required for AHU Restart	Y	Yes / No		
	First Event Latched on LCD	Y	Enabled / Disabled	Enabled	7
	Battery Cutoff	Y	Loop # and Address # (L: 1-4 Address: 0-254)		
	<i>Silence Options</i>				
	Unsilence Time	Y	1-24 hours		
	Silence Reminder	Y	Enabled / Disabled		
	Silence Inhibit	Y	Enabled / Disabled		
	Positive Alarm Sequence	Y	Enabled / Disabled		
	Silence Mode	Y	UL / ULC	UL only	5,8
	Automatic Alarm Silence Time	N	1 – 4 (Hr)		8

Notes:

1. City of Chicago does not allow use of Drill, Silence and Acknowledge switches.
2. Can only be changed with Factory Level password.
3. Level 2 ground fault detection required for use with solenoids.
4. If device on SLC has an internal error then the panel produces a trouble state (Enabled) and does not just log it (Disabled). (i.e. Checksum Error/Device Error:2000)
5. An audible signal that has been silenced at the protected premises shall automatically resound and remain energized until silenced and retransmitted to any supervising station to which the original signal was transmitted, as applicable, at least once every 24 hours until the condition is corrected and the product is restored to the normal supervisory condition.
6. Priorities must be set only if the panel is part of a panel network with CyberCat panels with voice operation.
7. LCD display to latch on initial Trouble or Supervisory events (YES) or LCD to display current Trouble or Supervisory event (NO).
When Silence Mode is set to ULC, a timer can be set to automatically silence the panel upon expiration of the timer. Panel is not ULC listed.

Exhibit 2-2: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Time Functions	<i>Alarm Sensitivity Changes</i>				
	Daytime Sensitivities (start/stop)	Y	12:00 AM – 12:00 AM		
	Sensitivity Changes	Y	Enabled / Disabled		
	Days that use daytime sensitivity	Y	Sunday – Saturday		
	Use Daylight Savings Time	Y	Enabled / Disabled		
	<i>Holiday Schedule</i>				
	Night time sensitivity	Y	20 days total (mm/dd/yyyy)		3
	<i>DACT Auto Test</i>				
	DACT Auto test start hour	Y	0 – 23 (2 default)		
	DACT Auto test period (hrs.)	Y	0 - 24		
NAC	P10 and P11 (Main board NACs)				
	NAC Selection	Y	NAC1 / NAC2		
	Sync Protocol	Y	NO / Gentex / System Sensor		1,2
	State (Activation)	Y	Alarm / Pre-Alarm 1 / Pre-Alarm 2 / Supervisory / Trouble / Process / Release / Pre-discharge		
	Silenceable	Y	Silenceable / Non Silenceable		
	Zone Assignment	Y	1 – 254		
	Circuit	Y	Enabled / Disabled		
	Drill	Y	Enabled / Disabled		
	Walktest	Y	Enabled / Disabled		
	Non-Silence for Waterflow Activation	Y	Enabled / Disabled		
	Panel Sync Protocol	Y	Gentex / System Sensor / Gentex – Visual Silence/ System Sensor – Visual Silence		
Relays	<i>P2 Main Board Relays</i>				
	Relay Selection	Y	R1 / R2		4
	State (Activation)	Y	Alarm / Pre-Alarm 1 / Pre-Alarm 2 / Supervisory / Trouble / Process / Zone Disable / Release / Pre-discharge / Abort		
	Silenceable	Y	Non-Silenceable / Silenceable		
	Zone Assignment	Y	1 - 254		
	Relay	Y	Enabled / Disabled		
	Drill Operation	Y	Enabled / Disabled		

Notes:

1. If synchronization is selected, both NAC circuits will use the same sync protocol.
2. Refer to Fike document 06-186 for compatible notification appliances.
3. Allows the installer to assign the night time sensitivity obscuration level to devices during scheduled holidays. No other functions are affected or disabled.
4. Allows on board relays to be configured from the default setting of Alarm for R1 and Supervisory for R2 to the states listed in State (Activation).

Exhibit 2-3: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Relays	<i>P12 (optional card position)</i>				
	Relay Selection	Y	A / B / C / D		
	Module	Y	No Module Installed / CRM4 / CRPM (Opt 1) / CRPM (Opt 2) / Fire Communicator		
	State	Y	Alarm / Pre-Alarm 1 / Pre-Alarm 2 / Supervisory / Trouble / Process / Zone Disable / Release / Pre-discharge / Abort		1
	Restart Delay	Y	0 , 40 – 250 (sec)		1
	Silenceable	Y	Non-Silenceable / Silenceable		1
	Zone Assignment	Y	1 – 254		1
	Relay	Y	Enabled / Disabled		1
	Drill Operation	Y	Enabled / Disabled		1
	<i>P13 (optional card position)</i>				
	Relay Selection	Y	A / B / C / D		
	Module	Y	No Module Installed / CRM4 / CRPM (Opt 1) / CRPM (Opt 2) / Network Interface Card		
	State	Y	Alarm / Pre-Alarm 1 / Pre-Alarm 2 / Supervisory / Trouble / Process / Zone Disable / Release / Pre-discharge / Abort		1
	Restart Delay	Y	0 , 40 – 250 (sec)		1
	Silenceable	Y	Non-Silenceable / Silenceable		1
	Zone Assignment	Y	1 – 254		1
	Relay	Y	Enabled / Disabled		1
	Drill Operation	Y	Enabled / Disabled		1
Zones	Zones	Y	1 – 254		
	Type	Y	Type A Alarm Zone / Type B/C Count Zone / Type D Cross Zone / Type E Single Pre-discharge Zone		
	Custom Message	Y	20 character user defined		
	Automatic Countdown	Y	0 – 255 (30)		
	Manual Countdown	Y	0 – 30 (15)		
	Zone Enabled	Y	Enabled / Disabled		
	Zone Chimes...				
	Zone Number	Y	1-254		
	Chime Code	Y	0-0-0-0 (1-9)		

Notes:

1. Configuration option available only when CRM4 module is selected.

Exhibit 2-4: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Peripherals	Peripheral List	Y	2 - 32		
	Custom Message	Y	20 character user defined (PERIPHERAL ID 02)		1
	Zone Assignment	Y	0 - 254		1
	Supervision	Y	Unsupervised / Supervised		1
	Voice	Y	No Voice / EVAX / Fike		
	Status	Y	STD / EXP		2
	History Transmit	Y	Compact / Verbose		3
	History Packing	Y	Unpacked / Packed		4
	History Message	Y	STD / EXP		5
VESDA	Protocol	Y	Modbus / Open HLI		
	VEA Template	Y	0 - 19		6
	Pipe	Y	1 - 40		6
	Zone	Y	0 - 253		6

Notes:

- Peripheral device must be added to the Peripherals list before these configuration options are available.
- This command contains status for Alarm, Supervisory, Trouble and all other states. Peripheral devices that have firmware version before 3.00 should set this variable to STD, which is the original Cheetah Xi format. The ESP selection refers to an "Expanded" format. Peripheral devices with 3.00 firmware or newer will use this command. The EXP setting speeds up operation of the peripheral bus.
- If set to COMPACT, a message filter within the panel is used to prevent transmission of certain history record events, including the NEW DEVICE history messages. This is done so that the peripherals do not display messages that are not required. If set to VERBOSE, all history messages are transmitted.
- HISTORY PACKING refers to how many history records are transmitted back-to-back with minimum time in between. If set to UNPACKED, history records are sent one at a time. If set to PACKED, up to 50 history records are sent back-to-back. This will speed up transmission of large amounts of history data.
- HISTORY MESSAGE refers to what kind of data is packed into the history command. If set to STD (standard), data is packed as with previous versions. If set to EXP (expanded), both lines 1 and 2 of the history data as shown on the LCD of the panel is packed into the history command.
- VESDA VEA detectors can have multiple sampling pipes ranging from 40 to 120 and each pipe (sector) can be assigned to a different panel zone number for annunciation purposes. C-Linx enables you to create up to 19 pipe templates with each template consisting of 40 pipes. The templates allow you to map each of the 40 pipes to a panel zone. The template(s) can then be assigned to one or more VEA detectors.

Exhibit 2-5: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Network	<i>Network Settings</i>				
	Network Address (Panel ID)	Y	1 - 128		
	Network Module Type	Y	None / First / Middle / Last		1
	Network Panel Message	Y	20 character user defined (CUSTOM MSG PANEL 001) where ZZZ = zone number		
	Network Switch Operation	Y	Global / Local		2
	Network Switch IDs	Y	1 – 128		9
	Network Zones	Y	1 – 254		3
	Panel Supervision	Y	1 – 128		4
	Wiring Style	Y	Style 4 / Style 7		
	History Repeats	Y	No Repeats / 1 Repeat / 2 Repeat		10
	<i>Ethernet Settings</i>				
	Source IP Address	Y	000.000.000.000 User Defined		5
	Destination IP Address	Y	000.000.000.000 User Defined		6
	Supervision IP Address	Y	000.000.000.000 User Defined		7
	Panel IP Supervision	Y	000.000.000.000		4
	History Transmits	Y	1 – 10		11
	Supervision Timeout	Y	1 – 59 (Sec., Min., Hour) 4 min. default		
	IP Time	Y	IP Time Disabled Accept IP Time Send IP Time		8

Notes:

1. Defines the location of the panel with respect to others on the network.
2. Defines if the respective panel will react to Reset, Silence, Acknowledge, and Drill commands received from other networked panels.
3. Defines which network zones will participate in the local panel zone(s).
4. Defines which network panel(s) the selected panel should supervise.
5. Defines the unique Internet Protocol (IP) address for the selected panel.
6. Defines the unique Internet Protocol (IP) address for the panel that is to receive history events from the selected panel.
7. Defines the unique Internet Protocol (IP) address for the panel that is to supervision responses from the selected panel.
8. Used to synchronize panel time over the network.
9. Selects which network panels the panel will receive switch commands from.
10. Sets the number of times history records are transmitted across the network.
11. Sets the number of times history records are transmitted across the Ethernet connection (Fike recommends a setting of 2).

Exhibit 2-6: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Defaults (Photo Detector)	<i>Common</i>				
	Loop Number of Device	Y	1 - 4		1
	Address of Device	Y	1 – 254		
	Custom Message	Y	60 character user defined (1-001 PHOTO DETECT Loop 1 - Address 001)		
		Y	Default / User Defined		
	Zone Assignments	Y	0 – 253		2
	PredischARGE Type	Y	Type A: Alarm Only / Type B: 1 st Cross Zone / Type C: 2 nd Cross Zone / Type D: Count Zone / Type E: Single Pre-discharge		
	Alarm Verification	Y	Time: 0 – 60 seconds		
		Y	Enabled / Disabled		
	<i>Sensitivity</i>				
	Pre-Alarm 1 & 2 Levels	Y	Enabled / Disabled		
		Y	0.5%/ft. – 4.0%/ft. (0.1%/ft. increments)		3
	Alarm Levels	Y	Acclimate: 1.3%/ft. – 3.6%/ft. (High 2.0% - Low 2.5%)		4
		Y	Day/Night: 1.3%/ft. – 3.6%/ft. (Day 3.6% - Night 3.6%)		
		Y	Alarm / Supervisory / Supervisory NL		
	Drift Compensation (Warning/Trouble)	Y	50 – 100% Warning 80%/Trouble 100%		5
	Walktest	Y	Walktest at Alarm Level / Walktest with IR / Walktest at 1.3%		
	<i>Device Summing</i>				
	Broadcast Thresholds for Summing (%OBS)	N	Enabled / Disabled (8 levels 0.5%/ft. – 4.0%/ft. in 0.1%/ft. increments)		
	Summing Activation Level (%OBS)	N	1.0 – 10%/ft. (0.5%/ft. increments)		
	Summing Broadcast State	N	Disabled / Alarm / Summing Alarm / Supervisory Latching / Supervisory Non-Latching / Pre-Alarm 1 / Pre-Alarm 2		
	Summing Addresses	N	1 – 8 (Device addresses to participate in summing group)		

Notes:

- Cheetah Xi can have up to four (4) addressable loops.
- Can be assigned to 4 discrete zones, 2 zone ranges or 1 range and 2 discrete zones.
- Pre-Alarm 2 setting must always be set equal or higher than Pre-Alarm 1 setting.
- High setting must be equal or lower obscuration setting than Low setting.
- Can be set in 1% increments. Trouble must be higher % than Warning.

Exhibit 2-7: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Defaults (Photo Detector)	<i>Remote Annunciator</i>				
	Annunciator Type	Y	None / Remote LED – Follows Red / Remote LED – Follows Green / Remote LED – Follows Amber / Remote LED – Independent / Sounder Base / Relay Base		1,2
	Silenceable	Y	Silenceable / Non- Silence		2
	Positive Alarm Sequence (PAS)	Y	Disabled / Enabled		2
	Output Settings – Priority Row	Y	1 – 8		1
	Activation State	Y	No State / Alarm / Summing Alarm / Test Alarm / Alarm Verification ON / Pre-Alarm 1 / Pre-Alarm 2 / Supervisory / Trouble / Open Circuit Trouble / Short Circuit Trouble / Low Power Trouble / Maintenance Trouble / Process / Zone Disable Switch / Release / Pre-Discharge / Abort / Release Ckt. Trouble		
	Action Type	Y	No Action / Activate on Any of 3 zones / Activate on All of 3 zones / Activate on Specific Device / Activate on multiple priority rows active		
	Output Pattern	Y	OFF / ON Continuous / Slow / Fast / Temporal / Walktest / Alert / Action		
	State Counter	Y	1 – 16		

Notes:

1. If annunciator type is set to Independent Operation, Sounder Base, or Relay Base an 8-row priority table will be displayed. Table values are set using the Output Settings fields.
2. If annunciator type is set to Sounder Base, Silence and Positive Alarm Sequence (PAS) options will be displayed.

Exhibit 2-8: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Defaults (Photo/Heat Detector)	<i>Common</i>				
	Loop Number of Device	Y	1 - 4		1
	Address of Device	Y	1 – 254		
	Custom Message	Y	60 character user defined (1-001 PHO/HT DETECT Loop 1 - Address 001)		
		Y	Default / User Defined		
	Zone Assignments	Y	0 – 253		2
	Predischarge Type	Y	Type A: Alarm Only / Type B: 1 st Cross Zone / Type C: 2 nd Cross Zone / Type D: Count Zone / Type E: Single Pre-discharge		
	Alarm Verification	Y	Time: 0 – 60 seconds		
		Y	Enabled / Disabled		
	<i>Sensitivity</i>				
	Pre-Alarm 1 & 2 Levels	Y	Enabled / Disabled		
		Y	0.5%/ft. – 4.0%/ft. (0.1%/ft. increments)		3
	Alarm Levels	Y	Acclimate: 1.3%/ft. – 3.6%/ft. (High 2.0% - Low 2.5%)		4
		Y	Day/Night: 1.3%/ft. – 3.6%/ft. (Day 3.6% - Night 3.6%)		
		Y	Alarm / Supervisory / Supervisory NL		
	Flame Enhance	N	ON / OFF		6
	Drift Compensation (Warning/Trouble)	Y	50 – 100% Warning 80%/Trouble 100%		5
	Walktest	Y	Walktest at Alarm Level / Walktest with IR / Walktest at 1.3%		
	<i>Device Summing</i>				
	Broadcast Thresholds for Summing (%OBS)	N	Enabled / Disabled (8 levels 0.5%/ft. – 4.0%/ft. in 0.1%/ft. increments)		
	Summing Activation Level (%OBS)	N	1.0 – 10%/ft. (0.5%/ft. increments)		
	Summing Broadcast State	N	Disabled / Alarm / Summing Alarm / Supervisory Latching / Supervisory Non-Latching / Pre-Alarm 1 / Pre-Alarm 2		
	Summing Addresses	N	1 – 8 (Device addresses to participate in summing group)		
	<i>Remote Annunciator (See Exhibit 2-7 for programming features)</i>				

Notes:

- Cheetah Xi can have up to four (4) addressable loops.
- Can be assigned to 4 discrete zones, 2 zone ranges or 1 range and 2 discrete zones.
- Pre-Alarm 2 setting must always be set equal or higher than Pre-Alarm 1 setting.
- High setting must be equal or lower obscuration setting than Low setting.
- Can be set in 1% increments. Trouble must be higher % than Warning.
- Refer to Section 3.4.6 for description of Flame Enhance operation.

Exhibit 2-9: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Defaults (Photo/Duct Detector)	<i>Common</i>				
	Loop Number of Device	Y	1 - 4		1
	Address of Device	Y	1 – 254		
	Custom Message	Y	60 character user defined (1-001 DUCT DETECT Loop 1 - Address 001)		
		Y	Default / User Defined		
	Zone Assignments	Y	0 – 253		2
	PredischARGE Type	Y	Type A: Alarm Only / Type B: 1 st Cross Zone / Type C: 2 nd Cross Zone / Type D: Count Zone / Type E: Single Pre-discharge		
	Alarm Verification	Y	Time: 0 – 60 seconds		
		Y	Enabled / Disabled		
	<i>Sensitivity</i>				
	Pre-Alarm 1 & 2 Levels	Y	Enabled / Disabled		
		Y	0.6%/ft. – 4.0%/ft. (0.1%/ft. increments)		3
	Alarm Levels	Y	Acclimate: 0.8%/ft. – 3.4%/ft. (High 2.0% - Low 2.5%)		4
		Y	Day/Night: 0.8%/ft. – 3.4%/ft. (Day 1.5% - Night 3.4%)		
		Y	Alarm / Supervisory / Supervisory NL		
	Drift Compensation (Warning/Trouble)	Y	50 – 100% Warning 80%/Trouble 100%		5
	Walktest	Y	Walktest at Alarm Level / Walktest with IR / Walktest at 1.3%		
	<i>Device Summing</i>				
	Broadcast Thresholds for Summing (%OBS)	N	Enabled / Disabled (8 levels 0.5%/ft. – 4.0%/ft. in 0.1%/ft. increments)		
	Summing Activation Level (%OBS)	N	1.0 – 10%/ft. (0.5%/ft. increments)		
	Summing Broadcast State	N	Disabled / Alarm / Summing Alarm / Supervisory Latching / Supervisory Non-Latching / Pre-Alarm 1 / Pre-Alarm 2		
	Summing Addresses	N	1 – 8 (Device addresses to participate in summing group)		
	<i>Remote Annunciator (See Exhibit 2-7 for programming features)</i>				

Notes:

1. Cheetah Xi can have up to four (4) addressable loops.
2. Can be assigned to 4 discrete zones, 2 zone ranges or 1 range and 2 discrete zones.
3. Pre-Alarm 2 setting must always be set equal or higher than Pre-Alarm 1 setting.
4. High setting must be equal or lower obscuration setting than Low setting.
5. Can be set in 1% increments. Trouble must be higher % than Warning.

Exhibit 2-10: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Defaults (Heat Detector)	<i>Common</i>				
	Loop Number of Device	Y	1 - 4		1
	Address of Device	Y	1 – 254		
	Custom Message	Y	60 character user defined (1-001 HEAT DETECT Loop 1 - Address 001)		
		Y	Default / User Defined		
	Zone Assignments	Y	0 – 253		2
	PredischARGE Type	Y	Type A: Alarm Only / Type B: 1 st Cross Zone / Type C: 2 nd Cross Zone / Type D: Count Zone / Type E: Single Pre-discharge		
	Alarm Verification	Y	Time: 0 – 60 seconds		
		Y	Enabled / Disabled		
	<i>Sensitivity</i>				
	Pre-Alarm 1 & 2 Levels	Y	Enabled / Disabled		
		Y	70°F - 190°F (5°F increments)		3
	Alarm Levels (Day/Night)	Y	Fixed Temp: 135°F - 190°F (5°F increments)		4
		Y	Rate of Rise: 135°F - 170°F (5°F increments)		4
	Walktest	Y	Walktest at 135°F / Walktest with IR		
	<i>Remote Annunciator (See Exhibit 2-7 for programming features)</i>				

Notes:

- Cheetah Xi can have up to four (4) addressable loops.
- Can be assigned to 4 discrete zones, 2 zone ranges or 1 range and 2 discrete zones.
- Pre-Alarm 2 setting must always be set equal or higher than Pre-Alarm 1 setting.
- Rate of Rise temperature range is 135°F - 170°F. Fixed temperature range is 135°F - 190°F.

Exhibit 2-11: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Defaults (Ion Detector)	<i>Common</i>				
	Loop Number of Device	Y	1- 4		1
	Address of Device	Y	1 – 254		
	Custom Message	Y	60 character user defined (1-001 ION DETECT Loop 1 - Address 001)		
		Y	Default/ User Defined		
	Zone Assignments	Y	0 – 253		2
	Predischarge Type	Y	Type A: Alarm Only / Type B: 1 st Cross Zone / Type C: 2 nd Cross Zone / Type D: Count Zone / Type E: Single Pre-discharge		
	Alarm Verification	Y	Time: 0 – 60 seconds		
		Y	Enabled / Disabled		
	<i>Sensitivity</i>				
	Pre-Alarm 1 & 2 Levels	Y	Enabled / Disabled		
		Y	100 – 40 Microns (5 Micron increments)		3
	Alarm Levels	Y	Acclimate: 80 – 50 Microns (5 Micron increments)		4
		Y	Day/Night: 80 – 50 Microns (5 Micron increments)		
		Y	Alarm / Supervisory / Supervisory NL		
		N	Smolder Enhance Off / Smolder Enhance On		
	Drift Compensation	Y	50 – 100% Warning 90%/Trouble 100%		5
	Walktest	Y	Walktest at Alarm Level / Walktest with IR / Walktest at 80 MIC		
	<i>Device Summing</i>				
	Broadcast Thresholds for Summing (%OBS)	N	Enabled / Disabled (8 levels 0.5%/ft. – 4.0%/ft. in 0.1%/ft. increments)		
	Summing Activation Level (%OBS)	N	1.0 – 10%/ft. (0.5%/ft. increments)		
	Summing Broadcast State	N	Disabled / Alarm/Summing Alarm / Supervisory Latching / Supervisory Non-Latching / Pre-Alarm 1 / Pre-Alarm 2		
	Summing Addresses	N	1 – 8 (Device addresses to participate in summing group)		
	<i>Remote Annunciator (See Exhibit 2-7 for programming features)</i>				

Notes:

1. Cheetah Xi can have up to four (4) addressable loops.
2. Can be assigned to 4 discrete zones, 2 zone ranges or 1 range and 2 discrete zones.
3. Pre-Alarm 2 setting must always be set equal or higher than Pre-Alarm 1 setting.
4. High setting must be equal or lower obscuration setting than Low setting.
5. Can be set in 1% increments. Trouble must be higher % than Warning.

Exhibit 2-12: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Defaults (Monitor Module)	Loop Number of Device	Y	1 - 4		1
	Address of Device	Y	1 – 254		
	Custom Message	Y	60 character user defined (1-001 INPUT MANALRM Loop 1 - Address 001)		
		Y	Default / User Defined		
	Zone Assignments	Y	0 – 253		2,7
	Predischarge Type	Y	Type A: Alarm Only / Type B: 1 st Cross Zone / Type C: 2 nd Cross Zone / Type D: Count Zone / Type E: Single Pre-discharge		6
	Input Function Type	Y	No Input Function / Manual Alarm / Detection / Waterflow / Pre-Alarm 1 / Pre-Alarm 2 / Supervisory / Trouble / Process / PAS Inhibit / Reset / Silence / Acknowledge / Drill / Zone Disable / Fan Restart / Smoke Control Confirmation / Manual Alarm Stage 2 / AHU Fire Dept Key / Manual Release / Manual Release with Countdown / Abort / Watermist Activation		6,7
		Y	Verify Time: 0 – 255 seconds		3
		Y	Latching / Non-Latching		4
		Y	Normally Open / Normally Closed		5
		Y	Class B Contact / Class A Latching / Class A Auto Restore		
		Y	No Short Detection / Short Detection		

Notes:

- Cheetah Xi can have up to four (4) addressable loops.
- Can be assigned to 4 discrete zones, 2 zone ranges or 1 range and 2 discrete zones.
- If monitor module function type is set to Detection or Watermist Activation, an alarm verification time can be set.
- Either = Waterflow, PA1, PA2, Supervisory, Trouble, Process, PAS Inhibit; Non-Latch = Silence, Acknowledge, Drill, Zone Disable, Fan Restart, Smoke Confirmation, Abort; Latching = ManAlarm, Detection, Reset, Manual Alarm Stage 2, Manual Release, Manual Release with Countdown, Watermist.
- NO Contacts = Detection, Manual Alarm, Reset, Manual Alarm Stage 2, Manual Release, Manual Release with Countdown, Abort, Watermist; NO/NC Contacts = Waterflow, PA1, PA2, Supervisory, Trouble, Process, PAS Inhibit, Silence, Acknowledge, Drill, Zone Disable, Fan Restart, Smoke Confirmation.
- If monitor module function type is set to Detection or Waterflow, a Predischarge Type must be set.
- If input function type is set to "Zone Disable", can be assigned to zone 254 "All Zones".

Exhibit 2-13: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Defaults (Mini Monitor Module)	Loop Number of Device	Y	1 - 4		1
	Address of Device	Y	1 - 254		
	Custom Message	Y	60 character user defined (1-001 MINI MANALRM Loop 1 - Address 001)		
		Y	Default / User Defined		
	Zone Assignments	Y	0 - 253		2
	PredischARGE Type	Y	Type A: Alarm Only / Type B: 1 st Cross Zone / Type C: 2 nd Cross Zone / Type D: Count Zone / Type E: Single Pre-discharge		6
	Alarm Verification	Y	Time: 0 - 60 seconds		
		Y	Enabled / Disabled		
	Input Function Type	Y	No Input Function / Manual Alarm / Detection/ Waterflow / Pre-Alarm 1 / Pre-Alarm 2 / Supervisory / Trouble / Process / PAS Inhibit / Reset / Silence / Acknowledge / Drill / Zone Disable / Fan Restart / Smoke Control Confirmation / Manual Alarm Stage 2 / AHU Fire Dept Key / Manual Release / Manual Release with Countdown / Abort / Watermist Activation		6,7
		Y	Verify Time: 0 - 255 seconds		3
		Y	Latching / Non-Latching		4
		Y	Normally Open / Normally Closed		5
		Y	No Short Detection / Short Detection		

Notes:

- Cheetah Xi can have up to four (4) addressable loops.
- Can be assigned to 4 discrete zones, 2 zone ranges or 1 range and 2 discrete zones.
- If monitor module function type is set to Detection, an alarm verification time can be set.
- Either = Waterflow, PA1, PA2, Supervisory, Trouble, Process, PAS Inhibit; Non-Latch = Silence, Acknowledge, Drill, Zone Disable, Fan Restart, Smoke Confirmation, Abort; Latching = ManAlarm, Detection, Reset, Manual Alarm Stage 2, Manual Release, Manual Release with Countdown, Watermist.
- NO Contacts = Detection, Manual Alarm, Reset, Manual Alarm Stage 2, Manual Release, Manual Release with Countdown, Abort, Watermist; NO/NC Contacts = Waterflow, PA1, PA2, Supervisory, Trouble, Process, PAS Inhibit, Silence, Acknowledge, Drill, Zone Disable, Fan Restart, Smoke Confirmation.
- If monitor module function type is set to Detection or Waterflow, a PredischARGE Type must be set.
- If input function type is set to "Zone Disable", can be assigned to zone 254 "All Zones".

Exhibit 2-14: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Defaults (Pull Station Module)	Loop Number of Device	Y	1 - 4		1
	Address of Device	Y	1 – 254		
	Custom Message	Y	60 character user defined (1-001 PULL STATION Loop 1 - Address 001)		
	Custom Message	Y	Default/ User Defined		
	Zone Assignments	Y	0 – 253		2
	Input Function	Y	No Input Function / Manual Alarm / Manual Release / Manual Release with Countdown		

Notes:

- Cheetah Xi can have up to four (4) addressable loops.
- Can be assigned to 4 discrete zones, 2 zone ranges or 1 range and 2 discrete zones.

Exhibit 2-15: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Defaults (Supervised Control Module)	<i>Common</i>				
	Loop Number of Device	Y	1 - 4		1
	Address of Device	Y	1 – 254		
	Output	Y	Enabled /Disabled		
	Custom Message	Y	60 character user defined (1-001 OUTPUT MODULE Loop 1 - Address 001)		
		Y	Default/ User Defined		
	Zone Assignments (device troubles)	Y	0 – 253		2
	Defaults for Pre-Action	Y	Yes/ No		3
	Defaults for 2 Stage Alarm	N	Yes/ No		4
	Drill Output Pattern	Y	Drill Disabled / On Continuous / Slow / Fast / Temporal		
	Output Silenceable	Y	Silenceable /Non-Silenceable		
	Positive Alarm Sequencing (PAS)	Y	Enabled / Disabled		
	Power Supply Monitor	Y	Enabled / Disabled		
	<i>Output Control</i>				
	Output Settings Priority Row	Y	1 - 32		
	Activation State	Y	No State / Alarm / Summing Alarm / Test Alarm / Alarm Verification ON / Pre-Alarm 1 / Pre-Alarm 2 / Supervisory / Trouble / Open Circuit Trouble / Short Circuit Trouble / Low Power Trouble / Maintenance Trouble / Process / Zone Disable Switch / Release / Pre-Discharge / Abort / Release Circuit Trouble		
	Action Type	Y	No Action / Activate on Any of 3 zones / Activate on All of 3 zones / Activate on Specific Device / Activate on multiple priority rows active		
	Output Pattern	Y	OFF / ON Continuous / Slow / Fast / Temporal / Walktest / Timed / Custom Defined		
	Output Pattern Set	Y	1 - 3		
	State Counter	Y	1 – 16		
	Zone Assignments (activation)	Y	1 - 255		5

Notes:

1. Cheetah Xi can have up to four (4) addressable loops.
2. Can be assigned to 4 discrete zones.
3. Modifies control module configuration for use with Pre-Action solenoid.
4. If selected, the control module configuration will be modified for 2-Stage Alarm Operation (City of Chicago).
5. Can be assigned to any 3 zones, 254 any zone, or 255 any zone (non-disable).

Exhibit 2-16: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Defaults (Relay Module)	<i>Common</i>				
	Loop Number of Device	Y	1 - 4		1
	Address of Device	Y	1 – 254		
	Output	Y	Enabled/Disabled		
	Custom Message	Y	60 character user defined (1-001 RELAY MODULE Loop 1 - Address 001)		
		Y	Default/ User Defined		
	Zone Assignments (device troubles)	Y	0 – 253		2
	AHU Shutdown Relay	Y	Enabled / Disabled		7
	Restart Delay	Y	0 – 255 seconds		5
	Misc. Options (feedback relay monitoring)	Y	Not Monitored / Monitored by dry contact / Independent dry contact		6
	Positive Alarm Sequencing (PAS)	Y	Enabled / Disabled		6
	<i>Output Control (Note 7)</i>				
	Output Settings Priority Row	Y	1 - 32		
	Activation State	Y	Alarm / Summing Alarm / Test Alarm / Alarm Verification ON / Pre-Alarm 1 / Pre-Alarm 2 / Supervisory / Trouble / Open Circuit Trouble / Short Circuit Trouble / Low Power Trouble / Maintenance Trouble / Process / Zone Disable Switch / Release / Pre-Discharge / Abort / Release Circuit Trouble		
	Action Type	Y	No Action / Activate on Any of 3 zones / Activate on All of 3 zones / Activate on Specific Device / Activate on multiple priority rows active		
	Relay State	Y	ON / OFF / Timed / Time Delay		
	Timeout	Y	0, 5 – 80 minutes		3
	State Counter	Y	1 – 16		
	Output	Y	Silenceable/ Non-Silenceable		8
	Drill	Y	Enabled / Disabled		
	Zone Assignments (activation)	Y	1 - 255		4

Notes:

- Cheetah Xi can have up to four (4) addressable loops.
- Can be assigned to 4 discrete zones,
- Timeout delay becomes active if relay state is set to 'Time Delay'.
- Can be assigned to any 3 zones, 254 any zone, or 255 any zone (non-disable).
- Restart delay becomes active if relay is configured for AHU shutdown operation.
- These options are not available if relay is configured for AHU shutdown operation.
- Output control is disabled if relay is set for AHU Shutdown operation.
- Silence option becomes active if relay state is set to "ON".

Exhibit 2-17: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Defaults (Releasing Module)	<i>Common</i>				
	Loop Number of Device	Y	1 - 4		1
	Address of Device	Y	1 – 254		
	Output	Y	Enabled/Disabled		
	Custom Message	Y	60 character user defined (1-001 RELEASING MOD Loop 1 - Address 001)		
		Y	Default/ User Defined		
	Zone Assignments	Y	0 – 253		2
	Output Type	Y	No Output / Solenoid / Expanded Solenoid / Masterbox / ARM/IRM / Expanded ARM/IRM / Watermist System		3
	<i>Solenoid Output Type</i>				
	Output State	Y	No Output State / Alarm / Pre-Discharge / Release		
	Timeout	Y	0 – 80 Minutes/Seconds		
	<i>Expanded Solenoid Output Type</i>				
	Timeout	Y	0 – 80 Minutes/Seconds		
	<i>Output Control</i>				
	Output Settings Priority Row	Y	1 - 32		
	Activation State	Y	No State / Alarm / Summing Alarm / Supervisory / Release / Pre-Discharge		
	Action Type	Y	No Action / Activate on Any of 3 zones / Activate on All of 3 zones / Activate on Specific Device / Activate on multiple priority rows active		
	Release State	Y	OFF / ON (Continuous) / Timed		
	State Counter	Y	1 – 16		
	First Action Latch Rows	Y	0 - 32		4
	<i>Masterbox Output Type</i>				
	Output State	Y	No Output State / Alarm / Pre-Discharge / Release		
	<i>ARM/IRM Output Type</i>				
	Output State	Y	No Output State / Alarm / Pre-Discharge / Release		

Notes:

1. Cheetah Xi can have up to four (4) addressable loops.
2. Can be assigned to 3 discrete zones,
3. Depending upon the output type selected, additional programming options will become available.
4. Any action within the first rows defined by the value will operate on a first only basis. Outputs associated with the first active row will remain until that row is no longer active. Any rows operating on the same output value that become true will be locked out from changing the output value until the first one that became active is no longer active.

Exhibit 2-18: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Defaults (Releasing Module)	<i>Expanded ARM/IRM Output Type</i>				
	<i>Output Control</i>				
	Output Settings Priority Row	Y	1 - 32		
	Activation State	Y	No State / Alarm / Summing Alarm / Supervisory / Release / Pre-Discharge		
	Action Type	Y	No Action / Activate on Any of 3 zones / Activate on All of 3 zones / Activate on Specific Device / Activate on multiple priority rows active		
	Release State	Y	OFF / ON (Continuous) / Timed		
	State Counter	Y	1 – 16		
	First Action Latch Rows	Y	0 - 32		1
	<i>Watermist System Output Type</i>				
	Output State	Y	No Output State / Alarm / Pre-Discharge / Release		
	Watermist Type	Y	No Watermist Type / Turbine Generator / Machinery Space / Custom Cycle		
	Custom Cycle (seconds)	Y	On 4 – 64 [36] Off 4 – 64 [44]		

Notes:

- Any action within the first rows defined by the value will operate on a first only basis. Outputs associated with the first active row will remain until that row is no longer active. Any rows operating on the same output value that become true will be locked out from changing the output value until the first one that became active is no longer active.

Exhibit 2-19: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Defaults (FAAST Detector)	<i>Common</i>				
	Loop Number of Device	Y	1 - 4		1
	Address of Device	Y	1 – 254		
	Custom Message	Y	60 character user defined (1-001 FAAST DETECT Loop 1 - Address 001)		
		Y	Default/ User Defined		
	Zone Assignments	Y	0 – 253		2
	Predischarge Type	Y	Type A: Alarm Only / Type B: 1 st Cross Zone / Type C: 2 nd Cross Zone / Type D: Count Zone / Type E: Single Pre-discharge		
	Walktest	Y	Enabled / Disabled		
		Y	0.1% - 0.99645% ft. (slider)		
	<i>States</i>				
	<i>State Assignments</i>				
	Fire 2 / Fire 1 / Action 2 / Action 1 / Alert	Y	Disabled / Alarm / PreAlarm 2 / PreAlarm 1 / Supervisory / Process		3
		Y	Latching / Non-Latching		4
	Fire 1 or Fire 2 Alarm is Broadcast when Isolated	Y	Enabled / Disabled		
	<i>Alarm Verification Timers</i>				
	Fire 2 / Fire 1 / Action 2 / Action 1 / Alert	Y	No Timer / Timer 1 / Timer 2 / Timer 3		5
	<i>Verification Timer Values</i>				
	Timer 1 / Timer 2 / Timer 3	Y	0 – 255 (seconds)		
	<i>Acclimate</i>				
	Acclimate	Y	Enabled / Disabled		
	Acclimate High Range	Y	Range 1-H (0.00046%ft – 0.04980%ft) Range 2-M (0.05%ft – 0.09982%ft) Range 3-M (0.1%ft – 0.99645%ft) Range 4-L (1%ft – 2.5%ft)		6

Notes:

1. Cheetah Xi can have up to four (4) addressable loops.
2. Can be assigned to 4 discrete zones, 2 zone ranges or 1 range and 2 discrete zones.
3. Each detection level on the FAAST detector can be mapped to a panel state (user defined).
4. Each detection level can be configured as a latching or non-latching event. **Must be latching if configured for alarm.**
5. Each detection level can be configured to initiate one of three Alarm Verification timers.
6. Allows you to set the high sensitivity level for the selected acclimate range.

Exhibit 2-20: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Defaults (FAAST Detector)	<i>Day Sensitivity Levels</i>				
	Fire 1 / Fire 2 / Action 2 / Action 1 / Alert	Y	Range 1-H (0.00046%ft – 0.04980%ft) Range 2-M (0.05%ft – 0.09982%ft) Range 3-M (0.1%ft – 0.99645%ft) Range 4-L (1%ft – 3.98818%ft)		
	Copy Nighttime Sensitivity	Y	Yes / No		
	<i>Night Sensitivity</i>				
	Fire 1 / Fire 2 / Action 2 / Action 1 / Alert	Y	Range 1-H (0.00046%ft – 0.04980%ft) Range 2-M (0.05%ft – 0.09982%ft) Range 3-M (0.1%ft – 0.99645%ft) Range 4-L (1%ft – 3.98818%ft)		
	Copy Nighttime Sensitivity	Y	Yes / No		
	<i>Miscellaneous</i>				
	Particulate Level Display	Y	Fire 2 / Fire 1 / Action 2 / Action 1 / Alert		
	Air Flow Trouble Boundary	Y	0 – 100 (% off normal) (20 default)		
	Air Flow Trouble Timer	Y	No Timer / Timer 1 / Timer 2 / Timer 3		
	<i>Security</i>				
	Passcode	Y	0 – 9999 (1111 default)		
	Test Button/Functions Locked	Y	Enabled /Disabled		
	Isolate Button/LCD Settings Locked	Y	Enabled /Disabled		
	Configuration Locked	Y	Enabled / Disabled		
	Can be Disabled	Y	Enabled / Disabled		
	<i>Reference Detector</i>				
	Analog Broadcast Increasing Step	Y	0 - 255		1
	Analog Broadcast Decreasing Step	Y	0 - 255		1
	Reference Detector Address	Y	0 – 254 (0 = disable)		2
	<i>Relays</i>				
	Configuration (Relays 1 – 5)	Y	Latching: Yes / No		
		Y	Fire 2 / Fire 1 / Action 2 / Action 1 / Alert		
	Configuration (Relay 6)	Y	Latching: Yes / No		
		Y	High Airflow / Low Airflow / Disable / Filter Minor / Filter Urgent / Sensor / Config / Aspirator / Time / Filter Door / Low Voltage / Comm		

Notes:

- Set to 255 to disable Analog Broadcast.
- Reference detector cannot use Acclimate feature.

Exhibit 2-21: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Defaults (FAAST Detector)	<i>FAAST XT</i>				
	Enable Channels	Y	1 - 4		
	Fan Speed	Y	Slow / Medium / Fast		
Defaults (Update Device Checksum)	Recalculate addressable device Configuration Checksums?	Y	Yes / No		
Defaults (Reset Default Config)	Reset All Default Device Configurations?	Y	Yes / No		
Defaults (Custom Messages)	Panel LCD Custom Message Line 2 Logo	Y	20 character user defined (Fike Corporation)		
	Addressable Devices (Restores all device custom messages to default)	Y	Yes / No		
	Peripheral Devices (Restores all device custom messages to default)	Y	Yes / No		
	Air Sampling Devices (Restores all device custom messages to default)	Y	Yes / No		
Defaults (Password)	Used to assign a unique Level 2 password (8 available)	Y	A – H (4 digit user defined)		

Exhibit 2-22: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Peripheral Device Configuration Options					
Remote Display 14 Key	Address	Y	2 - 32		
	Custom Message	Y	20 character user defined (Fike Remote Display)		
	Corporate Logo	Y	20 character user defined (Fike Corporation)		
	Buzzer Operation	Y	Enabled / Disabled		
	Network History Display	Y	Show All History / Filter History by Zone		
	Countdown Display	Y	Show Countdown Display / Show Release Imminent		
	Countdown Filter	Y	Show All Zone Countdowns / Filter Countdown by Zone / Do not show Countdowns		
	Programmable Key Functions (1 – 8)	Y	NO Function / Reset / Silence / Acknowledge / Drill / Process / Walktest / IR Tool / Step Alarm / Step Supervisory / Step Trouble / Step All / Fan Restart / Zone Disable		1
Remote Display 2 and 10 Key	Zone Assignment	Y	0 – 255		1
	Address	Y	2 - 32		
	Custom Message	Y	20 character user defined (Fike Remote Display)		
	Corporate Logo	Y	20 character user defined (Fike Corporation)		
	Buzzer Operation	Y	Enabled / Disabled		
	Network History Display	Y	Show All History / Filter History by Zone		
	Countdown Display	Y	Show Countdown Display / Show Release Imminent		
	Countdown Filter	Y	Show All Zone Countdowns / Filter Countdown by Zone / Do not show Countdowns		

Notes:

1. Process and Zone Disable will require a zone number be assigned (1 – 253).

Exhibit 2-23: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Graphic Annunciator (256 LED)	Address	Y	2 - 32		
	LED Number	Y	3 - 256		
	LED Function	Y	No Function Assigned / Device Activation / Device Trouble / Device Activation or Trouble / Device Pre-Alarm / Device Activation or Pre-Alarm / Zone State Activation / Switch 1 Feedback / Switch 2 Feedback / Switch 3 Feedback / Switch 4 Feedback / Panel Silenced / Panel Drill / Panel Walk Test / Sounder / Network Device Activation / Network Device Trouble / Network Device Activation or Trouble / Network Device Pre-Alarm / Network Device Activation or Pre-Alarm		
	Device (selection)	Y	(PNL) 1 – 128: (Loop) 1 – 4, (Add) 1 – 254		1
	Activation State	Y	Alarm / Pre-alarm / Process / Trouble / Supervisory / Zone Disable / Pre-Discharge / Release		2
	Zone Assignments	Y	1 - 254		2
	Network Device (selection)	Y	(PNL) 1 – 128: (Loop) 1 – 4, (Add) 1 – 254		3
	<i>LED Illumination Pattern</i>				
	Active State	Y	Off / Continuous / Slow Blink / Fast Blink		
	Inactive State	Y	Off / Continuous / Slow Blink / Fast Blink		
	Silenced State	Y	Off / Continuous / Slow Blink / Fast Blink		
	Acknowledged State	Y	Off / Continuous / Slow Blink / Fast Blink		
	Piezo	Y	Enabled / Disabled		

Notes:

1. Configuration options become available if LED Function is set to 'Device'.
2. Configuration options become available if LED Function is set to 'Zone State Activation'.
3. Configuration options become available if LED Function is set to 'Network Device'.

Exhibit 2-24: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Zone Annunciator (20 LED)	Address	Y	2 - 32		
	LED Number	Y	1 - 20		
	LED Function	Y	No Function Assigned / Zone State Activation / Panel Silenced / Panel Drill / Panel Walk Test / Communication OK / Power OK		
	Activation State	Y	Alarm / Pre-Alarm / Process / Trouble / Supervisory / Zone Disable / Pre-Discharge / Release		1
	Zone Assignments	Y	1 – 254		1
	<i>LED Illumination Pattern</i>				
	LED Illumination Pattern – Active State	Y	Off / Continuous / Slow Blink / Fast Blink		
	LED Illumination Pattern – Inactive State	Y	Off / Continuous / Slow Blink / Fast Blink		
	LED Illumination Pattern – Silenced State	Y	Off / Continuous / Slow Blink / Fast Blink		
	LED Illumination Pattern – Acknowledged State	Y	Off / Continuous / Slow Blink / Fast Blink		
Multi Interface Module	Address	Y	2 - 32		
	Interface Type	Y	Cheetah Gateway / Serial Printer / Parallel Printer / Computer		2
Ethernet Port	Address	Y	2 - 32		
DACT	Address	Y	2 – 32		
	Mounting	Y	Internal / External		

Notes:

- Configuration options become available if LED Function is set to 'Zone State Activation'.
- Configuring the MIM for Cheetah Gateway operation is no longer available after Firmware Version 7.0. Gateway programming has been left in C-Linx for compatibility with panels with older firmware.

Exhibit 2-25: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
LED Annunciator 20-Zone	Address	Y	2 - 32		
	LED Function (1-40)	Y	No Function Assigned / On - Device Activation / On - Device Trouble / On - Device Active or Trb / On - Device PreAlarm / On - Device Active or PreAlm / On - Zone Process / On - Zone Trouble / On - Zone Supervisory / On - Zone Abort / On - Zone Disabled / On - Zone PreAlarm / On - Zone Alarm / On - Zone Predischage / On - Zone Release / On - Zone Test Alarm / On - Zone Action / On - Panel Silence / On - Panel Drill / On - Panel Walktest / On - Panel Comm OK / On - Panel Power OK / On - Panel Buzzer Active / On - Any Network Device Active / On - Any Network Device Trouble / On - Any Network Device PreAlm / On - All Network Device Active / Off - Any Network Device Active / Off - All Network Device Active / On - Any LED Active / On - All LED Active / Off - Any LED Active / Off - All LED Active / On - Alarm Silence / On - Supervisory Silence / On - Trouble Silence / On - Alarm Silence Inhibit / On - Device Active or PreAlm(Stdy) / On - Alarm Signal Cancel / On - Battery Trouble		
	LED Assignment	Y	Device / Zone / Panel / Net Device / LED		1

Notes:

- LED assignment options are tied to the specific LED function selected.

Exhibit 2-26: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
LED Annunciator 20-Zone	<i>Assignment by Device</i>				
	Select Devices	Y	1 - 254		
	Selection Options	Y	Select / Clear		
		Y	All Addresses / Even Addresses / Odd Addresses / All Photo Sensors / All Photo/Heat Sensors / All Photo/Duct Sensors / All Ion Sensors / All Heat Sensors / All Monitor Modules / All Dual Monitor Modules / All Mini Monitor Modules / All Pull Station Modules / All Conventional Zone / All Control Modules / All Relay Modules / All Releasing Modules / All FFAST Sensors		
		Y	On Loop 1 - 4		
		Y	Between 1 - 254		
		Y	And 1 - 254		
		Y	Select All / Clear All / Invert All		
	<i>Assignment by Zone</i>				
	Select Zones	Y	1 - 254		
	Selection Options	Y	Select / Clear		
		Y	All Zones / Even Zones / Odd Zones		
		Y	Between 1 - 254		
		Y	And 1 - 254		
		Y	Any Zone (check box)		
		Y	Select All / Clear All / Invert All		
	<i>Assignment by Network Device</i>				
	Select Network Devices	Y	1 – 254 (Example: 002: 1-001)		
	Selection Options	Y	Select / Clear		
		Y	All Addresses / Even Addresses / Odd Addresses / All Photo Sensors / All Photo/Heat Sensors / All Photo/Duct Sensors / All Ion Sensors / All Heat Sensors / All Monitor Modules / All Dual Monitor Modules / All Mini Monitor Modules / All Pull Station Modules / All Conventional Zone / All Control Modules / All Relay Modules / All Releasing Modules / All FFAST Sensors		
		Y	On Panel 1 – 128		
		Y	On Loop 1 - 4		
		Y	Between 1 - 254		
		Y	And 1 - 254		
			Select All / Clear All / Invert All		

Exhibit 2-27: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
LED Annunciator 20-Zone	<i>Assignment by LED</i>				
	Select LED Assignments	Y	1 - 40		
Relay Controller	Peripheral Address	Y	2 - 32		
	Local Buzzer	Y	Enabled / Disabled		
	<i>Relay Group Configuration (1 – 6)</i>				
	Relay	Y	1 - 4		
	Function	Y	No Function Assigned / On – Device Activation / On – Device Trouble / On – Device PreAlarm / On – Zone Process / On – Zone Trouble / On – Zone Supervisory / On – Zone Abort / On – Zone Disabled / On – Zone PreAlarm / On – Zone Alarm / On – Zone PreDischarge / On – Zone Release / On – Zone Test Alarm / On – Zone Action / On – Any Network Device / On – Any Network Device Trouble / On – Any Network Device PreAlm / Off – Any Network Device / Off – All Network Device		1
	<i>Assignment by Device</i>				
	Select Devices	Y	1 – 254		
	Selection Options	Y	Select / Clear		
		Y	All Addresses / Even Addresses / Odd Addresses / All Photo Sensors / All Photo/Heat Sensors / All Photo/Duct Sensors / All Ion Sensors / All Heat Sensors / All Monitor Modules / All Dual Monitor Modules / All Mini Monitor Modules / All Pull Station Modules / All Conventional Zone / All Control Modules / All Relay Modules / All Releasing Modules / All FFAST Sensors		
		Y	On Loop: 1 – 4		
		Y	Between: 1 – 254		
		Y	And: 1 – 254		
		Y	Select All / Clear All / Invert All		

Exhibit 2-28: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Relay Controller	<i>Assignment by Zone</i>				
	Select Zones	Y	1 – 254		
	Selection Options	Y	Select / Clear		
		Y	All Zones / Even Zones / Odd Zones		
		Y	Between: 1 – 254		
		Y	And: 1 – 254		
		Y	Any Zone (check box)		
		Y	Select All / Clear All / Invert All		
	<i>Assignment by Network Device</i>				
	Select Devices	Y	1 – 254		
	Select Options	Y	All Addresses / Even Addresses / Odd Addresses / All Photo Sensors / All Photo/Heat Sensors / All Photo/Duct Sensors / All Ion Sensors / All Heat Sensors / All Monitor Modules / All Dual Monitor Modules / All Mini Monitor Modules / All Pull Station Modules / All Conventional Zone / All Control Modules / All Relay Modules / All Releasing Modules / All FAAST Sensors		
		Y	On Panel: 1 – 128		
		Y	On Loop: 1 – 4		
		Y	Between: 1 – 254		
		Y	And: 1 – 254		
		Y	Select All / Clear All / Invert All		
Class A Card	Peripheral Address	Y	2 - 32		

Exhibit 2-29: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
Air Sampling Detectors Configuration Options					
VESDA Compact	VESDA Zone Number	Y	0 – 246/254		4
	Fire 1 State	Y	Alarm / Supervisory / Trouble		
	Device Enabled	Y	Enabled / Disabled		
	Custom Message	Y	20 Characters user defined (CUSTOM MESSAGE VZ001)		
		Y	Default Custom Message / User Defined Custom Message		
	Zone Assignments	Y	0 – 253		1
	PredischARGE Type	Y	Type A: Alarm Only / Type B: 1 st Cross Zone / Type C: 2 nd Cross Zone / Type D: Count Zone / Type E: Single Pre-discharge		
	Point ID Information – Loop ID	Y	1 – 4		3
	Point ID Information – Address ID	Y	1 – 254		3
VESDA Laser Focus, Laser Plus, VLI, VEP, VEP1, VEP2 and VEU	VESDA Zone Number	Y	0 – 246/254		4
	Fire 1 State	Y	Alarm / Supervisory / Trouble		
	Device Enabled	Y	Enabled / Disabled		
	Custom Message	Y	20 Characters user defined (CUSTOM MESSAGE VZ001)		
		Y	Default Custom Message / User Defined Custom Message		
	Zone Assignments	Y	0 – 253		1
	PredischARGE Type	Y	Type A: Alarm Only / Type B: 1 st Cross Zone / Type C: 2 nd Cross Zone / Type D: Count Zone / Type E: Single Pre-discharge		
		Y	Fire 1 / Fire 2		2
	Point ID Information – Loop ID	Y	1 – 4		3
	Point ID Information – Address ID	Y	1 – 254		3

Notes:

- Four zones available.
- VESDA detection level that must be reached before PredischARGE operation is initiated.
- Point ID used only for reporting device information to DACT and EVAX.
- Modbus HLI = 246 | Open Protocol HLI = 254.

Exhibit 2-30: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
VESDA Scanner	VESDA Zone Number	Y	0 – 246/254		5
	Fire 1 State	Y	Alarm / Supervisory / Trouble		4
	Device Enabled	Y	Enabled / Disabled		
	Custom Message	Y	20 Characters user defined (CUSTOM MESSAGE VZ001)		
		Y	Default Custom Message / User Defined Custom Message		
	Zone Assignments	Y	0 – 253		1
	Predischage Type	Y	Type A: Alarm Only / Type B: 1st Cross Zone / Type C: 2nd Cross Zone / Type D: Count Zone / Type E: Single Pre-discharge		
		Y	Fire 1 / Fire 2		2
	Sector Zone Number 1-4	Y	1 – 254		
	Sector State	Y	Alarm / Supervisory / Trouble		4
	Point ID Information – Loop ID	Y	1 – 4		3
	Point ID Information – Address ID	Y	1 – 254		3

Notes:

- Four zones available.
- VESDA detection level that must be reached before Predischage operation is initiated.
- Point ID used only for reporting device information to DACT and EVAX.
- Allowable sector (pipe) state assignment is based on Fire 1 state setting (Alarm = Alarm or Supervisory / Supervisory = Supervisory only).
- Modbus HLI = 246 | Open Protocol HLI = 254.

Exhibit 2-31: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
VESDA VFT-15	VESDA Zone Number	Y	0 – 246/254		5,6
	Fire 1 State	Y	Alarm / Supervisory / Trouble		4
	Device Enabled	Y	Enabled / Disabled		
	Custom Message	Y	20 Characters user defined (CUSTOM MESSAGE VZ001)		
		Y	Default Custom Message / User Defined Custom Message		
	Zone Assignments	Y	0 – 253		1
	PredischARGE Type	Y	Type A: Alarm Only / Type B: 1st Cross Zone / Type C: 2nd Cross Zone / Type D: Count Zone / Type E: Single Pre-discharge		
		Y	Fire 1 / Fire 2		2
	Sector Zone/State Assignments				
	Sector Zone	Y	1 - 253		
	Sector State	Y	Alarm / Supervisory / Trouble		4
	Point ID Information – Loop ID	Y	1 – 4		3
	Point ID Information – Address ID	Y	1 – 254		3

Notes:

- Four zones available.
- VESDA detection level that must be reached before PredischARGE operation is initiated.
- Point ID used only for reporting device information to DACT and EVAX.
- Allowable sector (pipe) state assignment is based on Fire 1 state setting (Alarm = Alarm or Supervisory / Supervisory = Supervisory only).
- Modbus HLI = 246 | Open Protocol HLI = 254.
- Each VFT-15 detector will automatically occupy sixteen VESDAnet zones, one for the detector itself and the next fifteen subsequent zones for the pipes. No VESDA device can be assigned to this zone range regardless of the number of pipes connected to the VFT-15 detector. It is imperative that the VFT-15 detector be assigned to a VESDAnet zone with enough consecutive zones available.

Exhibit 2-32: Programming Features Cont.

Circuit or Component	Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings (Defaults shown bold)	Settings permitted in UL 864	Notes
VESDA VEA-40, 60, 80, 100, 120	VESDA Zone Number	Y	0 – 246/254		5
	Fire 1 State	Y	Alarm / Supervisory / Trouble		4
	Device Enabled	Y	Enabled / Disabled		
	Custom Message	Y	20 Characters user defined (CUSTOM MESSAGE VZ001)		
		Y	Default Custom Message / User Defined Custom Message		
	Zone Assignments	Y	0 – 253		1
	Predischage Type	Y	Type A: Alarm Only / Type B: 1st Cross Zone / Type C: 2nd Cross Zone / Type D: Count Zone / Type E: Single Pre-discharge		
		Y	Fire 1 / Fire 2		2
	Additional VEA Configuration				
	VEA Configuration	Y	VEA-40/60/80/100/120		
	Zone Templates				
	Pipes	Y	1–40 / 41-80 / 81-120		
	Template	Y	0 - 19		
	Pipe Activation States				
	Pipe Set	Y	0 - 5		
	Pipe	Y	Alarm / Supervisory / Trouble		4
	Point ID Information – Loop ID	Y	1 – 4		3
	Point ID Information – Address ID	Y	1 – 254		3

Notes:

- Four zones available.
- VESDA detection level that must be reached before Predischage operation is initiated.
- Point ID used only for reporting device information to DACT and EVAX.
- Allowable sector (pipe) state assignment is based on Fire 1 state setting (Alarm = Alarm or Supervisory / Supervisory = Supervisory only / Trouble = Trouble only).
- Modbus HLI = 246 | Open Protocol HLI = 254.

Reserved for future use.

3.1 USER INTERFACE

The programmable features of the Cheetah Xi control panel can be changed by using the front panel keys and LCD display, as shown in Exhibit 3-1.

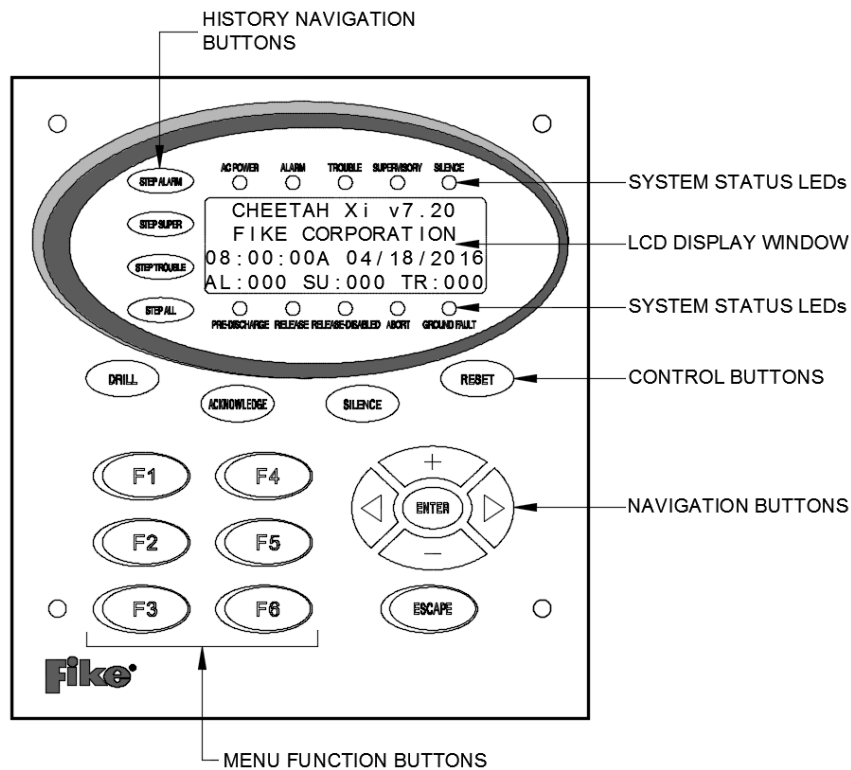


Exhibit 3-1: Control Panel Keypad and Display

Note: The keypad shown above is for the Cheetah Xi. The Cheetah Xi 50 keypad provides the same functionality, but has a slightly different layout.

The navigation keys on the main display are provided to allow you to easily navigate and change the systems operational parameters. A brief functional description of each key is provided below:



NAVIGATION (+, ►, ◄, -): The ◄► arrows are used to move about in the configuration displays. The +/- buttons will increment or decrement the value at the cursor when in a configuration display. They can also be used when cycling through the event history. The Step Alarm button only cycles forward in events. These buttons allow you to go forward and backward through the events.



ESCAPE: Press this key to toggle from Off-Normal Event display (if events are present) to System Normal (no events preset) to Top Level Menu. If in a menu, this button EXITS the current menu and returns to the previous menu screen. If in the System Normal Menu, pressing **ESCAPE** takes you back to event #1.



ENTER: Saves and enters any system configuration settings.



FUNCTION KEYS: The function keys are used to navigate the control panel's menu system during system operation, maintenance and configuration of the system.

3.2 PASSWORD PROTECTION

Access to the Cheetah Xi system's control and function switches are restricted by the enclosure door. With the door closed and locked, responding personnel can only view system events on the panel display and use the accessible EVENT STEP keys to filter through the systems event history. Opening the enclosure door provides access to the systems Control and Function keys, which allows greater system operation capabilities. With the enclosure door open, responding personnel have the ability to Silence or Acknowledge system events, initiate Drill commands and Reset the system. In addition, the system operator has limited access to the systems menus and features without needing to enter a system password.

Access to the Cheetah Xi's menu system is password protected to restrict access to those who require it. Each Cheetah Xi allows up to eight (8) User level passwords and a single System Administrator password to be assigned by the system installer. The available security access levels are described as follows:

Password Level	Designation	Privileges
	Default (door panel closed)	<ul style="list-style-type: none"> View system events on LCD display Access to STEP keys for reviewing system history
1	Customer (door panel open – no password entered)	All default privileges, plus: <ul style="list-style-type: none"> Access to system control switches for executing system Drill, Acknowledge, Silence and Reset History menu (view only) Diagnostic menus (view only) Maintenance menu: Read Device and Device Address (all other menu features are view only) IR Communication (enable/disable)
2	USER (Level 2 password entered – eight available)	All default and Level 1 privileges, plus: <ul style="list-style-type: none"> Configuration menus: Configuration check and set system time (all other menu features are view only). Maintenance menu: Device read, Device address, Device replace, Device Enable/Disable, Walktest, Buzzer On/Off and FAAST detector read, isolate and disable. Level 2 passwords are assigned during system configuration
3	SYSTEM ADMINISTRATOR (Level 3 password entered)	All default, Level 1 and Level 2 privileges, plus: <ul style="list-style-type: none"> Full access to all system menus Default password is set by the factory prior to shipment. Can be changed in the field.

Exhibit 3-2: Password Access Levels

3.2.1 HOW TO LOG ONTO THE SYSTEM

To log onto the system, press the **F4** function key from the Top Level Menu. The Password screen, as shown in Exhibit 3-3 will be displayed. After entering a successful password, press the **ESCAPE** key to return to the Top Level menu.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A				E	N	T	E	R		P	A	S	S	W	O	R	D			
B									X	X	X	X	<	-	-	-	X	X	X	X
C				A	C	C	E	S	S	:		D	E	N	I	E	D			
D							C	O	D	E	:	X	X	X	X					

Exhibit 3-3: Password Entry Screen

- Row B - Allows entry of a 4 digit password. Use the ◀▶ navigation buttons to move the cursor to the appropriate field and the +/- buttons (cycles through 0-9) to enter a password.
- Row C - Displays the access level (Denied, Level 2 (A-H), Sys Admin, Factory) allowed with the password that has been entered.
- Row D - Random 4 digit-code that changes periodically. Used by the factory to gain access to the system if the Administrator password has been forgotten.

3.2.2 CHANGING THE SYSTEM ADMINISTRATOR PASSWORD

After entering a successful Administrator level password, you can change the default administrator password by changing the 4-digit number on the far right of Row B, as shown in Exhibit 3-4. Use the ◀▶ navigation buttons to move the cursor under each field and the +/- buttons to enter the new password (cycles through 0-9). After completing the password change, press the **ENTER** key to confirm the change. If the Administrator password is changed and then forgotten, you must call Fike and provide the 4-digit CODE displayed on Row D of the password entry screen.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A				E	N	T	E	R		P	A	S	S	W	O	R	D			
B														<	-	-	-	X	X	X
C				A	C	C	E	S	S	:		D	E	N	I	E	D			
D							C	O	D	E	:	X	X	X	X					

Exhibit 3-4: Password Entry Screen

- Row B - Allows entry of a 4 digit password. Use the ◀▶ navigation buttons to move the cursor and the +/- buttons (cycles through 0-9) to enter a password.
- Row C - Displays the access level (Denied, Level 2 (A-H), Sys Admin, Factory) allowed with the password that has been entered.
- Row D - Random 4 digit-code that changes periodically. Used by the factory to gain access to the system if the Administrator password has been forgotten.

3.3 CONFIGURING THE SYSTEM

There are two basic methods for configuring the Cheetah Xi system: AUTOPROGRAM or ENGINEERED CONFIGURE.

3.3.1 AUTOPROGRAM

This configuration method is used for small systems requiring typically no more than one zone of operation. This method allows you to connect all unaddressed devices to the panels SLC circuits and by using panel's AUTO ADDRESSING function, each device is randomly addressed in the order that they are recognized by the panel. The panel's LEARN function is then used to upload the default configuration held by each device into the panel. Each device (inputs and outputs) is assigned to Zone 1 by default. At this point, the panel configuration menus can be used to make simple changes to the system/device configurations. For more extensive configuration changes, you should use the C-Linx configuration software to create a configuration template, make necessary changes, and upload the modified configuration back into the control panel.

Note: The drawback to using the AUTOPROGRAMMING method is that the devices are randomly addressed; therefore, you must document the actual location of each device during the functional testing of the system. If any device was missed, you must manually add it into the configuration.

3.3.2 ENGINEERED CONFIGURE

This configuration method is used for larger more complex systems requiring multiple zones of operation. In this arrangement, a system designer creates installation documents for the project that identifies the required location and address of each addressable device. The installer then installs and addresses each device according to the installation documents. The following sections outline the different methods that can be used to address each device.

3.4 HOW TO ADDRESS A DEVICE

Each addressable device is shipped from the factory defaulted to Loop 0, Address 0. This address must be changed to suit the project requirements. There are several different ways of assigning addresses to a field device. A general description of each addressing method is described below. Any combination of these methods can be used to successfully address the field devices to match your project requirements.

3.4.1 HOW TO AUTO ADDRESS FIELD DEVICES (AUTO A)

This method allows you to take all field devices straight out of the box and connect them to the panel's signaling line circuit (SLC) without addressing the devices first. The Auto Addressing (AUTO A) function when activated, allows the panel to identify all new addressable devices (Loop 0, Address 0) connected to the SLC circuit. As each new device is recognized by the panel, it is automatically assigned the next available address.

To Auto Address devices:

1. Press the **ESCAPE** key until the Cheetah Xi's TOP LEVEL MENU is displayed.
2. Press the **F4** key to enter the systems PASSWORD entry screen, and then enter a valid Level 3 password.
3. Press the **ESCAPE** key to return to the TOP LEVEL MENU.
4. Press the **F1** key to enter the systems CONFIGURATION MENU 1, and then press the **F6** key four times until the CONFIGURATION MENU 5 screen is displayed.
5. Press the **F2** key to enter the AUTO ADDRESSING screen.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	
A	A	U	T	O		A	D	D	R	E	S	S	I	N	G	:		O	F	F	
B	S	E	L	E	C	T			L	O	O	P	S	:		1	2	3	4		
C	S	E	L	E	C	T			A	D	D	R	S	:	0	0	1	→	0	5	0
D	P	R	E	S	S			E	N	T	E	R		T	O		S	T	O	R	E

Exhibit 3-5: Auto Address Screen

- Row A - This field allows you to turn the Auto Addressing feature ON/OFF. Use the ◀▶ arrow keys to move cursor to the field; then use the +/- keys to toggle the field (ON/OFF).
- Row B - This field allows you to select which addressable loops will be affected when Auto Addressing is turned ON. Use the ◀▶ arrow keys to move cursor to the field; then use the +/- keys to toggle the field.
- Row C - This field allows you to select the address range that you would like to auto address. Use the ◀▶ arrow keys to move cursor to the field; then use the +/- keys to toggle the field.
- Row D - When you have the address range that you would like to have auto addressed, press the **ENTER** key. Devices will NOT be addressed until it is added to the loop (NEW DEVICE record identified) and the panel is reset.

3.4.2 HOW TO USE THE PANEL'S DEVICE ADDRESS FUNCTION TO ADDRESS A DEVICE

This method allows you to take a field device straight out of the box and connect it to the panel's signaling line circuit (SLC) to be addressed. The Device Address (DEV ADR) function when activated, allows the panel to automatically assign an address to each new device as it is connected to the panel's signaling line circuit (SLC).

To Address devices:

1. Press the **ESCAPE** key until the Cheetah Xi's TOP LEVEL MENU is displayed.
2. Press the **F5** key to enter the systems MAINTENANCE MENU.
3. Press the **F2** key to enter the DEVICE ADDRESS screen (DEV ADR).

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A				S	E	L	E	C	T		A	D	D	R	E	S	S			
B			L	O	O	P	:	1		A	D	D	R	E	S	S	:	0	0	1
C																				
D	P	R	E	S	S		E	N	T	E	R		T	O		S	T	A	R	T

Exhibit 3-6: Device Address Screen

- Row B – Use these fields to set the loop (1 – 5) and starting address number (1 – 254) to be assigned to the device. Use the ◀▶ arrow keys to move the cursor under the Loop and Address fields; then use the +/- keys to increment/decrement the fields.
 - Row D - Press the **ENTER** key to start the automatic address function.
4. Once the chosen loop and address is set, press the **ENTER** key to start the automatic address function. The following Connect Device screen will be displayed.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		C	O	N	N	E	C	T		D	E	V	I	C	E		T	O		
B		A	D	D	R	E	S	S	A	B	L	E		L	O	O	P			
C		P	R	E	S		E	N	T	E	R		W	H	E	N				
D		C	O	M	P	L	E	T	E											

Exhibit 3-7: Connect Device Screen

- Attach sensor or module to the SLC.

Once the panel recognizes that a new device has been attached, a NEW DEVICE message will be briefly displayed on Rows C & D:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		C	O	N	N	E	C	T			D	E	V	I	C	E		T	O	
B		A	D	D	R	E	S	S	A	B	L	E		L	O	O	P			
C					*	N	E	W		D	E	V	I	C	E	*				
D					*	D	E	T	E	C	T	E	D	*						

Exhibit 3-8: New Device Detected Screen

Note: The panel requires the NEW DEVICE record from the device before it will recognize it. If the device was already installed prior to accessing this screen, you must REMOVE and RE-INSTALL the device for the panel to receive the NEW DEVICE record.

- Once the panel has detected the New Device, Press the ENTER key to assign the new loop and address to the attached device:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		C	O	N	N	E	C	T			D	E	V	I	C	E		T	O	
B		A	D	D	R	E	S	S	A	B	L	E		L	O	O	P			
C		P	R	E	S		E	N	T	E	R		W	H	E	N				
D		C	O	M	P	L	E	T	E											

Exhibit 3-9: Connect Device Screen

If the address change was successfully completed, the following screen will be displayed:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		L	O	O	P	:	n		A	D	D	R	E	S	S	:	n	n	n	
B		D	E	V	I	C	E		A	D	D	R		C	H	A	N	G	E	
C						C	O	M	P	L	E	T	E	D						
D		E	N	T	E	R		F	O	R		N	E	X	T		D	E	V	I

Exhibit 3-10: Address Change Completed Screen

You are now ready to program the next sequential loop-address (the panel will auto-increment the address number after each successful address write), press the **ENTER** key to return to step #3.

If the address did NOT successfully change, the following screen will be displayed:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		L	O	O	P	:	1		A	D	D	R	E	S	S	:	N	N	N	
B		D	E	V	I	C	E		A	D	D	R		C	H	A	N	G	E	
C						F	A	I	L	E	D									
D		E	N	T	E	R		F	O	R		N	E	X	T		D	E	V	I

Exhibit 3-11: Address Change Failed Screen

Remove/disconnect the device being addressed from the SLC and press the **ENTER** key to return to step #3 and repeat the process.

3.4.3 HOW TO ADDRESS DEVICES WITH THE IR TOOL (P/N 55-051)

The IR tool is a hand-held remote control that is designed to communicate with the Cheetah Xi addressable devices via infrared signals. The tool gives you the ability to assign an address to a new device that is connected to the panel's signaling line circuit (SLC).

By default the IR communication is disabled on the Cheetah Xi loops. The user must first enable the IR communication to allow the tool the ability to communicate with the devices connected to the SLC. Enabling the IR communication requires a Level 3 password (Distributor Level).

To turn on IR Communication:

1. Press the **ESCAPE** key until the Cheetah Xi's TOP LEVEL MENU is displayed.
2. Press the **F6** key to display the IR COMMUNICATION screen (IR COMM).

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A			I	R		C	O	M	M	U	N	I	C	A	T	I	O	N		
B	L	O	O	P	1	:	D	I	S			L	O	O	P	2	:	D	I	S
C	L	O	O	P	3	:	D	I	S			L	O	O	P	4	:	D	I	S
D																				

Exhibit 3-12: IR Communication Screen

- Rows B & C - Displays the IR Communication status by loop. Enable only one loop at a time. Use the ◀▶ keys to move the cursor to the field; then use the +/- keys to toggle the ENABLE/DISable status of the loop. Disable the IR when complete or Reset the control panel (turns IR back OFF).

The IR Tool, as shown in Exhibit 3-13, has many uses with the Cheetah Xi addressable devices. Consult the individual Installation and Maintenance Instructions (P/N 55-051) for a complete description of its operation.

To address a device using the IR Tool:

1. Press the **PWR** key on the IR tool. The main menu will be displayed.
 2. Aim the IR tool at the device to be addressed and press the **SELECT** key. The device must be selected before communication is enabled. When a device is selected, the LED on the device will change to a fast blinking green pattern.
- Note:** There must be a clear line of sight between the IR tool and the device it is communicating with.
3. The display will indicate '1. WRITE LOOP/ADR'. Press the **ENTER** key.
 4. Use the number buttons to type in the desired Loop and Address number for the device. (Loops = 001-004; Addresses = 001-254)
 5. Point the IR tool at the device being addressed and press the **ENTER** key. If the address is accepted, the display will indicate 'OK NEW – Addr. SET'.
 6. If addressing devices sequentially, press the **↑** key to increment to the next address number.
 7. Press the **SELECT** button to select the next device.
 8. Press **ENTER** to save the incremented address to the selected device.

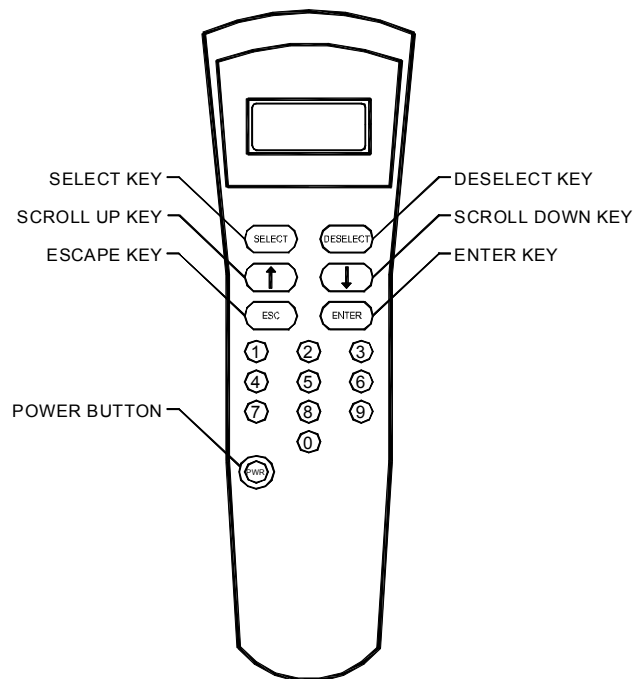


Exhibit 3-13: IR Communication Tool

3.4.4 HOW TO ADDRESS DEVICES WITH THE HAND-HELD PROGRAMMER (P/N 10-2648)

The Hand-Held programmer contains the same operating code as the Cheetah Xi and can be used to assign an address to a new addressable device. Refer to Fike document 06-390, "Hand-Held Programmer Operating Instructions" for a complete description of the programmer's functions and operations.

To address a device using the Hand-Held Programmer:

- Turn on the Hand-Held programmer. The following Loop Start-up screen will be displayed for several seconds. Do not make any changes to this screen.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A				S	E	L	E	C	T		A	D	D	R	E	S	S			
B			L	O	O	P	:	1		A	D	D	R	E	S	S	:	0	0	1
C	W	A	I	T							F	O	R							
D	>	>	>	>	>	>	>	>	>	>	>	>	>	>	>	>	>	>	>	>

Exhibit 3-14: Loop Start Screen

- Upon completion of the loop start-up, the following Device Address screen will be displayed:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A				S	E	L	E	C	T		A	D	D	R	E	S	S			
B			L	O	O	P	:	1		A	D	D	R	E	S	S	:	0	0	1
C																				
D	P	R	E	S	S						E	N	T	E	R					
						</														

Exhibit 3-15: Device Address Screen

- Row B – Use these fields to set the loop (1 – 4) and starting address number (1 – 254) to be assigned to the device. Use the ◀▶ arrow keys to move the cursor under the Loop and Address fields; then use the +/- keys to increment/decrement the fields.
- Once the chosen loop and address is set, press the **ENTER** key to start the automatic address function. The following Connect Device screen will be displayed:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	C	O	N	N	E	C	T				D	E	V	I	C	E				
B	A	D	D	R	E	S	S	A	B	L	E			L	O	O	P			
C	P	R	E	S	S						E	N	T	E	R					
D	C	O	M	P	L	E	T	E												

Exhibit 3-16: Connect Device Screen

- Attach sensor to the integral base on the programmer.
- Attach module to the programmer using the supplied wire leads (Red wire to Loop positive connection; Black wire to Loop negative connection).

Once the programmer recognizes that a new device has been attached, a NEW DEVICE message will be briefly displayed on Rows C & D:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		C	O	N	N	E	C	T			D	E	V	I	C	E		T	O	
B		A	D	D	R	E	S	S	A	B	L	E		L	O	O	P			
C					*	N	E	W		D	E	V	I	C	E	*				
D					*	D	E	T	E	C	T	E	D	*						

Exhibit 3-17: New Device Detected Screen

Note: The programmer requires the NEW DEVICE record from the device before it will recognize it. If the device was already installed prior to accessing this screen, you must REMOVE and RE-INSTALL the device for the Hand Held Programmer to receive the NEW DEVICE record.

- Once the programmer has detected the New Device, Press the **ENTER** key to assign the new loop and address to the attached device:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		C	O	N	N	E	C	T			D	E	V	I	C	E		T	O	
B		A	D	D	R	E	S	S	A	B	L	E		L	O	O	P			
C		P	R	E	S	S		E	N	T	E	R		W	H	E	N			
D		C	O	M	P	L	E	T	E											

Exhibit 3-18: Connect Device Screen

If the address change was successfully completed, the following screen will be displayed:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		L	O	O	P	:	n		A	D	D	R	E	S	S	:	n	n	n	
B		D	E	V	I	C	E		A	D	D	R		C	H	A	N	G	E	
C						C	O	M	P	L	E	T	E	D						
D		E	N	T	E	R		F	O	R		N	E	X	T		D	E	V	I

Exhibit 3-19: Address Change Completed Screen

You are now ready to program the next sequential loop-address (the panel will auto-increment the address number after each successful address write), press the **ENTER** key to return to step #2.

If the address did NOT successfully change, the following screen will be displayed:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		L	O	O	P	:	1		A	D	D	R	E	S	S	:	N	N	N	
B		D	E	V	I	C	E		A	D	D	R		C	H	A	N	G	E	
C							F	A	I	L	E	D								
D		E	N	T	E	R		F	O	R		N	E	X	T		D	E	V	I

Exhibit 3-20: Address Change Failed Screen

Remove/disconnect the device being addressed from the programmer and press the **ENTER** key to return to step #2 and repeat the process.

- If complete, remove/disconnect all devices and power down the Hand Held Programmer.

3.4.5 HOW TO ADDRESS DEVICES USING C-LINX'S DEVICE ADDRESSING WIZARD

If you have already built a configuration file using the C-Linx configuration software; you can use the programs Device Addressing Wizard found in the Diagnostics menu to address devices that are connected to a Cheetah Xi panel or Hand-Held programmer:

1. Use C-Linx to open your existing configuration or create the configuration for the panel.
2. Click on 'Diagnostics'.
3. Select/click on 'Device Addressing Wizard'. A window will appear, titled 'Device Addressing Wizard'.
4. Click the pull-down menu where it displays 'No Panel' and select the configuration of the panel that you wish use for addressing the devices (that configuration needs to be already loaded in C-Linx Project Explorer).
5. It will display each device loop and address information in the panel area.
6. Click 'Start Addressing'.
7. Connect the programming cable from the communication port on the computer to the panel or the Hand Held Programmer when it instructs to connect the Serial Cable.
8. C-Linx will then request a password. Type in the 4 digit password.
9. The Status Message will display connection status. Connect the device to be addressed.
10. Once C-Linx receives the NEW DEVICE record from the device, it will highlight that TYPE of device in step 1. It will display the type, serial number, and address in the Step 2 area. You need to click on the appropriate box in Step 3 area of C-Linx. Either select 'Overwrite current address in this device' OR 'Do not address this device'. If there is no longer a device type in the list that matches the device type connected, it will display Device not needed for this configuration, 'Skip Device'. Click 'Skip Device' to continue to the next device.
11. If you selected 'Overwrite current address in this device' it will display 'Storing New Device Address' and then it will remove that device loop-address from the list of available devices.
12. Click on 'Stop Addressing' and it will ask if you wish to save the session for you to come back at a later time and pick up addressing where you left off.

3.4.6 HOW TO ADDRESS DEVICES USING C-LINX'S ASSIGN DEVICE ADDRESS FUNCTION

Use this software diagnostic for simple loop-address change when the panel configuration is not available.

1. Open C-Linx software and open Panel Explorer.
2. Connect to panel.
3. Click on 'Diagnostics'.
4. Click on 'Assign Device Address'. A window will appear, titled 'Assign Device Address'.
5. The Status Message will display connection status; it will then command the panel or Hand Held Programmer to search for the devices attached. Once it resets the loop of device(s) it will report each type of device with its loop number, address number and serial number information.
6. Select a specific row to modify, then change the loop number and/or address number in the bottom box. Click 'Change Address' to send the device the new loop and address number.
7. Mark or label the device with the loop-address information.
8. Repeat for each device needed.
9. Close Assign Device address screen. If properly completed, all devices should now have valid addresses.

Note: This diagnostic is intended for loop devices that are already wired to an SLC loop.

Reserved for future use.

4.1 CONFIGURATION MENU

The Cheetah Xi's configuration menus allow you to change certain operational settings of the main control board, peripheral devices, attached modules and optional cards. For more detailed configuration of the system, you must use Fike's C-Linx configuration software.

The information presented in this section reflects the configuration options that are available for panels equipped with firmware version 7.20. It provides a description of the available configuration options and how you can change the settings from the main controller/display unit. It is intended for those who have been factory trained and authorized to program the Cheetah Xi system. Refer to Appendix A for a breakdown of the Cheetah Xi's menu structure.

The Cheetah Xi's configuration menus are password protected to prevent unauthorized access. To gain access to the panels configuration menus, you must enter a valid Level 3 password. Entering a Level 2 password gives you the ability to view all of the panel's current configuration settings, but restricts the settings that you are able to change. See Section 3.2.1 for instructions on how to log onto the system.

4.2 CONFIGURATION MENU 1

From the Top Level Menu screen, press the **F1** key to display the "Configuration Menu 1" screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	C	O	N	F	I	G	U	R	A	T	I	O	N		M	E	N	U		1
B	F	1	-	D	E	V	I	C	E		F	4	-	L	E	A	R	N		
C	F	2	-	N	A	C					F	5	-	V	O	I	C	E		
D	F	3	-	S	L	C					F	6	-	M	E	N	U		2	

Exhibit 4-1: Configuration Menu 1

Press the corresponding function key to display the selected configuration screen:

F1 = Device Configuration Menu

F2 = NAC Configuration Menu

F3 = SLC Configuration Screen

F4 = Learn Screen

F5 = Voice Configuration Screen

F6 = Configuration Menu 2

4.2.1 HOW TO CONFIGURE A FIELD DEVICE

The Device Configuration menu allows you to modify the operational parameters of the addressable devices connected to the Cheetah Xi's signaling line circuits (SLC).

From the "Configuration Menu 1", press the **F1** key to display the "Device Configuration Menu" screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	F	1	-	A	L	A	R	M		F	E	A	T	U	R	E	S			
B	F	2	-	R	E	L	E	A	S	E		F	E	A	T	U	R	E	S	
C	F	3	-	C	O	N	F	I	G	U	R	A	T	I	O	N		C	H	K
D																				

Exhibit 4-2: Device Configuration Menu

Press the corresponding function key to display the selected configuration screen:

F1 = Device Alarm Features

F2 = Release Features

F3 = Configuration Check screen

4.2.1.1 HOW TO CHANGE A DEVICES ALARM FEATURES

After all SLC devices have been connected into the system, you can use the Alarm Features screen to make basic configuration changes to each device.

From the “Device Configuration Menu” screen, press the **F1** key to display the “Alarm Features” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	L	-	A	D	R	:	D	E	V	I	C	E	T	Y	P	E				
B	F	U	N	C	:	*	F	U	N	C	T	I	O	N	-	-	-	-	N	O
C	C	U	S	T	O	M		M	E	S	S	A	G	E		L	-	A	D	D
D	Z	O	N	E	:	0	0	0		0	0	0		0	0	0		0	0	0

Exhibit 4-3: Alarm Features Screen

- Row A (L-ADR) - Allows you to select the loop and address of a specific SLC device in order to display its configuration parameters. Use the ◀▶ arrow keys to position the cursor under any of the fields; then use the +/- keys to change to a different loop or address number.

When you select a device, the control panel displays information about the device. The screen does not show all configuration options that are available for each device. In order to be able to view and change all operating parameters for each device, you must use the C-Linx panel configuration software. Refer to Fike document 06-448 “C-Linx User’s Guide” for additional configuration options.

- Row A (Device Type) - Changes to display the type of device found at the selected loop-address: Photo Sensor, Ion Sensor, Photo/Heat Sensor, Heat Sensor, Photo Duct Det, Control Module, Relay Module, Monitor Module, Mini Module and Pull Station.
- Row B (FUNC) - Allows you to change the function of the selected device address (if applicable). Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to change the device function. The ability to change the function field is available only on certain device types.
- Row C - This range of fields allows you to enter a 20 character custom message for the selected address. These fields can be edited using the ◀▶ arrow keys to position the cursor under any of the fields; then use the +/- keys to cycle through all available ASCII characters.
- Row D - The functionality of the fields in this row changes depending upon the device type displayed in Row A. The programming options available for each device type are described as follows.

CAUTION

If you change any of the devices configuration settings, you **MUST** press the **ENTER** button to successfully change the configuration at the device. Wait for the asterisk (*) shown next to the device function on Row B to go away prior to leaving the screen. Exiting the screen with the asterisk still visible will cause the selected device to be partially configured which will result in improper operation.

4.2.1.1.1 HOW TO MODIFY A SENSOR

The default programming options for a sample photoelectric smoke sensor are shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	1	-	0	0	1	:	P	H	O	T	O		S	E	N	S	O	R		
B	F	U	N	C	:	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	C	U	S	T	O	M		M	E	S	S	A	G	E		1	-	0	0	1
D	Z	O	N	E	:	0	0	1		0	0	0		0	0	0		0	0	0

**Exhibit 4-4: Alarm Features Screen
(Sensors and Detectors)**

- Row A - Displays the loop and address of the selected SLC device.
- Row B - Displays the function of the device. Not editable for this device type.
- Row C - Displays the 20 character custom message for the selected address. Use the ◀▶ arrow keys to position the cursor under any of the fields; then use the +/- keys to cycle through all available ASCII characters.
- Row D - The fields in this row display the zone settings for the selected device address in Row A. Use the ◀▶ arrow keys to position the cursor under one of the zone number fields (000); then use the +/- keys to change the zone number. To add multiple zones, move the cursor to the 2nd-4th zone number fields; then use the +/- keys to change or add the zone number.

Note: These programming options are typical for Photo Sensor, Ion Sensor, Photo/Heat Sensor, Heat Sensor and Photo Duct Detector.

4.2.1.1.2 HOW TO MODIFY A CONTROL OR RELAY MODULE

The default programming options for a sample control module are shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	1	-	0	0	1	:	C	O	N	T	R	O	L		M	O	D	U	L	E
B	F	U	N	C	:	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	C	U	S	T	O	M		M	E	S	S	A	G	E		1	-	0	0	1
D	-	-	-	-	:	0	0	0		0	0	0		0	0	0		P	:	*

**Exhibit 4-5: Alarm Features Screen
(Control Module)**

- Row A - Displays the loop and address of the selected SLC device.
- Row B - This field allows you to switch the function of the control module between ANY OF 3 ZONES, ALL OF 3 ZONES, SELECT DEVICE or ROW ANDING. Each function is described as follows. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to change the device function.
- Row C - Displays the 20 character custom message for the selected address. Use the ◀▶ arrow keys to position the cursor under any of the fields; then use the +/- keys to cycle through all available ASCII characters.
- Row D - The fields in this row change depending upon the device function displayed in Row B. The programming options available for each device function are described as follows.

Note: These programming options are typical for both the control and relay modules.

A. MODULE FUNCTIONALITY - ANY OF 3 ZONES

This function setting requires a state broadcast matching the activation state shown in Row D to come from at least one of the three specified zones before the control modules output will activate.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	1	-	0	0	1	:	C	O	N	T	R	O	L		M	O	D	U	L	E
B	F	U	N	C	:	*	A	N	Y		O	F		3		Z	O	N	E	S
C	C	U	S	T	O	M		M	E	S	S	A	G	E		1	-	0	0	1
D	A	L	R	M	:	0	0	0		0	0	0		0	0	0		P	:	*

Exhibit 4-6: Any of 3 Zones Function Screen

- Row D - Provides access to the first row of the modules output priority control table. To cycle through the possible states of activation, use the ◀▶ arrow keys to position the cursor under the ALRM field; then use the +/- keys to change the activation state:

AVON = Alarm Verification On
 LTRB = Low Power Trouble
 STRB = Short Circuit Trouble
 OTRB = Open Circuit Trouble
 MTRB = Maintenance Trouble
 TSTA = Test Alarm
 TRBL = Trouble
 PROC = Process
 PRED = PredischARGE
 PRA2 = Pre-Alarm 2
 PRA1 = Pre-Alarm 1
 ABRT = Abort
 RELE = Release
 SUPV = Supervisory
 SUMA = Summing Alarm
 ALRM = Alarm
 ALRT = Voice Alert
 EVAC = Voice Evacuation
 PAGE = Voice Page
 MSSA = Mass Notification All Zones
 MSSZ = Mass Notification by Zone
 2ALL = Page to Alert, Page to EVAC, Page All, Page R&R All
 ZDIS = Zone Disable

The **000** fields allow you to set zone settings for the selected device address in Row A. Use the ◀▶ arrow keys to position the cursor under one of the zone number fields (000); then use the +/- keys to change the zone number. To add multiple zones, move the cursor to the 2nd-3rd zone number fields; then use the +/- keys to change or add the zone number.

P:X allows you to select the activation pattern for the modules output, where X signifies:

0 = OFF F = FAST
 1 = ON T = TEMPORAL
 S = SLOW W = WALKTEST)

Use the ◀▶ arrow keys to position the cursor under pattern field; then use the +/- keys to change the activation pattern.

B. MODULE FUNCTIONALITY - ALL OF 3 ZONES

This function setting requires a state broadcast matching the activation state shown in Row D to come from all of the three specified zones before the control modules output will activate.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	1	-	0	0	1	:	C	O	N	T	R	O	L		M	O	D	U	L	E
B	F	U	N	C	:	*	A	L	L		O	F		3		Z	O	N	E	S
C	C	U	S	T	O	M		M	E	S	S	A	G	E		1	-	0	0	1
D	A	L	R	M	:	0	0	0		0	0	0		0	0	0		P	:	*

Exhibit 4-7: All of 3 Zones Function Screen

- Row D - Provides access to the first row of the modules output priority control table. To cycle through the possible states of activation, use the ◀▶ arrow keys to position the cursor under the ALRM field; then use the +/- keys to change the activation state:

AVON = Alarm Verification On
 LTRB = Low Power Trouble
 STRB = Short Circuit Trouble
 OTRB = Open Circuit Trouble
 MTRB = Maintenance Trouble
 TSTA = Test Alarm
 TRBL = Trouble
 PROC = Process
 PRED = Predischarge
 PRA2 = Pre-Alarm 2
 PRA1 = Pre-Alarm 1
 ABRT = Abort
 RELE = Release
 SUPV = Supervisory
 SUMA = Summing Alarm
 ALRM = Alarm
 ALRT = Voice Alert
 EVAC = Voice Evacuation
 PAGE = Voice Page
 MSSA = Mass Notification All Zones
 MSSZ = Mass Notification by Zone
 2ALL = Page to Alert, Page to EVAC, Page All, Page R&R All
 ZDIS = Zone Disable

The **000** fields allow you to set zone settings for the selected device address in Row A. Use the ◀▶ arrow keys to position the cursor under one of the zone number fields (000); then use the +/- keys to change the zone number. To add multiple zones, move the cursor to the 2nd-3rd zone number fields; then use the +/- keys to change or add the zone number.

P:X allows you to select the activation pattern for the modules output, where X signifies:

0 = OFF F = FAST
 1 = ON T = TEMPORAL
 S = SLOW W = WALKTEST)

Use the ◀▶ arrow keys to position the cursor under pattern field; then use the +/- keys to change the activation pattern.

C. MODULE FUNCTIONALITY - SELECT DEVICE

This function setting requires a state broadcast matching the activation state to come from the selected device loop-address shown in Row A before the control modules output will activate.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	1	-	0	0	1	:	C	O	N	T	R	O	L		M	O	D	U	L	E
B	F	U	N	C	:	*	S	E	L	E	C	T		D	E	V	I	C	E	
C	C	U	S	T	O	M		M	E	S	S	A	G	E		1	-	0	0	1
D	L	O	O	P	:	0		A	D	R	:	0	0	1				P	:	*

Exhibit 4-8: Select Device Function Screen

- Row D -These fields allow you to select the loop and address of a specific SLC device that will activate the selected control module. Use the ◀▶ arrow keys to position the cursor under any of the fields; then use the +/- keys to change to a different loop or address number.

P:X allows you to select the activation pattern for the modules output, where X signifies:

0 = OFF F = FAST
 1 = ON T = TEMPORAL
 S = SLOW W = WALKTEST)

Use the ◀▶ arrow keys to position the cursor under pattern field; then use the +/- keys to change the activation pattern.

D. MODULE FUNCTIONALITY - ROW ANDING

This function setting requires all of the priority rows specified in Row D to become active before the control modules output will activate.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	1	-	0	0	1	:	C	O	N	T	R	O	L		M	O	D	U	L	E
B	F	U	N	C	:	*	R	O	W		A	N	D	I	N	G				
C	C	U	S	T	O	M		M	E	S	S	A	G	E		1	-	0	0	1
D	R	:	0	0		0	0		0	0		0	0					P	:	*

Exhibit 4-9: Row Anding Function Screen

- Row D - These fields allow you to select the priority rows that must be active before the output of the selected control module activates. Use the ◀▶ arrow keys to position the cursor under any of the fields; then use the +/- keys to set the priority row.

P:X allows you to select the activation pattern for the modules output, where X signifies:

0 = OFF F = FAST
 1 = ON T = TEMPORAL
 S = SLOW W = WALKTEST)

Use the ◀▶ arrow keys to position the cursor under pattern field; then use the +/- keys to change the activation pattern.

E. HOW TO SET THE AHU RELAY RE-START DELAY

Each addressable relay assigned to AHU shutdown, can be configured with a time delay that prevents the de-activation of the relay until the set time delay expires. Time delay will begin only upon activation of an AHU restart switch. This feature allows the startup of AHU's to be staggered

From the "Alarm Features" screen, select the address of the relay assigned to AHU shutdown; then, press the **F3** key to access the "AHU Re-start Delay" screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		A	H	U		R	E	L	A	Y		R	E	-	S	T	A	R	T	
B		D	E	L	A	Y	:	0	3	3		S	E	C	O	N	D	S		
C																				
D																				

Exhibit 4-10: Addressable Relay AHU Re-start Delay Screen

- Row B - This field allows you to set a restart time delay (0 – 255 seconds). Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to increment or decrement the number value.

4.2.1.1.3 HOW TO MODIFY A MONITOR MODULE

The default programming options for a sample monitor module are shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	1	-	0	0	1	:	M	O	N	I	T	O	R		M	O	D	U	L	E
B	F	U	N	C	:	*	-	-	-	-	-	-	-	-	-	-	-	-	N	O
C	C	U	S	T	O	M		M	E	S	S	A	G	E		1	-	0	0	1
D	Z	O	N	E	:	0	0	0		0	0	0		0	0	0		0	0	0

Exhibit 4-11: Alarm Features Screen (Monitor Module)

- Row A - Displays the loop and address of the selected SLC device.
- Row B - This field allows you to select the input function for the selected device. To cycle through the possible input functions, use the ◀▶ arrow keys to position the cursor under the function field; then use the +/- keys to change the function:

Pre-Alarm 1	Process	PAS Inhibit
Pre-Alarm 2	Trouble	Watermist
Detection	Supervisory	Fan Restart
Man Alarm	Reset	Smoke Control Feedback
Waterflow	Silence	Manual Alarm 2 nd Stage
Pre-Discharge	Acknowledge	AHU Fire Key
Manual Release	Drill	
Abort	Zone Disable	

- Row B - The last two fields on this row allow you to select whether the module will be monitoring Normally Open (NO) or Normally Closed (NC) contacts. Not all input functions provide the option of NO/NC contacts as follows:

Pre-Alarm 1 (NO/NC)	Process (NO/NC)	PAS Inhibit (NO/NC)
Pre-Alarm 2 (NO/NC)	Trouble (NO/NC)	Watermist (NO)
Detection (NO)	Supervisory (NO/NC)	Fan Restart (NO/NC)
Man Alarm (NO)	Reset (NO)	Smoke Control Feedback (NO/NC)
Waterflow (NO/NC)	Silence (NO/NC)	Manual Alarm 2 nd Stage (NO)
Pre-Discharge (NO)	Acknowledge (NO/NC)	AHU Fire Key (NO/NC)
Manual Release (NO)	Drill (NO/NC)	
Abort (NO)	Zone Disable (NO/NC)	

- Row C - Displays the 20 character custom message for the selected address. Use the ◀▶ arrow keys to position the cursor under any of the fields; then use the +/- keys to cycle through all available ASCII characters.
- Row D - The 000 fields allow you to set zone settings for the selected device address in Row A. Use the ◀▶ arrow keys to position the cursor under one of the zone number fields (000); then use the +/- keys to change the zone number. To add multiple zones, use the ◀▶ arrow keys to move the cursor to the 2nd-4th zone number fields; then use the +/- keys to change or add the zone number.

Note: These programming options are typical for the mini monitor module as well.

4.2.1.1.4 HOW TO MODIFY A PULL STATION

The default programming options for a sample pull station module are shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	1	-	0	0	1	:	P	U	L	S	T	A	T	I	O	N				
B	F	U	N	C	:	*	M	A	N		A	L	A	R	M					
C	C	U	S	T	O	M		M	E	S	S	A	G	E		1	-	0	0	1
D	Z	O	N	E	:	0	0	0		0	0	0		0	0	0		0	0	0

**Exhibit 4-12: Alarm Features Screen
(Pull Station Module)**

- Row A - Displays the loop and address of the selected SLC device.
- Row B - This field is allows you to select the input function for the selected device. To cycle through the possible input functions, use the ◀▶ arrow keys to position the cursor under the function field; then use the +/- keys to change the function: MAN ALARM, MAN RELEASE and PRE-DISCHARGE (e.g., manual release with countdown).
- Row C - Displays the 20 character custom message for the selected address. Use the ◀▶ arrow keys to position the cursor under any of the fields; then use the +/- keys to cycle through all available ASCII characters.
- Row D The 000 fields allow you to set zone settings for the selected device address in Row A. Use the ◀▶ arrow keys to position the cursor under one of the zone number fields (000); then use the +/- keys to change the zone number. To add multiple zones, move the cursor to the 2nd-3rd zone number fields; then use the +/- keys to change or add the zone number.

4.2.1.1.5 HOW TO DELETE A DEVICE FROM THE SYSTEM CONFIGURATION

You can delete a device from the system configuration by pressing the **F1** key while viewing the devices alarm features. The panel will display the "Delete Device" screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	L	-	A	D	R	:	D	E	V		T	Y	P	E						
B				P	R	E	S	S		E	N	T	E	R		T	O			
C				D	E	L	E	T	E		D	E	V	I	C	E				
D																				

Exhibit 4-13: Delete Device Screen

- Row A – Displays the loop, address and device type of the device selected for deletion (if connected). Press the **ENTER** key to delete the device address from the panel's list of devices to supervise.

Note: Do not leave this screen until Row D clears.

4.2.1.1.6 HOW TO READ, WRITE, ENABLE OR DISABLE A DEVICE

From the “Alarm Features” screen, press the **F2** key to access the “Read/Write/Enable/Disable Device” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	L	-	A	D	R	:	D	E	V		T	Y	P	E						
B				P	R	E	S	S		E	N	T	E	R		T	O			
C		R	E	A	D		D	E	V	I	C	E		C	O	N	F	I	G	
D																				

Exhibit 4-14: Read/Write/Enable/Disable Screen

- Row A - This field allows you to select the Loop and Address of a specific SLC device to read its configuration. Use the ◀▶ arrow keys to position the cursor under any of the L-ADR fields; then use the +/- keys to change to a different loop number or address number. Device information for the address shown is then displayed (if connected). The device type field is not editable, but will change for each device type found on the loop.
- Row C - This field allows you to select to READ, WRITE, ENABLE or DISABLE the selected device address. Use the ◀▶ arrow keys to position the cursor under field; then use the +/- keys to toggle the field value. Press the **ENTER** key to perform the desired function.

READ - Will take a copy of the configuration that the device holds and send it to the panel. Read must be used prior to running a configuration check when any changes are made to the devices alarm features.

WRITE - Will take the copy of the configuration that the panel holds for the device and send it to the device.

ENABLE/DISABLE - Lets you Enable/Disable programmed SLC devices (i.e., modules, detectors, pull stations, etc.).

Disable - causes the panel to copy and store in the panel the current configuration from the device. The panel then reconfigures the “Output Control” for the selected device to be BLANK and sends this configuration to the device rendering it non-operational.

Enable – causes the panel to send the device enabled configuration stored in the panel to the selected device.

- Row D - Displays the status of process after **ENTER** key is pressed. Wait until process is completed (asterisk stops flashing) prior to exiting this screen.

CAUTION

Do not perform a **DEVICE READ** or **LEARN ALL** with devices disabled on the system. Doing so will cause the disabled configuration stored in the device(s) to be saved in the panel, rendering the panel's enable command useless. At this point, you must use C-Linx to download the original configuration to the panel to re-enable the device.

4.2.1.2 HOW TO CHANGE A DEVICES RELEASE FEATURES

Sensors and input modules connected to the signaling line circuit (SLC) can be assigned a pre-discharge type and countdown type variable, each of which affects how the Cheetah Xi system responds when the device activates. Both variables are stored in both panel memory and device memory. When the panel “LEARN” function is initiated, the variables will be uploaded from the SLC device into panel memory. Likewise, configuring a device from this configuration screen writes the variables into the device.

From the “Device Configuration Menu” screen, press the **F2** key to display the “Release Features” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	L	-	A	D	R	:	D	E	V	I	C	E	T	Y	P	E				
B	P	R	E	-	D	I	S	C	H		T	Y	P	E	:	A				
C	C	O	U	N	T	D	O	W	N	:		A	U	T	O	M	A	T	I	C
D																				

Exhibit 4-15: Release Features Screen

- Row A (L-ADR) - Allows you to select the loop and address of a specific SLC device in order to display its configuration parameters. Type of device configured at the selected address will be display. Use the ◀▶ arrow keys to position the cursor under any of the fields; then use the +/- keys to change to a different loop or address number.
- Row B – Allows you to select the pre-discharge type (A – F) for the selected device as described below. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to change the field value.
 - **A = Alarm Only.** No pre-discharge in a zone will occur from the alarm of this device.
 - **B = Cross Zone “B”.** Pre-discharge will occur in the zones assigned to this device when a corresponding “C” type is alarmed.
 - **C = Cross Zone “C”.** Pre-discharge will occur in the zones assigned to this device when a corresponding “B” type is alarmed.
 - **D = Counting Zone.** Pre-discharge will occur when two or more “D” types are alarmed in the assigned zones.
 - **E = Single Pre-discharge.** Only one alarmed “E” type will cause pre-discharge in the assigned zones.
 - **F = Single Release.** This type skips pre-discharge and causes immediate release in the assigned zones.

After changing the pre-discharge type, a “*” character will appear to the right of the type variable field. You must press the **ENTER** switch to store the variable change in device memory.

- Row C – Allows you to select whether the selected device will utilize the Automatic or Manual countdown timer set for the zone should it cause a pre-discharge in any of its assigned zones. Use the ◀▶ arrow keys to position the cursor under the fields; then use the +/- keys to change the field value. Certain devices must be assigned a pre-discharge type first before this value can be changed.
 - **Automatic Countdown Devices** = Photo, Heat, Photo/Heat, Photo Duct, and Ion detectors, monitor modules.
 - **Manual Countdown Devices** = Pull Station, Monitor Module, and Mini Monitor Modules.

4.2.1.3 HOW TO PERFORM A CONFIGURATION CHECK

The “Configuration Check” screen lets you compare the configuration stored in the specific SLC device to the configuration stored in the control panel for that device.

From the “Device Configuration Menu”, press the **F3** key to access the “Configuration Check” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	L	-	A	D	R	:	D	E	V		T	Y	P	E						
B	P	A	N	E	L	:	X	X	X		D	E	V	I	C	E	:	Z	Z	Z
C	P	R	E	S	S		E	N	T	E	R		T	O		S	T	A	R	T
D	C	O	M	P	A	R	I	S	O	N						0	-	0	0	0

Exhibit 4-16: Configuration Check Screen

- Row A - This field allows you to select the Loop and Address of a specific SLC device to check its configuration. Use the ◀▶ arrow keys to position the cursor under any of the L-ADR fields; then use the +/- keys to change to a different loop number or address number. Device information for the address shown is then displayed (if connected). The device type field is not editable, but will change for each device type found on the loop.
- Row B - Displays the panel and device checksum values for the device selected.
- Row D - Indicates progress of configuration check.

4.2.2 HOW TO MODIFY THE PANEL'S NAC CIRCUITS

The NAC Configuration menu allows you to program the panel's two on-board notification appliance circuits (NAC #1 and NAC #2).

From the “Configuration Menu 1” screen, press the **F2** key to access the “NAC Configuration” menu, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A							N	A	C		M	E	N	U						
B	F	1	-	N	A	C		F	U	N	C	T	I	O	N	S				
C	F	2	-	N	A	C		Z	O	N	E		A	S	S	I	G	N	S	
D	F	3	-	P	R	O	T	O	C	O	L									

Exhibit 4-17: NAC Configuration Menu

Press the corresponding function key to display the selected configuration screen:

F1 = NAC Functions Screen

F2 = NAC Zone Assignment Screen

F3 = NAC Synchronization Protocol Screen

4.2.2.1 HOW TO MODIFY NAC FUNCTIONS

The NAC Functions screen allows you to set the operational parameters of the two on-board NACs.

From the “NAC Menu” screen, press the **F1** key to access the “NAC functions” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	N	A	C	#	1	:		E	N	A	B	L	E	D						
B	S	T	A	T	E	:		S	T	A	T	E								
C	P	R	O	T	O	C	O	L	:		C	O	N	S	T	A	N	T		
D	S	I	:	N		D	R	:	N		W	L	K	:	N		W	F	:	Y

Exhibit 4-18: NAC Functions Screen

- Row A (NAC#) - This field allows you to select the NAC circuit to configure (NAC 1 or NAC 2). Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to increment/decrement the field.
- Row A (ENABLED) - This field allows you to set the Enabled/Disabled status of the on-board notification appliance circuits 1 & 2 (P10 & P11). Use the ◀▶ arrow keys to move cursor under the Enabled/Disabled field; then use the +/- keys to toggle the field.

Note: If either NAC circuit is disabled, the panel will annunciate both a Trouble and Supervisory condition until the circuit(s) is enabled.

- Row B (State) - This field allows you to set the operating state for the NAC circuit displayed in Row A. Use the ◀▶ arrow keys to move the cursor to Row B; then use the +/- keys to change the State to the desired operation (i.e., Alarm, Pre-Discharge, Release, Pre Alarm #1, Pre Alarm #2, Supervisory, Trouble and Process).
- Row C (Protocol) - This field allows you to select whether the NAC circuit displayed in Row A will use the NAC protocol set for the panel (see 4.2.2.3) or will activate constant. Use the ◀▶ arrow keys to move the cursor to Row C; then use the +/- keys to change to the desired protocol.

Note: Both NAC 1 and NAC 2 must be set to the same protocol unless one of them is set to No Sync Protocol.

Note: If a chime code is assigned to any zone, Row C will display ‘CHIME CODE’ by default and cannot be changed. See section 4.3.5.1 for complete description of Chime Code functionality.

- Row D - These fields allow you to set the Silenceable, Drill, Walktest and Waterflow Enabled (Y)/Disabled (N) status for the NAC circuit displayed in Row A.

SILENCEABLE (SI:) - field determines whether or not the selected NAC circuit will turn off when the panel’s SILENCE button is pressed.

DRILL (DR:) - field determines whether or not the selected NAC circuit will turn on when the panel’s DRILL button is pressed.

WALKTEST (WLK:) - field determines whether or not the selected NAC circuit will turn on when the panel receives a Walktest Alarm from any one of the configured zones.

WATERFLOW (WF:) – field determines whether or not the selected NAC circuit will turn on when the panel receives a Waterflow Alarm.

To change the *Enabled/Disabled* status of these fields, use the ◀▶ arrow keys to position cursor under Y or N; then use the +/- keys to toggle the field.

4.2.2.2 HOW TO SET NAC ZONE ASSIGNMENTS

The NAC Zone Assignment screen allows you to set which zones can activate the two on-board NACs.

From the “NAC Menu” screen, press the **F2** key to access the “NAC Zone Assignment” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	N	A	C	#	1	:		A	N	Y		Z	O	N	E					
B	Z	O	N	E		R	A	N	G	E	:		0	0	1	-	0	2	0	
C	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit 4-19: NAC Zone Assignment Screen

- Row A (NAC#) – This field allows you to select the NAC circuit to configure (NAC 1 or NAC 2). Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to increment/decrement the field.
 - Row A (Any Zone) – This field allows you to set whether the selected NAC circuit will activate on ANY ZONE or MULTI ZONE. Use the ◀▶ arrow keys to move cursor to the field (ANY ZONE or MULTI ZONE); then use the +/- keys to toggle the field.
- Note:** The Any Zone option sets the selected NAC to activate on the configured state for any zone. The Multi Zone option sets the selected NAC to activate on the configured state for any zone selected in Row D.
- Row B - This field allows you to set the 20 zone range that is displayed in Rows C & D. Use the ◀▶ arrow keys to position the cursor under the zone range field; then use the +/- keys to increment/decrement the group of 20 forward or backwards (Zones 001-254).
 - Row C - These numbers act as placeholders and zone number indicators for the range of zones selected on Row B.
 - Row D - This range of fields allows you to set the zone assignment programming for the circuit displayed in Row A if MULTIZONE is selected.

- = not programmed for this zone
Y = programmed for this zone

Use the ◀▶ arrow keys to position the cursor under the specific zone position; then use the +/- keys to toggle the status.

Note: The Any Zone option sets the selected NAC to activate on the configured state for any zone. The Multi Zone option sets the selected NAC to activate on the configured state for any zone selected in Row D.

Note: The panel NACs will not sound in a voice zone. Panel NACs are not selectable for voice states.

4.2.2.3 HOW TO SET NAC SYNC PROTOCOL

The NAC Protocol screen allows you to configure which synchronization protocol (i.e. Gentex or System Sensor) will be used by the Cheetah Xi's notification appliance circuits (see 4.2.2.1). The selected sync protocol applies to both NAC circuits.

From the "NAC Configuration Menu" screen, press the **F3** key to access the "NAC Protocol" screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	S	E	L	E	C	T		N	A	C		P	R	O	T	O	C	O	L	
B							F	O	R		P	A	N	E	L	:				
C							G	E	N	T	E	X								
D	S	I	L	E	N	C	E		S	T	R	O	B	E	S	:	N	O		

Exhibit 4-20: NAC Sync Protocol Screen

- Row C - This field allows you to set the SYNC protocol assignment for both notification appliance circuits #1 & #2 (P8 & P9). Use +/- keys to toggle through the allowable Sync protocols (Gentex or System Sensor).
- Row D – This field allows you to configure the panel to silence (turn off) the strobes connected to the panel and voice amplifier NAC circuits when the panel is silenced. Use the ◀▶ arrow keys to move cursor under the field; then use the +/- keys to toggle the field between **NO** and YES.
 - 'NO' - Silencing the panel will turn off the audible portion of the NACs while leaving the visible portion active. This setting applies to panel NACs **only** and does not affect amplifier NACs or control modules used for NAC operation.
 - 'YES' - Silencing the panel will turn off both the audible and visible portion of the NACs. This applies to the panel NACs **only** and does not affect amplifier NACs or control modules used for NAC operation.

Note: Amplifiers can be individually configured to silence its notification appliance circuit in response to silencing of the main panel.

4.2.3 HOW TO CHANGE SLC SUPERVISION


The SLC screen lets you change the supervision options of the available signaling line circuits.

From the “Configuration Menu 1” screen, press the **F3** key to access the “SLC Configuration” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	A	U	X	I	L	I	A	R	Y		L	O	O	P	S					
B	M	O	D	U	L	E		P	R	E	S	E	N	T	:				N	O
C	P	A	S	:	N	O		A	C	K	:	1	5		0	0	/	0	0	
D	L	O	O	P		W	I	R	I	N	G		S	T	Y	L	E	:		4

Exhibit 4-21: SLC Configuration Screen

- Row B (SLM):- This field allows you to turn on Supplemental Loop Module supervision (Yes/No). If Yes is selected, the panel will begin supervising SLC 3 and 4 on the SLM. Use the +/- keys to change the field.

 **CAUTION**

SLM must be set to 'YES' before trying to send system configuration to panel. Having a SLM installed on the panel and not changing this field to Yes could result in delayed SLC communication.

- Row C (PAS:)- This field allows you to turn on Positive Alarm Sequencing function on the detection circuits (Yes/No). Use the +/- keys to change the field.

Note: This feature is enabled or disabled for all sensors present on the panel. Refer to Cheetah Xi Operations Manual for full description of this feature.

- Row C (ACK:)- This field allows you to adjust the time frame in which the Alarm event must be Acknowledged in order to initiate the panel's Positive Alarm Sequence. The timer can be set between 15 and 30 seconds. Use the ◀▶ arrow keys to move cursor under the field; then use the +/- keys to increment or decrement the field.
- Row C (00/00) - This field allows you to select specific voice message ID's (primary/secondary) to play during the PAS investigative period. Use the ◀▶ arrow keys to move cursor under the field; then use the +/- keys to increment or decrement the field.
- Row D - This field allows you to set the Loop Wiring Style used for all 4 addressable loops (Style 4, 6 or 7). Use the +/- keys to change the field.

Note: This is a system wide setting. All loops will be configured to use the selected wiring style. If Style 6 or 7 is chosen and the loop is unused, jumpers must be installed to prevent open circuit troubles.

4.2.3.1 HOW TO SET SLC COMMAND MODE FUNCTIONS

This screen allows you to set how the Cheetah Xi will respond to SLC devices that have been inadvertently locked into the “Command Mode”.

From the “SLC Configuration” screen, press the **F1** key to access the “SLC Command Mode” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	S	T	O	R	E		T	R	O	U	B	L	E		F	O	R		N	O
B	N	E	W		D	E	V	I	C	E		E	V	E	N	T	:	N	O	
C	S	E	N	D		A	U	T	O		C	O	M	M	A	N	D			
D	A	T		M	I	D	N	I	G	H	T	:	N	O						

Exhibit 4-22: SLC Command Mode Screen

- Row B - This field allows you to set whether the panel will record a “**DEVICE NOT READY**” trouble for all output devices (i.e. Control, Relay, and Release modules) that fail to report a “New Device” message following a reset (YES/**NO**). If the “New Device” message is received, then “**DEVICE RETURN**” will be recorded. The factory default condition is **NO**. Use the +/- keys to change the field.
- Row D - This field allows you to set whether the panel will transmit an “**AUTO**” command onto the loops each midnight if no alarms, troubles, supervisory, pre-alarm, drill, or process states are active (YES/**NO**). The factory default condition is **NO**. Use the +/- keys to change the field.

Note: This feature ensures that output devices will act correctly in the event a device has been inadvertently placed in the ‘Command Mode’.

4.2.3.2 HOW TO ADJUST POSITIVE ALARM SEQUENCING INVESTIGATION TIME

This screen allows you to adjust the alarm investigation time associated with the panel’s PAS operation. A Factory Level password is required to change this setting.

From the “SLC Configuration” screen, press the **F3** key to access the “PAS Investigation Time” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A																				
B		P	A	S			I	N	V	E	S	T	I	G	A	T	I	O	N	
C		M	I	N	U	T	E	S	:	0	3									
D																				

Exhibit 4-23: PAS Investigation Time Screen

- Row C (Minutes) - This field allows you to adjust the alarm investigation time associated with the panel’s positive alarm sequence (PAS) operation. By default, the time is set to 3 minutes (180 seconds) in accordance with the requirements of NFPA 72. Use the +/- keys to increment or decrement the field value.

4.2.4 HOW TO EXECUTE THE LEARN FUNCTION

The Learn function, when initiated, identifies all installed addressable devices connected to the panel's signaling line circuits (SLCs). The address, device type and serial number of each device is added to the panel's supervision list.

From the "Configuration Menu 1" screen, press the **F4** key to access the "Learn" screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		S	E	L	E	C	T		R	E	S	E	T		M	O	D	E	:	
B				N	O	N	E		S	E	L	E	C	T	E	D				
C	P	R	E	S	S		E	N	T	E	R		T	O		S	T	A	R	T
D			P	A	N	E	L		W	I	L	L		R	E	S	E	T		

Exhibit 4-24: LEARN Screen

- Row B - This field allows you to set the LEARN mode to be used. Press +/- to change from None Selected to Learn New Devices or Learn All Devices. A complete description of each mode is described as follows.

Note: Each addressable device connected to the SLC holds its own configuration. After the LEARN function has been completed, you can modify the configuration as needed using either the panel configuration menus or the C-Linx programming software.

4.2.4.1 LEARN New Devices Only

The Learn New Device Only option will identify only new addressable devices connected to a signaling line circuit (SLC). New devices will be added to the panel's device supervision list. New devices will operate with the default configuration held by the device until it is changed. If the device has never been incorporated into a system, it will contain the default configuration.

From the "Learn" screen, press +/- keys to change to *Learn New Devices* as shown below; then press the Enter key:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		S	E	L	E	C	T		R	E	S	E	T		M	O	D	E	:	
B		L	E	A	R	N		N	E	W		D	E	V	I	C	E	S		
C	P	R	E	S	S		E	N	T	E	R		T	O		S	T	A	R	T
D			P	A	N	E	L		W	I	L	L		R	E	S	E	T		

Exhibit 4-25: LEARN NEW DEVICES Screen

The panel will reset and enter the Learn Mode:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	L	E	A	R	N		M	O	D	E		I	S		A	C	T	I	V	E
B	W	A	I	T			T	O		C	O	M	P	L	E	T	E		>	>
C	0	9	:	2	7	:	4	7	A		0	3	/	1	0	/	2	0	0	9
D	A	L	:	0	0	0		S	U	:	0	0	0		T	R	:	0	0	0

Exhibit 4-26: LEARN Mode Active Screen

The display keypad is locked while learn mode is Active. Panel will display "LEARN MODE COMPLETE" when process ends.

4.2.4.2 LEARN All devices

The Learn All Devices option erases the device supervision list stored in the Cheetah Xi controller and creates a new supervision list by identifying all addressable devices connected to a signaling line circuit (SLC). All device addresses, serial numbers, and device type information will be learned. The configurations held by the devices will NOT be altered (nor will the custom messages).

From the "Learn" screen, press +/- keys to change to *Learn All Devices* as shown below; then press the Enter key:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	
A		S	E	L	E	C	T		R	E	S	E	T		M	O	D	E	:		
B		L	E	A	R	N		A	L	L		D	E	V	I	C	E	S			
C		P	R	E	S	S		E	N	T	E	R		T	O		S	T	A	R	T
D			P	A	N	E	L		W	I	L	L		R	E	S	E	T			

Exhibit 4-27: LEARN ALL DEVICES Screen

The panel will reset and enter the Learn Mode:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	L	E	A	R	N		M	O	D	E		I	S		A	C	T	I	V	E
B	W	A	I	T		T	O		C	O	M	P	L	E	T	E		>	>	
C	0	9	:	2	7	:	4	7	A		0	3	/	1	0	/	2	0	0	9
D	A	L	:	0	0	0		S	U	:	0	0	0		T	R	:	0	0	0

Exhibit 4-28: LEARN Mode Active Screen

The display keypad is locked while learn mode is Active. Panel will display "LEARN MODE COMPLETE" when process ends.

CAUTION

The Learn ALL method will delete and/or add supervision to devices. Testing or review of the configuration should be performed to ensure that all required devices are supervised.

4.2.5 HOW TO ENABLE PANEL VOICE OPERATIONS

The “Voice” screen allows you to set the operating variables that affect the Cheetah Xi voice operation.

From the “Configuration Menu 1” screen, press the **F5** key to access the “Voice” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	C	H	A	N	N	E	L		M	O	D	E	:	S	I	N	G	L	E	
B	S	E	Q	U	E	N	C	E	:	S	T	A	N	D	A	R	D			
C	V	O	I	C	E		O	U	T	P	U	T	S	:	O	N				
D	F	1	-	M	N	S		R		F	2	-	P	R	I	O	R	I	T	Y

Exhibit 4-29: Voice Operations Screen

- Row A – This field allows you to select whether all system amplifiers will operate in single or dual-channel mode. Press +/- to change from Single to Dual channel mode. A complete description of each mode is described as follows.
 - Single Channel – each amplifier operates independently and is capable of playing a single audio message in response to a system event.
 - Dual Channel – two amplifiers are tied together to form a single dual-channel, 50 watt amplifier with 8 speaker circuits. One amp is dedicated for EVAC operation and the other is dedicated for Alert operation.
- Note:** *Dual-Channel mode is not allowed with the Cheetah Xi.*
- Row B – This field allows you to set the city sequence code that will be used by the panel for voice operation. Use the ◀▶ arrow keys to move cursor under the field; then use the +/- keys to increment/decrement the field. A complete description of each mode is described as follows.
 - Standard – regular panel operation
 - Boston – panel will operate following the requirements of the City of Boston.
 - Chicago – panel will operate following the requirements of the City of Chicago.
 - New York – panel will operate following the requirements of the City of New York.
 - Special 1 or 2 – future use
- Note:** Certain cities require the voice system to operate in a specific manner that differs from the standard operation of the voice system. By default, the Cheetah Xi will be set to STANDARD (no city sequence).
- Row C – This field allows you to enable Eclipse messages that are unique to voice operation to be transmitted onto the SLC for the purpose of activating control or relay modules for voice operation. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to toggle the field to **ON** or **OFF**. *By default, the Cheetah Xi will be set to ON.*
 - Row D – Press the **F1** function button to access the mass notification reset screen or press the **F2** function button to access the voice state priority screen.

4.2.5.1 HOW TO SET MASS NOTIFICATION RESET TIMEOUT

The “MNS Reset” screen allows you to configure a timeout variable that will automatically issue a mass notify reset command. Once enabled, the timeout starts upon activation of any voice action switches. The timer restarts each time a new voice action switch is activated. Once the timeout reaches 000, a mass notify reset command is issued and the history event is stored.

From the “Voice Operations” screen, press the **F1** key to access the “MNS Reset” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		M	A	S	S		N	O	T	I	F	Y		S	Y	S	T	E	M	
B		T	I	M	E	O	U	T	:	0	0	0		M	I	N	U	T	E	S
C							D	I	S	A	B	L	E	D						
D																				

Exhibit 4-30: MNS Reset Screen

- Row B - This field allows you to set the MNS timeout delay. The selection ranges from “000 – 255 minutes”. Use the ◀▶ arrow keys to position the cursor under the field; then press +/- to change the field value.
- Row C – This field will toggle from DISABLED to ENABLED when time field is changed from “000”.

Note: This command is the same as pressing the **F1** - MNS RST button in maintenance menu 2.

4.2.5.2 HOW TO SET VOICE STATE PRIORITY LEVELS

The “Voice State Priorities” screen allows you to adjust the voice state priority levels of the panel when the status of the voice system amplifiers and the messages they play are set by the following automatic fire alarm functions: Alarm, Test Alarm, Supervision, and Process. When an input module or sensor activates one of these states in a zone that is assigned to an amp, the state priority level must be higher than (1 being highest) or equal to the priority set by an active voice switch (if one is active) for the amp to play the message associated with these states. The same holds true for zones. The voice condition of the zone will be updated only if the panel state priority is greater than or equal to the currently active priority.

From the “Voice Operations” screen, press the **F2** key to access the “Voice States Priority” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	A	L	A	R	M	:								0	0	4				
B	T	E	S	T		A	L	A	R	M	:			0	0	5				
C	S	U	P	E	R	V	I	S	O	R	Y	:		0	0	6				
D	P	R	O	C	E	S	:							0	0	7				

Exhibit 4-31: Voice States Priority Screen

- Rows A thru D – Use the ◀▶ arrow keys to position the cursor under the field; then press +/- to change the field value (0 – 254). 1 = highest and 254 = lowest. A setting of 0 = priority level disabled. Factory default value for each panel state is shown.

Note: Any change made to the panel’s voice state priorities only affects the operation of the voice system. It does not affect the normal operation of the Cheetah Xi system with regards to state priorities.

Note: The Cheetah Xi system will NOT allow you to set the priority level for Alarm lower than the priority level settings for Test Alarm, Supervision, and Process. Alarm must always be set a higher priority.

Note: A panel event or input switch with a lower priority setting cannot override a panel event or input switch with a higher priority. A panel event or input switch with the same or higher priority can override another panel event or input switch with the same or a lower priority setting.

4.3 CONFIGURATION MENU 2

From the “Configuration Menu 1” screen, press the **F6** key to access “Configuration Menu 2” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	C	O	N	F	I	G	U	R	A	T	I	O	N		M	E	N	U		2
B	F	1	-	T	I	M	E				F	4	-	D	A	Y	S	E	N	
C	F	2	-	S	I	L	E	N	C		F	5	-	Z	O	N	E			
D	F	3	-	P	O	W	E	R			F	6	-	M	E	N	U		3	

Exhibit 4-32: Configuration Menu 2

F1 = System Time Control Screen

F2 = System Silence Screen

F3 = System Power Screen

F4 = System Day/Night Sensitivity Screen

F5 = Zone Enable/Disable Screen

F6 = Configuration Menu 3

4.3.1 HOW TO SET SYSTEM TIME AND DATE

The “Time Control” screen allows you to change the system time, date, day and daylight savings time.

From the “Configuration Menu 2” screen, press the **F1** key to access the “Time Control” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	T	I	M	E	:		H	H	:	M	M	:	S	S	A	M				
B	D	A	T	E	:		M	M	/	D	D	/	Y	Y	Y	Y				
C	D	A	Y	:			D	A	Y		O	F		W	E	E	K			
D	D	A	Y	L	I	G	H	T		S	A	V	I	N	G	S	:	Y	E	S

Exhibit 4-33: Time Control Screen

- Row A - This field allows you to set the Hour (HH), Minute (MM), Second (SS), and AM/PM values for the system. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to increment/decrement the field to a different number.
- Row B - This field allows you to set the Month (MM), Day (DD), and Year (YYYY) values for the system. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to increment/decrement the field to a different number.
- Row C - This field allows you to set the Day of the week for the system. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to increment/decrement the field to a different day.
- Row D - This field allows you to set whether Daylight savings time will be recognized by the system (Yes/No). Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to toggle the status.

4.3.2 HOW TO SET SYSTEM SILENCING OPTIONS

The “System Silence” screen allows you to change the system silencing options.

From “Configuration Menu 2” screen, press the **F2** key to access the “System Silence” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	I	N	H	I	B	I	T	:	O	F	F			R	E	M	:	O	F	F
B	A	U	T	O		U	N	S	I	L	E	N	C	E	:	2	4	H	R	S
C	A	L	A	R	M		U	N	S	I	L	E	N	C	E	:	Y	E	S	
D																				

Exhibit 4-34: System Silence Screen

- Row A (INHIBIT) - This field allows you to turn the system Silence Inhibit (On/Off). Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to toggle the status.

This feature requires that the panel not allow silencing for one minute following the first alarm event. If silence inhibit is turned ON, the Silence button on the display (or other Silence input) will not silence the panel for one minute following the receipt of the first alarm event.

- Row A (REM) - This field allows you to turn the system Silence Reminder (On/Off). Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to toggle status.

This feature requires that the panel produce a momentary pulse from the panel piezo/buzzer following the silencing of outputs. If this is configured to be ON, the momentary piezo pulse is ½ second long every 14 seconds on a silenced panel.

- Row B (AUTO UNSILENCE) - This field allows you to set how much time must elapse (1 – **24** hours) before the panel will automatically unsilence after the panel's **SILENCE** button has been pressed. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to increment/decrement the time.

Note: NFPA 72 requires that a silenced panel shall be unsilenced within 24 hours.

- Row C (ALARM UNSILENCE) - This field allows you to select whether a new alarm event will unsilence the supervisory, trouble and process states. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to toggle status.

4.3.3 HOW TO SET SYSTEM POWER OPTIONS

The “Power” screen allows you to change system power options.

From the “Configuration Menu 2” screen, press the **F3** key to access the “Power” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	A	U	X		P	O	W	E	R		M	O	D	U	L	E	:	N	O	
B	X	F	O	R	M	E	R		S	I	Z	E	:		1	2	0	V	A	C
C	B	A	T	T	E	R	Y		M	A	I	N	:	Y		A	U	X	:	N
D	S	U	P	E	R	V		A	U	X		P	O	W	E	R	:	Y	E	S

Exhibit 4-35: Power Screen

- Row A - This field allows you to turn on/off supervision of the Supplemental Power Supply (SPS), if installed (Yes/No). Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to toggle status.
- Row B - This field allows you to select which AC power transformer is wired to the AC input terminal (120/240VAC). Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to toggle status.

CAUTION

Selecting the incorrect transformer size could result in erratic panel trouble conditions.

- Row C - The BATTERY MAIN field allows you to turn on/off supervision of the Main controller Battery Input terminals (Yes/No). Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to toggle status.

The AUX field allows you to turn on/off supervision of the Supplemental Power Supply Battery input (Yes/No), if Supplemental Power Supply is installed. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to toggle status.

Note: Main or Auxiliary Supervision of battery selection of *NO* is not an allowed setting for UL.

- Row D - This field allows you to turn on/off supervision of the 24 VDC Auxiliary Power circuits (Yes/No). Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to toggle status.

4.3.4 HOW TO MODIFY DAYTIME SENSITIVITY SETTINGS

The Daytime Sensitivity Menu provides smoke sensors the ability to have two separate alarm thresholds; one less sensitive during standard operational hours and one more sensitive during non-operational hours. Each smoke sensor has two alarm sensitivity thresholds (Night & Day). The Night alarm level is used on all sensors as the default setting. The Day alarm level is only used if daytime or holiday schedules are set.

From the "Configuration Menu 2" screen, press the **F4** key to access the "Daytime Sensitivity Menu", as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	F	1	-	D	A	Y	T	I	M	E	S	E	N	S	I	T	I	V	I	T
B	F	2	-	S	E	L	E	C	T	H	O	L	I	D	A	Y	S			
C																				
D																				

Exhibit 4-36: Daytime Sensitivity Menu

F1 = Daytime Sensitivity Range Screen

F2 = Daytime Sensitivity Holidays Screen

4.3.4.1 HOW TO SET DAYTIME SENSITIVITY RANGE

If your system is using the daytime sensitivity option, the On and Off times and the days of the week that the daytime sensitivity setting is to be used must be configured. Sensors enabled for daytime sensitivity will change to Day Alarm level when the start time is reached and revert back to Night Alarm level when the stop time is reached.

From the "Daytime Sensitivity Menu" screen, press **F1** to access the "Daytime Sensitivity Range" screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	D	A	Y	T	I	M	E	S	E	N	S	I	T	I	V	I	T	Y		
B	S	T	A	R	T	:		H	H	:	M	M	A							
C	S	T	O	P	:			H	H	:	M	M	P							
D	D	A	Y		O	F		W	E	E	K	:		S	M	T	W	R	F	S

Exhibit 4-37: Daytime Sensitivity Range Screen

- Row B - This field allows you to set the Daytime sensitivity start time: Hour (HH), Minute (MM), AM/PM. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to increment/decrement the value at the field.
- Row C - This field allows you to set the Daytime sensitivity stop time: Hour (HH), Minute (MM), AM/PM. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to increment/decrement the value at the field.
- Row D - This field allows you to set the Days of the week that will utilize the Daytime sensitivity option. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to turn ON letter representing the day of the week. Toggle letter OFF if it stays with night sensitivity all day.

4.3.4.2 HOW TO SET HOLIDAY SETTINGS FOR DAYTIME SENSITIVITY

The Holidays screen allows you to enter up to twenty holiday dates associated with the daytime sensitivity option. On holiday dates, smoke sensors enabled for daytime sensitivity will continue to operate using the Night Alarm Level. They will revert to using the Day Alarm Level when the holiday is over.

From the “Daytime Sensitivity Menu” screen, press **F2** to access the “Holidays” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	H	O	L	I	D	A	Y	S	(	1	)			0	1	-	0	1		
B		0	1	-	0	1		0	1	-	0	1		0	1	-	0	1		
C		0	1	-	0	1		0	1	-	0	1		0	1	-	0	1		
D		0	1	-	0	1		0	1	-	0	1		0	1	-	0	1		

Exhibit 4-38: Holidays Screen

- Row A-D - These 10 editable fields allow you to enter the Month (MM)-Day (DD) of holiday. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to increment/decrement the value at the field.

There are 2 holiday screens available to provide 20 holidays. To access the Holidays (2) menu, use the ◀▶ arrow keys to move the cursor to the last field on the right (D18) on Row D; then press the right ▶ direction arrow.

4.3.5 HOW TO SET ZONE OPERATING PARAMETERS

The Zone Configuration screen allows you to set the operational parameters for any of the Cheetah Xi's 254 available operating zones.

From the “Configuration Menu 2” screen, press the **F5** key to access the “Zone” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	Z	O	N	E		0	0	1	:	E	N	A	B	L	E	D				
B	C	U	S	T	O	M		M	E	S	S		Z	O	N	E		0	0	1
C	A	U	T	O		C	O	U	N	T	D	O	W	N	:		0	3	0	S
D	M	A	N	U		C	O	U	N	T	D	O	W	N	:		0	1	0	S

Exhibit 4-39: Zone Parameters Screen

- Row A - These fields allows you to set the Enable/Disable status of the selected Zone. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to change zone number.
Use the ◀▶ arrow keys to position the cursor under the enable status field; then use the +/- keys to toggle the status (Enable/Disable).
- Row B - This range of fields allows you to set the Custom Message for the zone displayed in Row A. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- button to cycle through all ASCII characters and display the desired character.
- Row C – Allows you to set the automatic pre-discharge countdown time for the selected zone (0 – 255 seconds, default **30 seconds**).
- Row D – Allows you to set the manual pre-discharge countdown time for the selected zone (0 – 30 seconds, default **10 seconds**).

4.3.5.1 HOW TO ASSIGN A CHIME CODE TO A ZONE

The Chime Code screen allows you to assign a custom chime code to any of the Cheetah Xi's 254 available operating zones. The chime codes conform to the City of Chicago, IL 1st stage activation requirements.

From the "Zone Configuration" screen, press the **F1** key to access the "Chime Code" screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A							S	I	G	N	A	L		C	O	D	E			
B							Z	O	N	E		0	0	1						
C							0	-	0	-	0	-	0							
D	N	U	M		O	F		C	O	D	E	S		S	E	T	:	0	0	0

Exhibit 4-40: Chime Code Screen

- Row B - These fields allows you to select the zone number to assign a Chime Code to. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to change zone number.
- Row C - This range of fields allows you to set the custom chime code (3 or 4 digits) for the zone displayed in Row B. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- button to select the digit range from 0 to 9. If a three digit chime code is required, the fourth field must be left at 0.

The codes chime at 1 second intervals. The time between digits is roughly 2 seconds. The time between a 3 and 4 digit signal is about 6 seconds.

- Row D – Displays the number of zones that have been assigned a chime code. As long as this field is greater than 0, NAC #1 will be dedicated to chime code production.

Note: Pressing the **F4** key from this screen will allow you to clear all chime codes to 0-0-0-0. Factory initialization will also clear all chime codes.

Chime codes are produced on NAC #1 only. If a chime code is assigned to any zone, the configuration screen for NAC #1 will show 'CHIME CODE' as the default protocol assignment on Row C, as shown below. Neither Drill nor Walktest is allowed for NAC #1 when chimes codes are assigned.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	N	A	C	#	1	:		E	N	A	B	L	E	D						
B	S	T	A	T	E	:		S	T	A	T	E								
C	P	R	O	T	O	C	O	L	:		C	H	I	M	E		C	O	D	E
D	S	I	L	:	N		D	R	I	L	:	N		W	A	L	K	:	N	

Exhibit 4-41: NAC Functions Screen

4.4 CONFIGURATION MENU 3

From the “Configuration Menu 2” screen, press the **F6** key to access the “Configuration Menu 3” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	C	O	N	F	I	G	U	R	A	T	I	O	N		M	E	N	U		3
B	F	1	-	P	E	R	I	P	H		F	4	-	A	B	O	R	T		
C	F	2	-	W	A	L	K				F	5	-	S	E	N		C	H	G
D	F	3	-	G	R	O	U	N	D		F	6	-	M	E	N	U		4	

Exhibit 4-42: Configuration Menu 3

F1 = Peripheral Device Configuration Menu

F2 = System Walktest Enable/Disable Screen

F3 = System Ground Fault Screen

F4 = Abort Configuration Screen

F5 = Day/Night Sensitivity Enable/Disable

F6 = Configuration Menu 4

4.4.1 HOW TO SET PERIPHERAL DEVICE PARAMETERS

The “Peripherals Menu” provides access to configuration parameters associated with the selected panel’s 31 possible peripheral devices.

From the “Configuration Menu 3” screen, press the **F1** key to access the “Peripheral Menu” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A			P	E	R	I	P	H	E	R	A	L		M	E	N	U			
B	F	1	-	D	E	V	I	C	E		F	4	-	C	M	D		S	E	T
C	F	2	-	S	O	U	R	C	E		F	5	-							
D	F	3	-	S	P	E	E	D			F	6	-							

Exhibit 4-43: Peripheral Menu

F1 = Peripheral Device Configuration Screen

F2 = Peripheral Communication Source Screen

F3 = Peripheral Bus Communication Speed Screen

F4 = Peripheral Device Command Set Screen

F5 = Not Used

F6 = Not Used

4.4.1.1 HOW TO CONFIGURE PERIPHERAL DEVICES

The peripheral configuration screen allows you to modify the basic operating parameters of any of the peripheral devices connected to the panel's RS485 peripheral bus. Detailed programming of each peripheral device is accomplished using the panel's configuration software C-Linx.

From the "Peripheral Menu" screen, press the **F1** key to access the "Peripheral Configuration" screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	P	E	R	I	P	H	E	R	A	L	A	D	D	R	:	0	2			
B	T	Y	P	E	:		R	E	M		D	I	S	P		1	4	K	E	Y
C	S	U	P	E	R	V	I	S	E	:		Y	E	S		Z	:	0	0	0
D	P	E	R	I	P	H	E	R	A	L		M	S	G					0	2

Exhibit 4-44: Peripheral Configuration Screen

- Row A - This field allows you to select the Peripheral address (2-32, DACT at address 2, if used) of the device to be modified. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to increment/decrement the value at the cursor. Press the **F4** key to display the firmware version of the selected device on Row C & D.
- Row B - This field displays the type of RS485 Peripheral device programmed at the address displayed in Row A. Use the ◀▶ arrow keys to position the cursor under the device type menu; then use the +/- keys to change to any one of the following peripheral device types:
 - Remote Display 14 Key
 - 256 LED Graphic*
 - Zone Graphic
 - Print Serial
 - Bosch DACT
 - Print Parallel
 - Ethernet Port
 - Remote Display 10 Key
 - Remote Display 2 Key
 - Switch – 20 Zone**
 - Annunciator – 20 Zone**
 - Computer (Precise Vision)
 - Class A Module
 - Relay Control

*Press the **F1** key to display additional configuration options. See 4.4.1.1.2.

Press the **F1, **F2** or **F3** keys to perform peripheral device tests. See 4.4.1.1.1.

Note: Detailed programming of each peripheral device is set using the panel configuration software C-Linx.

- Row C (Supervise) - This field allows you to turn on/off supervision of the RS485 peripheral device/address shown in Rows A and B (Yes/No). Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to toggle the status of the field.

Note: When a peripheral device is supervised and communications is lost between the peripheral and the panel, a Peripheral Missing trouble will result.

Note: Peripheral devices with control capabilities must be supervised (i.e., Remote display with reset button).

- Row C (Z:) - This field allows you to assign zone number to a remote display unit (RDU). The zone number will be used for the display of pre-discharge countdown, release, and abort functions for the set zone (Cheetah Xi panels only), or for the activation or deactivation of process commands from the RDU for the set zone.

- Row D - This range of fields allows you to enter a 20 character custom message for the peripheral device listed in Row B. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to cycle through all ASCII characters and display the desired character.

Note: This message will be displayed with each event associated with the selected peripheral.

4.4.1.1.1 PERIPHERAL DEVICE TESTING

When the peripheral device type is set to either SWITCH 20-ZONE or ANNUNC 20-ZONE, additional test features can be performed on the selected peripheral device by pressing the **F1**, **F2** or **F3** keys:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	P	E	R	I	P	H	E	R	A	L		A	D	D	R	:	0	2		
B	T	Y	P	E	:		S	M	O	K	E		C	O	N	T	R	O	L	
C	S	U	P	E	R	V	I	S	E	:		Y	E	S		Z	:	0	0	0
D	*	*	S	E	N	D	I	N	G		L	E	D		T	E	S	T	*	*

Exhibit 4-45: LED Test Screen

- Row D – Toggles to display the feedback message for the test initiated.

Press **F1** to send a LED test command to the selected peripheral device. The feedback message “**SENDING LED TEST**” will be indicated on Row D of the display, as shown above.

Press **F2** to force the selected peripheral device to perform a checksum test on its configuration memory. The feedback message “**CHECKSUM TEST**” will be indicated on Row D of the display. If the checksum fails, a trouble message “PER #aa CONFIG ERROR” will be reported to the panel.

Press **F3** to force the selected peripheral device to perform a checksum calculation on its configuration memory. The feedback message “**CHECKSUM CALC**” will be indicated on Row D of the display, as shown below.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	P	E	R	I	P	H	E	R	A	L		A	D	D	R	:	0	2		
B	T	Y	P	E	:		S	M	O	K	E		C	O	N	T	R	O	L	
C	S	U	P	E	R	V	I	S	E	:		Y	E	S		Z	:	0	0	0
D		*	*	C	H	E	C	K	S	U	M		C	A	L	C	*	*		

Exhibit 4-46: Checksum Calc Screen

4.4.1.1.2 HOW TO PROGRAM A 256 LED GRAPHIC

When the peripheral device type is set to 256LED GRAPHIC, you can press the **F1** key to toggle Row D of the display between the peripheral custom message and additional configuration options, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	P	E	R	I	P	H	E	R	A	L		A	D	D	R	:	0	2		
B	T	Y	P	E	:		2	5	6	L	E	D		G	R	A	P	H	I	C
C	S	U	P	E	R	V	I	S	E	:		Y	E	S		Z	:	0	0	0
D	B	U	Z	Z	:	Y														

Exhibit 4-47: 256 LED Graphic Configuration Screen

- Row D (BUZZ) - Allows you to Enable/Disable the piezo sounder on the graphic controller card (Y/N). Use the ◀▶ arrow keys to position the cursor under each field; then use the +/- keys to toggle the value at the cursor.

4.4.1.2 HOW TO SET THE PERIPHERAL BUS COMMAND SOURCE

The “Peripheral Bus Command Source” screen is used to direct the communication path for configuration of peripheral devices connected to the panel.

From the “Peripheral Menu” screen, press the **F2** key to access the “Peripheral Bus Source” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A			P	E	R	I	P	H	E	R	A	L		B	U	S				
B			C	O	M	M	A	N	D		S	O	U	R	C	E	:			
C								P	A	N	E	L								
D																				

Exhibit 4-48: Peripheral Source Screen

- Row C - Use the +/- keys to toggle field value from Panel to USB Connector.

PANEL mode is set by default and allows the panel to communicate with peripheral devices connected to the Cheetah Xi panel's RS485 bus. In this mode, peripheral device configuration is transmitted during the panel configuration process via the panel's P5 Peripherals jack. You will be prompted by the C-Linx software to move the programming cable from the P3 Computer jack to the P5 Peripherals jack to transmit the device configurations.

USB CONNECTOR mode is used for Cheetah Xi 50 peripheral device configuration. In this mode, peripheral device configurations are transmitted during the panel configuration process via the panel's P3 PC/USB jack. You must keep the cable in the USB port, enter the Level 3 password at the panel and go to this menu to re-direct the configuration information out the peripheral bus.

Note: After a system reset, the peripheral source will return to the default **PANEL** mode.

4.4.1.3 HOW TO SET THE PERIPHERAL BUS SPEED


The “Peripheral Bus Speed” screen is used to set the communication speed used by all peripheral devices connected to the panel.

From the “Peripheral Menu” screen, press the **F3** key to access the “Peripheral Bus Speed” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A																				
B	P	E	R	I	P	H	E	R	A	L		B	U	S		S	P	E	E	D
C							3	8	4	0	0	b	p	s						
D																				

Exhibit 4-49: Peripheral Bus Speed Screen

- Row C - Use the +/- keys to toggle field value from 9600 bps to **38400 bps** (factory default).

 **CAUTION**

All devices connected to the peripheral bus must be capable of supporting the higher 38400 bps communication speed if the setting is to be used. Otherwise, 9600 bps must be used.

4.4.1.4 HOW TO SET THE PERIPHERAL BUS COMMAND SET

The “Peripheral Command Set” screen allows you to define how data is buffered and transferred across the panel’s RS485 peripheral bus. Configuration options are made available to provide backwards compatibility with older peripheral devices. Parameters set in this menu are global and are not specific to any one peripheral device.

From the “Peripheral Menu” screen, press the **F4** key to access the “Peripheral Command Set” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	E	V	A	C	:	N	O	N	E		S	T	A	T	U	S	:	E	X	P
B	H	I	S	T	O	R	Y		X	M	I	T	:	C	O	M	P	A	C	T
C	H	I	S	T	O	R	Y		P	A	C	K	I	N	G	:	O	N		
D	H	I	S	T	O	R	Y		M	E	S	S	A	G	E	:	E	X	P	

Exhibit 4-50: Peripheral Command Set Screen

- Row A - The EVAC field allows you to set whether the Cheetah Xi will be tied to an EVAX or Fike integrated voice evacuation system.

NONE = Select if no voice evacuation system present

EVAX = Select if a FikeGuard™ voice evacuation system is connected intelligently to the Cheetah Xi P5, RS232 peripheral port.

FIKE = Select if Fike’s integrated voice system amplifiers are connected to the Cheetah Xi’s peripheral bus.

- Row A – The STATUS field allows you to select the RS485 communication protocol to EXP/STD.
EXP protocol is provided to support features available to peripheral devices loaded with firmware v3.0 or higher.
STD protocol is provided for backwards compatibility of peripheral devices released with firmware versions older than v3.0. If any device on the peripheral bus has firmware older than v3.0, the STD option must be used.
- Row B - The HISTOR XMIT field allows you to change RS485 transmission protocol from COMPACT/VERBOSE.

COMPACT – This protocol is provided as a means to decrease data traffic on the peripheral bus. Any history event created at the panel that is not related to an Alarm, Supervisory, or Trouble condition will not be transmitted via the peripheral bus.

VERBOSE - This protocol allows all events that may occur at the panel to be transmitted via the peripheral bus.

- Row C - The HISTORY PACKING field allows you to turn RS485 history packing **ON/OFF**.
History Packing ON – This option is provided for backwards compatibility of peripheral devices released with firmware versions older than v3.0. If any device on the peripheral bus has firmware older than v3.0, the *ON* option must be used.
History Packing OFF – This option is provided to support features available to peripheral devices loaded with firmware v3.0 or higher.
- Row D - The HISTORY MESSAGE field allows you to change history message packing protocol from EXP/STD.

History Message *STD* - This option is provided for backwards compatibility of peripheral devices released with firmware versions older than v3.0. If any device on the peripheral bus has firmware older than v3.0, the STD option must be used.

History Message *EXP* – This option is provided to support features available to peripheral devices loaded with firmware v3.0 or higher.

Use the ◀▶ arrow keys to position the cursor under the field; then press the +/- keys to increment/decrement the value at the field.

4.4.2 HOW TO ENABLE AND DISABLE SYSTEM WALKTEST

The Walktest option allows the panel to be placed into Walktest Mode from the panel's Maintenance Menu.

From the "Configuration Menu 3" screen, press the **F2** key to access the "Walktest" screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	W	A	L	K	T	E	S	T	:	E	N	A	B	L	E	D				
B																				
C																				
D																				

Exhibit 4-51: Walktest Screen

- Row A - This field allows you to turn on/off the system WALKTEST feature. Use the +/- keys to toggle the field status (**ENABLED/DISABLED**).

4.4.3 HOW TO ENABLE AND DISABLE SYSTEM GROUND FAULT DETECTION

The "Ground Fault" screen reflects the current state of the two Ground Fault levels detected by the panel.

From the "Configuration Menu 3" screen, press the **F3** key to access the "Ground Fault" screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	G	N	D		F	A	U	L	T		S	U	P	E	R	V	I	S	E	:
B			L	E	V	E	L		1	:	E	N	A	B	L	E	D			
C			L	E	V	E	L		2	:	E	N	A	B	L	E	D			
D	O	F	F	S	E	T	:	+	0	0	/	+	0	0		A	V	G	:	3

Exhibit 4-52: Ground Fault Screen

Note: Factory Level Password required to change these settings.

- Row B - This field shows the ENABLED / DISABLED status of the panels Ground Fault Level 1 detection. Use the ◀▶ arrow keys to position the cursor under the field; then press the +/- keys to increment/decrement the value at the field.
- Row C - This field shows the ENABLED / DISABLED status of the panels Ground Fault Level 2 detection. Use the ◀▶ arrow keys to position the cursor under the field; then press the +/- keys to increment/decrement the value at the field.
- Row D (OFFSET) - These fields allows you to adjust the offsets that will be used by the panel to provide an adjustment (+/- 25) to the panel's Level 1 and Level 2 ground fault measurements. These values are added or subtracted directly from the A-to-D average for that level. Use the ◀▶ arrow keys to position the cursor under the field; then press the +/- keys to increment/decrement the value at the field.
- Row D (AVG) – This field allows you to adjust the averaging variable (1-6) that is used when the panel calculates the A-to-D value of the ground fault voltage from the loop PIC. The higher the number, the longer it will take for ground fault trouble and restoral to occur. Use the ◀▶ arrow keys to position the cursor under the field; then press the +/- keys to increment/decrement the value at the field.

4.4.4 HOW TO SET PANEL ABORT TYPE

The “Panel Abort” screen reflects the current abort type used by the panel. Any input configured for “Abort” will delay system release initiated by the Cheetah Xi automatic detection schemes. Manual Release inputs will override abort activation.

From the “Configuration Menu 3” screen, press the **F4** key to access the “Panel Abort” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A			P	A	N	E	L		A	B	O	R	T		T	Y	P	E		
B										0										
C																				
D																				

Exhibit 4-53: Panel Abort Screen

- Row B - This field allows you to change the abort type (1 – 6) that will be used for every panel zone.
 - **Type 1** = Abort is effective only if active upon entry into pre-discharge state. Countdown continues during abort activation. Upon abort deactivation during pre-discharge, the release cannot again be aborted, so release occurs upon countdown completion.
 - **Type 2** – Countdown continues during abort activation. Release occurs when both the countdown is completed and the abort is deactivated.
 - **Type 3** – If the abort is active during pre-discharge, release occurs upon abort deactivation.
 - **Type 4** – If the abort is active during pre-discharge, release occurs 10 seconds after abort deactivation. Only abortable ONCE.
 - **Type 5** – Upon abort deactivation, countdown occurs from the full programmed countdown time. Prior to countdown completion, abort activation extends the countdown time to the programmed length.
 - **Type 6** – Upon abort deactivation, system operates in “New York City” mode, which has a 90 second verification delay, then a 30 second countdown. Prior to countdown completion, abort activation again extends the countdown time. During the 120 second verification delay, the system emulates continuous abort activation. After a 90 second delay, the system starts a 30 second pre-discharge delay.

4.4.5 HOW TO ENABLE AND DISABLE DAY/NIGHT SENSITIVITY FEATURE

The Sensitivity Change option allows you to ENABLE/DISABLE the day/night detector sensitivity function.

From the “Configuration Menu 3” screen, press the **F5** key to access the “Sensitivity Change” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	S	E	N	S	I	T	I	V	I	T	Y		C	H	A	N	G	E	S	:
B							D	I	S	A	B	L	E	D						
C																				
D	C	U	R	R	E	N	T	:		D	A	Y	T	I	M	E				

Exhibit 4-54: Day/Night Sensitivity Screen

- Row B - This field allows you to select the Enable/Disable status of Day/Night Sensitivities. Use the +/- keys to toggle the field status (ENABLED / DISABLED).
- Row D - Displays the current Sensitivity being used due to the time of day and day/night changeover times.

4.5 CONFIGURATION MENU 4

From the “Configuration Menu 3” screen, press the **F6** key to access the “Configuration Menu 4” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	C	O	N	F	I	G	U	R	A	T	I	O	N		M	E	N	U		4
B	F	1	-	A	C		D	E	L		F	4	-	P	W	R		C	U	T
C	F	2	-	V	E	S	D	A			F	5	-	R	E	L	A	Y	S	
D	F	3	-								F	6	-	M	E	N	U		5	

Exhibit 4-55: Configuration Menu 4

F1 = AC Trouble Delay Screen

F2 = VESDA Configuration Menu

F3 = Not Used

F4 = Power Cutoff Configuration Menu

F5 = Relay Configuration Screen

F6 = Configuration Menu 5

4.5.1 HOW TO SET AC TROUBLE DELAY

The AC Trouble Delay option allows you to set how many hours should elapse before the Trouble relay transfers if AC power is lost.

From the “Configuration Menu 4” screen, press the **F1** key to access the “AC Delay” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	S	E	L	E	C	T		D	E	L	A	Y		F	O	R		A	C	
B	P	O	W	E	R		L	O	S	S		T	R	O	U	B	L	E	:	
C							0	0			H	O	U	R	S					
D																				

Exhibit 4-56: AC Delay Screen

- Row C - This field allows you to set the AC trouble delay. Use the +/- keys to toggle the field value. Enter 0 for no delay or enter a number (01 – 30 hours) to provide a delay for the trouble to be transmitted to the DACT.

4.5.2 HOW TO CONFIGURE VESDA DETECTORS

The VESDA Configuration options let you change the operating parameters for the air sampling detectors connected to the panel. Before any changes can be made, you must first identify to the panel the type of HLI it is connected to (OPEN PROTOCOL or MODBUS).

From the “Configuration Menu 4” screen, press the **F2** key to access the “VESDA HLI Type” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A			S	E	L	E	C	T			H	L	I		T	Y	P	E	:	
B											M	O	D	B	U	S				
C																				
D			E	N	T	E	R				T	O			S	E	L	E	C	T

Exhibit 4-57: HLI Selection Screen

- Row B - This field is used to select the protocol of the HLI that is connected to the control panel. Use the +/- keys to toggle the selection between “OPEN PROTOCOL” or “MODBUS”.

OPEN PROTOCOL – This setting must be used when the open protocol HLI (P/N 68-023) is used.

MODBUS – This setting must be used when the Modbus HLI (P/N 68-517) is used.

Press the **ENTER** key to accept the change and advance to the VESDA Configuration menu. The options presented in the VESDA Configuration menu will vary depending upon the HLI type selected.

4.5.2.1 HOW TO CONFIGURE VESDA DETECTORS CONNECTED TO OPEN PROTOCOL HLI

The VESDA Configuration options let you change the operating parameters for the air sampling detectors connected to the panel via an Open Protocol HLI.

From the “Configuration Menu 4” screen, press the **F2** key and then select the “OPEN PROTOCOL” HLI type. Press the **ENTER** key to access the “VESDA Configuration Menu” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	V	E	S	D	A		C	O	N	F	I	G	U	R	A	T	I	O	N	
B	F	1	-	A	L	A	R	M			F	E	A	T	U	R	E	S		
C	F	2	-	S	E	C	T	O	R			F	4	-	R	E	L	E	A	S
D	F	3	-	E	V	A	X					F	5	-	C	O	M	M	A	N

Exhibit 4-58: VESDA Configuration Menu

F1 = VESDA Alarm Configuration Screen

F2 = VESDA Sector Zone Assignment Screen

F3 = VESDA Point Configuration Screen

F4 = VESDA Release Configuration Screen

F5 = VESDA HLI Command Set Screen

4.5.2.1.1 HOW TO SET VESDA DETECTOR ALARM FEATURES

The VESDA Alarm Features option lets you configure the panel to recognize an air sampling detector via a High Level Interface (HLI) module connection to the panel.

From the “VESDA Configuration Menu” screen, press the **F1** key to access the “VESDA Alarm Features” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	V	E	S	D	A		Z	O	N	E		N	U	M	:		0	0	1	
B	T	Y	P	E	:	C	O	M	P	A	C	T		A	L	M		E	N	A
C	C	U	S	T	O	M		M	E	S	S	A	G	E		V	Z	0	0	1
D	Z	O	N	E	:		0	0	0		0	0	0		0	0	0		0	0

Exhibit 4-59: VESDA Alarm Features Screen

- Row A - This field allows you to select the VESDA Detector Zone number to be configured. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to change to a different zone number.

Note: The zone number set here corresponds to zone number assigned to the VESDA detector during programming.

- Row B - The TYPE field allows you to select the VESDA Detector type associated with the selected zone number from Row A. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to select the desired detector type (i.e., Compact, Laser-P, Scanner, L-Focus, VLI-885).

The ALM field allows you to select the state of operation for the detector (*ALM default*). Use the ◀▶ arrow keys to position the cursor under the STATE field; then use +/- keys to select the state of operation for the detector.

The ENA field allows you to select the Enable/Disabled state of the detector. Use the ◀▶ arrow keys to position the cursor under the ENA field; then use the +/- keys to enable or disable that detector

- Row C - This range of fields allows you to assign a Custom Message for detector that will be displayed on the Cheetah Xi panel. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to cycle through all ASCII characters and display the desired character. Repeat for each field until custom message is completed.
- Row D - These fields allow you to select up to four Cheetah Xi zones that this detector will participate in. Use the ◀▶ arrow keys to position the cursor under each field; then use the +/- keys to change zones to that desired. Repeat for each of 4 zones required. Remember, Zone 255 is ANY Zone.

4.5.2.1.2 HOW TO SET VESDA SECTOR/ZONE CORRELATION

The VESDA Sector Zones option lets you configure how each sector of the VESDA detector will report to the Cheetah Xi.

From the “VESDA Configuration Menu” screen, press the **F2** key to access the “VESDA Sector” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	V	E	S	D	A		Z	O	N	E		N	U	M			0	0	1	
B	S	1	:	0	0	0	A	L	M		S	2	:	0	0	0	A	L	M	
C	S	3	:	0	0	0	A	L	M		S	4	:	0	0	0	A	L	M	
D																				

Exhibit 4-60: VESDA Sector/Zone Screen

- Row A - This field allows you to select the VESDA detector Zone Number to be configured. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- key to change to VESDA detector zone number.
- Rows B & C - These fields allow you to set a Cheetah Xi zone number that the VESDA sector (Sector 1 – 4) will participate in and what operational state it will cause the panel to enter. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to change desired zone. Then arrow over under the state and use the +/- keys to toggle through events of ALM, SUP or TRB.

4.5.2.1.3 HOW TO SET VESDA ZONE NUMBER AND LOOP/ADDR

The Loop/Address option lets you configure the VESDA to report as a “virtual” address on the Cheetah Xi addressable loop. This option is used if the VESDA needs to be monitored by a point ID system (i.e., EVAX, DACT, LED Graphic, Computer Graphic, etc.).

From the “VESDA Configuration Menu” screen, press the **F3** key to access the “VESDA Loop/Address” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	V	E	S	D	A		Z	O	N	E		N	U	M			0	0	1	
B							L	O	O	P	:	0								
C							A	D	D	R	:	0	0	0						
D		F	1	-	S	E	C	T	O	R		M	E	S	S	A	G	E	S	

Exhibit 4-61: VESDA Loop/Addr Screen

- Row A - This field allows you to select the VESDA detector Zone Number to be configured. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to change to VESDA detector zone number.
 - Row B - This field allows you to select a virtual loop number that the VESDA detector activation will correspond with. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to change the loop number.
 - Row C - This field allows you to select a virtual address number that the VESDA detector activation will correspond with. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to change the address number.
- Note:** The VESDA virtual address number does not require a physical component on the SLC loop. It does require a virtual address that cannot be used for any other physical device on the SLC loop.
- Row D – This feature is only available if HLI type is set to MODBUS.

4.5.2.1.4 HOW TO SET VESDA RELEASE FEATURES

VESDA detectors can be configured to participate in suppression system release, just like a standard smoke detector connected to the eclipse loop. In order to participate, each VESDA unit must be assigned a pre-discharge type, pre-discharge level, and countdown type. Each of these variables affects how the Cheetah Xi system will respond when the VESDA unit activates. All three variables are stored in panel memory.

From the “VESDA Configuration Menu” screen, press the **F4** key to access the “VESDA Release Features” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	V	E	S	D	A		Z	O	N	E		N	U	M	:		0	0	1	
B	P	R	E	-	D	I	S	C	H		T	Y	P	E	:		A	-	A	L
C	P	R	E	-	D	I	S	C	H		L	E	V	:		F	I	R	E	2
D	C	O	U	N	T	D	O	W	N	:		A	U	T	O	M	A	T	I	C

Exhibit 4-62: VESDA Release Features Screen

- Row A - This field allows you to select the VESDA detector Zone Number to be configured. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- key to change to VESDA detector zone number.
- Row B – This field allows you to assign a pre-discharge type (A – F) for the selected VESDA zone number(s) as described below. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- key to change the field value.
 - **A = Alarm Only.** No pre-discharge in a zone will occur from the alarm of this device.
 - **B = Cross Zone “B”.** Pre-discharge will occur in the zones assigned to this device when a corresponding “C” type is alarmed.
 - **C = Cross Zone “C”.** Pre-discharge will occur in the zones assigned to this device when a corresponding “B” type is alarmed.
 - **D = Counting Zone.** Pre-discharge will occur when two or more “D” types are alarmed in the assigned zones.
 - **E = Single Pre-discharge.** Only one alarmed “E” type will cause pre-discharge in the assigned zones.
 - **F = Single Release.** This type skips pre-discharge and causes immediate release in the assigned zones.

To the right of the pre-discharge type field is a two-letter designator that indicates the operation state assigned to the VESDA detector in the alarm features screen. The VESDA release features only work when the operational state is set to Alarm (AL).

ⓘ Note: The zones involved in suppression are the four zone numbers selected in the Alarm Features screen (see 4.5.2.1.1). Sector zones are NOT involved in suppression.

- Row C – This field allows you to select whether the selected VESDA unit will initiate the pre-discharge state upon the VESDA unit reaching Fire-1 or Fire-2 alarm level. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to change the field value.
- Row D – This field allows you to select whether the selected VESDA unit will utilize the Automatic or Manual countdown timer set for the zone should it cause a pre-discharge in any of its assigned zones (see 4.5.2.1.1). Use the ◀▶ arrow keys to position the cursor under the fields; then use the +/- keys to change the field value.

4.5.2.1.5 HOW TO VERIFY THE VESDA COMMUNICATION COMMAND SET

The COMMAND SET screen lets you verify the software version that is being used by the connected HLI.

From the “VESDA Configuration Menu” screen, press the **F5** key to access the “VESDA Command Set” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A						H	L	I		T	Y	P	E	:						
B	M	A	S	T	E	R	-	S	L	A	V	E		(	N	E	W	E	R)
C		S	O	F	T	W	A	R	E		V	E	R	S	I	O	N	:		
D					0	0	3	.	0	0	8	.	0	0	0					

Exhibit 4-63: VESDA Command Set Screen

- Pressing ENTER will cause the panel to query the connected HLI to determine its software version. The software version of the HLI will be displayed on Row D.

MASTER-SLAVE (NEWER): Allows communication with up to 40 VESDA units while still meeting UL and NFPA’s 10 second supervision response time. HLI firmware version 3.08.00 or higher.

PEER-TO-PEER (OLDER): Allows communication with up to 40 VESDA units, but only 10 can be connected to the HLI and still meet UL and NFPA’s 10 second supervision response time. HLI firmware versions older than 3.08.00.

4.5.2.2 HOW TO CONFIGURE VESDA DETECTORS CONNECTED TO MODBUS HLI

The VESDA Configuration options let you change the operating parameters for the air sampling detectors connected to the panel via a MODBUS HLI.

From the “Configuration Menu 4” screen, press the **F2** key and then select the “MODBUS” HLI type. Press **ENTER** to access the “VESDA Configuration Menu” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	F	1	-	D	E	T	E	C	T	O	R	S								
B	F	2	-	S	E	C	T	O	R	S		A	N	D		P	I	P	E	S
C	F	3	-	T	E	M	P	L	A	T	E	S		F	5	-	H	L	I	
D	F	4	-	A	N	N	U	N			F	6	-	R	E	L	E	A	S	E

Exhibit 4-64: VESDA Configuration Menu

F1 = VESDA Detector Alarm Features

F2 = VESDA Sectors and Pipes

F3 = VESDA VEA Templates

F4 = VESDA Annunciation

F5 = VESDA HLI Command Set Screen

F6 = VESDA Release Features (Cheetah Xi only)

4.5.2.2.1 HOW TO CONFIGURE VESDA DETECTORS

The VESDA Alarm Features option lets you configure the panel to recognize an air sampling detector via a High Level Interface (HLI) module connection to the panel.

From the “VESDA Configuration Menu” screen, press the **F1** key to access the “VESDA Alarm Features” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	V	E	S	D	A		Z	O	N	E		N	U	M	:		0	0	1	
B	T	Y	P	E	:	C	O	M	P	A	C	T		A	L	M		E	N	A
C	C	U	S	T	O	M		M	E	S	S	A	G	E		V	Z	0	0	1
D	Z	O	N	E	:	0	0	0		0	0	0		0	0	0		0	0	0

Exhibit 4-65: VESDA Alarm Features Screen

- Row A (ZONE) - This field is used to select the VESDA detector (zone) to be configured. Use the +/- keys to change to a different detector (zone) number.

Note: The zone number selected here corresponds to zone number assigned to the VESDA detector during programming. Each detector on the VESDAnet must be assigned a unique zone number (1–246). This identifier is typically different than the zone that it is programmed to participate in the panel (Row D).

- Row B (TYPE) - This field is used to select the VESDA detector type associated with the selected detector (zone) number from Row A. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to select the desired detector type: VLC, VLP, VLS, VLF, VLI, VFT-15, VEP, VEP-1, VEP-2, VEU, VEA-40, VEA-60, VEA-80, VEA-100, VEA-120.

Note: If the detector type is set to VFT-15, the next 15 consecutive VESDA zone numbers directly after the zone number selected in Row A will automatically be assigned to the VFT detectors sampling tubes (sectors). No other VESDA detector can occupy these zones.

- Row B (ALM) - This field is used to select the state the panel will enter when the VESDA reaches the FIRE-1 level. Use the ◀▶ arrow keys to position the cursor under the “ALM” field; then use +/- keys to select the state of operation for the detector; “ALM” (Alarm-default) or “SUP” (Supervisory).

Note: If the panel is configured for Alarm operation at VESDA Fire-1 level, the VESDA detector must be programmed to latch the event at the Fire-1 and Fire-2 levels.

- Row B (ENA) - This field is used to select the Enable/Disable state of the detector. Disabling will stop the panel's supervision of the detector. Use the ◀▶ arrow keys to position the cursor under the “ENA” field; then use the +/- keys to enable or disable the detector. If the VESDA is disabled and still attached to P4, the panel will treat this condition as an un-configured VESDA and will display a “VESDA CFG ERR” for this condition.
- Row C - This range of fields is used to assign a Custom Message for detector that will be displayed on the Fike control panel. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to cycle through all ASCII characters and display the desired character. Repeat for each field until custom message is completed.
- Row D - These fields are used to select up to four panel zones that this detector will participate in. These zone assignments are used to activate alarm notification appliances and other control functions associated with the panel. Use the ◀▶ arrow keys to position the cursor under each field; then use the +/- keys to change zones to that desired (1–253). Repeat for each of four zones required.

Press the **ESCAPE** key to return to the Modbus HLI configuration menu.

4.5.2.2.2 HOW TO CONFIGURE VESDA SECTORS AND PIPES

VESDA VLS, VFT-15 and VEA detectors are designed to sample air from different sectors (pipes) and to identify through a scanning process the sector reporting the presence of smoke. When connected to the control panels via the PC Link Modus HLI, each pipe (sector) can be assigned to a separate panel zone number and state ("Alarm" or "Supervisory").

When configuring a VESDA VFT or VEA detector, the zone and state assignment for each pipe (sector) is used for point annunciation purposes only and should "NOT" be used to activate alarm notification appliances and other control functions associated with the panel. This is due to the fact that the detector's scan function that is used to identify the sampling pipes where the fire alarm event is initiated after the detector reaches a Fire 1 alarm level will delay the panel's response time for processing and activation of signals. This could exceed the maximum ten second response time required by NFPA 72 for processing of Alarm events.

This screen is used to assign each VESDA pipe (sector) to a panel operational state and zone.

From the "MODBUS HLI MENU", press the **F2** key to access the "SECTORS AND PIPES" screen.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	V	E	S	D	A		Z	O	N	E		N	U	M	:		0	0	1	
B	T	Y	P	E	:	V	E	A	-	1	2	0								
C	P	I	P	E	:	0	0	1		A	L	A	R	M						
D	Z	O	N	E	:	0	0	1												

Exhibit 4-66: VESDA Sectors and Pipes Screen

- Row A - This field is used to select the VESDA detector (zone) to be configured (1-246). Use the +/- keys to change to a different detector (zone) number.

Note: The zone number selected here corresponds to zone number assigned to the VESDA detector during programming. Each detector on the VESDAnet must have a unique zone number. This identifier is different than the zone that it is programmed to participate in the panel (Row D).

- Row A (VZ) - This field displays the control panel zone number that has been assigned to the VESDA detector.
- Row B (Type) - This field displays the type of VESDA associated with the detector (zone) number selected in Row A: VLC, VLP, VLS, VLF, VLI, VFT-15, VEP, VEP-1, VEP-2, VEU VEA-40, VEA-60, VEA-80, VEA-100, VEA-120.
- Row C (Pipe) – These fields are used to assign a panel operational state "Alarm" or "Supervisory" to the selected VESDA pipe number. Use the ◀▶ arrow keys to position the cursor under the pipe field (000); then use the +/- keys to select the desired pipe. Use the ◀▶ arrow keys to position the cursor under the state field; then use the +/- keys to toggle between the available states "ALARM" and "SUPERVISORY". Repeat for each pipe (sector).

Note: If the main detector configuration is set for "SUPERVISORY", pipes can only be assigned to the "SUPERVISORY" state. If the main detector configuration is set for "ALARM", pipes can be assigned to either the "SUPERVISORY" or "ALARM" state.

- Row D (Zone) – This field is used to assign a panel zone that the VESDA pipe (sector) selected in Row C will participate in. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to assign the pipe to the zone for annunciation purposes (1-253). Repeat for each pipe (sector).

- Row D (Templates) - If the VESDA type indicated in Row B is a VEA detector, Row D will change from "Zone" to "Templates". The three template fields are used to assign the VEA detectors multiple sampling pipes to individual zone templates for annunciation purposes. Use the ◀▶ arrow keys to position the cursor under each field; then use the +/- keys to assign the zone templates. Repeat for each template field.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	V	E	S	D	A		Z	O	N	E		N	U	M	:		0	0	1	
B	T	Y	P	E	:	V	E	A	-	1	2	0								
C	P	I	P	E	:	0	0	1		A	L	A	R	M						
D	T	E	M	P	L	A	T	E	S	:		0	0		0	0		0	0	

Exhibit 4-67: VESDA Sectors and Pipes Screen (templates)

Press the **ESCAPE** key to return to the Modbus HLI configuration menu.

4.5.2.2.3 HOW TO CREATE PIPE TEMPLATES (APPLICABLE TO VEA DETECTORS ONLY)

VESDA VEA detectors can have multiple sampling points ranging from 1 - 120 and each pipe (sector) can be assigned to a different panel zone number for annunciation purposes. In order to simplify the zone assignment process for the pipes, the panel utilizes zone templates, each of which can be assigned to one or more VEA detectors in the VESDA "SECTORS AND PIPES" screen.

This screen is used to create zone templates for each forty pipe section of a VESDA VEA detector, with each pipe (sector) assigned to a separate control panel zone. Up to twenty zone templates can be created.

From the "MODBUS HLI MENU", press the **F3** key to access the "TEMPLATES" screen.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	T	E	M	P	0	0		P	0	1	-	1	0		0	1	:	0	0	0
B	0	2	:	0	0	0		0	3	:	0	0	0		0	4	:	0	0	0
C	0	5	:	0	0	0		0	6	:	0	0	0		0	7	:	0	0	0
D	0	8	:	0	0	0		0	9	:	0	0	0		1	0	:	0	0	0

Exhibit 4-68: VESDA Templates Screen

- Row A (TEMP) – This field is used to select the zone template to be configured. Use the +/- keys to change to a different template number (00 – 19).
- Row A (P01-10) – This field is used to select the group of pipes to be configured for the selected template in Row A.
- Rows A–D (Zone fields) – These fields are used to assign a zone that the VESDA pipe (sector) will participate in. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to assign the pipe to the zone for annunciation purposes (1-253). Repeat for each pipe (sector).

4.5.2.2.4 HOW TO SET VESDA ZONE NUMBER AND LOOP/ADDR

The Annunciation option lets you configure the VESDA to report as a “virtual” address on the panel’s addressable loop. This option is used if the VESDA needs to be monitored by a point ID system (i.e., EVAX, DACT, LED Graphic, Computer Graphic, etc.).

From the “VESDA Configuration Menu” screen, press the **F4** key to access the “VESDA Loop/Address” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	V	E	S	D	A		Z	O	N	E		N	U	M			0	0	1	
B							L	O	O	P	:	0								
C							A	D	D	R	:	0	0	0						
D		F	1	-	S	E	C	T	O	R		M	E	S	S	A	G	E	S	

Exhibit 4-69: VESDA Loop/Addr Screen

- Row A - This field allows you to select the VESDA detector Zone Number to be configured. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to change to VESDA detector zone number (1 – 246).

Note: The zone number set here corresponds to zone number assigned to the VESDA detector during programming. Each detector on the VESDAnet must have a unique zone number.

- Row B - This field allows you to select a virtual loop number that the VESDA detector activation will correspond with. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to change the loop number.
- Row C - This field allows you to select a virtual address number that the VESDA detector activation will correspond with. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to change the address number (1 – 254).

Note: The VESDA virtual address number does not require a physical component on the SLC loop. It does require a virtual address that cannot be used for any other physical device on the SLC loop.

- Row D - Press the **F1** key to access the VESDA sectors custom message configuration screen. Refer to Section 4.5.2.2.5.

4.5.2.2.5 HOW TO ASSIGN VESDA SECTOR MESSAGES

This screen is used to create and assign up to 400 custom messages, 20 characters each that can be assigned to a single VESDA sector. These sector event messages will be transmitted onto the panel's peripheral and panel network busses for annunciation purposes.

From the "VESDA ANNUNCIATION" screen, press the **F1** key to access the "SECTOR MESSAGES" screen.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	M	E	S	S	A	G	E		N	U	M	B	E	R	:	0	0	1		
B	V	E	S	D	A	:	0	0	1		S	E	C	T	O	R	:	0	0	1
C	C	U	S	T	O	M		M	E	S	S	A	G	E		V	Z	0	0	1
D	T	Y	P	E	:	-	-	-	-	-	-									

Exhibit 4-70: VESDA Sectors Screen

- Row A - This field is used to select the VESDA sector message number to be configured. Use the ◀▶ arrow keys to position the cursor under the fields; then use the +/- keys to change to VESDA sector message number (1 – 400).
- Row B – These fields are used to select the VESDA zone (1 - 246) and sector number (1 - 120) that will be assigned to the message number selected in Row A. Use the ◀▶ arrow keys to position the cursor under the fields; then use the +/- keys to change to VESDA zone and sector number.
- Row C – These fields are used to define the 20 character custom message that will be assigned to the message number selected in Row A. Use the ◀▶ arrow keys to position the cursor under the fields; then use the +/- keys to change the field value.
- Row D – Displays the detector type for the VESDA zone selected in Row B. Informational purposes only.

4.5.2.2.6 HOW TO CONFIGURE VESDA-DACT OPERATION

This screen is used to configure the Cheetah Xi panel to send a supervisory DACT code upon the VESDA detector reaching either the Alert or Action level. It is used only if a distinct activation signal for VESDA Alert or Action is required to be sent to a remote monitoring station. Enabling this feature will also cause a supervisory signal to be initiated in the zones assigned to the VESDA detector upon it reaching the Alert or Action level.

From the "VESDA Annunciation" screen, press the **F2** key to access the "VESDA-DACT ANNUNCIATION" screen.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	V	E	S	D	A	-	D	A	C	T		O	P	E	R	A	T	I	O	N
B							S	U	P	E	R	V	I	S	O	R	Y			
C										O	F	F								
D																				

Exhibit 4-71: VESDA-DACT Operation Screen

- Row C - This field is used to select the detection level (Alert, Action or Off) that will initiate the supervisory event for DACT transmission. Use the +/- keys to change to setting.

Note: A factory level password must be entered in order to enable this panel feature.

4.5.2.2.7 HOW TO VERIFY HLI'S PROTOCOL AND SOFTWARE

This screen lets you verify the protocol and software version of the connected Modbus HLI (P/N 68-517).

From the "MODBUS HLI MENU", press the **F5** key to access the "HLI Type" screen.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A							H	L	I			T	Y	P	E	:				
B																				
C	P	R	O	T	O	C	O	L	:	0	0	0	.	0	2	2	.	0	2	0
D	S	O	F	T	W	A	R	E	:	0	0	0	.	0	0	0				

Exhibit 4-72: HLI Protocol and Software Screen

- Row B (TYPE) – Displays the HLI type (Open Protocol / Modbus) the panel is configured to communicate with.
- Row C (PROTOCOL) – Displays the protocol version used by the connected HLI.
- Row D (SOFTWARE) – Displays the software version used by the connected HLI.

Press the **ENTER** key will cause the panel to query the connected HLI to determine its protocol and software version. The protocol and software version numbers will briefly show all '0's after **ENTER** is pressed until the HLI returns these values and they are displayed on rows C and D.

4.5.3 HOW TO ASSIGN POWER CUTOFF RELAY ADDRESS

The PWR CUT screen allows you to set the address of the relay module that will be used to perform power cutoff to the panel should the standby battery voltage drop below 18 volts.

From the Configuration Menu 4 screen, press the **F4** key to access the PWR CUT relay assignment screen:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A					S	E	L	E	C	T		P	O	W	E	R				
B			C	U	T	O	F	F		D	E	V	I	C	E		A	T		
C			L	O	O	P	:	0				A	D	D	R	:	0	0	0	
D																				

Exhibit 4-73: Power Cut Relay Assignment Screen

- Row C - These fields allows you to set the loop and address of the addressable relay module that will be used to perform power cutoff to the panel. To set the device address, use the **◀▶** arrow keys to move the cursor under the loop and address fields; then use the **+/-** keys to increment/decrement the fields.

Note: The addressable relay module contacts will transfer and latch when a panel voltage trouble is recorded. The relay contacts will remain latched even if the panel power is removed.

4.5.4 HOW TO CONFIGURE PANEL RELAYS AND OPTIONAL MODULES

The Relay options menu lets you change the programming of the Cheetah Xi's on-board relays and optional modules (CRM4, RPM or DACT) installed at the P12 and P13 optional mounting positions.

From the "Configuration Menu 4" screen, press the **F5** key to access the "Relay Configuration Menu", as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	F	1	-	S	E	L	E	C	T		M	O	D	U	L	E				
B	F	2	-	R	E	L	A	Y		F	U	N	C	T	I	O	N	S		
C	F	3	-	R	E	L	A	Y		Z	O	N	E		A	S	S	I	G	N
D	F	4	-	F	A	N		R	E	S	T	A	R	T		M	O	D	E	

Exhibit 4-74: Relay Configuration Menu

F1 = Select Module Screen

F2 = Assign Relay Functions Screen

F3 = Relay Zone Assignment Screen

F4 = Fan Restart Mode Screen

4.5.4.1 HOW TO SET OPTIONAL MODULE MOUNTING LOCATION

The Select Module screen allows you to select the type of module that is installed in the Cheetah Xi's P12 and P13 optional card mounting positions.

From the "Relay Configuration Menu" screen, press the **F1** key to access the "Select Module" screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A			M	O	D	U	L	E		A	T									
B			P	1	2	:		B	O	S	C	H		D	A	C	T			
C			P	1	3	:		C	R	M	4									
D																				

Exhibit 4-75: Select Module Screen

- Row B - This field allows you to select the module that is present at location P12 (No Module, CRM4, RPM#1, RPM#2, Bosch DACT). Use the ◀▶ arrow keys to move the cursor under the field; then use the +/- keys to select a different module.
- Row C - This field allows you to select the module that is present at location P13 (No Module, CRM4, RPM#1, RPM#2). Use the ◀▶ arrow keys to move the cursor under the field; then use the +/- keys to select a different module.

⚠ CAUTION

It is important that the panel configuration for P12 & P13 match the module type actually installed to avoid improper operation.

4.5.4.2 HOW TO SET THE FUNCTION OF THE PANEL'S ON-BOARD RELAYS

The Relay Functions screen lets you change the operating parameters of the Cheetah Xi's three on-board relays and optional CRM4 relays if installed.

From the "Relay Configuration Menu" screen, press the **F2** key to access the "Relay Functions" screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	R	E	L	A	Y		P	1	2	A	:		D	I	S	A	B	L	E	D
B	S	T	A	T	E	:		S	T	A	T	E		P	R	O	G			
C	S	I	L	E	N	C	E	:	N	O			D	R	L	L	:	N	O	
D	R	E	S	T	A	R	T		D	E	L	A	Y	:	0	0	0	S	E	C

Exhibit 4-76: Relay Functions Screen

- Row A - This field allows you to select the relay to configure (P2 relays NUM1-3, P12A-D, P13A-D). Use the ◀▶ arrow keys to move the cursor under the field; then use the +/- keys to select a different relay.

This field allows you to set the Enable/Disable status of the selected relay. Use the ◀▶ arrow keys to move the cursor under the field; then use the +/- keys to toggle the relay status.

Note: The default state for Relay NUM3 is Trouble and it's configuration parameters cannot be changed.

- Row B - This field allows you to set the relay activation state (i.e., Alarm, Pre-Discharge, Release, Pre Alarm #2, Process, Trouble, Supervisory, Abort, Zone Disable, Pre Alarm #1) for the relay selected in Row A. Use the ◀▶ arrow keys to move the cursor under the field; then use the +/- keys to toggle the desired state.
- Row C - This field allows you to set the Silenceable and Drill Enabled/Disabled (Y/N) status for the relay selected in Row A. Use the ◀▶ arrow keys to move the cursor under the field; then use the +/- keys to toggle to the desired status.
- Row D - This field allows you to set the CRM4 relay selected in Row A for fan restart operation by assigning it a restart delay time (40 – 250 seconds). Use the ◀▶ arrow keys to move the cursor under the field; then use the +/- keys to toggle to the desired delay time. Once a delay time is selected, the relay will become normally energized and will only de-energize upon activation of the assigned state and zone. Once de-energized, the relay will not energize until after the panel has been reset and the set time delay has expired. Fan restart relays will not change state through a panel reset.

Note: By default, the restart delay is set to '000' allowing the relay to operate as a normally de-energized relay with no restart delay.

4.5.4.3 HOW TO ASSIGN RELAYS TO A ZONE

The Relay Zone Assignment screen lets you configure which zones will cause the selected relay to activate.

From the “Relay Configuration Menu” screen, press the **F3** key to access the “Relay Zone Assign” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	R	E	L	A	Y		P	1	2	A	:		M	U	L	T	I		Z	O
B	Z	O	N	E		R	A	N	G	E	:		0	0	1	-	0	2	0	
C	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit 4-77: Relay Zone Assign Screen

- Row A - This field allows you to set whether the relay shown in Row A will activate on ANY ZONE or MULTI ZONE. To select a different relay, use the ◀▶ arrow keys to move the cursor under the relay field; then use the +/- keys to increment/decrement the field.

To change the Zone Selection Status of the circuit, use the ◀▶ arrow keys to move cursor to the zone selection field; then use the +/- keys to toggle the field (*ANY ZONE* or *MULTI ZONE*).

Note: The Any Zone option sets the selected relay to activate on the configured state for any zone. The Multi Zone option sets the selected relay to activate on the configured state for any zone selected in Row D.

- Row B - This field allows you to set the 20 zone range that is displayed in Rows C & D. To change the zone range, use the ◀▶ arrow keys to position the cursor under the zone range field; then use the +/- keys to increment/decrement the group of 20 forward or backwards (Zones 001-254).
- Row C - These numbers act as placeholders and zone number indicators for the range of zones selected on Row B.
- Row D - This range of fields allows you to set the zone assignment programming for the relay displayed in Row A if MULTIZONE is selected.

- = not programmed for this zone

Y = programmed for this zone

Use the ◀▶ arrow keys to position the cursor under the specific zone position; then use the +/- keys to toggle the status.

Note: The Any Zone option sets the selected relay to activate on the configured state for any zone. The Multi Zone option sets the selected relay to activate on the configured state for any zone selected in Row D.

4.5.4.4 HOW TO SET FAN RESTART MODE

The Fan Restart screen allows you to select whether CRM4 relays configured for fan restart will activate automatically upon reset or require a manual input for activation following a panel reset.

From the “Relay Configuration Menu” screen, press the **F4** key to access the “Fan Restart” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		S	E	L	E	C	T		F	A	N		R	E	S	T	A	R	T	
B		M	O	D	E	:		A	U	T	O	M	A	T	I	C				
C																				
D																				

Exhibit 4-78: Fan Restart Configuration Screen

- Row B - This field allows you to select whether relays configured for Fan Restart automatically transfer after set time or if the set time begins upon a manual input.

AUTOMATIC (factory default) – Upon activation of an ALARM event, the CRM4 relays will activate and remain active until panel is reset. Once the panel is reset, the fan restart sequence begins and fan restart relays will deactivate according to their programmed time delay.

MANUAL – Upon activation of an ALARM event, the CRM4 relays will activate and remain active until panel is reset. After panel reset, the fan restart sequence is delayed until the operator activates any of the following switch sources: 1) Panel's **ENTER** key, 2) monitor module configured for Fan Restart, 3) RDU switch configured for Fan Restart. Upon switch activation, the panel will initiate the automatic fan restart sequence and the relays will deactivate according to their programmed time delay. Once all relays are deactivated, the panel will return to normal operation.

4.6 CONFIGURATION MENU 5

From the “Configuration Menu 4” screen, press the **F6** key to access the “Configuration Menu 5” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	C	O	N	F	I	G	U	R	A	T	I	O	N		M	E	N	U		5
B	F	1	-	L	O	G	O				F	4	-	D	I	A	L	E	R	
C	F	2	-	A	U	T	O		A		F	5	-	N	E	T	W	O	R	K
D	F	3	-								F	6	-	M	E	N	U		6	

Exhibit 4-79: Configuration Menu 5

- F1** = Edit Panel Logo Screen
F2 = Auto Addressing Screen
F3 = Not Used
F4 = Dialer Auto Test Screen
F5 = Network Configuration Menu
F6 = Configuration Menu 6

4.6.1 HOW TO CHANGE SYSTEM LOGO

The Logo screen allows you to change the corporate logo that will appear on Row B on the System Status screen.

From the “Configuration Menu 5” screen, press the **F1** key to access the “Panel Logo” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A						P	A	N	E	L		L	O	G	O					
B						O	N		L	I	N	E		2	:					
C			F	I	K	E			C	O	R	P	O	R	A	T	I	O	N	
D																				

Exhibit 4-80: Panel Logo Screen

- Row C - This range of fields allows you to set a logo (name) that will appear on the second line of the panel display. To change the logo, use the ◀▶ arrow keys to move cursor to the field; then use the +/- keys to advance/decrement the character at the selected field.

Note: This is NOT the message that identifies the panel on the network or with panel generated events. Refer to the Network configuration menu to configure the panel custom message.

4.6.2 HOW TO AUTO ADDRESS DEVICES

The Auto Addressing function allows the panel to identify new (unprogrammed) addressable devices connected to a Signaling Line Circuit (SLC) with either a Loop 0 or Address 0 configuration. New device will be assigned the next available address.

From the “Configuration Menu 5” screen, press the **F2** key to access the “Auto Address” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	A	U	T	O		A	D	D	R	E	S	S	I	N	G	:	O	F	F	
B	S	E	L	E	C	T		L	O	O	P	S	:		1	2	3	4		
C	S	E	L	E	C	T		A	D	D	R	S	:	0	0	1	→	0	5	0
D	P	R	E	S	S		E	N	T	E	R		T	O		S	T	O	R	E

Exhibit 4-81: Auto Address Screen

- Row A - This field allows you to turn the Auto Addressing feature ON/OFF. Use the ◀▶ arrow keys to move cursor to the field; then use the +/- keys to toggle the field (ON/OFF).
- Row B - This field allows you to select which addressable loops will be affected when Auto Addressing is turned ON. Use the ◀▶ arrow keys to move cursor to the field; then use the +/- keys to toggle the field.
- Row C - This field allows you to select the address range that you would like to auto address. Use the ◀▶ arrow keys to move cursor to the field; then use the +/- keys to toggle the field.
- Row D - When you have the address range that you would like to have auto addressed, press the **Enter** key. Devices will NOT be addressed until it is added to the loop (NEW DEVICE record identified) and the panel is reset.

4.6.3 HOW TO CONFIGURE DIALER TEST

The Dialer screen allows you to configure the Cheetah Xi panel to periodically perform an operational test of the dialer. This test will send a contact ID code 50 (Auto Test) to the monitoring facility.

From the “Configuration Menu 5” screen, press the **F4** key to access the “Dialer Configuration” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A			D	I	A	L	E	R		A	U	T	O		T	E	S	T		
B	R	E	P	E	A	T		C	Y	C	L	E	:	D	I	S	A	B	L	E
C	S	T	A	R	T	I	N	G		H	O	U	R	:	0	2	A	M		
D																				

Exhibit 4-82: Dialer Configuration Screen

- Row B - This field allows you to set the number of hours that must elapse before the second and successive dialer tests are performed. Configurable options include ‘06Hours’, ‘12Hours’, and ‘24Hours’. Use the +/- keys to change the value at the cursor. Default is ‘DISABLE’ for no test.
- Row C - This field allows you to set the starting hour to begin the daily dialer test. Configurable between 0 and 23 hours, where the default is 2 AM. Use the ◀▶ arrow keys to move cursor to the field; then use the +/- keys to increment/decrement the time.

Note: The Contact ID dialer is capable of performing its own operational tests. Configuring the panel to initiate its own test might be redundant and could be considered a nuisance to the monitoring company. Only utilize this feature if instructed to do so by the local authority.

4.6.4 HOW TO CONFIGURE PANEL NETWORK

The Network Configuration menu provides configuration options associated with the Cheetah Xi's P20 network module.

From the “Configuration Menu 5” screen, press the **F5** key to access the “Network Configuration Menu” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		C	O	N	F	I	G	U	R	E		N	E	T	W	O	R	K		
B	F	1	-	I	D	'	S				F	4	-	H	I	S	T		T	R
C	F	2	-	M	O	D	U	L	E		F	5	-	S	W	I	T	C	H	
D	F	3	-	Z	O	N	E	S			F	6	-							

Exhibit 4-83: Network Configuration Menu

- F1** = Configure panel's network ID and supervision
F2 = Configure network module type and settings
F3 = Select zones this panel should participate in
F4 = Enable/Disable panel's network operations
F5 = Configure how panel responds to switches
F6 = Not Used

Note: To ensure proper panel network operation, all panels must utilize the same firmware version and all network cards must utilize the same firmware version.

4.6.4.1 HOW TO SET PANEL'S NETWORK ID AND SUPERVISION

The Network Panel ID (*Network Address*) screen allows you to set a unique panel ID that identifies the respective Cheetah Xi panel on the network. A Cheetah Xi network can contain up to 128 panels. Each panel connected to the same network must have a unique Panel ID.

From the "Network Configuration Menu" screen, press the **F1** key to access the "Network Panel ID" screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	N	E	T	W	O	R	K		P	A	N	E	L		I	D	:	0	0	1
B	A	L	L		N	E	T		I	D	'	S	:	0	0	1	-	0	2	0
C	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
D																				

Exhibit 4-84: Network Panel ID Screen

- Row A - This field allows you to set a unique network ID (Address) for the respective panel. Use the ◀▶ arrow keys to move cursor to the field; then use the +/- keys to change network ID.
- Row B - This field allows you to select the 20 IDs range displayed in Rows C & D. To change the ID range, use the ◀▶ arrow keys to position the cursor under the range field; then use the +/- button to increment/decrement the range in groups of 20 forward or backwards (ID's 001 – 128)
- Row C - These numbers act as placeholders and zone number indicators for the range of zones selected on Row B.
- Row D - These fields allow you to select the Network panel ID's to be supervised by this panel. The fields show the panel IDs on the network in groups of 20. Move the cursor with the ◀▶ arrow keys to position under desired ID number shown on Row C; then use the +/- keys to toggle a Y under each network panel ID that you want this panel to supervise.

Y = Supervise this panel ID

Blank = No supervision of that network ID

To set the custom message for network panels, press the **F1** key:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A				C	U	S	T	O	M		M	E	S	S	A	G	E			
B				F	O	R		P	A	N	E	L	:		0	0	1			
C																				
D	C	U	S	T	O	M		M	S	G		P	A	N	E	L		0	0	1

Exhibit 4-85: Network Panel Custom Message Screen

- Row B - This field allows you to select the network panel address to assign a custom message to. This message will be shown for history events. Use the ◀▶ arrow keys to move cursor to the field; then use the +/- keys to change panel address.
- Row D - This field allows you to assign the custom message for the respective panel. Use the ◀▶ arrow keys to move cursor to the field; then use the +/- keys to change the field value.

4.6.4.2 HOW TO CONFIGURE NETWORK MODULE

The Network Module Configuration screen allows you to configure the associated Cheetah Xi panel equipped with a RS485 or Fiber Optic network module, to participate on a networked system.

From the “Network Configuration Menu” screen, press the **F2** key to access the “Network Module Configuration” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	M	O	D	U	L	E	T	Y	P	E	:		N	O	N	E				
B	N	E	T	W		W	I	R	I	N	G	:		S	T	Y	L	E	-	4
C	S	W		F	U	N	C	T	I	O	N	:		L	O	C	A	L		
D	C	U	S	T	O	M		M	S	G		P	A	N	E	L		0	0	1

Exhibit 4-86: Network Module Config Screen

- Row A - This field allows you to define the location of the panel under configuration with respect to other panels on the network. Use the ◀▶ arrow keys to move cursor to the field; then use the +/- keys to toggle module type.

NONE (default) – Select this option if the respective fire panel has no network module installed or to temporarily isolate the panel from the network. All network messages (incoming and outgoing) will be ignored. The network module will continue to operate and pass along messages to other panels as long as the network wiring remains in place.

FIRST – A Cheetah Xi network must have at least two panels. One of the two panels, regardless of wiring style, must be configured as the *First* panel. This requirement is present to provide directionality to the network wiring and provide assistance in diagnostics.

MIDDLE – If the Cheetah Xi network has more than two panels (maximum of 128), every panel on the network not configured as either a *First* or *Last*, must be configured as *Middle* or *None*.

LAST – A Cheetah Xi network must have at least two panels. One of the two panels, regardless of wiring style, must be configured as the *Last* panel. This requirement is present to provide directionality to the network wiring and provide assistance in diagnostics.

- Row B - This field allows you to set the wiring style used by the network (Class B/Style 4 or Class A/Style 7). Use the ◀▶ arrow keys to move cursor to the field; then use the +/- keys to toggle between the Network Wiring Styles. When set for Style 7 wiring, the *First* panel will monitor the Class-A homerun wires.
- Row C - This field allows you to control the switch functionality of the panel. Use the ◀▶ arrow keys to position the cursor under the LOCAL/GLOBAL field; then use the +/- keys to toggle between those values.

LOCAL – The respective panel will accept switch functions only from network panel IDs selected by the network switch configuration screen. See Section 4.6.4.5.

GLOBAL – The respective panel will accept switch functions from any panel on the network. When set to Global, all of the panel IDs in the “Network Switch Configuration” screen (See Section 4.6.4.5) will have a lower case “y”.

- Row D - This range of fields allows you to set a custom message for this network panel. Use the ◀▶ arrow keys to move cursor to the field; then use the +/- keys to cycle through all ASCII characters and display the desired character. Arrow to next character and repeat until custom message is completed.

4.6.4.3 HOW TO ASSIGN PANEL TO NETWORK ZONES

The Network Zones screen allows you to configure a networked panel to react to events received from other panels connected to the same network.

From the “Network Configuration Menu” screen, press the **F3** key to access the “Network Zone” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		A	S	S	I	G	N		T	O		N	E	T	W	O	R	K		
B		Z	O	N	E		R	A	N	G	E	:	0	0	1	-	0	2	0	
C	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
D																				

Exhibit 4-87: Network Zone Screen

- Row B - This field allows you to set the 20 zone range that will be displayed in Row C & D below. Use the ◀▶ arrow keys to move cursor to the field; then use the +/- button to increment/decrement the range in groups of 20 to display at one time. This will cycle through the 254 zones available on the Cheetah Xi.

Note: Pressing the **F5** key will select all zones and pressing the **F6** key will deselect all zones.

- Row C - These numbers act as placeholders and zone number indicators for the range of zones selected on Row B.
- Row D - This range of fields allows you to select the zones that the specific panel will react to.

Blank = will ignore events in this zone

Y = will react to events in this zone

Use the ◀▶ arrow keys to position the cursor under the specific zone field; then use the +/- keys to toggle to **Y** to participate and **-** to not participate. If a zone is not selected to participate, it will still show up in History but does not act on the state indicated in that zone. Events from this panel are still transmitted onto the network regardless of this setting. For example: A panel with a “-” in the Zone 3 field, will cause a panel with “Y” in the same field to react to that zone.

Note: Zone 254 is the panel zone. Any states activated by zones 1 – 253 will generate the same state in zone 254. In order to prevent the selected panel from reacting to a network panel event while a respective hazard zone (1 – 253) is disabled, but still allow the panel to react on “Any Zone”, you will need to specifically select zones 1 – 253 and leave Zone 254 not selected so as to not slow down network response times.

4.6.4.4 HOW TO SET THE NUMBER OF HISTORY REPEATS

The History Transmit screen allows you to adjust the number of times the Cheetah Xi panel transmits history records across the network.

From the “Network Configuration Menu” screen, press the **F4** key to access the “History Trouble” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		N	U	M	B	E	R		O	F		H	I	S	T	O	R			
B		T	R	A	N	S	M	I	T		R	E	P	E	A	T	S	:	0	
C		M	E	S	S	A	G	E		F	I	L	T	E	R	:	O	N		
D		1	0	0	0		H	I	S	T		L	I	M	I	T	:	O	N	

Exhibit 4-88: History Transmit Screen

- Row B - This field allows you to set the number of history transmit repeats that will be used by the panel. Use the ◀▶ arrow keys to move cursor to the field; then use the +/- buttons to increment/decrement the value. “0” (no repeats) or “1” (repeat once). The factory default value is “0”.

Note: Increasing the number of history transmits is recommended where the Cheetah Xi panel is installed in a noisy environment.

- Row C – This field allows you to turn message filtering on for transmission of network history events. Message filtering provides a means to prevent invalid history events from being recorded by network panels. If this feature is used, all panels on the network must have the same filter setting. No mixing is allowed. Use the ◀▶ arrow keys to move cursor to the field; then use the +/- buttons to change the value between “ON” or “OFF”. The factory default value is “ON”.
- Row D – This field allows you to turn “ON” or “OFF” the panel’s 1000 event history buffer limit. A System Administrator level password is required to change this setting.
 - **ON** = When a new event on the SLC is recorded (or VESDA), the appropriate zones are activated and output devices respond correctly. However, after 1000 events are recorded (after the 1st alarm), history events are no longer recorded or transmitted across the network and peripheral buses. The result is that not all events will be transmitted to the network panels, peripheral bus devices, or Precise Vision.
 - **OFF** = All history events are recorded and transmitted onto both the network and peripheral buses. Once the 3200th event is recorded, all succeeding events are recorded into the 3200th history position.

4.6.4.5 HOW TO CONFIGURE NETWORK SWITCH FUNCTIONS

The Network Switch screen allows you to configure the respective panel to accept switch inputs from other panels and/or devices on the same network. Functionality of this screen is dependent upon the switch function setting (Local or Global) in the “Network Module Configuration” screen (See Section 4.6.4.2).

From the “Network Configuration Menu”, press the **F5** key to access the “Network Switch” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	A	C	C	E	P	T		S	W	I	T	C	H	E	S		F	R	O	M
B	N	E	T	W	O	R	K		I	D	'	S	:	0	0	1	-	0	2	0
C	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
D	Y	y	Y	Y	y															

Exhibit 4-89: Network Switch Screen

- Row B - This field allows you to set the 20 IDs range that will be displayed in Rows C & D below. Position the cursor under the first number in this line; then use the +/- button to increment/decrement the range in groups of 20 to display at one time. This will cycle through the 128 panels available on the Cheetah Xi
- Row C - These numbers act as placeholders and zone number indicators for the range of zones selected on Row B.
- Row D - This range of fields allows you to select the network panel IDs that the specific panel will act upon when a switch command is received.

- = not programmed for this network ID.

Y = will react to switches from this network ID (Local switch function)

y = will react to switches from all other network panels (Global switch function)

Use the ◀▶ arrow keys to position the cursor under the specific zone field; then use the +/- keys to toggle to Y to accept switch inputs and – to not accept switch inputs.

4.7 CONFIGURATION MENU 6

From the “Configuration Menu 5” screen, press the **F6** key to access the “Configuration Menu 6” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	C	O	N	F	I	G	U	R	A	T	I	O	N		M	E	N	U		6
B	F	1	-	I	P		A	D	R		F	4	-	S	W		O	P	E	R
C	F	2	-	I	P		S	U	P		F	5	-	L	E	D		O	P	R
D	F	3	-	I	P		T	I	M		F	6	-	M	E	N	U		7	

Exhibit 4-90: Configuration Menu 6

4.7.1 HOW TO SET PANEL'S IP ADDRESSES

The IP Address screen allows you to set the IP address configuration parameters for the specific panel's Ethernet module.

From the “Configuration Menu 6” screen, press the **F1** key to access the “IP Addresses” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A				I	P		A	D	D	R	E	S	S	E	S					
B	S	R	C	:		0	0	0	.	0	0	0	.	0	0	0	.	0	0	0
C	H	I	S	T	:	0	0	0	.	0	0	0	.	0	0	0	.	0	0	0
D	S	U	P	V	:	0	0	0	.	0	0	0	.	0	0	0	.	0	0	0

Exhibit 4-91: IP Address Screen

- Row B - The SRC (Source) field allows you to set the unique Internet Protocol (IP) Address for the selected fire panel. This address is required to uniquely identify the fire panel on a given Ethernet network. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to increment/decrement the field.
 - Row C - The HIST (History) field allows you to set the unique Internet Protocol (IP) Address of the panel that will receive history messages from this panel. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to increment/decrement the field.
- Note:** The History IP Address should equal the Source IP Address of the receiving panel.
- Row D - The SUPV (Supervision) field allows you to set the unique Internet Protocol (IP) Address of the panel that is supervising the selected panel. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to increment/decrement the field.

4.7.1.1 HOW TO CLEAR MONITORING PANEL'S IP ADDRESSES

A panel acting as a “Monitor” panel (i.e., panel that has received histories from other panels via the Ethernet port) in an Ethernet network will request the current histories of all of the panels it is supervising should the “Monitor” panel reset prior to the supervised panels returning to normal, with the following exception:

Exception: If the “Monitor” panel has none of these states active; Alarm, Supervisory, Trouble, Pre-Alarm, or Process, then the “Monitor” panel will not request histories from the panels it is supervising. If the “Monitor” has any of these five states active prior to reset, then the “Monitor” will request a re-send of the histories received via the Ethernet port.

The Clear IP Address screen allows you to clear the IP addresses of those panels that have sent history messages to the “Monitor” panel, temporarily disabling the history resend request. Press the **F1** key to access the “Clear IP Addresses” screen, as shown below; then press the **ENTER** key to clear all of the “Monitor” panels stored IP addresses.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	P	R	E	S	S		E	N	T	E	R		T	O		C	L	E	A	R
B			H	I	S	T	O	R	Y		R	E	C	E	I	V	E	D		
C					I	P		A	D	D	R	E	S	S	E	S				
D																				

Exhibit 4-92: Clear IP Address Screen

4.7.2 HOW TO CONFIGURE PANEL FOR NETWORK SUPERVISION

The IP Supervision screen allows you to configure the respective fire panel to supervise other fire panels on the same Ethernet Network.

From the “Configuration Menu 6” screen, press the **F2** key to access the “IP Supervision” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	S	U	P	E	R	V	I	S	E		N	E	T	W	O	R	K		I	D
B									0	0	1									
C				A	T		I	P		A	D	D	R	E	S	S				
D			0	0	0	.	0	0	0	.	0	0	0	.	0	0	0			

Exhibit 4-93: Network Supervision Screen

- Row B - This field allows you to select the Panel ID to supervise. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to increment/decrement the field to select panel from 001 - 128.
- Row D - This field allows you to enter the Source IP Address for the panel ID selected in Row B. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to increment/decrement the field.

Note: Any fire panel added to the list of supervised panels must have its Supervision IP Address set to match that of the supervising fire panel’s Source IP Address.

Note: To remove a panel from the list, simply select it and change the panel address to all zeros.

To set the custom message for network panels, press the **F1** key:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A			C	U	S	T	O	M		M	E	S	S	A	G	E				
B			F	O	R		P	A	N	E	L	:		0	0	1				
C																				
D	C	U	S	T	O	M		M	S	G		P	A	N	E	L		0	0	1

Exhibit 4-94: Network Panel Custom Message Screen

- Row B - This field allows you to select the network panel address to assign a custom message to. Use the ◀▶ arrow keys to move cursor to the field; then use the +/- keys to change panel address.
- Row D - This field allows you to assign the custom message for the respective panel. Use the ◀▶ arrow keys to move cursor to the field; then use the +/- keys to change the field value.

4.7.3 HOW TO SET IP TIME PARAMETERS

The IP Time screen allows you to set additional parameters for how data is transmitted on the network. From the Configuration Menu 6 screen, press the **F3** key to access the IP Time screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	I	P		S	U	P	E	R	V	I	S	I	O	N						
B	T	I	M	E	O	U	T	:		0	4		M	I	N	U	T	E	S	
C	H	I	S	T	O	R	Y		T	R	A	N	S	M	I	T	S	:	0	1
D	I	P		T	I	M	E	:		D	I	S	A	B	L	E	D			

Exhibit 4-95: IP Time Screen

- Row B - This field allows you to set how long the supervising panel will wait to annunciate a "MISSING" trouble should the supervising panel lose communication with a supervised panel. Use the ◀▶ arrow keys to position the cursor under the field; then use the +/- keys to toggle to select time.

This parameter can be configured in one of the following increments:

5-55 seconds, 5 second increments

1-59 minutes, 1 minute increments

1-18 hours, 1 hour increments

Note: This parameter only applies when the respective panel is configured to supervise other panels.

- Row C - This field allows you to set how many times a single history event will be transmitted to the peripheral bus. This setting greatly affects the reliability of the Ethernet reporting system. The value can be configured from 1 to 10:

1 = Provides the greatest amount of speed but is the least reliable.

10 = Provides a reduction in speed but is the most reliable.

Use the ◀▶ arrow keys to position the cursor under the field and use the +/- keys to increment/decrement the field.

Note: For Ethernet applications, Fike recommends a History Transmit setting of 2. Otherwise, the default value of 1 is recommended.

- Row D - This field allows you to set whether the date and time of networked panels will be synchronized with the main panel (DISABLED, ACCEPT, SEND):

DISABLED = Turns panel date/time synchronization feature off. Each panel will use its own date/time settings.

ACCEPT = Sets panel to accept date/time synchronization settings from sending panel.

SEND = Sets panel to transmit date/time synchronization settings to all network panels.

4.7.4 HOW TO DISABLE PANEL'S SWITCH OPERATION (CITY OF CHICAGO)

The Switch Operation screen allows you to set whether the panel's DRILL and SILENCE switches on the display will function. Disabling the panel switches allows the panel to conform to the City of Chicago operation requirements.

From the "Configuration Menu 6" screen, press the **F4** key to access the "Switch Operation" screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A			S	W	I	T	C	H		O	P	E	R	A	T	I	O	N		
B		F	O	R		D	R	I	L	L	/	S	I	L	E	N	C	E	:	
C							N	O	R	M	A	L								
D	K	E	Y	P	A	D		D	R	I	L	L	:	D	I	S	A	B	L	E

Exhibit 4-96: Panel Switch Operation Screen

- Row C - Use the +/- keys to toggle the functionality of the Drill and Silence keys between NORMAL/DISABLED

Note: If the panel is ordered with the "COC" extension in the part number, it will be shipped with a display that has the Drill and Silence keys blanked out. The functionality of these keys will be disabled and will require a factory level password to re-enable.

- Row D - Use the +/- keys to toggle the functionality of the Drill key between ENABLED/DISABLE. Activation of the Drill function from other sources are unaffected by disabling the keypad drill switch.

Note: Disabling the keypad drill switch requires a System Administrator level password.

4.7.5 HOW TO SET PANEL'S LED OPERATION

The LED Operation screen allows you to set the panel's LEDs to function for either fire alarm (Cheetah Xi) or fire suppression (Cheetah Xi).

From the "Configuration Menu 6" screen, press the **F5** key to access the "LED Operation" screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A																				
B				L	E	D		O	P	E	R	A	T	I	O	N	:			
C	P	R	E	-	D	/	R	E	L	E	/	R	-	D	I	S	/	A	B	T
D																				

Exhibit 4-97: Panel LED Operation Screen

- Row C - Use the +/- keys to toggle the functionality of the panel's LEDs between:

Fire Alarm = Pre-Alarm 1, Pre-Alarm 2, Disabled, Walk Test

Fire Suppression = Pre-Discharge, Release, Release-Disable, Abort

4.8 CONFIGURATION MENU 7

From the “Configuration Menu 6” screen, press the **F6** key to access the “Configuration Menu 7” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	C	O	N	F	I	G	U	R	A	T	I	O	N		M	E	N	U		7
B	F	1	-	A	H	U	K	E	Y		F	4	-	F	I	R	S	T		E
C	F	2	-								F	5	-							
D	F	3	-								F	6	-	M	E	N	U		1	

Exhibit 4-98: Configuration Menu 7

F1 = AHU Key

F2 = Not Used

F3 = Not Used

F4 = First Event Display

F5 = Not Used

F6 = Configuration Menu 1

4.8.1 HOW TO ENABLE AHU KEY REQUIREMENT FEATURE

The AHU Key screen allows you to set the FAN RESTART configuration parameters for the panel to require activation of an “AHU FIRE KEY” input before initiation of the fan restart sequence is allowed.

From the “Configuration Menu 7” screen, press the **F1** key to access the “AHU Key” screen, as shown below:

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	A	H	U		K	E	Y		R	E	Q	U	I	R	E	D	:	N	O	
B																				
C																				
D																				

Exhibit 4-99: AHU Key Screen

- Row A - Use the +/- keys to toggle the field from ‘No’ to ‘Yes’. ‘Yes’ will require an AHU fire key switch to be active before fan restart sequence is allowed.

4.8.2 HOW TO CHANGE FIRST EVENT DISPLAY SETTINGS

The First Event Display screen allows you to set how the panel will display system events as they occur. A System Administrator password is required to change this setting.

From the “Configuration Menu 7” screen, press the **F4** key to access the “First Event Display” screen, as shown below:

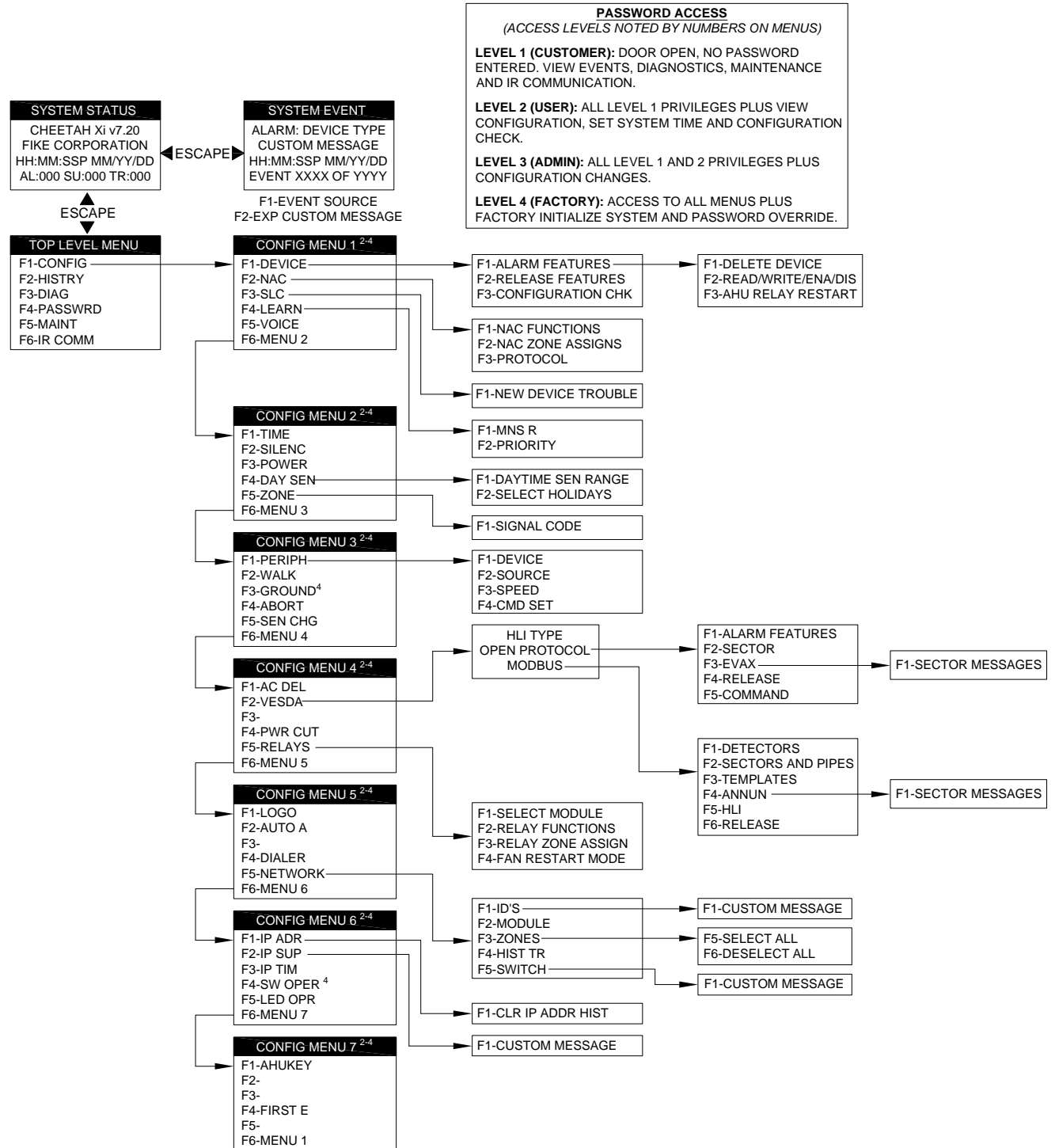
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A		L	A	T	C	H		D	I	S	P	L	A	Y		T	O			
B		S	H	O	W		I	N	I	T	I	A	L							
C		S	U	P	E	R	V	I	S	O	R	Y		A	N	D				
D		T	R	O	U	B	L	E		E	V	E	N	T	S	:	N	O		

Exhibit 4-100: First Event Display Screen

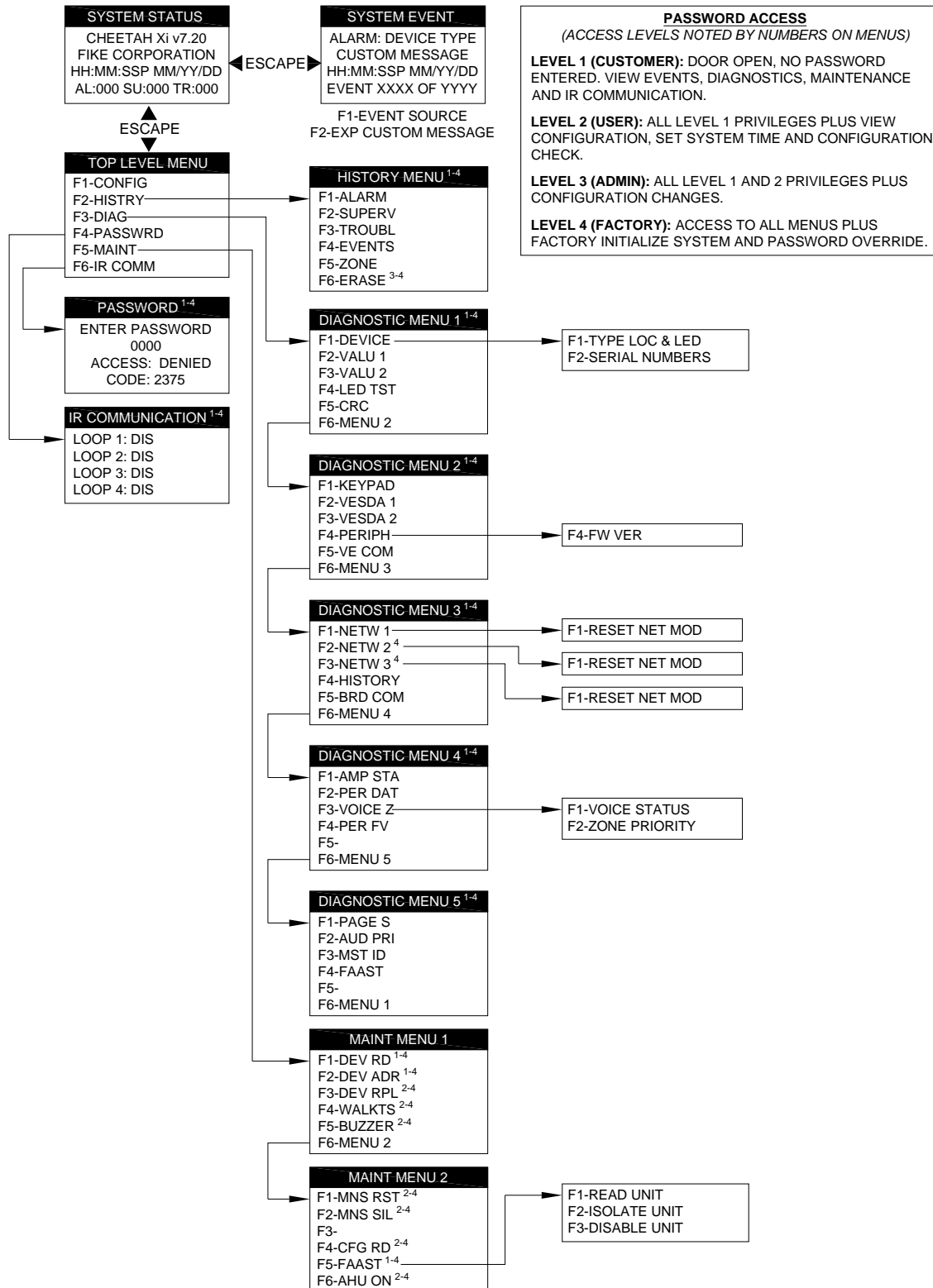
- Row D - Use the +/- keys to toggle the field from ‘Yes’ to ‘No’.
 - ‘Yes’ - panel will latch the display onto the first trouble or supervisory event that is recorded. Subsequent events of like type will be recorded in the panel history but will not be displayed as they occur unless they are of higher priority. For example: supervisory events take priority over trouble events; therefore, first supervisory event will be displayed over trouble events. The LCD will remain fixed on the first of these events until the user presses a switch for other actions, the event clears and the system times out and returns to the “System Normal” display, or an alarm event occurs. Should an alarm event occur, the LCD will latch on the first alarm event and will remain fixed on the event until the user presses a switch for other actions.
 - “No” – panel will display supervisory and trouble events as they occur until the first alarm event is recorded, at which time the LCD will latch on the first alarm event. The LCD will remain fixed on the first alarm event until the user presses a switch for other actions.

Reserved for future use.

A.1 CHEETAH Xi MENU STRUCTURE (V7.20)



A.1 CHEETAH Xi MENU STRUCTURE (V7.20)





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