NetworX

NetworX Series™

NX-8 Commercial Fire Panel

Installation and Startup

Printed in the United States of America.

These instructions do not purport to cover all details or variations in equipment nor to provide every possible contingency to be met during installation, operation, and maintenance. If further information is desired or if particular problems arise that are not covered sufficiently for the purchaser's purpose, the matter should be referred to GE Security, Gladewater, Texas, USA.

Please refer to the current GE Security product catalog for detailed warranty information.

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Safety Symbol Legend

 **Warning**	Indicates a procedure, practice, condition, or statement that, if not strictly observed, could result in personal injury. * This symbol indicates electrical warnings and cautions.
 **Caution**	Indicates a procedure, practice, condition, or statement that, if not strictly observed, could result in damage to or destruction of equipment or property. ** This symbol indicates general warnings and cautions.
 **Note**	Indicates an essential or important procedure, instruction, condition, or statement.
 **Tip**	Indicates a user tip. Provides helpful information that is not normally defined in regular use, but from an experienced user.
 **Enter**	Indicates a key or button should be pressed to enter data.

1. GENERAL DESCRIPTION

The NetworX NX-8-CF represents a new approach to security systems design. Drawing on our experience in the world market as the largest exporter of USA manufactured controls, the NetworX series is the most flexible, durable, and user-friendly control ever seen in our industry. Featuring sophisticated software, the NX-8-CF allows up to 99 users to interface with 48 zones, 8 partitions, and a host of integrated fire, access, verification, and input/output modules, all reported with the most comprehensive and fast SIA and Contact ID formats. The NetworX design allows a fully loaded system to be housed in one single metal enclosure, establishing for the first time, a logical solution and design response to modular systems. Up to 32 modules can be added to expand the capabilities of the NX-8-CF. Please refer to the current GE Security product catalog for detailed warranty information.

2. ORDERING INFORMATION

MINIMUM SYSTEM CONFIGURATION for local and central station protected premise unit UL Commercial Fire applications includes these *individual* modules:

PART #	DESCRIPTION	MIN QTY PER SYSTEM
➢ NX-8-CF-BO-FG	NX-8-CF Control Only	1
➢ NX-148E-CF or	Alphanumeric LCD Keypad for Commercial Fire applications (red plastic)	2
NX-148E-CF-W	Alphanumeric LCD Keypad for Commercial Fire applications (white plastic)	
➢ NX-870E	Fire Supervision Module	1

PART #	DESCRIPTION
NX-8-CF-KIT	NX-8 COMMERCIAL FIRE KIT Includes one NX-8-CF Control, (2) NX-148E-CF **Red** LCD Keypads, one NX-870E Fire Supervision module & one 16.5V, 50VA Transformer
NX-8-CF-KIT-W	NX-8 COMMERCIAL FIRE KIT Includes one NX-8-CF Control, (2) NX-148E-CF **White** LCD Keypads, one NX-870E Fire Supervision module & one 16.5V, 50VA Transformer

Other available NetworX modules:

NX-216E	16 Zone Expander Module
NX-320E	Smart Power Supply and Buss Extender
NX-507E	Seven Relay Module
NX-508E ◆	Eight Output Module
NX-540E **	"Operator" Telephone Interface Module
NX-591E **	Cellemetry Interface

◆ These products are not approved for Commercial Fire use with the UL listed NX-8-CF.
****** These products have not been tested and approved by Underwriters Laboratories, Inc.

3. GLOSSARY / INDEX

TERM	DESCRIPTION	LOC	PG
Abort	If enabled, the NX-8-CF will wait the programmed number of seconds in location 40 prior to sending an alarm. To abort the report, type in a code and press *CANCEL*. "Dialer Delay" must be enabled in the "Characteristic Select" of locations 110-149.	**40** **110-149**	**22** **30**
AC Fail Low Battery Report/Warning	The NX-8-CF can be programmed to report AC failure and/or Low Battery conditions to the central station. It can also be programmed to sound the keypad immediately upon detection of the condition. The AC failure report/warning can be delayed.	**37,** **39**	**21**
AC Power Low Battery Sounder Alert	If enabled, the NX-8-CF will beep the keypad sounder upon arming or disarming if the AC power is missing or a low battery has been detected. ✍ **For UL Commercial Fire installations, this feature must be ENABLED.**	**23**	**18**
Arm / Disarm Codes	The NX-8-CF can have 99 four-digit codes or 66 six-digit codes to arm/disarm the control. All codes must have the same number of digits. The factory default for User #1 is ①②③④ when using a 4-digit code, or ①②③④⑤⑥ for a 6-digit code. This code can then be used to enter the new arm/disarm codes.	**41**	**23**
Automatic Arming	If programmed, the NX-8-CF will Auto Arm at a specified time. At this time, the keypad will beep for 50 seconds before the panel arms. If the arming process is stopped by typing a code on the keypad, the NX-8-CF will attempt to arm 45 minutes later. This time will be extended if there is activity in the building. The Auto Arming of a partition can be programmed to be silent. If closing reports are sent, the user code will be 97. ✍ **For UL Commercial Burg installations, this feature shall be DISABLED.**	**23,** **52-55,**	**18** **25**
Auto Cancel / Abort	If enabled, the Cancel and/or Abort features will be automatic (pressing *CANCEL* button is not required). The Cancel and Abort features, in locations 23 and 40 respectively, must be enabled to permit this Auto feature to work. For proper operation of these features, "Dialer Delay" must be enabled in the "Characteristic Select" of locations 110-149 Zone Types. ✍ **Default OFF. Not for Commercial Fire use. Any delay shall not exceed the maximum UL allowable entry delay.**	**41**	**23**
Automatic Bypass Instant Arming	When enabled, the control panel can automatically bypass interior follower zones if an exit is not detected during the exit delay time. Entry delay zones can also be made instant.	**23 segments 1 & 3**	**18**
Auto Test	This feature will cause the panel to call the central station to report a communicator test at a specified interval. ✍ Default ON.	**51**	**25**
Auxiliary Outputs	The NX-8-CF has four programmable outputs that can be used to activate relays, LED's, etc.	**45-50** **Diagram**	**24** **47**
Auxiliary Power Overcurrent	The NX-8-CF will display a "Service Required" message on the keypad when too much current is drawn from any device powered by the system. This condition can be reported to the central station.	**37**	**21**

TERM	DESCRIPTION	LOC	PG
Box Tamper	The NX-8-CF has an input for a normally closed tamper switch (see terminal drawing). The Box Tamper can be programmed to report and/or sound the siren and/or the keypad. These terminals can be enabled or disabled in programming.	**37, 39**	**21**
Built In Siren Driver	The NX-8-CF has a built-in 112db siren driver. When desired, this built-in driver can be easily converted to a 1-amp voltage output through programming.	**37**	**21**
Bypass Toggle	This feature will enable the end user to toggle (turn on or off) the bypass of an interior zone with the system armed by pressing *BYPASS*.	**23**	**18**
Cancel	If enabled, the NX-8-CF will send a "Cancel" report if when the system is disarmed and the [Cancel] button is pressed within 5 minutes of an alarm. "Dialer Delay" must be enabled in the "Characteristic Select" of locations 110-149.	**23**	**18**
Communication Formats	The NX-8-CF can report in Contact ID or SIA formats.	**APPENDIX 1**	**44**
Cross Zoning	This feature requires two or more trips on a zone or zones programmed as "cross zones" within a specified time before reporting an alarm. During the time between trips, the NX-8-CF can be programmed to sound the keypad and/or the siren. The NX-8-CF can also be programmed to report an alarm after two or more trips on the same zone.	**37,39,40, 110-149**	**21, 30-32**
Dual / Split / Multiple Reports	The NX-8-CF can send communication reports to three different phone numbers for dual, split or multiple reports selectable by event or partition.	**4, 10, 16**	**15-17**
Duress Code	If a duress code is programmed the NX-8-CF will send a duress signal whenever the panel is armed or disarmed with this code. If open/close reports are sent, the user code will be 254.	**44**	**24**
Entry-Guard	This unique low-level arming mode has been developed to reduce the most common source of false alarms. When armed as "Instant", the opening of any zones designated as "Entry Guard zone" will initiate the keypad sounder and start the entry delay before creating an alarm. All other zones will function as normal. This arming mode will encourage system owners to use their system more frequently when the premises are occupied. ✍ **For UL installations, this feature shall be DISABLED.**	**111-149**	**30-32**
Exit Error	If enabled, the NX-8-CF will send an "Exit Error Report" if an entry/exit zone is faulted at the instant the exit delay expires. This report will be sent along with the user number that armed the system, if the panel is not disarmed before the entry delay expires. The alarm report will also be sent. Even if this feature is not enabled, the siren will sound if any entry/exit zone is faulted at the instant the exit delay expires.	**23**	**18**
Expander Trouble	The NX-8-CF will report expander trouble to the central station if enabled. This condition will display the "Service Required" message on the keypad even if not reported. ↳ The keypads are considered expanders. The number of the expansion devices reported can be found on page 46.	**37**	**21**

TERM	DESCRIPTION	LOC	PG
Fail to Communicate	The NX-8-CF will display the "Service Required" message if a report fails to reach the central station. If enabled, when the next report is successfully communicated, a Fail to Communicate code will be reported. ✍ Default ON.	**37**	**21**
Fire Alarm Verification	When enabled, the NX-8-CF will verify a Fire alarm by requiring more than one trip on a smoke detector within a specified time before creating an alarm. ✍ **This feature is not approved for residential use in California.**	**40**	**22**
Force Arming	When enabled, the NX-8-CF can be Force Armed with zones violated. At the end of the exit delay, these zones will become bypassed. If these zones become secured any time during the arming cycle, they will be unbypassed and active in the system. If "Bypass Report" is enabled, the force arming zones can be programmed to report bypass when they are Force Armed (default), or to not report bypass even if "Bypass Report" is enabled. ✍ **For UL installations, this feature shall be DISABLED.**	**37 and 111-149**	**21 & 30-32**
Ground Fault	If the NX-870E is used, a fault of the earth ground can be reported to the central station. If it is not reported, this condition will display the "Service Required" message on the keypad.	**37**	**21**
Group Bypass	A designated group of zones can be programmed to bypass. Prior to arming, press *BYPASS* @ *BYPASS* *BYPASS*. ✍ **For UL installations, this feature shall be DISABLED.**	**111-149**	**30-32**
Immediate Restore By Zone	The NX-8-CF can be programmed to send alarm and restore reports as soon as they occur, or wait until the siren time has expired.	**37**	**21**
Internal Event Log	Up to 185 events can be stored in memory along with the date and time of the event. **All reportable events report to the log.**		
Keypad Activated Panics 	The NX-8-CF has three keypad-activated panics that will send reports to the central station: Auxiliary 1 (Fire), Auxiliary 2 (Medical), and Keypad Panic. Auxiliary 1 will activate the steady (Fire) siren, Auxiliary 2 will sound the keypad, and the Keypad Panic can be programmed to be silent or audible (sound siren).	**23**	**18**
Keypad Sounder Control	The NX-8-CF can be programmed to sound the keypad sounder for certain events.	**39**	**22**
Keypad Tamper	If enabled, the NX-8-CF will disable the keypad for 60 seconds and communicate a tamper signal to the central station if 30 keypresses are entered without producing a valid code.	**23**	**18**
Keyswitch Arm/Disarm	Any zone on the NX-8-CF can be programmed as a keyswitch zone. If this is done, a momentary short on this zone will arm/disarm the control. If opening/closing reports are sent, the user code will be 99.	**DEFAULT ZONE TYPES**	**19**
LED Extinguish	This feature will extinguish all LED's on the keypad, except the "Power" LED, after 60 seconds without a keypress. Pressing any numeric key will illuminate all LED's.	**23**	**18**
Log Full Report	A report can be sent to the central station when the event log is full.	**37**	**21**

TERM	DESCRIPTION	LOC	PG
Lost Clock Service Light	The NX-8-CF can be programmed to display the "Service Required" message when the internal clock has an invalid time due to power loss.	**37**	**21**
Manual Test	The NX-8-CF can be programmed to perform a bell and/or communicator test when ✱ ④ is entered while the system is in the disarmed state.	**37**	**21**
On Board Zone Disable	The eight zones on the NX-8-CF panel can be disabled in order to have a completely wireless alarm system.	**37**	**21**
Partitions	The NX-8-CF can be partitioned into a maximum of eight separate systems with distinct reporting codes, user codes, and operating features for each system.	**26-36**	**20-21**
Program Code	Factory default: ⑨⑦①③ when using a 4-digit code and ⑨⑦①③⓪⓪ if the 6-digit option is used**.** The program code can also be used as an Arm/Disarm code. If used as an Arm/Disarm code, and open/close reports are sent, the user code will be 255.	**43**	**23**
Quick Arm	The NX-8-CF has a one-button "Quick Arm" feature, which can be used to arm the system by pressing *EXIT* or *STAY* on the keypad. If closing reports are sent, the user code will be 98.	**23**	**18**
Recent Closing	If enabled, the NX-8-CF will send a "Recent Closing Report" to the central station if an alarm occurs within 5 minutes after the panel is armed. The user number that armed the system will also be sent.	**23**	**18**
Re-exit	The NX-8-CF has the ability to restart the exit delay for a quick exit without disarming the system by pressing *EXIT* while the system is armed.	**23**	**18**
Relays	The NX-8-CF has two separate normally open and normally closed relay contacts for a variety of applications, including access control, home control/automation, wireless interfaces, and security functions. ✍ **Access control and home automation have not been verified by UL testing.**	**45-48,** TERMINAL DESCRIPTION	**24 50**
Siren Blast For Arming	The NX-8-CF can be programmed to give a one second siren blast when the panel is armed, at the end of the exit delay, or when the central station receiver acknowledges the closing report. It can also give one blast for remote (keyswitch) arming and two blasts for remote disarming.	**37**	**21**
Siren Supervision	The NX-8-CF has a “Siren Supervision” circuit that will constantly monitor the siren on the NX-8-CF and can be programmed to report if the wires are cut.	**37**	**21**
Silent Exit Option	The exit delay can be silenced by pressing ✱ *EXIT* before arming the control panel or when using the re-exit feature. The exit delay can also be silenced permanently in all partitions.	**37**	**21**
Start / End Programming	A report can be sent when local programming is started and ended.	**37**	**21**

TERM	DESCRIPTION	LOC	PG
Swinger Shutdown	This feature allows a zone or zones to be automatically bypassed after a specified number of alarms. When a zone is tripped, the alarm 'counter' reflects "1" in memory. If a new (first) alarm is detected in a different zone, the counter remains at "1". If an alarm is detected on a previously tripped zone, the count increments to "2". The 'counter' will increment each time an alarm is detected on a zone with multiple trips. Bypassing will occur on the zone that causes the count to equal the number programmed in location 38; the 'counter' will reset to zero (0); and begin a new trip count where the next alarm will set the 'counter' to 1. If immediate restore is enabled in location 37, the alarms (and restores, if enabled) will be sent as they occur. If immediate restore is not enabled, a second or subsequent alarm will not be sent until the siren times out. ✍ **For UL installations, this feature shall be DISABLED.**	**37, 38**	**21**
Telephone Line Monitor	The NX-8-CF has a Telephone Line Monitor that monitors the voltage and current of the telephone line for a detection of a faulted phone line. This condition can also be reported to the central station. If the report is enabled, only the Telephone Line Restore will be reported unless the NX-870E is being used.	**37,39,40**	**21-22**
Temporal Siren Disable	If disabled, the Fire Siren will be steady and Fire Voltage Out will be the same as Burglary (continuous). Otherwise, the Fire Siren will be temporal. ✍ **For UL installations, this must be ENABLED.**	**37**	**21**
User Code	A four- or six-digit entry code used to arm or disarm the system.		
Walk-Test Mode	If enabled, entering ✱ *CHIME* followed by a user code will allow a walk-through zone test where all zones become silent and local (non-reporting). The number of the faulted zone(s) will be displayed on the LCD keypad. It will also be entered into alarm memory and the internal log. To exit at any time during this mode, enter a user code. Otherwise the "Walk-Test Mode" will automatically exit after 15 minutes.	**41**	**23**
Wireless Sensor Missing/Low Battery	The NX-8-CF will send a report to the central station when a wireless sensor has detected a low battery or has not reported to the receiver. The "Service Required" message will appear when either condition exists.	**37**	**21**
Zone Bypassed Sounder Alert	If this feature is enabled, the NX-8-CF will beep the keypad sounder upon arming if a zone is bypassed.	**23**	**18**
Zone Types (Configurations)	The NX-8-CF has 20 programmable Zone Types that determine how each zone will function and report. ↳ *If any zone is programmed as a Fire Zone, that zone will be a Fire Zone in all partitions. (Example: If zone 2 is a Fire Zone in partition 1, then zone 2 will be a Fire Zone in all partitions.)*	**111-149, DEFAULT ZONE TYPES**	**30-32 19**

4. PROGRAMMING THE CONTROL

ENTERING THE PROGRAM MODE

Action	Result
☞ ✱ ⑧	Enters the Program Mode. Prompts for the programming code.
☞ [Go To Program Code] Factory Default is ⑨⑦①③	If the "Go To Program Code" is valid, the LCD screen will prompt for the device address to program. You are now in the Program Mode and ready to select the module.

SELECTING THE MODULE TO PROGRAM

✍ Since all modules connected to the NX-8-CF are programmed through the keypad, the module you are programming should be the first entry.

Action	Result
☞ ⓪ #	Programs the NX-8-CF Commercial Fire Panel ⓪ is the module number of the control and # is the entry key. Other module entry numbers can be found in their corresponding manuals.

PROGRAMMING A LOCATION

Once the number of the module to be programmed has been entered, the LCD screen will prompt you for a location number. Any location can be accessed by directly entering the desired programming location followed by #. If the location entered is a valid location, the top line of the LCD screen will display the location number on the left and the segment number on the right. The bottom line of the display will show the current data. This data will be displayed and entered according to the type of data used (numerical, binary, or character data).

1. NUMERICAL DATA

The top line of the display will show the current location number on the left and the segment number on the right. The data will be displayed on the bottom line. The hex equivalent will be shown in parenthesis. To change the data in the current location, enter the number followed by ✱. The data will be entered and the segment will be incremented by 1. The data for this segment will now be displayed. Continue this process until the last segment is programmed. When the last segment is reached, the keypad will prompt you for the next location. If you wish to exit this location before the last segment is reached, press #. This keypress will not save the changes made to current segment, but will exit the location.

Shortcut keys:

☞ 	Previous location.
☞ 	Same location.
☞ 	Next sequential location.

2. BINARY DATA

The top line of the display will show the current location number on the left and the segment number on the right. The data will be displayed on the bottom line with the numbers 1-8 in the first 8 characters. If the number appears, this binary switch is on. If a minus sign (-) appears where the number should be, this switch is off. Toggle numbers on or off using the corresponding number digit (1 to toggle 1; 8 to toggle 8). When the numbers are in the desired state, enter ✱. The data will be entered and the segment will be incremented by 1. The data for this segment will now be displayed. Continue this process until the last segment is programmed. When the last segment is reached, the keypad will prompt for the next location. If you wish to exit this location before the last segment is reached, press #. This keypress will not save the changes made to current segment, but will exit the location. "Shortcut Keys" shown in Numerical Data can also be used for Binary Data.

3. CHARACTER DATA

Character Data is used to enter LCD text when programming. (Refer to the NX-148ECF instruction manual for custom messages ✱❾❷ feature.) Custom zone descriptions and messages are stored character or ASCII data type. This information is programmed using the bottom line of the display as a text editor. Once a character location has been entered, the current data will be displayed on the bottom line. As is always the case, the top line will display the current location and segment number. The five (5) function keys, as well as the up and down arrow to the right of the display, are now used to edit the message prior to saving it back to the location storage. An underscore (_) in the display indicates the current cursor location.

Shortcut keys:

☞ ✱	.....	Saves character or word; moves cursor to right
☞ CANCEL	.....	Moves cursor to left.
☞ ▲ or ▼	.....	Scrolls through available characters. (In Library Mode) Scrolls through available words. *Tip: Refer to the NX-148ECF instructions for more details.*
☞ STAY	.....	Inserts blank space.
☞ CHIME	.....	Deletes characters.
☞ EXIT	.....	Accesses the Library *Tip: Refer to the NX-148ECF instructions for more details.*
☞ BYPASS	.....	Makes the character "flash". (In Library Mode) Makes the entire word "flash".
☞ #	.....	Exits the edit mode.

EXITING A LOCATION

Action	Result
☞ ✱	Saves the data and exits that location. *Tip: The ✱ must be pressed or the data will not be saved. To exit before the last segment, press #.* You are now ready to program another location.

EXITING THE PROGRAM MODE

Action	Result
☞ EXIT	Exits this program level. Advances to "Select a Module".
☞ EXIT	Exits the programming mode entirely.

5. LOADING FACTORY DEFAULTS

Action	Result
Follow procedures on page 11 to enter the Program Mode.	
☞ ⑨①⓪#	Keypad will beep 3 times (loading is in progress). The loading takes about 6 seconds.

6. ENROLLING MODULES AND KEYPADS

For supervision purposes, the NetworX control panel has the ability to automatically find and store in its memory the presence of all keypads, zone expanders, wireless receivers, and any other module connected to the data terminal. This allows these modules to be supervised by the control panel. **NOTE**: All modules should be connected and set to unique addresses prior to enrolling modules. To enroll the modules, enter the Program Mode of the NetworX control panel. When the Program Mode is exited, the control will enroll the devices. The enrolling process takes about 12 seconds, during which time the "Service Required" will be displayed. Once a module is enrolled, if it is not detected by the control, the "Service Required" will be displayed.

Please refer to the NX-148ECF installation manual for complete instructions on programming the keypads.

7. ▶ QUICK START INSTALLATION

For most routine installations, the "Quick Start" option will allow for enabling a majority of the options available with the NX-8-CF, when communicating in Contact ID or SIA formats and without partitioning. The "Quick Start" locations can be identified with ▶ located to the left of the location number in both the instructions and programming worksheets.

8. CONTROL PANEL PROGRAMMING LOCATIONS

▶ *LOCATION 0 - PHONE NUMBER 1*

(20 segments, numerical data) The first telephone number is programmed in location 0. A "14" indicates the end of the phone number. A four-second delay can be programmed at any point in the phone number by programming a "13" in the appropriate segment. If tone dialing is desired, program a "15" in the segment where tone dialing should begin. If the entire number should be tone dialing, program a "15" in the first segment. Program an "11" for a "✱", and a "12" for a "#".

▶ *LOCATION 1 - ACCOUNT CODE FOR THE PHONE #1*

(6 segments, numerical data) The account code sent when Phone #1 is dialed is programmed in location 1. Program a "10" in the segment immediately after the last digit of the account code. If the account code is 6 digits long, program all 6 segments.

▶ *LOCATION 2 - COMMUNICATOR FORMAT FOR PHONE #1*

(1 segment, numerical data) Location 2 contains the communicator format used to transmit to the receiver connected to Phone #1. Consult the instructions for your central station receiver to determine which format is compatible. Select a format from the list on the following page. If this location contains a "0", the built-in communicator will be disabled, and the NX-8-CF will function as a local only control.

▶ *LOCATION 3 - DIAL ATTEMPTS/BACKUP CONTROL FOR PHONE # 1*

(2 segments, numerical data) **Segment 1- Dial attempts:** Location 3, Segment 1 is used to enter the number of dial attempts (1 to 15 Attempts) the communicator will make to Phone #1 before ending the notification process. Factory default is "8" and the communicator will make eight (8) attempts to the first number.

Segment 2- Phone #1 Backup Control: Programming a "**0**" in Segment 2 of this location will cause the NX-8-CF to make the designated number of attempts to Phone #2 before setting the "Fail To Communicate" condition and stop reporting. Programming a "**1**" in this segment will cause the NX-8-CF to stop trying to communicate after the designated number of attempts have been made to Phone #1. If a "**2**" is programmed in this segment, it will cause the NX-8-CF to make the dial attempts in increments of two. The first two attempts will be made to Phone #1, the next two attempts to Phone #2, then repeating until the total number of attempts designated in Segment 1 is completed.

Table 8-1 FORMAT SELECTIONS

DATA	FORMAT	DESCRIPTION
0	Local	Communicator is disabled
1 - 6	Reserved	
7	SIA with Area Modifier	Sends the area modifier with events associated with a partition. The receiver must be able to accept this modifier.
8 - 12	Reserved	
13	Contact ID	Contact ID - DTMF (see pages 44 and 45)
14	SIA	FSK (see pages 44 and 45)
15	Reserved	

REPORTING EVENTS TO PHONE NUMBER 1

Phone #1 has two programming locations that are used to select which events are reported to this phone number. Location 4 is used to select which events are reported to Phone #1. Location 5 is used to select which partitions are reported to Phone #1. If dual or split reporting is not desired, location 4 should be used to select all events to Phone #1 and location 5 should be left at the factory default of "0". If dual or split reporting is desired, and the split is based on the event type (such as alarm, open/close, etc.), location 4 should be used to select only those events that should be reported to Phone #1 and location 5 should be left at the factory default of "0". If dual or split reporting is desired, and the split is based on partition, location 4 should be programmed as a "0" and location 5 should be used to select those partitions that should be reported to Phone #1. If no events should be reported to Phone #1, both locations should be programmed as "0" (disabling all options).

LOCATION 4 - EVENTS REPORTED TO PHONE # 1

(2 segments, feature selection data)

Segment 1

1 = Alarms and Alarm Restores.
2 = Opening and Closings.
3 = Zone Bypass and Bypass Restores.
4 = Zone Trouble and Trouble Restores.
5 = Power Fail, Low Battery, Power Restore, and Low Battery Restore.
6 = Bell Cut, Telephone Line Cut, Bell Cut Restore, Telephone Line Restore.
7 = Test Reports.
8 = Start and End programming.

Segment 2

1 = Zone and Box Tamper and Tamper Restore.
2 = Auxiliary Power Overcurrent, Ground Fault, and Restore for both.
3 = Wireless Sensor Missing and Restore.
4 = Wireless Sensor Low Battery and Restore.
5 = Expander Trouble and Restore.
6 = Fail To Communicate.
7 = Reserved.
8 = Reserved.

LOCATION 5 - PARTITIONS REPORTED TO PHONE #1

(1 segment, feature selection data) Location 5 is used when events to be reported to a phone number are based upon the partition regardless of the event. If this location is used, location 4 should be programmed as "0".

Segment 1

1=	Partition #1	5=	Partition #5
2=	Partition #2	6=	Partition #6
3=	Partition #3	7=	Partition #7
4=	Partition #4	8=	Partition #8

▶ *LOCATION 6 - PROGRAMMING PHONE #2*

(20 segments, numerical data) Phone #2 is programmed in location 6. A "14" indicates the end of the phone number. Delays of four seconds can be programmed at any point in the phone number by programming a "13" in the appropriate segment. If tone dialing is desired, program a "15" in the segment where tone dialing should begin. If the entire number should be tone dialing, program a "15" in the first segment. Program an “11" for a “✱”, and a “12" for a “#”.

▶ *LOCATION 7 - ACCOUNT CODE FOR THE PHONE #2*

(6 segments of numerical data) The account code sent when Phone #2 is dialed is programmed in location 7. Program a “10" in the segment immediately after the last digit of the account code. If the account code is 6 digits long, program all 6 segments. If this location is left unprogrammed, account code 1 will be used when the second phone number is dialed.

▶ *LOCATION 8 - COMMUNICATOR FORMAT FOR PHONE # 2*

(1 segment, numerical data) Location 8 contains the communicator format used to transmit to the receiver connected to Phone #2. Consult the instruction manual for your central station receiver to determine which format is compatible If this location contains a "0", Phone #3 will use the same format programmed for Phone #1 in Location 2.

LOCATION 9 - DIAL ATTEMPTS/BACKUP CONTROL FOR PHONE #2

(2 segments, numerical data)

Segment 1, Dial attempts

Segment 1 of Location 9 is used to enter the number of dial attempts (1 to 15 attempts) the communicator will make to Phone #2 before ending the notification process. Factory default is "8" and the communicator will make the same number of attempts as those programmed in location 3.

Segment 2, Phone #2 Backup Control

Programming a "**0**" in Segment 2 of this location will cause the NX-8-CF to make the designated number of attempts to Phone #1 before setting the "Fail To Communicate" condition and stop reporting. Programming a "**1**" in this segment will cause the NX-8-CF to stop trying to communicate after the designated number of attempts have been made to Phone #2. If a "**2**" is programmed in this segment, it will cause the NX-8-CF to make the dial attempts in increments of two. The first two attempts will be made to Phone #2, the next two attempts to Phone #1, then repeating until the total number of attempts designated in Segment 1 is completed.

REPORTING EVENTS TO PHONE NUMBER 2

Phone #2 can be used to back up Phone #1 or for a second receiver to multi-report or split report events. Phone #2 has two programming locations that are used to select which events are reported to this phone number. Location 10 is used to select which events are reported to Phone #2, and location 11 is used to select which partitions are reported to Phone #2. If dual or split reporting is not desired, location 10 and location 11 should be left at the factory default of "0". If multi-reporting or split reporting is desired, and the split is based on the event type (such as alarm, open close etc.), location 10 should be used to select only those events that should be reported to Phone #2, and location 11 should be left at the factory default of "0". If dual or split reporting is desired, and the split is based on partition, then location 10 should be programmed as "0", and location 11 should be used to select those partitions that should be reported to the Phone #2. If no events should be reported to Phone #2, both locations should be "0".

LOCATION 10 - EVENTS REPORTED TO PHONE #2

(2 segments of feature selection data)

Segment 1

1 = Alarms and Alarm Restores.
2 = Opening and Closings.
3 = Zone Bypass and Bypass Restores.
4 = Zone Trouble and Trouble Restores.
5 = Power Fail, Low Battery, Power Restore, and Low Battery Restore.
6 = Bell Cut, Telephone Line Cut, Bell Cut Restore, Telephone Line Restore.
7 = Test Reports.
8 = Start and End programming.

Segment 2

1 = Zone and Box Tamper and Tamper Restore.
2 = Auxiliary Power Overcurrent and Ground Fault and Restore for both.
3 = Sensor Missing and Restore.
4 = Sensor Low Battery and Restore.
5 = Expander Trouble and Restore.
6 = Fail To Communicate.
7 = Reserved.
8 = Reserved.

LOCATION 11 - PARTITIONS REPORTED TO PHONE #2

(1 segment, feature selection data) Location 11 is used when events to be reported to a phone number are based upon the partition regardless of the event. If this location is used, location 10 should be "0".

Segment 1

1=	Partition #1	5=	Partition #5
2=	Partition #2	6=	Partition #6
3=	Partition #3	7=	Partition #7
4=	Partition #4	8=	Partition #8

LOCATION 12 - PROGRAMMING PHONE #3

(20 segments, numerical data) Phone #3 is programmed in location 12. A "14" indicates the end of the phone number. Delays of four seconds can be programmed at any point in the phone number by programming a "13" in the appropriate segment. If tone dialing is desired, program a "15" in the segment where tone dialing should begin. If the entire number should be tone dialing, program a "15" in the first segment. Program an “11" for a “✱”, and a “12" for a “#”.

LOCATION 13 - ACCOUNT CODE FOR PHONE #3

(6 segments, numerical data) The account code sent when Phone #3 is dialed is programmed in location 13. Program a “10" in the segment immediately after the last digit of the account code. If the account code is 6 digits long, program all 6 segments. If location 6 is left unprogrammed, account code 1 will be used when the Phone #3 is dialed.

LOCATION 14 - COMMUNICATOR FORMAT FOR PHONE #3

(1 segment, numerical data) Location 14 contains the communicator format used to transmit to the receiver connected to phone #3. Consult the instruction manual for your central station receiver to determine which format is compatible. If this location contains a "0", Phone #3 will use the same format programmed for Phone #1 in Location 2.

LOCATION 15 - DIAL ATTEMPTS/BACKUP CONTROL FOR PHONE #3

(2 segments, numerical data)

Segment 1, Dial Attempts

Segment 1 of Location 15 is used to enter the number of dial attempts (1 to 15 attempts) the communicator will try to Phone #3 before ending the notification process. Factory default is "0" and the communicator will make the same number of attempts as those programmed in location 3.

Segment 2, Phone # 3 Backup Control

Programming a "**0**" in Segment 2 of this location will cause the NX-8-CF to make the designated number of attempts to Phone #2 before setting the "Fail To Communicate" condition and stop reporting. Programming a "**1**" in this segment will cause the NX-8-CF to stop trying to communicate after the designated number of attempts have been made to Phone #3. If a "**2**" is programmed in this segment, it will cause the NX-8-CF to make the dial attempts in increments of two. The first two attempts will be made to Phone #3, the next two attempts to Phone #2, then repeating until the total number of attempts designated in Segment 1 is completed.

REPORTING EVENTS TO PHONE NUMBER 3

Phone #3 can be used for a third receiver to multi-report or split report events. Phone #3 has two programming locations that are used to select which events are reported to this phone number. Location 16 is used to select which events are reported to Phone #3, and Location 17 is used to select which partitions are reported to Phone #3. If dual or split reporting is not desired, location 16 and location 17 should be left at the factory default of "0". If multi-reporting or split reporting is desired, and the split is based on the event type (such as alarm, open/close, etc.), then location 16 should be used to select only those events that should be reported to Phone #3 and location 17 should be left at the factory default of "0". If dual or split reporting is desired, and the split is based on partition, then location 16 should be programmed to "0" and location 17 should be used to select those partitions that should be reported to Phone #3. If no events should be reported to Phone #3, both locations should be "0".

LOCATION 16 - EVENTS REPORTED TO PHONE #3

(2 segments, feature selection data)

Segment 1

1 = Alarms and Alarm Restores.
2 = Opening and Closings.
3 = Zone Bypass and Bypass Restores.
4 = Zone Trouble and Trouble Restores.
5 = Power Fail, Low Battery, Power Restore, and Low Battery Restore.
6 = Bell Cut, Telephone Line Cut, Bell Cut Restore, Telephone Line Restore.
7 = Test Reports.
8 = Start and End programming.

Segment 2

1 = Zone and Box Tamper and Tamper Restore.
2 = Auxiliary Power Overcurrent and Ground Fault and Restore for both.
3 = Sensor Missing and Restore.
4 = Sensor Low Battery and Restore.
5 = Expander Trouble and Restore.
6 = Fail To Communicate.
7 = Reserved.
8 = Reserved.

LOCATION 17 - PARTITIONS REPORTED TO PHONE #3

(1 segment, feature selection data) Location 17 is used when events to be reported to a phone number are based upon the partition regardless of the event. If this location is used, location 16 should be "0".

Segment 1

1=	Partition #1	5=	Partition #5
2=	Partition #2	6=	Partition #6
3=	Partition #3	7=	Partition #7
4=	Partition #4	8=	Partition #8

LOCATIONS 18 – 22 RESERVED

▶ *LOCATION 23 - PARTITION 1, FEATURE AND REPORT SELECTIONS*

(3 segments, feature selection data) Location 23 is used to enable certain features that can be accessed or are visible to the user from the keypad of the system. In addition, certain communicator reports are enabled in location 23. Each of these features can be enabled by partition. For additional partition information see locations 88-109. **If the feature selection location for any partition is left blank, that partition will use this location for the feature selection.**

This location contains 3 segments of 8 features each. (Refer to GLOSSARY on page 6.)

Segment 1

1 = On enables the Quick Arm feature.
2 = On enables the Re-exit feature.
3 = On enables the Automatic Bypass feature.
4 = On enables the Silent Keypad Panic feature **(overrides the audible panic selection)**.
5 = On enables the Audible Keypad Panic feature.
6 = On enables the Keypad Aux 1 feature (FIRE).
7 = On enables the Keypad Aux 2 feature (AUXILIARY).
8 = On enables the Keypad Multiple Code Attempt Tamper feature.

Segment 2

1 = On enables the LED Extinguish feature.
2 = On enables the Require Code for Bypassing feature.
3 = On enables the Zone Bypassed Sounder Alert feature.
4 = Reserved
5 = On enables Bypass toggle.
6 = On enables Silent Auto Arm.
7 = On enables the Automatic Instant feature.
8 = Reserved.

Segment 3

1 = On enables Opening and Closing reports.
2 = On enables Zone Bypass reporting.
3 = On enables Zone Restore reporting. Factory default is on.
4 = On enables Zone Trouble reporting. Factory default is on.
5 = On enables Zone Tamper reporting.
6 = On enables the Cancel reporting.
7 = On enables the Recent Closing report.
8 = On enables the Exit Error report.

▶ *LOCATION 24 - ENTRY / EXIT TIMERS*

(4 segments, numerical data) Location 24 is used to program the Entry/Exit times. There are 2 separate Entry/Exit times.

Segment 1, Entry time 1: This is the entry time that will be used when a delay 1 zone type initiates an entry delay. Valid entries are 10-255 seconds.

Segment 2, Exit time 1: This is the exit time that will be used for all zones designated as delay 1. Valid entries are 10-255 seconds.

Segment 3, Entry time 2: This is the entry time that will be used when a delay 2 zone type initiates an entry delay. Valid entries are 10-255 seconds.

Segment 4, Exit time 2: This is the exit time that will be used for all zones designated as delay 2. Valid entries are 10-255 seconds.

9. DEFAULT ZONE TYPES (Configurations)

✍ **All Fire zones are pre-programmed for UL settings.**

Zones can be programmed to be one of twenty different zone types (configurations). Zone types # 17 - 20 can be used for wireless or hardwired zones using European double EOL configuration. The default zone types are listed below. These zone types can be customized by programming locations 110-149.

Table 9-1 DEFAULT ZONE TYPES

DATA	DESCRIPTION
1	**DAY ZONE -** Instant when system is armed trouble zone when system is disarmed.
2	**24-HOUR AUDIBLE** - Creates an instant yelping siren alarm regardless of the armed state of the panel.
3	**ENTRY/EXIT DELAY 1-** A trip will start entry delay 1. The lack of a trip during exit delay will enable the Automatic Bypass or Instant mode if so programmed.
4	**FOLLOWER WITH AUTO- BYPASS DISABLED -** This zone will be instant when the system is armed and no entry or exit delays are being timed. It is delayed during entry and exit delay times. This zone will not automatically bypass even if enabled in Segment 1 of Location 23.
5	**INTERIOR FOLLOWER WITH AUTO- BYPASS ENABLED -** This zone will be instant when the system is armed and no entry or exit delay is being timed. It is delayed during entry and exit delay times. This zone will automatically bypass if enabled in Segment 1 of Location 23.
6	**INSTANT -** This zone creates an instant alarm whenever it is tripped and the Armed LED is on.
7	**24 HOUR SILENT -** Creates an instant silent alarm regardless of the armed state of the control panel. It will not display on the keypad.
8	**FIRE -** This zone will light the Fire LED and sound the temporal siren each time the zone is shorted. It will also rapidly flash the Fire LED indicating a trouble if the zone is open. **NOTE**: If any zone is programmed as a Fire Zone, that zone will be a Fire Zone in all partitions. (i.e. if zone 2 is a Fire Zone in partition 1, then zone 2 will be a Fire Zone in all partitions.)
9	**ENTRY/EXIT DELAY 2-** A trip will start entry delay 2. The lack of a trip during exit delay will enable the Automatic Bypass or Instant mode if so programmed.
10	**24-HOUR SILENT SUPERVISED-** Creates an instant silent alarm regardless of the armed state of the control panel. It will display on the keypad.
11	**KEYSWITCH ZONE -** This zone type will arm and disarm the partition or partitions of the control panel that it resides in each time the zone is shorted. Keyswitch arming will report as user #99.
12	**INTERIOR FOLLOWER WITH "CROSS ZONE" ENABLED** - This zone will be instant when the system is armed and no entry or exit delay is being timed. It is delayed during entry and exit delay times. If a "Cross Zone" is not being timed it will start a "Cross Zone" timer. If a "Cross Zone" is being timed it will create an instant alarm. This zone will automatically bypass when enabled in Segment 1 of Location 23.
13	**INSTANT ENTRY GUARD -** This zone creates an instant alarm whenever it is tripped and the Stay LED is off. It will start an entry delay time 2 if it is tripped and the system is armed and the Stay LED is on.
14	**ENTRY/EXIT DELAY 1 WITH GROUP BYPASS ENABLED -** A trip will start entry delay 1. This zone will bypass when the "Group Bypass" command is entered at the keypad. The lack of a trip during exit delay will enable the Automatic Bypass or Instant mode if so programmed.
15	**INTERIOR FOLLOWER WITH GROUP BYPASS ENABLED -** This zone will be instant when the system is armed and no entry or exit delays are being timed. It is delayed during entry/exit delay times. This zone will bypass when the "Group Bypass" command is entered at the keypad. This zone will automatically bypass if enabled in Segment 1 of Location 23.
16	**SUPERVISORY -** This zone creates an instant Sprinkler Supervisory report.
17	**ENTRY/EXIT DELAY 1 WITH TAMPER ENABLED-** A trip will start entry delay 1. The lack of a trip during exit delay will enable the Automatic Bypass or Instant mode if so programmed. **This zone type can be used to enable tamper on a wireless transmitter.**
18	**INTERIOR FOLLOWER WITH TAMPER AND AUTO-BYPASS ENABLED -** This zone will be instant when the system is armed and no entry or exit delay is being timed. It is delayed during entry and exit delay times. This zone will automatically bypass if enabled in Segment 1 of Location 23. **This zone type can be used to enable tamper on a wireless transmitter.**
19	**INSTANT WITH TAMPER ENABLED** - This zone creates an instant alarm whenever it is tripped and the Armed LED is on. This zone type can be used to enable tamper on a wireless transmitter.
20	**ENTRY/EXIT DELAY 2 WITH TAMPER ENABLED-**A trip will start entry delay 2. The lack of a trip during exit delay will enable the Automatic Bypass or Instant mode if so programmed. **This zone type can be used to enable tamper on a wireless transmitter.**

▶ *LOCATION 25 - ZONES 1-8 ZONE TYPE*

(8 segments, numerical data) Location 25 contains the Zone Type for zones 1-8. Segment 1 is for zone 1, and Segment 8 is for zone 8. Default Zone Types are found in Table 9-1 on page 19. To customize a Zone Type, see page 29.

LOCATION 26 - PARTITION SELECT, ZONES 1-8

(8 segments, feature selection data) Location 26 is used to select the partition(s) that zones 1 - 8 reside in. A zone may reside in any combination of the 8 partitions. **If a burglary zone resides in more than 1 partition, it will only be active when all partitions it resides in are armed. A zone that resides in more than 1 partition will be reported to its lowest partition.** Location 26 has 8 segments. Segment 1 corresponds to zone 1, and Segment 8 corresponds to zone 8.

Segments 1 – 8

1=	Partition #1	5=	Partition #5
2=	Partition #2	6=	Partition #6
3=	Partition #3	7=	Partition #7
4=	Partition #4	8=	Partition #8

▶ *LOCATION 27 - ZONES 9-16 ZONE TYPE*

(8 segments, numerical data) Location 27 contains the Zone Type for zones 9 -16. Segment 1 is for zone 9, Segment 8 is for zone 16. Default Zone Types are found in Table 9-1 on page 19. To customize a Zone Type, see page29.

LOCATION 28 - PARTITION SELECT, ZONES 9-16

(8 segments, feature selection data) Location 28 is used to select the partition(s) that zones 9-16 reside in. A zone may reside in any combination of the 8 partitions. **If a burglary zone resides in more than 1 partition, it will only be active when all partitions it resides in are armed. A zone that resides in more than 1 partition will be reported to its lowest partition.** Location 28 has 8 segments. Segment 1 corresponds to zone 9 and Segment 8 corresponds to zone 16.

Segments 1 – 8

1=	Partition #1	5=	Partition #5
2=	Partition #2	6=	Partition #6
3=	Partition #3	7=	Partition #7
4=	Partition #4	8=	Partition #8

▶ *LOCATION 29 - ZONES 17-24 ZONE TYPE*

(8 segments, numerical data) Location 29 contains the Zone Type for zones 17-24. Segment 1 is for zone 17, Segment 8 is for zone 24. Default Zone Types are found in Table 9-1 on page 19. To customize a Zone Type, see page 29.

LOCATION 30 - PARTITION SELECT, ZONES 17-24

(8 segments, feature selection data) Location 30 is used to select the partition(s) that zones 17-24 reside in. A zone may reside in any combination of the 8 partitions. **If a burglary zone resides in more than 1 partition, it will only be active when all partitions it resides in are armed. A zone that resides in more than 1 partition will be reported to its lowest partition.** Location 30 has 8 segments. Segment 1 corresponds to zone 17 and Segment 8 corresponds to zone 24.

Segments 1 – 8

1=	Partition #1	5=	Partition #5
2=	Partition #2	6=	Partition #6
3=	Partition #3	7=	Partition #7
4=	Partition #4	8=	Partition #8

▶ *LOCATION 31 - ZONES 25-32 ZONE TYPE GROUP*

(8 segments, numerical data) Location 31 contains the Zone Type for zones 25-32. Segment 1 is for zone 25, Segment 8 is for zone 32. Default Zone Types are found in Table 9-1 on page 19. To customize a Zone Type, see page 29.

LOCATION 32 - PARTITION SELECT, ZONES 25-32

(8 segments, feature selection data) Location 32 is used to select the partition(s) that zones 25-32 reside in. A zone may reside in any combination of the 8 partitions. **If a burglary zone resides in more than 1 partition it will only be active when all partitions it resides in are armed. A zone that resides in more than 1 partition will be reported to its lowest partition.** Segment 1 corresponds to zone 25 and Segment 8 corresponds to zone 32.

Segments 1 – 8

1=	Partition #1	5=	Partition #5
2=	Partition #2	6=	Partition #6
3=	Partition #3	7=	Partition #7
4=	Partition #4	8=	Partition #8

▶ *LOCATION 33 - ZONES 33-40 ZONE TYPE*

(8 segments, numerical data) Location 33 contains the Zone Type for zones 33-40. Segment 1 is for zone 33 Segment 8 is for zone 40. Default Zone Types are found in Table 9-1 on page 19. To customize a Zone Type, see page 29.

LOCATION 34 - PARTITION SELECT, ZONES 33-40

(8 segments, feature selection data) Location 34 is used to select the partition(s) that zones 33-40 reside in. A zone may reside in any combination of the 8 partitions. **If a burglary zone resides in more than 1 partition, it will only be active when all partitions are armed. A zone that resides in more than 1 partition will be reported to its lowest partition.** Segment 1 corresponds to zone 33 and Segment 8 corresponds to zone 40.

Segments 1 – 8

1=	Partition #1	5=	Partition #5
2=	Partition #2	6=	Partition #6
3=	Partition #3	7=	Partition #7
4=	Partition #4	8=	Partition #8

▶ *LOCATION 35 - ZONES 41-48 ZONE TYPE*

(8 segments, numerical data) Location 35 contains the Zone type for zones 41-48. Segment 1 is for zone 41 Segment 8 is for zone 48. Default Zone Types are found in Table 9-1 on page 19. To customize a Zone Type, see page 29.

LOCATION 36 - PARTITION SELECT, ZONES 41-48

(8 segments, feature selection data) Location 36 is used to select the partition or partitions that zones 41-48 reside in. A zone may reside in any combination of the 8 partitions. **If a burglary zone resides in more than 1 partition it will only be active when all partitions are armed. A zone that resides in more than 1 partition will be reported to its lowest partition.** Location 36 has 8 segments. Segment 1 corresponds to zone 41 and Segment 8 corresponds to zone 48.

Segments 1 – 8

1=	Partition #1	5=	Partition #5
2=	Partition #2	6=	Partition #6
3=	Partition #3	7=	Partition #7
4=	Partition #4	8=	Partition #8

▶ *LOCATION 37 - SIREN AND SYSTEM SUPERVISION*

(5 segments, feature selection data) Location 37 is used to enable various system feature and reporting options. (Refer to GLOSSARY on page 6.)

Segment 1

1 = On if siren sounds for "Telephone Line Cut" when armed.
2 = On if siren sounds for "Telephone Line Cut" when disarmed.
3 = On if siren blast at arming.
4 = On if siren blast at exit expiration.
5 = On if siren blast at closing kissoff.
6 = On if siren sounds during a "Cross Zone" verification time.
7 = On if siren sounds for a Zone or Box Tamper.
8 = On if siren blasts 1 time for keyswitch or wireless arming; 2 times for disarming.

Segment 2

1 = On if siren driver should be a voltage output. Off if on board siren driver enabled.
2 = On if siren sounds for expander trouble (required for UL installations).
3 = On for Immediate Restore by zone. Off for zones to restore only when siren is off.
4 = Reserved.
5 = On if Battery Missing Test is performed every 12 seconds.
6 = On if Manual Bell Test performed during [✱]-[4] test function.
7 = On if Manual Communicator Test performed during [✱]- [4] test function.
8 = On if Box Tamper terminals on the control panel are enabled.

Segment 3

1 = On if Box Tamper report enabled.
2 = On if AC Fail reporting enabled.
3 = On if Low Battery reporting enabled.
4 = On if Aux. Power Overcurrent report enabled.
5 = On if Siren Supervision report enabled.
6 = On if Telephone Line Cut report enabled.
7 = On if Ground Fault Detection report enabled.
8 = On if Expander Trouble reporting enabled.

Segment 4

1 = On if Fail To Communicate report enabled.
2 = On if Log Full report enabled.
3 = ***On if Autotest report enabled.*** (Required for UL installations.) Default is "on" (enabled).
4 = On if Start/End programming report enabled.
5 = Reserved.
6 = On if Sensor Low Battery report enabled.
7 = On if Sensor Missing report enabled.
8 = Reserved.

Segment 5

1 = On enables Lost Clock "Service Required" message.
2 = On enables NX-870E siren output to activate for FIRE ONLY. Default is off (disabled).
3 = On disables On-Board 8 zones.
4 = On will allow two trips on same cross-zone to activate an alarm.
5 = On will **not** allow zones that are force armed to report bypass.
6 = On enables Silent Exit option.
7 = Use internal crystal for clock.
8 = Disable Temporal Siren on Fire. **NOTE: Use only if UL listed Siren device converts steady voltage to temporal.**

▶ *LOCATION 38 - SWINGER SHUTDOWN COUNT*

Location 38 contains the number of trips during an arming cycle that the NX-8-CF will allow before bypassing a zone. The count determination is described in the GLOSSARY on page 6. **NOTE: For UL installations, this feature shall be disabled.**

▶ *LOCATION 39 - KEYPAD SOUNDER CONTROL*

(1 segment, feature selection data)

Segment 1

1 = On if keypad sounds for "Telephone Line Cut" when the system is armed.
2 = On if keypad sounds for "Telephone Line Cut" when disarmed.
3 = On if keypad sounds upon AC Power Failure.
4 = On if keypad sounds when a Low Battery is detected.
5 = On if keypad sounds during Cross Zone trip time.
6 = On if keypad sounds for zone and box tampers.
7 = Reserved.
8 = On if keypad sounds for expander trouble (required for UL installations).

▶ *LOCATION 40 - SYSTEM TIMERS*

(10 segments, numerical data) Location 40 contains the duration of various system timing functions. Example: If you desire the duration of the Dynamic Battery Test to be 30 minutes, program [3]-[0]-[✱] in segment 1 of this location. The [3]-[0] is the number of minutes, and the [✱] stores the data and moves to the next segment of this location.

Segment 1 Dynamic Battery Test duration in minutes 0-255 minutes **("0" = no test)**

✍ The "Dynamic Battery Test" feature cannot exceed four (4) hours. The dial delay shall be set to -0-.

Segment 2 AC Fail report delay in 0-255 hours.
Segment 3 Power Up Delay in seconds 0-60 seconds ("0" = no power up delay).
Segment 4 Siren Time in minutes 1-255 minutes.
Segment 5 Telephone Line Cut delay in seconds 10-175 seconds.
Segment 6 Cross Zone time in minutes 0-255 **("0" = no cross zoning).**
Segment 7 Chime time in 50 mS (1/20th second) increments from 0-12 seconds ("0" = follows zone 255 latched).
Segment 8 Dial delay in seconds 0-255 seconds **("0 " = no abort delay).**
Segment 9 Fire Alarm Verification time in seconds 120-240 seconds ("0" = no fire alarm verification). **NOTE: This feature is not approved for residential use in California.**
Segment 10 Reserved

LOCATION 41 - SPECIAL FEATURES

(1 segment, feature selection data)

Segment 1

1 = On enables the 6-digit code option. If 6-digit option is enabled, all arm/disarm codes and the "Go To Program Code" are 6 digits. If this option is enabled, the default user 1 code is [**1**]-[**2**]-[**3**]-[**4**]-[**5**]-[**6**]. **NOTE: IF YOU ENABLE THIS OPTION, VERIFY THAT THE "GO TO PROGRAM CODE" IS A SIX-DIGIT CODE BEFORE EXITING PROGRAMMING.**
2 = Reserved
3 = Enable Auto Cancel / Abort (Refer to GLOSSARY on page 6.)
4 = Enable Walk-Test Mode (Refer to GLOSSARY on page 6.)
5-8 Reserved.

▶ *LOCATION 42 - GO TO PROGRAM CODE*

(6 segments, numerical data) Location 42 contains the "Go To Program Code". This location contains either a 4 or 6-digit code. If the 6-digit code option is enabled in Location 41, THIS CODE MUST CONTAIN SIX (6) DIGITS. If this option is not enabled in location 41, the last 2 segments (digits) will be ignored. With the NX-8-CF disarmed, the "Go To Program Code" can be used to enter the Program Mode.

LOCATION 43 - GO TO PROGRAM CODE PARTITION AND AUTHORIZATION

(2 segments, feature selection) The "Go To Program Code" can be used as a standard arm/disarm code. When using the code to arm or disarm, the user ID is 255. (This code may not be changed in the Run Mode.)

Segment 1

1 = Reserved.
2 = On enables "Go To Program Code" as an arm only code.
3 = On enables "Go To Program Code" as an arm only after closing.
4 = On enables "Go To Program Code" as a master arm/disarm code (can change user codes)
5 = On enables "Go To Program Code" as an arm/disarm code.
6 = On enables "Go To Program Code" to bypass zones.
7 = On enables "Go To Program Code" opening and closing reports.
8 = Reserved.

Segment 2

1 = On enables the "Go To Program Code" for Partition #1.
2 = On enables the "Go To Program Code" for Partition #2.
3 = On enables the "Go To Program Code" for Partition #3.
4 = On enables the "Go To Program Code" for Partition #4.
5 = On enables the "Go To Program Code" for Partition #5.
6 = On enables the "Go To Program Code" for Partition #6.
7 = On enables the "Go To Program Code" for Partition #7.
8 = On enables the "Go To Program Code" for Partition #8.

LOCATION 44 - DURESS CODE

(6 segments, numerical data) Location 44 contains the Duress code. This Location contains either 4 or 6 digits. If the 6-digit code option is enabled in Location 41, THIS CODE MUST CONTAIN SIX (6) DIGITS. If the 6-digit option is not enabled in location 41, the last 2 digits will be ignored. **If programmed, the duress code will work for all partitions.**

LOCATION 45 - OUTPUTS 1-4 PARTITION SELECTION

(4 segments, feature selection data) Location 45 is used to select which partition(s) the events must occur in before the output will activate. Location 45 has 4 segments. Segments 1 and 2 correspond to relays/outputs 1 and 2, while segments 3 and 4 correspond to auxiliary outputs 3 and 4.

Segment 1 (Relay / Output 1)	Segment 2 (Relay / Output 2)	Segment 3 (Aux. Output 3)	Segment 4 (Aux. Output 4)
1= Partition #1	1= Partition #1	1= Partition #1	1= Partition #1
2= Partition #2	2= Partition #2	2= Partition #2	2= Partition #2
3= Partition #3	3= Partition #3	3= Partition #3	3= Partition #3
4= Partition #4	4= Partition #4	4= Partition #4	4= Partition #4
5= Partition #5	5= Partition #5	5= Partition #5	5= Partition #5
6= Partition #6	6= Partition #6	6= Partition #6	6= Partition #6
7= Partition #7	7= Partition #7	7= Partition #7	7= Partition #7
8= Partition #8	8= Partition #8	8= Partition #8	8= Partition #8

LOCATION 46 – OUTPUTS 1-4 SPECIAL TIMING

(4 segments, feature selection data) Location 46 contains special timing feature activation for outputs 1 - 4. Segments 1 and 2 correspond to relays/outputs 1 and 2, while segments 3 and 4 correspond to auxiliary outputs 3 and 4.

Segments 1 - 4

1 = On if output should be timed in minutes; Off if timed in seconds.
2 = On if output should latch; Off if output should be timed.
3 = On if output should stop timing upon code entry; Off if the output should continue to time upon code entry.
4 = On if output should only activate between the closing and opening time in loc. 52 & 53.
5 = On if output should only activate between the opening and closing time in loc. 52 & 53.
6 = On if output should be inverted (0 volts going to 12 volts when activated).
7 = Reserved.
8 = Reserved.

LOCATION 47 – RELAY / OUTPUT #1, EVENT AND TIME

(2 segments, numerical data)

Segment 1: Use Table 9-2 on page 25 to select the event that will activate output relay/output 1.
Segment 2: Program the timing from 0-255 (minutes or seconds, depending on data programmed in Segment 1, Location 46). Programming a "0" makes the relay/output follow the event.

LOCATION 48 – RELAY / OUTPUT #2, EVENT AND TIME

(2 segments, numerical data)

Segment 1: Use Table 9-2 on page 25 to select the event that will activate output relay/output 2.
Segment 2: Program the timing from 0-255 (minutes or seconds, depending on data programmed in Segment 2, Location 46). Programming a "0" makes the relay/output follow the event.

LOCATION 49- OUTPUT #3, EVENT AND TIME

(2 segments, numerical data)

Segment 1: Use Table 9-2on page 25 to select the event that will activate output 3.
Segment 2: Program the timing from 0-255 (minutes or seconds, depending on data programmed in Segment 3, Location 46). Programming a "0" makes the output follow the event.

LOCATION 50- OUTPUT #4, EVENT AND TIME

(2 segments, numerical data)

Segment 1: Use Table 9-2 on page 25 to select the event that will activate output 4.

Segment 2: Program the timing from 0-255 (minutes or seconds, depending on data programmed in Segment 4, Location 46). Programming a "0" makes the output follow the event.

Table 9-2 AUXILIARY OUTPUT EVENT SELECTION

DATA	EVENT	DATA	EVENT
0 √	Burglary Alarm	26	Fire Trouble
1 √	Fire Alarm	27	Chime
2 √	24 Hour Alarm	28 √	Expander Trouble
3 √	Trouble Alarm	29	Dynamic Battery Test Time
4 √	Tamper Alarm	30	Open Period
5	Yelping Siren (Burglary)	31	Closed Period
6	Temporal Siren (Fire)	32	Reserved
7	Any Siren	33	Line Seizure
8	Any Bypass	34	Ground Start
9	AC Fail	35	Fail To Communicate
10	Low Battery	36	Telephone Line Fault
11 √	Duress	37	Program Mode
12 √	Aux 1 Keypad Zone	38	Reserved
13 √	Aux 2 Keypad Zone	39	Ground Fault
14 √	Panic Keypad Zone	40	Short Circuit (Over-current)
15	Keypad Tamper	41	Box Tamper
16 √	Autotest	42	Siren Tamper
17	Alarm Memory	43	Any Open
18	Entry	44	Any Short
19	Exit	45	Any Fault (Open/ Short on Non-Fire Zone)
20	Entry or Exit	46 √	Any Alarm
21	Armed State	47	Beeping Keypad
22	Disarmed State	48 √	Code Entry (See note below)
23	Ready	49 ❖ √	Key FOB Function 1
24	Not Ready	50 ❖ √	Key FOB Function 2
25	Fire		

❖ Events 49 & 50 require NX-408, NX-416, or NX-448 wireless receivers to operate.

√ If set to follow condition, these events will be 1 second.

Notes : When Event 48 is programmed, it is possible to program a user code's authorization to select which output(s) a particular code will activate. **(Refer to "Assigning User Authority" in the NX-148ECF installation manual.)**

▶ *LOCATION 51 - AUTOTEST CONTROL*

(4 segments, numerical data)

Segment 1: Program a "1" if the interval is to be in hours; Program a "0" if in days. Add a "2" to suppress the daily test or a "3" to suppress the hourly test if any report has been sent.

Segment 2: Program the Autotest interval from 1-255 hours/days.

Segment 3: Program the Autotest report hour in 24-hour format (if the interval is in hours, this segment is ignored).

Segment 4: Program the Autotest report time, number of minutes after the hour.

LOCATION 52 - OPENING TIME

(2 segments, numerical data) Location 52 contains the time in 24 hour format the NX-8-CF enables codes designated as arm only after closing. This time is only valid on those days programmed in location 54.

✍ Opening time must be earlier than closing time for Auto Arm, Relays, Auxiliary Outputs, or Code Authorization to function properly.

Segment 1: Program the hour of the opening time**.**

Segment 2: Program the minutes after the hour of the opening time.

LOCATION 53 - CLOSING TIME/AUTOMATIC ARMING TIME

(2 segments, numerical data) Location 53 contains the time in 24 hour format the NX-8-CF disables the disarm capability for codes designated as arm only after closing. This is also the time the Automatic Arming sequence will begin (if enabled in location 55).

✍ Opening time must be earlier than closing time for Auto Arm, Relays, Auxiliary Outputs, or Code Authorization to function properly.

Segment 1: Program the hour of the closing / auto arm time**.**
Segment 2: Program the minutes after the hour of the closing / auto arm time.

LOCATION 54 - DAYS OF THE WEEK EACH PARTITION IS OPEN

(8 Segments, feature selection data) Location 54 selects which days of the week each partition is open. On these days, "arm only after close window" codes will be able to arm and disarm during open window.

✍ If any partition is not programmed to be opened and is programmed to Auto-Arm (Location 55), the NX-8-CF will try to arm every 45 minutes for the duration of the closed period.

On days not selected here, "arm only after close window" codes will not disarm. Segment 1 is for partition 1, and segment 8 is for partition 8**. (Locations 52 and 53 for the opening and closing times for the open days.)**

Segment 1-8

1 = Open on Sunday.
2 = Open on Monday.
3 = Open on Tuesday.
4 = Open on Wednesday.
5 = Open on Thursday.
6 = Open on Friday.
7 = Open on Saturday.
8 = Reserved.

LOCATION 55 - DAYS OF THE WEEK FOR AUTO ARMING IN PARTITIONS 1 THRU 8

(8 Segments, feature selection data) Location 55 selects which days each partition will auto arm. Segment 1 is for partition 1, and segment 8 is for partition 8. If a zone is faulted when the panel tries to auto arm, the zone will be bypassed.

Segments 1-8

1 = Auto Arming on Sunday.
2 = Auto Arming on Monday.
3 = Auto Arming on Tuesday.
4 = Auto Arming on Wednesday.
5 = Auto Arming on Thursday.
6 = Auto Arming on Friday.
7 = Auto Arming on Saturday.
8 = Reserved.

LOCATIONS 56 - 87 RESERVED.

LOCATIONS 88 – 109 ARE FOR PROGRAMMING DIFFERENT ACCOUNT CODES AND/OR FEATURES FOR EACH PARTITION. IF A LOCATION IS LEFT UNPROGRAMMED, THE FEATURE FOR PARTITION 1 AND ACCOUNT CODE FOR THE PHONE NUMBER WILL BE USED.

LOCATION 88 - ACCOUNT CODE FOR PARTITION 1

(6 segments, numerical data) Location 88 contains the account code sent when partition 1 is reported. **If location 88 is left unprogrammed (all "10"s), then the account code corresponding to the Phone number dialed will be used.** If the account code is less than six digits, program a "10" in the segment immediately after the last digit of the account code. If the account code is 6 digits long, program all 6 segments.

LOCATION 89 - ACCOUNT CODE FOR PARTITION 2

(6 segments, numerical data) Location 89 contains the account code sent when partition 2 is reported. **If location 89 is left unprogrammed (all "10"s), then the account code corresponding to the Phone number dialed will be used.** If the account code is less than six digits, program a "10" in the segment immediately after the last digit of the account code. If the account code is 6 digits long program all 6 segments.

LOCATION 90 - PARTITION 2 FEATURE AND REPORTING SELECTIONS

(3 segments, feature selection data) Location 90 is used to enable certain features that can be accessed or are visible to the user from the keypad of the system. In addition, certain communicator reports are enabled in this location. Each of these features can be enabled by partition. This location contains 3 segments, with eight possible features per segment. Refer to Location 23, Segments 1 - 3 on page 18 for the feature selections. **If all segments are blank (nothing enabled), the features for partition 1 will be used.**

LOCATION 91 - PARTITION 2 ENTRY EXIT TIMERS

(4 segments, numerical data) Location 91 is used to enter in seconds the Entry and Exit times. There are 2 separate entry and exit times. Valid entries are 10-255 seconds. **If all segments are "0", the entry and exit times for partition 1 will be used.**

Segment 1, Entry time 1: Entry time that will be used when a Delay 1 zone type initiates an entry delay.
Segment 2, Exit time 1: Exit time that will be used for all zones designated as Delay 1.
Segment 3, Entry time 2: Entry time that will be used when a Delay 2 zone type initiates an entry delay.
Segment 4, Exit time 2: Exit time that will be used for all zones designated as Delay 2.

LOCATION 92 - ACCOUNT CODE FOR PARTITION 3

(6 segments, numerical data) The account code sent when partition 3 is reported is programmed in location 92. **If location 92 is left unprogrammed (all "10") then the account code corresponding to the Phone number dialed will be used.** If the account code is less than six digits, program a "10" in the segment immediately after the last digit of the account code. If the account code is 6 digits long program all 6 segments.

LOCATION 93 - PARTITION 3 FEATURE AND REPORTING SELECTIONS

(3 segments, feature selection data) Location 93 is used to enable certain features that can be accessed or are visible to the user from the keypad of the system. In addition, certain communicator reports are enabled in this location. Each of these features can be enabled by partition. This location contains 3 segments, with eight possible features per segment. Refer to Location 23, Segments 1 - 3 on page 18 for the feature selections. **If all segments are blank (nothing enabled), the features for partition 1 will be used.**

LOCATION 94 - PARTITION 3 ENTRY EXIT TIMERS

(4 segments, numerical data) Location 94 is used to enter in seconds the Entry and Exit times. There are 2 separate entry and exit times. Valid entries are 10-255 seconds. **If all segments are "0", the entry and exit times for partition 1 will be used.**

Segment 1, Entry time 1: Entry time that will be used when a Delay 1 zone type initiates an entry delay.
Segment 2, Exit time 1: Exit time that will be used for all zones designated as Delay 1.
Segment 3, Entry time 2: Entry time that will be used when a Delay 2 zone type initiates an entry delay.
Segment 4, Exit time 2: Exit time that will be used for all zones designated as Delay 2.

LOCATION 95 - ACCOUNT CODE FOR PARTITION 4

(6 segments, numerical data) The account code sent when partition 4 is reported is programmed in location 95. **If location 95 is left unprogrammed (all "10") then the account code corresponding to the Phone number dialed will be used.** If the account code is less than six digits, program a "10" in the segment immediately after the last digit of the account code. If the account code is 6 digits long, program all 6 segments.

LOCATION 96 - PARTITION 4 FEATURE AND REPORTING SELECTIONS

(3 segments, feature selection data) Location 96 is used to enable certain features that can be accessed or are visible to the user from the keypad of the system. In addition, certain communicator reports are enabled in this location. Each of these features can be enabled by partition. This location contains 3 segments, with eight possible features per segment. Refer to Location 23, Segments 1 - 3 on page 18 for the feature selections. **If all segments are blank (nothing enabled), the features for partition 1 will be used.**

LOCATION 97 - PARTITION 4 ENTRY EXIT TIMERS

(4 segments, numerical data) Location 97 is used to enter in seconds the Entry and exit times. There are 2 separate entry and exit times. Valid entries are 10-255 seconds. **If all segments are "0", the entry and exit times for partition 1 will be used.**

Segment 1, Entry time 1: Entry time that will be used when a Delay 1 zone type initiates an entry delay.
Segment 2, Exit time 1: Exit time that will be used for all zones designated as Delay 1.
Segment 3, Entry time 2: Entry time that will be used when a Delay 2 zone type initiates an entry delay.
Segment 4, Exit time 2: Exit time that will be used for all zones designated as Delay 2.

LOCATION 98 - ACCOUNT CODE FOR PARTITION 5

(6 segments, numerical data) The account code sent when partition 5 is reported is programmed in location 98. **If location 98 is left unprogrammed (all "10") then the account code corresponding to the Phone number dialed will be used.** If the account code is less than six digits, program a "10" in the segment immediately after the last digit of the account code. If the account code is 6 digits long, program all 6 segments.

LOCATION 99 - PARTITION 5 FEATURE AND REPORTING SELECTIONS

(3 segments, numerical data) Location 99 is used to enable certain features that can be accessed or are visible to the user from the keypad of the system. In addition, certain communicator reports are enabled in this location. Each of these features can be enabled by partition. This location contains 3 segments, with eight possible features per segment. Refer to Location 23, Segments 1 - 3 on page 18 for the feature selections. **If all segments are blank (nothing enabled), the features for partition 1 will be used.**

LOCATION 100 - PARTITION 5 ENTRY EXIT TIMERS

(4 segments, numerical data) Location 100 is used to enter in seconds the Entry and exit times. There are 2 separate entry and exit times. Valid entries are 10-255 seconds. **If all segments are "0", the entry and exit times for partition 1 will be used.**

Segment 1, Entry Time 1: Entry time that will be used when a delay 1 zone type initiates an entry delay.
Segment 2, Exit Time 1: Exit time that will be used for all zones designated as delay 1.
Segment 3, Entry Time 2: Entry time that will be used when a delay 2 zone type initiates an entry delay.
Segment 4, Exit Time 2: Exit time that will be used for all zones designated as delay 2.

LOCATION 101 - ACCOUNT CODE FOR PARTITION 6

(6 segments, numerical data) The account code sent when partition 6 is reported is programmed in location 101. **If location 101 is left unprogrammed (all "10") then the account code corresponding to the Phone number dialed will be used.** Program the account code is less than six digits, program a "10" in the segment immediately after the last digit of the account code. If the account code is 6 digits long, program all 6 segments.

LOCATION 102 - PARTITION 6 FEATURE AND REPORTING SELECTIONS

(3 segments, feature selection data) Location 102 is used to enable certain features that can be accessed or are visible to the user from the keypad of the system. In addition, certain communicator reports are enabled in this location. Each of these features can be enabled by partition. This location contains 3 segments, with eight possible features per segment. Refer to Location 23, Segments 1 - 3 on page 18 for the feature selections. **If all segments are blank (nothing enabled), the features for partition 1 will be used.**

LOCATION 103 - PARTITION 6 ENTRY EXIT TIMERS

(4 segments, numerical data) Location 103 is used to enter in seconds the Entry and Exit times. There are 2 separate entry and exit times. Valid entries are 10-255 seconds. **If all segments are "0", the entry and exit times for partition 1 will be used.**

Segment 1, Entry Time 1: Entry time that will be used when a Delay 1 zone type initiates an entry delay.
Segment 2, Exit Time 1: Exit time that will be used for all zones designated as Delay 1.
Segment 3, Entry Time 2: Entry time that will be used when a Delay 2 zone type initiates an entry delay.
Segment 4, Exit Time 2: Exit time that will be used for all zones designated as Delay 2.

LOCATION 104 - ACCOUNT CODE FOR PARTITION 7

(6 segments, numerical data) The account code sent when partition 7 is reported is programmed in location 104. **If location 104 is left unprogrammed (all "10") then the account code corresponding to the Phone number dialed will be used.** If the account code is less than six digits, program a "10" in the segment immediately after the last digit of the account code. If the account code is 6 digits long, program all 6 segments.

LOCATION 105 - PARTITION 7 FEATURE AND REPORTING SELECTIONS

(3 segments, feature selection data) Location 105 is used to enable certain features that can be accessed or are visible to the user from the keypad of the system. In addition, certain communicator reports are enabled in this location. Each of these features can be enabled by partition. This location contains 3 segments, with eight possible features per segment. Refer to Location 23, Segments 1 - 3 on page 18 for the feature selections. **If all segments are blank (nothing enabled), the features for partition 1 will be used.**

LOCATION 106 - PARTITION 7 ENTRY EXIT TIMERS

(4 segments, numerical data) Location 106 is used to enter in seconds the Entry and Exit times. There are 2 separate entry and exit times. Valid entries are 10-255 seconds. **If all segments are "0", the entry and exit times for partition 1 will be used.**

Segment 1, Entry Time 1: Entry time that will be used when a Delay 1 zone type initiates an entry delay.
Segment 2, Exit Time 1: Exit time that will be used for all zones designated as Delay 1.
Segment 3, Entry Time 2: Entry time that will be used when a Delay 2 zone type initiates an entry delay.
Segment 4, Exit Time 2: Exit time that will be used for all zones designated as Delay 2.

LOCATION 107 - ACCOUNT CODE FOR PARTITION 8

(6 segments, numerical data) The account code sent when partition 8 is reported is programmed in location 107. **If location 107 is left unprogrammed (all "10") then the account code corresponding to the Phone number dialed will be used.** If the account code is less than six digits, program a "10" in the segment immediately after the last digit of the account code. If the account code is 6 digits long, program all 6 segments.

LOCATION 108 - PARTITION 8 FEATURE AND REPORTING SELECTIONS

(3 segments, feature selection data) Location 108 is used to enable certain features that can be accessed or are visible to the user from the keypad of the system. In addition, certain communicator reports are enabled in this location. Each of these features can be enabled by partition. This location contains 3 segments, with eight possible features per segment. Refer to Location 23, Segments 1 - 3 on page 18 for the feature selections. **If all segments are blank (nothing enabled), the features for partition 1 will be used.**

LOCATION 109 - PARTITION 8 ENTRY EXIT TIMERS

(4 segments, numerical data) Location 109 is used to enter in seconds the Entry and Exit times. There are 2 separate entry and exit times. Valid entries are 10-255 seconds. **If all segments are "0", the entry and exit times for partition 1 will be used.**

Segment 1, Entry Time 1: Entry time that will be used when a Delay 1 zone type initiates an entry delay.
Segment 2, Exit Time 1: Exit time that will be used for all zones designated as Delay 1.
Segment 3, Entry Time 2: Entry time that will be used when a Delay 2 zone type initiates an entry Delay.
Segment 4, Exit Time 2: Exit time that will be used for all zones designated as Delay 2.

LOCATIONS 110 - 149 ARE USED TO CHANGE THE ZONE TYPES (Configurations) AS LISTED IN Table 9-1 ON PAGE 19. THESE LOCATIONS ARE CONSIDERED ADVANCED PROGRAMMING AND SHOULD ONLY BE CHANGED WITH A THOROUGH UNDERSTANDING OF THE OPERATION OF EACH BIT.

✍ **FIRE ZONE CHARACTERISTICS ARE PRESET AND CANNOT BE CHANGED IN UL LISTED SYSTEMS. (LOCATIONS 110 –149)**

LOCATION 110 - ZONE TYPE 1 ALARM EVENT CODE

(1 segment, numerical data) Location 110 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 111 - ZONE TYPE 1 CHARACTERISTIC SELECT

(3 segments, feature selection data)

Segment 1: 1 = Fire (turn on if this is a fire zone).
2 = 24 hour (turn on for non-fire 24 hour zones).
3 = Keyswitch zone. (normally open switch)
4 = Follower (turn on for burglary zones that are Instant during non-entry times).
5 = Delay 1 zone (follows timer 1 entry and exit times).
6 = Delay 2 zone (follows timer 2 entry and exit times).
7 = Interior (turn on if this zone should Automatically Bypass or Bypass for Stay Arming).
8 = Local only (turn on if this zone should not be reported).

Segment 2: 1 = On if Zone Type will beep the keypad for alarm.
2 = On if Zone Type will sound the yelping siren for alarm.
3 = On if Zone Type will sound the temporal siren for alarm.
4 = On if Zone Type will chime.
5 = On if Zone Type can be bypassed.
6 = On if Zone Type is included in the group shunt.
7 = On if Zone Type is force armable.
8 = On if Zone Type is entry guard.

Segment 3: 1 = On enables Sprinkler Supervisory
2 = On enables Double End Of Line Tamper zone. (Mainly used for tamper on wireless zones)
3 = On enables Trouble Reporting zone. (Day zone and Fire zones)
4 = On if Zone Type is a Cross Zone.
5 = On enables Dialer Delay zone. (Location 40, page 22)
6 = On if Zone Type will swinger shutdown. (Location 38, page 22)
7 = On enables Restore reporting.
8 = Reserved

LOCATION 112 - ZONE TYPE 2 ALARM EVENT CODE

(1 segment, numerical data) Location 112 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 113 - ZONE TYPE 2 CHARACTERISTIC SELECT

(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 114 - ZONE TYPE 3 ALARM EVENT CODE

(1 segment, numerical data) Location 114 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 115 - ZONE TYPE 3 CHARACTERISTIC SELECT

(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 116 - ZONE TYPE 4 ALARM EVENT CODE
(1 segment, numerical data) Location 116 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 117 - ZONE TYPE 4 CHARACTERISTIC SELECT
(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 118 - ZONE TYPE 5 ALARM EVENT CODE
(1 segment, numerical data) Location 118 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 119 - ZONE TYPE 5 CHARACTERISTIC SELECT
(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 120 - ZONE TYPE 6 ALARM EVENT CODE
(1 segment, numerical data) Location 120 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 121 - ZONE TYPE 6 CHARACTERISTIC SELECT
(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 122 - ZONE TYPE 7 ALARM EVENT CODE
(1 segment, numerical data) Location 122 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 123 - ZONE TYPE 7 CHARACTERISTIC SELECT
(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 124 - ZONE TYPE 8 ALARM EVENT CODE
(1 segment, numerical data) Location 124 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 125 - ZONE TYPE 8 CHARACTERISTIC SELECT
(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 126 - ZONE TYPE 9 ALARM EVENT CODE
(1 segment, numerical data) Location 126 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 127 - ZONE TYPE 9 CHARACTERISTIC SELECT
(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 128 - ZONE TYPE 10 ALARM EVENT CODE
(1 segment, numerical data) Location 128 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 129 - ZONE TYPE 10 CHARACTERISTIC SELECT
(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 130 - ZONE TYPE 11 ALARM EVENT CODE
(1 segment, numerical data) Location 130 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 131 - ZONE TYPE 11 CHARACTERISTIC SELECT
(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 132 - ZONE TYPE 12 ALARM EVENT CODE
(1 segment, numerical data) Location 132 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 133 - ZONE TYPE 12 CHARACTERISTIC SELECT
(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 134 - ZONE TYPE 13 ALARM EVENT CODE
(1 segment, numerical data) Location 134 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 135 - ZONE TYPE 13 CHARACTERISTIC SELECT
(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 136 - ZONE TYPE 14 ALARM EVENT CODE
(1 segment, numerical data) Location 136 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 137 - ZONE TYPE 14 CHARACTERISTIC SELECT
(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 138 - ZONE TYPE 15 ALARM EVENT CODE
(1 segment, numerical data) Location 138 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 139 - ZONE TYPE 15 CHARACTERISTIC SELECT
(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 140 - ZONE TYPE 16 ALARM EVENT CODE
(1 segment, numerical data) Location 140 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 141 - ZONE TYPE 16 CHARACTERISTIC SELECT
(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 142 - ZONE TYPE 17 ALARM EVENT CODE
(1 segment, numerical data) Location 142 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 143 - ZONE TYPE 17 CHARACTERISTIC SELECT
(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 144 - ZONE TYPE 18 ALARM EVENT CODE
(1 segment, numerical data) Location 144 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 145 - ZONE TYPE 18 CHARACTERISTIC SELECT
(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 146 - ZONE TYPE 19 ALARM EVENT CODE
(1 segment, numerical data) Location 146 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 147 - ZONE TYPE 19 CHARACTERISTIC SELECT
(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

LOCATION 148 - ZONE TYPE 20 ALARM EVENT CODE
(1 segment, numerical data) Location 148 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 45. The zone ID will be that zone that is in alarm.

LOCATION 149 - ZONE TYPE 20 CHARACTERISTIC SELECT
(3 segments, feature selection data) Use "Zone Type Characteristic Selections" described in Location 111.

ZONE WORKSHEET

1		25	
2		26	
3		27	
4		28	
5		29	
6		30	
7		31	
8		32	
9		33	
10		34	
11		35	
12		36	
13		37	
14		38	
15		39	
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18		42	
19		43	
20		44	
21		45	
22		46	
23		47	
24		48	

10. NX-8-CF PROGRAMMING WORKSHEETS

Factory defaults for segments are in ***bold italics*** text
"Quick Start" locations are identified with the ▶ symbol.

LOC	PG	DESCRIPTION	DEFAULT	DATA
▶ 0	14	PHONE #1	***14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14***	— — — — — — — — — — — — — — — — — — — —
▶ 1	14	PHONE #1, ACCOUNT CODE	***10 - 10 - 10 - 10 - 10 - 10***	_ _ _ _ _ _
▶ 2	14	PHONE #1, REPORT FORMAT	***0***	__
▶ 3	14	PHONE #1, DIAL ATTEMPTS BACKUP CONTROL	***8*** ***0***	— __
4	15	PHONE #1, SELECTING EVENTS TO REPORT TO PHONE #1		
		Segment #1	Segment #2	
		1 = Alarms and Restores ❑ ***2 = Open/Close ❑*** ***3 = Bypass ❑*** ***4 = Zone Trouble ❑*** ***5 = Power Trouble (AC Failure or Low Battery) ❑*** ***6 = Siren & Telephone Fault ❑*** ***7 = Test Reports ❑*** ***8 = Program / Log Full ❑***	***1 = Tampers ❑*** ***2 = Short Circuit &Grd Fault ❑*** ***3 = Sensor Lost ❑*** ***4 = Sensor Low Battery ❑*** ***5 = Expander Trouble ❑*** ***6 = Fail To Communicate ❑*** ***7 = Reserved*** ***8 = Reserved***	
5	15	PHONE #1, SELECTING WHICH PARTITIONS REPORT TO PHONE #1		
		Segment #1		
		1 = Partition #1 ❑ 2 = Partition #2 ❑ 3 = Partition #3 ❑ 4 = Partition #4 ❑ 5 = Partition #5 ❑ 6 = Partition #6 ❑ 7 = Partition #7 ❑ 8 = Partition #8 ❑		
▶ 6	15	PHONE #2	***14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14***	— — — — — — — — — — — — — — — — — — — —
▶ 7	15	PHONE #2, ACCOUNT CODE	***10 - 10 - 10 - 10 - 10 - 10***	_ _ _ _ _ _
▶ 8	15	PHONE #2, REPORT FORMAT	***0***	__
9	15	PHONE #2, DIAL ATTEMPTS BACKUP CONTROL	***8*** ***0***	— __
10	16	PHONE #2, SELECTING EVENTS TO REPORT TO PHONE #2		
		Segment #1	Segment #2	
		1 = Alarms and Restores ❑ 2 = Open/Close ❑ 3 = Bypass ❑ 4 = Zone Trouble ❑ 5 = Power Trouble (AC Failure or Low Battery) ❑ 6 = Siren & Telephone Fault ❑ 7 = Test Reports ❑ 8 = Program/Log Full ❑	1 = Tampers ❑ 2 = Short Circuit & Grd Fault ❑ 3 = Sensor Lost ❑ 4 = Sensor Low Battery ❑ 5 = Expander Trouble ❑ 6 = Fail To Communicate ❑ 7 = Reserved 8 = Reserved	

LOC	PG	DESCRIPTION	DEFAULT	DATA
11	16	PHONE #2, SELECTING WHICH PARTITIONS REPORT TO PHONE #2		
		Segment #1		
		1 = Partition #1 ❑ 2 = Partition #2 ❑ 3 = Partition #3 ❑ 4 = Partition #4 ❑ 5 = Partition #5 ❑ 6 = Partition #6 ❑ 7 = Partition #7 ❑ 8 = Partition #8 ❑		
12	16	PHONE #3	***14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14***	__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __
13	17	PHONE #3, ACCOUNT CODE	***10 - 10 - 10 - 10 - 10 - 10***	_ _ _ _ _ _
14	17	PHONE #3, REPORT FORMAT	***0***	___
15	17	PHONE #3, DIAL ATTEMPTS BACKUP CONTROL	***8*** ***0***	___ ___
16	17	PHONE #3, SELECTING EVENTS TO REPORT TO PHONE #3		
		Segment #1	Segment #2	
		1 = Alarms and Restores ❑ 2 = Open/Close ❑ 3 = Bypass ❑ 4 = Zone Trouble ❑ 5 = Power Trouble (AC Failure or Low Battery) ❑ 6 = Siren & Telephone Fault ❑ 7 = Test Reports ❑ 8 = Program/Log Full ❑	1 = Tampers ❑ 2 = Short Circuit & Grd Fault ❑ 3 = Sensor Lost ❑ 4 = Sensor Low Battery ❑ 5 = Expander Trouble ❑ 6 = Fail To Communicate ❑ 7 = Reserved 8 = Reserved	
17	17	PHONE #3, SELECTING WHICH PARTITIONS REPORT TO PHONE #3		
		Segment #1		
		1 = Partition #1 ❑ 2 = Partition #2 ❑ 3 = Partition #3 ❑ 4 = Partition #4 ❑ 5 = Partition #5 ❑ 6 = Partition #6 ❑ 7 = Partition #7 ❑ 8 = Partition #8 ❑		
18 -22	18	RESERVED		
▶ 23	18	PARTITION #1, FEATURE SELECTION		
		Segment #1	Segment #2	Segment #3
		1 = Quick Arm ❑ 2 = Re-Exit ❑ 3 = Auto Bypass ❑ 4 = Silent Panic ❑ ***5 = Audible Panic ❑*** 6 = Auxiliary 1 ❑ 7 = Auxiliary 2 ❑ 8 = Multi Keypress Tamper ❑	1 = LED extinguish enable ❑ 2 = Require user code for bypassing zones ❑ 3 = Bypass sounder alert ❑ 4 = Reserved 5 = Enable bypass toggle ❑ 6 = Enable silent auto arm ❑ 7 = Enable automatic instant ❑ 8 = Reserved	1 = Open/Close ❑ 2 = Bypass ❑ ***3 = Restore ❑*** ***4 = Trouble ❑*** 5 = Tamper ❑ 6 = Cancel ❑ 7 = Recent Closing ❑ 8 = Exit Error ❑
▶ 24	18	ENTRY/EXIT TIMERS		
		Segment #1 (Entry Time #1) Segment #2 (Exit Time #1) Segment #3 (Entry Time #2) Segment #4 (Exit Time #2)	***30*** ***60*** ***30*** ***60***	_____ _____ _____
▶ 25	20	ZONES 1-8, ZONE TYPES	***3-5-6-6-6-6-6-6***	_ _ _ _ _ _ _ _

LOC	PG	DESCRIPTION			DEFAULT			DATA		
26	20	ZONES 1-8, PARTITION SELECTION (Segment 1=Zone 1 thru Segment 8=Zone 8)								
		Segments	1	2	3	4	5	6	7	8
		Partition #1	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***
		Partition #2	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑
		Partition #3	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑
		Partition #4	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑
		Partition #5	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑
		Partition #6	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑
		Partition #7	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑
		Partition #8	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑
▶	27	20	ZONES 9-16, ZONE TYPES		***6-6-6-6-6-6-6-6***			_ _ _ _ _ _ _ _		
	28	20	ZONES 9-16, PARTITION SELECTION (Segment 1=Zone 9 thru Segment 8=Zone 16)							
		Segments	1	2	3	4	5	6	7	8
		Partition #1	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***
		Partition #2	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑
		Partition #3	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑
		Partition #4	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑
		Partition #5	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑
		Partition #6	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑
		Partition #7	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑
		Partition #8	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑
▶	29	20	ZONES 17-24, ZONE TYPES		***6-6-6-6-6-6-6-6***			_ _ _ _ _ _ _ _		
	30	20	ZONES 17-24, PARTITION SELECTION (Segment 1=Zone 17 thru Segment 8=Zone 24)							
		Segments	1	2	3	4	5	6	7	8
		Partition #1	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***
		Partition #2	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑
		Partition #3	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑
		Partition #4	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑
		Partition #5	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑
		Partition #6	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑
		Partition #7	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑
		Partition #8	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑
▶	31	20	ZONES 25-32, ZONE TYPES		***6-6-6-6-6-6-6-6***			_ _ _ _ _ _ _ _		
	32	21	ZONES 25-32, PARTITION SELECTION (Segment 1=Zone 25 thru Segment 8=Zone 32)							
		Segments	1	2	3	4	5	6	7	8
		Partition #1	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***
		Partition #2	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑
		Partition #3	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑
		Partition #4	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑
		Partition #5	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑
		Partition #6	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑
		Partition #7	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑
		Partition #8	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑
▶	33	21	ZONES 33-40, ZONE TYPES		***6-6-6-6-6-6-6-6***			_ _ _ _ _ _ _ _		
	34	21	ZONES 33-40, PARTITION SELECTION (Segment 1=Zone 33 thru Segment 8=Zone 40)							
		Segments	1	2	3	4	5	6	7	8
		Partition #1	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***
		Partition #2	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑
		Partition #3	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑
		Partition #4	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑
		Partition #5	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑
		Partition #6	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑
		Partition #7	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑
		Partition #8	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑

LOC	PG	DESCRIPTION	DEFAULT	DATA
▶ 35	21	ZONES 41-48, ZONE TYPES	***6-6-6-6-6-6-6-6***	_ _ _ _ _ _ _ _

36 21 ZONES 41-48, PARTITION SELECTION (Segment 1=Zone 41 thru Segment 8=Zone 48)

Segments	1	2	3	4	5	6	7	8
Partition #1	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***	***1 ❑***
Partition #2	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑	2 ❑
Partition #3	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑	3 ❑
Partition #4	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑	4 ❑
Partition #5	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑	5 ❑
Partition #6	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑	6 ❑
Partition #7	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑	7 ❑
Partition #8	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑	8 ❑

▶ 37 21 SIREN AND SYSTEM SUPERVISION

Segment #1

1 = Siren sounds for telephone line cut while armed ❑
2 = Siren sounds for telephone line cut while disarmed ❑
3 = Siren blast at arming ❑
4 = Siren blast at exit delay expiration ❑
5 = Siren blast at closing kissoff ❑
6 = Siren sounds during a cross zone verification time ❑
7 = Siren sounds for a tamper ❑
8 = Siren blast one time for keyswitch arming, two times for disarming ❑

Segment #2

1 = Convert siren driver to voltage out ❑
2 = Siren sounds for expander trouble (required for U.L.) ❑
3 = Immediate Restore by zone ❑
4 = Reserved
5 = Battery missing test performed every 12 seconds ❑
6 = Manual bell test performed during [✱]-[4] test function ❑
7 = Manual communicator test performed during [✱]-[4] test function ❑
8 = Box tamper enabled ❑

Segment #3

1 = Box Tamper report enabled ❑
2 = AC Fail report enabled ❑
3 = Low Battery report enabled ❑
4 = Auxiliary power over current report enabled ❑
5 = Siren supervision report enabled ❑
6 = Telephone Line Cut report enabled ❑
7 = Ground Fault Detection report enabled ❑
8 = Expander trouble report enabled ❑

Segment #4

1 = Failure To Communicate report enabled ❑
2 = Log Full report enabled ❑
3 = Autotest report enabled ❑
4 = Start and End Programming report enabled ❑
5 = Reserved
6 = Sensor Low Battery report enabled ❑
7 = Sensor Missing report enabled ❑
8 = Reserved

LOC	PG	DESCRIPTION	DEFAULT	DATA
		Segment #5		
		1 = Lost Clock "Service Required" message enable ❑ 2 = Enables NX-870E siren output to activate for FIRE ONLY ❑ 3 = Disable on-board eight zones ❑ 4 = Enables two trips on the same cross-zone to activate the alarm ❑ 5 = Disables bypass reports for force armed zones ❑ 6 = Silent exit ❑ 7 = Clock uses internal crystal ❑ 8 = Disable Temporal Siren on Fire **(Do not disable on UL listed systems)** ❑		
▶ 38	22	SWINGER SHUTDOWN COUNT	***0***	_
▶ 39	22	KEYPAD SOUNDER CONTROL		
		Segment #1		
		1 = Keypad sounds for Telephone Line Cut when in the Armed state ❑ ***2 = Keypad sounds for Telephone Line Cut when in the Disarmed state ❑*** 3 = Keypad sounds upon AC Power Failure ❑ 4 = Keypad sounds upon Low Battery Detection ❑ 5 = Keypad sounds during Cross Zone Trip Time ❑ ***6 = Keypad sounds for Tamper Alarm ❑*** 7 = Reserved 8 = Keypad sounds for expander trouble (required for UL) ❑		
▶ 40	22	SYSTEM TIMERS		
		Segment #1 Dynamic Battery Test duration (0-255 minutes)	***0***	____
		Segment #2 AC Failure report delay (0-255 hours)	***5***	____
		Segment #3 Power Up Delay (0-60 seconds)	***0***	____
		Segment #4 Siren Time (1-255 minutes)	***8***	____
		Segment #5 Telephone Line Cut delay (10-175 seconds)	***0***	____
		Segment #6 Cross Zone Time (0-255 minutes)	***5***	____
		Segment #7 Chime Time in 50 mS increments (0-255)	***3***	____
		Segment #8 Dialer delay (0-255 seconds)	***0***	____
		Segment #9 Fire Alarm Verification Time (120-240 sec.)	***0***	____
		Segment #10 Reserved		
41	23	SPECIAL FEATURES		
		Segment #1		
		1 = Enables six digit code option. All arm/disarm/Go To Program codes require six digits 2 = Reserved 3 = Enable Auto Cancel / Abort ❑ 4 = Enable Walk-Test Mode ❑ 5 - 8 = Reserved		
▶ 42	23	GO TO PROGRAM CODE	***9-7-1-3-0-0***	_ _ _ _ _ _
43	23	GO TO PROGRAM CODE PARTITION AND AUTHORIZATION		
		Segment #1		
		1 = Reserved 2 = Enables "Go To Program Code" as an arm only code ❑ 3 = Enables "Go To Program Code" as an arm only after closing ❑ 4 = Enables "Go To Program Code" as a master arm/disarm code (can change user codes) ❑ 5 = Enables "Go To Program Code" as an arm/disarm code ❑ 6 = Enables "Go To Program Code" to bypass zones ❑ 7 = Enables "Go To Program Code" opening and closing reports ❑ 8 = Reserved		
		Segment #2		
		1 = Enables "Go To Program Code" for partition #1 ❑ ***2 = Enables "Go To Program Code" for partition #2 ❑*** ***3 = Enables "Go To Program Code" for partition #3 ❑*** ***4 = Enables "Go To Program Code" for partition #4 ❑*** ***5 = Enables "Go To Program Code" for partition #5 ❑*** ***6 = Enables "Go To Program Code" for partition #6 ❑*** ***7 = Enables "Go To Program Code" for partition #7 ❑*** ***8 = Enables "Go To Program Code" for partition #8 ❑***		

LOC	PG	DESCRIPTION	DEFAULT	DATA
▶ 44	24	DURESS CODE	***15-15-15-15-15-15***	__ __ __ __ __ __

LOC	PG	DESCRIPTION	Relay1	Relay2	AuxOut3	AuxOut4
45	24	OUTPUTS 1-4 PARTITION SELECTION				
		Segments	Relay1	Relay2	AuxOut3	AuxOut4
		Partition #1	***1***	***1***	***1***	***1***
		Partition #2	***2***	***2***	***2***	***2***
		Partition #3	***3***	***3***	***3***	***3***
		Partition #4	***4***	***4***	***4***	***4***
		Partition #5	***5***	***5***	***5***	***5***
		Partition #6	***6***	***6***	***6***	***6***
		Partition #7	***7***	***7***	***7***	***7***
		Partition #8	***8***	***8***	***8***	***8***
46	24	OUTPUTS 1-4 SPECIAL TIMING				
		Segments	Relay1	Relay2	AuxOut3	AuxOut4
		Output timed in minutes.	1	1	1	1
		Output to latch.	2	2	2	2
		Output to stop timing upon user code entry.	***3***	***3***	***3***	***3***
		Output to activate only between closing & opening	4	4	4	4
		Output to activate only between opening & closing	5	5	5	5
		Invert output (0 volts going to 12V when activated).	6	6	6	6
		Reserved	7	7	7	7
		Reserved	8	8	8	8

LOC	PG	DESCRIPTION		
47	24	RELAY #1, EVENT & TIME		
		Segment #1: Program the event number for relay #1	***0=Burglary alarm***	
		Segment #2: Program the timing for relay #1	***10 seconds***	
48	24	RELAY #2, EVENT & TIME		
		Segment #1: Program the event number for relay #2	***1=Fire alarm***	
		Segment #2: Program the timing for relay #2	***10 seconds***	
49	24	AUXILIARY OUTPUT #3, EVENT & TIME		
		Segment #1: Program the event number for output #3	***2= 24 Hour Alarm***	
		Segment #2: Program the timing for output #3	***10 seconds***	
50	25	AUXILIARY OUTPUT #4, EVENT & TIME		
		Segment #1: Program the event number for output #4	***21-Armed State***	
		Segment #2: Program the timing for output #4	***0=Follow condition***	
▶ 51	25	AUTOTEST CONTROL		
		Segment #1: Program a "1" if the interval is hours, a "0" if in days. Add a "2" to suppress the daily test or a "3" to suppress the hourly test.	***0***	
		Segment #2: Program the autotest interval from 1-255 days or hours.	***24***	
		Segment #3: Program the autotest report in 24-hour time format.	***2***	
		Segment #4: Program the autotest report time (minutes after the hour)	***0***	
52	25	OPENING TIME		
		Segment #1: Program the hour of the opening time.	***8***	
		Segment #2: Program the minutes after the hour of the opening time.	***0***	
53	26	CLOSING TIME / AUTO ARMING TIME		
		Segment #1: Program the hour of the closing time / auto arming time.	***20***	
		Segment #2: Program the minutes after hour of closing / auto arming time.	***0***	

LOC	PG	DESCRIPTION	DEFAULT	DATA

54 — 26 — DAYS OF THE WEEK EACH PARTITION IS OPEN

Segments	1	2	3	4	5	6	7	8
Sunday	***1***	***1***	***1***	***1***	***1***	***1***	***1***	***1***
Monday	***2***	***2***	***2***	***2***	***2***	***2***	***2***	***2***
Tuesday	***3***	***3***	***3***	***3***	***3***	***3***	***3***	***3***
Wednesday	***4***	***4***	***4***	***4***	***4***	***4***	***4***	***4***
Thursday	***5***	***5***	***5***	***5***	***5***	***5***	***5***	***5***
Friday	***6***	***6***	***6***	***6***	***6***	***6***	***6***	***6***
Saturday	***7***	***7***	***7***	***7***	***7***	***7***	***7***	***7***
Reserved	***8***	***8***	***8***	***8***	***8***	***8***	***8***	***8***

55 — 26 — DAYS OF THE WEEK "AUTO ARMING" WILL OCCUR IN PARTITIONS 1-8

Segments	1	2	3	4	5	6	7	8
Sunday	1	1	1	1	1	1	1	1
Monday	2	2	2	2	2	2	2	2
Tuesday	3	3	3	3	3	3	3	3
Wednesday	4	4	4	4	4	4	4	4
Thursday	5	5	5	5	5	5	5	5
Friday	6	6	6	6	6	6	6	6
Saturday	7	7	7	7	7	7	7	7
Reserved	8	8	8	8	8	8	8	8

LOC	PG	DESCRIPTION	DEFAULT	DATA
56-87	26	RESERVED		
88	27	PARTITION 1, ACCOUNT CODE	***10-10-10-10-10-10***	_ _ _ _ _ _
89	27	PARTITION 2, ACCOUNT CODE	***10-10-10-10-10-10***	_ _ _ _ _ _

90 — 27 — PARTITION 2, FEATURE AND REPORTING SELECTION

Segment #1	Segment #2	Segment #3
1 =Quick Arm ❑ 2 = Re-Exit ❑ 3 = Auto Bypass ❑ 4 = Silent Panic ❑ 5 = Audible Panic ❑ 6 = Auxiliary 1 ❑ 7 = Auxiliary 2 ❑ 8 = Multi Keypress Tamper ❑	1 = LED Extinguish enable ❑ 2 = Require user code for bypassing zones ❑ 3 = Bypass sounder alert ❑ 4 = AC Power/Low Battery sounder alert ❑ 5 = Enable Bypass toggle ❑ 6 = Enable Silent Auto Arm ❑ 7 = Enable Automatic Instant ❑ 8 = Reserved	1 = Open/Close ❑ 2 = Bypass ❑ 3 = Restore ❑ 4 = Trouble ❑ 5 = Tamper ❑ 6 = Cancel ❑ 7 = Recent Closing ❑ 8 = Exit Error ❑

LOC	PG	DESCRIPTION	DEFAULT	DATA
91	27	PARTITION 2 ENTRY/EXIT TIMERS		
		Segment #1 (Entry Time #1)	***0***	___
		Segment #2 (Exit Time #1)	***0***	___
		Segment #3 (Entry Time #2)	***0***	___
		Segment #4 (Exit Time #2)	***0***	___
92	27	PARTITION 3, ACCOUNT CODE	***10-10-10-10-10-10***	_ _ _ _ _ _

93 — 27 — PARTITION 3, FEATURE AND REPORTING SELECTION

Segment #1	Segment #2	Segment #3
1 =Quick Arm ❑ 2 = Re-Exit ❑ 3 = Auto Bypass ❑ 4 = Silent Panic ❑ 5 = Audible Panic ❑ 6 = Auxiliary 1 ❑ 7 = Auxiliary 2 ❑ 8 = Multi Keypress Tamper ❑	1 = LED Extinguish enable ❑ 2 = Require user code for bypassing zones ❑ 3 = Bypass sounder alert ❑ 4 = AC Power/Low Battery sounder alert ❑ 5 = Enable Bypass toggle ❑ 6 = Enable Silent Auto Arm ❑ 7 = Enable Automatic Instant ❑ 8 = Reserved	1 = Open/Close ❑ 2 = Bypass ❑ 3 = Restore ❑ 4 = Trouble ❑ 5 = Tamper ❑ 6 = Cancel ❑ 7 = Recent Closing ❑ 8 = Exit Error ❑

LOC	PG	DESCRIPTION	DEFAULT	DATA
94	27	PARTITION 3 ENTRY/EXIT TIMERS		
		Segment #1 (Entry Time #1)	***0***	___
		Segment #2 (Exit Time #1)	***0***	___
		Segment #3 (Entry Time #2)	***0***	___
		Segment #4 (Exit Time #2)	***0***	___

LOC	PG	DESCRIPTION	DEFAULT	DATA
95	28	PARTITION 4, ACCOUNT CODE	***10-10-10-10-10-10***	_ _ _ _ _ _
96	28	PARTITION 4, FEATURE AND REPORTING SELECTION		
		Segment #1	Segment #2	Segment #3
		1 =Quick Arm ❑ 2 = Re-Exit ❑ 3 = Auto Bypass ❑ 4 = Silent Panic ❑ 5 = Audible Panic ❑ 6 = Auxiliary 1 ❑ 7 = Auxiliary 2 ❑ 8 = Multi Keypress Tamper ❑	1 = LED Extinguish enable ❑ 2 = Require user code for bypassing zones ❑ 3 = Bypass sounder alert ❑ 4 = AC Power/Low Battery sounder alert ❑ 5 = Enable Bypass toggle ❑ 6 = Enable Silent Auto Arm ❑ 7 = Enable Automatic Instant ❑ 8 = Reserved	1 = Open/Close ❑ 2 = Bypass ❑ 3 = Restore ❑ 4 = Trouble ❑ 5 = Tamper ❑ 6 = Cancel ❑ 7 = Recent Closing ❑ 8 = Exit Error ❑
97	28	PARTITION 4 ENTRY/EXIT TIMERS		
		Segment #1 (Entry Time #1)	***0***	___
		Segment #2 (Exit Time #1)	***0***	___
		Segment #3 (Entry Time #2)	***0***	___
		Segment #4 (Exit Time #2)	***0***	___
98	28	PARTITION 5, ACCOUNT CODE	***10-10-10-10-10-10***	_ _ _ _ _ _
99	28	PARTITION 5, FEATURE AND REPORTING SELECTION		
		Segment #1	Segment #2	Segment #3
		1 =Quick Arm ❑ 2 = Re-Exit ❑ 3 = Auto Bypass ❑ 4 = Silent Panic ❑ 5 = Audible Panic ❑ 6 = Auxiliary 1 ❑ 7 = Auxiliary 2 ❑ 8 = Multi Keypress Tamper ❑	1 = LED Extinguish enable ❑ 2 = Require user code for bypassing zones ❑ 3 = Bypass sounder alert ❑ 4 = AC Power/Low Battery sounder alert ❑ 5 = Enable Bypass toggle ❑ 6 = Enable Silent Auto Arm ❑ 7 = Enable Automatic Instant ❑ 8 = Reserved	1 = Open/Close ❑ 2 = Bypass ❑ 3 = Restore ❑ 4 = Trouble ❑ 5 = Tamper ❑ 6 = Cancel ❑ 7 = Recent Closing ❑ 8 = Exit Error ❑
100	28	PARTITION 5 ENTRY/EXIT TIMERS		
		Segment #1 (Entry Time #1)	***0***	___
		Segment #2 (Exit Time #1)	***0***	___
		Segment #3 (Entry Time #2)	***0***	___
		Segment #4 (Exit Time #2)	***0***	___
101	28	PARTITION 6, ACCOUNT CODE	***10-10-10-10-10-10***	_ _ _ _ _ _
102	28	PARTITION 6, FEATURE AND REPORTING SELECTION		
		Segment #1	Segment #2	Segment #3
		1 =Quick Arm ❑ 2 = Re-Exit ❑ 3 = Auto Bypass ❑ 4 = Silent Panic ❑ 5 = Audible Panic ❑ 6 = Auxiliary 1 ❑ 7 = Auxiliary 2 ❑ 8 = Multi Keypress Tamper ❑	1 = LED Extinguish enable ❑ 2 = Require user code for bypassing zones ❑ 3 = Bypass sounder alert ❑ 4 = AC Power/Low Battery sounder alert ❑ 5 = Enable Bypass toggle ❑ 6 = Enable Silent Auto Arm ❑ 7 = Enable Automatic Instant ❑ 8 = Reserved	1 = Open/Close ❑ 2 = Bypass ❑ 3 = Restore ❑ 4 = Trouble ❑ 5 = Tamper ❑ 6 = Cancel ❑ 7 = Recent Closing ❑ 8 = Exit Error ❑
103	29	PARTITION 6 ENTRY/EXIT TIMERS		
		Segment #1 (Entry Time #1)	***0***	___
		Segment #2 (Exit Time #1)	***0***	___
		Segment #3 (Entry Time #2)	***0***	___
		Segment #4 (Exit Time #2)	***0***	___

LOC	PG	DESCRIPTION	DEFAULT	DATA
104	29	PARTITION 7, ACCOUNT CODE	***10-10-10-10-10-10***	_ _ _ _ _ _
105	29	PARTITION 7, FEATURE AND REPORTING SELECTION		
		Segment #1	Segment #2	Segment #3
		1 =Quick Arm ❑ 2 = Re-Exit ❑ 3 = Auto Bypass ❑ 4 = Silent Panic ❑ 5 = Audible Panic ❑ 6 = Auxiliary 1 ❑ 7 = Auxiliary 2 ❑ 8 = Multi Keypress Tamper ❑	1 = LED Extinguish enable ❑ 2 = Require user code for bypassing zones ❑ 3 = Bypass sounder alert ❑ 4 = AC Power/Low Battery sounder alert ❑ 5 = Enable Bypass toggle ❑ 6 = Enable Silent Auto Arm ❑ 7 = Enable Automatic Instant ❑ 8 = Reserved	1 = Open/Close ❑ 2 = Bypass ❑ 3 = Restore ❑ 4 = Trouble ❑ 5 = Tamper ❑ 6 = Cancel ❑ 7 = Recent Closing ❑ 8 = Exit Error ❑
106	29	PARTITION 7 ENTRY/EXIT TIMERS		
		Segment #1 (Entry Time #1)	***0***	___
		Segment #2 (Exit Time #1)	***0***	___
		Segment #3 (Entry Time #2)	***0***	___
		Segment #4 (Exit Time #2)	***0***	___
107	29	PARTITION 8, ACCOUNT CODE	***10-10-10-10-10-10***	_ _ _ _ _ _
108	29	PARTITION 8, FEATURE AND REPORTING SELECTION		
		Segment #1	Segment #2	Segment #3
		1 =Quick Arm ❑ 2 = Re-Exit ❑ 3 = Auto Bypass ❑ 4 = Silent Panic ❑ 5 = Audible Panic ❑ 6 = Auxiliary 1 ❑ 7 = Auxiliary 2 ❑ 8 = Multi Keypress Tamper ❑	1 = LED Extinguish enable ❑ 2 = Require user code for bypassing zones ❑ 3 = Bypass sounder alert ❑ 4 = AC Power/Low Battery sounder alert ❑ 5 = Enable Bypass toggle ❑ 6 = Enable Silent Auto Arm ❑ 7 = Enable Automatic Instant ❑ 8 = Reserved	1 = Open/Close ❑ 2 = Bypass ❑ 3 = Restore ❑ 4 = Trouble ❑ 5 = Tamper ❑ 6 = Cancel ❑ 7 = Recent Closing ❑ 8 = Exit Error ❑
109	29	PARTITION 8 ENTRY/EXIT TIMERS		
		Segment #1 (Entry Time #1)	***0***	___
		Segment #2 (Exit Time #1)	***0***	___
		Segment #3 (Entry Time #2)	***0***	___
		Segment #4 (Exit Time #2)	***0***	___
110	30	ZONE TYPE 1 ALARM EVENT CODE	***8***	___
111	30	ZONE TYPE 1 CHARACTERISTIC SELECT		
		Segment #1		
		1 = Fire (enable for fire zone) ❑ 2 = 24 Hour (enable for non-fire 24 hour zone) ❑ 3 = Keyswitch zone ❑ 4 = Follower (enable for burg zones that are instant during non-entry times) ❑ 5 = Delay 1 zone (enable to follow Timer 1 Entry/Exit times) ❑ 6 = Delay 2 zone (enable to follow Timer 2 Entry / Exit times) ❑ 7 = Interior (Enable for auto bypass or stay arming) ❑ 8 = Local Only (enable if zone is not to be reported) ❑		
		Segment #2		
		1 = Keypad audible on alarm ❑ ***2 = Yelping siren on alarm ❑*** 3 = Temporal siren on alarm ❑ 4 = Chime ❑ ***5 = Bypassable ❑*** 6 = Group Shunt ❑ 7 = Force armable ❑ 8 = Entry Guard ❑		

LOC	PG	DESCRIPTION	DEFAULT	DATA
		Segment #3		
		1 = Sprinkler Supervisory 2 = Double End of Line Tamper zone ***3 = Trouble zone (Day zone)*** 4 = Cross Zone ***5 = Dialer Delay zone*** ***6 = Swinger zone*** ***7 = Restore reporting*** 8 = Reserved		
112	30	ZONE TYPE 2 ALARM EVENT CODE	***2***	___
113	30	ZONE TYPE 2 CHARACTERISTIC SELECT	***2-125-78***	___ ___ ___
114	30	ZONE TYPE 3 ALARM EVENT CODE	***7***	___
115	30	ZONE TYPE 3 CHARACTERISTIC SELECT	***5-1245-5678***	___ ___ ___
116	31	ZONE TYPE 4 ALARM EVENT CODE	***5***	___
117	31	ZONE TYPE 4 CHARACTERISTIC SELECT	***45-125-5678***	___ ___ ___
118	31	ZONE TYPE 5 ALARM EVENT CODE	***5***	___
119	31	ZONE TYPE 5 CHARACTERISTIC SELECT	***457-125-5678***	___ ___ ___
120	31	ZONE TYPE 6 ALARM EVENT CODE	***4***	___
121	31	ZONE TYPE 6 CHARACTERISTIC SELECT	***0-1245-5678***	___ ___ ___
122	31	ZONE TYPE 7 ALARM EVENT CODE	***0***	___
123	31	ZONE TYPE 7 CHARACTERISTIC SELECT	***2-0-78***	___ ___ ___
124	31	ZONE TYPE 8 ALARM EVENT CODE	***1***	___
125	31	ZONE TYPE 8 CHARACTERISTIC SELECT	***1-13-378***	___ ___ ___
126	31	ZONE TYPE 9 ALARM EVENT CODE	***7***	___
127	31	ZONE TYPE 9 CHARACTERISTIC SELECT	***6-1245-5678***	___ ___ ___
128	31	ZONE TYPE 10 ALARM EVENT CODE	***2***	___
129	31	ZONE TYPE 10 CHARACTERISTIC SELECT	***24-5-78***	___ ___ ___
130	31	ZONE TYPE 11 ALARM EVENT CODE	***3***	___
131	31	ZONE TYPE 11 CHARACTERISTIC SELECT	***3-0-0***	___ ___ ___
132	31	ZONE TYPE 12 ALARM EVENT CODE	***5***	___
133	32	ZONE TYPE 12 CHARACTERISTIC SELECT	***457-125-45678***	___ ___ ___
134	32	ZONE TYPE 13 ALARM EVENT CODE	***4***	___
135	32	ZONE TYPE 13 CHARACTERISTIC SELECT	***0-12458-5678***	___ ___ ___
136	32	ZONE TYPE 14 ALARM EVENT CODE	***7***	___
137	32	ZONE TYPE 14 CHARACTERISTIC SELECT	***5-12456-5678***	___ ___ ___
138	32	ZONE TYPE 15 ALARM EVENT CODE	***5***	___
139	32	ZONE TYPE 15 CHARACTERISTIC SELECT	***457-1256-5678***	___ ___ ___
140	32	ZONE TYPE 16 ALARM EVENT CODE	***Not Used***	___
141	32	ZONE TYPE 16 CHARACTERISTIC SELECT	***2-15-17***	___ ___ ___
142	32	ZONE TYPE 17 ALARM EVENT CODE	***7***	___
143	32	ZONE TYPE 17 CHARACTERISTIC SELECT	***5-1245-25678***	___ ___ ___
144	32	ZONE TYPE 18 ALARM EVENT CODE	***5***	___
145	32	ZONE TYPE 18 CHARACTERISTIC SELECT	***457-125-25678***	___ ___ ___
146	32	ZONE TYPE 19 ALARM EVENT CODE	***4***	___
147	32	ZONE TYPE 19 CHARACTERISTIC SELECT	***0-1245-25678***	___ ___ ___
148	32	ZONE TYPE 20 ALARM EVENT CODE	***7***	___
149	32	ZONE TYPE 20 CHARACTERISTIC SELECT	***6-1245-25678***	___ ___ ___

11. APPENDIX 1

REPORTING FIXED CODES IN CONTACT ID AND SIA

This table lists the event codes sent for the following reports (if enabled) when using CONTACT ID or SIA formats.

REPORT	CONTACT ID	SIA
MANUAL TEST	601	RX
AUTOTEST	602	RP
AUTOTEST – OFF NORMAL	608	RY
OPEN (user number)	401	OP
CLOSE (user number)	401	CL
CANCEL (user number)	406	OC
DOWNLOAD COMPLETE	412	RS
START PROGRAM	627	LB
END PROGRAM	628	LX
GROUND FAULT	310	GF
GROUND FAULT RESTORE	310	GK
RECENT CLOSE (user number)	401	CR
EXIT ERROR (user number)	457	EE
EVENT LOG FULL	605	JL
FAIL TO COMMUNICATE	354	RT
EXPANDER TROUBLE (device number)	333	ET
EXPANDER RESTORE (device number)	333	ER
TELEPHONE FAULT	351	LT
TELEPHONE RESTORE	351	LR
SIREN TAMPER (device number)	321	YA
SIREN RESTORE (device number)	321	YH
AUX POWER OVER CURRENT (device number)	312	YP
AUX POWER RESTORE (device number)	312	YQ
LOW BATTERY (device number)	309	YT
LOW BATTERY RESTORE (device number)	309	YR
AC FAIL (device number)	301	AT
AC RESTORE (device number)	301	AR
BOX TAMPER (device number)	137	TA
BOX TAMPER RESTORE (device number)	137	TR
KEYPAD TAMPER	137	TA
KEYPAD PANIC (audible)	120	PA
KEYPAD PANIC (silent)	121	HA
DURESS	121	HA
KEYPAD AUXILIARY 1	110	FA
KEYPAD AUXILIARY 2	100	MA
RF SENSOR LOST (zone number)	381	*T
RF SENSOR RESTORE (zone number)	381	*R
SENSOR LOW BATTERY (zone number)	384	XT
SENSOR BATTERY RESTORE (zone number)	384	XR
ZONE SPRINKLER SUPERVISORY	200	SS
ZONE SPRINKLER SUPERVISORY RESTORE	200	SR
ZONE TROUBLE (zone number)	380	*T
ZONE TROUBLE RESTORE (zone number)	380	*R
ZONE TAMPER (zone number)	137	TA
ZONE TAMPER RESTORE (zone number)	137	TR
ZONE BYPASS (zone number)	570	*B
BYPASS RESTORE (zone number)	570	*U

THE NUMBER IN PARENTHESES FOLLOWING THE EVENT IS THE NUMBER THAT WILL BE REPORTED AS THE ZONE NUMBER. IF THERE ARE NO PARENTHESES, THE ZONE WILL BE “0". REFER TO APPENDIX 3 FOR THE DEVICE NUMBERS.

* The character transmitted in this slot will be the first character from the event code of the zone that is bypassed or in trouble. (Locations 110 - 141)

12. APPENDIX 2

REPORTING ZONE CODES IN SIA OR CONTACT ID

The NX-8-CF has the ability to report SIA level 1 transmissions to either or both phone numbers. Each report in SIA consists of an Event Code and a Zone or User ID. The Zone ID will be the zone number that is in alarm. The event code will come from the chart below and be programmed in the zone type event code.

Programmed Event Code	SIA Code	Description
0	HA	Holdup Alarm
1	FA	Fire Alarm
2	PA	Panic alarm
3	BA	Burglary Alarm
4	BA	Burglary Alarm
5	BA	Burglary Alarm
6	UA	Untyped Alarm
7	BA	Burglary Alarm
8	BA	Burglary Alarm
9	UA	Untyped Alarm
10	HA	Holdup Alarm
11	MA	Medical Alarm
12	PA	Panic alarm
13	TA	Tamper Alarm
14	RP	Periodic Test
15	GA	Gas Alarm
16	KA	Heat Alarm
17	WA	Water Alarm
18	QA	Emergency Alarm
19	SA	Sprinkler Alarm
20	ZA	Freeze Alarm

The NX-8-CF has the ability to report Ademco Contact ID transmissions. Each report in Contact ID consists of an Event Code and a Zone ID. The zone ID is the zone that created the alarm. The event code will come from the chart below and be programmed in the zone type event code.

Programmed Event Code	Contact ID Code	Description
0	122	Silent Panic
1	110	Fire Alarm
2	120	Panic alarm
3	130	Burglary Alarm
4	131	Perimeter Alarm
5	132	Interior Alarm
6	133	24 Hour Burglary
7	134	Entry Alarm
8	135	Day/Night Alarm
9	150	Non Burglary 24 Hour
10	121	Duress Alarm
11	100	Medical Alarm
12	123	Audible Panic Alarm
13	137	Tamper Alarm
14	602	Periodic Test
15	151	Gas Detected
16	158	High Temp
17	154	Water Leakage
18	140	General Alarm
19	140	General Alarm
20	159	Low Temp

13. APPENDIX 3

EXPANDER NUMBERS FOR REPORTING EXPANDER TROUBLE

The tables below list the device numbers that will be reported for trouble conditions.

Device	Device # reported
NX-8-CF Control Panel	0
NX-540E "Operator"	40
NX-591E Cellemetry Interface	76
NX-870E Fire Supervision	9

Refer to APPENDIX 1 on page 44 for possible report codes.

KEYPADS

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

HARDWIRE EXPANDER (NX216 / NX-216E)

Starting zone number	Expander # reported
Zone 9 (All switches off)	22
Zone 9 (Switch 1 on)	23
Zone 17 (Switch 2 on)	16
Zone 25 (Switch 1 & 2 on)	17
Zone 33 (Switch 3 on)	18
Zone 41 (Switch 1 & 3 on)	19

OUTPUT MODULE (NX-508E)

Address & Dip Switch Setting	
24 (Switch 1 & 2 on)	**29** (All switches off)
25 (Switch 3 on)	**30** (Switch 1 on)
26 (Switch 1 & 3 on)	**31** (Switch 2 on)
27 (Switch 2 & 3 on)	
28 (Switch 1,2,&3 on)	

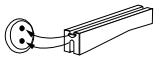
WIRELESS RECEIVER (NX448-E)

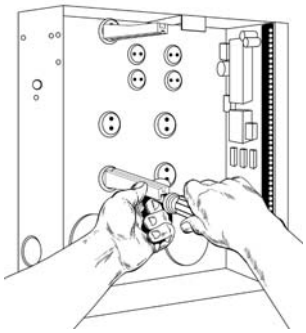
Switch Setting	Expander # reported
All switches off	35
Switch 1 on	36
Switch 2 on	37
Switches 1 & 2 on	38
Switch 3 on	39
Switches 1 & 3 on	32
Switches 2 & 3 on	33
Switch 1, 2 & 3 on	34

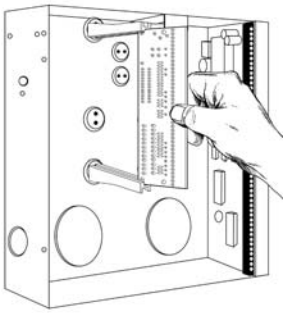
REMOTE POWER SUPPLY (NX-320E)

Address & Dip Switch Setting
84 (All switches off)
85 (Switch 1 on)
86 (Switch 2 on)
87 (Switch 1 & 2 on)
88 (Switch 3 on)
89 (Switch 1 & 3 on)
90 (Switch 2 & 3 on)
91 (Switches 1, 2, & 3 on)

14. BOARD INSTALLATION DIAGRAM







Inside the can, several 2-holed insertion points have been constructed. This allows for either vertical or horizontal placement of the modules. Notice that each insertion point has two sizes of holes – a larger hole and a smaller hole.

Diagram 1: The black plastic PCB guides are grooved on one edge where the PC board will be seated. The end with the half-moon protrusion fits into the larger hole. The smaller hole is for the screw.

Diagram 2: Place the *first* black plastic PCB guide in the top insertion point, grooved edge downward. The half-moon protrusion will be in the large hole. It does not require force. Insert one of the provided screw into the smaller hole (from inside the can) to secure it in place. A screwdriver should reach through the notch that runs the length of the guide to tighten the screw. The *second* PBC guide should be positioned opposite the first (grooved edge up) and placed in the lower insertion point, using the same procedures described above. Once mounted, screw it in securely.

Diagram 3: The PC Board should slide freely in the grooves of both guides.

IMPORTANT!

1. If separate power supplies are necessary to accommodate additional devices, safety standards require that each power supply be prominently marked with adequate instructions for removing all power from the unit.
2. Dispose of used batteries according to the manufacturer's instructions and/or local government authorities.
3. Installation personnel should thoroughly read and understand the installation instructions and the users manuals for the panel and all the accessories to be included with the system before attempting to install a security system.

WARNING!

Replace with Yuasa #NP18-12 or Power Sonic #PS-12180 or equivalent battery. Observe polarity when installing a new battery. Installing the battery backwards may cause damage to the panel. There is a risk of explosion if the battery is replaced with an incorrect type.

NOTE

Electrical codes will vary depending upon the country and city where the system is installed. It is the installer's responsibility to ensure that the electrical installation is safe and conforms to all applicable codes, laws, or regulations. Only qualified persons should connect this device to the mains supply.

15. BATTERY CALCULATION WORKSHEET

Note: The Total Standby or Total Alarm Current cannot exceed 1.2 Amps. Current for the smoke loop must be deducted from the overall available 1.2 Amps.

❶ TOTAL STANDBY CURRENT

System Component	Qty		Standby Current		TOTAL STANDBY CURRENT
NX-8-CF	1	X	60mA	=	60mA
NX-870E	1	X	20mA	=	20mA
NX-148E-CF		X	75mA	=	
NX-208E Aux+		X	13mA	=	
NX-208E DCIN		X	31mA	=	
NX-216E		X	30mA	=	
NX-320E		X	10mA	=	
NX-507E		X	10mA	=	
NX-1700E		X	40mA	=	
NX-2192E		X	170mA	=	
OTHER (sensors, etc.)					
			TOTAL	=	

❷ TOTAL ALARM CURRENT

System Component	Qty		Device Alarm Current		TOTAL ALARM CURRENT
NX-8-CF	1	X	210mA	=	210mA
NX-870E	1	X	110mA	=	110mA
NX-148E-CF		X	110mA	=	
NX-208E Aux+		X	53mA	=	
NX-208E DCIN		X	31mA	=	
NX-216E		X	60mA	=	
NX-320E		X	10mA	=	
NX-507E		X	310mA	=	
NX-1700E		X	110mA	=	
NX-2192E		X	170mA	=	
OTHER (sensors, etc.)					
			TOTAL	=	

Should not exceed 1.2 Amps each

❸ STANDBY AMP HOURS

mA		.001 Amp/mA		Hrs		Ah
Total Standby Current (Step 1)	**X**	**Conversion Factor**	**X**	**Required Hours in Standby**	**=**	**Standby Amp Hours**

❹ ALARM HOURS

mA		.001 Amp/mA		Mins		.0167 Hr/Min		Ah
Total Alarm Current (Step 2)	**X**	**Conversion Factor**	**X**	**Required Minutes in Alarm**	**X**	**Conversion Factor**	**=**	**Alarm Hours**

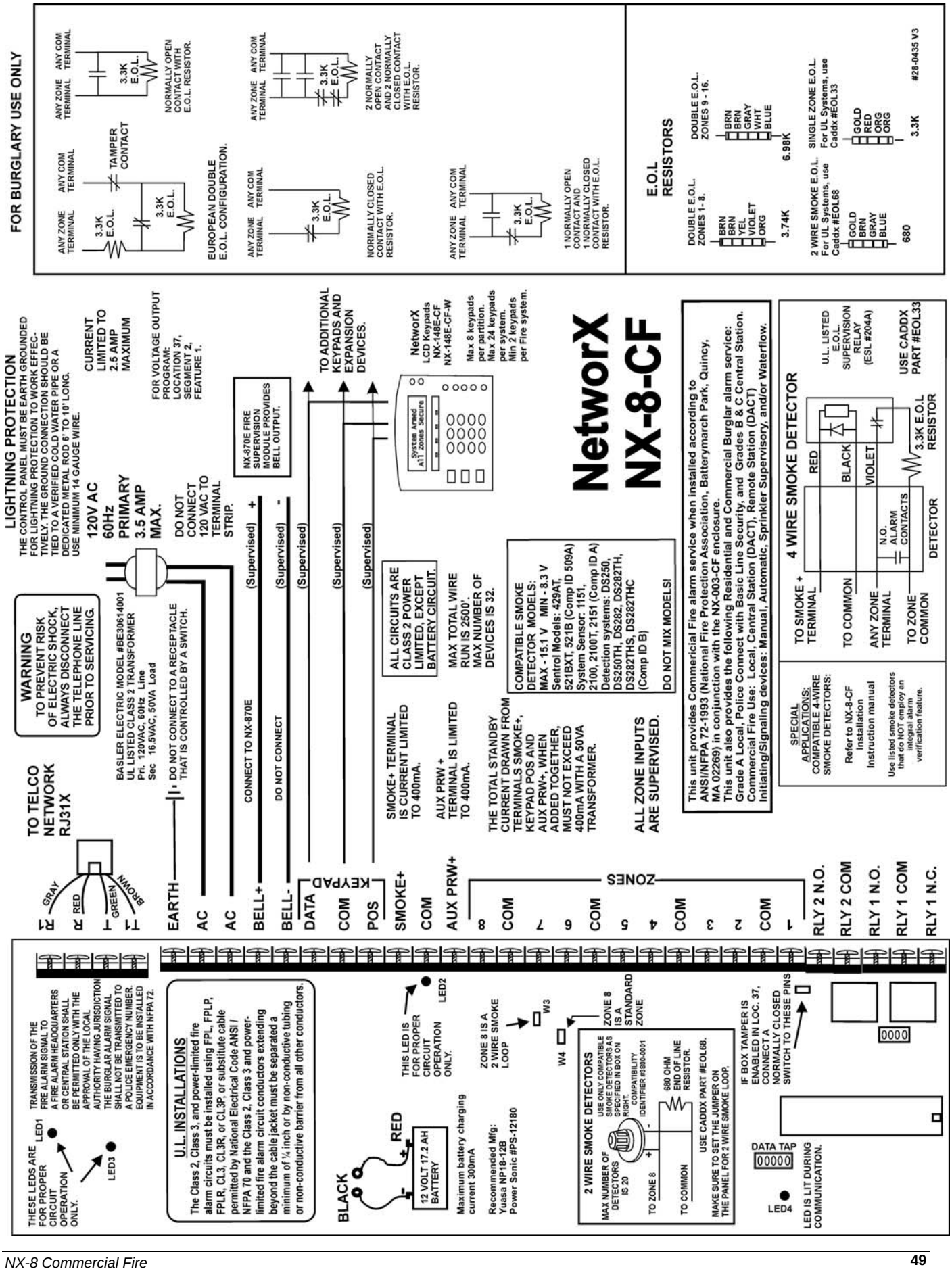
❺ MINIMUM BATTERY POWER REQUIRED

mA			Ah
Standby Amp hours (Step 3)	**+**	**Alarm Amp Hours (Step 4)**	**=**	**Minimum Battery Power Required**

❻ TOTAL STANDBY BATTERY POWER

		1.15		
Minimum Battery Power (Step 5)	**X**	**Battery Derating Factor**	**=**	**Total Standby Battery Power**

16. WIRING DIAGRAM



17. TERMINAL DESCRIPTION

TERMINAL		DESCRIPTION
R1		House Telephone Ring (Gray).
R		Telephone Ring (Red).
T		Telephone Tip (Green).
T1		House Telephone Tip (Brown).
EARTH		Earth Ground. Connect to a cold water pipe or a 6 to 10 foot driven rod.
AC		AC input. Connect to a 16.5V 50 VA Class ll U.L. approved transformer.
BELL + & BELL -		If used as a siren output (default), the speaker rating should be 15 watt at 8 or 16 ohm, or 30/40 watt at 4, 8, or 16 ohms. If voltage output is selected in location 37, this output becomes voltage output, 12VDC, 600mA maximum load. **NOTE: A 3.3K Ω resistor may be required across the bell terminals when a 12 VDC siren is used. If no resistor is used, you may experience voltage leakage into the siren, which will cause these devices to output a small signal.**
KP DATA		Connect to the data terminal on the keypads and the expanders. Maximum number of devices (keypads + expanders) is 32. See "Maximum Wire Run" chart below.
KP COM		Connect to the Common terminal on the keypads and the expanders.
KP POS		Connect to the POS terminal on the keypads and the expanders. This terminal and AUX PWR + are limited to 400mA total current when added together.
SMOKE+		Smoke detector power 12VDC, 400mA maximum (For those jurisdictions which allow the Priority zone to be used with smoke detectors.)
COM		Connect negative wire of powered devices such as motion detectors and smoke detectors.
AUX PWR+		Connect positive wire of all powered devices except smoke detectors and keypads. This terminal and KP POS are limited to 400mAtotal current when added together.
ZONE 8		Connect to one side of zone 8 loop. Connect the other side to com terminal. Open or short causes alarm. Zone 8 may be used for a two wire smoke detector using a 680 Ω E.O.L. resistor. W3 must be set for two-wire smoke detector loop. For normal zone operation, W4 must be set.
COM		Common (-) terminal for zones 7 & 8. (See the wiring diagram for examples.)
ZONE 7		Connect to one side of zone 7 loop. Connect the other side to COM terminal. Open or short causes alarm.
ZONE 6 - ZONE 1		Connect as described for zones 7 & 8. **Only zone 8 can be a two-wire zone.** (See the wiring diagram for examples.)
RELAY 2		Refer to Relay 1 shown below.
RELAY 1	**N.O.**	Normally open dry contact rated 1 Amp at 30 Volts.
	COM	Common dry contact rated 1 Amp at 30 VDC.
	N.C.	Normally closed dry contact rated 1 Amp at 30 Volts.
AUX 4 – AUX 1		Connect negative lead of low current device [relay, LED (install 1kΩ resistor in series with LED), etc.]. Connect positive lead of device to AUX PWR +. Current is limited to 25mA when output is negative.

KEYPAD MAXIMUM WIRE RUN

These numbers are for one keypad at the end of the wire. When connecting more than one keypad to the end of the wire, a higher gauge wire will be required.

	WHEN CONNECTED TO NX-8-CF	WHEN CONNECTED TO NX-320E
Length in feet	Wire Gauge	Wire Gauge
250	24	22
500	20	18
1000	18	16
1500	16	14
2500	14	12

18. LOCAL TELEPHONE COMPANY INTERFACE INFORMATION

TELEPHONE CONNECTION REQUIREMENTS

Except for telephone company provided ringers, all connections to the telephone network shall be made through standard plugs and standard telephone company provided jacks or equivalent in such a manner as to allow for immediate disconnection of the terminal equipment. Standard jacks shall be so arranged that if the plug connected thereto is withdrawn, no interference to the operation of the equipment at the customers' premises which remains connected to the telephone network, shall occur by reason of such withdrawal.

INCIDENCE OF HARM

Should terminal equipment or protective circuitry cause harm to the telephone network, the telephone company shall, where practical, notify the customer that temporary discontinuance of service may be required. However, where prior notice is not practical, the telephone company may temporarily discontinue service if such action is deemed reasonable in the circumstances. In the case of such temporary discontinuance, the telephone company shall promptly notify the customer who will be given the opportunity to correct the situation. The customer also has the right to bring a complaint to the FCC if he feels the disconnection is not warranted.

CHANGES IN TELEPHONE COMPANY EQUIPMENT OR FACILITIES

The telephone company may make changes in its communications facilities, equipment, operations, or procedures where such action is reasonably required and proper in its business. Should any such change render the customers terminal equipment incompatible with the telephone company facilities, the customer shall be given adequate notice to make modifications to maintain uninterrupted service.

GENERAL

The FCC prohibits customer provided terminal equipment be connected to party lines.

IMPORTANCE OF THE RINGER EQUIVALENCE NUMBER

The Ringer Equivalence Number (REN) of this device is 0.1B. This number is a representation of the electrical load that it applies to your telephone line.

MALFUNCTION OF THE EQUIPMENT

In the event that the device should fail to operate properly, the customer shall disconnect the equipment from the telephone line to determine if it is the customers equipment that is not functioning properly. If the problem is with the device, the customer shall discontinue use until it is repaired.

EQUIPMENT INFORMATION

MANUFACTURER OF CONNECTING EQUIPMENT: **CADDX CONTROLS, INC.**
FCC REGISTRATION NUMBER: GCQUSA-31771-AL-T, RINGER EQUIVALENCE: 0.1 B

19. UNDERWRITERS LABORATORIES INFORMATION

The NetworX NX-8-CF control panel holds the following listings from Underwriters Laboratories:

(UL864) Control Units for Fire-Protective Signaling Systems

(UL1610) Grade B & C Central Station Burglar Alarm Unit

(UL1023) Household Burglar-Alarm System Units

(UL1637) Home Health Care Signaling

(UL609) Local Grade A Mercantile, Police Station Connect With Basic Line Security (requires #NX-003-C enclosure)

Type	Type Service	Type Signaling	Model
L	A, M, SS, WF	NC	NX-8-CF
RS	A, M, SS, WF	NC	NX-8-CF
CS (protected premise unit)	A, M, SS, WF	NC	NX-8-CF

Section I - All UL installations require the following:

- At least one NetworX NX-8-CF control panel
- At least one compatible keypad
- At least one bell fixture is required for all applications, except Grade C Central Station. For Grade A Local, the AD10-12 bell and Grade A bell housing shall be used.
- Initiating and indicating devices must be rated at 11.5 to 12.4 V DC residential, 12.0 V DC commercial.
- The Siren/Bell Test shall be enabled
- The Entry-Guard feature shall be disabled.
- Swinger Shutdown shall be disabled.
- Group Bypassing shall be disabled.
- Delay before dial seizure shall be set to "0".
- Total current draw from aux power connections at terminal positions POS, AUX PWR, and SMOKE PWR must not exceed 400 mA.
- The keyswitch option shall not be used.
- The telephone line monitor shall be enabled.
- The telephone line cut delay shall not exceed 200 seconds maximum.
- 24-hour communicator test transmission is required.
- For 24 hours of standby power using a 7.0 AH battery, limit auxiliary power load to 140 mA.
- For 24 hours of standby power using a 17.2 AH battery, limit auxiliary power load to 400 mA; Limit bell load to 600mA.
- For 60 hours of standby power using two (2) 17.0 AH batteries in parallel, limit auxiliary power load to 400mA; Limit bell load to 600mA.
- The silent keypad option shall not be enabled.
- UL has only verified compatibility with the following listed DACRs and formats: Sure-Gard SG-MLR2-DG: 2,9,10,12,13,14; Silent Knight 9000 - 2,12; FBI - CP220FBI, 13; and Ademco 685: 2,11,12, and 13.
- Expander trouble must activate the siren (Loc 37, Segment 2, LED 2)
- Use type FPL, FPLR, or FPLR cables as required by Article 760 of the National Electrical Code.

Section II - Commercial Fire *applications must follow these requirements in addition to Section I:*

- At least two NX-148E-CF or NX-148E-CF-W LCD keypads. Connect one to DATA/COM/POS and the other to DATA/COM/AUX+.
- At least one NX-870E Fire Supervision module.
- Commercial UL applications require #NX-003-CF metal enclosure. Supplied screws to be used.
- AC Failure Report delay must be 6-12 hours for central station and 15-30 hours for remote station.
- The DACT shall be enabled.
- Compatible listed devices: (Special Applications)

  Bell Output (Sirens): Wheelock models: NS-1215W, NS-121575W, NS4-1215W, NS4-121575W, AS-1215W, AS-121575W

  Smoke Output (4 wire detectors): ESL 500N series; ESL 449CTE series; ESL 521 series; ESL 541 series

  The 4-wire smoke detector employed shall be rated to operate over the voltage range of 11.5 to 12.4V.

Section III - Commercial Burglary *applications must follow these requirements in addition to Section I:*

- Commercial UL applications require #NX-003-C metal enclosure. Supplied screws to be used.
- When using partitioning in Commercial Burglary applications, a 24-hour alarm circuit must protect the main control.
- Force Arming and Auto Arming shall not be enabled.
- The Siren/Bell Test shall be enabled. The auxiliary outputs controlling the audible device require a minimum cutoff time of 15 minutes.
- Ringback shall be enabled.
- Cross-zoned detectors shall overlap 100 percent in the area of coverage and similar coverage areas must be used. For example, interior protection is cross-zoned with interior protection, and so on.
- The exit delay time shall not exceed 60 seconds.
- The DACT shall be enabled.

Section IV - Residential Fire *applications must follow these requirements in addition to Section I:*

- The indicating devices shall be a Wheelock 34T-12 or equivalent.
- The Dynamic Battery Test time cannot exceed four (4) hours.
- The Siren/Bell Test shall be enabled. The auxiliary outputs controlling the audible device require a minimum cutoff time of 4 minutes.

Section V – Home Health Care *applications must follow these requirements in addition to Section I:*

- A minimum of two (2) keypads are required for Home Health applications and each keypad must be set to a unique address.
- For UL 1637, expander trouble must activate keypad sounder (Loc 39, Seg 1, LED 8).

For additional details, please refer to the specific programming instructions in the NX-8-CF Installation Manual.

NOTES FOR THIS SYSTEM

20. SPECIFICATIONS

OPERATING POWER	16.5 VAC 50 VA Transformer
AUXILIARY POWER	
w/50 VA Transformer	12 VDC Special Applications 1 AMP
w/NX-320E Power Supply	12 VDC Special Applications 2 AMPS + Control Panel Power
LOOP RESISTANCE	
Standard Loop	300 Ohms Maximum
2-Wire Smokes	30 Ohms Maximum
BUILT-IN SIREN DRIVER	2-tone (Temporal and Yelp)
LOOP RESPONSE	500mS
OPERATING TEMPERATURE	32 to 120 degrees F
NX-148E-CF LCD KEYPAD	
Current Draw	110 mA max.
w/o Sounder	75 mA
Dimensions	6.4" Wide 5.3" High 1.0" Deep
METAL ENCLOSURE DIMENSION	15.50" Wide 18.50" High 4.50" Deep
SHIPPING WEIGHT	20 lbs. approx.

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