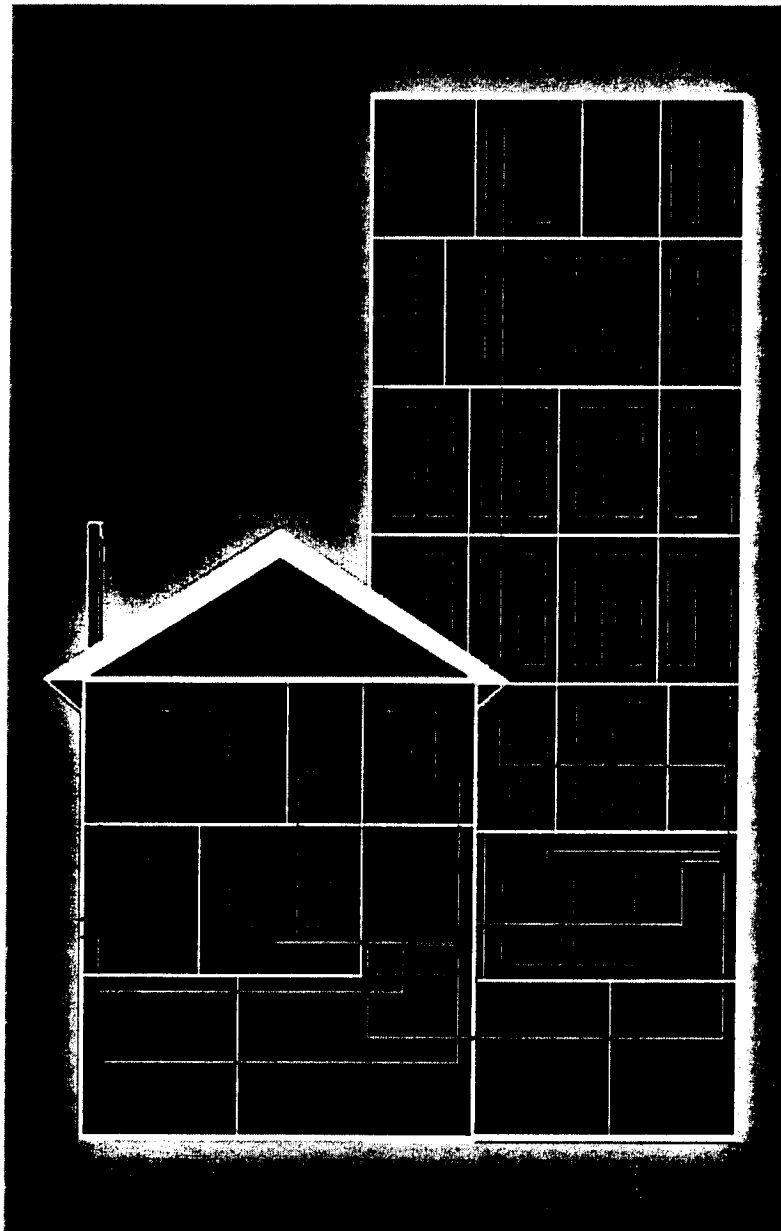
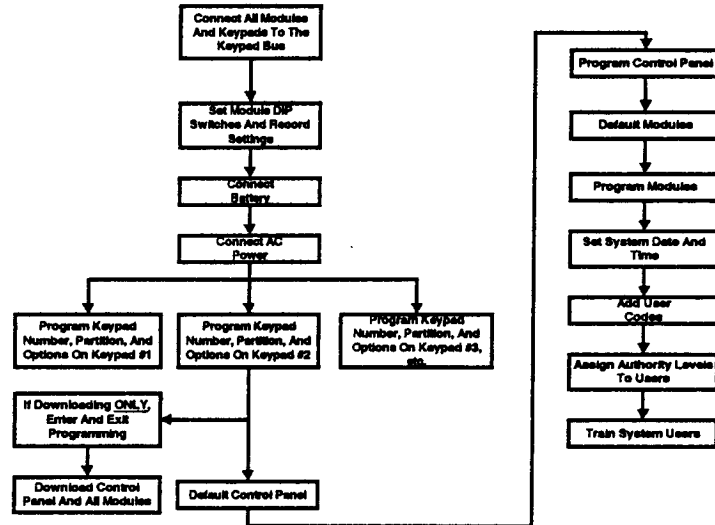


Keypad and Control Programming



**Sentrol University
Module 4**

Control Panel Setup



LED Keypad Programming

[*]-[9]-[2] (Applies to LED keypad ONLY)

- 1) Enter [*]-[9]-[2] [program code].
- 2) Enter the zone number (1 - 192) you want the keypad to start at.
- 3) Enter [*] to save and exit.

[*]-[9]-[3] Set keypad options

- 1) Enter [*]-[9]-[3] [program code]. The "Service" LED will flash.
- 2) LEDs 1-8 can now be toggled on/off to enable/disable the following functions:
- 3) After enabling/disabling the desired functions press [*]

[*]-[9]-[4] Set Keypad Number and Partition

- 1) Enter [*]-[9]-[4] [program code]. The "Service" LED and the "Instant" LED will flash.
- 2) Enter the keypad number (1-8)
- 3) Press [*]. The "Instant" LED will illuminate steady and the "Service" LED will remain flashing.
- 4) Enter the partition number for the keypad (The keypad will automatically exit this mode at this time)

[*]-[9]-[5] Set elapsed increments since last autotest

- 1) Enter [*]-[9]-[5] [program code]. The "Service" LED will flash.
- 2) Enter [100's digit]-[10's digit]-[1's digit]-[#]

[*]-[9]-[6] Set system date

- 1) Enter [*]-[9]-[6] [master code]. The "Service" LED will flash.
- 2) Enter [day of week (1=Sun)]-[month 10's digit]-[month 1's digit]-[day 10's digit]-[day 1's digit]-[year 10's digit]-[year 1's digit]

[*]-[9]-[7] Set system clock

- 1) Enter [*]-[9]-[7] [master code]. The "Service" LED will flash.
- 2) Enter [hour 10's digit]-[hour 1's digit]-[minutes 10's digit]-[minutes 1's digit]

Note: *94 VERY IMPORTANT MUST DO ON BOTH LED AND LCD

LED Keypad Options

LED	Keypad Feature Enabled
1	RESERVED. DO NOT PROGRAM THIS AT ALL!
2	Enable Silent Keypad option. Silences the entry/exit sounder & chime only.
3	Enable Ding Dong sound for Chime - If off, chime will be a single tone. (See location 40, page 23)
4	Enable Keypress Silence option (silences the pulsing keypad sounder for 5 seconds when a key is pressed)
5	Enable Armed Status Suppression (will not allow the keypad to display faulted or bypassed zones when the system is armed)
6	Enable Panic, Fire, Medical Beep tone (will sound a short beep to verify that the keypress was accepted)
7	Suppresses the "Service" LED (NOTE: For UL installations, the Service LED shall not be suppressed) (will not allow the "Service" LED to illuminate for any reason. If there is a system trouble, pressing [*]-[2] will still show the service menu.)
8	Enable multi-partition viewing (enables temporary viewing of all partitions by pressing [*]-[1]-[partition number])

LCD Keypad Options

OPT	KEYPAD FEATURES
1	CASE TAMPER ON? (DO NOT TURN THIS ON!)
2	SILENT KEYPAD? Enable Silent Keypad Option. If on, silent keypad is enabled.
3	DING DONG CHIME? Enable Ding Dong Sound for Chime. If off, chime will be a single tone. (Refer to NX-8 Installation manual, location 40)
4	5 SEC. SILENCE? Enable Keypress Silence Option. Silences the pulsing keypad sounder for 5 seconds when a key is pressed.
5	ARMED ZONE INFO? Enable Armed Zone Information. If on, the LCD keypad will display faulted or bypassed zone information when the system is armed.
6	BEEP ON PANICS? Enable Panic, Fire, Medical Beep tone. Will sound a short beep to verify that the keypress was accepted.
7	DISABLE SERVICE? Suppresses the "Service" Message. This will not allow the "Service" Message to be displayed for any reason. If there is a system trouble, pressing [*]-[2] will still show the "Service" menu.
8	MASTER KEYPAD? Enable Multi-partition Mode
9	CUSTOM MESSAGE? Enable Custom Message Display
10	CLOCK? Enable Clock Display
11	CUSTOM MSG. LOCK? Enable Custom Message Lock. Prevents over-writing the custom message during keypad copy.

LCD Keypad Programming

- **Adjusting The View And Brightness Of The LCD**

- Enter * 9 1
- Enter "Master Code"
- Use Scroll keys to raise or lower the viewing angle
- Enter * to advance to the brightness option
- Use Scroll keys to brighten or dim the LCD lighting
- Enter * when finished



SENTROL

LCD Keypad Programming

- **Programming Custom Messages**

- Enter * 9 2
- Enter "Go To Program Code"
- LCD will prompt for messages for zones 1 through 48 followed by "#"
 - Message 49 - Custom Message Top Line
 - Message 50 - Custom Message Bottom Line
 - Message 51 - Shutdown Message Top Line
 - Message 52 - Shutdown Message Bottom Line



SENTROL

LCD Keypad Programming

- When completed, exit by pressing the "Exit" key while the LCD is prompting for a zone message #
- Any changes will automatically be copied to other LCD's in the system. If you wish to have different messages on other LCD's, you must enable Custom Message Lock under the * 9 3 function



SENTROL

LCD Keypad Programming

• Special Keys

- "*" Key - Enters data or moves cursor to the right if no data entered
- "Cancel" Key - Moves the cursor to the left
- "Scroll" Keys - Select higher or lower letters of the alphabet or higher or lower words in the library
- "Stay" Key - Inserts a space
- "Chime" Key - Deletes characters
- "Exit" Key - Accesses library
- "Bypass" Key - Makes word or character flash



SENTROL

LED And LCD Keypad Programming

- **Setting elapsed time since last auto test**
 - Press “*” key followed by the “9” key and the “5” key
 - Enter program code
 - The Service light will FLASH
 - Enter the 100’s digit, the 10’s digit, and the 1’s digit
 - Enter the “#” key



SENTROL

Control Panel Programming

- **Entering the program mode**
 - Enter * 8
 - Enter program code
 - default 9713 for 4-digit codes
 - default 971300 for 6-digit codes



SENTROL

Control Panel Programming

Enter the module number to program:

- Control panel is always 0
- 9 is the NX-870 fire supervision module
- 16 - 23 are hardwire expanders
- 24 - 31 are relay / voltage output modules
- 32 - 39 are wireless zone expanders
- 40 - 43 are telephone interface modules
- 64 - 68 are verification modules
- 69 - 71 are printer modules
- 72 - 75 are home automation modules
- 76 - 79 are alternate event reporting modules
- 80 - 83 are access control modules
- 84 - 91 are remote power supply modules

Control Panel Programming

- **Exiting the program mode**
 - After last location programmed is complete and exited, press the “Exit” key once to exit programming of that board
 - You may now select another module to program, or exit programming completely by pressing the “Exit” key a second time



SENTROL

Control Panel Programming

- **Loading factory defaults**
 - Enter programming of the module you wish to default. (0 = control panel)
 - Enter 910#
 - Keypad will beep 3 times
- **Enrolling modules and keypads**
 - Enter programming
 - Enrolling will be accomplished after exiting programming mode
 - Siren will chirp



SENTROL

Control Panel Programming

- **Entering a program location**
 - Press the location number followed by the “#” key
 - You are now in segment 1 of the desired location
 - Enter the appropriate data and use the “*” key to enter
 - This will enter the data and advance to the next segment or exit the location if there is no following segment



SENTROL

Control Panel Programming

- Repeat above procedure for next segments.
- To exit a location before all segments have been programmed, press the “#” key.
 - You must press the “*” key to save data in a location before pressing the “#” key to exit.



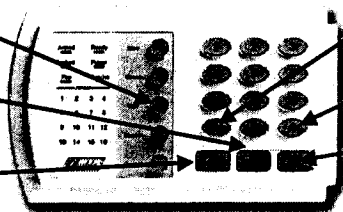
SENTROL

Key Functions When Programming

Press 1 time to exit current module, 2nd time exits programming

Repeat current location

Go back one location



Change or enter data

End of section or go to

Advance to next location

Once a location has been exited, pressing the:



Fire

key will go back one location.



Auxiliary Emergency

key will repeat the current location.



Police

key will advance to the next location.

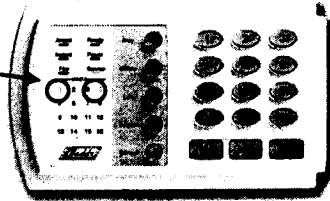


SENTROL

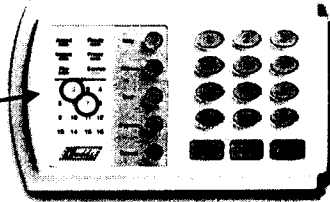
Programming Numerical Data

$$1 + 8 = 9$$

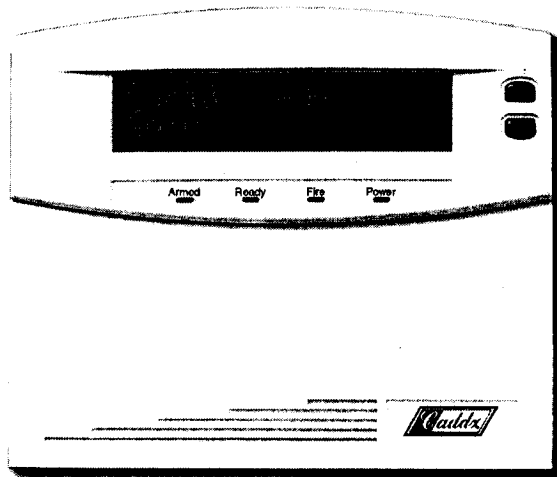
1 = 1	5 = 16
2 = 2	6 = 32
3 = 4	7 = 64
4 = 8	8 = 128



$$2 + 64 = 66$$

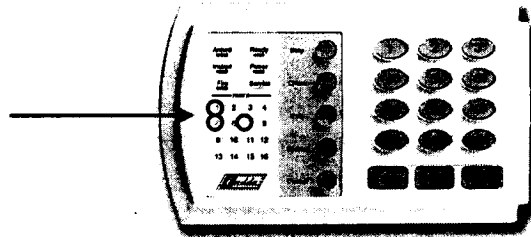


Programming Numerical Data



Programming Feature Selection

In feature selection mode, all lights can be toggled on and off by pressing their respective keys. Once all desired features are on, press “*” to enter the data.

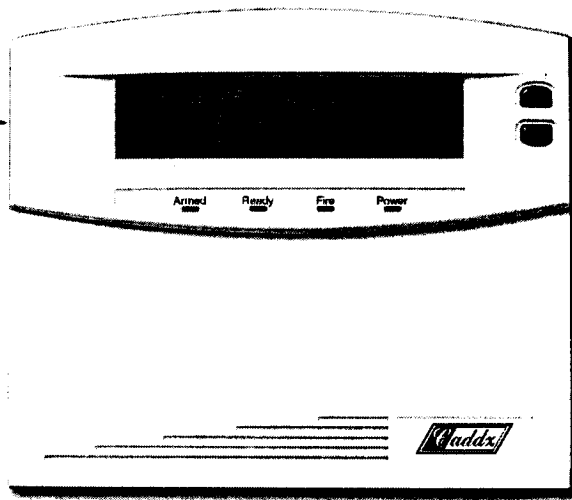


If this were Location 23, segment 1, Quick Arming, Audible Keypad Panic, and Keypad Auxiliary 1 would be active.



SENTROL

Programming Feature Selection



SENTROL

Control Panel Programming

Communicator Formats

DATA	FORMAT	DESCRIPTION
0	Local	Communicator is disabled
1	Universal 4+2	Two digit event code 1800hz transmit 2300hz handshake double round parity 40pps
2	3+1 fast (or 4+1)	One digit event code 1900Hz transmit 1400Hz handshake double round parity 20pps
3	Reserved	Reserved
4	Pager	2 digit event code DTMF transmission
5	3/1 or 4/1 slow	1800hz transmit 2300hz handshake double round parity 20 p.p.s. hex capability
6	3/1 or 4/1 slow	1800hz transmit 1400hz handshake double round parity 20 p.p.s. hex capability
7	3/1 or 4/1 fast	1800hz transmit 2300hz handshake double round parity 40 p.p.s. hex capability
8	3/1 or 4/1 fast	1800hz transmit 1400hz handshake double round parity 40 p.p.s. hex capability
9	3/1 or 4/1 fast with parity	1800hz transmit 2300hz handshake single round wparity 40 p.p.s. hex capability
10	3/1 or 4/1 fast with parity	1800hz transmit 1400hz handshake single round wparity 40 p.p.s. hex capability
11	4+2 express	2 digit event code DTMF transmission
12	4+2 fast	Two digit event code 1900hz transmit 1400hz handshake double round parity 20 p.p.s.
13	Ademco Contact ID	DTMF (see pages 51-52)
14	SIA	FSK (see pages 51-52)
15	Custom format	(See location 18, page 16)

Control Panel Programming

Download Control

19	16	DOWNLOAD ACCESS CODE	8-4-8-0-0-0-0-0	-----																		
20	16	RINGS TO ANSWER DOWNLOAD	8	-																		
21	16	DOWNLOAD CONTROL	<table border="1"> <thead> <tr> <th>Digit Number</th> <th>Program</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Enables two call answering machine defeat</td> </tr> <tr> <td>2</td> <td>Enables tone sniff answering machine defeat</td> </tr> <tr> <td>3</td> <td>Requires callback before downloading</td> </tr> <tr> <td>4</td> <td>Shutdown control panel</td> </tr> <tr> <td>5</td> <td>Lock out local programming</td> </tr> <tr> <td>6</td> <td>Lock out communicator programming</td> </tr> <tr> <td>7</td> <td>Lock out download section</td> </tr> <tr> <td>8</td> <td>Enables callback at autotest interval</td> </tr> </tbody> </table>		Digit Number	Program	1	Enables two call answering machine defeat	2	Enables tone sniff answering machine defeat	3	Requires callback before downloading	4	Shutdown control panel	5	Lock out local programming	6	Lock out communicator programming	7	Lock out download section	8	Enables callback at autotest interval
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6	Lock out communicator programming																					
7	Lock out download section																					
8	Enables callback at autotest interval																					
22	16	CALLBACK PHONE NUMBER	14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14	-----																		

Don't forget using a callback number prevents direct connection to a notebook computer. Callback number must be EXACTLY as the panel needs to call your computer.

Control Panel Programming

Feature And Report Selection For Partition 1

23	17	PARTITION #1, FEATURE SELECTION			
		Segment #1			
	1	Quick Arm	5	Audible Panic	
	2	Re-Exit	6	Auxiliary 1	
	3	Auto Bypass	7	Auxiliary 2	
	4	Silent Panic	8	Multi Keypress Tamper	
		Segment #2			
	1	LED extinguish enable	5	Enables bypass toggle	
	2	Require user code for bypassing zones	6	Enables silent auto arm	
	3	Bypass sounder alert	7	Enables automatic instant	
	4	AC power/low battery sounder alert	8	Reserved	
		Segment #3			
	1	Open/Close	5	Tamper	
	2	Bypass	6	Cancel	
	3	Restore	7	Recent Closing	
	4	Trouble	8	Exit Error	
		Segment #4			
	1	Late to Close / Early to Open			
	2	Auto Arm in Stay Mode			
	3-8	Reserved			
		Segment #5 RESERVED			

Note: Segment 4 and 5 on NX-8E only

Control Panel Programming

Entry / Exit Timers For Partition 1

24	17	ENTRY/EXIT TIMERS	
		Segment #1 (Entry Time #1)	30
		Segment #2 (Exit Time #1)	60
		Segment #3 (Entry Time #2)	30
		Segment #4 (Exit Time #2)	60
		Segments #5 & #6	Reserved

Note: Segments 5 and 6 on NX-8E only

Control Panel Programming

Zone Configuration Groups

25	20	ZONES 1-8, ZONE TYPES	3-5-6-6-6-6-6-6								
26	20	ZONES 1-8, PARTITION SELECTION (Segment 1=Zone 1 thru Segment 8=Zone 8)									
		Segment									
		Partition #1	1	1	1	1	1	1	1	1	1
		Partition #2	2	2	2	2	2	2	2	2	2
		Partition #3	3	3	3	3	3	3	3	3	3
		Partition #4	4	4	4	4	4	4	4	4	4
		Partition #5	5	5	5	5	5	5	5	5	5
		Partition #6	6	6	6	6	6	6	6	6	6
		Partition #7	7	7	7	7	7	7	7	7	7
		Partition #8	8	8	8	8	8	8	8	8	8

Note: If no partition is selected, the zone will be a null zone, and will require no end of line resistor. The zone will also not be capable of reporting. Locations 27 through 36 repeat these locations for zones through 48

Control Panel Programming

Default Zone Configurations

DATA	DESCRIPTION OF DEFAULT ZONE TYPES
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 control 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 1 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 1 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.
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.

Not on NX-4

Control Panel Programming

Default Zone Configurations

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	INSTANT WITH GROUP BYPASS ENABLED - This zone creates an instant alarm whenever it is tripped and the Armed LED is on. This zone will bypass when the "Group Bypass" command is entered at the keypad.
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.

Control Panel Programming

Default Zone Configurations

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.
21	GAS DETECTION -Creates an instant alarm regardless of the armed state of the control panel. It will display on the keypad and activate the keypad sounder.
22	LOW TEMP DETECTION -Creates an instant silent alarm regardless of the armed state of the control panel. It will display on the keypad and activate the keypad sounder.
23	HIGH TEMP DETECTION -Creates an instant silent alarm regardless of the armed state of the control panel. It will display on the keypad and activate the keypad sounder.
24	MANUAL FIRE - This zone will illuminate 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.
25	CHIME ONLY - Creates no alarm regardless of the armed state of the control panel. It will chime anytime it is faulted and will display on the keypad. Local only.
26	INTERIOR FOLLOWER DELAY 2 - 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 2 times. This zone will automatically bypass if enabled in Segment 1 of Location 23.
27	INTERIOR FOLLOWER FORCE ARMABLE - 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 1 times. This zone will automatically bypass if enabled in Segment 1 of Location 23.

Note: Zone types 21 through 30 are only available on the NX-8E panel

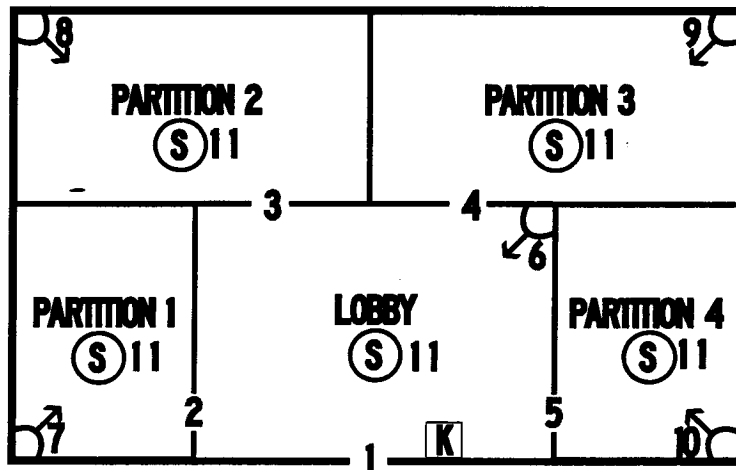
Control Panel Programming

Default Zone Configurations

28	ENTRY/EXIT FORCE ARMABLE 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.
29	INTERIOR FOLLOWER WITH ACTIVITY SUPERVISION 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. It will send a report if the zone activity time is reached without a change of state. Refer to Location 40 / Segment 11. This zone will automatically bypass if enabled in Segment 1 of Location 23.
30	ENTRY/EXIT WITH ACTIVITY SUPERVISION ENABLED - A trip will start entry delay 1. It will send a report if the zone activity time is reached without a change of state. Refer to Location 40 / Segment 11. The lack of a trip during exit delay will enable the Automatic Bypass or Instant mode if so programmed.

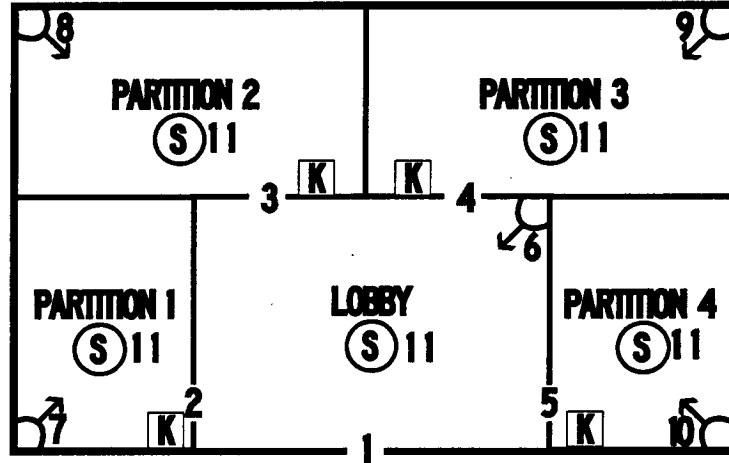
Note: Zone types 21 through 30 are only available on the NX-8E panel

Partitioning Exercise 1



	1	2	3	4	5	6	7	8	9	10	11
ZT											
Partition											

Partitioning Exercise 2



	1	2	3	4	5	6	7	8	9	10	11
ZT											
Partition											

Control Panel Programming

Siren and System Supervision

37	21	SIREN AND SYSTEM SUPERVISION
Segment #1 (Circle numbers to program)		
1		<i>Siren sounds for telephone line cut while armed.</i>
2		<i>Siren sounds for telephone line cut while disarmed.</i>
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		<i>Siren sounds for a tamper.</i>
8		Siren blast one time for keyswitch arming, two times for disarming.
Segment #2 (Circle numbers to program)		
1		Convert siren driver to voltage out.
2		Siren sounds for expander trouble (required for U.L.).
3		Immediate Restore by zone.
4		Dynamic battery test performed upon arming.
5		Battery missing test performed every 12 seconds.
6		<i>Manual bell test performed during [*]-[4] test function.</i>
7		Manual communicator test performed during [*]-[4] test function.
8		Expx tamper enabled.

Note: Not on NX-4 since there is no TLM

Control Panel Programming

Siren and System Supervision

		Segment #6 (Circle numbers to program)
		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.
37	22	Segment #7 (Circle numbers to program)
		1 Failure To Communicate report enabled.
		2 Log Full report enabled.
		3 Autotest report enabled.
		4 Start and End Programming report enabled.
		5 End Download report enabled.
		6 Sensor Low Battery report enabled.
		7 Sensor Missing report enabled.
		8 Reserved.

Note: Not on NX-4 since there is no TLM or ground fault detection

Control Panel Programming

Siren and System Supervision

		Segment #5 (Circle numbers to program)
		1 Lost Clock service LED enable.
		2 Zone Doubling enable.
		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)
		Segment #6
		1 Enable 2-wire Smoke Detector.
		2 Set for 25VA.
		3 Enable Zone Activity in Hours (not Days)
		4-8 Reserved
		Segment #7 - RESERVED

Note: Segments 6 and 7 are on the NX-8E only

Note: Zone doubling (segment 5 number 2) requires additional devices (extra keypad or module) on the NX-4.

Control Panel Programming

Swinger Shutdown Count and Keypad Sounder

38	22	SWINGER SHUTDOWN COUNT	0	-
39	23	KEYPAD SOUNDER CONTROL		
		Segment #1 (Circle number to program)		
	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).		

Note: Not on NX-4 since there is no TLM

Control Panel Programming

Timers

40	23	SYSTEM TIMERS		
		Segment #1: Dynamic Battery Test duration (0-255 minutes)	0	-
		Segment #2: AC Failure report delay (0-255 minutes)	5	-
		Segment #3: Power Up Delay (0-60 seconds)	0	-
		Segment #4: Stand Time (0-255 minutes)	8	-
		Segment #5: Telephone Line Cut delay (0-255 seconds)	0	-
		Segment #6: Cross Zone Time (0-255 minutes)	5	-
		Segment #7: Alarm Time (0-50 seconds) (segment 0-255)	3	-
		Segment #8: Dialer delay (0-255 seconds)	0	-
		Segment #9: Fire Alarm Verification Time (0-20-255 sec)	0	-
		Segment #10: Listen In Time (0-255 seconds)	0	-
		Segment #11: Zone Monitor Timer (0-255 Days)		
		Segment #12-14: Reserved		

Note: Zone Activity Monitor only on NX-8E

Note: Not on NX-4 since there is no TLM

Control Panel Programming

Code Requirements and Additional Features

41	22	SPECIAL FEATURES	
		Segment #1 (Circle numbers to program)	
		1	Enables six digit code option. All arm/disarm/Go To Program codes require six digits
		2	Requires valid user code entry for [*]-[9]-[8] and [*]-[9]-[9] functions to work.
		3	Enable Auto Cancel / Abort.
		4	Enable Walk-Test Mode.
		5	Reserved.
		6	Reserved.
		7	Reserved.
		8	Reserved.

Control Panel Programming

Go To Program Code and Duress Code

42	22	GO TO PROGRAM CODE	9-7-1-3-0-0	-----
43	22	GO TO PROGRAM CODE PARTITION AND AUTHORIZATION		
		Segment #1 (Circle numbers to program)		
		1	Reserved.	Activates Auxiliary Output 1 (see locations 45-50)
		2	Enables "Go To Program Code" as an arm only code.	Activates Auxiliary Output 2 (see locations 45-50)
		3	Enables "Go To Program Code" as an arm only after closing.	Activates Auxiliary Output 3 (see locations 45-50)
		4	Enables "Go To Program Code" as a master arm/disarm code (can change user codes)	Activates Auxiliary Output 4 (see locations 45-50)
		5	Enables "Go To Program Code" as an arm/disarm code.	Enables "Go To Program Code" as an arm/disarm code.
		6	Enables "Go To Program Code" to bypass zones.	Enables "Go To Program Code" to bypass zones.
		7	Enables "Go To Program Code" opening and closing reports.	Enables "Go To Program Code" opening and closing reports.
		8	If on, LED's 1 - 7 will use list on right.	If off, LED's 1-7 will use list on left.
		Segment #2 (Circle numbers to program)		
		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.	
44	23	DURESS CODE	15-15-15-15-15	-----

Control Panel Programming

Autotest and Autoarm

51	26	AUTOTEST CONTROL		
		Segment #1: Program the interval in hours between tests. (0-99)	1	
		Segment #2: Program the number of days of the week the autotest occurs. (0-7)	24	
		Segment #3: Program the autotest report time in minutes after the hour. (0-59)	2	
		Segment #4: Program the autotest report time in minutes after the hour. (0-59)	0	
52	26	OPENING TIME		
		Segment #1: Program the hour of the opening time. (0-23)	8	
		Segment #2: Program the minutes after the hour of the opening time. (0-59)	0	
53	26	CLOSING TIME / AUTO ARMING TIME		
		Segment #1: Program the hour of the closing time / auto arming time. (0-23)	20	
		Segment #2: Program the minutes after hour of closing / auto arming time. (0-59)	0	

Note: Default value for location 51 segment 1 is "0" on NX-4, NX-6, and NX-8

Control Panel Programming

Autotest and Autoarm

54	25	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	25	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	

Control Panel Programming

Multi Partition System Account Codes And Features

88	30	PARTITION 1, ACCOUNT CODE	10-10-10-10-10	----
89	30	PARTITION 2, ACCOUNT CODE	10-10-10-10-10	----
90	31	PARTITION 2, FEATURE AND REPORTING SELECTION		
Segment 1:				
1	Quick Arm	5	Audible Panic	
2	Re-Exit	6	Auxiliary 1	
3	Auto Bypass	7	Auxiliary 2	
4	Silent Panic	8	Multi Keypress Tamper	
Segment 2:				
1	LED extinguish enable	5	Enables bypass toggle	
2	Require user code for bypassing zones	6	Enables silent auto arm	
3	Bypass sounder alert	7	Enables automatic instant	
4	AC power/low battery sounder alert	8	Reserved	
Segment 3:				
1	Open/Close	5	Tamper	
2	Bypass	6	Cancel	
3	Restore	7	Recent Closing	
4	Trouble	8	Exit Error	
Segment 4:				
1	Late to Close / Early to Open			
2-8	Reserved			
Segment 5: RESERVED				

Note: Segment 4 and 5 on NX-8E only

Control Panel Programming

Multi Partition System Account Entry / Exit Timers

91	31	PARTITION 2 ENTRY/EXIT TIMERS		
Segment 1: Entry timer		0		
Segment 2: Exit timer		0		
Segment 3: Exit timer		0		
Segment 4: Exit timer		0		
Segment 5: RESERVED				

Note: Segments 5 and 6 on NX-8E only

Control Panel Programming

Configuration Groups

110	34	ZONE TYPE 1 ALARM EVENT CODE			
111	34	ZONE TYPE 1 CHARACTERISTIC SELECT			
Segment #1: (Circle numbers to program)					
	1	Fire (enable for fire zone).	5	Delay 1 zone (enable to follow Timer 1 Entry/Exit times).	
	2	24 Hour (enable for non-fire 24 hour zone).	6	Delay 2 zone (enable to follow Timer 1 Entry / Exit times).	
	3	Keyswitch zone.	7	Interior (Enable for auto bypass or stay arming).	
	4	Followler (enable for burg zones that are instant during non-entry times).	8	Local Only (enable if zone is not to be reported).	
Segment #2: (Circle numbers to program)					
	1	Keypad audible on alarm.	5	Bypassable.	
	2	Yelping siren on alarm.	6	Group Shunt.	
	3	Temporal siren on alarm.	7	Force armable.	
	4	Chime.	8	Entry Guard.	
Segment #3: (Circle numbers to program)					
	1	Fast Loop Response.	5	Dealer Delay zone.	
	2	Double End of Line Tamper zone.	6	Swinger zone.	
	3	Trouble zone (Day zone).	7	Restore reporting.	
	4	Cross Zone.	8	Listen-In.	
Segment #4: (Circle numbers to program)					
	1	Zone Activity Monitor.	5	Reserved.	
	2	End of Line Resistor Defeat.	6	Reserved.	
	3	Reserved.	7	Reserved.	
	4	Reserved.	8	Reserved.	
Segment #5 - Reserved					

Note: Segments 4 and 5 on NX-8E only

Control Panel Programming

Configuration Groups

THE DEFAULTS LISTED IN THE ODD NUMBERED LOCATIONS BELOW REPRESENT THE THREE SEGMENTS OF EACH OF THOSE LOCATIONS. USE THE THREE SEGMENT CHARTS FROM LOCATION 111 TO UNDERSTAND THESE DEFAULTS.

112	34	ZONE TYPE 2 ALARM EVENT CODE	2
113	34	ZONE TYPE 2 CHARACTERISTIC SELECT	2-125-78-0-0
114	35	ZONE TYPE 3 ALARM EVENT CODE	7
115	35	ZONE TYPE 3 CHARACTERISTIC SELECT	5-1245-5678-0-0
116	35	ZONE TYPE 4 ALARM EVENT CODE	5
117	35	ZONE TYPE 4 CHARACTERISTIC SELECT	45-125-5678-0-0
118	35	ZONE TYPE 5 ALARM EVENT CODE	5
119	35	ZONE TYPE 5 CHARACTERISTIC SELECT	457-125-5678-0-0
120	35	ZONE TYPE 6 ALARM EVENT CODE	4
121	35	ZONE TYPE 6 CHARACTERISTIC SELECT	0-1245-5678-0-0
122	35	ZONE TYPE 7 ALARM EVENT CODE	0
123	35	ZONE TYPE 7 CHARACTERISTIC SELECT	2-0-78-0-0
124	35	ZONE TYPE 8 ALARM EVENT CODE	1
125	35	ZONE TYPE 8 CHARACTERISTIC SELECT	1-13-378-0-0
126	35	ZONE TYPE 9 ALARM EVENT CODE	7
127	35	ZONE TYPE 9 CHARACTERISTIC SELECT	6-1245-5678-0-0

Note: Continues through location 149 on NX-4, NX-6, and NX-8 and through location 169 on NX-8E. Location 149 is the last location on all panels except NX-8E.

Control Panel Programming

Zones 49 through 192

170	39	ZONES 49-56, ZONE TYPES	6-6-6-6-6-6-6		-----					
171	39	ZONES 49-56, PARTITION SELECTION (Segment 1=Zone 49 thru Segment 8=Zone 56)								
		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

Note: Continues through location 205 on NX-8E only

Control Panel Programming

Serial Port Programming

207	45	SERIAL PORT ENABLE	0					
		0 = Disabled 1 = Home Automation Protocol Enabled 2 = Serial Printer Mode						
208	45	SERIAL PORT BAUD RATE	2					
		0 = 2400 (2.4K) 3 = 19200 (19.2K) 1 = 4800 (4.8K) 4 = 38400 (38.4K) 2 = 9600 (9.6K) 5-7 = Reserved						
209	45	HOME AUTOMATION PROTOCOL	Off					
		LED Off = Binary LED On = ASCII						
210	45	NX8E TRANSITION-BASED BROADCASTS						
		Segment #1	Segment #2					
		1 = Reserved 2 = Interface Configuration 3-4 = Reserved 5 = Zone Status Message 6 = Zones Snapshot Message 7 = Partition Status Message 8 = Partitions Snapshot Message	1 = System Status Message 2 = X-10 Message Received 3 = Log Event Message 4 = Keypad Message Received 5-8 = Reserved					

These features on NX-8E ONLY

Control Panel Programming

Serial Port Programming

211	46	NX584 COMMAND/REQUEST ENABLE	
		Segment #1 1 = Reserved 2 = <i>Interface Configuration Request</i> 3 = Reserved 4 = <i>Zone Name Request</i> 5 = <i>Zone Status Request</i> 6 = <i>Zones Snapshot Request</i> 7 = <i>Partition Status Request</i> 8 = <i>Partitions Snapshot Request</i>	Segment #2 1 = <i>System Status Request</i> 2 = <i>Send X-10 Message</i> 3 = <i>Log Event Request</i> 4 = Send Keypad Text Message 5 = Keypad Terminal Mode Request 6-8 = Reserved
		Segment #3 1 = Program Data Request 2 = Program Data Command 3 = User Information Request with PIN 4 = User Information Request without PIN 5 = Set User Code Command with PIN 6 = Set User Code Command without PIN 7 = Set User Authorization Comm with PIN 8 = Set User Authorization Comm without PIN	Segment #4 1-2 = Reserved 3 = Store Communication Event Command 4 = <i>Set Clock / Calendar Command</i> 5 = Primary Keypad Function with PIN 6 = Primary Keypad Function without PIN 7 = <i>Secondary Keypad Function</i> 8 = Zone Bypass Toggle

These features on NX-8E ONLY

Control Panel Programming

Serial Port Programming

212	47	LCD KEYPAD ADDRESS FOR NX584	192																																																																																										
<table border="1"> <thead> <tr> <th>KEY</th> <th>DATA</th> <th>DATA</th> <th>DATA</th> <th>DATA</th> <th>DATA</th> <th>DATA</th> <th>DATA</th> <th>DATA</th> <th>DATA</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>192</td> <td>193</td> <td>194</td> <td>195</td> <td>196</td> <td>197</td> <td>198</td> <td>199</td> <td>200</td> </tr> <tr> <td>2</td> <td>200</td> <td>201</td> <td>202</td> <td>203</td> <td>204</td> <td>205</td> <td>206</td> <td>207</td> <td>208</td> </tr> <tr> <td>3</td> <td>208</td> <td>209</td> <td>210</td> <td>211</td> <td>212</td> <td>213</td> <td>214</td> <td>215</td> <td>216</td> </tr> <tr> <td>4</td> <td>216</td> <td>217</td> <td>218</td> <td>219</td> <td>220</td> <td>221</td> <td>222</td> <td>223</td> <td>224</td> </tr> <tr> <td>5</td> <td>224</td> <td>225</td> <td>226</td> <td>227</td> <td>228</td> <td>229</td> <td>230</td> <td>231</td> <td>232</td> </tr> <tr> <td>6</td> <td>232</td> <td>233</td> <td>234</td> <td>235</td> <td>236</td> <td>237</td> <td>238</td> <td>239</td> <td>240</td> </tr> <tr> <td>7</td> <td>240</td> <td>241</td> <td>242</td> <td>243</td> <td>244</td> <td>245</td> <td>246</td> <td>247</td> <td>248</td> </tr> <tr> <td>8</td> <td>248</td> <td>249</td> <td>250</td> <td>251</td> <td>252</td> <td>253</td> <td>254</td> <td>255</td> <td>256</td> </tr> </tbody> </table>				KEY	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	1	192	193	194	195	196	197	198	199	200	2	200	201	202	203	204	205	206	207	208	3	208	209	210	211	212	213	214	215	216	4	216	217	218	219	220	221	222	223	224	5	224	225	226	227	228	229	230	231	232	6	232	233	234	235	236	237	238	239	240	7	240	241	242	243	244	245	246	247	248	8	248	249	250	251	252	253	254	255	256
KEY	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA																																																																																				
1	192	193	194	195	196	197	198	199	200																																																																																				
2	200	201	202	203	204	205	206	207	208																																																																																				
3	208	209	210	211	212	213	214	215	216																																																																																				
4	216	217	218	219	220	221	222	223	224																																																																																				
5	224	225	226	227	228	229	230	231	232																																																																																				
6	232	233	234	235	236	237	238	239	240																																																																																				
7	240	241	242	243	244	245	246	247	248																																																																																				
8	248	249	250	251	252	253	254	255	256																																																																																				
213		RESERVED																																																																																											

These features on NX-8E ONLY

NX-408,416,448 Wireless Receiver Programming

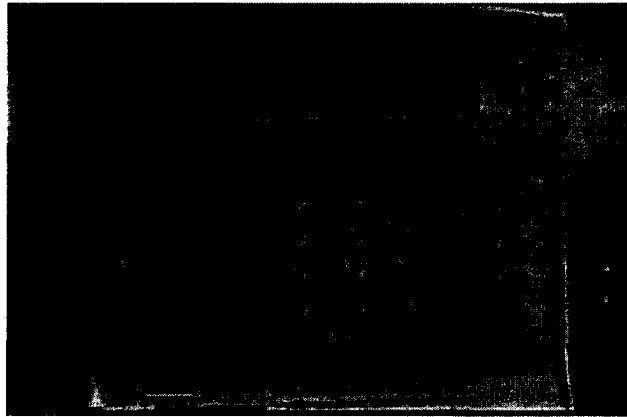
Short Form Programming

- *8
 - 9713
 - 35# (assuming no change in DIP switches)
 - 50#
 - 1, 4, 5 on *
 - 51#
 - Select starting zone bank
- 0 = Zone 1
 - 1 = Zone 9
 - 2 = Zone 17
 - 3 = Zone 25
 - 4 = Zone 33
 - 5 = Zone 41
- *
 - 49#
 - First zone number *
 - Start learning devices
 - Partition 1 keypads should chime after learning each device



SENTROL

Learning In Transmitters "Learn Mode"



Click on the keypad to view training video

NX-408, 416 & 448 Programming

0 Supervision	
Segment 1 Normal Transmitters	
0-255 hours (default=24 hours)	
Segment 2 Fire transmitters	
0-255 hours (default=4 hours)	
1 Transmitter 1 (Zone 1)	
Segment 1 Characteristics	
1	Enable Sensor
2	Supervised
3	Input Option 1
4	Input Option 2
5	Transmitter not lost(read only)
6	Low battery(read only)
7	Last signal good(read only)
8	Not used(read only)
Segment 2 Partitions(keyfob only)	
1	Partition #1
2	Partition #2
3	Partition #3
4	Partition #4
5	Partition #5
6	Partition #6
7	Partition #7
8	Partition #8
2 Transmitter 2 (Zone 2)	
Segment 1 Characteristics	
1	Enable Sensor
2	Supervised
3	Input Option 1
4	Input Option 2
5	Transmitter not lost(read only)
6	Low battery(read only)
7	Last signal good(read only)
8	Not used(read only)
Segment 2 Partitions(keyfob only)	
1	Partition #1
2	Partition #2
3	Partition #3
4	Partition #4
5	Partition #5
6	Partition #6
7	Partition #7
8	Partition #8
49 Transmitter to be programmed (No default)	
50 Special features	
Segment 1	
1	Keyfob sends user ID for Open and close reports
2	Enable anti-jam detect
3	Not used
4	Enable sequential transmitter programming (version 1.30)
5	Enable chime on learning for all partition 1 keypads (version 1.30)
6-8	Not used
51 Selection for bank of 8 where 408 or 416 start. Values:0 (zones 1-8) to 5 (zones 41-48)(Version 1.30)	

