

DAS NETWORK X NX-8

Control/Communicator Installation Manual

	Page
General Description	2
Ordering Information	2
Option Definitions.....	2
Programming the LED Code Pads	4
Programming the NX-8.....	8
Types of Programming Data	9
Loading Factory Defaults.....	9
Enrolling the Modules & Code Pads.....	9
Programming Examples	10
Terminal Descriptions.....	11
Wiring Diagram	12
System Codes.....	14
Dialer Options.....	14
Download Options.....	15
Options	16
Zones 1 – 8 Configurations.....	18
Default Zone Configuration Table.....	19
System Options.....	21
Siren and Communicator Counter	22
Code Pad Sounder Control	22
System Timers	23
Auxiliary Outputs.....	25
Auxiliary Output Event Table.....	26
Auto Test Control	26
Auto Arming / Open and Close Times.....	27
Arm Only After Close Window.....	27
Configurations Groups 1 to 20	28 - 32
Programming Work-Sheets	33 - 40
Appendixes	40 - 42
Specifications	Back Page
Warranty	Back Page

**DIRECT ALARM SUPPLIES
SALES / SERVICE / TECHNICAL
1800 252 213**

NETWORX NX-8

The NetworX NX-8 from DAS represents a new approach to security systems design. Drawing on experience from the world market, DAS has developed the most flexible, durable, and user-friendly control ever seen in our industry. Featuring sophisticated software, which allows up to 8 users to interface with 8 zones via the NX-408 wireless module, all reported with the Contact I.D 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.

ORDERING INFORMATION		
PART #	DESCRIPTION	DAS FS #
NX-8	NX-8 Control Only	FS4697
NX-108	8 Zone LED Code Pad	FS4127
NX-408	8 Zone Wireless Expansion Module	FS4135
NX-508	Eight Output Module	FS4128

MAIN OPTIONS

Arm / Disarm Codes

The NX-8 can have 8 four-digit codes or six-digit codes to arm/disarm the control. All codes must have the same number of digits. User codes are programmed and viewed from the code pad functions [.] 5 and [.] 6. The factory default for User #1 is [1]-[2]-[3]-[4] when using a 4-digit code, or [1]-[2]-[3]-[4]-[5]-[6] for a 6-digit code. This code can then be used to enter the new arm/disarm codes. (See Feature 0)

Automatic Arming

If programmed, the NX-8 will Auto Arm at a specified time. At this time, the code pad will beep for 50 seconds before the panel arms. The auto arming process can be stopped by a valid code entry. The Auto Arming process can be programmed to be silent. If closing reports are sent, the user code will be 97. (See Features 16, and 33-36)

Auxiliary Outputs

The NX-8 has two programmable outputs that can be used to activate a strobe and two internal sirens. (See the terminal description Features 26-29)

Auxiliary Power Over Current

The NX-8 will illuminate the "Service" LED on the code pad whenever too much current is drawn from any device powered by the system. This condition can be reported to the central station. (See Features 9 and 22)

Box Tamper

The NX-8 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 Code Pad. These terminals can be enabled or disabled in programming. (See Features 22 and 23)

Configuration Groups

The NX-8 has 20 programmable and 10 fixed zone configuration groups that determine how each zone will function and report. The first 20 groups can be user definable.

Dual End of Line

All NX-8 zones can be enabled for Tamper monitoring if the Dual End of Line option is enabled.

Dynamic Battery Test

The NX-8 can be programmed to perform a Dynamic Battery Test for a selected duration the first time the panel is armed or disarmed every day. The NX-8 can also be programmed to perform a missing battery test every 12 seconds. (See Features 22 and 25)

Exit Error

If enabled, the NX-8 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 option is not enabled, the siren will sound if any entry/exit zone is faulted at the instant the exit delay expires. (See Feature 9 and 16)

Expander Trouble

The NX-8 will report expander trouble to the central station if enabled. This condition will illuminate the "Service" LED on the Code Pad even if not reported. NOTE: The Code Pads are considered expanders. The number of the expansion devices reported can be found below. (See Feature 9 and 22)

Fire Alarm Verification

When enabled, the NX-8 will verify a Fire alarm by requiring more than one trip on a smoke detector within a specified time before creating an alarm. To interrupt the smoke detector power (when in the disarmed state) each time the [-] 7 keys are pressed, the corresponding LED(s) for zones designated as "Fire" must be on steady for alarm or blinking for trouble. When the "Fire Alarm Verification" option is enabled, a smoke detector will be powered down and reset automatically after the first trip, waiting for a second trip within a specified time before creating an alarm. The communicator will delay for a specified time before reporting the alarm, if a valid code is entered, the report will be aborted, and the smoke alarm verification option will be reset if enabled. If no valid code is entered the alarm report will be reported to the base station. (See Zone configuration Group Table and Feature 25)

Group Bypass

A designated group of zones can be programmed to bypass by pressing [Bypass]- [0]-[0]- [Bypass] prior to arming. (See Zone Configuration Group Table)

Internal Event Log

Up to 185 events can be stored in memory along with the date and time of the event. These events can later be viewed through downloading or the LCD Code Pad. All reportable events report to the log.

Number of Calls and Rings to Answer

The NX-8 can count the number of calls and rings that are made before it will count the number of rings that must be met for automatic download answering. (See Feature 13)

On Board Zone Disable

The eight zones on the NX-8 panel can be disabled in order to have a completely wireless alarm system. (See Feature 22)

Partial Mode

This unique arming mode has been developed to reduce the most common source of false alarms. When armed in the "Partial" mode, the opening of any zones designated as "Partial Mode zone" will initiate the Code Pad sounder and start the Partial Mode 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 premise is occupied. (See Zone Configuration Group Table and Features 16 and 25)

Siren Supervision -

The NX-8 has a Siren Supervision circuit that will constantly monitor the siren on the NX-4 and can be programmed to report if the wires are cut. (See Feature 22)

Twin Trip -

This option requires two or more trips on a zone or zones programmed as "Twin Trip" within a specified time before reporting an alarm. During the time between trips, the NX-8 can be programmed to sound the Code Pad and/or the siren. The NX-8 will also see any Twin Trip zone that is continuously faulted for longer than 10 seconds as an alarm activation. (See Zone configuration Group Table and Features 22, 24, and 25)

PROGRAMMING THE NX-8 LED CODE PADS

This section describes how to program the address of each code pad as well as the options that are available. The address of the code pad is important because this is how the panel supervises the code pads. The factory default for the Master code is [1]-[2]-[3]-[4] when using a 4-digit code or [1]-[2]-[3]-[4]-[5]-[6] for a 6-digit code. The factory default for the "Go To Program" code is [9]-[7]-[1]-[3] for a 4-digit code or [9]-[7]-[1]-[3]-[0]-[0] for a 6-digit code.

SETTING THE LED CODE STARTING ZONE - Function [9][2]

- Step 1**
- Your system must be in the Disarmed state to program the code pad settings.
- Step 2**
- Press the [.]-[9]-[2] key.
- Step 3**
- Enter the [program code]
- Step 4**
- Enter the **STARTING** zone number from 1 to 8.
- Step 5**
- Press [.] – Press [.] to save changes and exit this function.

SETTING THE LED CODE PAD OPTIONS- Function [9][3]

- Step 1**
- Your system must be in the Disarmed state to program the code pad settings.
- Step 2**
- Press the [.]-[9]-[3] key
- Step 3**
- Enter the [program code]- The "Service" LED will flash.

LEDs 1-8 can now be toggled on/off to enable/disable the functions listed in the table below:

- Step 4**
- Press [.] – After enabling/disabling the desired functions press [.] to save changes and exit this function.

LED	Code Pad Option Enabled
1	Enable Code Pad tamper switch
2	Enable Silent Code Pad option
3	Enable Ding Dong sound for Chime - If off, chime will be a single tone.
4	Enable Key-press Silence option (silences the pulsing code pad sounder for 5 seconds when a key is pressed)
5	Enable Armed Status Suppression (will not allow the code pad 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 key-press was accepted)
7	Suppresses the "Service" LED (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	RESERVED. This LED should always be "OFF".

SETTING THE LED CODE PAD NUMBER - Function [9][4]

- Step 1** Your system must be in the Disarmed state to program the code pad settings.
- Step 2** Press the [-]- [9]-[4] key.
- Step 3** Enter the [program code]. The "Service" LED will flash.
- Step 4** Enter the code pad number (1-8).
- Step 5** Press [-]. The "Instant" LED will illuminate steady and the "Service" LED will remain flashing.
- Step 6** Enter [1]. The code pad will automatically exit this mode at this time.

SET ELAPSED HOURS SINCE LAST AUTOTEST - Function [9][5]

- Step 1** Your system must be in the Disarmed state to program the code pad settings.
- Step 2** Press the [-]-[9]-[5] key.
- Step 3** Enter the [program code]. The "Service" LED will flash.
- Step 4** Enter [100's digit] -[10's digit]-[1's digit] for the elapsed hours.
Example, if you have programmed the Auto-Test intervals to report every 72 hours, the value in this function will determine the first time the autotest report is made, so to have the first test occur in 12 hours and then every 72 hours, simply subtract the 12 from 72 which gives you a value of 60 hours. The value in this function would be [6][0].
- Step 5** Press the [#] key to exit this function.

SET SYSTEM DATE - Function [9][6]

- Step 1** Press the [-]-[9]-[6].
- Step 2** Enter the "Master Code".
- Step 3** Enter the "Day of Week".

1 = Sunday	3 = Tuesday	5 = Thursday	7 = Saturday
2 = Monday	4 = Wednesday	6 = Friday	
- Step 4** Enter the "Month Code". This must always be two (2) digits.

01 = January	05 = May	09 = September
02 = February	06 = June	10 = October
03 = March	07 = July	11 = November
04 = April	08 = August	12 = December
- Step 5** Enter the "Day Code". This must always be two (2) digits.
Example: The 5th would be entered as [0][5].
- Step 6** Enter the last two digits of the "Year Code". *Example: For 2000 enter [0][0].*

SETTING THE SYSTEM CLOCK - Function [9][7]

- Step 1** Press the [.]-[9]-[7] key.
- Step 2** Enter the "Master Code".
- Step 3** Enter the "hour code" which must be two (2) digits. Note: The clock is a 24 hour clock.

Example: 12.00 AM would be entered as [0]-[0], 7.00 AM would be entered as [0]-[7], and 5.00 PM would be entered as [1]-[7].

- Step 4** Enter the "minutes code" which must be two (2) digits.

Example: 7 minutes after would be entered [0] [7].

SERVICE MENU - Function [2]

The service light will be "on" if the security system requires service. If the service light is "on", press the [.] key followed by the [2] key to determine the service condition. One or more zone lights will illuminate indicating what service(s) is required. Call your service provider immediately for these problems. Below is a listing of what each light means in a service condition.

LIGHT	PROBLEM
1	SYSTEM FAULT - Press the [1] key. The zone light(s) that is illuminated corresponds to the system fault(s) below: 1 Over Current Fault 2 Siren Trouble 3 Box Tamper 4 Expander Power 5 Expander Low Battery 6 Expander Box Tamper 7 Expander Trouble 8 Reserved Note: Faults 1 & 2 are global in nature and will affect all partitions of a multi-partition system. Press the [#] key to return to the 1 of 8 service lights.
2	ZONE TAMPER – Press the [2] key and the zone light(s) will illuminate showing the zone(s) that are tampered. Press the [#] key to return to the 1 of 8 service lights.
3	ZONE LOW BATTERY - Press the [3] key. The zone light(s) will illuminate showing which zone(s) has a low battery. This only applies to wireless zones. Press the [#] key to return to the 1 of 8 service lights.
4	ZONE LOSS OF SUPERVISION - Press the [4] key and the zone light(s) will illuminate showing which zone(s) has loss of supervision. This only applies to wireless zones. Press [#] key to return to the 1 of 8 service lights.
5	ZONE TROUBLE - Press the [5] key and the zone light(s) will illuminate showing which zone(s) has a trouble condition. Press the [#] key to return to the 1 of 8 service lights.
6	RESERVED
7	FAILURE TO COMMUNICATE - This light will illuminate when there is a failure to communicate between your system and the central station. Note: This fault is global in nature and will affect all partitions of a multi-partition system.
8	LOSS OF SYSTEM TIME - This light will illuminate when there has been a loss of power and your system clock needs to be reset.

To exit the Service Light Mode - press the [#] key.

CHANGING USER CODES - Function [5]

- Step 1** Your system must be in the Disarmed state to change user codes.
- Step 2** Press the [.]-[5] key.
- Step 3** Enter a "Master Arm/Disarm Code".
- Step 4** The *ready light* will flash.
- Step 5** Enter the 2 digit "user number" (always enter 2 digit such as [0]-[3] for user 3 or [5]-[2] for user 52).
- Step 6** Enter the new four (4) or six (6) digit "user code". Note: To delete a user code, enter [Chime]-[Chime]-[Chime]-[Chime] for a 4-digit code, or [Chime]-[Chime]-[Chime]-[Chime]-[Chime]-[Chime] for a 6-digit code.
- Step 7** The *ready light* will flash indicating you are back at Step 4 above. If the code is rejected, the sounder will beep 3 times.
- Step 8** If another "user code" needs to be programmed, return to Step 5
- Step 9** Press the [#] key while the *ready light* is flashing to exit the User Code Programming Mode.

ASSIGNING USER CODE AUTHORITY LEVELS - Function [6]

- Step 1** Assign user codes before assigning authority levels. Press the [-]-[6] key.
- Step 2** Enter a "Master Arm/Disarm Code".
- Step 3** The *ready light* will flash.
- Step 4** Enter the 2 digit "user number" to be assigned authority. (The *ready light* is constant and the *partial light* will flash).
- Step 5** Lights illuminated indicate the authority levels assigned to this code. An explanation of the lights is listed below. You may toggle (turn on/off) the authority level by pressing the number for that authority level

LED	ATTRIBUTES IF LED 8 IS OFF	LED	ATTRIBUTES IF LED 8 IS ON
1	Reserved	1	Activate output #1
2	Arm Only	2	Activate output # 2
3	Arm Only After Close Window	3	Reserved
4	Master arm/disarm (can program other codes)	4	Reserved
5	Arm/disarm code	5	Arm/disarm
6	Allowed to bypass zones (see Feature 23)	6	Bypass Zones
7	Code will send open / close reports	7	Open / Close Reporting
8	If this LED is on, LEDs 1-7 will use the chart to the right	8	If this LED is off, LEDs 1-7 use the chart to the left

- Step 6** Press the [-] key. The *ready light* will flash.
- Step 7** The illuminated numbers indicate if the user has access. To change the user's access, press numbers [1] to toggle between allowed access or denied access.
(Example: When zone light #1 is lit, then the user is assigned access. By pressing the [1] key, the light will go off, denying access to this user.)
- Step 8** Press the [-] key. This returns you to Step 3. At this point you may enter another user number to assign authority level. Repeat Continue Steps 4 - 8 until you have assigned authority levels to all user numbers.
- Step 10** Press the [#] key to exit the Assigning Authority Level Program.

WALK TEST MODE - Function [-] [Chime]

- Step 1** Press the [-] key.
- Step 2** Press the [Chime] key.
- Step 3** Enter a "Master Arm/Disarm Code".

Now all zones become 24 hour, silent and local (non-reporting zones). By faulting any zone, that zone will latch its zone light on the LED code pad, and sound the Chime. The Chime will continue to sound each time a zone is faulted. Once all zone are test (zone lights lit on the LED code pad) go to step 4.

- Step 4** Enter a "Master Arm/Disarm Code".

FUNCTION [-]-[9]-[8] Pressing [-]-[9]-[8] while the system is disarmed will cause the control to do a callback for a download. NOTE: A VALID USER CODE MAY BE REQUIRED AFTER [-]-[9]-[8] IF ENABLED IN FEATURE 0.

FUNCTION [-]-[9]-[9] Pressing [-]-[9]-[9] while the system is disarmed will cause the control panel to seize the phone line for a download. NOTE: A VALID USER CODE MAY BE REQUIRED AFTER [-]-[9]-[9] IF ENABLED IN FEATURE 0.

PROGRAMMING THE NX-8 CONTROL

The NX-8 programming structure consists of Features, Segments, and Options.

FEATURES: or Feature Numbers are used to locate an Option or Group of Options. *E.G. Feature 6 contains the communicator format selection and Feature 16 contains Options.*

SEGMENTS: are contained within each Feature, there are two types of segments. The first segment type is referred to as an Option select segment. This segment type contains up to eight Options which can be toggled On or Off. The second segment type is referred to as a Numeric segment. This segment type requires a value from "0" to "255" to be entered to set the Option.

OPTIONS: are contained within segments. An Option select segment can have up to eight Options. A numeric segment can have a value of "0" to "255". *E.G. Feature 6 contains the communicator format which has one segment with one Option; and Feature 16 contains Area one Options which has three segments with 24 Options.*

ENTERING THE PROGRAM MODE: To enter the Program Mode, press [.]-[8]. At this time, the five function LEDs (On, Partial, Exit, Bypass, & Chime) will begin to flash. Next, enter the "Go To Program Code" (FACTORY DEFAULT IS [9]-[7]-[1]-[3]). If the "Go To Program Code" is valid, the "Service" LED will flash and the five function LEDs will illuminate steady. You are now in the Program Mode and ready to select the module to program.

SELECTING THE MODULE TO PROGRAM: Since all modules connected to the NX-8 are programmed through the code pad, the module you are programming should be the first entry. To program the NX-8 Control Panel, enter [0]-[#]. The [0] is the module number of the control and the [#] is the entry key. Other module entry numbers can be found in their corresponding manuals.

PROGRAMMING A FEATURE: Once the number of the module to be programmed has been entered, the "Armed" LED will illuminate, indicating it is waiting for a programming feature to be entered. Any feature can be accessed by directly entering the desired programming feature followed by the pound [#] key. If the feature entered is a valid feature, the "Armed" LED will extinguish, the "Ready" LED will illuminate and the binary data for the first segment of this feature will be shown by the zone LED's. While entering new data, the "Ready" LED will begin flashing to indicate a data change in process. The flashing will continue until the new data is stored by pressing the [.] key. Upon pressing the [.] key, the code pad will advance to the next segment and display its data. This procedure is repeated until the last segment is reached. Pressing the [#] key will exit from this feature, and the "Armed" LED will illuminate again waiting for a new programming feature to be entered. If the desired feature is the next sequential feature, press the [POLICE] key. If the previous feature is desired press the [FIRE] key. If the same feature is desired press the [MEDIC] key. To review the data in a feature, repeat the above procedure, pressing the [.] key without any numeric data entry. Each time the [.] key is pressed, the programming data of the next segment will be displayed for review.

EXITING A FEATURE: After the last segment of a feature is programmed, pressing the [.] key will exit that feature, turn the "Ready" LED off and the "Armed" LED on. As before, you are now ready to enter another programming feature. If an attempt is made to program an invalid entry for a particular segment, the code pad sounder will emit a triple error beep (beep, beep, beep), and remain in that segment awaiting a valid entry.

EXITING THE PROGRAM MODE : When all the desired changes in programming have been made, it is time to exit the program mode. Pressing the [Exit] key will exit this programming level, and go to the "Select a Module to Program" level. If no additional modules are to be programmed, pressing the [Exit] key again will exit the program mode. If there is a module to be programmed, it may be selected by entering its address followed by the [#] key (see "Selecting the Module To Program" above). The procedure for programming these devices is the same as for the control panel, except the features will be for the module selected.

PROGRAMMING DATA

PROGRAMMING DATA : Programming data is always one of two types. One type of data is numerical and can take on values from 0-15 or 0-255 depending on the feature's segment. The other type of data is a option selection type. Option selection data is used to turn options on or off. Use the following procedures when working with these two data types:

NUMERICAL DATA: Numerical data is programmed by entering a number from 0-255 on the numeric keys of the system code pad. To view the data in a feature, a binary process is used. With this process, the LED's for zones 1 through 8 are utilized, and the numeric equivalents of their illuminated LED's are added together to determine the data in a programming feature. The numeric equivalents of these LED's are as follows:

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

Example: If the numerical data to be programmed in a feature is "66", press [6]-[6] on the code pad. The LED's for Zone 2 and Zone 7 will become illuminated indicating 66 is in that feature (2 + 64 = 66). See example on page 10.

Once the data is programmed, press the [.] key to enter the data and advance to the next segment of that feature. After the last segment of a feature is programmed, pressing the [.] key will exit that feature, turn the "Ready" LED off and the "Armed" LED on. As before, you are now ready to enter another programming feature. If an attempt is made to program a number too large for a particular segment, the code pad sounder will emit a triple beep, indicating an error, and remain in that segment awaiting a valid entry.

OPTION SELECTION DATA: Option selection data will display the current condition (on or off) of eight options associated with the programming feature and segment selected. Pressing a button on the touch-pad (1 thru 8) that corresponds to the "option number" within a segment will toggle (on/off) that option. Pressing any numeric key between [1] and [8] for selection of a option, will make the corresponding LED illuminate (option ON). Press the number again, and the LED will extinguish (option OFF). You will see that numerous options can be selected from within one segment. For instance, if all eight options of a segment are desired, pressing [1]-[2]-[3]-[4]-[5]-[6]-[7]-[8] will turn on LED's 1 thru 8 as you press the keys, indicating that those options are enabled. After the desired setting of options is selected for this segment, press the [.] key. This will enter the data and automatically advance to the next segment of the feature. When you are in the last segment of a feature and press the [.] to enter the data, you will exit that feature. This will now turn the "Ready" LED off and the "Armed" LED on. As before, you are now ready to enter another programming feature.

LOADING FACTORY DEFAULTS: There are two ways to load the factory defaults. The first is to enter the program mode using the procedure on page 9, then type [9]-[1]-[0]-[#]. The code pad will beep 3 times indicating that the loading is in progress. The loading takes about 6 seconds. The second is to type [9][7][1][3][0][0] within 10 seconds of power up at any code pad, which is not programmed for master mode. The procedure will default the NX-8 even if it is armed.

ENROLLING MODULES AND CODE PADS: For supervision purposes, the NX-8 has the ability to automatically find and store in its memory, the presence of all code pads, zone expanders, wireless receivers, and any other module connected to the data terminal whenever exiting the program mode. The enrolling process takes about 12 seconds, during which time the "Service" LED will illuminate. Once a module is enrolled, if it is not detected by the control, the "Service" LED will illuminate.

(Programming Example)

TERMINAL DESCRIPTION TABLE

TERMINAL #	DESCRIPTION
ZONES	
1	Connect one side of zone 1 loop. Other side of loop to common terminal. Open or short causes alarm.
COM	Common (-) Terminal
2	Connect one side of zone 2 loop. The other side of loop to common terminal. Open or short causes alarm.
COM	Common (-) Terminal
3	Connect one side of zone 3 loop. The other side of loop to common terminal. Open or short causes alarm.
COM	Common (-) Terminal
4	Connect one side of zone 4 loop. The other side of loop to common terminal.
AUX OUTPUT 2	Auxiliary Output Terminal. Current limited to 250 mA negative. This Auxiliary output is normally used to connect the negative lead of the strobe. The positive lead of the strobe can be connected to any of the positive terminals.
KEYPAD	
DATA, COM, POS	Connect code pad wires as follows: green to DATA, black to COM, red to POS.
SMOKE/PWR	Smoke detector power 12VDC, 100 mA maximum (For those jurisdictions which allow the Priority zone to be used with smoke detectors.)
COM	Common (-) Terminal
SPK/BELL	Siren driver output to speaker(s), (speaker rating should be 15 watt at 8 or 16 ohm, or 30/40 watt at 4, 8 or 16 ohms). If siren driver disable is selected in location 139, output becomes voltage output, 12VDC, 500 mA maximum load. Note: A 3K3 resistor must be placed across these terminals whenever a 12VDC siren or screamer is used with out a horn speaker in parallel. If no resistor is used, you may experience voltage leakage into the siren / screamer which will cause these devices to output a small signal.
AUX OUTPUT 1	Auxiliary Output Terminal. Current limited to 250 mA negative. This Auxiliary output is normally used to connect the negative lead of the strobe. The positive lead of the strobe can be connected to any of the positive terminals.
EARTH/GND	Earth Ground, connect to a cold water pipe or 2 to 3 meters driven rod.
16.5 VAC	AC input, connect a 16.5V 1.5 Amp Plug Pack.
Battery leads	Standby battery leads black (-) and red (+) connect to a 12VDC lead acid rechargeable battery. Do not connect to a dry cell battery.

NX-8 WIRING DIAGRAM

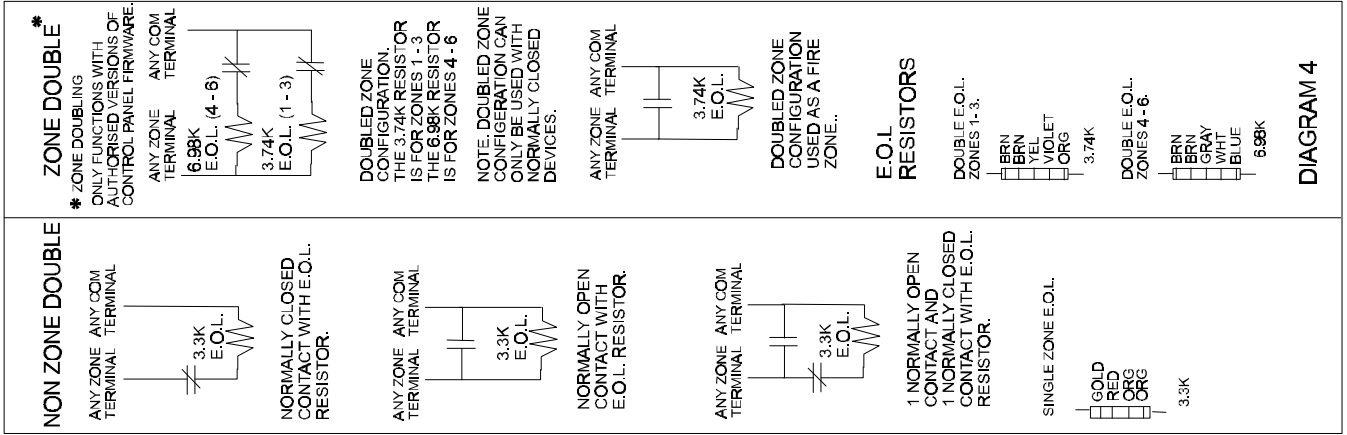
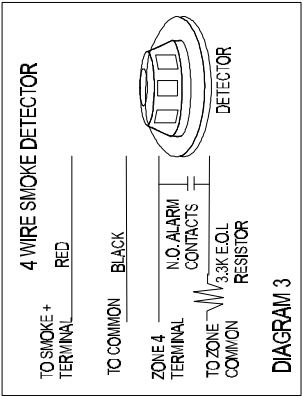
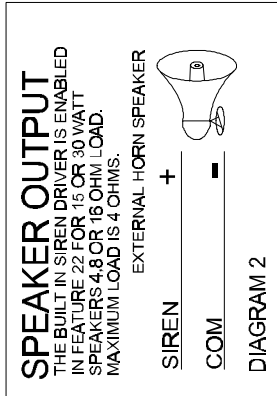
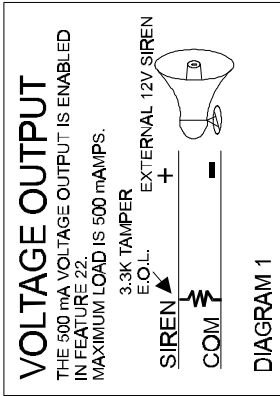
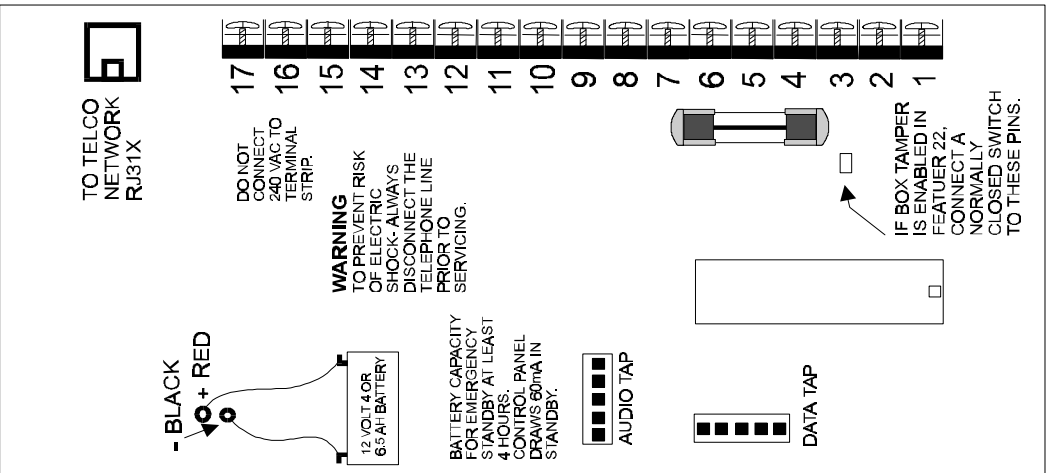
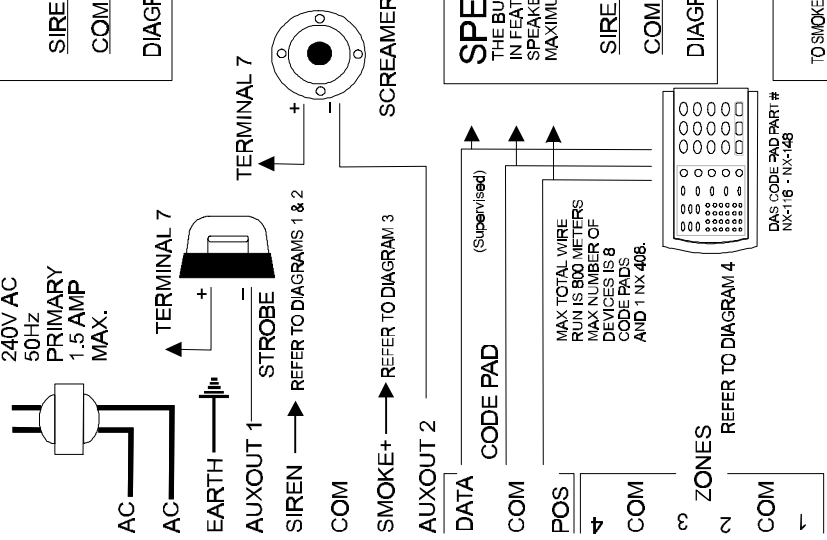


DIAGRAM 4



LIGHTNING PROTECTION
THE CONTROL PANEL MUST BE EARTH GROUND FOR LIGHTNING PROTECTION TO WORK EFFECTIVELY. THE GROUND CONNECTION SHOULD BE TIED TO A VERIFIED COLD WATER PIPE OR A DEDICATED METAL ROD 15CM TO 25CM LONG. USE MINIMUM 14 GAUGE WIRE.



DAS NX-4

FEATURE 0**CODE REQUIREMENTS**

Feature 0, segment 1 is used to enable the 6-digit user code option. If 6-digit option is enabled, all arm/disarm codes, the "Go To Program Code" and duress codes are 6 digits. If this option is enabled, the default user 1 code is [1]-[2]-[3]-[4]-[5]-[6]. The NX-4 has 8 four (4) digit user codes or 8 six (6) digit user codes. Segment 2 is used to enable user code requirement for functions [-]-[9]-[8] (perform call back download) and [-]-[9]-[9] (answer incoming call for download).

SEGMENT 1	
1	On enables the 6-digit code option. Its original off state is a 4-digit code.
2	On requires code entry for [-]-[9]-[8] and [-]-[9]-[9] functions
3-8	RESERVED

FEATURE 1**GO TO PROGRAM CODE**

SEGMENTS 1-6	9	7	1	3	0	0
---------------------	----------	----------	----------	----------	----------	----------

Feature 1 contains the "Go To Program Code". This feature contains either a 4 or 6-digit code. If the 6-digit code option is enabled in Feature 0, THIS CODE MUST CONTAIN SIX (6) DIGITS. If this option is not enabled in Feature 0, the last 2 segments (digits) will be ignored. With the NX-4 disarmed, the "Go To Program Code" can be used to enter the Program Mode.

FEATURE 2**GO TO PROGRAM CODE AUTHORISATION**

The "Go To Program Code" can be used as a standard arm/disarm code. When using the code to arm or disarm, the user I.D 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 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

FEATURE 3**DURESS CODE**

SEGMENTS 1-6	15	15	15	15	15	15
---------------------	-----------	-----------	-----------	-----------	-----------	-----------

Feature 3 contains the "Duress" code. This feature contains either 4 or 6 digits. If the 6-digit code option is enabled in Feature 0, THIS CODE MUST CONTAIN SIX (6) DIGITS. If the 6-digit option is not enabled in Feature 0, the last 2 digits will be ignored.

FEATURE 4**PHONE NUMBER ONE (1)**

SEGMENTS 1-20	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
----------------------	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

The first telephone number is programmed in Feature 4. 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 pulse dialing is desired, program a "15" in the segment where pulse dialing should begin. Program an "11" for a "_" and a "12" for a "#".

FEATURE 5**SYSTEM ACCOUNT CODE**

SEGMENTS 1-4	10	10	10	10
---------------------	-----------	-----------	-----------	-----------

This is the account code sent for any area event (open/close and zone related alarms) that does not have its account code programmed. System events (siren / box tampers, expander troubles etc.) will use the system account unless area one account is programmed.

FEATURE 6**COMMUNICATOR FORMAT**

SEGMENT 1	0
------------------	----------

Feature 6 contains the communicator format used. Select a format from the format selection table. If this feature contains a "0", the built-in communicator will be disabled, and the NX-8 will function as a local only control.

FORMAT SELECTION TABLE		
DATA	FORMAT	DESCRIPTION
0	LOCAL	COMMUNICATOR IS DISABLED
1	CONTACT I.D.	DTMF FORMAT
2	PAGER	REPORTS IN 4 + 2 DTMF FORMAT. PHONE NUMBERS CAN BE PROGRAMMED VIA CODE PAD IN THE RUN MODE.
3	DOMESTIC SIREN	DOMESTIC DIALLING VIA A SIREN TONE FORMAT. CALL CAN BE KISSED OFF VIA THE STAR (*) KEY ON A DTMF PHONE. PHONE NUMBERS CAN BE PROGRAMMED VIA CODE PAD IN THE RUN MODE.

FEATURE 7**PHONE NUMBER TWO (2)**

SEGMENTS 1-20	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
----------------------	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

The second telephone number is programmed in Feature 7. 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 pulse dialing is desired, program a "15" in the segment where pulse dialing should begin. Program an "11" for a "_" and a "12" for a "#".

FEATURE 8**PHONE NUMBER THREE (3)**

SEGMENTS 1-20	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
----------------------	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

The third telephone number is programmed in Feature 8. 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 pulse dialing is desired, program a "15" in the segment where pulse dialing should begin. Program an "11" for a "_" and a "12" for a "#".

FEATURE 9**EVENT REPORT SUMMARY**

Feature 9 is a summary of event reporting codes found in the System Features. Most System report events are enabled, but will also need to be enabled in this feature. This approach is used to simplify event selection programming.

SEGMENT 1	
(1)	Alarms
(2)	Restores
3	Open / Close
(4)	Bypass
5	Zone Trouble
(6)	Power Trouble (AC Failure or Low Battery)
7	Tampers
(8)	Test Reports
SEGMENT 2	
(1)	System Trouble (siren / phone / expander / short circuit)
(2)	Failure to Communicate
(3)	Sensor Lost / Sensor Low Battery
4	Program, Download, & Full Log (Full Log must also be enabled in system options)
(5)	Cancel Code
6	Recent Closing / Exit Error
7	Reserved
8	Reserved

FEATURE 10

DIAL ATTEMPTS

SEGMENTS 1-2	6	RESERVED
---------------------	----------	-----------------

Feature 10, 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 "6" and the communicator will make 6 attempts to the first number.

FEATURE 11

RESERVED

FEATURE 12

DOWNLOAD ACCESS CODE

SEGMENTS 1-8	1	6	0	0	0	0	0	0
---------------------	----------	----------	----------	----------	----------	----------	----------	----------

Feature 12 contains the 8-digit access code the NX-8 must receive from the downloading software before the panel will permit downloading to occur.

FEATURE 13

NUMBER OF RINGS (SEG 1) / NUMBER OF CALLS TO ANSWER (SEG 2)

SEGMENTS 1-2	0	0
---------------------	----------	----------

Feature 13, segment 1 contains the number of rings the NX-8 must detect before answering the telephone line when initiating a download session. A value of 1 to 15 can be entered in this segment. Segment 2 contains the number of calls the NX-8 must detect before accepting the number of rings in segment 1. A value of 1 to 15 can be entered in this segment. A call is satisfied by one (1) or more rings, then an 8-second period of no ring. The next call must then be made within 45 seconds. The total number of calls must be reached before the NX-8 will count for the number of rings (in segment 1) during the necessary subsequent call. A "0" = disabled.

FEATURE 14**DOWNLOAD CONTROL**

Feature 14 contains the option selections for the controlling of download sessions. The following options can be enabled or disabled using this feature.

SEGMENT 1	
1	On enables two call answering machine defeat. (See "Option Definitions" for a full explanation)
2	RESERVED
3	On requires call back before download session. (Refer to Feature 15).
4	On enables Control Panel Shutdown. (Can only be viewed from the code pad, must be changed through downloading).
5	On locks all local programming. (Can only be viewed from the code pad, must be changed through downloading).
6	On locks programming of all features associated with the communicator. (Can only be viewed from the code pad, must be changed through downloading).
7	On locks out download section. (If "On", Features 12-15 cannot be viewed from the code pad. Note: This segment can only be changed through the download software.)
8	On enables call back at auto test interval to perform download software automatic functions. (Refer to your download software help for a full explanation of this option).

FEATURE 15**CALL BACK NUMBER**

SEGMENTS 1-20	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
---------------	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

If a telephone number is programmed into this feature, and "Require Callback" is enabled in feature 14, the control panel will hang up for approximately 10 seconds and then call back. If pulse dialing is desired, program an "15" in the segment where pulse dialing should begin. If the entire number should be pulse dialing, program a "15" in the first segment. Four-second delays can be obtained anywhere in the sequence by programming a "13" in the appropriate delay feature. **WARNING: THE CALLBACK PHONE NUMBER SHOULD ALWAYS BE REVIEWED FOR ACCURACY BEFORE DISCONNECTING.**

FEATURE 16**OPTIONS**

Feature 16 is used to enable certain options that can be accessed or are visible to the user from the code pad of the system. In addition, certain communicator reports are enabled in Feature 16. This feature contains 3 segments of 8 options each.

SEGMENT 1	
(1)	On enables the Quick Arm option
(2)	On enables the Re-exit option
3	On enables the Force Arm option
4	On enables the Silent Code Pad Panic option
(5)	On enables the Audible Code Pad Panic option
(6)	On enables the Code Pad Fire option
(7)	On enables the Code Pad Medical option
8	On enables the Code Pad Multiple Code Attempt Tamper option
SEGMENT 2	
1	On enables the LED Extinguish option.
2	On enables the Require Code for Bypassing option
3	On enables the Zone Bypassed Sounder Alert option
(4)	On enables the AC Power/Low Battery Sounder Alert option
(5)	On enables Bypass toggle
6	On enables Silent Auto Arm
7	On enables the Universal Arming option
8	On enables the One Key Partial Mode Disarm

SEGMENT 3	
(1)	On enables Opening and Closing reports
(2)	On enables Zone Bypass reporting
(3)	On enables Zone Restore reporting
(4)	On enables Zone Trouble reporting
(5)	On enables Zone Tamper reporting
6	On enables the Cancel option
(7)	On enables Recent Closing option
(8)	On enables Exit Error option

FEATURE 17

ENTRY / EXIT TIMERS

SEGMENTS 1-4	ENTRY TIME 1 - 30	EXIT TIME 1 - 60	ENTRY TIME 2 - 30	EXIT TIME 2 - 60
--------------	-------------------	------------------	-------------------	------------------

Feature 17 sets the primary and secondary entry / exit times. Valid entries are 10-255 seconds

OPTIONS TABLE

AC Power / Low Battery Sounder Alert

If enabled, the NX-8 will beep the Code Pad sounder upon arming or disarming if the AC power is missing or a low battery has been detected.

Bypass Code

If enabled, the NX-8 will require a valid user code to be entered during the zone bypass function.

Cancel

If enabled, the NX-8 will send a "Cancel" report when the system is disarmed by a valid user after an alarm activation. The cancel code followed by the user number.

Code Pad Activated Panics

The NX-8 has three Code Pad activated panics that will send reports to the central station: Fire, Medical, and Code Pad Panic. The Fire key will activate the steady (Fire) siren, the Medical key will sound the Code Pad (the Medical key can be set for silent activation in system options), and the Code Pad Panic can be programmed to be silent or audible (sound siren)

Code Pad Tamper

If enabled, the NX-8 will disable the Code Pad for 60 seconds and communicate a tamper signal to the central station if 30 key-presses are entered without producing a valid code. The Code Pad sounder will remain functional.

Exit Error

If enabled, the NX-8 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 option is not enabled, the siren will sound if any entry/exit zone is faulted at the instant the exit delay expires. This option is enabled by default, but needs to be set to report in Feature 9 for proper operations.

Force Arming

When enabled, the NX-8 can be Force Armed with zones violated. Under this condition, if a force arm zone is not secure, the "Ready" LED will flash. 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 un-bypassed 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 (refer to system options).

Group Bypass

A designated group of zones can be programmed to bypass by pressing [Bypass]- [0]-[0]- [Bypass] prior to

arming.

Group Toggle

If enabled, the NX-8 can toggle the Group Bypass zone in and out of bypass mode by pressing the [Bypass] key. This option is active whenever the NX-4 is in either Partial or Full arm mode.

LED Extinguish

This option will extinguish all LED's on the Code Pad, except the "Power" LED, after 60 seconds without a key-press. Pressing any numeric key will illuminate all LED's.

Partial Mode

This unique arming mode has been developed to reduce the most common source of false alarms. When armed in the "Partial" mode, the opening of any zones designated as "Partial Mode Zone" will initiate the Code Pad sounder and start the Partial Mode entry delay before creating an alarm. All other zones will be bypassed during Partial mode. To arm this area in Partial Mode, press the [Partial] key on the code pad. This arming mode will encourage system owners to use their system more frequently when the premise is occupied.

Partial Mode Security

If enabled the NX-8 will require a full code to disarm it from the Partial Mode.

Quick Arm Option

The NX-8 has a one button "Quick Arm" option which can be used to arm the system by pressing the [ON] key on the Code Pad. If closing reports are sent, the user code will be 98.

Recent Closing

If enabled, the NX-8 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. This option is enabled by default, but needs to be set to report in Feature 9 for proper operations.

Re-exit

The NX-8 has the ability to restart the exit delay if required without disarming the system by pressing the [Exit] key while the system is running the exit delay. This option can only be used once per arming cycle.

Silent Automatic Arming

If enabled, the NX-8 will Auto Arming this area and not set the 50 seconds code pad sounder on. This option is used when you don't want to alert any other area of your Auto Arm time.

Universal Arming (Uni Arm)

When enabled, using the quick arm function or entering a valid user code can automatically arm in the NX-8 in the preset Partial mode if an exit zone fault is not detected during the exit delay time.

Zone Bypassed Sounder Alert

If this option is enabled, the NX-8 will beep the Code Pad sounder upon arming if a zone is bypassed.

FEATURE 18

ZONES 1-8 CONFIGURATION GROUP

SEGMENTS 1-8	1	3	16	16	16	16	16	16
---------------------	----------	----------	-----------	-----------	-----------	-----------	-----------	-----------

Feature 18 contains the Configuration Group (Zone type) for zones 1-8. Segment 1 is for zone 1, and Segment 8 is for zone 8. Refer to the "Default Zone Configuration" table in this section for zone type selections.

**FEATURES
19 - 21**

RESERVED

DEFAULT ZONE CONFIGURATIONS TABLE

Zones can be programmed to be one of thirty different zone configurations (Zone Types). Configurations 1 to 20 can be modified in the configuration group section of this manual. Configuration groups 21 to 30 are factory set and cannot be altered. Choose one of the 30 default zone configurations to program into each of the zone configuration segments in Features 18, 20, 59, 61, 63 and 65. Study this table for the appropriate zone configuration group for each zone.

DATA	DEFAULT ZONE CONFIGURATION TABLE
"1"	ENTRY / EXIT DELAY 1: Partial - Forced Arming – A trip will start entry delay 1. This zone will be active in partial mode. This zone type may be faulted while arming if forced arming is enabled in Options.
"2"	ENTRY / EXIT DELAY 1: Chime - Forced Arming – A trip will start entry delay 1. This zone will be bypassed in partial mode. This zone type will set the code pad chime if set via the code pad [Chime] key.
"3"	ENTRY / EXIT DELAY 1: Partial - Chime - Forced Arming – A trip will start entry delay 1. This zone will be active in partial mode. This zone type may be faulted while arming if forced arming is enabled in Options. This zone type will set the code pad chime if set via the code pad [Chime] key.
"4"	ENTRY / EXIT DELAY 2: Partial - Forced Arming – A trip will start entry delay 2. This zone will be active in partial mode. This zone type may be faulted while arming if forced arming is enabled in Options.
"5"	ENTRY / EXIT DELAY 2: Partial - Chime - Forced Arming - A trip will start entry delay 2. This zone will be active in partial mode. This zone type may be faulted while arming if forced arming is enabled in Options. This zone type will set the code pad chime if set via the code pad [Chime] key.
"6"	HANDOVER: Forced Arming - Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be bypassed in partial mode. This zone type may be faulted while arming if forced arming is enabled in the area options.
"7"	HANDOVER: Partial - Forced Arming - Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be active in partial mode. This zone type may be faulted while arming if forced arming is enabled in Options.
"8"	HANDOVER: Twin Trip - Forced Arming - Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be bypassed in partial mode. This zone type may be faulted while arming if forced arming is enabled in Options. This zone type will require two triggers or another zone would have to have been triggered before it will activate an alarm.
"9"	HANDOVER: Group Isolate - Forced Arming - Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be bypassed in partial mode. This zone type may be faulted while arming if forced arming is enabled in Options. This zone type will be part of the group bypass zones.
"10"	HANDOVER: Twin Trip - Chime - Forced Arming - Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be bypassed in partial mode. This zone type may be faulted while arming if forced arming is enabled in Options. This zone type will require two triggers or another zone would have to have been triggered before it will activate an alarm. This zone type will set the code pad chime if set via the code pad [Chime] key.
"11"	HANDOVER: Partial - Twin Trip - Forced Arming - Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be active in partial mode. This zone type may be faulted while arming if forced arming is enabled in Options. This zone type will require two triggers or another zone would have to have been triggered before it will activate an alarm.
"12"	HANDOVER: Partial - Group Bypass - Forced Arming - Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be active in partial mode. This zone type may be faulted while arming if forced arming is enabled in Options. This zone type will be part of the group bypass zones.
"13"	HANDOVER: Twin Trip - Group Bypass - Forced Arming - Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be bypassed in partial mode. This zone type may be faulted while arming if forced arming is enabled in Options. This zone type will require two triggers or another zone would have to have been triggered before it will activate an alarm. This zone type will be part of the group bypass zones.
"14"	HANDOVER: Partial - Twin Trip - Group Isolate - Forced Arming - Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be active in partial mode. This zone type may be faulted while arming if forced arming is enabled in Options. This zone type will require two triggers or another zone would have to have been triggered before it will activate an alarm. This zone type will be part of the group bypass zones.

"15"	INSTANT: - Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be bypassed in partial mode.
"16"	INSTANT: Partial - Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be active in partial mode.
"17"	INSTANT: Partial (NO DEOL) - Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be active in partial mode. This zone type will not be enabled for dual end of line monitoring if enabled in the system options.
"18"	INSTANT: Twin Trip - Forced Arming - Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be bypassed in partial mode. This zone type may be faulted while arming if forced arming is enabled in Options. This zone type will require two triggers or another zone would have to have been triggered before it will activate an alarm.
"19"	INSTANT: Group Bypass - Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be bypassed in partial mode. This zone type will be part of the group bypass zones.
"20"	INSTANT: Partial – Chime - Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be active in partial mode. This zone type will set the code pad chime if set via the code pad [Chime] key.
"21"	INSTANT: Partial - Twin Trip - Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be bypassed in partial mode. This zone type will require two triggers or another zone would have to have been triggered before it will activate an alarm.
"22"	INSTANT: Partial - Group Bypass - Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be active in partial mode. This zone type will be part of the group bypass zones.
"23"	INSTANT: Twin Trip - Group Bypass - Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be bypassed in partial mode. This zone type will require two triggers or another zone would have to have been triggered before it will activate an alarm. This zone type will be part of the group bypass zones.
"24"	INSTANT: Partial - Twin Trip - Group Bypass - Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be active in partial mode. This zone type will require two triggers or another zone would have to have been triggered before it will activate an alarm. This zone type will be part of the group bypass zones.
"25"	INSTANT: Local - Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be bypassed in partial mode. This zone will to activate to communicator.
"26"	24 HOUR: Audible - A trip on a 24 Hour zone produces an instant alarm when armed or disarmed. This zone type will set sirens.
"27"	24 HOUR: Silent - A trip on a 24 Hour zone produces an instant alarm when armed or disarmed. This zone type will not set sirens.
"28"	FIRE: - A short on a FIRE zone will create an alarm condition when the system is armed or disarmed. An open will create a Trouble condition. The code pad zone LED is steady for a fire condition and flashing for a trouble condition. After a fire activation the [-] [7] function must be pressed on the code pad to clear the condition and reset the fire zone.
"29"	DAY ZONE: – When armed, a trip produces an instant alarm. When disarmed, a trip activates the code pad sounder.
"30"	KEY-SWITCH: - A zone attached to a momentary key switch will cause the NX-8 to arm or disarm when the zone is momentarily shorted from a sealed condition I.E. a 3.3K resistor must be used to seal the zone for the option to work. Note. If dual end of line monitoring is enabled in system options, this zone type must have its EOL configuration as all other DEOL zones. I.E. Two 3.3K resistors must be used, which allow full line monitoring for this zone type.

FEATURE 22**SYSTEM OPTIONS**

Feature 22 is used to enable various system option and reporting options.

SEGMENT 1	
(1)	Reserved
2	Reserved
3	On if siren blast at arming – (A siren chirp when any area is armed.)
4	On if siren blast at exit expiration - (A siren chirp when any area exit delay expires.)
5	On if siren blast at closing kiss-off - (A siren chirp when any area sends a closing report.)
(6)	On if siren limited to once per zone
7	On if siren sounds for a Zone or Box Tamper
(8)	On if siren blasts 1 time for key-switch and 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 sirens should sound on expander trouble
3	On if Communicator limited to once per zone
4	Reserved
5	On if Battery Missing Test is performed every 12 seconds
(6)	On if Strobe flashes for 3 seconds for Key-switch Arming and 6 seconds for disarming
7	On if Manual Communicator Test performed during [-]- [44] test function
(8)	On if Box Tamper Pins 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 Over-current report enabled
(5)	On if Siren Supervision report enabled
(6)	Reserved
7	Reserved
(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 Auto-test report enabled
(4)	On if Start/End programming report enabled
(5)	On if End Download report enabled
(6)	On if Sensor Low Battery report enabled
(7)	On if Sensor Missing report enabled
8	On if Expanded Contact I.D report enabled
SEGMENT 5	
(1)	On enable Lost Clock service light
2	On enabled Zone Doubling (Refer to Zone Doubling on page 23 for full explanation.)
3	On disables all hardwired zones on the NX-4
4	On will enable all Dual End of Line resistors on all zones (DEOL)
5	On will not allow zones that are force armed to report bypass
6	On enables Silent Exit option
7	On will disable 50 Hz synchronization
8	On will Auto Arm in Partial Mode

FEATURE 23**SIREN / COMMUNICATOR ATTEMPT COUNTER****SEGMENT 1****0**

Feature 23 is used to set the burglary zone siren / communicator attempt counter. The number programmed in segment 1 will determine the number of alarm activations the NX-8 will allow before bypassing all burglary zones (1-48) which have tripped during the arming cycle. The bypassed zones will not report trips to a base station, and the local siren or bell will not sound for these zones. A zone trip will not be added to the number count until the zone has tripped more than once. For this option to be valid, sirens and or the communicator must be set to unlimited in system options.

FEATURE 24**CODE PAD SOUNDER CONTROL**

The NX-8 can set the code pad sounder for most alarm conditions. Feature 24 provides 8 system alarms that can be enabled to set the code pad sounder. A code pad sounder activation can be silenced by entering a valid user code. Note. The A.C power fail and low battery code pad sounder activations will occur the instant these condition are present. All options in this feature are global to all code pads.

SEGMENT 1

(1)	Reserved
(2)	Reserved
3	On if code pad sounds upon AC Power Failure
4	On if code pad sounds when a Low Battery is detected
5	On if code pad sounds during Twin Trip time
(6)	On if code pad sounds for Zone and Box Tamper
7	On if code pad sounds for Medical Alarm
8	On if code pad sounds for Expander Trouble

SYSTEM OPTIONS TABLE**50 Hz Ac Synchronization**

The NX-8 synchronizes its internal clock to the 50 HZ it receives from the AC input. If enabled, the NX-8 can generate its own internal clock synchronization if you are installing the NX-8 where there is no AC power and battery is used.

Auto Partial Arm Area One

If enabled, area one will auto partial arm at the auto arm time. If this option is enabled, area one cannot be auto armed in the full mode.

Battery Testing

The NX-8 will test the battery at disarm once per 24 hour cycle, if programmed in system timers. The NX-8 can test for battery presence every 12 seconds. The "Battery Missing" test is enabled in this section.

Box Tamper

If enabled, the NX-8 will use the N/C Box Tamper pins provided on the main board.

Dual End Of Line (Zone Tamper)

If enabled, the NX-8 will monitor all zones except types 17 and 28 for Dual End Of Line. A short or open circuit on a DEOL will set zone tamper alarms. Refer to the terminal wiring diagram for more detail.

Expanded Contact I.D.

The NX-8 can report all system device alarms with their individual point number if the expanded contact I.D. reporting is enabled.

Force Arm Bypass Reports

If enabled, the NX-8 restricts bypass reports when zones are forced armed. Otherwise, when a zone is forced armed (and bypass reports are enabled), bypass reports are sent at the end of exit time. If forced armed zones re-seal during the armed period, bypass restores are sent.

Limited Sirens / Communicator

If enabled, the NX-8 will only set one siren activation per zone and/or one alarm report per zone. This option must be disabled if the siren and communicator attempt counter option is used. If limited communicator is enabled, restore reports (if enabled) will be sent at disarm, otherwise restore reports will be sent as they occur.

Lost Clock

If enabled, the NX-8 will illuminate the service LED whenever the internal clock is interrupted.

On-Board Zone Disable

If enabled, the NX-8 can disable the 8 on-board zone. This is used when the NX-8 is used as a totally wireless system.

Radio Remote Arm

If enabled, the NX-8 will activate the sirens every time the system is armed or disarmed with a key-switch zone or integrated wireless keyfob. The sirens will chirp once for arming and twice for disarming. The strobe will flash for 3 seconds for arming and 6 seconds for disarming.

Silent Exit Option

The exit delay can be silenced by pressing [_-][Exit] before arming the control panel, or when using the re-exit option. The exit delay can also be silenced permanently in all partitions.

Tamper Siren

If enabled, all zone tampers and module tampers will set the system sirens.

Voltage Output

If enabled, the on-board siren output will become a 1 AMP 12V DC output to drive 12V sirens.

Zone Doubling

Zone Doubling can be enabled when the NX-408 wireless receiver is connected. If enabled, the four (4) on-board zones will be doubled to eight (8) zones. Zone 1 will represent zones 1 and 5, and zone 4 will represent zones 4 and 8. This option cannot be used in conjunction with the DEOL option.

FEATURE 25

SYSTEM TIMERS

Feature 25 contains the duration of various system timing functions. Example: If you desire the duration of the Strobe time to be 48 hours, you should program [4] [8] [_] in segment 2 of this feature. The [4] [8] is the number of hours, and the [_] stores the data and moves to the next segment of this feature.

SEGMENTS 1-10	30	0	2	30	5	5	3	0	120	0
SEGMENT 1	Partial Arm Entry Time (0 - 255 SEC)									
SEGMENT 2	Strobe Time (0 - 255 HOURS).									
SEGMENT 3	Dynamic Battery Test Duration (0 – 255 MIN).									
SEGMENT 4	AC Failure Report Delay (0 -255 MIN).									
SEGMENT 5	Siren Time (1 - 255 MIN).									
SEGMENT 6	Twin Trip Time (0 - 255 MIN).									
SEGMENT 7	Chime Time in 50 ms increments (0 - 255).									
SEGMENT 8	Dialer Delay Time (0 - 255 SEC)									
SEGMENT 9	Fire Alarm Verification Time (120 – 255 SEC)									

SYSTEM TIMER OPTIONS TABLE**Partial Arm Entry Time**

The Partial Arm Entry time is the delay time that will be allocated to all active zones in Partial Arm Mode. Fire and 24 hour zone will not be affected in Partial Arm Mode. The valid time selection in this segment is 0 to 255 seconds.

Strobe Time

The Strobe time is the duration that output programmed to follow the strobe time will activate. The valid time selection in this segment is 0 to 255 hours, where "0" = Latching.

Dynamic Battery Test

The NX-8 can perform a Dynamic Battery Test for the duration in this segment at the disarming of the first area after 0:00 hours once each 24-hour cycle. This option is enabled by programming a test duration in this segment. The valid time selection in this segment is 0 to 255 minutes, where "0" = disable.

AC Fail Report

The number programmed in this segment represents the number of 1-minute increments the AC power is lost before a communication is initiated, from 1 to 255 minutes. The AC power restore will also delay reporting until after the number of minutes programmed in this feature has elapsed.

Siren Time

The Siren Time is the duration that the siren output and auxiliary outputs programmed to follow the siren time will activate. The valid time selection in this segment is 1 to 255 minutes.

Twin Trip Time

This segment contains the number of one (1) minute increments in the Twin Trip Zone Time Period. The Twin Trip Zone Time Period can be programmed in one (1) minute increments from 1 to 255. The time programmed in this feature will set the time period whereby two or more zones must trip before an alarm condition will be registered or the one zone must trigger twice within this time period, or a continues trip longer exceeding 10 seconds.

Chime Time

The NX-8 code pad Chime is a true chime sound, which can be set to chime once, follow the input status or latch until a valid code is entered. The duration options programmable in this segment are: "0" = Follow, "3" = Chime once or "255" = Latch.

Dialer Delay Time

The NX-8 can delay the dialing of all non-(24) hour zones by the duration programmed in this feature. This option can be used as a false alarm reduction method. The valid time selection in this segment is 0 to 255 seconds.

Fire Alarm Verification Time

When enabled, the NX-8 will verify a Fire alarm by requiring more than one trip on a smoke detector within the time programmed in this segment before creating an alarm. The valid time selection in this segment is 120 to 255 seconds.

FEATURE 26**RESERVED****FEATURE 27****AUXILIARY OUTPUT SPECIAL TIMING**

Feature 27 contains special timing option activation for the two auxiliary outputs. Segment 1 corresponds to output 1, Segment 2 corresponds to output 2.

SEGMENTS 1 – 4	OUTPUTS 1 – 2
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 follow timer
4	On if output should only activate between the closing and opening time in Features 33 and 34
5	On if output should only activate between the opening and closing time in Features 33 and 34
6	On if output should be inverted (0 volts going to 12 volts when activated)
7	RESERVED
8	RESERVED

FEATURE 28**AUXILIARY OUTPUT 1 - EVENT AND TIME**

SEGMENTS 1-2	OUTPUT EVENT - 51	OUTPUT TIME - 0
--------------	-------------------	-----------------

Feature 28 sets the output event and output active time for auxiliary output one (1). Use the chart in this section to select the event in segment 1 that will activate Auxiliary Output 1. Program the timing in segment 2, from 0-255 (minutes or seconds, depending on data programmed in Segment 1, Feature 27). Programming a "0" makes the output follow the event.

FEATURE 29**AUXILIARY OUTPUT 2 - EVENT AND TIME**

SEGMENTS 1-2	OUTPUT EVENT - 7	OUTPUT TIME - 0
--------------	------------------	-----------------

Feature 29 sets the output event and output active time for auxiliary output two (2). Use the chart in this section to select the event in segment 1 that will activate Auxiliary Output 2. Program the timing in segment 2, from 0-255 (minutes or seconds, depending on data programmed in Segment 1, Feature 27). Programming a "0" makes the output follow the event.

FEATURE 30**RESERVED****FEATURE 31****RESERVED**

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	31	Closed Period
6	Steady Siren	32	Listen-In
7	Any Siren	33	Line Seizure
8	Any Bypass	34	Reserved
9	AC Fail	35	Fail To Communicate
10	Low Battery	36	Reserved
11	Duress	37	Program Mode
12	Aux 1 Code Pad Zone	38	Download In Process
13	Aux 2 Code Pad Zone	39	Reserved
14	Panic Code Pad Zone	40	Short Circuit
15	Code Pad Tamper	41	Box Tamper
16	Auto-test	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 Code pad
22	Disarmed State	48	Code Entry (See note below)
23	Ready	49	ITI Keyfob Light Key (function 1)
24	Not Ready	50	ITI Keyfob * Key (function 2)
25	Fire	51	Strobe

Note: 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. When LED 8 is on for an authorization, then LEDs 1- 2 correspond to that code activating outputs 1 - 2 respectively. Refer to the code pad programming section in this manual.

FEATURE 32

AUTO-TEST CONTROL

SEGMENTS 1-4	7	168	03	00
SEGMENT 1	Program a "0" if the intervals are in hours. "1 - 8" if in days. 1 = SUN, 2=MON, 3=TUE, 4=WED, 5=THU, 6=FRI 7 = SAT and 8 = DAILY			
SEGMENT 2	Program the Auto-test hourly interval from 1-255 hours.			
SEGMENT 3	Program the Auto-test report hour in 24 hour format (if segment 1 is set to hourly intervals, this segment is ignored).			
SEGMENT 4	Program the Auto-test report time, number of minutes after the hour.			

FEATURE 33**OPENING TIME****SEGMENTS 1-2****HOURS - 06****MINUTES - 00**

Feature 33 contains the time (in 24-hour format) the NX-8 enables codes designated as "Arm Only after Closing". This time is only valid on those days programmed in Feature 35. **Note: Opening time must be earlier than closing time for Aux. Outputs, or Code Authorization to function properly.**

FEATURE 34**CLOSING TIME / AUTO ARMING TIME****SEGMENTS 1-2****HOURS - 20****MINUTES - 00**

Feature 34 contains the time in 24 hour format the NX-8 disables the disarm capability for codes designated as arm only after closing. This is also the Automatic Arming time. If enabled in Feature 36 NX-8 will Auto Arm the specified area(s). At this time, the Code Pad will beep for 50 seconds before the panel arms. The arming process can be stopped by entering a valid code on the Code Pad. **Note: Opening time must be earlier than closing time for Aux. Outputs, or Code Authorization to function properly.**

FEATURE 35**"ARM ONLY AFTER CLOSE" WINDOW**

Feature 35 selects which days of the week system is open. On these days, "arm only after close window" codes will be able to arm and disarm during open window. On days not selected here, "arm only after close window" codes will not disarm. (See Features 33 and 34 for the opening and closing times for the open days.

SEGMENT 1

1	"Arm only after close window" will arm/disarm on Sunday
2	"Arm only after close window" will arm/disarm on Monday
3	"Arm only after close window" will arm/disarm on Tuesday
4	"Arm only after close window" will arm/disarm on Wednesday
5	"Arm only after close window" will arm/disarm on Thursday
6	"Arm only after close window" will arm/disarm on Friday
7	"Arm only after close window" will arm/disarm on Saturday
8	RESERVED

FEATURE 36**DAYS OF THE WEEK FOR AUTO ARMING**

Feature 36 selects which days the system will auto arm. If a zone is faulted when the panel tries to auto arm, the zone will be bypassed.

SEGMENT 1

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

**FEATURES
37 - 66****RESERVED**

Features 67-106 are used to change the zone configurations as listed in the Default Zone Configuration Table in Zones 1 to 16 configuration section. These features are considered advanced programming and should only be changed with a thorough understanding of the operation of each bit.

FEATURE 67 **CONFIGURATION GROUP 1 ALARM EVENT CODE**

SEGMENT 1	3
------------------	----------

Feature 67 contains the Contact I.D event code sent for zone configuration group 1 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.

FEATURE 68 **CONFIGURATION GROUP 1 CHARACTERISTIC SELECT**

SEGMENT 1	
1	Fire (turn on if this is a fire zone)
2	24 hour (turn on for non-fire 24 hour zones)
3	Key-switch 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	RESERVED
8	Local only (turn on if this zone should not be reported)
SEGMENT 2	
1	On if configuration group will beep the code pad for alarm
(2)	On if configuration group will sound the yelping siren for alarm
3	On if configuration group will sound the steady siren for alarm
4	On if configuration group will chime
(5)	On if configuration group can be bypassed
6	On if configuration group is included in the Group Bypass
(7)	On if configuration group is Force Arm
(8)	On if configuration group is Active in Partial Mode
SEGMENT 3	
1	On enables Fast Loop Response. (50mS)- off = 500mS
(2)	On enables Double End Of Line Tamper zone
3	On enables Trouble Reporting zone. (Day zone and Fire zones)
4	On if configuration group is a Twin Trip Zone
(5)	On enables Dialer Delay zone
(6)	On if configuration group will siren / communicator attempt count
(7)	On enables Restore reporting
(8)	On enables Listen-In

FEATURE 69 **CONFIGURATION GROUP 2 ALARM EVENT CODE**

SEGMENT 1	3
------------------	----------

Feature 69 contains the Contact I.D event code sent for zone configuration group 2 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.

FEATURE 70 **CONFIGURATION GROUP 2 CHARACTERISTIC SELECT**

SEGMENT 1	5	SEGMENT 2	2457	SEGMENT 3	25678
------------------	----------	------------------	-------------	------------------	--------------

Use "Configuration Group Characteristic table" described in Feature 68, of this section.

FEATURE 71		CONFIGURATION GROUP 3 ALARM EVENT CODE			
SEGMENT 1	3				
Feature 71 contains the Contact I.D event code sent for zone configuration group 3 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.					
FEATURE 72		CONFIGURATION GROUP 3 CHARACTERISTIC SELECT			
SEGMENT 1	5	SEGMENT 2	24578	SEGMENT 3	25678
Use "Configuration Group Characteristic table" described in Feature 68, of this section.					

FEATURE 73		CONFIGURATION GROUP 4 ALARM EVENT CODE			
SEGMENT 1	3				
Feature 73 contains the Contact I.D event code sent for zone configuration group 4 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.					
FEATURE 74		CONFIGURATION GROUP 4 CHARACTERISTIC SELECT			
SEGMENT 1	6	SEGMENT 2	2578	SEGMENT 3	25678
Use "Configuration Group Characteristic table" described in Feature 68, of this section.					

FEATURE 75		CONFIGURATION GROUP 5 ALARM EVENT CODE			
SEGMENT 1	3				
Feature 75 contains the Contact I.D event code sent for zone configuration group 5 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.					
FEATURE 76		CONFIGURATION GROUP 5 CHARACTERISTIC SELECT			
SEGMENT 1	6	SEGMENT 2	24578	SEGMENT 3	25678
Use "Configuration Group Characteristic table" described in Feature 68, of this section.					

FEATURE 77		CONFIGURATION GROUP 6 ALARM EVENT CODE			
SEGMENT 1	3				
Feature 77 contains the Contact I.D event code sent for zone configuration group 6 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.					
FEATURE 78		CONFIGURATION GROUP 6 CHARACTERISTIC SELECT			
SEGMENT 1	4	SEGMENT 2	257	SEGMENT 3	25678
Use "Configuration Group Characteristic table" described in Feature 68, of this section.					

FEATURE 79		CONFIGURATION GROUP 7 ALARM EVENT CODE			
SEGMENT 1	3				
Feature 79 contains the Contact I.D event code sent for zone configuration group 7 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.					
FEATURE 80		CONFIGURATION GROUP 7 CHARACTERISTIC SELECT			
SEGMENT 1	4	SEGMENT 2	2578	SEGMENT 3	25678
Use "Configuration Group Characteristic table" described in Feature 68, of this section.					

FEATURE 81		CONFIGURATION GROUP 8 ALARM EVENT CODE			
SEGMENT 1	3				

Feature 82 contains the Contact I.D event code sent for zone configuration group 8 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.

FEATURE 82		CONFIGURATION GROUP 8 CHARACTERISTIC SELECT			
SEGMENT 1	4	SEGMENT 2	257	SEGMENT 3	245678

Use "Configuration Group Characteristic table" described in Feature 68 of this section.

FEATURE 83		CONFIGURATION GROUP 9 ALARM EVENT CODE			
SEGMENT 1	3				

Feature 82 contains the Contact I.D event code sent for zone configuration group 9 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.

FEATURE 84		CONFIGURATION GROUP 9 CHARACTERISTIC SELECT			
SEGMENT 1	4	SEGMENT 2	2567	SEGMENT 3	25678

Use "Configuration Group Characteristic table" described in Feature 68 of this section.

FEATURE 85		CONFIGURATION GROUP 10 ALARM EVENT CODE			
SEGMENT 1	3				

Feature 85 contains the Contact I.D event code sent for zone configuration group 10 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.

FEATURE 86		CONFIGURATION GROUP 10 CHARACTERISTIC SELECT			
SEGMENT 1	4	SEGMENT 2	2457	SEGMENT 3	245678

Use "Configuration Group Characteristic table" described in Feature 68 of this section.

FEATURE 87		CONFIGURATION GROUP 11 ALARM EVENT CODE			
SEGMENT 1	3				

Feature 82 contains the Contact I.D event code sent for zone configuration group 11 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.

FEATURE 88		CONFIGURATION GROUP 11 CHARACTERISTIC SELECT			
SEGMENT 1	4	SEGMENT 2	2578	SEGMENT 3	245678

Use "Configuration Group Characteristic table" described in Feature 68 of this section.

FEATURE 89		CONFIGURATION GROUP 12 ALARM EVENT CODE			
SEGMENT 1	3				

Feature 89ontains the Contact I.D event code sent for zone configuration group 12 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.

FEATURE 90		CONFIGURATION GROUP 12 CHARACTERISTIC SELECT			
SEGMENT 1	4	SEGMENT 2	25678	SEGMENT 3	25678

Use "Configuration Group Characteristic table" described in Feature 68 of this section.

FEATURE 91		CONFIGURATION GROUP 13 ALARM EVENT CODE			
SEGMENT 1	3				

Feature 82 contains the Contact I.D event code sent for zone configuration group 13 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.

FEATURE 92		CONFIGURATION GROUP 13 CHARACTERISTIC SELECT			
SEGMENT 1	4	SEGMENT 2	2567	SEGMENT 3	245678
Use "Configuration Group Characteristic table" described in Feature 68 of this section.					

FEATURE 93		CONFIGURATION GROUP 14 ALARM EVENT CODE			
SEGMENT 1	3				
Feature 93 contains the Contact I.D event code sent for zone configuration group 14 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.					

FEATURE 94		CONFIGURATION GROUP 14 CHARACTERISTIC SELECT			
SEGMENT 1	4	SEGMENT 2	25678	SEGMENT 3	245678
Use "Configuration Group Characteristic table" described in Feature 68 of this section.					

FEATURE 95		CONFIGURATION GROUP 15 ALARM EVENT CODE			
SEGMENT 1	3				
Feature 95 contains the Contact I.D event code sent for zone configuration group 15 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.					

FEATURE 96		CONFIGURATION GROUP 15 CHARACTERISTIC SELECT			
SEGMENT 1		SEGMENT 2	25	SEGMENT 3	25678
Use "Configuration Group Characteristic table" described in Feature 68 of this section.					

FEATURE 97		CONFIGURATION GROUP 16 ALARM EVENT CODE			
SEGMENT 1	3				
Feature 97 contains the Contact I.D event code sent for zone configuration group 16 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.					

FEATURE 98		CONFIGURATION GROUP 16 CHARACTERISTIC SELECT			
SEGMENT 1		SEGMENT 2	258	SEGMENT 3	25678
Use "Configuration Group Characteristic table" described in Feature 68 of this section.					

FEATURE 99		CONFIGURATION GROUP 17 ALARM EVENT CODE			
SEGMENT 1	3				
Feature 99 contains the Contact I.D event code sent for zone configuration group 17 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.					

FEATURE 100		CONFIGURATION GROUP 17 CHARACTERISTIC SELECT			
SEGMENT 1		SEGMENT 2	258	SEGMENT 3	5678
Use "Configuration Group Characteristic table" described in Feature 68 of this section.					

FEATURE 101		CONFIGURATION GROUP 18 ALARM EVENT CODE			
SEGMENT 1	3				
Feature 101 contains the Contact I.D event code sent for zone configuration group 18 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.					

FEATURE 102		CONFIGURATION GROUP 18 CHARACTERISTIC SELECT			
SEGMENT 1		SEGMENT 2	25	SEGMENT 3	245678
Use "Configuration Group Characteristic table" described in Feature 68 of this section.					

FEATURE 103		CONFIGURATION GROUP 19 ALARM EVENT CODE			
SEGMENT 1	3				
Feature 103 contains the Contact I.D event code sent for zone configuration group 19 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.					
FEATURE 104		CONFIGURATION GROUP 19 CHARACTERISTIC SELECT			
SEGMENT 1		SEGMENT 2	256	SEGMENT 3	25678
Use "Configuration Group Characteristic table" described in Feature 68 of this section.					

FEATURE 105		CONFIGURATION GROUP 20 ALARM EVENT CODE			
SEGMENT 1	3				
Feature 105 contains the Contact I.D event code sent for zone configuration group 20 alarm reports. The desired event code should be chosen from the Contact I.D Configuration Group Event Table in the Appendix section.					
FEATURE 106		CONFIGURATION GROUP 20 CHARACTERISTIC SELECT			
SEGMENT 1		SEGMENT 2	2458	SEGMENT 3	25678
Use "Configuration Group Characteristic table" described in Feature 68 of this section.					

NX-8 PROGRAMMING WORKSHEETS

<u>F #.</u> 0	<u>Pg</u> 13	USER CODE REQUIREMENTS
------------------	-----------------	-------------------------------

Segment 1

- 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 to ⑧ Reserved

<u>F #.</u> 1	<u>Pg</u> 13	GO TO PROGRAM CODE
------------------	-----------------	---------------------------

9	7	1	3	0	0
---	---	---	---	---	---

<u>F #.</u> 2	<u>Pg</u> 13	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
- 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 & closing reports
- ⑧ Reserved

<u>F #.</u> 3	<u>Pg</u> 13	DURESS CODE
------------------	-----------------	--------------------

15	15	15	15	15	15
----	----	----	----	----	----

<u>F #.</u> 4	<u>Pg</u> 13	PHONE #1
------------------	-----------------	-----------------

14	14	14	14	14	14	14	14	14	14
14	14	14	14	14	14	14	14	14	14

F #. **Pg** **SYSTEM ACCOUNT CODE**
5 **14**

10 10 10 10

F #. **Pg** **COMMUNICATOR FORMAT**
6 **14**

0

F #. **Pg** **PHONE #2**
7 **14**

14 14 14 14 14 14 14 14 14 14
 14 14 14 14 14 14 14 14 14 14

F #. **Pg** **PHONE #3**
8 **14**

14 14 14 14 14 14 14 14 14 14
 14 14 14 14 14 14 14 14 14 14

F #. **Pg** **REPORT EVENT SUMMARY**
9 **14**

Segment 1

- ① Alarms
- ② Restores
- ③ Open / Close
- ④ Bypass
- ⑤ Zone Trouble
- ⑥ Power Trouble (AC Failure or Low Battery)
- ⑦ Tamper
- ⑧ Test Reports

Segment 2

- ① System Trouble (siren / expander / short circuit / earth fault)
- ② Failure to Communicate
- ③ Sensor Lost / Sensor Low Battery
- ④ Program, Download, & Full Log
- ⑤ Cancel Code
- ⑥ Recent Closing / Exit Error
- ⑦ Reserved
- ⑧ Reserved

F #. **Pg** **DIAL ATTEMPS**
10 **15**

Segment 1 Dial attempts

Segment 2 Reserved

F #. **Pg** **DOWNLOAD ACCESS CODE**
12 **15**

1 6 0 0 0 0 0 0

F #. **Pg** **NUMBER OF RINGS/CALLS TO ANSWER DOWNLOAD**
13 **15**

Segment 1 Number of rings
 Segment 2 Number of calls to answer

F #. **Pg** **DOWNLOAD CONTROL**
14 **16**

Segment 1

- ① Enables two call answering machine defeat
- ② RESERVED
- 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

F #. **Pg** **CALLBACK PHONE NUMBER**
15 **16**

14 14 14 14 14 14 14 14 14 14
 14 14 14 14 14 14 14 14 14 14

F #. **Pg** **AREA 1, OPTION SELECTION**
16 **16**

Segment 1

- ① Quick-Arm
- ② Re-Exit
- ③ Force Arm
- ④ Silent Panic
- ⑤ Audible Panic
- ⑥ Fire
- ⑦ Medical
- ⑧ Multi Code Attempt Tamper

Segment 2

- ① LED extinguish enable
- ② Require user code for bypassing zones
- ③ Bypass sounder alert
- ④ AC power/low battery sounder alert
- ⑤ Enables bypass toggle
- ⑥ Enables silent auto arm
- ⑦ Enables universal arming
- ⑧ Enables one key partial mode disarming

Segment 3

- ① Open/Close
- ② Bypass
- ③ Restore
- ④ Trouble
- ⑤ Tamper
- ⑥ Cancel
- ⑦ Recent Closing
- ⑧ Exit Error

F #.
17

Pg
17

AREA 1, ENTRY / EXIT TIMERS

Segment 1

30

(Entry Time #1)

Segment 2

60

(Exit Time #1)

Segment 3

30

(Entry Time #2)

Segment 4

60

(Exit Time #2)

F #.
18

Pg
18

**ZONES 1 - 8,
CONFIGURATION GROUPS**

3

7

16

16

16

16

16

16

F #.
22

Pg
21

SYSTEM OPTIONS

Segment 1

- ① Reserved
- ② Reserved
- ③ Siren blast at arming
- ④ Siren blast at exit delay expiration
- ⑤ Siren blast at closing kiss-off
- ⑥ Siren sounds once per zone
- 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 on expander trouble
- ③ Communicator once per zone
- ④ Reserved
- ⑤ Test for Missing Battery every 12 seconds
- ⑥ Strobe flashes for keyswitch arming and disarming
- ⑦ Manual communicator test performed during [*][44]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 Reserved
- ⑦ Reserved
- 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 End Download report enabled
- ⑥ Sensor Low Battery report enabled
- ⑦ Sensor Missing report enabled
- ⑧ Expanded Contact ID report enabled

Segment 5

- ① Lost Clock service LED enable
- ② Zone Doubling enable
- ③ Disable all hardwired zones
- ④ Enables all Dual End of Line resistors on all zones

- ⑤ Disables bypass reports for forced armed zones
- ⑥ Enables Silent Exit option
- ⑦ Disables 50 Hz synchronization
- ⑧ Auto arms in Partial Mode

F #. 23	Pg 22	SIREN / COMMUNICATOR ATTEMPT COUNT
-------------------	-----------------	---

0

F #. 24	Pg 22	CODE PAD SOUNDER CONTROL
-------------------	-----------------	---------------------------------

Segment 1

- ① Reserved
- ② Reserved
- ③ Code Pad sounds upon AC Power Failure
- ④ Code Pad sounds upon Low Battery Detection
- ⑤ Code Pad sounds during Twin Trip
- ⑥ Code Pad sounds for Tamper Alarm
- ⑦ Code Pad sounds for Medical Alarm
- ⑧ Code Pad sounds for Expander Trouble

F #. 25	Pg 23	SYSTEM TIMERS
-------------------	-----------------	----------------------

- Segment 1 Partial Arm Entry Time (0 - 255 seconds)
- Segment 2 Strobe Time (0 - 255 hours)
- Segment 3 Dynamic Battery Test Duration (0 - 255 minutes)
- Segment 4 AC Failure Report Delay (0 - 255 minutes)
- Segment 5 Siren Time (1 - 255 minutes)
- Segment 6 Twin Trip Time (0 - 255 minutes)
- Segment 7 Chime Time in 50mS increments (0 - 255)
- Segment 8 Dialer Delay Time (0 - 255 seconds)
- Segment 9 Fire Alarm Verification Time (120 - 255 seconds)
- Segment 10 Listen-In Time (0 - 255 seconds)

F #. 27	Pg 25	AUXILIARY OUTPUTS 1 - 4 SPECIAL TIMING
-------------------	-----------------	---

	SEGMENT 1 AUX 1	SEGMENT 2 AUX 2
Auxiliary output timed in minutes	①	①
Auxiliary output to latch	②	②
Auxiliary output to stop timing upon user code entry	③	③
Auxiliary output to activate only between closing and opening time	④	④
Auxiliary output to activate only between opening and closing time	⑤	⑤
Invert auxiliary output (0 volts going to 12 volts when activated)	⑥	⑥
Reserved	⑦	⑦
Reserved	⑧	⑧

F #.
28

Pg
25

AUXILIARY OUTPUT #1, EVENT & TIME

Segment 1

5 1 = S t r o b e

Program the event number for output #1 here

Segment 2

0 = F o l l o w

Program the timing for output #1 here

F #.
29

Pg
25

AUXILIARY OUTPUT #2, EVENT & TIME

Segment 1

7 = A n y S i r e n

Program the event number for output #2 here

Segment 2

0 = F o l l o w

Program the timing for output #2 here

F #.
32

Pg
26

AUTOTEST CONTROL

Segment 1

1

Program a "0" if the intervals are in hours, a "1 - 8" if in days. 1 = SUN, 7 = SAT, and 8 = DAILY.

Segment 2

1 6 8

Program the autotest hourly interval from 1 - 255 hours

Segment 3

3

Program the autotest report in 24 hour time format

Segment 4

0

Program the autotest report time, minutes after the hour

F #.
33

Pg
27

OPENING TIME

Segment 1

8

Program the hour of the opening time

Segment 2

0

Program the minutes after the hour of the opening time

F #.
34

Pg
27

CLOSING TIME / AUTO ARMING TIME

Segment 1

2 0

Program the hour of the closing time / auto arming time

Segment 2

0

Program the minutes after hour of closing / auto arming time

F #. 35 **Pg** 27 **DAYS OF THE WEEK "ARM ONLY AFTER CLOSE" WILL OCCUR**

SEGMENT 1

Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Reserved

- ①
- ②
- ③
- ④
- ⑤
- ⑥
- ⑦
- ⑧

F #. 36 **Pg** 27 **DAYS OF THE WEEK "AUTO ARMING" WILL OCCUR**

SEGMENT 1

Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Reserved

- ①
- ②
- ③
- ④
- ⑤
- ⑥
- ⑦
- ⑧

F #. 67 **Pg** 28 **CONFIGURATION GROUP 1 ALARM CODE**

3

F #. 68 **Pg** 28 **CONFIGURATION GROUP 1 CHARACTERISTIC SELECT**

Segment 1

- ① Fire (enable for fire zone)
- ② 24 Hour
- ③ Keyswitch zone
- ④ Handover
- ⑤ Delay 1 zone
- ⑥ Delay 2 zone
- ⑦ Interior
- ⑧ Local Only

Segment 2

- ① Code Pad audible on alarm
- ② Yelping siren on alarm
- ③ Steady siren on alarm
- ④ Chime
- ⑤ Bypassable
- ⑥ Group Shunt
- ⑦ Force armable
- ⑧ Entry Guard

Segment 3

- ① Fast Loop Response
- ② Double end of line tamper zone
- ③ Trouble zone (Day zone)
- ④ Twin Trip
- ⑤ Dialer delay zone
- ⑥ Swinger zone
- ⑦ Restore reporting
- ⑧ Listen-In

F #. 69 - 106 **Pg** 28-31 **CONFIGURATION GROUP 2 to 20 ALARM CODE CONFIGURATION GROUP 2 TO 20 CHARACTERISTIC SELECTION**

APPENDIX 1 REPORTING ZONE CODES IN CONTACT I.D

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

Programmed Event Code	Contact I.D 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

APPENDIX 2 REPORTING FIXED CODES IN CONTACT I.D

The table below list the event codes sent for the following reports (if enabled) when using CONTACT I.D. The number in parentheses following the event is the number that will be reported as the zone number if extended Contact I.D is enabled in the system options. Otherwise the zone will always be zero "0". If there are no parentheses, the zone will also be zero "0".

REPORT	CONTACT I.D EVENT
MANUAL TEST	601
AUTOTEST OPEN (user number)	602
CLOSE (user number)	401
CANCEL (user number)	406
DOWNLOAD COMPLETE	412
START PROGRAM	627
END PROGRAM	628
RECENT CLOSE (user number)	401
EXIT ERROR (user number)	457
EVENT LOG FULL	605
FAIL TO COMMUNICATE	354
EXPANDER TROUBLE	333
EXPANDER RESTORE	333
SIREN TAMPER	321
SIREN RESTORE	321
AUX POWER OVER CURRENT	312
AUX POWER RESTORE	312
LOW BATTERY /DYNAMIC BATTERY FAIL	309
LOW BATTERY / DYNAMIC BATTERY FAIL RESTORE	309
AC FAIL	301
AC RESTORE	301
BOX / DEVICE TAMPER	137
BOX / DEVICE TAMPER RESTORE	137
CODE PAD CODE TAMPER	145
CODE PAD PANIC	120
DURESS	121
CODE PAD FIRE	110
CODE PAD MEDICAL	100
RF SENSOR LOST (zone number)	381
RF SENSOR RESTORE (zone number)	381
SENSOR LOW BATTERY (zone number)	384
SENSOR BATTERY RESTORE (zone number)	384
ZONE TROUBLE (zone number)	380
ZONE TROUBLE RESTORE (zone number)	380
ZONE TAMPER (zone number)	144
ZONE TAMPER RESTORE (zone number)	144
ZONE BYPASS (zone number)	570
BYPASS RESTORE (zone number)	570

APPENDIX 3 EXPANDER NUMBERS FOR REPORTING EXPANDER TROUBLE

The tables below list the device numbers that will be reported for each expander/code pad that has a trouble condition if expanded Contact I.D is enabled system options

CODE PADS ADDRESS TABLE

CODE PAD	PART 1	
1	192	
2	200	
3	208	
4	216	
5	224	
6	232	
7	240	
8	248	

WIRELESS RECEIVER

Switch 1	Switch 2	Expander number reported
off	off	35
on	off	32
off	on	33
on	on	34

SPECIFICATIONS

OPERATING POWER	16.5 VAC 25 VA Transformer
AUXILIARY POWER	
W/25 VA Transformer	12 VDC Regulated 500 mA
W/40 or 50 VA Transformer	12 VDC Regulated 1 AMP
LOOP RESISTANCE	
Standard Loop	300 Ohms Maximum
2-Wire Smokes	30 Ohms Maximum
BUILT-IN SIREN DRIVER	2-tone (Steady and Yelp)
LOOP RESPONSE	Selectable 50mS or 500mS
OPERATING TEMPERATURE	32 to 120 degrees F
LED CODE PAD DIMENSIONS	16.25cm Wide 10.15cm High 2.8cm Deep
LCD CODE PAD DIMENSIONS	16.25cm Wide 13.45cm High 2.50cm Deep
METAL ENCLOSURE DIMENSIONS	28.60cm Wide 28.60cm High 8.90cm Deep
SHIPPING WEIGHT	4 kg

WARRANTY STATEMENT

DIRECT ALARM SUPPLIES GUARANTEES THIS PRODUCT AGAINST DEFECTIVE PARTS AND WORKMANSHIP FOR TWENTY-FOUR (24) MONTHS FROM DATE OF PURCHASE. IF ANY DEFECT APPEARS DURING THE WARRANTY PERIOD RETURN IT TO DAS, POSTAGE PREPAID. THE UNIT WILL BE REPAIRED AND RETURNED. DAS ASSUMES NO LIABILITY FOR CONSEQUENTIAL OR INDIRECT DAMAGE AND ACCEPTS NO RESPONSIBILITY FOR REPAIRING DAMAGE TO THE PRODUCT CAUSED BY MISUSE, CARELESS HANDLING, OR WHERE REPAIRS HAVE BEEN MADE BY OTHERS.

NO OTHER GUARANTEE, WRITTEN OR VERBAL, IS AUTHORIZED BY OR ON BEHALF OF DIRECT ALARM SUPPLIES.

**DIRECT ALARM SUPPLIES
9 NOWILL ST
CONDELL PARK NSW 2200
FAX (02) 9790 3424**