

## SPECIFICATIONS

|                                                   |                                             |
|---------------------------------------------------|---------------------------------------------|
| OPERATING POWER                                   | 16.5 VAC 25VA, Transformer                  |
| AUXILIARY POWER<br>W/25 VA Transformer            | 12 VDC Regulated 500 mA                     |
| LOOP RESISTANCE<br>Standard Loop<br>2-Wire Smokes | 300 Ohms Maximum<br>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<br>10.15cm High<br>2.8cm Deep  |
| LCD CODE PAD DIMENSIONS                           | 16.25cm Wide<br>13.45cm High<br>2.50cm Deep |
| METAL ENCLOSURE DIMENSION                         | 28.60cm Wide<br>28.60cm High<br>8.90cm Deep |
| SHIPPING WEIGHT                                   | 4 kg                                        |

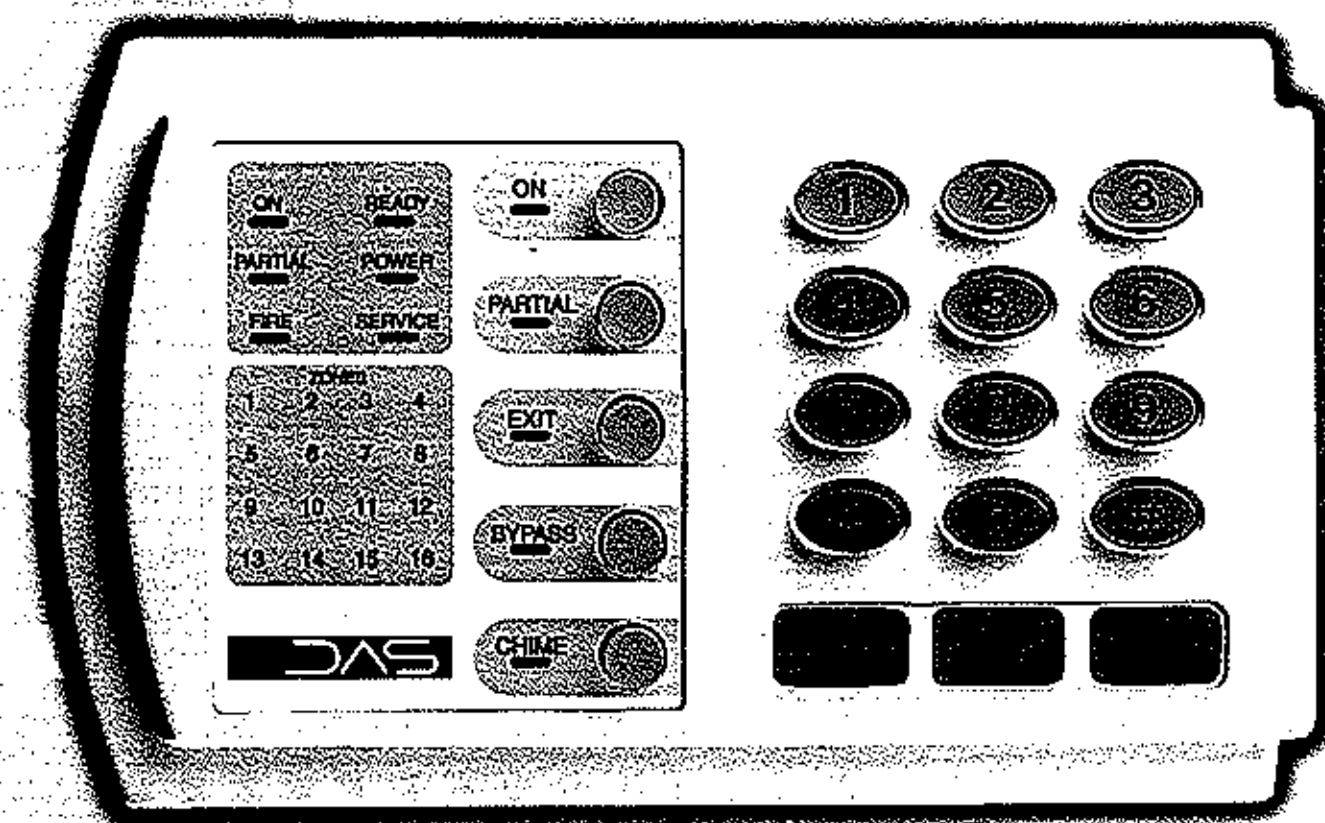
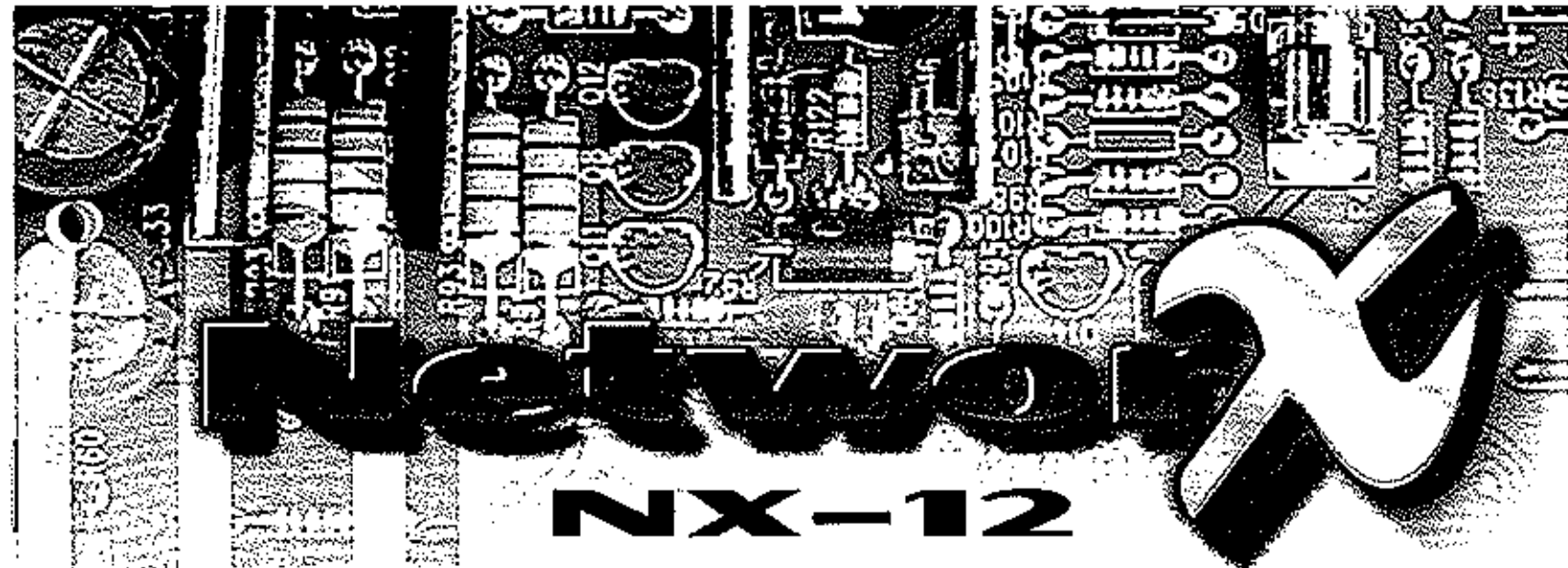
## WARRANTY STATEMENT

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.

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NX-12 INSTALLATION MANUAL  
NX12DASIB00 REV. B (04-20-00)



## INSTALLATION MANUAL

**DAS**  
DIRECT ALARM SUPPLIES

# DAS NETWORK NX-12

## Control/Communicator Installation Manual

|                                          |           |
|------------------------------------------|-----------|
| General Description .....                | 2         |
| Ordering Information .....               | 2         |
| Option Definitions .....                 | 3         |
| Programming the LED Code Pads .....      | 5         |
| Programming the NX-12 .....              | 9         |
| Types of Programming Data .....          | 9         |
| Loading Factory Defaults .....           | 10        |
| Enrolling the Modules & Code Pads .....  | 10        |
| Programming Examples .....               | 11        |
| Terminal Descriptions .....              | 12        |
| Wiring Diagram .....                     | 13        |
| System Codes .....                       | 15        |
| Dialer Options .....                     | 16        |
| Download Options .....                   | 17        |
| Area One (1) Options .....               | 18        |
| Zones 1 - 16 Configurations .....        | 20        |
| Default Zone Configuration Table .....   | 21        |
| System Options .....                     | 23        |
| Siren and Communicator Counter .....     | 24        |
| Code Pad Sounder Control .....           | 24        |
| System Timers .....                      | 26        |
| Auxiliary Outputs .....                  | 27        |
| Auxiliary Output Event Table .....       | 28        |
| Auto Test Control .....                  | 29        |
| Auto Arming / Open and Close Times ..... | 29        |
| Arm Only After Close Window .....        | 29        |
| Area Two (2) Options .....               | 30        |
| Configurations Groups 1 to 20 .....      | 31 - 34   |
| Programming Work-Sheets .....            | 35 - 42   |
| Appendixes .....                         | 43        |
| Troubleshooting System Problems .....    | 46        |
| Specifications & Warranty .....          | Back Page |

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## NETWORX NX-12

The NetworX NX-12 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 40 users to interface with 16 zones, 2 areas, and a host of integrated fire, access, verification, and input/output modules, 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-12  | NX-12 Control Only                       | FS4142   |
| NX-108 | 8 Zone LED Code Pad                      | FS4127   |
| NX-116 | 16 Zone LED Code Pad                     | FS4132   |
| NX-148 | Alphanumeric LCD Code Pad                | FS4130   |
| NX-320 | Smart Power Supply and Buss Extender     | FS4137   |
| NX-404 | Remote Arming Expansion Module           | TBA      |
| NX-408 | 8 Zone Wireless Expansion Module         | FS4135   |
| NX-416 | 16 Zone Wireless Expansion Module        | FS4135   |
| NX-508 | Eight Output Module                      | FS4128   |
| NX-540 | "Operator II" Telephone Interface Module | TBA      |

## MAIN OPTIONS

### Areas -

The NX-12 can have up to a maximum of two separate systems (Areas) with distinct reporting codes, user codes, and operating options for each system. (See Features 16-21 and 37-40)

### Arm / Disarm Codes -

The NX-12 can have 40 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)

### Auto Arm in Partial -

The NX-12 can be armed automatically in the partial mode. This option can only be used for area one. If Auto Arm in Partial is enabled, area one cannot have full mode Auto Arming selected. (See Feature 22)

### Automatic Arming -

If programmed, the NX-12 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 of an area 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-12 has four programmable relay outputs that can be used to activate a strobe and two internal sirens. (See the terminal description Features 26-31)

### Auxiliary Power Over current -

The NX-12 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-12 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)

### Code Pad Zone Start -

The NX-12 LED Code Pads can be programmed with a start zone from 1 to 16. The starting zone programmed into the LED Code Pad via function [\*] 9[2] will tie the system zone to zone one (1) of the Code Pad. I.E. If you wish to start displaying zone 25 as the zone one (1) on a LED Code Pad, program a 5 as the start zone into the Code Pad that will function in this manner. When system zone 5 is faulted, zone LED one (1) will illuminate on the programmed Code Pads. Zone bypasses will be tied to the Code Pad LED number, however reporting will follow the system zone number.

### Configuration Groups -

The NX-12 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-12 zones can be enabled for Tamper monitoring if the Dual End of Line option is enabled. Zone Doubling cannot be used if the option is enabled. (See Feature 22)

### Dynamic Battery Test -

The NX-12 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-12 can also be programmed to perform a missing battery test every 12 seconds. (See Features 22 and 25)

#### Exit Error -

If enabled, the NX-12 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-12 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-12 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-12 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-12 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-12 has a Siren Supervision circuit that will constantly monitor the siren on the NX-12 and can be programmed to report if the wires are cut. (See Feature 22)

#### Telephone Line Monitor -

The NX-12 has a Telephone Line Monitor that monitors the voltage and current of the telephone line for detection of a faulted phone line. This condition can also be reported to the central station once the line is restored.

#### 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-12 can be programmed to sound the Code Pad and/or the siren. The NX-12 will also alarm when a Twin Trip zone is continuously faulted for longer than 10 seconds. (See Zone configuration Group Table and Features 22, 24, and 25)

## PROGRAMMING THE NX-12 LED CODE PADS

This section describes how to program the address and area 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 16.                                |
| 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   | Enable multi-area viewing (enables temporary viewing of all areas by pressing [*]-[1]-[area number])                                                                           |

### SETTING THE LED CODE PAD NUMBER AND AREA OPTIONS- Function [9][4]

- Step 1** Your system must be in the Disarmed state to program the code pad settings.
- Step 2** Press the [\*] key.
- Step 3** Press the [9]-[4] key.
- Step 4** Enter the [program code]- The "Service" LED will flash.
- Step 5** Enter the code pad number (1-8)
- Step 6** Press [\*]- The "Instant" LED will illuminate steady and the "Service" LED will remain flashing
- Step 7** Enter the area number for the code pad (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 [\*] key.
- Step 3** Press the [9]-[5] key.
- Step 4** Enter the [program code]- The "Service" LED will flash.
- Step 5** 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 6** 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 [\*] key.
- Step 2** Press the [9]-[7] keys.
- Step 3** Enter the "Master Code".
- Step 4** 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 5** Enter the "minutes code" which must be two (2) digits.  
*Example: 7 minutes after would be entered [0] [7].*

### CHANGING USER CODES - Function [5]

- Step 1** Your system must be in the Disarmed state to change user codes.
- Step 2** Press the [\*] key.
- Step 3** Press the [5] key.
- Step 4** Enter a "Master Arm/Disarm Code".
- NOTE:** For multi area systems, someone changing the code of another person must have access to all or more areas than the user being changed.
- Step 5** The ready light will flash.
- Step 6** Enter the 2 digit "user number" (always enter 2 digit such as [0]-[3] for user 3, or [3]-[2] for user 32).
- Step 7** 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 8** The ready light will flash indicating you are back at Step 5 above. If the code is rejected, the sounder will beep 3 times.
- Step 9** If another "user code" needs to be programmed, return to Step 6
- Step 10** 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 [\*] key.
- Step 2** Press the [6] key.
- Step 3** Enter a "Master Arm/Disarm Code".
- NOTE:** a user changing the authority of another user can only add or remove area authorization for areas to which they have access.
- Step 4** The ready light will flash.
- Step 5** Enter the 2 digit "user number" to be assigned authority. (The ready light is constant and the partial light will flash).
- Step 6** 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   | Activate output #3                                     |
| 4   | Master arm/disarm (can program other codes)                 | 4   | Activate output #4                                     |
| 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 7** Press the [\*] key. The ready light will flash. This moves you to the area enable. (The user has access in areas that are illuminated.)

**Step 8** The illuminated numbers indicate each area where the user has access. To change any of the areas where the user has access, press numbers corresponding to areas where you want to give the user access or deny access.  
(Example: If zone light #2 is lit, then the user is assigned access to area #2. By pressing the [2] key, the light will go off, denying access to area #2. Refer to chart shown below.)

| LIGHT | AREAS ASSIGNED | LIGHT | AREAS ASSIGNED |
|-------|----------------|-------|----------------|
| 1     | Area 1         | 2     | Area 2         |

**Step 9** When the areas are assigned, press the [\*] key. This returns you to Step 4. 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 zones 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 0.

NOTE: Any master arm/disarm code can add or change a user code if the master code has access to the same areas as the code being added/changed. Consequently, when programming the user codes for such a system, leave at least one code (can be "go to program code" if enabled in Feature 2) access to all areas or you will not be able to add new users. If you desire the end user to be able to add new codes, you must remove the area authority from all blank codes.

## PROGRAMMING THE NX-12 CONTROL

The NX-12 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 Area one 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-12 are programmed through the code pad, the module you are programming should be the first entry. To program the NX-12 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 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:

## PROGRAMMING THE NX-12 CONTROL

**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 this example on page 10.

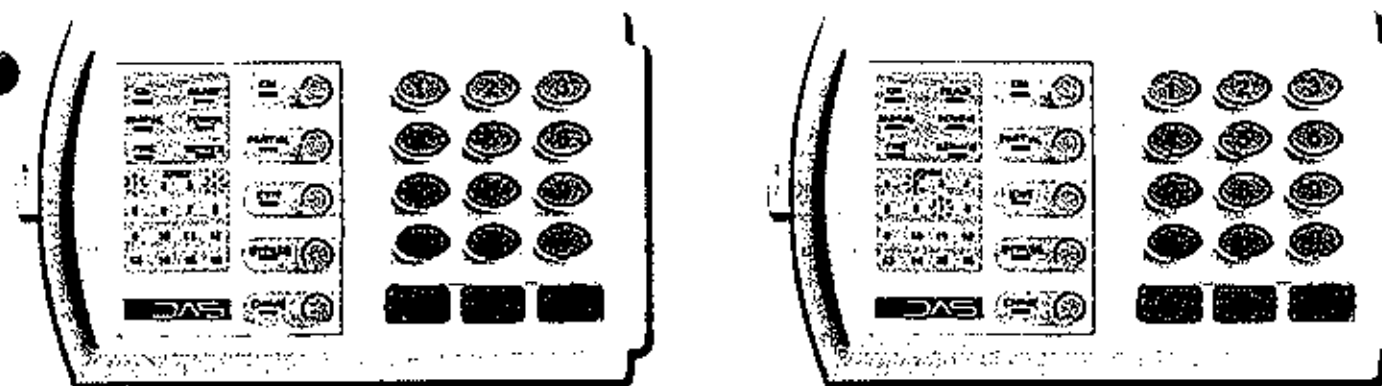
Once the data is programmed, press the [\*] key to enter the data and advance to the next segment of that feature. After the last segment of a feature is programmed, pressing the [\*] key will exit that feature, turn the "Ready" LED off and the "Armed" LED on. As before, you are now ready to enter another 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-12 even if it is armed.

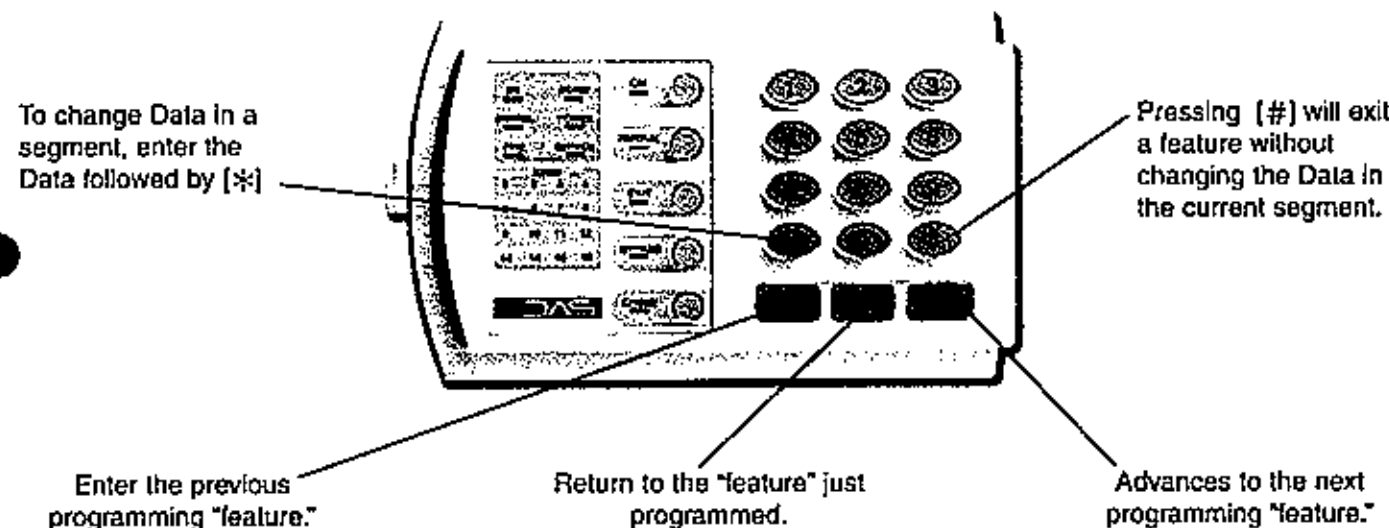
**ENROLLING MODULES AND CODE PADS:** For supervision purposes, the NX-12 has the ability to automatically find and store in its memory, the presence of all code pads, zone expanders, wireless receivers, and any other module connected to the data terminal whenever exiting the program mode. The enrolling 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 - FIGURE 1 (Numerical Data)



Zone 1 LED = 1  
Zone 4 LED = 8 } Data = 9

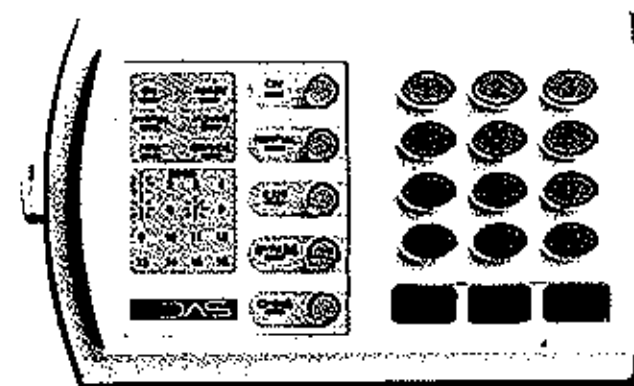
Zone 2 LED = 2  
Zone 7 LED = 64 } Data = 66



## PROGRAMMING EXAMPLE - FIGURE 2 (Option selection Data)

### Feature 16 • Segment 1

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

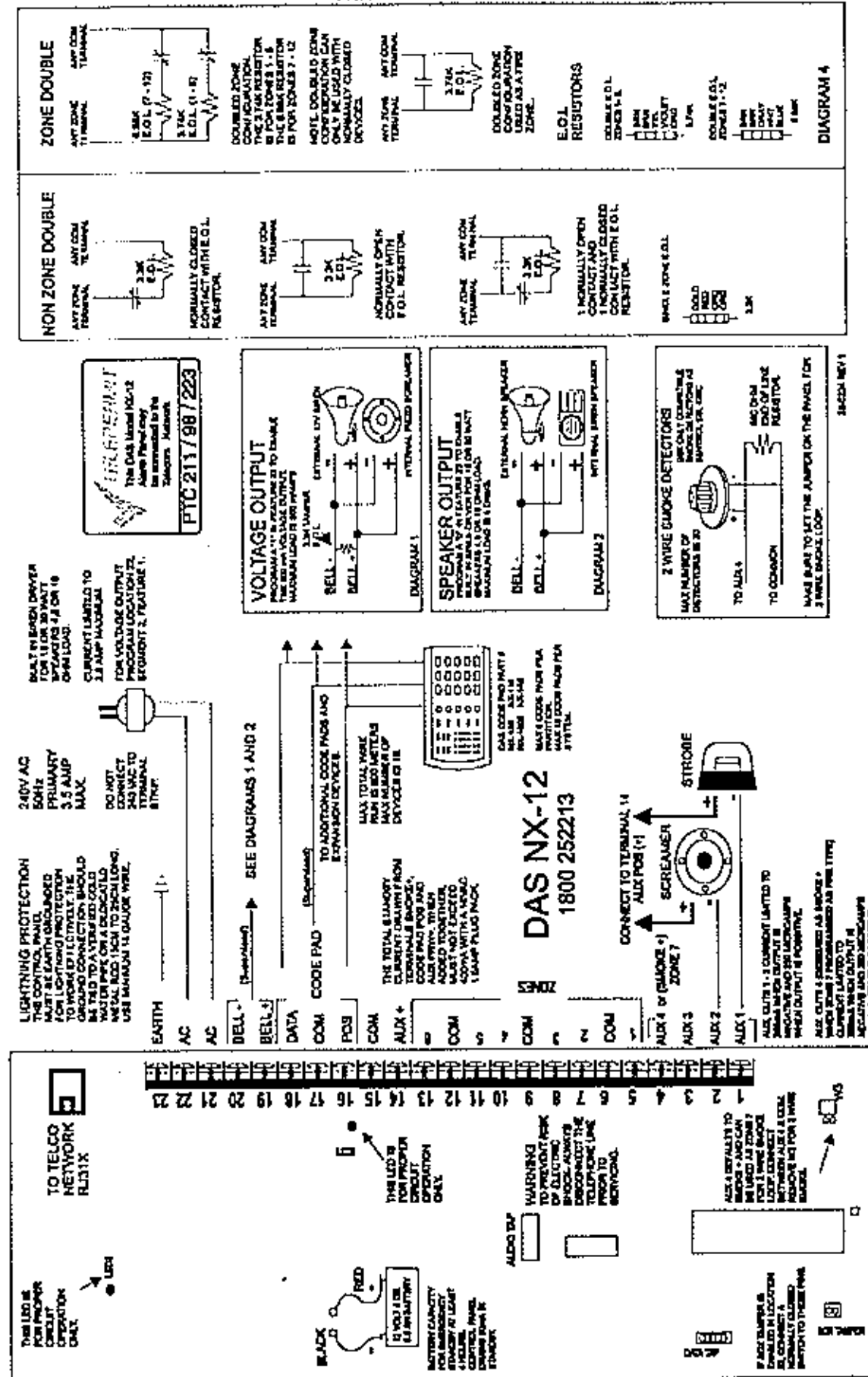


Press the key on the numeric Code Pad that corresponds to the option you wish to enable/disable. When an LED is "on" a option is enabled, when "off" the option is disabled. For example, with the 1, 5, & 7 LED's "on," Quick Arm, Audible Code Pad Panic and Code Pad Medical are enabled.

## TERMINAL DESCRIPTION

| TERMINAL                   | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EARTH                      | Earth Ground. Connect to a cold water pipe or a 1 to 3 metre driven rod.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| AC                         | AC input. Connect to a 16.5V 25, 40 or 50 VA approved transformer.                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| BELL + & BELL -            | If used as a siren output(default), the speaker rating should be 15 watt at 8 or 16 ohm, or 30/40 watt at 4, 8, or 16 ohms. If voltage output is selected in Feature 37, this output becomes voltage output, 12VDC, 1 Amp maximum load. NOTE: A 3.3KΩ resistor may be required across the bell terminals when a 12 VDC siren is used. If no resistor is used, you may experience voltage leakage into the siren which will cause these devices to output a small signal.                                     |
| KP DATA                    | Connect to the data terminal on the code pads and the expanders. Maximum total wire run is 800 metres using 14/020 cable. These numbers are for one code pad at the end of the wire. When connecting more than one code pad to the end of the wire, a higher gauge wire or a reduction in total wire distance will be required.                                                                                                                                                                              |
| KP COM                     | Connect to the Common terminal on the code pads and the expanders.                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| KP POS                     | Connect to the Positive terminal on the code pads and the expanders. This terminal and AUX PWR + are limited to 1 amp total current when added together.                                                                                                                                                                                                                                                                                                                                                     |
| AUX PWR+                   | Connect positive wire of all powered devices except smoke detectors and code pads. This terminal and KP POS are limited to 1 amp total current when added together.                                                                                                                                                                                                                                                                                                                                          |
| ZONE 6                     | Connect to one side of zone 6 loop. Connect the other side to com terminal. Open or short causes alarm.                                                                                                                                                                                                                                                                                                                                                                                                      |
| COM                        | Common (-) terminal for zones 5 & 6. (See the wiring diagram for examples.)                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| ZONE 5                     | Connect to one side of zone 5 loop. Connect the other side to COM terminal. Open or short causes alarm.                                                                                                                                                                                                                                                                                                                                                                                                      |
| ZONE 4 - ZONE 1            | Connect as described for zones 5 & 6. (See the wiring diagram for examples.)                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| AUX OUT 4 SMOKE + (ZONE 7) | Aux 4 which also be Zone 7 two wire Smoke detector. Power Current limited to 250 mA when output is positive and 250 microamps when output is negative. This output defaults to Smoke Power, but can be re-configured. Zone 7 may be used for a 2-wire smoke detector using a 680 Ohm E.O.L. resistor. W3 must be removed for 2-wire smoke detector loop and Zone 7 must be programmed as a Fire Type. For use as Aux Out 4, W2 must be set. The 2-wire smoke loop cannot be enabled if Zone Doubling is used |
| AUX OUT 3 - AUX OUT 1      | Connect negative lead of low current device [relay, LED(install 1K resistor in series with LED), etc.]. Connect positive lead of device to AUX PWR +. Current limited to 250 microamps maximum when output is positive and 250 mA when output is negative.                                                                                                                                                                                                                                                   |

### TERMINAL DRAWING



## 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 code are 6 digits. If this option is enabled, the default user 1 code is [1]-[2]-[3]-[4]-[5]-[6]. The NX-12 has 40 four (4) digit or 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-12 disarmed, the "Go To Program Code" can be used to enter the Program Mode.

## FEATURE 2 GO TO PROGRAM CODE AREA AND 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                                                                 |
| SEGMENT 2 |                                                                          |
| (1)       | On enables the "Go To Program Code" for Area #1                          |
| (2)       | On enables the "Go To Program Code" for Area #2                          |

## 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. If the duress code is programmed, it will work for all areas.

## 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 tamper, 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-12 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 Area and System Features. Most Area and System report event 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)       | Tamper                                                                          |
| (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 (Cancel reporting must also be enabled in area options)             |
| (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****PHONE LINE CUT DELAY**

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

Feature 11 contains the number of second increments in the Telephone line monitor delay before phone line fault is activated. The Telephone line monitor delay can be programmed in 1 second increments from 1 to 255 seconds. Note: The NX-12 internal phone line monitoring circuit requires approximately 5 seconds to discharge before the NX-12 will sense a missing phone line, you must add this time to the value in this feature when testing this option. A "0" = disabled.

**FEATURE 12****DOWNLOAD ACCESS CODE**

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

Feature 12 contains the eight digit access code the NX-12 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-12 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-12 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, and then an eight (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-12 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 of this option).                                                            |
| 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

### AREA 1 - 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. Each of these options can be enabled by area. For additional area information see Features 37-58 on pages 19-21. If the option selection feature for any area is left blank, that area will use this feature for the option selection. 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

### AREA 1 - 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 for area 1. Valid entries are 10-255 seconds

### AREA OPTIONS TABLE

#### AC Power / Low Battery Sounder Alert

If enabled, the NX-12 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-12 will require a valid user code to be entered during the zone bypass function.

#### Cancel

If enabled, the NX-12 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-12 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 siren (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).

### AREA OPTIONS TABLE

#### Code Pad Tamper

If enabled, the NX-12 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-12 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-12 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-12 can toggle the Group Bypass zone in and out of bypass mode by pressing the [Bypass] key. This option is active when over the NX-12 is in either Partial or Full arm mode.

#### LED Extinguish

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

#### 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-12 will require a full code to disarm it from the Partial Mode.

#### Quick Arm Option

The NX-12 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-12 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-12 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-12 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-12 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-12 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.

**FEATURE 19****ZONE AREA SELECT - ZONES 1-8**

Feature 19 is used to select the area(s) that zones 1 - 8 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas it resides in are armed. A zone that resides in more than one area will be reported to its lowest area number. Feature 19 has 8 segments. Segment 1 corresponds to zone 1, and Segment 8 corresponds to zone 8.

|                    | AREA 1 | AREA 2 |
|--------------------|--------|--------|
| SEGMENT 1 - ZONE 1 | (1)    | 2      |
| SEGMENT 2 - ZONE 2 | (1)    | 2      |
| SEGMENT 3 - ZONE 3 | (1)    | 2      |
| SEGMENT 4 - ZONE 4 | (1)    | 2      |
| SEGMENT 5 - ZONE 5 | (1)    | 2      |
| SEGMENT 6 - ZONE 6 | (1)    | 2      |
| SEGMENT 7 - ZONE 7 | (1)    | 2      |
| SEGMENT 8 - ZONE 8 | (1)    | 2      |

**FEATURE 20****ZONES 9-16 CONFIGURATION GROUP**

| SEGMENTS 1-8 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
|--------------|----|----|----|----|----|----|----|----|
|--------------|----|----|----|----|----|----|----|----|

Feature 20 contains the Configuration Group (Zone type) for zones 9-16. Segment 1 is for zone 9, and Segment 8 is for zone 16. Refer to the "Default Zone Configuration" table in this section for zone type selections. These zones can only be used a wireless zones.

**FEATURE 21****ZONE AREA SELECT - ZONES 9-16**

Feature 21 is used to select the area(s) that zones 9-16 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas are armed. A zone that resides in more than one area will be reported to its lowest area. Feature 21 has 8 segments. Segment 1 corresponds to zone 9 and Segment 8 corresponds to zone 16.

|                     | AREA 1 | AREA 2 |
|---------------------|--------|--------|
| SEGMENT 1 - ZONE 9  | (1)    | 2      |
| SEGMENT 2 - ZONE 10 | (1)    | 2      |
| SEGMENT 3 - ZONE 11 | (1)    | 2      |
| SEGMENT 4 - ZONE 12 | (1)    | 2      |
| SEGMENT 5 - ZONE 13 | (1)    | 2      |
| SEGMENT 6 - ZONE 14 | (1)    | 2      |
| SEGMENT 7 - ZONE 15 | (1)    | 2      |
| SEGMENT 8 - ZONE 16 | (1)    | 2      |

**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 the area 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 the area 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 the area 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 the area 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 the area 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 the area 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 the area 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 the area 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 the area 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 the area 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 the area 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.                   |

| DATA | DEFAULT ZONE CONFIGURATION ZONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| "14" | <b>HANDOVER: Partial - Twin Trip - Group Isolate - Forced Arming</b> - Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone is faulted first. This zone will be active in partial mode. This zone type may be faulted while arming if forced arming is enabled in the area 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" | <b>INSTANT: -</b> Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be bypassed in partial mode.                                                                                                                                                                                                                                                                                                                                                                        |
| "16" | <b>INSTANT: Partial -</b> Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be active in partial mode.                                                                                                                                                                                                                                                                                                                                                                  |
| "17" | <b>INSTANT: Partial (NO DEOL) -</b> 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" | <b>INSTANT: Twin Trip - Forced Arming -</b> 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 the area options. This zone type will require two triggers or another zone would have to have been triggered before it will activate an alarm.                                                                                                                     |
| "19" | <b>INSTANT: Group Bypass -</b> 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" | <b>INSTANT: Partial - Chime -</b> 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" | <b>INSTANT: Partial - Twin Trip -</b> 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" | <b>INSTANT: Partial - Group Bypass -</b> 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" | <b>INSTANT: Twin Trip - Group Bypass -</b> 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" | <b>INSTANT: Partial - Twin Trip - Group Bypass -</b> 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" | <b>INSTANT: Local -</b> Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be bypassed in partial mode. This zone will activate to communicator.                                                                                                                                                                                                                                                                                                                         |
| "26" | <b>24 HOUR: Audible -</b> A trip on a 24 Hour zone produces an instant alarm when armed or disarmed. This zone type will set sirens.                                                                                                                                                                                                                                                                                                                                                                         |
| "27" | <b>24 HOUR: Silent -</b> A trip on a 24 Hour zone produces an instant alarm when armed or disarmed. This zone type will not set sirens.                                                                                                                                                                                                                                                                                                                                                                      |
| "28" | <b>FIRE: -</b> 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" | <b>DAY ZONE: -</b> When armed, a trip produces an instant alarm. When disarmed, a trip activates the code pad sounder.                                                                                                                                                                                                                                                                                                                                                                                       |
| "30" | <b>KEY-SWITCH: -</b> A zone attached to a momentary key switch will cause the NX-12 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)       | On if siren sounds for "Telephone Line Cut" when armed                                        |
| 2         | On if siren sounds for "Telephone Line Cut" when disarmed                                     |
| 3         | On if siren blast at arming - (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         | On if First to Open Last to Close Reports                                                     |
| 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)       | On if Telephone Line Cut report enabled                                                       |
| 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 to enable zone doubling                                                                    |
| 3         | On disables all hardwired zones on the NX-12                                                  |
| 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 Partial Arm Area 1                                                               |

**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-12 will allow before bypassing all burglary zones (1-16) 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-12 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)       | On if code pad sounds for "Telephone Line Cut" when the system is armed |
| (2)       | On if code pad sounds for "Telephone Line Cut" when disarmed            |
| 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-12 synchronizes its internal clock to the 50 HZ it receives from the AC input. If enabled, the NX-12 can generate its own internal clock synchronization if you are installing the NX-12 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-12 will test the battery at disarm once per 24 hour cycle, if programmed in system timers. The NX-12 can test for battery presence every 12 seconds. The battery missing test is enabled in this section.

**Box Tamper**

If enabled, the NX-12 will use the N/C Box Tamper pins provided on the main board.

**Dual End Of Line (Zone Tamper)**

If enabled, the NX-12 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-12 can report all system device alarms with their individual point number if the expanded contact I.D. reporting is enabled.

**SYSTEM OPTIONS TABLE****First To Open / Last To Close**

If enabled, the NX-12 will only send a closing report when the last area is armed. NOTE: the last area to arm must have open/close reports enabled. The NX-12 will only send an opening report when the first area is disarmed. NOTE: The first area to disarm must have open/close reports enabled.

**Force Arm Bypass Reports**

If enabled, the NX-12 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-arm during the armed period, bypass restores are sent.

**Limited Sirens / Communicator**

If enabled, the NX-12 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-12 will illuminate the service LED whenever the internal clock is interrupted.

**On-Board Zone Disable**

If enabled, the NX-12 can disable the 8 on-board zone. This is used when the NX-12 is used as a totally wireless system.

**Radio Remote Arm**

If enabled, the NX-12 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.

**Telephone Line Cut Siren**

If enabled, it will set the siren for the siren time when ever the phone line monitor is activated. The phone line siren can be reset to be the entry of a valid code. The options set phone line cut sirens in either armed and or disarmed mode. In a multi-area system, "a system armed state" would be represented by any area that is armed.

**Voltage Output**

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

**Zone Doubling**

If enabled, the 6 on-board zones will be doubled to 12 zones. Zone 1 will represent zones 1 and 7, and zone 6 will represent zones 6 and 12. This option cannot be selected for zones other than the 6 zones on the main panel. This option cannot be used in conjunction with the DEOL option. To disable this option, first de-select it, and then power down the system. If Zone doubling is enabled the Aux 4 two wire smoke can not be enabled.

**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) |   |   |    |   |   |   |   |     |   |
| SEGMENT 10    | Listen - In Time (0 - 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-12 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 continuous trip longer exceeding 10 seconds.

**Chime Time**

The NX-12 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-12 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-12 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.

**Listen - In Time**

This option is not currently supported.

**FEATURE 26****AUXILIARY OUTPUT 1-4 AREA SELECTION**

Feature 26 is used to select which area(s) the events must occur in before the output will activate. Feature 26 has 4 segments. Segment 1 corresponds to output 1, and Segment 4 corresponds to output 4.

|                      | AREA 1 | AREA 2 |
|----------------------|--------|--------|
| SEGMENT 1 - OUTPUT 1 | (1)    | (2)    |
| SEGMENT 2 - OUTPUT 2 | (1)    | (2)    |
| SEGMENT 3 - OUTPUT 3 | (1)    | (2)    |
| SEGMENT 4 - OUTPUT 4 | (1)    | (2)    |

**FEATURE 27****AUXILIARY OUTPUT 1-4 SPECIAL TIMING**

Feature 27 contains special timing option activation for the four auxiliary outputs. Segment 1 corresponds to output 1, Segment 4 corresponds to output 4.

| SEGMENTS 1 - 4 | OUTPUTS 1 - 4                                                                                |
|----------------|----------------------------------------------------------------------------------------------|
| 1              | On if output should be timed in minutes; Off if timed in seconds                             |
| 2              | On if output should latch; Off if output should be timed                                     |
| (3)            | On if output should stop timing upon code entry; Off if the output should 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****AUXILIARY OUTPUT 3 - EVENT AND TIME**

| SEGMENTS 1-2 | OUTPUT EVENT - 23 | OUTPUT TIME - 0 |
|--------------|-------------------|-----------------|
|--------------|-------------------|-----------------|

Feature 30 sets the output event and output active time for auxiliary output three (3). Use the chart in this section to select the event in segment 1, that will activate Auxiliary Output 3. 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 31

## AUXILIARY OUTPUT 4 - EVENT AND TIME

| SEGMENTS 1-2 | OUTPUT EVENT - 21 | OUTPUT TIME - 0 |
|--------------|-------------------|-----------------|
|--------------|-------------------|-----------------|

Feature 31 sets the output event and output active time for auxiliary output four (4). Use the chart in this section to select the event in segment 1, that will activate Auxiliary Output 4. 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.

| 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   | Telephone Line Fault                     |
| 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- 4 correspond to that code activating outputs 1 - 4 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.<br>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 - 05 | MINUTES - 00 |
|--------------|------------|--------------|
|--------------|------------|--------------|

Feature 33 contains the time (in 24 hour format) the NX-12 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-12 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-12 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 each area is open. On those 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. Segment 1 is for area 1, and segment 8 is for area 8. (See Features 33 and 34 for the opening and closing times for the open days.

| SEGMENTS 1 - 8 | AREAS 1 - 8                                                |
|----------------|------------------------------------------------------------|
| 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 IN AREAS 1 - 8

Feature 36 selects which days each area will auto arm. Segment 1 is for area 1, and segment 8 is for area 8. If a zone is faulted when the panel tries to auto arm, the zone will be bypassed.

| SEGMENTS 1 - 8 | AREAS 1 - 8              |
|----------------|--------------------------|
| 1              | Auto Arming on Sunday.   |
| 2              | Auto Arming on Monday    |
| 3              | Auto Arming on Tuesday   |
| 4              | Auto Arming on Wednesday |
| 5              | Auto Arming on Thursday  |
| 6              | Auto Arming on Friday    |
| 7              | Auto Arming on Saturday  |
| 8              | RESERVED                 |

## FEATURE 37 AREA 1 ACCOUNT CODE

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

Feature 37 contains the account code sent when area 1 is reported. If Feature 37 is left un-programmed (all "10"s), then the system account code (Feature 5) will be used.

## FEATURE 38 AREA 2 ACCOUNT CODE

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

Feature 38 contains the account code sent when area 2 is reported. If Feature 38 is left un-programmed (all "10"s), then the system account code (Feature 5) will be used.

## FEATURE 39 AREA 2 - OPTION AND REPORT SELECTIONS

Feature 39 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. Each of these options can be enabled by area. If the option selection feature for any area is left blank, that area will use feature 16 for the option selection.

| 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 40 AREA 2 - ENTRY / EXIT TIMERS

| SEGMENTS 1-4 | ENTRY TIME 1 - 0 | EXIT TIME 1 - 0 | ENTRY TIME 2 - 0 | EXIT TIME 2 - 0 |
|--------------|------------------|-----------------|------------------|-----------------|
|--------------|------------------|-----------------|------------------|-----------------|

Feature 40 sets the primary and secondary entry / exit times for area 2. If all segments in this feature are set to "0", the entry / exit time for this area will follow area 1 (Feature 17). Valid entries are 10-255 seconds

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

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

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

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 81 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 83 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.                                                                                                                                   |  |                                              |           |  |      |           |  |        |

|                                                                                                                                                                                                                            |   |                                                     |      |                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------------------------------------------|------|-------------------------|
| <b>FEATURE 87</b>                                                                                                                                                                                                          |   | <b>CONFIGURATION GROUP 11 ALARM EVENT CODE</b>      |      |                         |
| <b>SEGMENT 1</b>                                                                                                                                                                                                           |   | 3                                                   |      |                         |
| Feature 87 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. |   |                                                     |      |                         |
| <b>FEATURE 88</b>                                                                                                                                                                                                          |   | <b>CONFIGURATION GROUP 11 CHARACTERISTIC SELECT</b> |      |                         |
| <b>SEGMENT 1</b>                                                                                                                                                                                                           | 4 | <b>SEGMENT 2</b>                                    | 2578 | <b>SEGMENT 3</b> 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 89 contains 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 91 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.                                                                                                                                   |  |                                              |           |  |        |

|                                                                                                                                                                                                                          |          |                                                     |               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------|---------------|
| <b>FEATURE 93</b>                                                                                                                                                                                                        |          | <b>CONFIGURATION GROUP 14 ALARM EVENT CODE</b>      |               |
| <b>SEGMENT 1</b>                                                                                                                                                                                                         | <b>3</b> |                                                     |               |
| 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. |          |                                                     |               |
| <b>FEATURE 94</b>                                                                                                                                                                                                        |          | <b>CONFIGURATION GROUP 14 CHARACTERISTIC SELECT</b> |               |
| <b>SEGMENT 1</b>                                                                                                                                                                                                         | <b>4</b> | <b>SEGMENT 2</b>                                    | <b>25678</b>  |
|                                                                                                                                                                                                                          |          | <b>SEGMENT 3</b>                                    | <b>245678</b> |
| 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.                                                                                                                                 |  |                                              |  |    |                 |

|                                                                                                                                                                                                                             |                  |                                                     |                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------|-------------------------|
| <b>FEATURE 97</b>                                                                                                                                                                                                           |                  | <b>CONFIGURATION GROUP 16 ALARM EVENT CODE</b>      |                         |
| <b>SEGMENT 1</b>                                                                                                                                                                                                            | 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.  |                  |                                                     |                         |
| <b>FEATURE 98</b>                                                                                                                                                                                                           |                  | <b>CONFIGURATION GROUP 16 CHARACTERISTIC SELECT</b> |                         |
| <b>SEGMENT 1</b>                                                                                                                                                                                                            | <b>SEGMENT 2</b> | 258                                                 | <b>SEGMENT 3</b> 25578  |
| Use "Configuration Group Characteristic table" described in Feature 68, of this section.                                                                                                                                    |                  |                                                     |                         |
| <b>FEATURE 99</b>                                                                                                                                                                                                           |                  | <b>CONFIGURATION GROUP 17 ALARM EVENT CODE</b>      |                         |
| <b>SEGMENT 1</b>                                                                                                                                                                                                            | 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.  |                  |                                                     |                         |
| <b>FEATURE 100</b>                                                                                                                                                                                                          |                  | <b>CONFIGURATION GROUP 17 CHARACTERISTIC SELECT</b> |                         |
| <b>SEGMENT 1</b>                                                                                                                                                                                                            | <b>SEGMENT 2</b> | 258                                                 | <b>SEGMENT 3</b> 5678   |
| Use "Configuration Group Characteristic table" described in Feature 68, of this section.                                                                                                                                    |                  |                                                     |                         |
| <b>FEATURE 101</b>                                                                                                                                                                                                          |                  | <b>CONFIGURATION GROUP 18 ALARM EVENT CODE</b>      |                         |
| <b>SEGMENT 1</b>                                                                                                                                                                                                            | 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. |                  |                                                     |                         |
| <b>FEATURE 102</b>                                                                                                                                                                                                          |                  | <b>CONFIGURATION GROUP 18 CHARACTERISTIC SELECT</b> |                         |
| <b>SEGMENT 1</b>                                                                                                                                                                                                            | <b>SEGMENT 2</b> | 25                                                  | <b>SEGMENT 3</b> 245678 |
| Use "Configuration Group Characteristic table" described in Feature 68, of this section.                                                                                                                                    |                  |                                                     |                         |
| <b>FEATURE 103</b>                                                                                                                                                                                                          |                  | <b>CONFIGURATION GROUP 19 ALARM EVENT CODE</b>      |                         |
| <b>SEGMENT 1</b>                                                                                                                                                                                                            | 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. |                  |                                                     |                         |
| <b>FEATURE 104</b>                                                                                                                                                                                                          |                  | <b>CONFIGURATION GROUP 19 CHARACTERISTIC SELECT</b> |                         |
| <b>SEGMENT 1</b>                                                                                                                                                                                                            | <b>SEGMENT 2</b> | 256                                                 | <b>SEGMENT 3</b> 25678  |
| Use "Configuration Group Characteristic table" described in Feature 68, of this section.                                                                                                                                    |                  |                                                     |                         |
| <b>FEATURE 105</b>                                                                                                                                                                                                          |                  | <b>CONFIGURATION GROUP 20 ALARM EVENT CODE</b>      |                         |
| <b>SEGMENT 1</b>                                                                                                                                                                                                            | 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. |                  |                                                     |                         |
| <b>FEATURE 106</b>                                                                                                                                                                                                          |                  | <b>CONFIGURATION GROUP 20 CHARACTERISTIC SELECT</b> |                         |
| <b>SEGMENT 1</b>                                                                                                                                                                                                            | <b>SEGMENT 2</b> | 2458                                                | <b>SEGMENT 3</b> 25678  |
| Use "Configuration Group Characteristic table" described in Feature 68, of this section.                                                                                                                                    |                  |                                                     |                         |

|           |           |                               |
|-----------|-----------|-------------------------------|
| <b>F#</b> | <b>Pg</b> | <b>USER CODE REQUIREMENTS</b> |
| 0         | 14        |                               |

**Segment 1**

- ① Enables six digit code option. All arm/disarm/Go To Program codes require six digit ts.
- ② Requires valid user code entry for [7][0][8] and [7][9][9] functions to work.
- ③ to ⑧ Reserved

|           |           |                           |
|-----------|-----------|---------------------------|
| <b>F#</b> | <b>Pg</b> | <b>GO TO PROGRAM CODE</b> |
| 1         | 14        |                           |

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 5 | 7 | 1 | 3 | 0 | 0 |
|---|---|---|---|---|---|

|           |           |                                                       |
|-----------|-----------|-------------------------------------------------------|
| <b>F#</b> | <b>Pg</b> | <b>GO TO PROGRAM CODE PARTITION AND AUTHORIZATION</b> |
| 2         | 14        |                                                       |

**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

**Segment 2**

- ① Enables "Go To Program Code" for area #1
- ② Enables "Go To Program Code" for area #2

|           |           |                    |
|-----------|-----------|--------------------|
| <b>F#</b> | <b>Pg</b> | <b>DURESS CODE</b> |
| 3         | 14        |                    |

|    |    |    |    |    |    |
|----|----|----|----|----|----|
| 15 | 15 | 15 | 15 | 15 | 15 |
|----|----|----|----|----|----|

|           |           |                 |
|-----------|-----------|-----------------|
| <b>F#</b> | <b>Pg</b> | <b>PHONE #1</b> |
| 4         | 15        |                 |

|    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|
| 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 15

|    |    |    |    |
|----|----|----|----|
| 10 | 10 | 10 | 10 |
|----|----|----|----|

**F# Pg COMMUNICATOR FORMAT**  
6 15

|   |
|---|
| 0 |
|---|

**F# Pg PHONE #2**  
7 15

|    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|
| 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 15

|    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|
| 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 16

**Segment 1**

- ① Alarm
- 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 / phone / 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 ATTEMPTS**  
10 16

**Segment 1**

|   |
|---|
| 0 |
|---|

Dial attempts

**Segment 2**

|   |
|---|
| 0 |
|---|

Reserved

**F# Pg DOWNLOAD ACCESS CODE**  
12 17

|   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---|---|---|---|---|---|---|---|---|---|

**F# Pg NUMBER OF RINGS/CALLS TO ANSWER**  
13 17

**Segment 1**

|   |
|---|
| 0 |
|---|

Number of rings

**Segment 2**

|   |
|---|
| 0 |
|---|

Number of calls to answer

**F# Pg DOWNLOAD CONTROL**  
14 17

**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 17

|    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|
| 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 18

**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 Restores
- ④ Trouble
- ⑤ Tamper
- ⑥ Cancel
- ⑦ Recent Closing
- ⑧ Exit Error

**F# Pg AREA 1, ENTRY / EXIT TIMERS**  
17 18

**Segment 1**

|    |
|----|
| 30 |
|----|

 (Entry Time #1)

**Segment 2**

|    |
|----|
| 30 |
|----|

 (Exit Time #1)

**Segment 3**

|    |
|----|
| 30 |
|----|

 (Entry Time #2)

**Segment 4**

|    |
|----|
| 30 |
|----|

 (Exit Time #2)

**F# Pg ZONES 1 - 8, CONFIGURATION GROUPS**

|   |   |    |    |    |    |    |    |
|---|---|----|----|----|----|----|----|
| 3 | 7 | 18 | 16 | 16 | 16 | 16 | 16 |
|---|---|----|----|----|----|----|----|

**F# Pg ZONES 1 - 8, AREA SELECTION**  
(Segment 1 = Zone 1 thru Segment 8 = Zone 8)

|        | SEGMENT 1<br>ZONE 1 | SEGMENT 2<br>ZONE 2 | SEGMENT 3<br>ZONE 3 | SEGMENT 4<br>ZONE 4 | SEGMENT 5<br>ZONE 5 | SEGMENT 6<br>ZONE 6 | SEGMENT 7<br>ZONE 7 | SEGMENT 8<br>ZONE 8 |
|--------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| AREA 1 | 1                   | 1                   | 1                   | 1                   | 1                   | 1                   | 1                   | 1                   |
| AREA 2 | 2                   | 2                   | 2                   | 2                   | 2                   | 2                   | 2                   | 2                   |

**F# Pg ZONES 9 - 16, CONFIGURATION GROUPS**

|    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|
| 16 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
|----|----|----|----|----|----|----|----|

**F# Pg ZONES 9 - 16, AREA SELECTION**  
(Segment 1 = Zone 9 thru Segment 8 = Zone 16)

|        | SEGMENT 1<br>ZONE 9 | SEGMENT 2<br>ZONE 10 | SEGMENT 3<br>ZONE 11 | SEGMENT 4<br>ZONE 12 | SEGMENT 5<br>ZONE 13 | SEGMENT 6<br>ZONE 14 | SEGMENT 7<br>ZONE 15 | SEGMENT 8<br>ZONE 16 |
|--------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| AREA 1 | 1                   | 1                    | 1                    | 1                    | 1                    | 1                    | 1                    | 1                    |
| AREA 2 | 2                   | 2                    | 2                    | 2                    | 2                    | 2                    | 2                    | 2                    |

**F# Pg SYSTEM OPTIONS**

**Segment 1**

- ① Siren sounds for telephone line cut while armed
- ② Siren sounds for telephone line cut while disarmed
- ③ Siren blast at arming
- ④ Siren blast at exit delay expiration
- ⑤ Siren blast at closing 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 3**

- ① Box Tamper report enabled
- ② AC Fail report enabled
- ③ Low Battery report enabled
- ④ Auxiliary power over current report enabled
- ⑤ Siren supervision report enabled
- ⑥ Telephone Line Cut report enabled
- ⑦ Reserved
- ⑧ Expander trouble report enabled

**Segment 5**

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

**Segment 2**

- ① Convert siren driver to voltage out
- ② Siren sounds on expander trouble
- ③ Communicator once per zone
- ④ First to Open Last to Close Reporting
- ⑤ Battery Missing last performed every 12 seconds
- ⑥ Strobe flashes for keyswitch arming and disarming
- ⑦ Manual communicator test performed during [\*][4] function
- ⑧ Box tamper 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

- ⑤ Disables bypass reports for forced armed zones
- ⑥ Enables Silent Exit option
- ⑦ Disables 50 Hz synchronization
- ⑧ Auto arms Area 1 Partial Mode

**F# Pg SIREN / COMMUNICATOR ATTEMPT COUNT**

|   |
|---|
| 0 |
|---|

**F# Pg CODE PAD SOUNDER CONTROL**

**Segment 1**

- ① Code Pad sounds for Telephone Line Cut when in the Armed state
- ② Code Pad sounds for Telephone Line Cut when in the Disarmed state
- 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# Pg SYSTEM TIMERS**

- |                   |     |                                                  |
|-------------------|-----|--------------------------------------------------|
| <b>Segment 1</b>  | 20  | Partial Arm Entry Time (0 - 255 seconds)         |
| <b>Segment 2</b>  | 0   | Strobe Time (0 - 255 hours)                      |
| <b>Segment 3</b>  | 2   | Dynamic Battery Test Duration (0 - 255 minutes)  |
| <b>Segment 4</b>  | 30  | AC Failure Report Delay (0 - 255 minutes)        |
| <b>Segment 5</b>  | 5   | Siren Time (1 - 255 minutes)                     |
| <b>Segment 6</b>  | 5   | Twin Trip Time (0 - 255 minutes)                 |
| <b>Segment 7</b>  | 3   | Chime Time in 50ms increments (0 - 255)          |
| <b>Segment 8</b>  | 0   | Dialer Delay Time (0 - 255 seconds)              |
| <b>Segment 9</b>  | 120 | Fire Alarm Verification Time (120 - 255 seconds) |
| <b>Segment 10</b> | 0   | Listen-In Time (0 - 255 seconds)                 |

**F# Pg AUXILIARY OUTPUTS 1 - 4 AREA SELECTION**

|        | SEGMENT 1 | SEGMENT 2 | SEGMENT 3 | SEGMENT 4 |
|--------|-----------|-----------|-----------|-----------|
| AREA 1 | 1         | 1         | 1         | 1         |
| AREA 2 | 2         | 2         | 2         | 2         |

**F.# Pg AUXILIARY OUTPUTS 1 - 4 SPECIAL TIMING**

|                                                                    | SEGMENT 1 | SEGMENT 2 | SEGMENT 3 | SEGMENT 4 |
|--------------------------------------------------------------------|-----------|-----------|-----------|-----------|
| Auxiliary output 1: alarm in release                               | 1         | 1         | 1         | 1         |
| Auxiliary output 2: lock                                           | 2         | 2         | 2         | 2         |
| Auxiliary output 3: door being open over code entry                | 3         | 3         | 3         | 3         |
| Auxiliary output 4: alarm only between closing and opening time    | 4         | 4         | 4         | 4         |
| Auxiliary output 5: alarm only between opening and closing time    | 5         | 5         | 5         | 5         |
| Invert auxiliary output (0 volts going to 12 volts when activated) | 6         | 6         | 6         | 6         |
| Reserved                                                           | 7         | 7         | 7         | 7         |
| Reserved                                                           | 8         | 8         | 8         | 8         |

**F.# Pg AUXILIARY OUTPUT #1, EVENT & TIME**

**Segment 1**  Program the event number for output #1 here

**Segment 2**  Program the timing for output #1 here

**F.# Pg AUXILIARY OUTPUT #2, EVENT & TIME**

**Segment 1**  Program the event number for output #2 here

**Segment 2**  Program the timing for output #2 here

**F.# Pg AUXILIARY OUTPUT #3, EVENT & TIME**

**Segment 1**  Program the event number for output #3 here

**Segment 2**  Program the timing for output #3 here

**F.# Pg AUXILIARY OUTPUT #4, EVENT & TIME**

**Segment 1**  Program the event number for output #4 here

**Segment 2**  Program the timing for output #4 here

**F.# Pg AUTOTEST CONTROL**

**Segment 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**  Program the autotest hourly interval from 1 - 255 hours

**Segment 3**  Program the autotest report in 24 hour time format

**Segment 4**  Program the autotest report time, minutes after the hour

**F.# Pg OPENING TIME**

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

**Segment 2**  Program the minutes after the hour of the opening time

**F.# Pg CLOSING TIME / AUTO ARMING TIME**

**Segment 1**  Program the hour of the closing time / auto arming time

**Segment 2**  Program the minutes after hour of closing / auto arming time

**F.# Pg DAYS OF THE WEEK "ARM ONLY AFTER CLOSE" WILL ARM / DISARM IN AREAS**

|           | SEGMENT 1 AREA 1 | SEGMENT 2 AREA 2 |
|-----------|------------------|------------------|
| Sunday    | 1                | 1                |
| Monday    | 2                | 2                |
| Tuesday   | 3                | 3                |
| Wednesday | 4                | 4                |
| Thursday  | 5                | 5                |
| Friday    | 6                | 6                |
| Saturday  | 7                | 7                |
| Reserved  | 8                | 8                |

**F.# Pg DAYS OF THE WEEK "AUTO ARMING" WILL OCCUR IN AREAS**

|           | SEGMENT 1 AREA 1 | SEGMENT 2 AREA 2 |
|-----------|------------------|------------------|
| Sunday    | 1                | 1                |
| Monday    | 2                | 2                |
| Tuesday   | 3                | 3                |
| Wednesday | 4                | 4                |
| Thursday  | 5                | 5                |
| Friday    | 6                | 6                |
| Saturday  | 7                | 7                |
| Reserved  | 8                | 8                |

**F.# Pg AREA 1, ACCOUNT CODE**

**F.# Pg AREA 2, ACCOUNT CODE**

**F #.** **Pg** **AREA 2, OPTION & REPORTING SELECTION**

- |                             |                                          |                  |
|-----------------------------|------------------------------------------|------------------|
| <b>Segment 1</b>            | <b>Segment 2</b>                         | <b>Segment 3</b> |
| ① Quick-Arm                 | ① LED extinguish enable                  | ① Open/Close     |
| ② Re-Exit                   | ② Require user code for bypassing zones  | ② Bypass         |
| ③ Force Arm                 | ③ Bypass sounder alert                   | ③ Restore        |
| ④ Silent Panic              | ④ AC power/low battery sounder alert     | ④ Trouble        |
| ⑤ Audible Panic             | ⑤ Enables bypass toggle                  | ⑤ Tamper         |
| ⑥ Code Pad Fire             | ⑥ Enables silent auto arm                | ⑥ Cancel         |
| ⑦ Code Pad Medical          | ⑦ Enables universal arming               | ⑦ Recent Closing |
| ⑧ Multi Code Attempt Tamper | ⑧ Enables one key partial mode disarming | ⑧ Exit Error     |

**F #.** **Pg** **AREA 2, ENTRY / EXIT TIMERS**

- |                  |                                |               |                  |                                |              |
|------------------|--------------------------------|---------------|------------------|--------------------------------|--------------|
| <b>Segment 1</b> | <input type="text" value="0"/> | Entry Time #1 | <b>Segment 2</b> | <input type="text" value="0"/> | Exit Time #1 |
| <b>Segment 3</b> | <input type="text" value="0"/> | Entry Time #2 | <b>Segment 4</b> | <input type="text" value="0"/> | Exit Time #2 |

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

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

- |                               |                             |                                  |
|-------------------------------|-----------------------------|----------------------------------|
| <b>Segment 1</b>              | <b>Segment 2</b>            | <b>Segment 3</b>                 |
| ① Fire (enable for fire zone) | ① Code Pad audible on alarm | ① Fast Loop Response             |
| ② 24 Hour                     | ② Yelping siren on alarm    | ② Double end of line tamper zone |
| ③ Keyswitch zone              | ③ Steady siren on alarm     | ③ Trouble zone (Day zone)        |
| ④ Handover                    | ④ Chime                     | ④ Twin Trip                      |
| ⑤ Delay 1 zone                | ⑤ Bypassable                | ⑤ Dialer delay zone              |
| ⑥ Delay 2 zone                | ⑥ Group Shunt               | ⑥ Swinger zone                   |
| ⑦ Interior                    | ⑦ Force armable             | ⑦ Restore reporting              |
| ⑧ Local Only                  | ⑧ Entry Guard               | ⑧ Listen-In                      |

**F #.** **Pg** **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-12 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               |
| GROUND FAULT                         | 310               |
| GROUND FAULT RESTORE                 | 310               |
| RECENT CLOSE (user number)           | 401               |
| EXIT ERROR (user number)             | 457               |
| EVENT LOG FULL                       | 605               |
| FAIL TO COMMUNICATE                  | 354               |
| EXPANDER TROUBLE                     | 333               |
| EXPANDER RESTORE                     | 333               |
| TELEPHONE FAULT                      | 351               |
| TELEPHONE RESTORE                    | 351               |
| SIREN TAMPER                         | 321               |
| SIREN RESTORE                        | 321               |
| AUX POWER OVER CURRENT               | 312               |
| AUX POWER RESTORE                    | 312               |
| LOW BATTERY                          | 309               |
| LOW BATTERY RESTORE                  | 309               |
| AC FAIL                              | 301               |
| AC RESTORE                           | 301               |
| BOX TAMPER                           | 137               |
| BOX TAMPER RESTORE                   | 137               |
| CODE PAD KEY PRESS 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 | PART 2 |
|----------|--------|--------|
| 1        | 192    | 193    |
| 2        | 200    | 201    |
| 3        | 208    | 209    |
| 4        | 216    | 217    |
| 5        | 224    | 225    |
| 6        | 232    | 233    |
| 7        | 240    | 241    |
| 8        | 248    | 249    |

### WIRELESS RECEIVER

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

## Troubleshooting System Problems

| Device   | Problem                                                                       | Remedy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Code Pad | <b>Code pad appears dead -no lights or sounds when keys are pressed.</b>      | <ol style="list-style-type: none"> <li>1. Measure the output voltage at the Aux Pwr (+) terminals. Voltage should be above 12.8 VDC.</li> <li>2. Disconnect all devices connected to Aux Pwr (+) terminal leaving only the code pad connected.</li> <li>3. Check for short circuits on devices connected to Aux Pwr (+) terminals.</li> <li>4. Check that AC and Battery are correctly connected to panel.</li> <li>5. Check wiring and connections at code pad &amp; panel.</li> </ol> |
| Code Pad | <b>Code pad lights appear OK, but no functions when the keys are pressed.</b> | <ol style="list-style-type: none"> <li>1. Check the user code you are entering is programmed on the system and is an Arm/Disarm Code.</li> <li>2. Ensure you have set the Code pad No and Area No. That is feature * 94 in section "Programming the Code pad"</li> </ol>                                                                                                                                                                                                                |
| Code Pad | <b>Fire LED flashes rapidly.</b>                                              | <ol style="list-style-type: none"> <li>1. Measure Aux Pwr (+) terminal. Voltage should be above VDC.</li> <li>2. Check Data wire is connected correctly at both ends.</li> <li>3. Smoke detector circuit may have gone into alarm. Press * 7 to reset.</li> <li>4. Try connecting code pads one at a time and see if problem is related to a particular code pad.</li> </ol>                                                                                                            |
| Code Pad | <b>After Exiting from program mode code pad will not accept keypresses.</b>   | <ol style="list-style-type: none"> <li>1. Wait 12 seconds after leaving program mode before entering keypresses at the code pad.</li> </ol>                                                                                                                                                                                                                                                                                                                                             |
| Code Pad | <b>Unable to write custom messages to multiple LCD code pads on system.</b>   | <p><b>Procedure :</b></p> <ol style="list-style-type: none"> <li>1. Ensure you have individually set the Code pad No(s) and Area No(s) for each code pad. That is feature * 94 in section Programming the Code pad"</li> <li>2. Enter and then exit program mode.</li> <li>3. Enter custom message menu, view any message and then exit. That is feature * 92 in section "NX 148 LCD Code pad installation manual.</li> </ol>                                                           |

| System | Service Light "ON" - Pressing * 2 displays Led 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        | <p>Press the (1) key and observe which led comes on to indicate one of the following:</p> <ol style="list-style-type: none"> <li>1. <b>Over Current Fault</b><br/>A Partial short circuit on the Aux Pwr, Smoke power, Horn Speaker, Strobe or Screamer will cause an overcurrent faults. (fuseless design)<br/>Removing the short from the Aux Pwr or Smoke Pwr will fix the overcurrent condition immediately.<br/>If the short is on the horn, Strobe or Screamer you must put the panel into alarm once the fault has been removed to clear the overcurrent condition.</li> <li>2. <b>Siren Trouble</b><br/>The Horn Speaker is open / short circuit or not connected.<br/>The NX panel monitors the siren output for faults and tampering. If a horn speaker is not connected to the panel place a 3K3 resistor across the Bell output to disable Siren Trouble Monitoring.</li> <li>3. <b>Box Tamper</b><br/>The box tamper pins are open circuit or activated. Ensure the box tamper pins are sealed. (closed circuit). Arm and Disarm system to clear box tamper condition.</li> <li>4. <b>Expander Power</b><br/>An expander connected to the system has a short circuit on the Aux output. Expander that can report this condition are power supply (NX320).</li> <li>5. <b>Expander Low Battery</b><br/>An expansion device connected to the NX system has a Low Battery condition. Expander that can indicate low battery conditions: NX320 power supply. Replace Battery.</li> <li>6. <b>Expander Box Tamper</b><br/>An expansion device connected to the NX system has a tamper activated. Check the tamper contacts on the expansion devices connected. Expanders that can indicate box tamper: Code pads, Hardwire zone expanders, Wireless zone expanders.</li> <li>7. <b>Expander Trouble</b> <ul style="list-style-type: none"> <li>▪ Code pads are not number correctly (see * 94 code pad program)</li> <li>▪ Expander connected is not seen by system. Enter and Exit program mode.</li> <li>▪ You are trying to zone double a NX4 panel. (not supported)</li> </ul> <p>Only the NX8, 12, and 16 can be zone doubled.<br/>Any device connected to the data terminal on the NX System can cause an expander trouble condition.</p> </li> <li>8. <b>Reserved</b></li> </ol> |

| System | Service Light "ON" - Pressing * 2 displays Led 2.                                                                                                                                           |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        | <p>Zone Tamper has been activated. Press the (2) key and the zone(s) that activated the tamper will be displayed. Press the (#) key twice to exit. Press * 7 is reset tamper condition.</p> |
| System | Service Light "ON" - Pressing * 2 displays Led 3.                                                                                                                                           |
|        | <p>Low Battery (wireless zones only). Press the (3) key and the wireless zone(s) with low battery will be displayed. Press the (#) key twice to exit.</p>                                   |

|          |                                                                                                                                                                                                                                                                     |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System   | <b>Service Light "ON" - Pressing * 2 displays Led 4.</b>                                                                                                                                                                                                            |
|          | Loss of Supervision (wireless zone only). Press the (4) key and the wireless zone(s) with Loss of Supervision will be displayed. Press the (#) key twice to exit.                                                                                                   |
|          | <b>Service Light "ON" - Pressing * 2 displays Led 5.</b>                                                                                                                                                                                                            |
|          | Zone Trouble. Press the (5) key and the zone that has trouble will be displayed. Zone trouble only applies to Fire type zones. Press the (#) key twice to exit. Press * 7 to reset zone trouble condition.                                                          |
|          | <b>Service Light "ON" - Pressing * 2 displays Led 6.</b>                                                                                                                                                                                                            |
|          | Reserved                                                                                                                                                                                                                                                            |
|          | <b>Service Light "ON" - Pressing * 2 displays Led 7.</b>                                                                                                                                                                                                            |
|          | When light number 7 is lit this indicates that the panel has failed to communicate to the base station. This led can only be extinguished by communicating to the base.<br>Check Phone No, Account Code and Format programming.<br>Press the (#) key twice to exit. |
|          | <b>Service Light "ON" - Pressing * 2 displays Led 8.</b>                                                                                                                                                                                                            |
|          | When light 8 is lit this indicates that the panel has lost time. Press the (#) key twice to exit.<br>To set system time:<br>* 97 (go to program code), enter time (4 digits) Eg 10.30 = 1030                                                                        |
| Code Pad | <b>Zones Led(s) flash rapidly, Arming and Disarming will not clear condition.</b>                                                                                                                                                                                   |
|          | <ol style="list-style-type: none"> <li>1. A zone tamper condition has occurred.</li> <li>2. Press * 7 to reset condition and clear rapid flashing LED's.</li> <li>3. If the zone is still in tamper the * 7 will only clear the condition temporarily.</li> </ol>   |
| Code Pad | <b>Starts beeping and you must enter a code to stop the beeps.</b>                                                                                                                                                                                                  |
|          | <ol style="list-style-type: none"> <li>1. There is a system fault present. Press * 2 to see why the system started beeping.</li> </ol>                                                                                                                              |

## SPECIFICATIONS

|                           |                                             |
|---------------------------|---------------------------------------------|
| OPERATING POWER           | 16.5 VAC 25VA, Transformer                  |
| AUXILIARY POWER           | 12 VDC Regulated 500 mA                     |
| W/25 VA Transformer       |                                             |
| 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<br>10.15cm High<br>2.8cm Deep  |
| LCD CODE PAD DIMENSIONS   | 16.25cm Wide<br>13.45cm High<br>2.50cm Deep |
| METAL ENCLOSURE DIMENSION | 28.60cm Wide<br>28.60cm High<br>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 9 NOWILL STREET CONDELL PARK NSW.

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