Chapter 4: Flash Programming

Flash Programming

✎ FLASH ✎

Flash Programming provides a quick way to program the system when standard options are selected or to provide a basic setup before more advanced programming is performed. Record entry information in the table provided. Instructions are also provided on a peel off label on the unit. To enter Flash Programming from the Ready state enter:

[*] [8] [Installer Code] [1]

☞ *Installer Code default is **[5555]**. See **section [006] in Chapter 5: Advanced Programming** to change this code.*

Upon entering Installer's programming, Armed, Ready and Trouble LEDs and the **Program** icon will flash. There will only be 3 valid keypresses at this time,

[1] to enter Flash Programming,
[2] to enter Advanced Installer's Programming
[#] to exit Installer's Programming.

While in Flash Programming, the Armed, Ready and Trouble LEDs will be ON. Pressing The **Stay** key will take the installer to the next Flash section, and pressing the **Away** key will take the installer to the previous Flash section.

Serial Numbers

The first section of Flash Programming is the area for entering serial numbers. 'Sn00' will be displayed.

`Sn 00`

The '**1**'icon indicates that the system is waiting for the first digit of a wireless device serial number. For each number that is entered, the next icon will turn on, until digit '**6'** is displayed, and the whole serial number is programmed.

☞ To enter hexadecimal digits, enter **[*]**, digits **[1] through [6]** will enter as **[A] through [F]**. Enter **[*]** to return to decimal entry. E.g., To enter SN# 37B007 enter:
[3] [7] [*] [2] [*] [0] [0] [7]

The display will show for 2 seconds what was programmed (**Zn** for Zone, and **Fb** for Wireless key) and which slot (zone or FOB number) it will occupy. The display will then flash **Sn** and scroll through the serial number in groups of 2 digits, indicating which part of the serial number is displayed by the icons that are turned on. If the **Stay** key is pressed during this period, the system will advance to the next available zone number (or key fob number) that you can assign to the serial number you have entered.

Pressing **[1]** to accept, or **[2]** to reject a serial number will return the installer to the beginning of serial number programming until all of the serial numbers have been programmed.

☞ *Refer to:Zone Definitions **section [001] to [004]** Zone Assignment **section [202] to [205]** Wireless Serial Numbers in **section [804]***

Telephone Number

The second section of Flash Programming is the area for the central station phone number. '**Ph00**' will be displayed.

`Ph 00`

Entering digits will not move the icon indicator. When the telephone number is entered, pressing **[#]** or **[F]** will complete the entry. The display will then scroll through the phone number in groups of 2 digits, pause, then restart the phone number. Press **[1]** to accept the phone number or **[2]** to re-enter it.

☞ *This section can be manually programmed in **Advanced Programming, section [301]***

Account Code

The third section of Flash Programming is for the account code to the central station. 'Ac00' will be displayed.
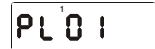
`Ac 00`

Upon entering each digit, the next icon will be on until all 4 digits are programmed and the account code is complete. The display will then flash 'Ac' and scroll through the account code in groups of 2 digits, indicating which digits are being displayed by the icons. Press **[1]** to accept the code or **[2]** to re-enter it.

☞ *This section can be manually programmed in Advanced Programming section **[310]***

Module Placement

The last section of Flash Programming is the placement testing of the wireless zones. The display will show 'PLzz' where zz is the zone number to be tested.

`PL 01`

When a zone is violated and restored, there will be 1 bell squawk for '**Good'**, and 3 bell squawks for '**bad'**. Icon 1 or 3 will turn on to call the latest result. After 3 consecutive Good results, the zone will be enrolled (corresponding option in sections **[202]-[205]** will be enabled), the bell will sound for 2 seconds, and the module placement will go on to the next zone. Pressing the **Stay** key will allow you to skip that zone.

When the last zone has tested Good, Flash Programming is complete, and '**done'** will be displayed.

`donE`
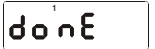
Enter **[#]** to return to the beginning of Advanced Programming.. Enter **[#]** again to exit programming and return to **Ready** mode.

☞ *To perform this manually, the corresponding zone must be enabled in **sections [202]-[205]**. and the **Manual Placement Test** in **section [904]** must be performed.*

Account Information Record

Client_____

Address_____

Telephone_____

Installation Date_____

Central Station Telephone Number

I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I

I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I

Central Station Account Number I__I__I__I__I

Installer's Code I__I__I__I__I

Zone	Serial Number	Location	Zone	Serial Number	Location
01	I__I__I__I__I__I__I	_____	17	I__I__I__I__I__I__I	_____
02	I__I__I__I__I__I__I	_____	18	I__I__I__I__I__I__I	_____
03	I__I__I__I__I__I__I	_____	19	I__I__I__I__I__I__I	_____
04	I__I__I__I__I__I__I	_____	20	I__I__I__I__I__I__I	_____
05	I__I__I__I__I__I__I	_____	21	I__I__I__I__I__I__I	_____
06	I__I__I__I__I__I__I	_____	22	I__I__I__I__I__I__I	_____
07	I__I__I__I__I__I__I	_____	23	I__I__I__I__I__I__I	_____
08	I__I__I__I__I__I__I	_____	24	I__I__I__I__I__I__I	_____
09	I__I__I__I__I__I__I	_____	25	I__I__I__I__I__I__I	_____
10	I__I__I__I__I__I__I	_____	26	I__I__I__I__I__I__I	_____
11	I__I__I__I__I__I__I	_____	27	I__I__I__I__I__I__I	_____
12	I__I__I__I__I__I__I	_____	28	I__I__I__I__I__I__I	_____
13	I__I__I__I__I__I__I	_____	29	I__I__I__I__I__I__I	_____
14	I__I__I__I__I__I__I	_____	30	I__I__I__I__I__I__I	_____
15	I__I__I__I__I__I__I	_____	31	I__I__I__I__I__I__I	_____
16	I__I__I__I__I__I__I	_____	32	I__I__I__I__I__I__I	_____

Notes:

Notes:

Chapter 5: Advanced Programming

This section enables the installer to program all aspects of the system. The default options and descriptions of all programming sections are detailed here.

To access these programming sections, Enter the following from the **Disarmed/Ready** state:

Enter:
[*][8][Installer Code][2][Section Number][Data]

[*][8]	puts the system in Programming; the default code is [5555]
[Installer Code] . . .	
[2]	Selects Advanced Programming
[Section Number] .	3 digit code
[Data]	decimal, hexadecimal data, or toggle ON/OFF
[#]	exits the programming section

Example: To change the Installer Code from the default code to '2424', Enter:

[*][8][5555][2][006][2424]

5-1 Section Overview

[000] Keypad Programming

This section programs the display, function keys and priority keys options. A one digit entry from 1 to 7 is required to enter the sub-sections indicated below. Sub-sections 1-5 program function keys. Sub-section 6 defines general keypad options. Sub-section 7 enables/disables the Fire, Auxiliary, and Panic keys.

00   Null Key - Do nothing.

01&02   Future Use

03   Stay Arm - The system is armed with all Stay/Away zones auto-bypassed regardless of whether or not delay zones are tripped during the exit delay. This key only works while the system is disarmed or armed. The panel will log **Armed in Stay Mode** for this closing type. While Away armed, pressing the Stay key will initiate Exit Delay again, and the **Stay/Away** zones will be automatically bypassed.

04   Away Arm - The system is armed with all Stay/Away zones active regardless of whether or not delay zones are tripped during the exit delay. This key only works while the system is disarmed or **Stay** armed. The panel will log **Armed in Away Mode** for this closing type.
When Stay armed, it will give the user the standard exit delay, thereby allowing the user to leave without actually disarming. The panel will log 'Armed in Away Mode" upon completion of the exit delay. This feature is useful for people using a WLSKEY with Stay/Away keys who wish to have their panel armed at all times.

05   [*][9] No-Entry Arm - After pressing this key, entry of a valid access code is required. Then the system will be Armed with No Entry on Delay zones and all Stay/Away zones auto-bypassed regardless of whether or not delay zones are tripped during the exit delay. This key only works while the system is disarmed. Entry of a valid access code is required following this key to perform the function.

06   [*][4] Chime On / Off - This key enables (3 beeps) and disables (tone) Door Chime the same as pressing **[*][4]**. This key will work while the system is armed or disarmed.

07   [*][6][Master Code][4] System Test
This key will perform the System Test when pressed. It is the equivalent of entering **[*][6][Master Code][4]**. This key only works while the system is disarmed.

08   [*][1] Bypass Mode - *Console Only* - Pressing this key will put the keypad in the zone bypass mode. It is the equivalent of pressing **[*][1]** while disarmed. If an access code is required for bypassing (**section [016], option 5**), the user must enter the access code before entry will be permitted. This key only works while the system is disarmed.

09   [*][2] Trouble Display - *Console Only* - Pressing this key will put the keypad into the Trouble display. It is the equivalent of pressing **[*][2]**. This key will work while the system is armed or disarmed.

10   [*][3] Alarm Memory - *Console Only* - Pressing this key will put the keypad into the Alarm Memory display. It is the equivalent of pressing **[*][3]**. This key only works while the system is disarmed.

11   [*][5] User Programming - *Console Only* - Pressing this key is the equivalent of entering **[*][5]**. A Supervisor or Master access code is required to enter the User Programming menu. This key only works while the system is disarmed.

12   [*][6] User Functions - *Console Only* - Pressing this key is the equivalent of entering **[*][6]**. A Supervisor or Master access code is required to enter the User Functions menu. This key only works while the system is disarmed.

13   [*][7][1] Command Output #1 - Pressing this key is the equivalent of entering **[*][7][1]**. An access code may be required before the output is activated, depending on attribute 5 of the output. This key works when armed or disarmed.

14   [*][7][2] Command Output #2 - Pressing this key is the equivalent of entering **[*][7][2]**. An access code may be required before the output is activated, depending on attribute 5 of the output. This key works when armed or disarmed.

15   Future Use

16   [*][0] Quick Exit - Pressing this key will perform the Quick Exit function (if enabled). It is the equivalent of pressing **[*][0]** while armed. This key only works while the system is armed.This feature is enabled in **section [015], option 3**.

17   [*][1] Activate Stay/Away Zones - Pressing this key will remove the automatic bypass on all Stay/Away zones on the system. It is the equivalent of pressing **[*][1]** while armed. This key only works while the system is armed.

18   Future Use

19   [*][7][3] Command Output #3 - Pressing this key is the equivalent of entering **[*][7][3]**. An access code may be required before the output is activated, depending on attribute 5 of the output. This key works when armed or disarmed.

20   Future Use

21   [*][7][4] Command Output #4 - Pressing this key is the equivalent of entering **[*][7][4]**. An access code may be required before the output is activated, depending on attribute 5 of the output. This key works when armed or disarmed.

27   Disarm (OFF) - *Wireless Only*

28   Fire Alarm - *Wireless Only* - See **section [000] option [07]**

29   Auxiliary Alarm - *Wireless Only* - See **section [000] option [07]**

30   Panic Alarm - *Wireless Only* - See **section [000] option [07]**

[000][1-5] Function Key Assignment (Console)

	Key	Default	Option
[1]	01	03	I___I___I
[2]	02	04	I___I___I
[3]	03	06	I___I___I
[4]	04	17	I___I___I
[5]	05	16	I___I___I

Advanced Programming

[000][6] Keypad Programming

1   ON   Local Clock Display Enabled   □✓

System time will be displayed on the keypad

☞ *The time is not displayed during* ***[*]*** *programming.*

**   OFF   Local Clock Display Disabled**   □

2   ON   Local Clock Displays AM/PM   □✓

**   OFF   Local Clock Displays 24 Hour Time**   □

☞ *Option 1 must be enabled (ON) for these options.*

3   ON   Open Zones Override Clock Display   □

If a zone goes 'Open' on the system the keypad will start scrolling the open zone(s) without the user pressing a key.

**   OFF   Open Zones Do Not Override Display**   □✓

Open zones will not scroll until a key is pressed.

4   Future Use

5   ON   Alarms NOT Displayed While Armed   □

When the system is armed there will be no indication of zones being in alarm. The **Alarm** icon will not turn on and the zones in alarm will not scroll.

**   OFF   Alarms Displayed While Armed**   □✓

When the system is armed there will be a visual indication of zones in alarm. The **Alarm** icon will turn on and the zones in alarm will scroll.

6   ON   Door Chime Enabled for Zone Openings   □✓

If door chime is enabled and a chime zone goes open the chime will sound.

**   OFF   Door Chime Disabled for Zone Openings**   □

If door chime is enabled and a chime zone goes open the chime will NOT sound.

☞ *Door chime is enabled/disabled with* ***[*][4]***

7   ON   Door Chime Enabled for Zone Closings   □✓

If door chime is enabled and a chime zone is restored the chime will sound.

**   OFF   Door Chime Disabled for Door Closings**   □

If door chime is enabled and a chime zone is restored the chime will NOT sound.

☞ *Door chime is enabled/disabled with* ***[*][4]***

8   Future Use

[000][7] Keypad Priority Key Options

1   ON   [F] Key Enable   □✓

Holding the **[F]** Key is two seconds generates a fire alarm.

**   OFF   [F] Key Disable**   □

2   ON   [A] Key Enable   □✓

If the **[A]** Key is held for two seconds an auxiliary alarm is generated.

**   OFF   [A] Key Disable**   □

3   ON   [P] Key Enable   □✓

If the **[P]** Key is held for two seconds a panic alarm is generated.

**   OFF   [P] Key Disable**   □

4   ON   Leading '0' on Clock Displayed   □

**   OFF   Leading '0' on Clock Not Displayed**   □✓

5-8   Future Use

[001]-[004] Zone Definition

Op   Description

00   Null - This zone will not operate in any way. For zones not used and not requiring a closed loop or EOL resistor. Typically used for zones that are not used.

01   Delay 1 - If this zone is violated when the system is armed, it will provide an entry delay. The keypad buzzer will sound to warn the user that the system must be disarmed. If the system is not disarmed before the entry delay expires, an alarm will be generated. Typically this type of zone will be used for the front door or any other entry/exit point. Refer to **section [005] , 'System Times'**, to program this delay.

02   Delay 2 - This zone operates the same as Delay 1 but provides a different entry delay. Typically this zone will be used for a garage door. Refer to **section [005] , 'System Times'**, to program this entry delay.

03   Instant - If this zone is violated when armed, it will cause an instant alarm. Typically this zone is used for windows and other perimeter type zones.

04   Interior - If this type of zone is violated when the system is armed it will follow entry delay if a delay type zone was violated first. Otherwise it will cause an instant alarm. Typically this zone type is used for interior protection devices such as motion detectors.

05   Interior Stay/Away - This zone works the same as the Interior zone type except that the zone will be bypassed under the following conditions:
- the system is armed in Stay mode.
- the system is armed without entry delay.
- the system is armed with an access code and during the exit delay, a Delay zone is NOT tripped.
The automatic bypass avoids having the user manually bypass interior type zones when arming at home. If automatically bypassed, the user can reactivate the zones by entering the **[*][1]** command (see **[*][1] Zone Bypassing**. Typically this zone type is used for interior protection devices such as motion detectors.

06   Delay Stay/Away This zone will operate the same as the Interior Stay/Away zone except that it will always provide entry delay. Typically this zone is used for interior protection devices such as motion detectors and will help prevent false alarms since it will always provide the user with the entry delay time to turn off the system.

07-09 Future Use

10   24-Hr Supervisory Buzzer - This zone is active at all times and will report an alarm at all times. When tripped the keypad buzzer will sound until a valid access code is entered.

☞ *Do **NOT** use on a keyswitch only system.*

11   24-Hr Burglary - This zone is active at all times and will report an alarm if armed or disarmed. This zone will sound the bell for the length of **Bell Cutoff** if the audible attribute is enabled.

12   24-Hr Holdup - Similar to 24-Hr Burglary except for System Event output type and SIA identifier.

☞ *This zone gives a silent alarm by default*

13   24-Hr Gas - Similar to 24-Hr Burglary except for System Event output type and SIA identifier.

14   24-Hr Heat - Similar to 24-Hr Burglary except for System Event output type and SIA identifier.

15   24-Hr Medical - Similar to 24-Hr Burglary except for System Event output type and SIA identifier.

16   24-Hr Panic - Similar to 24-Hr Burglary except for System Event output type and SIA identifier.

17   24-Hr Emergency. - Similar to 24-Hr Burglary except for System Event output type and SIA identifier.

18   24-Hr Sprinkler - Similar to 24-Hr Burglary except for System Event output type and SIA identifier.

19   24-Hr Water - Similar to 24-Hr Burglary except for System Event output type and SIA identifier.

20   24-Hr Freeze - Similar to 24-Hr Burglary except for System Event output type and SIA identifier.

21   24-Hr Latching/Tamper - If this zone is violated, the system will not arm until **[*][8][Installer's Code]** is entered.

22   Momentary Keyswitch Arm - Momentary violations of this zone will alternately arm/disarm the system. *Do not use with wireless zones.*

23   Maintained Key Switch Arm - When zone is violated, the system will arm. When zone is secured, the system will disarm.
NOTE: *Do not use with wireless zones.*

24   Future Use

25   Interior Delay - When the system is fully armed (i.e., Away Armed) this zone will follow exit delay. It will also follow the entry delay, provided that the delay zone is tripped first; otherwise it will go into alarm instantly. When the system is **Stay Armed**, this zone will be active, but when it is tripped, it will initiate the entry delay.

26   24-Hr Non-Alarm Zone - This zone does not sound a bell, nor transmit any alarm condition to the central station. Can be used to sound the door chime.

87   Delay 24-Hr Fire (Wireless) - Used only with wireless smoke detectors.Delayed 24-Hr Fire (Wireless) works the same way as the standard fire zone, except the alarm memory and transmission by the communicator is delayed by 30 seconds. If the alarm is acknowledged by pressing any key within 30 seconds, the bells will silence and the transmission will be aborted. After the alarm has been acknowledged, and the smoke detector has not been restored to normal, after 90 seconds the bell output will be activated again; the user then has another 30 second delay before the bell output latches and communications is activated. A code would then be required to silence the bell output.

☞ *The Fire Delay will be terminated if a 2nd fire zone is tripped or if the **[F]** key is pressed during a delay.*

88   Standard 24-Hr Fire (Wireless) - Used only with wireless smoke detectors. On alarm, the bell output will sound to indicate that the fire loop has been activated. If enabled, the communicator will immediately transmit the alarm to the monitoring station.

☞ *Do NOT change the default settings for Zone Attributes on Fire type zones.*

Advanced Programming

[001] - [004] Zone Definitions   ⚟ FLASH ⚟

This section requires 32 two digit entries. Each two digit entry deter-
mines how the zone will operate. See **Zone Definitions** on the pre-
ceding page and **Zone Attributes section [101]-[132]**.

Section	Zone	Default	Zone Definition
[001]	01	01	I__I__I
	02	03	I__I__I
	03	03	I__I__I
	04	03	I__I__I
	05	04	I__I__I
	06	04	I__I__I
	07	04	I__I__I
	08	04	I__I__I
[002]	09	00	I__I__I
	10	00	I__I__I
	11	00	I__I__I
	12	00	I__I__I
	13	00	I__I__I
	14	00	I__I__I
	15	00	I__I__I
	16	00	I__I__I
[003]	17	00	I__I__I
	18	00	I__I__I
	19	00	I__I__I
	20	00	I__I__I
	21	00	I__I__I
	22	00	I__I__I
	23	00	I__I__I
	24	00	I__I__I
[004]	25	00	I__I__I
	26	00	I__I__I
	27	00	I__I__I
	28	00	I__I__I
	29	00	I__I__I
	30	00	I__I__I
	31	00	I__I__I
	32	00	I__I__I

[005] System Times

	Default		
Entry Delay 1	030	I__I__I__I__I	(000 - 255) seconds
Entry Delay 2	045	I__I__I__I__I	(000 - 255) seconds
Exit Delay	120	I__I__I__I__I	(000 - 255) seconds
Bell Cut-off	004	I__I__I__I__I	(000 - 255) minutes

[006-008] Access Codes

☞ *All codes can be either 4 or 6 digits in length. The default is 4
digits. See **section [701], option 5.***
*User codes and Duress codes are programmed via **[*][5]** pro-
gramming.*

[006] Installer's Code

Change value to prevent unauthorized access to system.

Default   5555   I__I__I__I__I__I__I

[007] Master Code   [*]Function

The Master Code can perform any function. This code can be used
to program all access codes including the duress codes. If the **Mas-
ter Code Not Changeable** option in **section [015][6]** is enabled,
users will not be able to change the Master code.

Default   1234   I__I__I__I__I__I__I

[008] Maintenance Code

This is an Arm/Disarm only code. It cannot be used to activate **[*][7]**
outputs, program other user codes or enter the **[*][6]** menu. Open-
ings or closings using this code report as a **Special Opening/Clos-
ing** and will log to the event buffer as **Maintenance Code**.

Default   AAAA   I__I__I__I__I__I__I

[009-011] PGM Output Programming

PGM Outputs 1, 2	Programmed in section **[009]**. Attributes are programmed in sections **[141]**, **[142]**
PGM Outputs 11, 12, 13, 14	Programmed in **section [011]**. Attributes programmed in sections **[151]-[154]**

Unless indicated otherwise, attributes are as indicated below.
Attribute numbers not mentioned in the default section have
no impact on operation and are typically defaulted **OFF**.

Attribute	Function	
	ON	**OFF**
1	Enabled	Disabled
2	Future Use	
3	True Output	Inverted Output
4	Output Pulsed	ON/OFF
5	Code Required	No Code Required
6-8	Future Use	

01   **Fire and Burglary Output -** causes the PGM output to switch to ground upon any bell activity. The output will be pulsed or steady depending on the type of bell activity. The output follows the time programmed for the bell time-out.
Default Attributes: 1,3 **ON**   2 **OFF**
See **sections [005] option [4]** and **[014] option [8].**

02-04 **Not Used**

05   **Armed Status -** The PGM output switches to ground when the system is armed (beginning of the exit delay). The output goes high (open) when the panel is disarmed.
Default Attributes: 1,3 **ON**   2,5 **OFF**

06   **Ready to Arm -** The PGM output switches to ground as long as the system is Ready to Arm (all non force-armable zones on the system are restored). Once an access code is entered to arm the system and the exit delay begins, the PGM output is deactivated.
Default Attributes: 1,3 **ON**   2 **OFF**

07   **Keypad Buzzer Follow Mode -** The PGM output will go low when the keypad buzzer is activated by the events described below. The PGM output will go low for as long as the keypad buzzer is active.
- 24-Hr Supervisory Buzzer Zone
- Auto-arm Pre-alert (1 minute)
- Entry Delay
- Door Chime
Default Attributes: 1,3 **ON**   2 **OFF**

08   **Courtesy Pulse -** This option provides an output which follows the entry and exit times. It can be used to turn on a courtesy light near the exit door for the duration of the entry/exit times. Upon activation during an entry delay, the output will remain active for 2 minutes past the entry or exit times to allow enough time for complete and safe entry or exit to or from the premises.
Default Attributes: 1,3 **ON**   2 **OFF**

09   **System Trouble Output (with Trouble Options) -** The PGM output switches to ground when any of the selected Troubles are detected on the system. The output will deactivate when all of the selected Troubles are restored. The attributes normally programmed in sections **[141] to [154]** are replaced with the following options.
Default Attributes: ALL **ON**

Attribute	Function
1	Service Required
2	A.C. Fail
3	Telephone Line Monitoring (TLM) Fault
4	Communications (Failure to Communicate)
5	Zone (Fire) Fault
6	Zone Tamper
7	Zone Low Battery
8	Loss of Clock

10   **System Event (with Event Options) - Latched System Event (Strobe).** The PGM output switches to ground when *any* of the selected System Events (Alarms) occur on the system. In the Armed state, the output will deactivate only when an access code is entered to disarm the system. If an alarm activates this output in the disarmed state, it will deactivate if a code is entered during bell timeout or if the system arms after bell timeout. It can be used to indicate that an alarm has occurred before entering the premises. The attributes normally programmed in **sections [141] to [154]** are replaced with the following options.
Default Attributes: 1-7 **ON**   8 **OFF**

Attribute	Function
1	**Burglary** - Delay, Instant, Interior, Home Away, and 24-Hr Burglary Zones
2	**Fire - [F]** Key, Fire Zone
3	**Panic - [P]** Key, and Panic
4	**Medical** - **[A]** Key, Medical and Emergency zones
5	**Supervisory** - Supervisory, Module Supervisory, Auxiliary, Freeze, and Water Zones
6	**Priority** - Gas, Heat, Sprinkler and 24-Hr Latching Tamper Zones
7	**Holdup** - Holdup Zones and Duress Alarms
8	**Latched** - Follows Output timer.

11   **System Tamper (all sources) -** The PGM output switches to ground when *any* Tamper condition occurs on the system. The output will deactivate when *all* Tamper conditions on the system are restored. These tampers include zone tampers (DEOL), 24-Hr latching tamper zone type and module tampers.
Default Attributes: 3 **ON**

12   **TLM and Alarm -** The PGM output switches to ground when there is a Telephone Line fault and any alarm on the system. In the armed state the output will deactivate only when an access code is entered to disarm the system. If an alarm activates this output in the disarmed state, it will deactivate when the system is armed or the telephone line is restored.
Default Attributes: 3 **ON**

☞ *This output will activate for all silent and audible alarms except Duress.*

13   **Kiss-off Output -** The PGM output switches to ground after the kissoff signal has been received to complete a successful communication to the central station. The output will switch to ground for 2 seconds.
Default Attributes: 3 **ON**

14   **Ground Start Pulse -** This option provides a 2-second output pulse before dialing begins to obtain the dial tone on Ground Start telephone equipment.
☞ *Two 2 Second Pauses must be inserted in the phone number when using the Ground Start pulse.*
Default Attributes: 3 **ON**

15   **Remote Operation -** This option allows the PGM output to be activated on command through the DLS-3 downloading software package.
Default Attributes: 3 **ON**

Advanced Programming

16 Not Used

17 Away Armed Status - Both output types **[17]** and **[18]** are designed to follow the status of the Stay/Away zones. If the system is armed with Stay/Aways bypassed, the Stay output should be active. If the system is armed with the Stay/Aways active, the Away output should be active. Therefore, the following is how all arming techniques will work.
Default Attributes: 1,3 **ON**   2 **OFF**

STAY Key	Stay
*9 + Code	Stay
AWAY Key	Away
Keyswitch Arm	Depends on Delay Type Zone during the Exit Delay
*0 Quick Arm	Depends on Delay Type Zone during the Exit Delay
Access Code Arm	Depends on Delay Type Zone during the Exit Delay
DLS arm - Away	Away
Auto-arm - Away	Away
Stay armed, then *1 -	Away

18 Stay Armed Status - See Away Armed Status Type [17]
Default Attributes: 1,3 **ON**   2 **OFF**

19 Command Output #1 [*][71] - When activated by entering the **[*][71]** command, the PGM type will activate according to how it is configured by its corresponding attributes.
Default Attributes: 1,3,4,5 **ON**   2 **OFF**

20 Command Output #2 [*][72] - When activated by entering the **[*][7][2]** command, the PGM type will activate according to how it is configured by its corresponding attributes.
Default Attributes: 1,3,4 **ON**   2,5 **OFF**

21 Command Output #3 [*][73] - When activated by entering the **[*][7][3]** command, the PGM type will activate according to how it is configured by its corresponding attributes.
Default Attributes: 1,3,4 **ON**   2,5 **OFF**

22 Command Output #4 [*][74] - When activated by entering the **[*][7][4]** command, the PGM type will activate according to how it is configured by its corresponding attributes.
Default Attributes: 1,3,4 **ON**   2,5 **OFF**

☞ *If there are multiple outputs programmed with the same output type, the output options must be the same.*

23-24 Not Used

25 Delayed Fire and Burglary Output - This programmable output type operates the same as the Fire and Burglary Output (Type 01), except it follows the Transmission Delay Timer found in **section [370]**. If a zone is violated that has the TX Delay Attribute enabled (Bit 7), the Bell and Regular Fire and Burg PGMs will activate. At the end of the Transmission Delay, this PGM type will activate.
☞ *If a zone is violated that causes an alarm that does not have Tx Delay enabled, these outputs will activate immediately.This Output will activate for Audible Exit Fault*
Default Attributes: 1,3 **ON**   2 **OFF**

[009] PGM Output Programming (PGM 1,2) NT9005

	Default	
PGM 1	19	I___I___I
PGM 2	10	I___I___I

☞ *PGMs in this section must have the corresponding zone in **section [30]** set to **[00]***

[011] PGM Output Programming (PGM 11-14) NT9204

	Default	
PGM 11	01	I___I___I
PGM 12	01	I___I___I
PGM 13	01	I___I___I
PGM 14	01	I___I___I

☞ *If this module is connected, then the outputs for the PGMs in **section [009]** become part of the Keybus connecting to this module. Refer to paragraph 2-3.*

[012] Keypad Lockout Options

The system can be programmed to lock out keypads if a series of incorrect access code entries is made. After the **Number of Invalid Codes** has been reached the system will lockout the keypad for the **Lockout Duration** and log the event to the event buffer. For the duration of the lock out, the system wil sound an error tone when any key is pressed. The invalid code counter will reset every hour. To disable Keypad Lockout, program **Number of Invalid Codes** as **[000]** (default).

Number of Invalid Codes	000	I___I___I___I	**(000 - 255)**
Lockout Duration	000	I___I___I___I	**(000 - 255) minutes**

☞ If Keypad Lockout is active the system cannot be disarmed with a keyswitch.

[013] First System Option Codes

1   ON   Hardwired Zones Normally Closed   ☐

All zones are wired as normally closed circuits between **Y1** or **G2** terminals and the **B** terminal. The end-of-line resistor is not required. An alarm will be generated when the circuit is opened.

  OFF   Hardwired Zones use EOL Resistors   ☐✔

All zones must be wired with an end-of-line resistor between the **Y1** or **G2** terminals and the **B** terminal. An alarm will be generated when the circuit is opened or shorted.

2   ON   Double End-of-line Resistors   ☐

All zones will use double end-of-line resistors. Double EOL resistors offer the capability of detecting zone faults and tampers. The tamper resistor (5600Ω) is placed across the alarm activating device, and the single EOL resistor (5600Ω) is placed between the alarm and tamper contacts. This configuration will allow the panel to detect zone faults (zone shorted), zone tampers (open zone), zone alarms (11200Ω), and restored zones (5600 Ω). If the zone is disarmed and placed in the tamper (open) or fault (short) state, the bell will generate trouble beeps on the system keypad until a key is pressed. A zone tamper will be sent to the monitoring station if programmed. If **section [701] option 4** is **ON** (Latching System Tampers), any system tamper will cause arming to be inhibited until the tamper is restored and the Installer's code is entered **[*][8][Installer's Code]**. If the zone is armed and a tamper is activated, it will transmit and log both the tamper alarm and the zone alarm. The zone will begin its normal alarm sequence (alarm, bell, etc.).

OFF   Single End-of-line Resistors   ☐✓

All zones must have a 5600Ω resistor across them. If the zone is shorted or open, it will be in the violated state. If the zone is open and programmed as a fire zone, it will be in the trouble state.

3   ON Panel Shows all Troubles While Armed   ☐✓

The panel will turn on the **Trouble** LED when any troubles are present on the system in both the armed and disarmed state.

OFF   Panel Shows Fire Troubles While Armed. ☐

The panel will illuminate the **Trouble** LED for all troubles while disarmed, but will only illuminate the LED for Fire Troubles while armed.

4   ON   Tampers/Faults do not Show as Open   ☐

The Panel will not display the corresponding zone if the zone is in the tamper or fault states. Only the **Trouble** LED will light.

OFF   Tampers/Faults show as Open   ☐✓

5   Future Use

6   ON   Audible Exit Fault Enabled   ☐✓

If a non force-armable Delay 1 or Delay 2 type zone is left open at the end of the Exit Delay, the Entry Delay will begin immediately and the bell or siren will sound a steady alarm for the time programmed as bell timeout. This feature is intended to alert the user that the system has been armed incorrectly.

OFF   Audible Exit Fault Disabled   ☐

For **[*][9]** arming, if Audible Exit fault is enabled, a violated zone will begin Entry Delay as indicated. If this option is disabled, a violated delay zone at the end the Exit Delay will cause an instant alarm.

7   ON   Event Buffer follows Swinger Shutdown   ☐✓

When an event reaches the swinger shutdown limit programmed in **section [370]**, it will not log events to the event buffer and communicate them to the central station, until swinger shutdown is reset. This prevents the panel from overwriting the buffer with useless events and flooding the central station with calls.

☞ *The event buffer can be uploaded with DLS-3 software.*

OFF   Event Buffer logs Events past Shutdown ☐

8   ON   Temporal 3 Fire Signal Enabled   ☐

All fire bells will sound in the three temporal pattern described in NFPA 72 (0.5 seconds ON, 0.5 seconds OFF, 0.5 seconds ON, 0.5 seconds OFF, 0.5seconds ON, 1.5 seconds OFF).

OFF   Standard Pulsed Fire Signal   ☐✓

All fire bells will sound with the standard 1 sec ON, 1 sec OFF fire bell cadence.

☞ *Zone definitions **[87], [88]**, and **[F]** key will use this if enabled.*

[014] Second System Option Codes

1   ON   Bell Squawk on Arm/Disarm Enabled   ☐

The bell will sound a single squawk when armed in any manner, and a double squawk upon disarming the system. If there are alarms in memory, the bell will emit a series of three squawk pairs to indicate the alarm memory.

OFF   Bell Squawk on Arm/Disarm Disabled   ☐✓

The bell output will not squawk when the system is armed or disarmed in any way.

2   ON   Bell Squawk During Auto-arm Enabled   ☐

The bell output will sound a single squawk every 10 seconds during the 1 minute Auto-arm pre-alert time.

OFF   Bell Squawk During Auto-arm Disabled   ☐✓

The bell output will not be activated during the 1-minute Auto-arm pre-alert time.

3   ON   Bell Squawk On Exit Delay   ☐

The bell output will squawk once per second during the Exit Delay time. The bell will also sound 3 squawks per second for the final 10 seconds.

OFF   No Bell Squawk On Exit Delay   ☐✓

This audible option does not apply to Stay and No Entry Arming Modes.

Advanced Programming

4   ON   Bell Squawk On Entry Delay   ☐

The bell output will pulse with the same timing as the keypad buzzer during the Entry Delay time.

OFF   No Bell Squawk On Entry Delay   ☐✔

5   ON   Bell Squawks On Trouble   ☐

Whenever there is a Trouble condition annunciated on the system keypads, the bell will squawk 2 times every 10 seconds (as per the keypad buzzer). The bell will be silenced when the keypad beeps are silenced (any key pressed on keypad).

OFF   No Bell Squawks On Trouble   ☐✔

6   ON   Audible Exit With Urgency   ☐✔

The keypad will sound a pulsing tone (once per second) during the Exit Delay. For the last 10 seconds of the Exit Delay, the keypad and bell/siren (if enabled) will sound a different tone (3 tones per second).

OFF   Silent Exit Delay   ☐

7   ON   Exit Delay Termination Enabled   ☐

The Exit Delay will be terminated when a Delay 1 Zone for the entry/exit door or area is restored. Audible options associated with the Exit Delay will be silenced when the Exit Delay is terminated. Force-Armable Delay 1 type zones will also terminate the Exit Delay.

OFF   Exit Delay Termination Disabled   ☐✔

The Exit Delay timer will continue to count even after the Delay Zone for the entry/exit door or area is restored. All audible options associated with the Exit Delay will function until the time programmed for the Exit Delay has elapsed.

8   ON   Fire Bell is Continuous   ☐

For all Fire type alarms, the bell output will sound until an access code is entered to silence the alarm or disarm the system regardless of the time programmed for bell timeout in **section [005].**

OFF   Fire Bell follows Timeout   ☐✔

For all Fire type alarms, the bell output will sound for the length of bell timeout or until an access code is entered.

[015] Third System Option Codes

1   ON   [F] Key Enabled   ☐✔

Pressing and holding the **[F]** key for 2 seconds will generate a Fire alarm. The keypad will sound a set of 3 beeps to acknowledge the valid alarm and the bell or siren will sound with a pulsing tone for the length of bell timeout. An alarm reporting code (if programmed) will be transmitted.

☞   *If enabled, this key will generate alarms at all times.*

OFF   [F] Key Disabled   ☐

The **[F]** key will not sound or report an alarm when pressed.

2   ON   [P] Key Audible (Bell/Beeps)   ☐

When a valid **[P]** key alarm is generated, the keypad buzzer will sound a series of 3 beeps to acknowledge the alarm and the bell or siren will sound for the length of bell timeout.

OFF   [P] Key Silent   ☐✔

When a valid **[P]** key alarm is generated, the keypad buzzer and the bell output will remain silent, but the alarm will still be transmitted (if programmed).

3   ON   Quick Exit Enabled   ☐✔

When armed, users may enter the **[*][0]** command to allow a single Delay 1 or Delay 2 zone to be activated so they may leave the premises. Only one Delay zone may be activated; any additional activity on another Delay zone will cause its respective alarm sequence. If the Delay zone is still open two minutes after the **[*][0]** command is entered, the Entry Delay will begin. If armed in the **Stay** mode, the automatic bypass on **Stay/Away** zones will not be removed.

OFF   Quick Exit Disabled   ☐

**4   ON   Quick Arming Enabled/Function Keys Do   ☐✔
           Not Require Code**

[*][0] arming and Stay/Away function keys may be used to arm the system without the entry of a valid access code.

OFF   Quick Arming Disabled/Function Keys   ☐
        Require Code

[*][0] arming is not permitted. All Arming keys require an access code.

5   ON   Code Required for Bypassing   ☐

After entering the **[*][1]** Bypass Zones Command, an access code must be entered before zones may be bypassed.

OFF   No Code Required for Bypassing   ☐✔

Enter the **[*][1]** Bypass Zones Command to bypass zones.

6   ON   Master Code Not Changeable   ☐

The Master Code (Access Code 40) may not be changed by the user, and may only be programmed in the Installer's Programming mode.

OFF   Master Code Changeable   ☐✔

The Master Code (#40) may be programmed by the user using the **[*][5][Master Code]** command. The Master Code may also be programmed in **section [007].**

7   ON   Telephone Line Monitor (TLM) Enabled   ☐✔

The TLM function will be active and the system will indicate a Trouble #3 condition when using the **[*][2]** View Trouble Conditions Command.

OFF   Telephone Line Monitor (TLM) Disabled   ☐

The TLM function will be shut off and telephone line troubles will not be indicated by the system.

8   ON   TLM Audible when Armed   ☐

When the system is disarmed, a telephone line monitor trouble will generate a trouble indication as described above. If the system is armed, a telephone line monitor trouble will generate an audible alarm on the bell or siren for the duration of bell timeout or until an access code is entered.

OFF   TLM Trouble Only when Armed   ☐✔

A telephone line trouble will generate a trouble indication, the Trouble LED will come **ON**, and the keypad sounder will beep until a key is pressed.

[016] Fourth System Option Codes

1   ON   AC Trouble Displayed   ☐✓

If AC power fails, the condition will be reported to the monitoring station and will be indicated as a Trouble condition on the system keypad.

OFF   AC Trouble NOT Displayed   ☐

If AC power fails, the condition will be reported, but the Trouble LED will not light on the system keypad. If **[*][2]** is entered to view the system troubles, Trouble #2 will still be displayed.

2   ON   Trouble Light Flashes if AC Fails   ☐✓

Whenever AC power is lost from the system, the Trouble LED will flash in the Ready and Armed modes within 30 seconds after power is lost. When AC restores, the Trouble LED will stop flashing within 30 seconds. If enabled, this option will override the AC display option.

OFF   Trouble Light does not follow AC Status   ☐

3   ON   Blank Keypad when not used   ☐

If no keys are pressed for 30 seconds, all keypad lights turn OFF and the display will blank until the next keypress, Entry Delay, audible alarm or keypad buzzer condition.

OFF   Keypad always Active   ☐✓

The keypad lights will remain ON at all times.

4   ON   Code Req'd to Remove Keypad Blanking   ☐

Before a blanked keypad can be used, a valid access code must be entered.

OFF   No Code Required   ☐✓

Pressing any key on a blanked keypad will remove the blanking.

5   Future Use

6   ON   Power Save Mode Enabled   ☐

If AC power fails, all keypad lights will be shut OFF. The keypad lights will come back ON after a keypress, Entry Delay, audible alarm or keypad buzzer condition except Door Chime). The keypad lights will return to the off state after 30 seconds of keypad inactivity.

OFF   Power Save Mode Disabled   ☐✓

7   ON   Bypass Status displayed While Armed   ☐

The Bypass status light will be ON if there are zones bypassed when the system is armed.

OFF   Bypass Status NOT displayed While Armed   ☐✓

The Bypass light will be ON only while the system is disarmed to indicate that there are bypassed zones on the system. When the system is armed, the Bypass light will be OFF.

8   Future Use

[017] Fifth System Option Codes

1   ON   WLS Key does not use Access Code   ☐✓

The panel will NOT accept the disarm keycode from an unidentified wireless key. An access code must be used with a wireless key for proper operation.

OFF   WLS Key uses Access Code   ☐

The panel will accept the disarm keycode from an unidentified wireless key, allowing arming/disarming without a code.

☞ *Access codes for keys 1-16 are programmed in *Star 5 Functions ([*][5][17]-[32]).*

2   ON   Auto-arm Schedule in [*][6]   ☐✓

This enables the user to access auto-arming by day in the **[*][6]** menu. When ON, the user may select the day by pressing 1 to 7 for Sunday to Saturday.

OFF   Auto-arm Schedule in Installer Programming Only   ☐

The user can not access auto arming in the **[*][6]** menu.

3   Future Use

4   ON   Double Hit Enabled   ☐

When this option is enabled, two alarms from the same zone will cause the Burglary Verified Police Code to be logged and transmitted. This feature only applies to zones defined as Interior, Interior Delay, Interior Stay/Away, or Delay Stay/Away (PIR zones). This is an extension of the existing Police Code

☞ *This feature is directly affected by the Burglary Verified Timer.*

OFF   Double Hit Disabled   ☐✓

5   ON   Late to Close Enabled   ☐

This determines if the **Late to Close** reporting code is sent at the end of the Auto-arm/Postpone pre-alert. If the auto-arm toggle option is disabled, the Auto-arm pre-alert must still occur if there is a time programmed for that day if this option is enabled. This option does not directly affect the operation of auto-arm.

This feature is used in installations that require an audible warning if the panel is not armed by a certain time of day, Anyone who hears this warning should in turn manually arm, or contact the central station to let them know why the panel has not been armed by the programmed time.

OFF   Late to Close Disabled   ☐✓

6   ON   Daylight Savings Time Enabled   ☐

OFF   Daylight Savings Time Disabled   ☐✓

7   Future Use

8   ON   Arm/Disarm Squawk only on Away Arm   ☐

If section [014] option [1] is enabled, the bell will squawk during **Away** arming and when disarming from **Away** mode.

OFF   Arm/Disarm Squawk on all Arming types   ☐✓

If section [014] option [1] is enabled, the bell will always squawk when arming and disarming.

Advanced Programming

[018] Sixth System Option Codes

1   ON   Keybus Enabled   ☐

Keybus Expansion Enabled. The two flexible ports are set to run external Keybus for module support.

   OFF   PGM/Zones Enabled   ☑✓

2   ON   RF Jam Logs after 5 minutes   ☐

An RF Jam trouble will be indicated in [*][2][1] icon 6 after 30 seconds, but will log and transmit a General System Trouble [*][2][1] icon 3 after a 5 minute delay.

   OFF   RF Jam Logs after 15 Seconds   ☑✓

RF Jam will Log/Transmit and indicate in [*][2][1] icon 6 after 15 seconds.

3   ON   Tampers Sound Buzzer while Disarmed   ☐

When a tamper occurs on the system, and the system is in a disarmed state, the buzzer will latch on until a valid access code is entered.

   OFF   Tampers Do NOT sound Buzzer   ☑✓

4   ON   Audible Exit with Urgency (Stay)   ☐

The keypad will sound a pulsing tone (once per second) during the Exit Delay. For the last 10 seconds of the Exit Delay, the keypad and bell/siren (if enabled) will sound a different tone (3 tones per second).

   OFF   Silent Exit Delay (Stay)   ☑✓

5   ON   Wireless Key Disarm During Entry Only   ☐

Entry delay must be active for wireless key disarm to work.

   OFF   Wireless Key Disarm Always   ☑✓

6   ON   RF Jam Trouble Beeps after 15 seconds   ☐

General system trouble from RF jam detection is audible.

   OFF   RF Jam Trouble Silent   ☑✓

General system trouble from RF jam detection is silent

7   Future Use

8   ON   RF Jam Trouble Disabled   ☑✓

The system will ignore RF interference.

   OFF   RF Jam Trouble Enabled   ☐

The system will monitor for RF noise or signals that will block wireless transmissions to the unit.

[019] Seventh System Option Codes

1   Future Use

2   ON   Communications During Walk Test   ☐

Zone Alarms/Tampers/Restores will communicate during Installer's Walk Test

   OFF   NO Communications During Walk Test   ☑✓

Zone Alarms/Tampers/Restores will NOT communicate during Installer's Walk Test

3-8   Future Use

[030] Hardwired Zone Assignments

This two digit entry indicates which zones will be hardwired zones. The first entry is for zone 1, the second entry is for zone 2.

| Default | 00 | I__I__I | Valid entries are zones 01-32 |
| | 00 | I__I__I | 00 disables the zone |

[031] Hardwired Zone Loop Response Time

This three digit entry determines how fast the zone will respond to changes in state. The first entry is for zone 1, the second entry is for zone 2. Do **NOT** enter '**000'**. Default is 500 ms.

| Default | 072 | I__I__I__I | Valid entries (001-255) |
| | 072 | I__I__I__I | Time = Entry x 7 ms. |

[101]-[132] Zone Attributes

Each zone operates according to the zone definition selected for it in **section [001] - [004]** or assigned to it during Flash Programming. The following table lists the default attributes for each zone type. This section allows the installer to customize the zone attributes for specific zones.

1   Audible/Silent - Activates/deactivates alarm output.

2   Steady/Pulsed - Determines if alarm output is steady or pulses 1 second ON, 1 second OFF

3   Activate Chime - Enables zone to activate the chime feature.

4   Bypass Enable - Enables zone to be manually bypassed.

5   Force Arm Enable - Determines if the system can be armed with the zone violated. At the end of Exit Delay, if this type of zone is violated, it will be ignored by the system. When the zone is secured it will be added back into the system. This zone is typically used for garage doors.

☞ *24-Hr Zones must not have Force Arm enabled.*

6   Swinger Shutdown Enable - Determines if the system will shutdown the communicator for the zone after the swinger limit is reached.

7   TX Delay Enable - Determines if the system will delay communicating the alarm reporting code to the central station.

8   Wireless Zone - Allows the system to generate low battery trouble and zone supervisories.

☞ *This must be enabled for enrolled wireless devices*

[101] -[132] Zone Attributes

Zone Attribute Defaults:
✓ = Option ON
✗ = Option OFF

Zone Type	Audible Silent 1	Steady Pulsed 2	Chime 3	Bypass 4	Force Arm 5	Swing 6	Tx Delay 7	Wireless Zn. 8
00 Null Zone	✗	✗	✗	✗	✗	✗	✗	✗
01 Delay 1	✓	✓	✓	✓	✗	✓	✗	✓
02 Delay 2	✓	✓	✓	✓	✗	✓	✗	✓
03 Instant	✓	✓	✓	✓	✗	✓	✗	✓
04 Interior	✓	✓	✗	✓	✗	✓	✗	✓
05 Int. Stay/Away	✓	✓	✗	✓	✓	✓	✗	✓
06 Dly Stay/Away	✓	✓	✗	✓	✓	✓	✗	✓
10 24-Hr Supv. Buzzer	✗	✓	✗	✓	✗	✗	✗	✓
11 24-Hr Burglary	✓	✓	✗	✓	✗	✗	✗	✓
12 24-Hr Holdup	✗	✓	✗	✗	✗	✗	✗	✓
13 24-Hr Gas	✓	✗	✗	✗	✗	✗	✗	✓
14 24-Hr Heating	✓	✗	✗	✗	✗	✗	✗	✓
15 24-Hr Medical	✓	✓	✗	✗	✗	✗	✗	✓
16 24-Hr Panic	✓	✓	✗	✗	✗	✗	✗	✓
17 24-Hr Emergency	✓	✓	✗	✗	✗	✗	✗	✓
18 24-Hr Sprinkler	✓	✓	✗	✗	✗	✗	✗	✓
19 24-Hr Water	✓	✓	✗	✗	✗	✗	✗	✓
20 24-Hr Freeze	✓	✓	✗	✗	✗	✗	✗	✓
21 24-Hr Latching Tamper	✓	✓	✗	✗	✗	✗	✗	✓
22 Momentary Keyswitch	✗	✗	✗	✗	✓	✗	✗	✗
23 Maintained KeySwitch	✗	✗	✗	✗	✓	✗	✗	✗
25 Interior Delay	✓	✓	✗	✓	✗	✓	✗	✓
26 24-Hr Non-Alarm	✗	✗	✗	✗	✓	✗	✗	✗
87 Dly 24-Hr Fire	✓	✗	✗	✗	✗	✗	✗	✓
88 Stand. 24-Hr Fire	✓	✗	✗	✗	✗	✗	✗	✓

Section	Zone	Definition	Audible Silent 1	Steady Pulsed 2	Chime 3	Bypass 4	Force Arm 5	Swing 6	Tx Delay 7	Wireless Zn. 8
[101]	01	( )	☐	☐	☐	☐	☐	☐	☐	☐
[102]	02	( )	☐	☐	☐	☐	☐	☐	☐	☐
[103]	03	( )	☐	☐	☐	☐	☐	☐	☐	☐
[104]	04	( )	☐	☐	☐	☐	☐	☐	☐	☐
[105]	05	( )	☐	☐	☐	☐	☐	☐	☐	☐
[106]	06	( )	☐	☐	☐	☐	☐	☐	☐	☐
[107]	07	( )	☐	☐	☐	☐	☐	☐	☐	☐
[108]	08	( )	☐	☐	☐	☐	☐	☐	☐	☐
[109]	09	( )	☐	☐	☐	☐	☐	☐	☐	☐
[110]	10	( )	☐	☐	☐	☐	☐	☐	☐	☐
[111]	11	( )	☐	☐	☐	☐	☐	☐	☐	☐
[112]	12	( )	☐	☐	☐	☐	☐	☐	☐	☐
[113]	13	( )	☐	☐	☐	☐	☐	☐	☐	☐
[114]	14	( )	☐	☐	☐	☐	☐	☐	☐	☐
[115]	15	( )	☐	☐	☐	☐	☐	☐	☐	☐
[116]	16	( )	☐	☐	☐	☐	☐	☐	☐	☐
[117]	17	( )	☐	☐	☐	☐	☐	☐	☐	☐
[118]	18	( )	☐	☐	☐	☐	☐	☐	☐	☐
[119]	19	( )	☐	☐	☐	☐	☐	☐	☐	☐
[120]	20	( )	☐	☐	☐	☐	☐	☐	☐	☐
[121]	21	( )	☐	☐	☐	☐	☐	☐	☐	☐
[122]	22	( )	☐	☐	☐	☐	☐	☐	☐	☐
[123]	23	( )	☐	☐	☐	☐	☐	☐	☐	☐
[124]	24	( )	☐	☐	☐	☐	☐	☐	☐	☐
[125]	25	( )	☐	☐	☐	☐	☐	☐	☐	☐
[126]	26	( )	☐	☐	☐	☐	☐	☐	☐	☐
[127]	27	( )	☐	☐	☐	☐	☐	☐	☐	☐
[128]	28	( )	☐	☐	☐	☐	☐	☐	☐	☐
[129]	29	( )	☐	☐	☐	☐	☐	☐	☐	☐
[130]	30	( )	☐	☐	☐	☐	☐	☐	☐	☐
[131]	31	( )	☐	☐	☐	☐	☐	☐	☐	☐
[132]	32	( )	☐	☐	☐	☐	☐	☐	☐	☐

Advanced Programming

[141-154] Programmable Output Attributes

See **section [009-011]** for an explanation of PGM attributes.

		1	2	3	4	5	6	7	8
NT9005									
[141]	PGM1	☐	☐	☐	☐	☐	☐	☐	☐
[142]	PGM2	☐	☐	☐	☐	☐	☐	☐	☐
NT9204									
[151]	PGM11	☐	☐	☐	☐	☐	☐	☐	☐
[152]	PGM12	☐	☐	☐	☐	☐	☐	☐	☐
[153]	PGM13	☐	☐	☐	☐	☐	☐	☐	☐
[154]	PGM14	☐	☐	☐	☐	☐	☐	☐	☐

[160] Maximum Dialing Attempts to each Telephone No.

This value represents the number of attempts that will be made to each telephone number when communicating.

Default   **008**   I___I___I___I   001-015 attempts

[161] Post Dial Wait for Handshake (All Formats)

This value represents the time the communicator waits for a valid initial handshake from the receiver after dialing the programmed telephone number.

Default   **040**   I___I___I___I   001-255 seconds

[164] PGM Output Timer

This value represents the period of time (in seconds) that a PGM will activate if programmed to follow the PGM timer.

☞ *If a System Event PGM is programmed to follow the Output Timer, attribute 8 must be enabled.*

Default   **005**   I___I___I___I   001-255 seconds

[170] Auto-arm Postpone Timer

This feature controls the sequence of events after a valid access code is entered during the Auto-arm/Postpone pre-alert. If the Postpone Auto-arm timer is programmed as 000, the Auto-arm will be cancelled if a code is entered. If a value between 001 and 255 is programmed, then the Auto-arm will be postponed for the corresponding number of minutes and the panel will resume normal operation. The panel will also log the appropriate "user log" for the access code which postponed the arming. When the postpone time expires, the panel Auto-arm/Postpone pre-alert will be re-initiated (unless the partition is armed). The Auto-arm may be postponed multiple times. If the Auto-arm is postponed, arming or disarming the panel should not affect the postpone sequence.

Default   **000**   I___I___I___I   001-255 minutes

[172] Burglary Verified Timer

This option affects the Cross Zone Police Code log and transmission, but it does not inhibit the normal communication of alarms. When a zone alarm occurs, the Burglary Verified Timer starts. If a second zone alarm occurs within the time period (in minutes) programmed in this section, the panel will log and transmit the Police Code event. If the second zone alarm occurs after this timer expires, the Police Code will not be logged or transmitted, and the timer will be started again. If 000 is programmed in this section, the Police Code will transmit for any two different zone alarms during an armed to armed period.

Default   **000**   I___I___I___I   001-255 minutes

[175] Bell Delay Timer

The value enterd here determines the length of the delay before the bell sounds. It does not affect the transmissions to the central stations

Default   **000**   I___I___I___I   001-255 seconds

[180-186] Auto-arm Schedule   [*]Function

When in **[*][6][Master Code][3]**, pressing the key corresponding to the day desired will allow access to programming the time for that day.
- i.e., pressing **[1]** will allow programming of Sunday, pressing **[2]** allows programming of Monday, etc.

☞ *To enable this option in the **[*][6]** menu, **section [017], option 2** must be ON (default).*

☞ *If Auto-Arming is not enabled in **[*][6]**, the panel will not arm regardless of the programming of these sections.Late to Close will still be logged/transmitted if Auto-arm is not enabled and a time is programmed.*

Enter four digits **[HH:MM]** for each day that Auto-arm is required. All entries are disabled **[99:99]** by default. Valid entries are **[00:00] - [23:59]**.

[180] Sunday	I___I___I : I___I___I
[181] Monday	I___I___I : I___I___I
[182] Tuesday	I___I___I : I___I___I
[183] Wednesay	I___I___I : I___I___I
[184] Thursday	I___I___I : I___I___I
[185] Friday	I___I___I : I___I___I
[186] Saturday	I___I___I : I___I___I

[202]-[205] Zone Assignment ⚡ FLASH ⚡

These eight bit toggle sections determine which zones on the system are enabled. All zones that are enabled will be supervised via the panel's EOL supervision, and will operate according to the zone type programmed. If a zone is disabled, it will not be supervised and zone activity will be ignored by the panel.

☞ Attributes may be programmed by zone. See **section [101-132]**

Section	Zone	Enabled	Disabled
[202]	**01**	☐	☐ ✓
	02	☐	☐ ✓
	03	☐	☐ ✓
	04	☐	☐ ✓
	05	☐	☐ ✓
	06	☐	☐ ✓
	07	☐	☐ ✓
	08	☐	☐ ✓
[203]	**09**	☐	☐ ✓
	10	☐	☐ ✓
	11	☐	☐ ✓
	12	☐	☐ ✓
	13	☐	☐ ✓
	14	☐	☐ ✓
	15	☐	☐ ✓
	16	☐	☐ ✓
[204]	**17**	☐	☐ ✓
	18	☐	☐ ✓
	19	☐	☐ ✓
	20	☐	☐ ✓
	21	☐	☐ ✓
	22	☐	☐ ✓
	23	☐	☐ ✓
	24	☐	☐ ✓
[205]	**25**	☐	☐ ✓
	26	☐	☐ ✓
	27	☐	☐ ✓
	28	☐	☐ ✓
	29	☐	☐ ✓
	30	☐	☐ ✓
	31	☐	☐ ✓
	32	☐	☐ ✓

[301]-[311] Telephone Numbers

The telephone numbers entered here are for use by the system to send reporting codes to the central monitoring station, a residential telephone or pager.

All telephone numbers are 32 digits in length. Hexadecimal digits may be programmed in the telephone number to perform certain functions.

☞ The default for contents of sections **[301]-[303]** is **D** followed by 31 **'F's**:

Enter **[*][2][*]**   Hex B to dial '*'
Enter **[*][3][*]**   Hex C to dial '#'
Enter **[*][4][*]**   Hex D for additional dialtone search (required for PBX telephone systems)
Enter **[*][5][*]**   Hex E to insert a 2 second pause in the telephone number

☞ **HEX A** is not used
HEX F represents the end of the Phone Number (everything after F is ignored)
Pressing [#] in these sections will exit and save the entire phone number.
If a telephone number is not programmed, the panel will not attempt to communicate.
This applies to Telephone Numbers 1 and 2.

[301] First Telephone Number (32 Digits) ⚡ FLASH ⚡

I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I
I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I

[302] Second Telephone Number (32 Digits)

I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I
I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I

[303] Third Telephone Number (32 Digits)

I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I
I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I

☞ Use the **[F]** key to terminate phone number programming in **sections [301] - [303]**.

[310] Phone Number 1/3 Account Code ⚡ FLASH ⚡

This is the Account Code used by the panel when communicating via Phone Numbers 1 and 3

Default FFFF I__I__I__I__I   Codes are 4 digits in length. Valid entries are 0000-FFFF.

[311] Phone Number 2 Account Code

This is the Account Code used by the panel when communicating via Phone Number 2.

Default FFFF I__I__I__I__I   Codes are 4 digits in length. Valid entries are 0000-FFFF.

Advanced Programming

[320]-[327] Alarm/Restoral Reporting Codes

These reporting codes are used by the communicator to transmit zone alarms and restorals for zones 01-32. They are sent to the Alarms and Restorals Call Direction Group programmed in **section [361]**

Zone	Alarms Section/Entry		Alarm Restorals Section/Entry	
01	[320]	I__I__I	[324]	I__I__I
02		I__I__I		I__I__I
03		I__I__I		I__I__I
04		I__I__I		I__I__I
05		I__I__I		I__I__I
06		I__I__I		I__I__I
07		I__I__I		I__I__I
08		I__I__I		I__I__I
09	[321]	I__I__I	[325]	I__I__I
10		I__I__I		I__I__I
11		I__I__I		I__I__I
12		I__I__I		I__I__I
13		I__I__I		I__I__I
14		I__I__I		I__I__I
15		I__I__I		I__I__I
16		I__I__I		I__I__I
17	[322]	I__I__I	[326]	I__I__I
18		I__I__I		I__I__I
19		I__I__I		I__I__I
20		I__I__I		I__I__I
21		I__I__I		I__I__I
22		I__I__I		I__I__I
23		I__I__I		I__I__I
24		I__I__I		I__I__I
25	[323]	I__I__I	[327]	I__I__I
26		I__I__I		I__I__I
27		I__I__I		I__I__I
28		I__I__I		I__I__I
29		I__I__I		I__I__I
30		I__I__I		I__I__I
31		I__I__I		I__I__I
32		I__I__I		I__I__I

[328] Misc. Alarm Reporting Codes

These codes are sent to the Alarm and Restorals Call Direction Group programmed in section **[361]**.

I__I__I **Duress Alarm**

This code will be sent when a duress code is used to perform a function on the system.

I__I__I **Opening after Alarm**

This code will be sent on Opening if an alarm occurred during the previous armed period.

I__I__I **Recent Closing**

This code is sent if an alarm occurs within two minutes of exit time expiration. This is sent for the first alarm.

I__I__I **Future Use**

I__I__I **Future Use**

I__I__I **Cross Zone Police Code Alarm**

Refer to **section [017], option 4**

[329] Priority Alarm and Restoral Reporting Codes

These codes are sent to the Alarm and Restorals Call Direction Group programmed in **section [361]**.

I__I__I **Keypad [F]ire Alarm**

This code is sent when the **[F]** key is pressed

I__I__I **Keypad [A]uxiliary Alarm**

This code is sent when the **[A]** key is pressed

I__I__I **Keypad [P]anic Alarm**

This code is sent when the **[P]** key is pressed

I__I__I **Future Use**

I__I__I **Keypad [F]ire Restoral**

I__I__I **Keypad [A]uxiliary Restoral**

I__I__I **Keypad [P]anic Restoral**

I__I__I **Future Use**

[338] Misc. Tamper Codes

These codes are sent to the Tamper Alarm and Restorals Call Direction Group programmed in **section [363]**.

I__I__I **General System Tamper**

This code is sent when a tamper exists on the main panel or a module. This code is sent in addition to the specific tamper.

I__I__I **General System Tamper Restoral**

I__I__I **Keypad Lockout -** This code is sent when the system enters keypad lockout.

	[330]-[337] Tamper/Restoral Reporting Codes		

These codes are sent to the Tamper Alarm and Restorals Call Direction Group programmed in **section [363].**

Zone	Alarms Section/Entry	Tamper Restorals Section/Entry
01	[330] I__I__I	[334] I__I__I
02	I__I__I	I__I__I
03	I__I__I	I__I__I
04	I__I__I	I__I__I
05	I__I__I	I__I__I
06	I__I__I	I__I__I
07	I__I__I	I__I__I
08	I__I__I	I__I__I
09	[331] I__I__I	[335] I__I__I
10	I__I__I	I__I__I
11	I__I__I	I__I__I
12	I__I__I	I__I__I
13	I__I__I	I__I__I
14	I__I__I	I__I__I
15	I__I__I	I__I__I
16	I__I__I	I__I__I
17	[332] I__I__I	[336] I__I__I
18	I__I__I	I__I__I
19	I__I__I	I__I__I
20	I__I__I	I__I__I
21	I__I__I	I__I__I
22	I__I__I	I__I__I
23	I__I__I	I__I__I
24	I__I__I	I__I__I
25	[333] I__I__I	[337] I__I__I
26	I__I__I	I__I__I
27	I__I__I	I__I__I
28	I__I__I	I__I__I
29	I__I__I	I__I__I
30	I__I__I	I__I__I
31	I__I__I	I__I__I
32	I__I__I	I__I__I

[339]-[347] Closing(Arming)/Opening Reporting Codes

These codes are sent to the Opening and Closing Call Direction Group programmed in **section [365]**.

Access Code	Closing Section/Entry	Opening Section/Entry
01	[339] I__I__I	[344] I__I__I
02	I__I__I	I__I__I
03	I__I__I	I__I__I
04	I__I__I	I__I__I
05	I__I__I	I__I__I
06	I__I__I	I__I__I
07	I__I__I	I__I__I
08	I__I__I	I__I__I
09	[340] I__I__I	[345] I__I__I
10	I__I__I	I__I__I
11	I__I__I	I__I__I
12	I__I__I	I__I__I
13	I__I__I	I__I__I
14	I__I__I	I__I__I
15	I__I__I	I__I__I
16	I__I__I	I__I__I
17	[341] I__I__I	[346] I__I__I
18	I__I__I	I__I__I
19	I__I__I	I__I__I
20	I__I__I	I__I__I
21	I__I__I	I__I__I
22	I__I__I	I__I__I
23	I__I__I	I__I__I
24	I__I__I	I__I__I
25	[342] I__I__I	[347] I__I__I
26	I__I__I	I__I__I
27	I__I__I	I__I__I
28	I__I__I	I__I__I
29	I__I__I	I__I__I
30	I__I__I	I__I__I
31	I__I__I	I__I__I
32	I__I__I	I__I__I

Advanced Programming

[343] Misc. Closing (Arming) Reporting Codes

These codes are sent to the System Openings and Closings Call Direction Group programmed in **section [365]**.

I___I___I **Closing By Duress Code 33**

The Duress Alarm programmed in **section [328] Entry[1]** is also sent.

I___I___I **Closing By Duress Code 34** - See above.

I___I___I **Closing By System Code 40**

I___I___I **Closing By System Code 41**

I___I___I **Closing By System Code 42**

I___I___I **Partial Closing**

I___I___I **Special Closing**

I___I___I **Late to Close**

[348] Misc. Opening (Disarming) Reporting Codes

These codes are sent to the System Openings and Closings Call Direction Group programmed in **section [365]**.

I___I___I **Opening By Duress Code 33**

The Duress Alarm programmed in **section [328] Entry[1]** is also sent.

I___I___I **Opening By Duress Code 34** - See above.

I___I___I **Opening By System Code 40**

I___I___I **Opening By System Code 41**

I___I___I **Opening By System Code 42**

I___I___I **Auto-arm Cancellation**

This code is sent when the Auto-arm sequence is cancelled by entering an access code or by pressing the Disarm key on a wireless key during the one minute pre-alert.

I___I___I **Special Opening**

[349] Maintenance Alarm Reporting Codes

These codes are sent to the System Maintenance Alarms and Restorals Call Direction Group programmed in **section [367]**.

I___I___I **Battery Trouble Alarm**

This code is sent when the battery voltage is low or battery is disconnected.

I___I___I **AC Failure Trouble Alarm**

This code is sent If the AC supply fails. This code is sent after the delay programmed in **section [370] entry 9.**

I___I___I **Future Use**

I___I___I **Future Use**

I___I___I **Future Use**

I___I___I **TLM Trouble Code (via LINKS)**

TLM Trouble Code (via LINKS) - This code is sent via LINKS backup transmitter if present, enabled and programmed.

I___I___I **General System Trouble**

This code is sent to report miscellaneous system troubles not reported individually. The first alarm will initiate commnunications. Possible causes of this are:

NT9204 - AC Trouble / Restoral
- Battery Trouble / Restoral
- Supervised Output Circuit Trouble / Restoral

NT9005 -RF Jam Detection for a duration of 15 seconds or 5 minutes.See **section [018] option [2]**

I___I___I **General System Supervisory**

This code is sent if the system has lost communications to an enrolled module, or a Keybus fault has been detected. The first alarm will initiate the **communications.**

[350] Maintenance Restoral Reporting Codes

These codes are sent to the System Maintenance Alarms and Restorals Call Direction Group programmed in **section [367].**

I___I___I **Battery Trouble Restoral**

I___I___I **AC Failure Trouble Restoral**

I___I___I **Future Use**

I___I___I **Fire Trouble Restoral**

I___I___I **Future Use**

I___I___I **TLM Restoral**

I___I___I **General System Trouble Restore -** This code is sent on the last restoral

I___I___I **General System Supervisory Restore -** This code is sent on the last restoral

[351] Misc. Maintenance Reporting Codes

These codes are sent to the System Maintenance Alarms and Restorals Call Direction Group programmed in **section [367].**

I___I___I **Telephone #1 FTC Restore**

If events fail to communicate to either telephone number, this code will be sent on the next successful communication. The information will be transmitted in the following order.
- Old Event(s)
- Failure To Communicate (Telephone #1)
- New Event(s)

If multiple FTCs occur, this code will create blocks of old information.The FTC reporting code is sent to every group's call directions upon transmissions of failed event transmissions. When event(s) fail to communicate to a telephone number, there will not be an attempt to communicate again until another event is sent to that phone number.

I___I___I **Telephone #2 FTC Restore -** See option 1

I___I___I **Event Buffer 75% Full**

This code is sent when the 128 event internal buffer has reached a level of 75% full since the last successful upload from a downloading computer.

I___I___I   **DLS Lead IN**

This code is sent after the panel has been successfully called by DLS, but *before* the panel calls DLS back via the Downloading Telephone Number when Callback is enabled. This code is also sent when 'User Initiated Call-up' is initiated.

I___I___I   **DLS Lead OUT**

This code is sent by the panel when DLS has completed a successful DLS call to the panel.

I___I___I   **General Zone Trouble Alarm**

This reporting code is sent when a zone enters the 'Fault' state. This is the 'short' state on DEOL hardwired zones and/ or a loss of supervisory on a wireless zone.

I___I___I   **General Zone Trouble Restore**

I___I___I   **Delinquency Reporting Code**

This code is sent when the programmed interval **(section [370] [7])** and time of day **(section [371])** have elapsed.

[352] Test Transmission Reporting Codes

These codes are sent to the System Test Transmission Call Direction Group programmed in **section [368]**.

I___I___I   **Periodic Test Transmission**

This code is sent when the programmed interval **(section [370] [7])** and time of day **(section [370])** have elapsed.

I___I___I   **System Test**

This code is sent to test the communicator when the **[*][6][Master Code][4]** command is used to perform a manual system test.

I___I___I   **Future Use**

[353] Wireless Maintenance Reporting Codes

These codes are sent to the System Maintenance Alarms and Restorals Call Direction Group programmed in **section [367]**.

I___I___I   **General Zone Low Battery Alarm**

This code is sent to report a Low Battery condition on the system's wireless devices. Individual zones are not described using the pulse formats, but the individual zones will be logged to the event buffer. SIA and Contact I.D. formats will identify the zone with the condition.

I___I___I   **General Zone Low Battery Restore**

[360] Communicator Format Options

01   20 bps, 1400 Hz Handshake

02   20 bps, 2300 Hz Handshake

03   DTMF Contact I.D. - The Account Codes must be 4 decimal digits in length; all reporting codes must be 2 digits in length. This format uses DTMF tones as the communication medium. It requires a dual-tone initial handshake (1400/2300) and after sending the message, it requires a 1400 Hz kissoff. This software has a built in Automatic Contact I.D. reporting code table similar to SIA. This table may be found in its entirety in Appendix A. An option exists that determines whether or not the Contact I.D. format will transmit Automatic or Programmed reporting codes (see **section [381] option 7**).
If programmed Contact I.D. reporting codes are used and if **'01-FE'** is entered in the associated progamming section then the programmed codes will be sent in the ADEMCO protocol. If **'00'** or **'FF'** has been entered into the associated section, no code will be transmitted.
If Auto-contact I.D. reporting codes (See App. A) are used and if **'01-FF'** is entered in the associated progamming section then the programmed codes will be sent in the ADEMCO protocol. If **'00'** has been entered into the associated section, no code will be transmitted.

04   SIA FSK - See section [381] option [3]. See Appendix A for a complete list of pre-programmed reporting codes

This format uses 300 Baud FSK as the communication medium. Account codes must be 4 hexadecimal digits in length and reporting codes must be 2 digits in length. The SIA format will transmit a 4 digit account code, a 2 digit identifier code and a 2 digit reporting code. The 2 digit identifier is pre-programmed in the panel.
Reporting Codes
If programmed SIA reporting codes are used and if **'01-FE'** is entered in the associated progamming section then the programmed codes will be sent. If **'00'** or **'FF'** has been entered into the associated section, no code will be transmitted.
If Auto-SIA reporting codes (See App. A) are used and if **'01-FF'** is entered in the associated progamming section then the programmed codes will be sent. If **'00'** has been entered into the associated section, no code will be transmitted.
Level 2 (Hardcoded)
The SIA communication format used in this product follows the Level 2 specifications of the latest SIA Digital Communication Standard – July 1997 (Draft Only).

05   Pager - Pager format uses Sur-Gard 4/3 DTMF timing parameters. It sends the account code, reporting code and a **[#]** (hex C) 1 time only. There is no checksum, parity or handshake. This communication format cannot be used for backup or alternate dialing (Phone Number 3). Communication of this format does not generate or clear any FTC conditions.

☞ *If an automatic communications format is used for any other phone number, the desired reporting code to be transmitted via pager must be programmed for the event!*

Advanced Programming

06 **Residential Dial** - This communication format works as follows:
1 If an event occurs that is programmed to communicate, the panel will seize the line and dial the appropriate telephone number(s).
2 Once the dialing is complete, the panel will proceed to emit the ID tone (1300 Hz for 500 ms every 2 sec).
3 The panel then waits for a handshake (any DTMF digit except digits 3,6 and 9) from any phone. It will wait for this handshake for the duration of "**Post Dial Wait for Handshake**" (**section [161]**).
4 Once the panel receives the handshake, it will emit an alarm tone over the phone line (1300Hz/1500Hz for a time of 500ms on / 500ms off).
5 This alarm tone will be emitted for 20 seconds.
If multiple alarms occur, only one call will be made to each phone number that the panel is programmed to dial.

☞ *The DTMF Digits 3, 6, and 9 are not valid handshakes!*

07 **10 bps, 1400 Hz Handshake**

08 **10 bps, 2300 Hz Handshake**

[360] Communicator Format Options

1	Default	04	I__I__I	1st Telephone No.
2	Default	04	I__I__I	2nd Telephone No.

☞ *1600Hz Handshake for bps formats may be selected in section [702] option. 4.*

☞ *The 3rd Telephone No. follows the format of the 1st Telephone No.*

[361- 368] Communicator Call Directions

All reporting codes belong to one of the five reporting groups indicated below. The control panel can call two different phone numbers for each **Call Direction Group ([361] - [368])**. These sections specify which number will be called for a specific event. The third telephone number can only be used as a backup or alternate for the first telephone number

[361] System Alarms and Restorals

1	ON	1st Telephone No.	☐✔
	OFF	1st Telephone No. Disabled	☐
2	ON	2nd Telephone No.	☐
	OFF	2nd Telephone No. Disabled	☐✔
3-8		Future Use	

[363] System Tampers and Restorals

1	ON	1st Telephone No.	☐✔
	OFF	1st Telephone No. Disabled	☐
2	ON	2nd Telephone No.	☐
	OFF	2nd Telephone No. Disabled	☐✔
3-8		Future Use	

[365] System Openings and Closings

1	ON	1st Telephone No.	☐✔
	OFF	1st Telephone No. Disabled	☐
2	ON	2nd Telephone No.	☐
	OFF	2nd Telephone No. Disabled	☐✔
3-8		Future Use	

[367] System Maintenance Alarms and Restorals

1	ON	1st Telephone No.	☐✔
	OFF	1st Telephone No. Disabled	☐
2	ON	2nd Telephone No.	☐
	OFF	2nd Telephone No. Disabled	☐✔
3-8		Future Use	

[368] System Test Transmissions

1	ON	1st Telephone No.	☐✔
	OFF	1st Telephone No. Disabled	☐
2	ON	2nd Telephone No.	☐
	OFF	2nd Telephone No. Disabled	☐✔
3-8		Future Use	

[370] Communication Variables

[1] Swinger Shutdowns (Alarms & Restorals)

This value defines the number of attempts (alarm and restoral pairs) per zone that the communicator will make before it shuts down for that zone ("swinger shutdown"). Program a 3 digit number from 000 to 014. When programmed as 000, the communicator will not be shut down and all alarms will be transmitted.

☞ *The event buffer can also follow swinger shutdown if enabled. See section [013]*

Default	003	I__I__I__I	000-014 transmissions

[2] Swinger Shutdowns (Tampers & Restorals)

This value defines the number of times the same system tamper type event will occur before stopping transmissions.000= disabled

Default	003	I__I__I__I	000-014 transmissions,

[3] Swinger Shutdowns (Maintenance & Restorals)

This value defines the number of times the same system maintenance (Trouble) type event will occur before stopping transmissions.

☞ *Fire Troubles will follow the Maintenance Swinger Shutdown. Swinger shutdown is enabled on zone types [01]-[06] and [25] by default.*

Default	003	I__I__I__I	000-014 transmissions

[4] Transmission Delay

This value defines the delay before transmission. The delay is for zones which have the Transmission Delay attribute enabled.

Default   000   I__I__I__I   000-255 Seconds

[5] AC Failure Communication Delay

This value determines the delay before an AC FAILURE or AC RESTORE is reported. The AC failure or restoral is still displayed immediately.

Default   030   I__I__I__I   000-255 Minutes

[6] TLM Trouble Delay

The number of valid checks (10 second interval) required before a Telephone Line trouble is generated is programmed here. Valid entries are 000-255 for trouble annunciation and transmission (LINKS) delays of 10 to 2550 Seconds (42.5 Minutes).

Default   003   I__I__I__I   000-255 transmissions
                                        000 = disabled

[7] Test Transmission Cycle (Land Line)

This value determines the period between Test Transmissions for the land line. Valid entries are **[000]-[255]**. Whether this interval is in minutes or days is determined in **section [702], option 3**.

Default   030   I__I__I__I   000-255 Days

[8] Not Used

[9] Zone Low Battery Transmission Delay

When a zone reports a low battery condition, it will be indicated immediately on the keypad, but the transmission to the monitoring station will be delayed by the value programmed in this section. If the user does not correct the low battery condition before the delay expires, the low battery condition will be transmitted. The low battery alarm and restoral codes will only be reported once per armed period. The Low Battery Restore transmission is not delayed.

Default   007   I__I__I__I   000-255 Days

[10] Delinquency Transmission Delay

This value determines the time period that the Delinquency Event will be postponed until it is logged to the event buffer and transmitted. Whether this value is in hours or days is determined if Delinquency is for Activity (hours) or Closing (days) as specified in **section [380] option 8**.

Default   030   I__I__I__I   000-255 Hours/Days

[371] Test Transmission Time of Day

Enter a 4-digit time using the 24 hour clock format (HH:MM). To disable the test transmission, enter **[9999]** in this section.

Default 9999   I__I__I : I__I__I   00:00 - 23:59
                                            99:99 to Disable

[380] First Communicator Option Codes

1   ON   Communications Enabled   ☑✓

The system's communicator will be enabled and all events with reporting codes will be reported to the monitoring station. Refer to the Telephone Number, Reporting Code and Call Direction Programming sections.

OFF   Communications Disabled   ☐

The system's communicator will be shut off and events will not be transmitted to the monitoring station. Downloading may still be performed if enabled.

2   ON   Restorals on Bell Time-out   ☐

Zone restoral reporting codes will not be transmitted until the zone has been restored *and* the bell cut-off time has expired. If the zone is not restored when the bell cut-off time expires, the restoral will be transmitted when the zone physically restores or when the system is disarmed.

☞ *24 Hour zones will not restore until the zone is physically restored.*

OFF   Restorals follow Zones   ☑✓

Zone restoral reporting codes will be transmitted when the zone is physically restored. If the zones are still active when the system is disarmed, the restoral codes will be transmitted when the system is disarmed.

☞ *24 Hour zones will not restore until the zone is physically restored.*

3   ON   Pulse Dialing   ☐

The control panel will dial telephone numbers using pulse (rotary) dialing.

OFF   DTMF Dialing   ☑✓

The control panel will dial telephone numbers using DTMF (dual tone multi-frequency) dialing.

4   ON   Switch to Pulse Dialing on Fifth Attempt   ☑✓

If DTMF dialing is enabled (option [3]), the control panel will dial telephone numbers using DTMF dialing for the first 4 attempts. If unsuccessful, the control panel will switch to pulse (rotary) dialing for the remaining attempts.

OFF   DTMF Dialing on All Attempts   ☐

If DTMF dialing is enabled, the control panel will dial telephone numbers using DTMF dialing for all dialing attempts.

5   ON   Third Telephone No. Enabled   ☐

The 3rd phone number will be used for alternate dialing with the 1st phone number or as a backup of the 1st phone number. See option 6

OFF   Third Telephone No. Disabled   ☑✓

The 3rd phone number will not be used.

Advanced Programming

6   ON   Alternate Dial (1st & 3rd)   ☐

After each dialing attempt, the communicator switches between the 1st phone number and 3rd phone number until all attempts have been made to each number.

OFF   Call 1st Number, Backup to 3rd Number   ☐✓

If attempts to communicate to the first telephone number fail, the system will attempt to communicate to the third telephone number. If all attempts (see **section [160]**) to communicate to the third telephone number fail, a Failure to Communicate (FTC) trouble will be generated.

7   ON   Partial Closing I.D. is 4 (Contact I.D.)   ☐

The event code associated with this is identified as a Open/Closing event to the central station.

OFF   Partial Closing I.D. is 5 (Contact I.D.)   ☐✓

The event code associated with this is identified as a Disable/Bypass event to the central station.

8   ON   Activity Delinquency   ☐

This feature assists in the monitoring of the elderly and the handicapped. If there is no zone activity on the system, the Delinquency Transmission Delay timer in **section [370] option [10]** will begin counting in hours. When the counter reaches the programmed time, the panel will communicate the Delinquency Code to the central station, if programmed. If there is zone activity present on the system at any time, the counter will be reset. If this option is used, the Closing Delinquency option is not available.

☞ *This code will not be transmitted for panels that are Away armed. Activity on bypassed zones does not affect this timer. This timer is also reset upon arming.*

OFF   Closing Delinquency   ☐✓

This reporting code is sent whenever the programmed number of days for Delinquency has expired without the panel being armed. The timer for this feature is programmed in **section [370]**. The value programmed in this section determines the number of days the panel counts when not being armed before sending the Delinquency reporting code to the central station. Once this code is sent, the timer will not be started again until the panel has been armed. Each day programmed in the counter represents one day PLUS the time it takes for the panel to reach midnight. This feature may be disabled by programming **[000]** in **section [370]**.

[381] Second Communicator Option Code

1   ON   Opening after Alarm Keypad Ringback Enabled   ☐

When the **Opening after Alarm** reporting code is transmitted to a programmed telephone number, the keypad will sound 8 beeps to confirm that the **Opening After Alarm Code** was sent and received. This ringback will occur for each Opening After Alarm code successfully reported.

OFF   Opening after Alarm Keypad Ringback Disabled   ☐✓

2   ON   Opening after Alarm Bell Ringback Enabled   ☐

When the Opening After Alarm reporting code is transmitted to a programmed telephone number, the bell will sound 8 squawks to confirm to the end user that the **Opening After Alarm Code** was sent and received. This ringback will occur for each **Opening After Alarm** code transmitted.

OFF   Opening after Alarm Bell Ringback Disabled   ☐✓

3   ON   SIA Sends Programmed Report Codes   ☐

The codes programmed in **sections [320]-[353]** will be sent in accordance with the call directions programmed in **sections [361]-[367]**, if it has been enabled in **section [360]**. If **'FF'** or **'00'** is entered into the associated section, no code will be transmitted. The codes will be sent in the SIA format.

OFF   SIA Sends Automatic Report Codes   ☐✓

Pre-programmed SIA reporting codes (See App. A) will be sent in accordance with the call directions programmed in **sections [361]-[367]**, if it has been enabled in **section [360]** and if **'01-FF'** is entered in the associated progamming section (**[320-353]**). If **'00'** has been entered into the associated section, no code will be transmitted.

4   ON   Closing Confirmation Enabled   ☐

When a Closing reporting code is successfully transmitted to a programmed telephone number, the keypad will sound a series of 8 beeps to confirm to the end user that the Closing Code was sent and received.

OFF   Closing Confirmation Disabled   ☐✓

There will be no keypad ringback when a Closing reporting code is successfully transmitted to a programmed telephone number.

5-6   Future Use

7   ON   Contact I.D. Uses Programmed Report Codes   ☐✓

The codes programmed in **sections [320]-[353]** will be sent in accordance with the call directions programmed in **sections [361]-[367]**, if it has been enabled in **section [360]**. If **'FF'** or **'00'** is entered into the associated section, no code will be transmitted. The programmed codes will be sent in the ADEMCO protocol.

OFF   Contact I.D. Uses Auto-reporting Codes   ☐

Pre-programmed Contact I.D. reporting codes (See App. A) will be sent in accordance with the call directions programmed in **sections [361]-[367]**, if it has been enabled in **section [360]** and if **'01-FF'** is entered in the associated progamming section (**[320-353]**). If **'00'** has been entered into the associated section, no code will be transmitted.

8   Future Use

Section [400] Downloading

Downloading

Downloading allows programming of the entire system via a computer, modem and telephone line or PC-Link. All functions, features, changes and status, such as trouble conditions and open zones can be viewed or programmed by downloading. Refer to the **DLS-3 User Manual** for additional details.

☞ *The NT9005 can be powered with the PC-Link 5SP connector. The DLS computer must be ready to download before the connector is attached. When the connector is attached , downloading will begin automatically.*

If the DLS computer is not ready, and the connector has been left on for more than 30 seconds, it must be removed and reattached before DLS can begin.

The PC-Link 5SP connector can also be attached while the NT9005 is powered from AC. If the NT9005 is powered from AC, the PC-Link 5SP does not need its power supply connected, However, leaving it connected will not affect downloading to the NT9005.

☞ *A 1Hr or 6 Hr downloading window (see **section [702] option [7]**) begins when power is applied to the system, permitting remote downloading without keypad programming.*

[401] First Downloading Option Code

1   ON   Answering Machine/Double-call Enable   ☐

The system will answer calls for downloading, if a successful double call routine is detected. If the downloading computer calls the system and hangs up after 1 or 2 rings, then calls the system within the time period specified in **section [405],** the system will answer on the first ring.

OFF   Answering Machine/Double-call Disabled   ☐✓

The system will not answer incoming calls using the double call routine unless the user enables the DLS window. This option is enabled in option 2.

2   ON   User Can Enable DLS Window   ☐✓

The user can use the **[*][6][Master Code][5]** to enable a 6 Hr. (default) or I Hr downloading window (see **section [702] option 7**). During this period the system will answer calls if a successful double-call routine is detected.

OFF   User Can Not Enable DLS Window   ☐

The user can not enable a window for DLS calls.

☞ *Options 1 & 2 function independently.*

3   ON   Call Back enabled   ☐

When the system answers the downloading computer's call, the computer and the system will hang up. The system will then call the downloading computer's telephone number and connect with the computer.

☞ *Disable this function if more than one downloading computer is used.*

OFF   Call Back Disabled   ☐✓

The downloading computer will have immediate access to the system after identifying a valid access code.

4   ON   User-initiated Call-up Enabled   ☐

Allows the user to initiate a single downloading call by entering **[*][6][Master Code][6]**

OFF   User-initiated Call-up Disabled   ☐✓

An error tone will be generated when **[*][6][Master Code][6]** is entered.

5-8   Future Use

[402] Download Computer Telephone Number (32 Digits)

I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I

I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I__I

☞ *Format for this telephone number is described in **sections [301]-[303]**.*

[403] Downloading Access Code

This 4 digit number allows the system to confirm that it is communicating with a valid downloading computer.

Default   9005   I__I__I__I__I   Enter 4 Hex digits

[404] Panel Identification Code

This 4 digit number allows the downloading computer to confirm that it is communicating with a valid system.

Default   9005   I__I__I__I__I   Enter 4 Hex digits

[405] Answering Machine Double Call Timer

This timer sets the amount of time that can be taken between calls when using Double-call to contact the system

Default   060   I__I__I__I   (001-255) seconds

[406] Number of Rings to Answer On

The value in this section determines the number of rings required for the system to automatically answer and establish a DLS connection. This is independent of other DLS options.

Default   000   I__I__I__I   (000-015) rings

Advanced Programming

[700] Automatic Clock Adjust

This feature is intended to compensate for clock inaccuracies. Determine the net gain/loss per day by monitoring the clock over several days then average the gain/loss.

e.g., Panel loses an average of 9 seconds per day. Subtract 9 Seconds from the default value of 60 to arrive at 51. Enter 51 in place of the default 60

Enter [*][8][Installer Code][2][700][51][#]

Default   060 I___I___I   Enter 00-99 seconds

[701] First International Option Codes

1   ON   50 Hz AC   □

Enable when incoming line frequency is 50 Hz.

OFF   60 Hz AC   □✓

Enable when incoming line frequency is 60 Hz. (North American Standard)

2   ON   Time Base is internal Crystal   □

Enables the internal crystal as the time base. Enable this when AC line frequency is not stable.

OFF   Time Base is AC Line   □✓

Enables the AC line as the time base. Enable when the AC line frequency is stable enough for a time base.

3   ON   AC/DC Arming Inhibit Enabled   □

When an AC or DC trouble is present, the system will not arm. This includes keypad, keyswitch, automatic and download arming. If arming is attempted, the system will perform a system battery check and a battery check on all peripheral modules supported by battery backup.

OFF   AC/DC Arming Inhibit Disabled   □✓

The system can be armed while an AC/DC trouble is present. The system will not check all batteries on arming.

☞ *If this option is enabled ensure that AC Troubles are displayed. See **section [016] option 1**.*

4   ON   System Tampers require Installer Reset   □

System tampers require **Installer Reset** and **Inhibit Arming**. If a system tamper condition occurs, **[*][8][Installer Code]** must be entered and the tamper condition restored before the system can be armed. This includes auto-arming and keyswitch. If auto-arming is attempted with a latched tamper, the system will not arm. The auto-arm cancellation code will be transmitted.

OFF   System Tampers Do not require Installer   □✓
**   reset**

5   ON   Access codes are 6 digits   □

All access codes in the system will be 6 digits in length except for the Panel ID Code and the Downloading Access Code. If this option is selected, the first four digits will remain as programmed and the last two digits will become '00' except for the Master Code and Installer Code as indicated below.

Master Code = XXXX56   XXXX= previous code, (1234)
Installer Code = YYYY55   YYYY= previous code, (5555)
User Code = ZZZZ00   ZZZZ = previous code, (4972)

OFF   Access codes are 4 digits   □✓

All access codes in the system will be 4 digits in length. Existing 6 digit codes will have the last two digits truncated.

6   ON   Busy Tone detection Enabled   □

If busy tones are detected, the communicator will hang up and try to place the call after the **Delay between Dialing Attempts** (see **section [703]**) elapses.

OFF   Busy Tone detection Disabled   □✓

The communicator will use the standard dialing procedure for every attempt.

7-8   Future Use

42

[702] Second International Option Codes

1   ON   Pulse Dialing Make/Break Ratio 33/67 ☐

☞ European Pulse Dial Standard

OFF Pulse Dialing Make/Break Ratio 40/60 ☐✔

☞ North American Pulse Dial Standard

2   ON   Force Dialing Enabled ☐✔

If the first attempt by the system to call the monitoring station fails, on subsequent attempts, the system will dial the number regardless of whether there is a dialtone present or not.

☞ *The system will go 'off-hook', search for a dialtone for twenty seconds, hang-up for five seconds, go 'off-hook', search for a dialtone for five seconds, then dial (this applies if no dialtone is present).*

OFF Force Dialing Disabled ☐

The system will not dial the programmed telephone number if a dialtone is not present.

3   ON   Land line Test Transmission is in Minutes ☐

The value programmed in **section [370] option 7** is in minutes.

OFF Land line Test Transmission is in Days ☐✔

The value programmed in **section [370] option 7** is in days.

4   ON   1600 Hz Handshake ☐

The communicator responds to a 1600Hz handshake for bps formats.

OFF Standard Handshake ☐✔

The communicator responds to the handshake designated by the format selected in **section [360].**

5   ON   I.D. Tone Enabled ☐

After the telephone number is dialed, the system emits the tone programmed in option 6.

OFF I.D. Tone Disabled ☐✔

6   ON   I.D. Tone Frequency = 2100 Hz ☐

This tone is enabled in option 5.

OFF I.D. Tone Frequency = 1300 Hz ☐✔

This tone is enabled in option 5.

7   ON   1-Time/1-Hour DLS Window enabled ☐

Allows the user to initiate a DLS downloading session.

OFF 6-Hour DLS Window enabled ☐✔

8   ON   Bell on FTC when Armed ☐

If a failure to communicate trouble is generated while the system is armed, the bell output will sound for the time programmed in **section [005]** or until the system is disarmed.

OFF FTC Trouble only when Armed. ☐✔

If a failure to communicate trouble is generated while the system is armed, the bell output will not sound but the keypad buzzer will sound trouble beeps until a key is pressed.

[703] Delay between Dialing Attempts

For standard (force) dialing the system will search for a dialtone for 5 seconds, hang up for 20 seconds, search for a dial tone for 5 seconds then dial. If there is no initial handshake recognized within 40 seconds, the system will hang up. This timer adds a delay before the next call is attempted. The default is one second (001) delay for a total of six seconds.

Default   001   I___I___I___I   000 - 255 second

Advanced Programming

Module Programming

NT9204   **Refer to Programmable Output options sections [009] to [011]**

[803] LINKS2150 Long Range Interface

Refer to the *LINKS2150 Installation Manual* for additional details.

[01]   **RF Identification Code -** Enter a 4 digit heaxadecimal code.

Default   **FFFF**   I___I___I___I___I

[10]   **Maintenance Alarm Reporting Codes**

Default FF   I___I___I   Internal Low Voltage Trouble

Default FF   I___I___I   External AC Trouble

Default FF   I___I___I   External Low Voltage Trouble

Default FF   I___I___I   Control Panel Connection Trouble

Default FF   I___I___I   Test Transmission

[11]   **Maintenance Restoral Reporting Codes**

Default FF   I___I___I   Internal Low Voltage Trouble Restore

Default FF   I___I___I   External AC Trouble Restore

Default FF   I___I___I   External Low Voltage Trouble Restore

Default FF   I___I___I   Control Panel Connection Trouble Restore

[20]   **Module Configuration**

1   **ON**   **Communications Enabled**   ☐✓

After the telephone number is dialed, the system will emit a tone (option 6) for 500 ms. every two seconds.

    OFF   **Communications Disabled**   ☐

2   **ON**   **TRBL OUT Normally Low Impedance**   ☐

    OFF   **TRBL OUT Normally Hi Impedance**   ☐✓

3-8   Future Use

[30]   **Call Direction Options**

1   **ON**   **Alarm/Restore Reporting Enabled**   ☐✓

    OFF   **Alarm/Restore Reporting Disabled**   ☐

2   **ON**   **Tamper/Restore Reporting Enabled**   ☐✓

    OFF   **Tamper/Restore Reporting Disabled**   ☐

3   **ON**   **Opening/Closing Reporting Enabled**   ☐✓

    OFF   **Opening/Closing Reporting Disabled**   ☐

4   **ON**   **System Maintenance Reporting Enabled**   ☐✓

    OFF   **System Maintenance Reporting Disabled**   ☐

5   **ON**   **System Test Tx Reporting Enabled**   ☐✓

    OFF   **System Test Tx Reporting Disabled**   ☐

6-8   **Future Use**

[803] LINKS2450 Long Range Interface

Refer to the *LINKS2450 Installation Manual* for additional details.

[01] Communications Options

1   **ON**   **Communications Enabled**   ☐✓

    OFF   **Communications Enabled**   ☐

2   **ON**   **Serial Communications Enabled**   ☐

    OFF   **Keybus Communications Enabled**   ☐✓

3-8   **Future Use**

[10]   **LINKS2450 Account Code**

Default   **FF**   I___I___I

Default   **FF**   I___I___I

[20]   **Maintenance Alarms and Restoral Reporting Codes**

    I___I___I   **Keybus/Serial Fault Alarm**

    I___I___I   **Keybus/Serial Fault Restoral**

    I___I___I   **Test Transmission**

[30] Call Direction Options

1   **ON**   **Alarm/Restore Reporting Enabled**   ☐✓

    OFF   **Alarm/Restore Reporting Disabled**   ☐

2   **ON**   **Tamper/Restore Reporting Enabled**   ☐✓

    OFF   **Tamper/Restore Reporting Disabled**   ☐

3   **ON**   **Opening/Closing Reporting Enabled**   ☐✓

    OFF   **Opening/Closing Reporting Disabled**   ☐

4   **ON**   **System Maintenance Reporting Enabled**   ☐✓

    OFF   **System Maintenance Reporting Disabled**   ☐

5   **ON**   **System Test Tx Reporting Enabled**   ☐✓

    OFF   **System Test Tx Reporting Disabled**   ☐

6-8   **Future Use**

[40] Test Transmission [Heartbeat] Timer

Default   **00**   I___I___I   00-FF (000-255 minutes)

[804] Wireless Zone Serial Numbers			✏ FLASH ✏
Sub Section	**Zone**	**Default**	
[01]	1	000000	I__I__I__I__I__I__I
[02]	2	000000	I__I__I__I__I__I__I
[03]	3	000000	I__I__I__I__I__I__I
[04]	4	000000	I__I__I__I__I__I__I
[05]	5	000000	I__I__I__I__I__I__I
[06]	6	000000	I__I__I__I__I__I__I
[07]	7	000000	I__I__I__I__I__I__I
[08]	8	000000	I__I__I__I__I__I__I
[09]	9	000000	I__I__I__I__I__I__I
[10]	10	000000	I__I__I__I__I__I__I
[11]	11	000000	I__I__I__I__I__I__I
[12]	12	000000	I__I__I__I__I__I__I
[13]	13	000000	I__I__I__I__I__I__I
[14]	14	000000	I__I__I__I__I__I__I
[15]	15	000000	I__I__I__I__I__I__I
[16]	16	000000	I__I__I__I__I__I__I
[17]	17	000000	I__I__I__I__I__I__I
[18]	18	000000	I__I__I__I__I__I__I
[19]	19	000000	I__I__I__I__I__I__I
[20]	20	000000	I__I__I__I__I__I__I
[21]	21	000000	I__I__I__I__I__I__I
[22]	22	000000	I__I__I__I__I__I__I
[23]	23	000000	I__I__I__I__I__I__I
[24]	24	000000	I__I__I__I__I__I__I
[25]	25	000000	I__I__I__I__I__I__I
[26]	26	000000	I__I__I__I__I__I__I
[27]	27	000000	I__I__I__I__I__I__I
[28]	28	000000	I__I__I__I__I__I__I
[29]	29	000000	I__I__I__I__I__I__I
[30]	30	000000	I__I__I__I__I__I__I
[31]	31	000000	I__I__I__I__I__I__I
[32]	326	000000	I__I__I__I__I__I__I

[804] Wireless Key Serial Numbers			✏ FLASH ✏
Sub Section	**Key**	**Default**	
[41]	1	000000	I__I__I__I__I__I__I
[42]	2	000000	I__I__I__I__I__I__I
[43]	3	000000	I__I__I__I__I__I__I
[44]	4	000000	I__I__I__I__I__I__I
[45]	5	000000	I__I__I__I__I__I__I
[46]	6	000000	I__I__I__I__I__I__I
[47]	7	000000	I__I__I__I__I__I__I
[48]	8	000000	I__I__I__I__I__I__I
[49]	9	000000	I__I__I__I__I__I__I
[50]	10	000000	I__I__I__I__I__I__I
[51]	11	000000	I__I__I__I__I__I__I
[52]	12	000000	I__I__I__I__I__I__I
[53]	13	000000	I__I__I__I__I__I__I
[54]	14	000000	I__I__I__I__I__I__I
[55]	15	000000	I__I__I__I__I__I__I
[56]	16	000000	I__I__I__I__I__I__I

[804][59] Wireless Key (FOB) Options

Button	Default	Option
1	03	I__I__I
2	04	I__I__I
3	27	I__I__I
4	30	I__I__I

☞ Refer to section [000] for programmable options.

☞ When the first wireless key is programmed in Flash Programming, the keys will be programmed as indicated above providing that they are left at default, or programmed to 00 before that wireless Key is programmed.

[804][81] Wireless Supervisory Window

If a wireless device does NOT transmit a signal to the system within the window determined by the value entered here, a supervisory trouble will be sent to the central station.

Default   24   I__I__I   Valid entries are 04-24 Hours

☞ *Panic transmitters are NOT supervised and must be disabled in sub-sections [82-85].*

Advanced Programming

[804]-[82-85] Zone Transmitter Supervision Options

These eight bit toggle sections determine which wireless zones on the system are supervised. All zones that are enabled will be supervised for communication integrity, and will operate according to the zone type programmed.

☞ If a zone is disabled, it will not be supervised and zone activity will be ignored by the panel. See **section [202-205].**

Sub-Section	Zone	Enabled	Disabled
[82]	01	☐ ✓	☐
	02	☐ ✓	☐
	03	☐ ✓	☐
	04	☐ ✓	☐
	05	☐ ✓	☐
	06	☐ ✓	☐
	07	☐ ✓	☐
	08	☐ ✓	☐
[83]	09	☐ ✓	☐
	10	☐ ✓	☐
	11	☐ ✓	☐
	12	☐ ✓	☐
	13	☐ ✓	☐
	14	☐ ✓	☐
	15	☐ ✓	☐
	16	☐ ✓	☐
[84]	17	☐ ✓	☐
	18	☐ ✓	☐
	19	☐ ✓	☐
	20	☐ ✓	☐
	21	☐ ✓	☐
	22	☐ ✓	☐
	23	☐ ✓	☐
	24	☐ ✓	☐
[85]	25	☐ ✓	☐
	26	☐ ✓	☐
	27	☐ ✓	☐
	28	☐ ✓	☐
	29	☐ ✓	☐
	30	☐ ✓	☐
	31	☐ ✓	☐
	32	☐ ✓	☐

	[*]Function
[901] Installer Walk Test Enable/Disable	

When this mode is ON, all zones become 24-Hr non force-armable zones that will sound the bell (steady or pulsed) for 2 seconds and transmit their programmed alarm reporting codes (**section [320-323]**) when violated. If the user attempts to arm while in Walk Test the keypad will sound an error.

☞ *Fire Troubles are not supported in Walk Test.*
Alarm Memory is cleared upon entering Walk Test.

To Enable Walk Test Mode:
Disable 'Keypad Blanking' - section [016] option 3
Disable 'Fire Bell is Continuous' - section[016] option 8
Enter from normal state:
[*] [8] [Install Code] [2] [901]

To Disable Walk Test Mode:
Re-enter:**[*] [8] [Install Code] [2] [901]**
Re-enable 'Keypad Blanking' and 'Fire Bell Continuous' if required.

☞ *The User Walk Test ([*][6][8]) performs the same functions as indicated here except that reporting codes are not transmitted to the central station.*

[902] Reset Module Supervision

All modules will automatically enroll within one minute upon power-up. If modules are removed, enter this section to clear any supervisory troubles that may be present. When this mode is entered the system will attempt to re-enroll all modules.

☞ When this section is entered, all pending Supervisory Trouble Restorals will not be logged or transmitted.

☞ If a module is NOT communicating properly with the system, it will be deleted when you enter this section.

To Reset Module Supervision:
Enter from normal state:
[*] [8] [Install Code] [2] [902]

[903] Module Supervision Field

When this section is entered, the system will display all modules enrolled on the system.

[*] [8] [Install Code] [2] [903]

[904] Device Placement Test

📝 FLASH 📝

Device Selection - When this section is entered, a two digit entry is required to select the zone number to be tested (01-32). If a device is selected that is not enrolled, an error tone will sound.
Placement Indication - After the zone is selected the device sends a signal to the NT9005 to register a signal strength value. These results are indicated in the following table.

Indication	LCD	Bell/Buzzer
Good	**Good**	**1 Beep/Squawk**
Bad	**Bad**	**3 Beep/Squawk**
Not Enrolled	**-**	**Error Tone**

RF Jam Detection - For proper RF Jam Detection, zones must be placement tested in the location they will be used. A zone must register 3 'Good' results in sequence for a successful test. After a successful test the siren will sound for 2 seconds to indicate a successful placement.

To Perform Module Placement Test
Enter from normal state:
[*] [8] [Install Code] [2] [904] [Zone]
Press **[#]** to cancel test.

[990] Installer Lockout Enable

When enabled, the panel will sound an audible indication on power-up (the phone relay will click 10 times). This feature will have no effect on a software default (all programming will return to the factory defaults). If a hardware default is attempted while lockout is enabled, the default will not occur and the attempt will be logged to the event buffer.

To Enable Installer Lockout - Enter from normal state:
[*] [8] [Install Code] [2] [990] [Install Code] [990]

[991] Installer Lockout Disable

Disables the feature described above.

To Disable Installer Lockout - Enter from normal state:
[*] [8] [Install Code] [2] [991] [Install Code] [991]

[993] Restore Alternate Comm. Default Programming

When enabled, programming of LINKS2150, LINKS2450, or Sky-route® will be restored to factory defaults.

To Restore Alt Comm Defaults - Enter from normal state:
 [*] [8] [Install Code] [2] [993] [Install Code] [993]

[996] Restore Wireless Default Programming

When enabled, all programming in the **RF section [804]** will be restored to factory defaults.

To Restore RF Factory Defaults - Enter from normal state:
[*] [8] [Install Code] [2] [996] [Install Code] [996]

[999] Restore Factory Default Programming

Hardware Restore: Factory default programming can be restored by shorting terminals YI and G2 for 10 seconds during Power-up if Installer Lockout (Sections [990],[991]) is disabled.

Software Restore: When enabled, all programming in the NT9005 will be restored to factory defaults.

☞ When this section is entered, the Module Supervision Field will be reset. See **section [903]**.

To Restore Factory Defaults - Enter from normal state:
[*] [8] [Install Code] [999] [Install Code] [999]

Appendix A - Reporting Codes

The following tables contain Contact ID and Automatic SIA format reporting codes. For more information on reporting code formats, see section [360] to [381]. For more information on individual reporting codes, see sections [320] to [353] .

Contact ID
The first digit (in parentheses) will automatically be sent by the control panel. The second two digits are programmed to indicate specific information about the signal.

For example, if zone 1 is an entry/exit point, you could program the event code as [34]. The central station would receive the following:

*BURG - ENTRY/EXIT - 1

where the "1" indicates which zone went into alarm.

SIA Format - Level 2 (Hardcoded)
The SIA communication format used in this product follows the level 2 specifications of the *SIA Digital Communication Standard* - October 1997. This format will send the Account Code along with its data transmission. The transmission would look similar to the following at the receiver:

N Ri01		BA 01
N	=	New Event
Ri01	=	Area Identifier
BA	=	Burglary Alarm
01	=	Zone 1

Section #	Reporting Code	Code Sent When...	Dialer Direction*	Automatic Contact ID Codes	SIA Auto Rep Codes**
[320] to [323]	Zone Alarms	zone goes into alarm	A/R	(1) 3A	See Table 3
[324] to [327]	Zone Restorals	alarm condition has been restored	A/R	(1) 3A	
[328]	Duress Alarm	duress code entered at keypad	A/R	(1) 21	HA-00
[328]	Opening After Alarm	system disarmed with alarm in memory	A/R	(4) A6	OR-00
[328]	Recent Closing	alarm occurs within two minutes of system arming	A/R	(4) 59	CR-00
[328]	Cross Zone (Police Code) Alarm	two zones on the system go into alarm during any given armed-to-armed period (incl. 24Hr zones)	A/R	(1) 4A	BV-00
[329]	[F] Key Alarm/Rest.	Keypad fire alarm (alarm and restore reporting codes sent together)	A/R	(1) 15	FA-00/FH-00
[329]	[A] Key Alarm/Rest.	Keypad auxiliary or medical alarm† (alarm and restore reporting codes sent together)	A/R	(1) AA	MA-00/MH-00
[329]	[P] Key Alarm/Rest.	Keypad panic alarm (alarm and restore reporting codes sent together)	A/R	(1) 2A	PA-00/PH-00
[330] to [337]	Zone Tamper/Restoral	zone is tampered / tamper condition restored	T/R	(1) 44	TA-ZZ/TR-ZZ

* A/R = alarms/restorals; T/R = tampers/restorals; O/C = openings/closings; MA/R = miscellaneous alarms/restorals; T = test transmissions
** UU = user number (user01-42); ZZ = zone number (01-32)
***Program the "Fail to close" event code [(4)54] to report either closing or activity delinquency. Make sure your central station is aware of the application of this reporting code.
****Zones are identified, panic pendants, wireless keys, and handheld keypads are not.
†If unit is to be used in home health care applications, the unit must have medical keys (✚) not auxiliary (⚠) keys.

Section #	Reporting Code	Code Sent When...	Dialer Direction*	Automatic Contact ID Codes	SIA Auto Rep Codes**
[338]	Keypad Lockout	maximum number of incorrect access codes has been entered at a keypad	T/R	(4) 21	JA-00
[339] to [343]	Closings	system armed (user 01-34, 40-42 indicated)	O/C	(4) A2	CL-UU
[343]	Partial Closing	one or more zones bypassed when system armed	O/C	(4) 7A	CG-ZZ
[343]	Special Closing	Closing (arming) using one of the following methods: quick arm, auto-arm, keyswitch, function key, maintenance code, DLS software, wireless key	O/C	(4) AA	CL-00
[344] to [348]	Openings	system disarmed (user 01-34, 40-42 indicated)	O/C	(4) A2	OP-UU
[348]	Auto Arm Cancellation	automatic arming cancelled by a user	O/C	(4) A5	CE-00
[348]	Special Opening	Opening (disarming) using one of the following methods: keyswitch, maintenance code, DLS software, wireless key	O/C	(4) AA	OP-00
[349] to [350]	Battery Trouble/Rest.	NT9010 battery is low/battery restored	MA/R	(3) A2	YT-00/YR-00
[349] to [350]	AC Line Trouble/Rest.	AC power to system is disconnected or interrupted/ AC power restored (both codes follow AC Failure Comm. Delay.)	MA/R	(3) A1	AT-00/AR-00
[349] to [350]	Fire Trouble/Rest.	a trouble occurs/restores on a fire zone	MA/R	(3) 73	FT-00/FJ-00
[349] to [350]	Gen System Trouble/Rest.	"Service Required" trouble occurs (view troubles using [✱][2])/trouble restored	MA/R	(3) AA	YX-00/YZ-00
[351]	Line 1 or 2 FTC Restoral	system has restored communications to central station on line 1 or 2 (after FTC)	MA/R	(3) 54	YK-00
[351]	Event Buffer is 75% Full	event buffer is almost full since last upload	MA/R	(6) 23	JL-00
[351]	DLS Lead In	downloading session start	MA/R	(4) 11	RB-00
[351]	DLS Lead Out	downloading session complete	MA/R	(4) 12	RS-00
[351]	Zone Fault/Rest.	one or more zones have faults/restored	MA/R	(3) 72	UT-ZZ/UJ-ZZ
[351]	Delinquency	programmed amount of time (days or hours) for delinquency has expired without zone activity, or without system being armed	MA/R	(4) 54***	CD-00
[353]	Wireless Device Low Battery Trouble/Rest.	wireless zones, panic pendants, handheld keypads, wireless keys have low battery/all low batteries restored	MA/R	(3) 84	XT-00/XR-00 XT-ZZ/XR-ZZ****
[352]	Periodic Test	periodic system test transmission	T	(6) A2	RP-00
[352]	System Test	[✱][6] bell/communications test	T	(6) A1	RX-00

* A/R = alarms/restorals; T/R = tampers/restorals; O/C = openings/closings; MA/R = miscellaneous alarms/restorals; T = test transmissions

** UU = user number (user01-42); ZZ = zone number (01-32)

***Program the "Fail to close" event code [(4)54] to report either closing or activity delinquency. Make sure your central station is aware of the application of this reporting code.

****Zones are identified, panic pendants, wireless keys, and handheld keypads are not.

†If unit is to be used in home health care applications, the unit must have medical keys (✚) not auxiliary (⚠) keys.

Table2: Contact ID Zone Alarm/Restoral Event Codes (as per ADEMCO):

Program any of these codes for zone alarms/restorals when using the standard (non-automatic) Contact ID reporting format.

Medical Alarms
(1)AA Medical
(1)A1 Pendant Transmitter
(1)A2 Fail to Report In
Fire Alarms
(1)1A Fire Alarm
(1)11 Smoke
(1)12 Combustion
(1)13 Water Flow
(1)14 Heat
(1)15 Pull Station
(1)16 Duct
(1)17 Flame
(1)18 Near Alarm
Panic Alarms
(1)2A Panic
(1)21 Duress
(1)22 Silent
(1)23 Audible
Burglar Alarms
(1)3A Burglary
(1)31 Perimeter
(1)32 Interior
(1)33 24 Hour

(1)34 Entry / Exit
(1)35 Day / Night
(1)36 Outdoor
(1)37 Tamper
(1)38 Near Alarm
General Alarms
(1)4A General Alarm
(1)43 Exp. Module Failure
(1)44 Sensor Tamper
(1)45 Module Tamper
(1)4A Cross Zone Police Code
24 Hour Non-Burglary
(1)5A 24 Hour non-Burg
(1)51 Gas Detected
(1)52 Refrigeration
(1)53 Loss of Heat
(1)54 Water Leakage
(1)55 Foil Break
(1)56 Day Trouble
(1)57 Low Bottled Gas level
(1)58 High Temp
(1)59 Low Temp
(1)61 Loss of Air Flow

Table 3: SIA Format Automatic Zone Alarm/Restoral Codes

Zone Definition	SIA Auto Rep Codes*
	Zone Alm/Rest.
Delay, Instant, Interior, Delay Stay/Away, Interior Stay/Away, 24Hr Burg.	BA-ZZ/BH-ZZ
24Hr Supervisory Buzzer	UA-ZZ/UH-ZZ
24Hr Sprinkler	SA-ZZ/SH-ZZ
24Hr Gas	GA-ZZ/GH-ZZ
24Hr Heat	KA-ZZ/KH-ZZ
24Hr Medical	MA-ZZ/MH-ZZ
24Hr Emergency (non-medical)	QA-ZZ/QH-ZZ
24Hr Waterflow	WA-ZZ/WH-ZZ
24Hr Freeze	ZA-ZZ/ZH-ZZ
24Hr Holdup	HA-ZZ/HH-ZZ
24Hr Panic	PA-ZZ/PH-ZZ
Latching 24Hr	BA-ZZ/BH-ZZ
	* ZZ = zones 01-32