NT9005 EU V1.0

32 ZONE SECURITY SYSTEM

Compatible with DLS2002 downloading software

Installation & Programming Guide

WARNING: This manual contains information on limitations regarding product use and function and information on the limitations as to liability of the manufacturer. Read the entire manual carefully.

FCC COMPLIANCE STATEMENT

CAUTION: Changes or modifications not expressly approved by Digital Security Controls Ltd. could void your authority to use this equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interfer-ence in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be deter-mined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

The user may find the following booklet prepared by the FCC useful: "How to Identify and Resolve Radio/Television Interference Problems". This booklet is available from the U.S. Government Printing Office, Wash-ington D.C. 20402, Stock # 004-000-00345-4.

IMPORTANT INFORMATION

This equipment complies with Part 68 of the FCC Rules. On the side of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this number must be provided to the Telephone Company.

FCC Registration Number:	F53CAN-36358-AL-E
REN:	0.1B
USOC Jack:	RJ-31X

Telephone Connection Requirements

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

Ringer Equivalence Number (REN)

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local Telephone Company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format

US: AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

Incidence of Harm

If the NT9005 equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the Telephone Company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

Changes in Telephone Company Equipment or Facilities The Telephone Company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the Telephone Company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

Equipment Maintenance Facility

If trouble is experienced with this equipment NT9005 for repair or warranty information, please contact the facility indicated below. If the equipment is causing harm to the telephone network, the Telephone Company may request that you disconnect the equipment until the problem is solved. This equipment is of a type that is not intended to be repaired by the end user.

Simplex Time Recorder Co. 100 Simplex Drive, Westminster MA 01441-0001 USA, Tel: (978) 731-2500

Additional Information

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

Alarm dialing equipment must be able to seize the telephone line and place a call in an emergency situation. It must be able to do this even if other equipment (telephone, answering system, computer modem, etc.) already has the telephone line in use. To do so, alarm dialing equipment must be connected to a properly installed RJ-31X jack that is electrically in series with and ahead of all other equipment attached to the same telephone line. Proper installation is depicted in the figure below. If you have any questions concerning these instructions, you should consult your telephone company or a qualified installer about installing the RJ-31X jack and alarm dialing equipment for you.

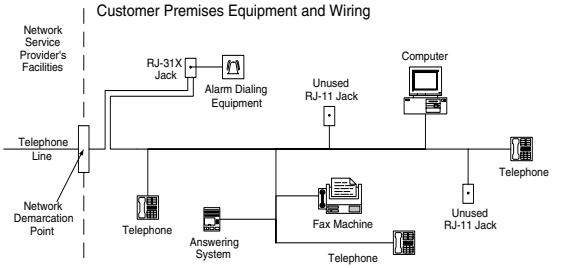


Table of Contents

IMPORTANT:

1. This Manual shall be used in conjunction with the Installation Manual of the used Power Supply (NT9005 Transformer Kit - AC/AC Adaptor).
2. This equipment, Alarm Controller NT9005 shall be installed and used within an environment that provides the pollution degree max 2 and overvoltages category II NON HAZARDOUS LOCATIONS, indoor only. The equipment is FIXED and PERMANENTLY CONNECTED and is designed to be installed by service persons only; [service person is defined as a person having the appropriate technical training and experience necessary to be aware of hazards to which that person may be exposed in performing a task and of measures to minimize the risks to that person or other persons.].
3. The connection to the mains supply must be made as per the rules and regulations of the local authorities: In the UK as per BS6701. An appropriate disconnect device must be provided as part of the building installation. Where it is not possible to rely on the identification of the NEUTRAL in the AC MAINS SUPPLY, the disconnecting device must disconnect both poles simultaneously (LINE and NEUTRAL). The device shall disconnect the supply during servicing.
4. Equipment enclosure must be secured to the building structure before operation.
5. Regarding the power supply it must be permanently connected, fail safe, with double or reinforced insulation between primary and secondary circuits. In EU countries it must meet the applicable requirements of the Low Voltage Directive and protected as per the EN60950-1: 2001 Standard requirements. In all other countries, it must be of an approved type acceptable to the local authorities.
6. Internal wiring must be routed in a manner that prevents:
   - Excessive strain on wire and on terminal connections;
   - Loosening of terminal; connections;
   - Damage of conductor insulation.
7. Disposal of the used batteries shall be made according to the waste recovery and recycling regulations applicable to the intended market.
8. Disconnect the TELEPHONE CONNECTION before servicing!

OPERATING instructions shall be made available to the USER.

Limited Warranty

Digital Security Controls warrants the original purchaser that for a period of twelve months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use. During the warranty period, Digital Security Controls shall, at its option, repair or replace any defective product upon return of the product to its factory, at no charge for labour and materials. Any replacement and/or repaired parts are warranted for the remainder of the original warranty or ninety (90) days, whichever is longer. The original purchaser must promptly notify Digital Security Controls in writing that there is defect in material or workmanship, such written notice to be received in all events prior to expiration of the warranty period. There is absolutely no warranty on software and all software products are sold as a user license under the terms of the software license agreement included with the product. The Customer assumes all responsibility for the proper selection, installation, operation and maintenance of any products purchased from DSC. Custom products are only warranted to the extent that they do not function upon delivery. In such cases, DSC can replace or credit at its option.

International Warranty

The warranty for international customers is the same as for any customer within Canada and the United States, with the exception that Digital Security Controls shall not be responsible for any customs fees, taxes, or VAT that may be due.

Warranty Procedure

To obtain service under this warranty, please return the item(s) in question to the point of purchase. All authorized distributors and dealers have a warranty program. Anyone returning goods to Digital Security Controls must first obtain an authorization number. Digital Security Controls will not accept any shipment whatsoever for which prior authorization has not been obtained.

Conditions to Void Warranty

This warranty applies only to defects in parts and workmanship relating to normal use. It does not cover:

- damage incurred in shipping or handling;
- damage caused by disaster such as fire, flood, wind, earthquake or lightning;
- damage due to causes beyond the control of Digital Security Controls such as excessive voltage, mechanical shock or water damage;
- damage caused by unauthorized attachment, alterations, modifications or foreign objects;
- damage caused by peripherals (unless such peripherals were supplied by Digital Security Controls);
- defects caused by failure to provide a suitable installation environment for the products;
- damage caused by use of the products for purposes other than those for which it was designed;
- damage from improper maintenance;
- damage arising out of any other abuse, mishandling or improper application of the products.

Items Not Covered by Warranty

In addition to the items which void the Warranty, the following items shall not be covered by Warranty: (i) freight cost to the repair centre; (ii) products which are not identified with DSC's product label and lot number or serial number; (iii) products disassembled or repaired in such a manner as to adversely affect performance or prevent adequate inspection or testing to verify any warranty claim. Access cards or tags returned for replacement under warranty will be credited or replaced at DSC's option. Products not covered by this warranty, or otherwise out of warranty due to age, misuse, or damage shall be evaluated, and a repair estimate shall be provided. No repair work will be performed until a valid purchase order is received from the Customer and a Return Merchandise Authorisation number (RMA) is issued by DSC's Customer Service.

Digital Security Controls's liability for failure to repair the product under this warranty after a reasonable number of attempts will be limited to a replacement of the product, as the exclusive remedy for breach of warranty. Under no circumstances shall Digital Security Controls be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability, or any other legal theory. Such damages include, but are not limited to, loss of profits, loss of the product or any associated equipment, cost of capital, cost of substitute or replacement equipment, facilities or services, down time, purchaser's time, the claims of third parties, including customers, and injury to property. The laws of some jurisdictions limit or do not allow the disclaimer of consequential damages. If the laws of such a jurisdiction apply to any claim by or against DSC, the limitations and disclaimers contained here shall be to the greatest extent permitted by law. Some states do not allow the exclusion or limitation of incidental or consequential damages, so that the above may not apply to you.

Disclaimer of Warranties

This warranty contains the entire warranty and shall be in lieu of any and all other warranties, whether expressed or implied (including all implied warranties of merchantability or fitness for a particular purpose) and of all other obligations or liabilities on the part of Digital Security Controls. Digital Security Controls neither assumes responsibility for nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product.

This disclaimer of warranties and limited warranty are governed by the laws of the province of Ontario, Canada.

WARNING: Digital Security Controls recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to, but not limited to, criminal tampering or electrical disruption, it is possible for this product to fail to perform as expected.

Out of Warranty Repairs

Digital Security Controls will at its option repair or replace out-of-warranty products which are returned to its factory according to the following conditions. Anyone returning goods to Digital Security Controls must first obtain an authorization number. Digital Security Controls will not accept any shipment whatsoever for which prior authorization has not been obtained.

Products which Digital Security Controls determines to be repairable will be repaired and returned. A set fee which Digital Security Controls has predetermined and which may be revised from time to time, will be charged for each unit repaired.

Products which Digital Security Controls determines not to be repairable will be replaced by the nearest equivalent product available at that time. The current market price of the replacement product will be charged for each replacement unit.

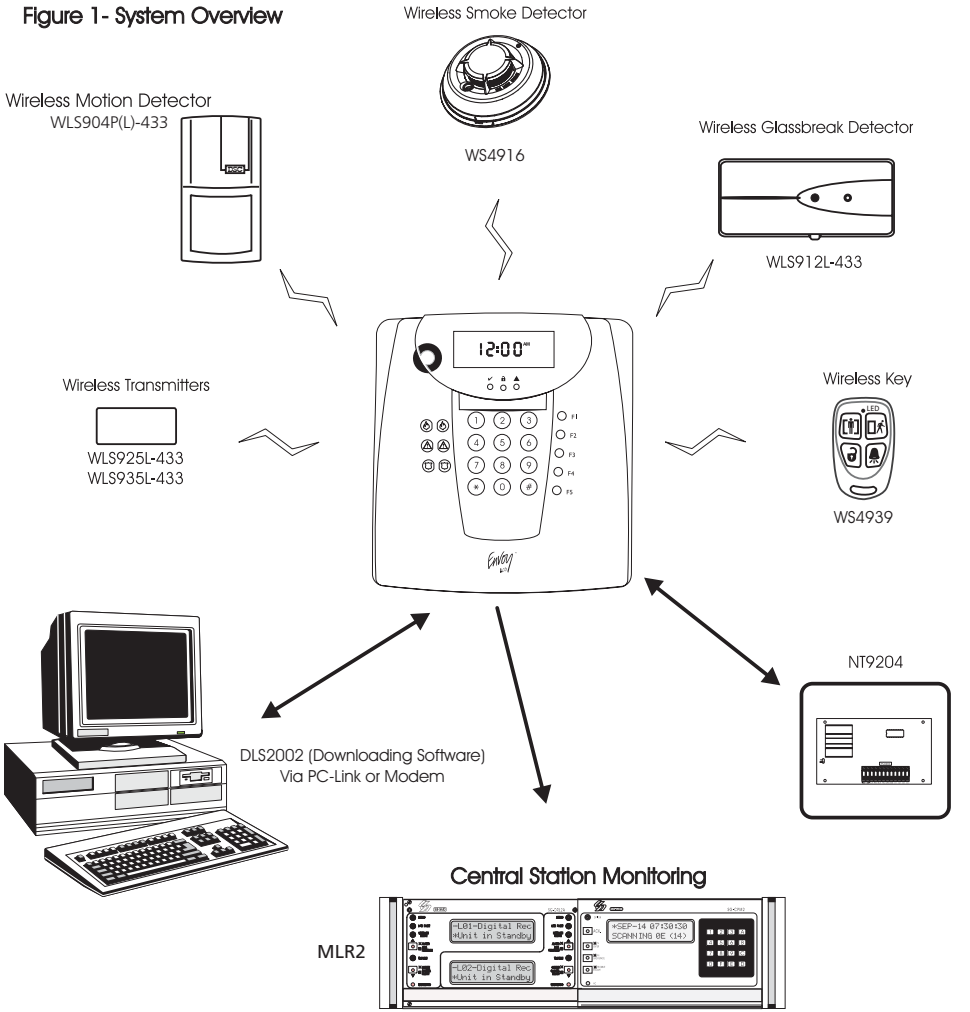
Chapter 1: Description & Operation

1-1 System Overview

The NT9005 is a full-featured, wireless security system designed for fast and easy installation. The system may include any of the following components (refer to figure 1, System Overview):

- NT9005 control unit.
- NT9204 Keybus interface/4 programmable outputs
- 32 wireless detectors (maximum).
- 16 wireless keys (maximum).
- Connection to a central monitoring station.
- DLS2002 (downloading software).

Figure 1- System Overview



1-2 System Specifications

The NT9005 system supports up to 32 system users. The system can be programmed using the keypad on the NT9005 control unit, or using DLS2002 downloading software and a computer. If you program the system from the NT9005 control unit, basic zone enrollment and programming can be performed using Flash Programming. See *Chapter 4: Flash Programming*

Flexible Zone Configuration:

- 32 fully programmable zones
- 28 zone types, 8 programmable zone options
- Connect up to 2 hardwired zones
- Connect up to 2 main board PGM outputs

Access Codes:

- 38 access codes: 32 user codes, 1 master code, 2 supervisor codes, 2 duress codes, and 1 maintenance code

EEPROM Memory:

- Will not lose programming or system status on complete AC and battery failure

Power Requirements:

- Plug-in transformer = 9 VAC, 20 VA
- Battery = 6 volt, 3.5 Ah minimum, rechargeable sealed lead acid (provides more than 24 Hrs standby operation)

Digital Communicator Specifications:

- Supports SIA, Contact ID, Pager, 10 bps and 20 bps formats, and Residential dial
- Split reporting of selected transmissions to each telephone number
- 3 programmable telephone numbers
- 2 system account codes
- DTMF and pulse dialing
- DPDT line seizure
- Anti-jam detection

System Supervision Features

The NT9005 continuously monitors potential trouble conditions including:

- Trouble by zone
- Telephone line trouble
- Low battery condition
- Loss of internal clock
- Tamper by zone
- Failure to communicate

False Alarm Prevention Features

- Audible exit delay
- Audible exit fault
- Urgency on entry delay
- Quick exit
- Swinger shutdown
- Recent closing transmission
- Communication delay
- Rotating keypress buffer

Additional Features

- Keypad-activated alarm output and communicator test
- Keypad lockout
- 128-event buffer, time and date stamped
- Uploading/downloading capability

1-3 Modules and Devices

Refer to the relevant installation manuals for specifications, installation and operation of the following modules and devices.

NT9204 Power Supply/Output Module

Provides 4 programmable 1.0 Ampere outputs (PGMs). Fully supervised for tamper, AC trouble, low battery, and auxiliary supply trouble.

WLS904PL-433 Wireless Motion Detector

Four detection patterns selectable with interchangeable lenses. High traffic shutdown and adjustable sensitivity. This device is fully supervised for tamper, device fault, and low battery.

WLS912/(L)-433 Wireless Glassbreak Detector

Detects float, plate, tempered, wired, and laminated glass breakage up to a distance of 20ft (6 m). Do not mount the detector closer than 3.3 ft/1m from the protected glass. Sensitivity can be adjusted for specific environments and glass types. This device is fully supervised for tamper, device fault, low battery, low sensitivity.

WLS925L-433 Wireless Universal Transmitter

Low profile wireless transmitter - Can be used for wireless door or window contact or terminal connection for external contacts. This device is fully supervised for tamper, device fault, low battery, open and closed.

WLS935L-433 Wireless Door/Window Transmitter

Can be used for wireless door or window contact with a terminal connection for external contacts. This device is powered by a lithium battery and is fully supervised for tamper, device fault, low battery, open and closed.

WS4916 Wireless Smoke Detector

This is a wireless photoelectric smoke detector with a fixed temperature heat detector and an internal piezoelectric alarm. This device is fully supervised for tamper, device fault, low battery, low sensitivity.

WS4939-433 Wireless Key

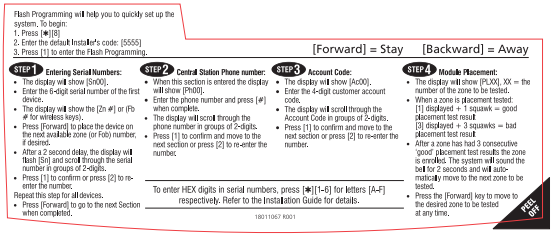
Provides 4 programmable buttons for functions such as Stay Arm, Away Arm, Disarm, Fire, Auxiliary and Panic functions.

DLS2002 Downloading Software

Enables the installer to program or monitor the system with a computer, modem and telephone line or locally using a computer and PC-Link.

1-4 NT9005 Labels & Console

The NT9005 system comes with peel off instructions which list the Flash Programming steps for quick setup. Remove this label after installation. Refer to Chapter 4: 'Flash Programming', if required.


Flash Programming will help you to quickly set up the system. To begin:
1. Press [✱][8]
2. Enter the default Installer's code: [5555]
3. Press [1] to enter the Flash Programming.

[Forward] = Stay [Backward] = Away

STEP 1 Entering Serial Numbers:
- The display will show [SnXX].
- Enter the 6-digit serial number of the first device.
- The display will show the [Zn #] or [Fb #] for wireless keys).
- Press [Forward] to place the device on the next available zone (or Fob) number, if desired.
- After a 2 second delay, the display will flash [Sn] and scroll through the serial number in groups of 2-digits.
- Press [1] to confirm or press [2] to re-enter the number.

Repeat this step for all devices.
- Press [Forward] to go to the next Section when completed.

STEP 2 Central Station Phone number:
- When this section is entered the display will show [PhXX].
- Enter the phone number and press [#] when complete.
- The display will scroll through the phone number in groups of 2-digits.
- Press [1] to confirm and move to the next section or press [2] to re-enter the number.

To enter HEX digits in serial numbers, press [✱][1-6] for letters [A-F] respectively. Refer to the Installation Guide for details.

STEP 3 Account Code:
- The display will show [AcXX].
- Enter the 4-digit customer account code.
- The display will scroll through the Account Code in groups of 2-digits.
- Press [1] to confirm and move to the next section or press [2] to re-enter the number.

STEP 4 Module Placement:
- The display will show [PLXX], XX = the number of the zone to be tested.
- When a zone is placement tested:
  [1] displayed = 1 squawk = good placement test result
  [3] displayed = 3 squawks = bad placement test result
- After a zone has had 3 consecutive 'good' placement test results the zone is enrolled. The system will sound the bell for 2 seconds and will automatically move to the next zone to be tested.
- Press the [Forward] key to move to the desired zone to be tested at any time.

NEXT GEN

18011067 R001

The console consists of a fixed message LCD, 3 status lights (Ready, Armed and Trouble), on-board buzzer, 12 digit keypad, 3 specialized priority keys (Fire, Auxiliary, and Panic), and 5 programmable function keys. Refer to Figure 2, 'LCD Display' and Figure 3, 'Controls & Indicators' for details.

1-5 Operation

In all operating modes, the system monitors zones for device faults, tampers and low battery indications. System standby battery voltage is monitored, under load, at four minute intervals and telephone line voltage is monitored every 10 seconds. During an AC failure, battery voltage is monitored continuously.

The system continuously monitors the keypad for access codes, function keys, priority keys and **[*]** programming entry.

☞ ***Detailed explanations of all programming options and the defaults can be can be found in Chapter 3:Programming sections [000] to [999]***

☞ ***Refer to Figure 3 for an overview of function keys and priority keys. Refer to Chapter 3:section [000] for function key programming options. Refer to Chapter 3: [*][6], Programming and sections [006] – [008] for access codes programming.***

1-5.1 Start-up

- When power is first applied to the system the following will occur:
- All icons on the LCD will be displayed for two seconds and the buzzer will sound five beeps.
- All zones will be bypassed for two minutes. This will allow the devices on the system to settle without causing false alarms. Zones unrestored after two minutes will be detected as open.
- A 6 Hour DLS Window will be enabled. This will permit a remote computer with downloading software (DLS) and a modem to telephone the unit and download programming. Refer to sections [401]-[406].
- A **Trouble** will be generated indicating that the time displayed is incorrect. The time must be set to clear this fault. Refer to **[*][6][1]** in ***C**hapter 3:[*] Functions.*

1-5.2 Operating Modes

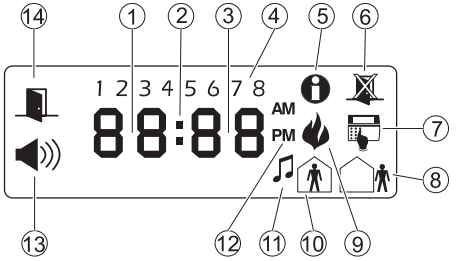
The system operates in three modes: base mode which includes all armed and disarmed states; User programming mode; and Installer's mode. There are three disarmed states in base mode. In these states only 24-Hr zones and fire zones are armed and monitored. See 'Zone Definitions' sections [001] to [004] in Chapter 5:Advanced Programming.

Ready to Arm - (Ready light is ON). Entering an access code will arm the system. All [*] functions can be accessed (see ***'[*] Functions' in Chapter 3: Programming).***

Ready to Force Arm - (Ready light is ON), Entering an access code will force arm the system. Open zones will be bypassed and the 'Bypass' icon will be displayed. To make a zone force armable, zone attribute [5] must be enabled in ***sections [101]-[132]*** in ***Chapter 5***: ***Advanced Programming*** or the zone definition must have that attribute on by default. See ***sections [101] to [132]*** *in* ***Chapter 5: Advanced Programming***. All [*] Functions can be accessed in this mode.

Not Ready to Arm - (**Ready** Light **OFF**), Open zones are not force armable. Zones must be closed (restored) before the systrem can be armed. All [*] functions excluding arming functions can be accessed.

Figure 2 - LCD Display



1 **7-segment Displays 1 and 2** – These two 7-segment displays indicate the hour digits when the local clock is active, and identify the zone when the OPEN or ALARM icons are active. These two displays scroll one zone per second from the lowest zone number to the highest when scrolling through zones.

2 **: (Colon)** – This icon is the hours/minutes divider when the local clock is active.

3 **7-segment Displays 3 and 4** – These two 7-segment displays are the minute digits when the local clock is active.

4 **1 to 8** – These icons are used to identify troubles to the user. Enter [*][2] to view troubles. In Installer's Programming, they indicate hexadecimal, decimal, and 8-bit toggle fields found in Flash and Advanced programming.

5 **Memory** – Indicates that there are alarms in memory.

6 **Bypass** – Indicates that there are zones automatically or manually bypassed.

7 **Program** – indicates that the system is in Installer's Programming, or the keypad is busy.

8 **Away** – Indicates that the panel is armed in the Full Set mode. It will turn on at the beginning of the Exit Delay.

9 **Fire** – Indicates that there are fire alarms in memory.

10 **Stay** – Indicates that the panel is armed in the Part Set mode. It will turn on at the beginning of the Exit Delay.

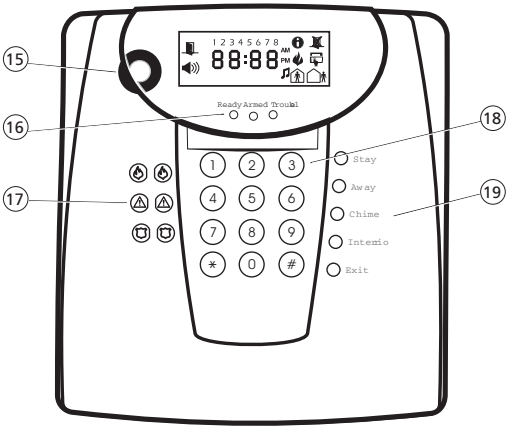
11 **Chime** – This icon turns on when [*][4] is pressed to enable Door Chime on the system. It will turn off when [*][4] is pressed again to disable Door Chime.

12 **AM, PM** – This icon indicates that the local clock is displaying 12-Hr. time. These icons will not be on if the system is programmed for 24-Hr. time.

13 **ALARM** – This icon is used with 7-segment displays 1 and 2 to indicate zones in alarm on the system. When a zone is in alarm, the **ALARM** icon will turn on, and 7-segment displays 1 and 2 will scroll through the zones in alarm.

14 **OPEN** – This Icon is used with 7-segment displays 1 and 2 to indicate violated zones (not alarm) on the system. When zones are opened, the **OPEN** icon will turn on, and 7-segment displays 1 and 2 will scroll through the violated zones.

Figure 3 - Controls & Indicators



15 **Buzzer -** The buzzer provides an audible indication of alarm, trouble, programming and status of the system.

16 **Status Indicators**
Ready - Indicates that the system is ready to be armed or programmed.
Armed - Indicates that the system is armed in Stay or Away mode.
Trouble - Indicates that the system has a trouble.

17 **Priority Keys** - The function of priority keys can not be modified apart from enabling or disabling the keys. The keys must be held and pressed for 2 seconds to activate the function. When activated, a reporting code is sent to the central monitoring station.

18 **Keypad - Digits (0-9) -** are used to enter decimal and hexadecimal data.

Keypad - Digit (*) is used to enter [*] Star functions. All user and installer functions including Flash and Advanced programming are entered using this key. See Chapter 3:'[*] Functions'. The [*] key also enables the installer/user to toggle between decimal and hexadecimal data entry. To enter hexadecimal 'A' through 'F', Press [*][1 through [6]. When finished entering hexadecimal numbers, enter [*] again to return to decimal mode. See Chapter 3:Programming.

Keypad - Digit (#) is the equivalent of the Escape key on a computer. It enables the installer to escape from or terminate the the current programming section.

19 **Function Keys** - may be customized to perform 21 different functions with 8 definable options for each function. See section [000] for a detailed explanation of these and other options available.

Stay Armed - (**Ready** light is **OFF, Stay** icon is **ON**, **Bypass** icon is **ON**), This mode is activated by pressing a function key programmed for Stay mode (default key 1), or by arming the system by entering a valid access code and not exiting the premises during the delay period. If a function key programmed with **No Entry Arm** is pressed or **[*][9]** is entered before entering an access code there will be no entry delay. In the 'Stay Armed' mode Stay/Away zones (zone definitions 05 and 06) are bypassed and the remaining zones are armed. In this mode [*][3], [*][5], [*][6] and [*][8] functions can not be accessed.

Away Armed - (**Ready** light is **OFF**, **Away** icon is **ON**),This mode is activated by pressing a function key programmed for Away mode (default key 2), or by arming the system by entering a valid access code and exiting the premises during the delay period. If a function key programmed with **No Entry Arm** is pressed or [*][9] is entered while the system is armed, **No Entry Delay** will toggle. In the **Away Armed** mode all zones are armed. Stay/Away zones (zone definitions 05 and 06) will act as interior or delay zones (zone definition 04 or 01). Zones may be bypassed in this mode by entering [*][1]. In this mode [*][3], [*][5], [*][6] and [*][8] functions can not be accessed.

[*] Functions - User functions enable the user to program some aspects of the system. These functions are accessed from the ***Ready* mode** and require a valid access code. These functions include programming access codes [*][5] and user functions [*][6]. See [*][5] and [*][6] in '[*] Functions', Chapter 3:Programming. **Installer functions ([*][8])** require the Installer's access code and allow **Flash Programming and Advanced programming**. See ***Chapter 4: Flash Programming*** and ***Chapter 5: Advanced programming*** .

Zone Violations- When an armed zone is violated:

- The event is logged to the event buffer.
- The bell will sound (if enabled) for the duration of Bell Timeout (BTO) or until a valid access code is entered.
- An entry or exit delay may be initiated depending on the zone type and if it has been enabled.
- One or more report codes will be sent to the central station (if enabled).

If the system is disarmed while a zone is violated, the **Memory** icon will be displayed. Re-arming the system will clear the event from **Alarm Memory**. If an access code is entered before the bell times out, it will be silenced. If an access code is entered before the report code transmission delay expires, the report code transmission will be cancelled.

1-5.3 Access Codes

Duress Codes - Two duress codes can be programmed on the system. When a duress code is used to perform any function the system will send a Duress reporting code to the central station.

Master Code- The Master code can perform any keypad function and can be used to program all access codes including master and supervisor codes.

Supervisor Codes- Supervisor codes can program additional access codes. The attributes of the Supervisor code are identical to that of the Master code by default. These attributes can be changed in [*][5][Mastercode][9] Attribute Programming.

Maintenance Code- The Maintenance code can only be used to arm or disarm the system. This code can not be used to bypass zones or perform any other function. The Maintenance code is programmed in ***Chapter 5: Advanced Programming.***

Installer's Code- The Installer's code is used to set up and program the system. The Installer's code is 5555 by default but should be changed to prevent unauthorized access to programming.

Chapter 2: Installation

2-1 Installation Procedure

Read the following procedure to familiarize yourself with the necessary steps before installing the system.

1. **Create a Layout** - Draw a rough sketch of the building and include all alarm detection devices, modules and PGM output devices. Refer to the following paragraphs for wiring requirements.
   Keybus,Para 2-3.1
   PGMs Para 2-3.2
   Hardwired ZonesPara 2-3.3
   Telephone Line Wiring.Para 2-3.4
   Battery and AC Wiring. Para 2-3.5

   Refer to paragraph 2-4 and the associated installation sheets for placement of wireless detectors. Locate the control panel in a dry area, near an unswitched AC source and telephone line. Avoid areas that are a possible source of electrical noise such as computers, televisions, appliances, HVAC systems. Avoid areas with large metal surfaces such as heating ducts.

☞ ***Ensure that the control panel and other modules will be installed in an area that will be protected by the system.***

2. **Mount NT9204 Module -** Mount NT9204 module as indicated in the associated installation manual. Mount hardwired and PGM output devices as required.
3. **Route Wiring -** Route the telephone line, AC power line, PGM wiring, hardwired zone wiring or Keybus wiring to the NT9005 panel location.
4. **Install NT9005 Back Cover**- Route wiring through the access holes provided and mount the back cover. Refer to paragraph 2.2 'NT9005 Installation'.
5. **Complete Wiring** - Connect the telephone line, AC power line, PGM wiring, hardwired zone wiring or Keybus wiring to the back cover.
6. **Power up Control Panel** - Connect the backup battery. Place the unit on mounting plate ensuring that the header on the printed circuit board aligns with the terminal block on the back plate.

☞ ***The system will NOT power up if only the battery is connected.***

   Ensure that the LCD display and buzzer are functioning as described during the power up sequence. **See Start-up, paragragh 1-5.1.**

7. **Position and Enroll Wireless Detectors**. This can be performed in Flash Programming or section [904] in Advanced Programming (placement only). Refer to the Installation Sheets of wireless devices to determine optimal placement. Mount wireless devices after succesful placement. Refer to appendices C, D and E.
8. **Program the System**. The system can be quickly programmed for basic setup in Flash Programming or custom programmed manually in Advanced Programming or with DLS2002 (downloading software) using a remote or local computer. **See Chap. 3:Programming**.
9. **Test the System.** Two system tests are available: the user Walk Test available in [*][6][8] programming or the installer Walk Test described in section [901] in Advanced Programming.

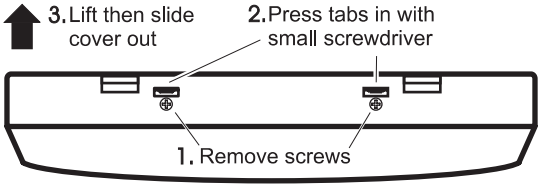
☞ ***In the User Walk Test report codes are not sent to the central station.***

2-2 NT9005 Installation

The NT9005 back cover comes attached to the back of the NT9005 control unit. The back cover acts as a mounting plate for the unit and provides terminals for connecting all wiring except the PC-Link connector to the NT9005.

2-2.1 Back Cover Removal:

Figure 3.



1. Place the unit face down on a surface that will not scratch or mar the front cover.
2. Remove the two screws (if required) securing the back cover to the unit (located at the bottom of unit). Retain the screws for reasssembly.
3. Press the tabs above the screw holes (Figure 3).

CAUTION:Resistance may be encountered when removing the back cover. Remove the back cover carefully from the unit to avoid damage to the internal antennas

4. Lift the back cover clear of the unit.
5. Unhook the backplate from the top of the NT9005.

2-2.2 Mounting the Back Cover

Locate the control panel in a dry area, near an AC source and telephone line. Avoid areas that are a possible source of electrical noise such as computers, televisions, appliances, HVAC systems. Avoid areas with large metal surfaces such as heating ducts.

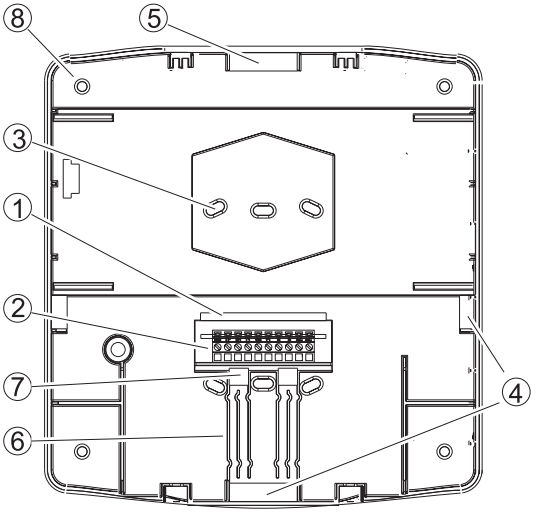
The unit can be mounted on an electrical junction box or directly to the wall. *Refer to Figure 4 and paragraphs 2-3.1 through 2-3.5 for wiring details.*

Junction Box Mount

Route wiring from the junction box through the rectangular access hole (1) located directly above the terminal block.

1. Secure the wiring to the appropriate terminals (2) using a flat blade screwdriver.
2. Mount the unit on the junction box using the screw holes (3) provided.

Figure 4. - Backplate of Unit



Wall Mount

CAUTION:Do NOT use the access hole located at the top of the back cover (5) for wiring. AC power routed close to the antennas or microprocessor may cause interference with the unit.

1. Route wiring through the access holes (1, 4) provided.
2. Continue through the wire guide (6) and exit through the two square access holes (7) located below the terminal block.
3. Re-enter the wiring through the rectangular access hole (1) and secure to terminal block as indicated above.
4. Position the back cover on the wall in the desired location, and mark the screw locations (8, 3).
5. Using wall anchors for all screw locations, secure the back cover to the wall.

2-2.3 Mounting the Control Unit

1. Position the unit on the mounting tabs located at the top of the back cover. Refer to Figure 5.

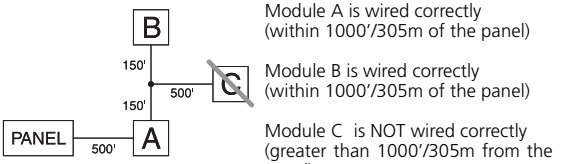
WARNING: ***Ensure that AC Power is OFF when mounting the unit to the back panel. If the header terminals are inserted into the incorrect terminals on the terminal block, permanent damage to the unit may result.***

2. Ensure that the two antennas are not obstructed, bent or repositioned, the tamper switch spring fits through the access hole to make contact with the wall and that the header pins on the printed circuit board are inserted into the correct terminals.
3. Slide tabs on bottom of unit into the slots of the back cover.
4. Secure unit in place with the two screws provided.

2-3 System Wiring

The R, B, Y1, G2 terminals located on the inside of the back cover, can be configured as a Keybus, or 2 hardwired zones or 2 PGMs (programmable outputs), or 1 PGM and 1 hardwired zone . If configured as a Keybus or hardwired zone, wire devices using 22 AWG stranded wire; maximum wire run distance must not exceed 1000 ft. (305 m.).

Ratings: 9 VAC / 20 VA / 50/60 Hz.



Example of Keybus Wiring

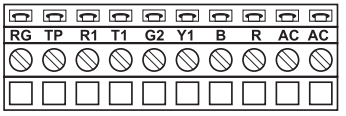
2-3.1 Keybus Wiring

The Keybus is used to communicate to other modules on the system. In this configuration the 'R' terminal is +6VDC, the B terminal is ground, Y1 terminal is the CLOCK and the G2 terminal is the DATA. If the system is configured for Keybus then Keybus Enabled (section [018] option 1) must be ON. Hardwired zones 1 and 2, and PGMs 1 and 2 will not be available. If an NT9204 module is connected to the system (via the Keybus) then PGMs 11, 12, 13 and 14 will be available. Enter [00] in section [030] when an NT9204 is used.

☞ ***The Keybus can not drive any module other than the NT9204 directly. To connect to LINKS2x50, an NT9204 module must be connected to the Keybus.***

Figure 5

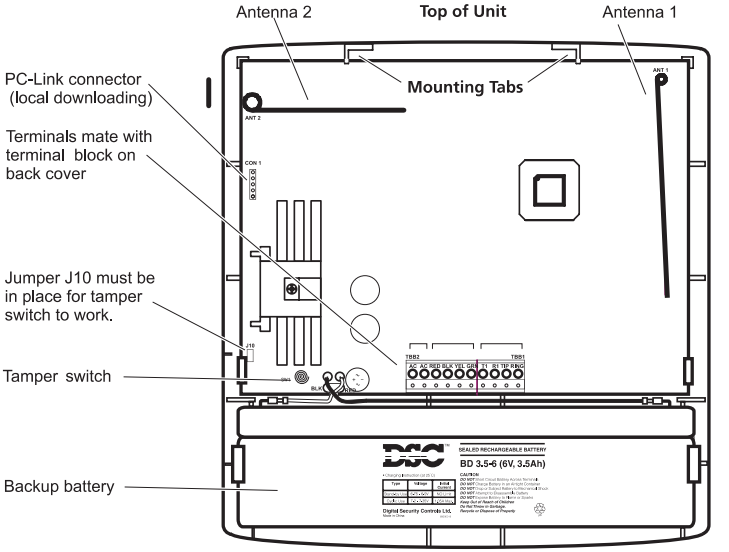
Layout of Terminal Block Located on Back Cover



AC Yel AC Yel	9 VAC, 20 VA Input Power from AC Transformer

	Keybus	Zones	PGMs
R Red	6VDC	6VDC	6VDC
B Blk	Common	Common	Common
Y1 Yel	Clock	Zone 1	PGM 1
G2 Grn	Data	Zone 2	PGM 2

T1 Brn R1 Gry	**OUT** to Telephone
TP Grn RG Red	**IN** from Telephone Co.



2-3.2 Programmable Output Wiring

Programmable outputs (PGMs) are available directly from the system panel or from the NT9204 module. When activated, the output will switch to ground. PGM outputs can be programmed in any of the options listed in section [009] and can be customized using up to 8 attributes, see section [141].

☞ ***PGMs 3 through 10 are not supported at this time.***

PGMs 1, 2 - PGM 1 and 2 can sink 50 mA. This output can drive an LED indicator or small buzzer directly. Connect Y1 (PGM 1) or G2 (PGM 2) to the negative (-) terminal of the device and connect the positive terminal of the device to the R terminal. If current greater than 50 mA, or voltage greater than 6 VDC is required for an application then a relay must be used.

PGM 1 and PGM 2 - are programmed in section [009], output attributes are programmed in section [141] and [142].

PGMs 11, 12, 13, 14 - The NT9204 provides 4 high current (1.0 Amp) programmable outputs that sink outputs to a 12 VDC supply. These PGMs are programmed in section [011]; output attributes are programmed in sections [151] – [154].

2-3.3 Hardwired Zones

Two hardwired zones are available in three configurations. Only one configuration can be selected for both zones, and each must be wired according to the selected configuration. The Y1 terminal is Zone 1 and the G2 terminal is Zone 2. The B Terminal is common for both zones. All wiring is connected between the appropriate zone terminal and 'B' (common). To enable this option, section [018] option 1 must be OFF (default).

☞ ***The default setup is for single EOL resistors.***

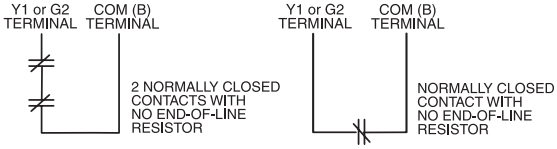
These zones can be assigned to any zone number through Flash Programming or Advanced Programming (section [030]). Zone loop response time is programmed in section [031] (default = 500 ms).

☞ ***Entering [00] in section [030] will configure the associated terminal as a PGM output. To configure the terminal as a zone, [01]-[32] must be entered.***

Enroll the Y1 terminal as 200001 and the G2 terminal as 200002 (Flash Programming only). Hardwired zones can be wired in any of the configurations indicated below:

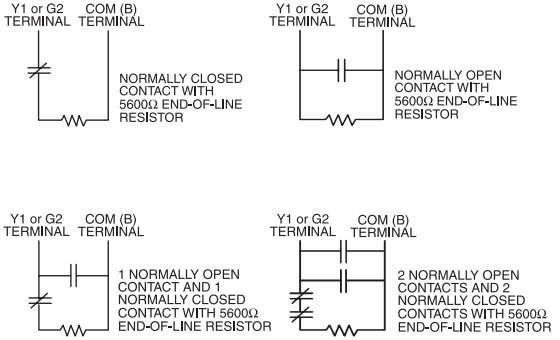
NC Loops with no EOL Resistor- This is the simplest method of wiring hardwired zones. One or more normally closed (NC) contact devices may be wired in series between the Y1 terminal (Zone 1) and the B terminal and/or the G2 terminal (Zone 2) and the B terminal as required. No End-of-Line (EOL) resistor is required.

☞ ***Normally Open (NO) devices can NOT be used in this configuration.***



In this configuration there is no supervision or tamper detection of zones. An open condition will sound an alarm; a short circuit condition will not be indicated. To program the system for this configuration, enter Advanced Programming (See Chapter 3) and set section [013] option [1] to ON.

Single End-of-Line (EOL) Resistors - In this configuration normally closed (NC) devices as well as normally open (NO) devices can be wired to the system. NC devices are wired in series with a 5600 Ω resistor. NO devices are wired in parallel with a 5600 Ω resistor. Multiple devices can be wired in a series/parallel configuration on a single zone as indicated below. The number of devices that can be wired on a single zone is limited by the wire run distance which must not exceed 1000 ft. (305 m.).

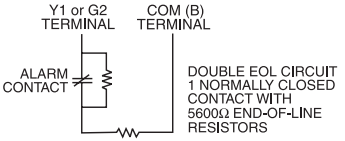


In this configuration the system should always see 5600 Ω when the zone is not violated. If the zone becomes open or short the system will go into alarm. There is no supervision or tamper detection of zones.

To program the system for this configuration, enter Advanced Programming (see section 5) and set section [013] option. [1] to OFF and option [2] to OFF.

Double End of Line (DEOL) Resistors - In this configuration one NC (normally closed) contact device may be wired for each zone between the Y1 terminal (zone 1) and the B terminal and/or the G2 terminal (zone 2) and the B terminal, as indicated below.

☞ ***Normally Open devices or multiple devices can NOT be used in this configuration***



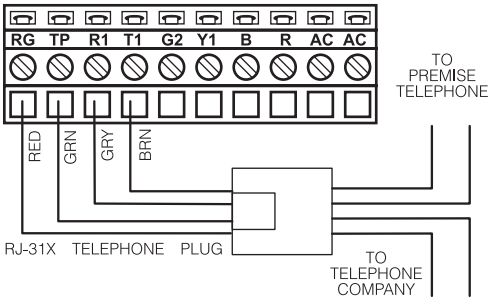
In this configuration the system should see 5600 Ω in the normal state. If the zone becomes open, the system interprets this as a tamper. If the zone becomes short circuited the system will interpret this as a fault. If the system sees 11,200 Ω the system will interpret this as a zone violation and will go into alarm.To program the system for this configuration, set section [013] option [1] to OFF and option [2] to ON (see Chapter 5: Advanced Programming).

☞ ***The hardwired zones of this product are intended to be used with contacts or key-switches. No power is available to power motion or smoke detectors***

2-3.4 Telephone Line

If a telephone line is required for central station communication or downloading, connect the RJ-31X telephone line to the terminals indicated in the figure below.

RJ-31x Telephone Connection



2-3.5 Battery and AC Power.

☞ ***Do NOT apply power until all wiring is completed.***

☞ ***The unit will not power up from the battery, AC power must be connected.***

1. Insert the two AC leads from the 9 VAC transformer into the terminal block on the back cover and secure with a flat bladed screwdriver.
2. Connect the Red battery lead to the positive battery terminal and connect the Black battery lead to the negative battery terminal.
3. Mount the control unit. See paragraph 2-2.3

2-4 Wireless Device Placement

Refer to the appendices in the back of the manual for general guidelines on the placement of smoke detectors, motion detectors and wireless contact transmitters. Refer to the associated installation sheet for details.

☞ ***Perform a Module Placement Test to verify that the device is within range of the NT9005 before permanently mounting any wireless device.***

Chapter 3: Programming

3-1 Programming Overview

There are three methods of programming the NT9005: Flash Programming, Advanced Programming, and downloading with DLS2002 Software.

[*] Functions

All operational functions and programming methods are accessible through [*] functions. These functions are accessed by pressing the [*] key and [0-9] keys to select the function when the green **Ready** indicator is on. These functions are listed below. See ***Paragraph 3-3, [*] Functions.***

[*][0]	Quick Arm (while disarmed) Quick Exit (while armed)
[*][1]	Zone Bypassing (while disarmed) Activating Bypassed Zones (while armed)
[*][2]	Trouble
[*][3]	Alarm Memory
[*][4]	Door Chime ON/OFF
[*][5]	Programming Access Codes
[*][6]	User Function
[*][7]	PGM Output Control
[*][8]	Flash/Advanced Programming
[*][9]	Arming without Entry Delay

Flash Programming

Flash programming provides a quick method of programming for installations that use the defaults provided, or as the basic setup before customizing other options in Advanced Programming. The options that can be programmed in Flash Programming are listed below. See ***Chapter 4: Flash Programming:***

1	Serial Number Enrollment
2	Central Station Telephone Number
3	Central Station Account Code
4	Module Placement

Advanced Programming

Advanced Programming enables the installer to custom design all aspects of the system. See ***Chapter 5: Advanced Programming.***

DLS Software Programming

DLS software enables the installer to download/upload programming using DLS software. Downloading can be performed remotely with a computer, modem and telephone land line, or locally using PC-Link.

3-2 Conventions Used

The symbols and conventions used in this section are indicated below.

↗FLASH↗	Indicates this function is available in Flash Programming
[*]Function	Indicates that this function can be programmed in [*] functions
☞	Indicates important notes
[*]	Indicates that the keys enclosed in the brackets are to be pressed
☐✓	Indicates this is an option which can be toggled ON or OFF. The checkmark indicates that this option is the default.
I___I___I	Indicates that decimal or hexadecimal data entry is required

3-2.1 Programming Decimal Data

Some programming sections require decimal (0-9) entries, such as zone defintions and system times. Ensure that all entry data is recorded in the space provided before programming each section.

Most sections require a specific number of digits. Once all digits have been entered the panel will automatically exit the section and return to the previous menu.

If the [#] key is pressed, only the data entered will be changed. All programming data remaining will be left unchanged. For example, when programming telephone numbers, press the [#] key after the number is entered, to exit the programming section. This will avoid entering all 32 digits.

3-2.2 Programming Hexadecimal Data

Hexadecimal or 'hex' digits are often required for a programming section, such as telephone numbers and reporting codes. To enter a hexadecimal number press the [*] key followed by digits [1] through [6]. Digit [1] corresponds to hex A, digit [2] corresponds to hex B, etc. The system will remain in the hexadecimal programming mode until [*] is pressed. This will terminate the hexadecimal mode, returning the system to decimal mode.

For example to enter: '123A4BC5'
Enter: [1][2][3][*][1][*][4][*][2][3][*][5]

3-2-3 Programming Toggle Options

Many programming options are either toggled on or off. These options are indicated by the check box '☐' symbol. A check box with a check mark beside it '☐✓' indicates that this is the default state. To toggle an option on or off, press the digit corresponding to the option number.

3-3 [*] Functions

All **[*]** function programming and operation are detailed in the following sections.

[*] Functions

All programming of features, function keys, and priority keys (Fire, Panic and Auxiliary keys) is accomplished through the [*] functions. The default settings for the function keys, priorty keys and the display can be found in Advanced Programming, section [000]. To review the default settings for these features refer to Advanced Programming sections [000] - [999]. The complete list of [*] programming commands is detailed below.

To enter [*] functions [*][3], [*][5], [*][6], [*][8], [*][9] begin from Ready mode.

Functions [*][0], [*][1], [*][2], [*][4]and[*][7] can be entered when the system is armed or disarmed (Ready).

In Ready mode, the time will be displayed and:

The Ready light (grn) will be **Steady ON**

The Armed light (red) will be **OFF**

The Trouble light (amber) can be **Steady ON or OFF**

If there are alarms in memory the **Memory** icon will be displayed.

If in a programming mode or other state press **[#]** to return to Ready mode.

Press **[*]** Keypad will **Beep**
Display will **Blank**
Grn light will turn **Off**
Amber light will turn **Off**

Press [0] to [9] as required.

☞ *If a key is not pressed within 30 seconds the system will return to Ready mode.*

Press [#] at any time to return to 'Ready Mode'

[*][0] Quick Arm/Quick Exit

When Disarmed - Entering **[*][0]** will arm the system when the '**Quick Arm**' feature is enabled (default ON).Quick arm may be used as a convenience for regular users or when the system will be armed by individuals unauthorized to disarm the system. See section [015] option [4].
When Armed - Entering **[*][0]** when the system is armed will allow the user 2 minutes to exit the premises through any delay zone without altering the status of the system if the **Quick Exit** feature is enabled (default ON) **(section [015] option 3).** After [*][0] is entered, only one delay zone may be tripped. If the delay zone is left unrestored at the end of the 2 minutes, it will begin the entry delay sequence. Any additional activity on any other active zone will cause that zone to begin its alarm or entry delay sequence. Quick Exit is not designed to extend the standard Exit delay.

[*][1] ZONE BYPASSING

When Disarmed - A bypassed zone will not cause an alarm. If a zone is bypassed the panel can be armed (Ready light will be on) even if the zone is open. Use zone bypass when access is needed to part of the protected area. Damaged wiring or contacts on a zone can be temporarily bypassed until repairs can be made so that the panel can be armed.To bypass zones, enter **[*][1]** (an access code may be required in order to gain access if enabled by the installer).
Then enter the two digit zone number. While in this menu the first two digits of the clock display will scroll through all zones currently bypassed. Individual bypassed zones are not shown while armed.
Bypass Recall – When **[99]** is entered on a keypad, the last group of zones that were bypassed are recalled.
Clearing Bypasses – When **[00]** is entered on the keypad, all bypassed zones are cleared. This includes zones that were recalled as a Bypass group, or manually bypassed.
Bypass Groups – When in the **[*][1]** menu, manually bypass the desired zones. When the desired zones are bypassed, press **[95]** to store them in Group One, or press **[96]** to store them in Group Two. These groups may be recalled by entering **[91]** for Group One or **[92]** for Group Two.
Activating Auto Bypassed Stay/Away Zones - When the system is armed in the Stay mode by arming and not exiting through a Delay zone during the exit delay or by pressing a function key programmed for Stay Arm or Arming Without Entry Delay **[*][9]**, the zones programmed as **Stay/Away** zones are automatically bypassed. This [*][1] command is used to remove the automatic bypass from these zones to fully arm the system. Once this command is executed, all **Stay/Away** zones will follow the programmed Exit Delay time, and when the Exit Delay expires, the panel will log **Armed in Away Mode**. If the panel is armed in Away mode, pressing **[*][1]** will cause the Stay/Away zones to become re-bypassed, thus logging **Armed in Stay Mode**. If function keys require the entering of an access code, a valid access code must be entered to toggle between arming modes. The access code used to perform this function will be logged with "User Log User XX"**.**

☞ *If armed with the Away function key it is not possible to toggle to Stay mode.*

[*][2] Trouble Announcements

The panel continuously monitors a number of possible trouble conditions. If one of these conditions occurs, the keypad **Trouble** indicator will light and the audible indication will sound (two short beeps every 10 seconds), except for an AC failure. When the [#] key is pressed the audible indication will stop but the trouble is not cleared. Trouble conditions are logged to the event buffer and can also be transmitted to the monitoring station. Pressing **[*][2]** will cause the system to light icons 1-8 to indicate the trouble conditions listed below. Troubles 1, 5, 6 and 7 can be expanded for more details by pressing the corresponding [1][5][6] or [7] key. **Press [#]** to return to the Ready mode. There is no Trouble memory. The event buffer can be used by DLS to perform this function.

☞ *Troubles can be viewed when the system is armed or disarmed. option 3 in section [013] must be ON.*

1 Service Required

1. Low Battery - Standby battery voltage is measured under load every 4 minutes and during System Test.

2. Future Use

3. General System Trouble
Any peripheral module trouble will be indicated and communicated with a General Trouble but logged to the event buffer with a detailed description.
* NT9204 Supply Trouble (excessive current draw or short on Aux+)
* NT9204 Output Fault (no load on output 01. Strap 1k ohm resistor from 01 to Aux+ if not used)
* RF Jam verified (other signals are broadcasting on 433 MHz band)

4. General System Tamper - Any peripheral module tamper or unit tamper will display and communicate a General System Tamper. The details of this event will be logged to the event buffer.

5. General System Supervisory - If the system loses Supervisory signals from a peripheral module, a General Supervisory trouble will be displayed and communicated. The details of this event will be logged to the event buffer.

6. RF Jam- Indicates a jamming signal has been detected for more than 30 seconds.

7. NT9204 Low Battery - The NT9204 module has a low battery condition.

8. NT9204 AC Fail - The NT9204 module has detected an AC power failure. This Trouble will initiate the trouble beeps after the AC fail transmission delay if Trouble #2 is **NOT** present.

2 AC Failure - There is no audible annunciation on AC power failure. The system **Trouble** light will come **ON**, but the audible indication will not sound until there is a low battery condition. Transmission delay can be programmed for 000 to 255 minutes. If the AC fails, the battery will be continuously checked until the panel shuts down.

3 TLM Trouble (Telephone Line Monitoring) - The telephone line voltage is measured every 10 seconds. If the voltage drops below 3 volts for the number of consecutive checks programmed in section [370] plus 2 additional checks, a Telephone Line Trouble is generated. If TLM is enabled, it must perform at least 3 checks (settings of 000 and 001 in **section [370]** will result in 3 checks, setting of 002 will result in 4 checks, setting of 003 will result in 5 checks, etc). The actual display of the TLM trouble can be delayed in Installer's Programming.

4 FTC (Failure to Communicate) - If the digital communicator is unsuccessful in communicating with any of the programmed telephone numbers, a failure to communicate trouble will be generated. If a later attempt to communicate is successful, the panel can also transmit the FTC reporting code and all previous unsuccessful events.

☞ *A Telephone #1 FTC will only occur after Telephone #3 has had an FTC as well, if programmed in **section [303] and [380] option [5]***

5 Zone Fault - If any zone on the system is in the Fault state, this trouble will be generated.
For hardwired zones using double-end-of-line supervision, this is the shorted state; for RF sensors, this is a loss of Supervisory signals. If **[5]** is pressed in the Trouble mode, the keypad will now display all of the zones in trouble.

☞ *This trouble will be generated and displayed in the armed state if a Fire trouble is present. It will also restart the Trouble beeps. If any zone enters this trouble state (short), the keypad buzzers will sound trouble beeps to annunciate the condition.*

6 Zone Tamper - This trouble is used with DEOL Zone Supervision or on any **RF zone**.
If any zone is in the Tamper state (hardwired or RF), this trouble will be generated. Zones excluded from this are Fire and zones not supporting the DEOL configuration (e.g., keyswitch). If [6] is pressed in the Trouble mode, the keypad will now display all of the tampered zones. If any zone enters this Tamper state (open), the keypad buzzer will sound trouble beeps to annunciate the condition.

7 Device Low Battery - If an RF Device reports a Low Battery signal to the panel, this trouble will be generated.

1 **Press [*][2][7]** ; keypad beeps 2 times, scrolls zones 1-32.
2 **Press [7] again**; keypad beeps 3 times,[Future use]
3 **Press [7] again**, keypad beeps 4 times,to scroll wireless keys 1-16.
4 **Press [7] again**, keypad beeps 2 times,to return to zones 1-32. (Step 1)

8 Loss of System Time - When the panel is powered up, the internal time of day clock must be set to the correct time. This trouble is cleared when an attempt is made to reset the internal time of day clock.

[*][3] Alarm Memory

IF an alarm is in memory when the system is disarmed the **Memory** icon will be turned **ON.** Press **[*]** then **[3]** to enter the alarm memory mode. The **Memory** light will flash and any alarm caused during the last armed period will be scrolled. Press **[#]** to return to the **Ready** mode.

☞ *Arming the system will clear memory. When disarmed there is no memory of previous armed states. The event buffer can be used to achieve this function by uploading to a computer with DLS2002 software.*

[*][4] Door Chime ON/OFF

When Armed or Disarmed the Door Chime feature is used to sound a tone from the keypad whenever a zone programmed as a Chime type is violated or restored. When the Door Chime feature is turned ON, the keypad will beep several times whenever a Chime zone is activated. To turn the feature on or off, enter **[*][4]**. If the feature is being turned ON, the keypad will beep 3 times and the keypad will display the **Chime** icon. If the feature is being turned OFF, the keypad will sound a single long tone and the keypad **Chime** icon will turn OFF.

[*][5] Programming Access Codes

Enter **[*][5][Master Code][01-32,33,34,40,41,42]** to program access codes.
Enter **[*][5][Master Code][01-32,33,34,41,42][*]** to delete an access code. The code will be immediately erased and the panel will return to access code programming.

User Codes (Access Codes 01 & 32)

User access codes are intended to be unique for each user. This allows the system to identify the user (by logging to the event buffer) when the system is armed, disarmed etc.

Duress Codes (Access Codes 33 & 34)
Duress codes 33 and 34 are standard user codes that will transmit the Duress reporting code (if programmed) whenever the code is entered to perform any function on the system.

☞ *Duress codes are not valid when entering **[*][5]**, **[*][6]** or **[*][8]** sections.*

Master Code (Access Code 40)
The Master Code can only be changed by the Master User or the Installer. If the Master Code is not changeable, **(section [015] option 6)** is enabled; then only the Installer can change this code.

Supervisor Codes (Access Codes 41 & 42)
These codes can only be programmed by the Master Code. These codes are always valid when entering the **[*][5]** User Code Programming section. However, these codes can only program access codes which have equal or lesser attributes. Once programmed, the Supervisor Codes receive the attributes of the Master Code. These attributes can then be edited.

The default attributes of a new code will be the attributes of the code used to enter **[*][5]** programming. The Master Code has attributes 1, 3, 4 **ON**. Enter **[*][5][Master Code][9] [01-32,33,34,41,42]** to edit access codes attributes.

1 Arming, disarming, alarm reset allowed.
2 Future use.
3 Zone bypassing allowed.
4-6 Future use.
7 Bell Squawk on arming/disarming.
8 Future use.

☞ *Attribute 7 enables an access code to generate an arming/disarming bell squawk on entry of the code.*

[*][6] USER Functions

Enter: **[*][6][Supervisor Code or Master Code][1-8]** for functions listed below.

1 Time and Date - The default setting for time and date is AM/PM Time; for 24-Hr time set section **[000][6] option 2** to **OFF**. Time must be entered in 24-Hr Time regardless of format. The format for time and date is:
[*][6][Supervisor Code][1][HH][MM][mm][dd][yy]

HH = hours (00-23) MM = minutes (00-59)
mm = month (01-12) dd = day (01-31)
yy = year (00-99)

E.g., to set time and date to:
March 15, 2001, 6:15 PM enter:
[*][6][Supervisor Code][1][18][15][03][15][01]

To set time only enter:
[*][6][Supervisor Code][1][1800][#]

2 Auto-arm Enable/Disable - Enter **[*][6][2]** to enable (three beeps indicate that auto-arm is enabled) or disable (one long beep indicates that auto-arm is enabled).

3 Auto-arm Schedule - Enter **[*][6][3]** followed by **[1-7]** (Sunday-Saturday) to change the auto-arm time for each day of the week. An icon will display the current day. When the day you wish to change has been selected, enter the auto-arm time in 24-hr. format (e.g., hh:mm, 18:45 = 6:45 PM). The system will return you to the day selection menu. Enter the day you wish to select or enter **[#]** to exit auto-arm programming.

4 System Test - The system siren output, keypad display, lights, communicator and standby battery are tested. The siren and all display icons will turn **ON** for two seconds.

5 Enable DLS - When this command is executed , the system will open a window where calls from the downloading computer will be detected by the system. This window may be set to 1 Hour or Six Hours (default).See **section [702] option 7**.

6 User Call-up (default ON) -When this command is executed , the system will make one attempt to call the downloading computer. The downloading computer must be waiting for the system to call for downloading to occur. This must be enabled in **section [400] option 2.**

7 Not Used

8 User Walk Test - This will start or end the User Walk Test. Three beeps indicate that the test has begun; a two second tone indicates that the test has ended.

☞ *The User Walk Test is identical to the Installer Walk Test described in **section [901]**, except that **NO** communication to the central station is initiated.*

9 Not Used

[*][7] Command Outputs [*][7][1-4]

See **section [141] to [154] PGM Output Attributes**. When any of the four **[*][7]** outputs are activated, six acknowledgment beeps are heard. These functions can be performed when the system is armed or disarmed.

☞ *When this command is executed, all outputs programmed as this type will be active. If multiple outputs are programmed as the same type, the PGM options must be programmed the same.*

1 Command Output #1 - This function is user-controlled. This can be performed when a programmable output is programmed as type **[19]**. This output can be used for operating devices such as garage door opener, special lighting or door strikes.

2 Command Output #2 - This function is user-controlled. This function can be performed when a programmable output is programmed as type **[20]**. Type **[20]** may be used for operating devices such as garage door openers, special lighting or door strikes.

3 Command Output #3 - This function is user-controlled. This function can be performed when a programmable output is programmed as type **[21]**. This output can be used for operating devices such as garage door opener, special lighting or door strikes.

4 Command Output #4 - This function is user-controlled. This function can be performed when a programmable output is programmed as type **[22]**. This output can be used for operating devices such as garage door opener, special lighting or door strikes.

[*][8] Flash/Advanced Programming

Enter **[*][8][Installer Code][1]** to enter Flash Programming. See ***Flash Programming*** for Details

Enter **[*][8][Installer Code][2]** to enter Advanced Programming. See ***Chapter 5: Advanced Programming*** for Details

☞ *The system must be disarmed to enter programming.*

[*][9] Arming without Entry Delay

When Disarmed, entering **[*][9]** or pressing a function key programmed for No Entry Arm before entering an access code arms the panel without any entry delay on the delay zones and bypasses zones that are defined as **Stay/Away.** This command is used to arm the system while at home. When the system is armed in this mode, the **Armed** light will flash and the **Bypass** light will be on to indicate the **Stay/Away** zones are bypassed. Once the panel is armed in this mode, using **[*][1]** will remove the bypass from the **Stay/Away** zones if they were **NOT** manually bypassed. The **[*][1]** command used here only removes the bypass from zones that have been automatically bypassed with the **[*][9]** command.

When Armed, entering **[*][9]** will toggle the entry delay on and off. This will function when armed in Stay or Away modes, as well as when the system is **[*][9]** armed. If the panel is already **[*][9]** armed and **[*][9]** is pressed, the Armed light will stop flashing, and the panel will log **Armed with Entry**. If **[*][9]** is pressed while armed in Stay or Away modes, the Armed light will flash, and the panel will log **Armed with No Entry**.

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 **F1** key will take the installer to the next Flash section, and pressing the **F2** 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.

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 **F1** 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.

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.

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.

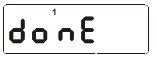
☞ *This section can be manually programmed in Advanced Programming section **[310]***

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.

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 **F1** key will allow you to skip that zone.

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



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________________________________

Zone	Serial Number	Location
01	I__I__I__I__I__I__I	__________
02	I__I__I__I__I__I__I	__________
03	I__I__I__I__I__I__I	__________
04	I__I__I__I__I__I__I	__________
05	I__I__I__I__I__I__I	__________
06	I__I__I__I__I__I__I	__________
07	I__I__I__I__I__I__I	__________
08	I__I__I__I__I__I__I	__________
09	I__I__I__I__I__I__I	__________
10	I__I__I__I__I__I__I	__________
11	I__I__I__I__I__I__I	__________
12	I__I__I__I__I__I__I	__________
13	I__I__I__I__I__I__I	__________
14	I__I__I__I__I__I__I	__________
15	I__I__I__I__I__I__I	__________
16	I__I__I__I__I__I__I	__________

Notes:

____

____

____

____

____

____

____

____

____

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

Central Station Account Number I__I__I__I__I

Installer's Code I__I__I__I__I

Zone	Serial Number	Location
17	I__I__I__I__I__I__I	__________
18	I__I__I__I__I__I__I	__________
19	I__I__I__I__I__I__I	__________
20	I__I__I__I__I__I__I	__________
21	I__I__I__I__I__I__I	__________
22	I__I__I__I__I__I__I	__________
23	I__I__I__I__I__I__I	__________
24	I__I__I__I__I__I__I	__________
25	I__I__I__I__I__I__I	__________
26	I__I__I__I__I__I__I	__________
27	I__I__I__I__I__I__I	__________
28	I__I__I__I__I__I__I	__________
29	I__I__I__I__I__I__I	__________
30	I__I__I__I__I__I__I	__________
31	I__I__I__I__I__I__I	__________
32	I__I__I__I__I__I__I	__________

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;
[Installer Code]	the default code is [5555]
[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

[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.

28 **24-Hr Bell/Buzzer Zone -** This zone operates like a 24-Hr Burglary when armed and like a 24-Hr Supervisory Buzzer when disarmed.

29 **Instant Stay/Away -** This zone will operate the same as the Interior Stay/Away zone except that it will cause an instant alarm when not bypassed.

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.*

[001] - [004] Zone Definitions

FLASH

This section requires 32 two digit entries. Each two digit entry determines how the zone will operate. See **Zone Definitions** on the preceding 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**	(000 - 255) seconds
Entry Delay 2	**045**	**I___I___I___I**	(000 - 255) seconds
Exit Delay	**120**	**I___I___I___I**	(000 - 255) seconds
Bell Cut-off	**004**	**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]** programming.*

[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 **Master 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. Openings or closings using this code report as a **Special Opening/Closing** 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 DLS2002 downloading software package.
Default Attributes: 3 **ON**

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 DLS2002 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.

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.

[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 30 Seconds ☐✓

RF Jam will Log/Transmit and indicate in [*][2][1] icon 6 after 30 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 30 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	**055**	**I___I___I___I**	Valid entries (001-255)
	055	**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	✗	✗	✗	✗	✓	✗	✗	✓
28	24-Hr Bell/Buzzer	✓	✓	✗	✓	✗	✗	✗	✓
29	Instant Stay/Away	✓	✓	✗	✓	✓	✓	✗	✓
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	( )	☐	☐	☐	☐	☐	☐	☐	☐

[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 **007** **I___I___I___I** 001-007 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 minutes

[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.

[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]**

	Alarms		Alarm Restorals	
Zone	**Section/Entry**		**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

[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 Future Use

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 30 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!*

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.

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 5 (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 4 (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 programming 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 ***DLS2002 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

[700] 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

[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

Module Programming

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

[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

Default **10** **I___I___I** **Valid entries are 10-99**
Delay = Entry x 15 minutes

☞ 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.

[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	☐ ✓	☐

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

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 detction, zones must be placement tested in the location that 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]

[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

Appendix B - Smoke Detector Placement

Research indicates that hostile fires in homes generate smoke to a greater or lesser extent. Experiments with typical fires in homes indicate that detectable quantities of smoke precede detectable levels of heat in most cases. For these reasons, smoke alarms should be installed outside of each sleeping area and on each story of the home.

☞ ***The following information is for general guidance only and it is recommended that local fire codes and regulations be consulted when locating and installing smoke alarms.***

Additional smoke alarms beyond those required for minimum protection should be installed. Additional areas that should be protected include: the basement; bedrooms, especially where smokers sleep; dining rooms; furnace and utility rooms, and any hallways not protected by the required units.

On smooth ceilings, detectors may be spaced 30 ft. (9.1m.) apart as a guide. Other spacing may be required depending on ceiling height, air movement, the presence of joists, uninsulated ceilings, etc.

Do not locate smoke detectors at the top of peaked or gabled ceilings; the dead air space in these locations may prevent the unit from detecting smoke.

Avoid areas with turbulent air flow, such as near doors, fans or windows. Rapid air movement around the detector may prevent smoke from entering the unit.

Do not locate detectors in areas of high humidity.

Do not locate detectors in areas where the temperature rises above 100°F (38°C) or falls below 41°F (5°C).

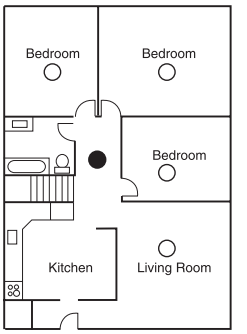


Figure 1

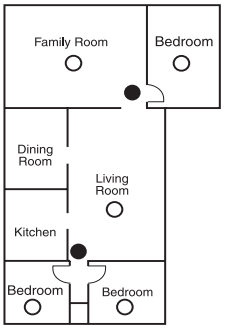


Figure 2

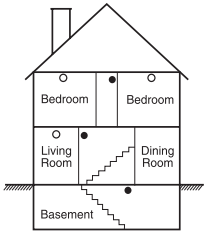
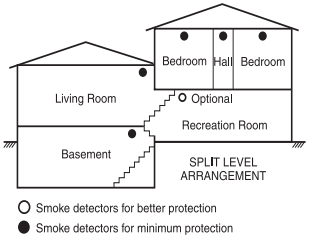


Figure 3



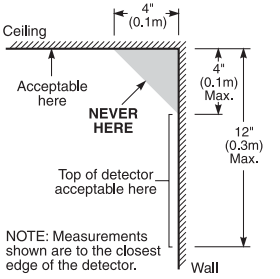


Figure 4

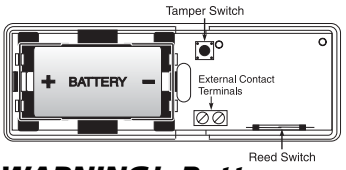
Appendix C - WLS925L-433/WLS935L-433 Door/Window Contact

Remove Cover

At the notched location on the cover, insert the flat blade of a small screwdriver between the base and the cover and twist the screwdriver to pop the cover off.

Install Battery

Use care when installing the battery and observe the correct polarity (see diagram below). Use only the Eveready Lithium Energizer No. EL123AP, Tekcell or Panasonic CR123A lithium battery.

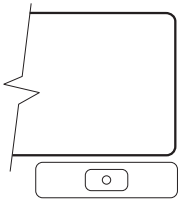


NOTE: Battery replacement must only be done by a qualified technician.

WARNING!: Battery may explode if mistreated. Do not recharge, disassemble or dispose of in fire.

Locate Transmitter

Locate where the transmitter is to be mounted. Perform the Module Placement Test to ensure that the selected location is in range of the wireless receiver (see receiver *Installation Manual* for instruction).



Determine where the magnet will be placed. In order to activate the reed switch, the magnet must line up with the end of the transmitter.

Remove Circuit Board

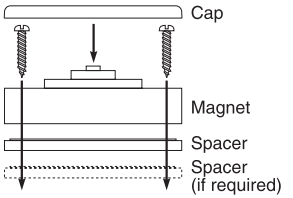
Before mounting the unit, remove the circuit board. At the notched location on the base which is on the same side as the reed switch, insert the blade of a small screwdriver between the base wall and the bottom of the circuit board and pry the circuit board up.

Mount Transmitter and Magnet

Mount the backplate of the transmitter using the screws provided and replace the circuit board. The head of the screw must be below the circuit board so that the sensor is not shorted out. Use flat-headed screws only.

Mount the magnet no more than ¼" (6.4mm) from the transmitter. Use the spacers provided . Once the unit and magnet are mounted, open and close the window/door to ensure that none of the parts interfere with this movement. Only one magnet can be used per transmitter.

Using External Contacts



The external contact terminals can be used to connect external contacts or other switches/devices to the universal transmitter. Install the additional device as per the manufacturer's instruction. Connect the device to the contact terminals of the WLS925L-433 / WLS935L-433.

The input is normally closed and is not supervised.

The wires connecting the external device to the input terminals can be up to 18" (45cm) provided that the resistance of the wire does not exceed 100Ω. The contact and transmitter must also be in the same room.

Only one contact can be used. If an external contact is used, do not install the magnet.

Tamper Switches

There is one tamper switch on the WLS925L-433 and two tamper switches on the WLS935L-433. Removing the cover on either contact will cause a zone tamper. Removing the WLS935L-433 from its mounting surface will also cause cause a zone tamper.

Enrolling a WLS925L-433 / WLS935L-433

On the back of the door contact housing, there will be two serial numbers, a five digit and six digit. Please refer to your receiver Installation Manual for information on which serial number should be enrolled.

NOTE: Please refer to the WLS925L-433/WLS935L-433 Installation Instructions for more details.

Appendix D - WLS904PL-433 Wireless Motion Detector Installation Instructions

The WLS904PL motion detector is designed to combine the convenience of a wireless detector with effective and reliable detection of human motion as well as good protection against the nuisance alarms associated with pets weighing up to 60 lbs (27.3 kg).

Installing The Detector

The WLS904PL provides effective immunity to single or multiple pets whose total combined weight does not exceed 60 lbs. (27.3kg), when installed and configured in the following manner.

Location

Select a detector location that will provide the coverage required and will allow the detector to be mounted a minimum of 6¾ ft (1.95m) high and not higher than 10ft (3m) (7¾ ft / 2.3m recommended).

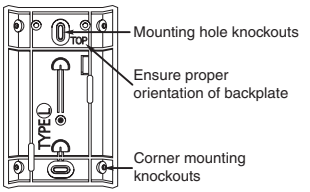
Consider the following to avoid false alarms:

- Do not aim the detector at a stairwell to which a pet has access.
- Do not place furniture or objects higher than 3ft (0.9m) which a pet can climb onto (e.g., a cat on a couch), closer than 10ft (3m) from the detector.
- Mount the detector flat on a wall or in a corner. Do not angle it downwards or use mounting brackets with this detector when used in conjunction with pets.
- Do not aim the detector at reflective surfaces such as mirrors or windows as this may distort the coverage pattern or reflect sunlight directly onto the detector.
- Avoid locations that are subject to direct high air flow such as near an air duct outlet.
- Do not locate the detector near sources of moisture such as steam or oil.
- Do not limit the coverage by placing large obstructions in the detection area such as plants or cabinets.
- For indoor use only.

NOTE: No detector should be mounted without first performing a module placement test to determine that it is in range of the wireless receiver. See the Placement Test instructions in Flash Programming or section [904].

When a location has been selected, remove the plastic from the mounting holes and locate the backplate on the wall and mark screw locations.

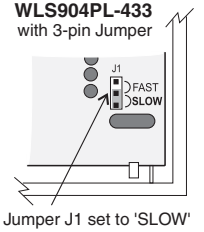
It is suggested that wall anchors be used for all screw locations. Secure the backplate to the wall, and then secure the enrolled detector to its backplate.



Enrolling a WLS904PL

On the back of the PIR housing, there will be 2 serial numbers: a 5-digit number and a 6-digit number. Use the 6-digit number to enroll the serial number.

Changing the Sensitivity Setting



The WLS904PL features "Fast" and "Slow" settings on jumper J1 which is used to configure the detector for the weight of the pet(s) and the environment. For an environment with a single pet whose weight does not exceed 30lbs (13.6kg) the jumper should be set to "Fast" setting. In an environment with single or multiple pets whose combined weight is greater than 30lbs (13.6kg) but not greater than 60 lbs. (27.3kg) the jumper must be set to the "Slow" setting. In a hostile environment or where the installation conditions can not be controlled J1 must be set to the "Slow" setting. The diagram above shows the jumper location. To change the setting from Fast to Slow, move the jumper over one pin, as shown in the diagram.

High Traffic Shutdown Mode

To prolong battery life, the motion detector uses a feature called High Traffic Shutdown. When motion is detected, the device will transmit to the receiver and will then shut down for three minutes. If motion is detected again during the shutdown time, the unit will not transmit the event to the receiver. The detector will thus remain in the shutdown mode until three minutes after the first motion detected was transmitted. The detector will transmit detected motion every three minutes. The High Traffic Shutdown Mode affects testing the motion detector in two ways:

When performing the **module placement test**, the unit must be tampered by removing the unit from the backplate and replacing it. The placement test cannot be performed by creating motion in front of the device.
When performing a **walk test**, the unit must be left idle for three minutes before testing can be performed. Once three minutes has passed, create motion in front of the detector to see if the device is both detecting motion and transmitting to the receiver.

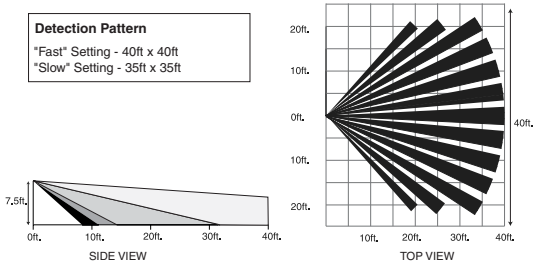
Motion Detector Transmission Delay

A motion detector transmission is always delayed by six seconds. This is necessary to prevent false alarms caused by a motion sensor transmitting before a delay zone has a chance to report. This six-second delay cannot be altered or disabled.

Walk Test Mode

The motion detector has a walk test mode which will activate an LED for testing purposes. During normal operation, the LED will not turn on.
To put the detector in walk test mode, create a tamper by removing the detector from its backplate and then replacing it. Each time the detector senses motion, it will turn on the red LED. Five seconds after motion is detected, the detector will send a signal to the receiver, and the LED will flash rapidly 5 times. The detector will be in walk test mode until it has sent 10 transmissions.
To verify the pet immunity of the detector place the animal(s) within the coverage area and then move out of the zone. Encourage the pet to move around as it normally would and ensure that it moves across the detection pattern of the detector. Verify that no alarm is initiated. To test for catch performance of humans, create motion in the entire area where coverage is desired by walking perpendicular to the lens pattern. Should the coverage be incomplete, readjust or relocate the detector.

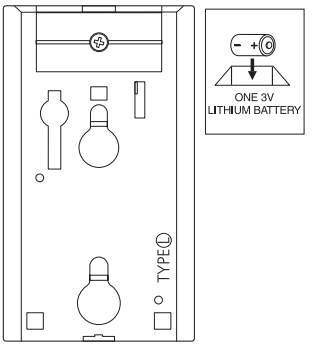
☞ ***The Walk Test Mode will override the High Traffic Shutdown Mode.***



Battery Installation

- This system is designed to work with the Energizer Lithium EL123AP, Tekcell CR123A Lithium or Panasonic Lithium CR123A battery. Do not install any other type. The reliability of the security system depends on its batteries.
- Use fresh batteries. Buy batteries that have a "best before" date of two years or more from your purchase date.When disposing of used batteries, follow the instructions and precautions printed on the battery. Many cities and communities have collection sites or services for used household batteries. Contact your municipal offices for information on the disposal of used batteries.

Remove the motion detector from its mounting plate by holding the sensor by its sides and pushing up. Remove the battery cover, then remove the old battery and wait at least 90 seconds. Install new battery. Place the battery cover back on. Secure the battery cover with the small screw provided. Replace the sensor on its mounting plate, making sure it snaps into place. After the battery is installed, the detector will take 60 seconds to warm up. During this time the LED will flash slowly.



☞ ***NOTE: The polarity of the batteries must be observed. Improper handling of lithium batteries may result in heat generation, explosion or fire, which may lead to personal injuries.***

Keep away from small children. If batteries are swallowed, promptly see a doctor. Do not try to recharge these batteries. Disposal of used batteries must be made in accordance with the waste recovery and recycling regulations in your area.

☞ ***Please refer to the WLS904PL-433 Installation Instructions for more information.***

NOTES

WARNING Please Read Carefully

Note to Installers

This warning contains vital information. As the only individual in contact with system users, it is your responsibility to bring each item in this warning to the attention of the users of this system.

System Failures

This system has been carefully designed to be as effective as possible. There are circumstances, however, involving fire, burglary, or other types of emergencies where it may not provide protection. Any alarm system of any type may be compromised deliberately or may fail to operate as expected for a variety of reasons. Some but not all of these reasons may be:

- **✲ Inadequate Installation**

A security system must be installed properly in order to provide adequate protection. Every installation should be evaluated by a security professional to ensure that all access points and areas are covered. Locks and latches on windows and doors must be secure and operate as intended. Windows, doors, walls, ceilings and other building materials must be of sufficient strength and construction to provide the level of protection expected. A reevaluation must be done during and after any construction activity. An evaluation by the fire and/or police department is highly recommended if this service is available.

- **Criminal Knowledge**

This system contains security features which were known to be effective at the time of manufacture. It is possible for persons with criminal intent to develop techniques which reduce the effectiveness of these features. It is important that a security system be reviewed periodically to ensure that its features remain effective and that it be updated or replaced if it is found that it does not provide the protection expected.

- **Access by Intruders**

Intruders may enter through an unprotected access point, circumvent a sensing device, evade detection by moving through an area of insufficient coverage, disconnect a warning device, or interfere with or prevent the proper operation of the system.

- **Power Failure**

Control units, intrusion detectors, smoke detectors and many other security devices require an adequate power supply for proper operation. If a device operates from batteries, it is possible for the batteries to fail. Even if the batteries have not failed, they must be charged, in good condition and installed correctly. If a device operates only by AC power, any interruption, however brief, will render that device inoperative while it does not have power. Power interruptions of any length are often accompanied by voltage fluctuations which may damage electronic equipment such as a security system. After a power interruption has occurred, immediately conduct a complete system test to ensure that the system operates as intended.

- **Failure of Replaceable Batteries**

This system's wireless transmitters have been designed to provide several years of battery life under normal conditions. The expected battery life is a function of the device environment, usage and type. Ambient conditions such as high humidity, high or low temperatures, or large temperature fluctuations may reduce the expected battery life. While each transmitting device has a low battery monitor which identifies when the batteries need to be replaced, this monitor may fail to operate as expected. Regular testing and maintenance will keep the system in good operating condition.

- **Compromise of Radio Frequency (Wireless) Devices**

Signals may not reach the receiver under all circumstances which could include metal objects placed on or near the radio path or deliberate jamming or other inadvertent radio signal interference.

- **System Users**

A user may not be able to operate a panic or emergency switch possibly due to permanent or temporary physical disability, inability to reach the device in time, or unfamiliarity with the correct operation. It is important that all system users be trained in the correct operation of the alarm system and that they know how to respond when the system indicates an alarm.

- **Smoke Detectors**

Smoke detectors that are a part of this system may not properly alert occupants of a fire for a number of reasons, some of which follow. The smoke detectors may have been improperly installed or positioned. Smoke may not be able to reach the smoke detectors, such as when the fire is in a chimney, walls or roofs, or on the other side of closed doors. Smoke detectors may not detect smoke from fires on another level of the residence or building.

Every fire is different in the amount of smoke produced and the rate of burning. Smoke detectors cannot sense all types of fires equally well. Smoke detectors may not provide timely warning of fires caused by carelessness or safety hazards such as smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches or arson.

Even if the smoke detector operates as intended, there may be circumstances when there is insufficient warning to allow all occupants to escape in time to avoid injury or death.

- **Motion Detectors**

Motion detectors can only detect motion within the designated areas as shown in their respective installation instructions. They cannot discriminate between intruders and intended occupants. Motion detectors do not provide volumetric area protection. They have multiple beams of detection and motion can only be detected in unobstructed areas covered by these beams. They cannot detect motion which occurs behind walls, ceilings, floor, closed doors, glass partitions, glass doors or windows. Any type of tampering whether intentional or unintentional such as masking, painting, or spraying of any material on the lenses, mirrors, windows or any other part of the detection system will impair its proper operation.

Passive infrared motion detectors operate by sensing changes in temperature. However their effectiveness can be reduced when the ambient temperature rises near or above body temperature or if there are intentional or unintentional sources of heat in or near the detection area. Some of these heat sources could be heaters, radiators, stoves, barbeques, fireplaces, sunlight, steam vents, lighting and so on.

- **Warning Devices**

Warning devices such as sirens, bells, horns, or strobes may not warn people or waken someone sleeping if there is an intervening wall or door. If warning devices are located on a different level of the residence or premise, then it is less likely that the occupants will be alerted or awakened. Audible warning devices may be interfered with by other noise sources such as stereos, radios, televisions, air conditioners or other appliances, or passing traffic. Audible warning devices, however loud, may not be heard by a hearing-impaired person.

- **Telephone Lines**

If telephone lines are used to transmit alarms, they may be out of service or busy for certain periods of time. Also an intruder may cut the telephone line or defeat its operation by more sophisticated means which may be difficult to detect.

- **Insufficient Time**

There may be circumstances when the system will operate as intended, yet the occupants will not be protected from the emergency due to their inability to respond to the warnings in a timely manner. If the system is monitored, the response may not occur in time to protect the occupants or their belongings.

- **Component Failure**

Although every effort has been made to make this system as reliable as possible, the system may fail to function as intended due to the failure of a component.

- **Inadequate Testing**

Most problems that would prevent an alarm system from operating as intended can be found by regular testing and maintenance. The complete system should be tested weekly and immediately after a break-in, an attempted break-in, a fire, a storm, an earthquake, an accident, or any kind of construction activity inside or outside the premises. The testing should include all sensing devices, keypads, consoles, alarm indicating devices and any other operational devices that are part of the system.

- **Security and Insurance**

Regardless of its capabilities, an alarm system is not a substitute for property or life insurance. An alarm system also is not a substitute for property owners, renters, or other occupants to act prudently to prevent or minimize the harmful effects of an emergency situation.

DSC erklærer herved at denne komponenten overholder alle viktige krav samt andre bestemmelser gitt i direktiv 1999/5/EC.

Por este meio, a DSC, declara que este equipamento está em conformidade com os requisitos essenciais e outras determinações relevantes da Directiva 1999/5/EC.

"DSC bekräftar härmed att denna apparat uppfyller de väsentliga kraven och andra relevanta bestämmelser i Direktivet 1999/5/EC".

Con la presente la Digital Security Controls dichiara che questo prodotto è conforme ai requisiti essenziali ed altre disposizioni rilevanti relative alla Direttiva 1999/05/CE.

"Por la presente, DSC, declara que este equipo cumple con los requisitos requeridos por la Directiva 1999/5/EC".

Hierdurch erklärt DSC, daß dieses Gerät den erforderlichen Bedingungen und Vorrausetzungen der Richtlinie 1999/5/EC entspricht.

'Δία του παρόντος, η DSC, δηλώνει ότι αυτή η συσκευή είναι σύμφωνη με τις ουσιώδης απαιτήσεις και με όλες τις άλλες σχετικές αναφορές της Οδηγίας 1999/5/EC'.

Hierbij verklaart DSC dat dit toestel in overeenstemming is met de eisen en bepalingen van richtlijn 1999/5/EC.

Par la présente, DSC déclare que cet article est conforme aux éxigences essentielles et autres relevantes stipulations de la directive 1999/5/EC.

DSC vakuuttaa laitteen täyttävän direktiivin 1999/5/EC olennaiset vaatimukset.

Hereby, DSC, declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

The complete R & TTE Declaration of Conformity can be found at www.dsc.com/intl/rttedirect.htm.

CE CLASS 1.7

DSC®

Toronto, Canada • **www.dsc.com**
Printed in Canada

29007148R001