WARNING
This manual contains information on limitations regarding product use and function and information on the limitations as to liability of the manufacturer. The entire manual should be carefully read.

Installation Manual

Software Version 2.5U / DLS-3 v1.3 and higher
See Back Cover for New Features in Version 2.5U
Important - CTR21 Notes

1. This equipment has been approved in accordance with Council Decision 98/482/EC for pan-European single terminal connection to the public switched telephone network (PSTN). However due to differences between the individual PSTNs provided in different countries, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN network termination point.

In the event of problems, you should contact your equipment supplier in the first instance.

2. This equipment was designed to work on the PSTN networks in the following countries:

   Austria, Belgium, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Israel, Norway, Portugal, Spain, Sweden, Switzerland, Netherlands and the UK.

If there is special Software programming to be done for a specific country this will be noted in the Programming Worksheets booklet. Therefore, please consult the Worksheets booklet during programming of the equipment and take note of any special country specific requirements for the PSTN.

If this equipment is to be connected to a PSTN in a country that is not listed above, please contact the vendor to check for compatibility with the network in question.

3. This equipment has only been approved for and is only intended for use with DTMF dialing. Please see page 17 and page 39 for information on programming section [380].

4. In order to comply with CTR21 regulations, the Maximum Number of Dialing Attempts that a control panel can make must not exceed 15. Please see page 35 for information on programming section [160].
# Table of Contents

**Section 1: System Introduction**  
1.1 Specifications ..............................................1  
1.2 Additional Devices ........................................2  
1.3 Out of the Box ..............................................2  

**Section 2: Getting Started**  
2.1 Installation Steps ...........................................3  
2.2 Terminal Descriptions ......................................3  
2.3 Keybus Operation and Wiring ............................4  
2.4 Current Ratings – Modules and Accessories .........4  
2.5 Keypad Assignment ..........................................4  
2.6 Supervision ....................................................5  
2.7 Removing Modules ..........................................5  
2.8 Zone Wiring ...................................................5  
2.9 Fire Zone Wiring .............................................6  
2.10 GSM1000 Zone Wiring .....................................6  
2.11 Keypad Zones .............................................6  

**Section 3: Keypad Commands**  
3.1 Arming and Disarming ......................................8  
3.2 Auto Bypass – Stay Arming ...............................8  
3.3 Automatic Arming ...........................................8  
3.4 Resetting the System After an Alarm ................8  
3.5 [*] Commands ...............................................8  
3.6 Function Keys ...............................................11  
3.7 Features Available for the LCD5500Z .................12  

**Section 4: How to Program**  
4.1 Installer’s Programming ..................................13  
4.2 Programming Decimal Data ..............................13  
4.3 Programming HEX Data ..................................13  
4.4 Programming Toggle Option Sections ...............14  
4.5 Viewing Programming ....................................14  

**Section 5: Program Descriptions**  
5.1 Programming Security Codes ..........................15  
5.2 Zone Programming ..........................................15  
5.3 Zone Attributes .............................................16  
5.4 Assigning Keypad Zones .................................17  
5.5 Communicator – Dialing ...................................17  
5.6 Communicator – Account Numbers ................17  
5.7 Communicator – Telephone Numbers ................17  
5.8 Communicator – Reporting Codes ....................18  
5.9 Communicator – Reporting Formats .................19  
5.10 Downloading ...............................................20  
5.11 PGM Output Options ....................................21  
5.12 Telephone Line Monitor (TLM) .......................22  
5.13 Bell ..........................................................23  
5.14 Test Transmission ..........................................23  
5.15 Transmission Delay ......................................23  
5.16 Fire, Auxiliary and Panic Keys .......................23  
5.17 Arming/Disarming Options .........................23  
5.18 Entry/Exit Delay Options ............................24  
5.19 Swinger Shutdown ........................................24  
5.20 Event Buffer ...............................................24  
5.21 Remote Reset of System (Lock and Reset Codes) 24  
5.22 Keypad Lockout Options .............................25  
5.23 Keypad Blanking ..........................................25  
5.24 Keypad Backlighting ....................................25  
5.25 Keypad Tampers .........................................25  
5.26 GSM1000 Cellular Communicators ...............25  
5.27 Additional System Modules .........................26  
5.28 Engineer’s Reset ..........................................26  
5.29 Clock Adjust ................................------------26  
5.30 Timebase .....................................................26  
5.31 Resetting Factory Defaults ...........................26  
5.32 Installer’s Lockout .......................................27  
5.33 Walk Test (Installer) ....................................27  

**Section 6: Programming Worksheets**  
28  

**Appendix A: Reporting Codes**  
42  

**Appendix B: Programming LCD Keypads**  
44
PC585 Wiring Diagram

**WARNING**
High voltage. Disconnect AC power and telephone lines prior to servicing.

Battery capacity for standby is at least 24 hours. Example: DSC model 1807-12.

Battery voltage: 12 VDC. Typical battery charge current is 500 mA.

- 16.5VAC 40VA. The power supply shall meet the applicable requirements of the Low Voltage Directive.

- 50-60Hz

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**PGM CONNECTIONS**

**LED INDICATOR**

**RELAY OUTPUT**

**DSC 8641C**

**COMPOUND SYSTEM WIRING LOCATIONS INSTALLATION FUGURED**

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**4-WIRE SMOKE DETECTORS**

Sensing Detector must be meshing type (DSC Model 8641C).

The PGM Output must be programmed for sensor reset (See 8638 [089]).

Note: PGM must be used if total current draw exceeds 50mA

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**TYPICAL ZONE CIRCUITS**

**END OF LINE RESISTORS: 5600Ω**

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**RESISTOR IDENTIFICATIONS**

**BELLO CIRCUIT**

**SMALLE AND DOUBLE COIL**

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**MADE IN CANADA**

**IMPORTANT:**

1. The connection to the mains supply must be made as per the local authorities’ rules and regulations. In the UK, as per BS6701.

2. If during the installation a knockout is removed, it is the installer’s responsibility to ensure that the same degree of protection for the cabinet is provided by the use of bushings, fittings, etc.

3. The cabinet must be secured to the building structure before operation.

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**WARNING:** Not to be removed by anyone except occupant.

4. The equipment is intended to be installed by SERVICE PERSONNEL ONLY or equivalent (e.g., persons having appropriate technical training and experience necessary to be aware of hazards to which they are exposed in performing that task).

5. Internal wiring shall be routed in a manner that prevents:
   - excessive strain on wire and on terminal connections;
   - loosening of terminal connections;
   - damage of conductor insulation.

6. The power supply shall meet the applicable requirements of the Low Voltage Directive.

7. The ground connection shall be as shown above or equivalent.
Section 1: System Introduction

1.1 Specifications

Downloading Software Support
- PC585 v2.5U uses DLS-3 v1.2 and up.

Flexible Zone Configuration
- Four fully programmable zones; system expandable to eight zones using keypad zone inputs and wireless zones
- 38 access codes: one master code, one maintenance code, two duress codes, two supervision codes and 32 general access codes
- 28 zone types; 8 programmable zone attributes
- Normally closed, single EOL and double EOL zone wiring
- Eight wireless zones available using the PC5132 Wireless Receiver

Audible Alarm Output
- 700mA Supervised Bell Output (current limited at 3 amps), 12VDC
- Steady or Pulsed Output

EEPROM Memory
- Does not lose programming or system status on complete AC and Battery failure

Programmable Outputs
- Two programmable voltage outputs; 18 programmable options
  - PGM1 = 300mA; PGM2 = 50mA

Powerful 1.5 Amp Regulated Power Supply
- 550 mA Auxiliary Supply, 12 VDC
- Positive Temperature Coefficient (PTC) components replace fuses
- Supervision for loss of AC power, low battery

Power Requirements
- Transformer = 16.5 VAC, 40VA
- Battery = 12 volt 4 Ah minimum rechargeable sealed lead acid battery

Remote Keypad Specifications
- Three keypads available:
  - PC1555RKZ eight zone LED keypad with zone input
  - PC5508Z eight zone LED keypad with zone input
  - LCD5500Z Alphanumeric keypad with zone input
  - LCD5501Z Fixed Message Keypad
- All keypads have five programmable function keys
- Connect up to eight keypads
- 4-wire (Quad) connection to Keybus
- Built in piezoelectric buzzer

Digital Communicator Specifications
- Supports major communication formats including SIA and Contact ID
- Event-initiated personal paging
- Three programmable telephone numbers
- Two account numbers
- Supports GSM1000 cellular communication
- Supports LINKS2X50 Long Range Radio Transmitter
- DTMF dialing
- DPDT line seizure
- Anti-jam feature
- Split reporting of selected transmissions to each telephone number

System Supervision Features
The PC585 continuously monitors a number of possible trouble conditions including:
- AC power failure
- Fault by zone
- Tamper by zone
- Fire trouble
- Failure to communicate
- Low battery by device (wireless)
- Module fault (supervisory or tamper)

False Alarm Prevention Features
- Audible Exit Delay
- Quick Exit
- Cross Zone Burglary Alarm
- Rotating Keypress Buffer
- Communication Delay
- Urgency on Entry Delay

Additional Features
- Auto Arm at specified time
- Keypad-activated alarm output and communicator test
- All modules connect to the system via a four wire Keybus up to 1000'/305m from main panel
- An event buffer which records the past 128 events with both the time and date at which they occurred; buffer can be printed using PC5400 serial interface module, or viewed with the LCD5500Z keypad.
- Supports the addition of the PC5132 wireless receiver for integration of wireless devices
- Uploading and downloading capability
- Local downloading capability through the use of the PC-LINK adaptor
- Added Keybus fault protection: clock and data outputs have been programmed to withstand shorts to +12v to prevent control panel damage
1.2 Additional Devices
In addition to the information below, see the back cover for a DSC module compatibility table.

**PC5132 Wireless Receiver**
The PC5132 Wireless Receiver can be used to connect up to 8 wireless devices to the system. All devices are narrow band, fully supervised devices which use standard ‘AAA’ or ‘AA’ alkaline batteries.

Four devices will be available. They are as follows:

*WLS904 Wireless Motion Detector*
*WLS906 Wireless Smoke Detector*
*WLS907 Wireless Slimline Universal Transmitter*
*WLS908 Wireless Key*

Adds a simple and mobile method of arming and disarming to the system, as well as one-button access to several programmable functions.

**PC5400 Printer Module**
The PC5400 Printer Module allows the panel to print out all events that occur on the system to any serial printer. The printout will contain the time, date and the event that occurred.

**GSM1000 Cellular Communicator**
The GSM1000 Cellular Communicator can be used three different ways: as the sole communicator for the panel, as a backup for either or both telephone numbers or as a redundant backup to the land line communicator where the panel will call both the land line and via the GSM1000.

**LINKS2X50**
Either the LINKS2150 or LINKS2450 may be used to transmit alarm information over a long range radio network.

**Cabinets**
Several different cabinets are available for the PC585 modules. They are as follows:

*Special UK Cabinet*
Main control cabinet for the PC585 main panel. Dimensions 288mm x 298mm x 78mm / 11.3” x 11.7” x 3” approximately.

**PC5004C Cabinet**
Cabinet to house the PC5400 Printer Module. Dimensions 229mm x 178mm x 65mm / 9” x 7” x 2.6” approximately.

1.3 Out of the Box
Please verify that the following components are included in your system:

- one Special UK cabinet
- one PC585 main control circuit board
- one keypad with zone input
- one Installation Manual with programming worksheets
- one Instruction Manual for the end user
- one hardware pack consisting of:
  - one mylar cabinet label
  - four plastic circuit board standoffs
  - eight 5600Ω (5.6K) resistors
  - one 2200Ω (2.2K) resistor
  - one 1000Ω (1K) resistor
  - ground connection assembly
  - one cabinet door plug
Section 2: Getting Started

The following sections provide a thorough description of how to wire and configure devices and zones.

2.1 Installation Steps
Read this section completely before you begin. Once you have an overall understanding of the installation process, carefully work through each step.

Step 1: Create a Layout
Draw a rough sketch of the building to get an idea of where all alarm detection devices, keypads and other modules are to be located.

Step 2: Mounting the Panel
Mount the panel in a dry area close to an unswitched AC power source and the incoming telephone line. Before attaching the cabinet to the wall, be sure to press the four circuit-board mounting studs into the cabinet from the back. After you have attached the cabinet to the wall, stick the provided DSC logo sticker on the front of the cabinet.

NOTE: You must complete all wiring before connecting the battery, or applying AC to the panel.

Step 3: Wiring the Keybus (Section 2.3)
Wire the Keybus to each of the modules following the guidelines provided in section 2.3 of this manual.

Step 4: Zone Wiring (Section 2.8)
You must power down the control panel to complete all zone wiring. Please refer to section 2.8 “Zone Wiring” on page 5 when connecting zones using normally closed loops, single EOL resistors, double EOL resistors, Fire zones and Keyswitch Arming zones.

Step 5: Complete Wiring (Section 2.2)
Complete all other wiring including bells or sirens, telephone line connections, and ground connections following the guidelines provided in section 2.2.

Step 6: Power up the Control
Once all zone and Keybus wiring is complete, power up the control panel. First, connect the red battery lead to the positive battery terminal; connect the black lead to negative. Then, connect the AC.

NOTE: Connect the battery before connecting the AC. The panel will not power up on the battery connection alone.

Step 7: Keypad Assignment (Section 2.5)
In order for keypads to be properly supervised, each must be assigned to a different slot. Please follow the guidelines provided in Section 2.5 when assigning keypads.

Step 8: Supervision (Section 2.6)
The supervision of each module by the panel is automatically enabled upon power up. Please verify that all modules appear on the system according to the instructions in section 2.6.

Step 9: Programming the System (Sections 4 & 5)
Section 4 explains how to program the panel. Section 5 contains a complete description of the various programmable features, which options are available and how they function. Fill out the Programming Worksheets completely before attempting to program the system.

Step 10: Testing the System
Test the panel thoroughly to ensure that all features and functions are operating as programmed.

2.2 Terminal Descriptions

Battery Connection
A 12V 4Ah rechargeable battery is used as a backup source of power in the event of an AC power failure. The battery also provides additional current when the panel’s demands exceed the power output of the transformer, such as when the panel is in alarm.

NOTE: Do not connect the battery until all other wiring is complete. Connect the battery before connecting the AC.

Connect the RED battery lead to the positive battery terminal; connect the BLACK lead to negative.
The High Current/Standard Battery Charge option (section [701], option [7]) allows you to choose between a high current battery charge and the standard battery charge rate.

AC Terminals – AC
The panel requires a 16.5VAC, 40VA transformer. Connect the transformer to an unswitched AC source and connect the transformer to these terminals.
The panel can be programmed to accept a power line frequency of either 50Hz AC or 60Hz AC in programming section [701], option [1].

NOTE: Do not connect the transformer until all other wiring is complete.

Auxiliary Power Terminals – AUX+ and AUX-
These terminals provide up to 550 mA of additional current at 12 VDC for devices requiring power. Connect the positive side of any device requiring power to the AUX+ terminal, the negative side to AUX- (ground). The AUX output is protected. This means that if too much current is drawn from these terminals (such as a wiring short), the panel will temporarily shut off the output until the problem is corrected.

Bell Output Terminals – BELL+ and BELL-
These terminals provide up to 700 mA of continuous current at 12 VDC for powering bells, sirens, strobes or other warning-type equipment. Connect the positive side of any alarm warning device to BELL+, the negative side to BELL–. Please note that the Bell output is protected: if too much current is drawn from these terminals (such as a wiring short), the Bell PTC will open. Three amps can be drawn for short periods only. The Bell output is supervised. If no alarm warning devices are in use, connect a 1000Ω resistor across BELL+ and BELL– to prevent the panel from displaying a trouble condition. For more information, please refer to section 3.5 “[*] Commands” on page 8.

Keybus Terminals – AUX+, AUX-, YEL, GRN
The Keybus is used by the panel to communicate with modules and vice versa. Each module has four Keybus terminals that must be connected to the four Keybus terminals on the panel. For more information, see section 2.3 “Keybus Operation and Wiring”. 

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Page 3
Programmable Output Terminals – PGM1 and PGM2
Each PGM output is designed so that when activated by the panel, the terminal will switch to ground.
PGM1 can sink up to 300mA of current. Connect the positive side of the LED or buzzer to AUX+, the negative side to PGM1. If more than 300 mA of current are required, a relay must be used. Please study PGM wiring in the accompanying diagram.
PGM2 operates similarly to PGM1. However, PGM2 can only sink up to 50mA of current. For a list of the programmable output options, see section 5.11 “PGM Output Options” on page 21.

Zone Input Terminals – Z1 to Z4
Each detection device must be connected to a zone on the control panel. We suggest that one detection device be connected to each zone; wiring multiple detection devices to a single zone, however, is possible. For zone wiring specifics, please see section 2.8 “Zone Wiring” on page 5.

Telephone Connection Terminals – TIP, RING, T-1, R-1
If a telephone line is required for central station communication or downloading, connect an RJ-31X telephone jack in the following manner:

Example of Keybus Wiring
NOTE:
Module (A) is correctly wired within 1,000'/305m of wire from the panel.
Module (B) is correctly wired within 1,000'/305m of wire from the panel.
Module (C) is NOT wired correctly as it is further than 1,000'/305m from the panel, in wire distance.

2.4 Current Ratings – Modules and Accessories
In order for the PC585 system to operate properly, the power output capabilities of the main control and the expansion devices must not be exceeded. Use the data presented below to ensure that no part of the system is overloaded and cannot function properly.

PC585 (12 VDC)
AUX+: ........550mA: Subtract the listed rating for each keypad, expansion module and accessory connected to AUX+ or Keybus.
BELL: ..........700mA continuous rating; 3.0A short term. Available only with standby battery connected.

PC585 Device Ratings (at 12 VDC)
- LCD5500Z Keypad: 85mA
- PC1555RKZ Keypad: 85mA
- PC5508Z Keypad: 75-85mA
- PC5400 Serial Module: 65mA
- PC5132 Wireless Receiver: 125mA

2.5 Keypad Assignment
There are eight available slots for keypads. LED keypads by default are always assigned to slot 1. LCD5500Z keypads are always assigned to slot 8. You will need to assign each keypad to its own slot (1 to 8). Keypad assignment is required, as it tells the panel which slots are occupied. The panel can then generate a fault when a keypad supervisory is not present.

NOTE: One LCD keypad must be assigned to slot 8 in order to upload keypad programming using DLS-1 software.

How to Assign Keypads
Do the following at each keypad installed on the system:
1. Enter [*][8][installer’s code] to go to installer programming
2. Enter [000] for Keypad Programming
3. Enter [0] for Slot Assignment
4. Enter a two digit number (11-18) to specify which supervisory slot the keypad will occupy.
5. Press [#] twice to exit installer programming.
After assigning all keypads, perform a supervisory reset by entering section [902] in installer’s programming. The panel will now supervise all assigned keypads and enrolled modules on the system.
How to Program Function Keys
By default, the 5 function keys on each keypad are programmed as Stay Arm (03), Away Arm (04), Chime (06), Sensor Reset (14) and Quick Exit (16). You can change the function of each key on every keypad:
1. Go to the keypad where you want to change the function key programming and enter Installer Programming.
4. Enter the 2 digit number, [00] to [17] to select the feature you want the function key to have. For a complete list of Function Key options see section 3.6 “Function Keys” on page 11.
5. Continue from step 3 until all function keys are programmed.
6. To exit Installer Programming, press [#] twice.

2.6 Supervision
By default, all modules are supervised upon installation. Supervision is enabled at all times so that the panel can indicate a trouble if a module is removed from the system.
To check on which modules are currently connected and supervised, enter programming section [903] from installer’s programming. The LCD keypad will allow you to scroll through the display of connected modules. A connected module which does not show as being present will appear as a trouble condition and the Trouble light on the keypad will turn ON. This condition may be due to one or more of the following reasons:
• the module is not connected to the Keybus
• there is a Keybus wiring problem
• the module is more than 1,000’/305m from the panel
• the module does not have enough power
For more information regarding module supervision troubles, please refer to “[∗][2] Trouble Display” on page 9.

2.7 Removing Modules
The panel must be instructed to no longer supervise a module being removed from the system. To remove the module, disconnect it from the Keybus and reset the supervision field by entering [902] in the installer’s programming. The panel will be reset to recognize and supervise all existing modules on the system.

2.8 Zone Wiring
For a complete description of the operation of all zone types, please refer to section 5.2 “Zone Programming” on page 15. There are several different ways in which zones may be wired, depending on which programming options have been selected. The panel can be programmed to supervise normally closed, End of Line, or Double End of Line loops. Please refer to the following diagrams to study each type of individually supervised zone wiring.

NOTE: Any zone programmed for Fire or 24 Hour Supervisory must be wired with a single End of Line (EOL) resistor regardless of the type of zone wiring supervision selected for the panel (section [013]: [1] -[2]). See section 5.2 “Zone Programming” on page 15.

NOTE: If you change the zone supervision options from DEOL to EOL or from NC to DEOL (section [013], options [1] or [2]), you should power down the system completely, and then power it back up. If you do not, the zones may not work correctly.

Normally Closed (NC) Loops

To enable normally closed loops, programming section [013], option [1] must be ON.

NOTE: This option should only be selected if Normally Closed (NC) detection devices or contacts are being used.

Single End Of Line (EOL) Resistors (5600Ω)

To enable panel detection of single end of line resistors, programming section [013], options [1] and [2] must be OFF.

Double End of Line (DEOL) Resistors
Double End Of Line resistors allow the panel to determine if the zone is in alarm, tampered or faulted.
To enable panel detection of double end of line resistors, programming section [013], option [1] must be OFF and option [2] must be ON.

NOTE: If the Double EOL supervision option is enabled, all hardwire zones on the main panel must be wired for Double EOL resistors, except for Fire and 24 Hour Supervisory zones.

NOTE: Do not wire DEOL resistors on keypad zones.

NOTE: Do not use DEOL resistors for Fire zones or 24 Hour Supervisory zones. Do not wire Fire zones to keypad zone terminals if the DEOL supervision option is selected.

NOTE: This option can only be selected if Normally Closed (NC) detection devices or contacts are being used.

NOTE: Only one NC contact can be connected to each zone. Wiring multiple detection devices or contacts on a single loop is not allowed.

The following chart shows zone status under certain conditions:
Loop Resistance
0Ω (shorted wire, loop shorted)
5600Ω (contact closed)
Infinite (broken wire, loop open)
11200Ω (contact open)

Loop Status
Fault
Secure
Tamper
Violated

End of Line Resistors .......................... Section [013]: [1]
Double End of Line Resistors ................. Section [013]: [2]

2.9 Fire Zone Wiring

4-Wire Smoke Detectors
All fire zones must be wired according to the following diagram:

NOTE: Keypad zones do not support DEOL resistors.

2.10 GSM1000 Zone Wiring

GSM1000 Support
When using the GSM1000 cellular communicator, connect the module to the main panel according to the following diagram:

GSM1000 Supervision (24 Hour Supervisory)
When using the GSM1000 cellular communicator, any main board zone may be configured for GSM1000 Supervision. Program this zone as zone type [09], 24 Hour Supervisory in section [001].

With a GSM1000 Supervisory zone, if the GSM1000 experiences a trouble, the zone will be violated, causing the panel to report the event to the central station. This type of zone always requires a single EOL resistor (5600Ω).

Wire this zone according to the above diagram.

NOTE: When using the GSM1000, Busy Tone Detection must not be used.

2.11 Keypad Zones
Each "z" keypad on the system has a zone input to which a device - such as a door contact - can be connected. This eliminates the need to run wires back to the control panel for every device.

To install the keypad, open the keypad plastic by removing the screw at the bottom of the unit. Locate the five terminals on the keypad circuit board. Connect the four Keybus wires from the control panel: the red wire to R, the black to B, the yellow to Y and the green to G.

To connect the zone, run one wire to the Z terminal and the other to B. For powered devices, use red and black to supply power to the device. Run the red wire to the R (positive) terminal and the black wire to the B (negative) terminal.

When using end of line supervision, connect the zone according to one of the configurations outlined in section 2.8 “Zone Wiring” on page 5. End of line resistors must be placed on the device end of the loop, not at the keypad.
Assigning Keypad Zones
When using keypad zone inputs, each input used must be assigned a zone number in Installer’s Programming.
First, ensure that you have enrolled all installed keypads into the desired slots. (See section 2.5 “Keypad Assignment” on page 4.)
Next, enter programming section [020] to assign the zones. There are eight programming locations in this section, one for each keypad slot. Enter a 2-digit zone number for each of the keypad zones. This number must be entered in the location corresponding to the keypad to which each zone is connected.
Example: The zone on an LCD5500Z keypad in slot 8 is to be assigned zone 3. In section [020], scroll to option [8] and enter (03).
NOTE: Keypad zones 1-4 will replace zone terminals Z1-Z4 on the control panel.
NOTE: Once the keypad zones are assigned, you must also program zone definitions and zone attributes. (See also section 5.4 “Assigning Keypad Zones” on page 17.
NOTE: Keypad zones cannot be used for 24 Hour Supervisory.
Use any system keypad to enter commands and/or program the PC585 security system. The LED keypad uses function and zone indicator lights to represent alarm functions and status. If you have a PC1555RKZ keypad, the System light acts as a Trouble, Memory, Program and Bypass indicator. Unlike other LED keypads, these conditions will only be represented by the System light.

The LCD keypad provides a written description on the liquid crystal display and uses function indicator lights to communicate alarm status to the user.

The PC585 Instruction Manual provides basic directions for arming and disarming the system, bypassing zones and performing user functions from the keypads. The following sections provide additional details on these functions.

### 3.1 Arming and Disarming
For a description of basic arming and disarming, please see the PC585 Instruction Manual. For other methods of arming, please refer to section 3.5 “[*] Commands” and section 3.6 “Function Keys” on page 11.

**NOTE:** The Event Buffer will log “Armed in Stay Mode” or “Armed in Away Mode” whenever the system is armed.

**NOTE:** After performing a sensor reset, users should wait 15 seconds before attempting to arm the system.

When arming, once the Exit Delay has expired, the system will allow 5 seconds for detectors to settle before the system is armed. If any zone is violated when the 5 second settle time expires, the system will cancel arming. When arming is cancelled, the keypad buzzer will sound a steady tone for 90 seconds.

During Exit Delay, any zone violated will sound a series of beeps to notify the user that a zone on the system has not been restored.

### 3.2 Auto Bypass – Stay Arming
Stay arming allows the user to arm the system without leaving the premises. All zones programmed as stay/away will be bypassed when the user stay arms the system, so that the user does not have to bypass interior zones manually. (See section 5.2 “Zone Programming” on page 15.)

When the system is armed using a valid access code, if any zones on the system have been programmed as stay/away zones, the Bypass light will turn ON. The panel will then monitor all zones programmed as Delay 1 and Delay 2 zones, such as designated entry/exit doors. If a delay zone is not violated by the end of the exit delay, the panel will bypass all stay/away zones. The Bypass light will remain on to inform the user that the interior zones have been automatically bypassed by the panel. If a delay zone is violated during the exit delay, the system will arm in Away mode and all stay/away zones will be active after the exit delay expires.

The user can arm the stay/away zones at any time by entering the “[*][1]” keypad command (see “[*][1] Bypassing and Activating Stay/Away Zones”).

Stay arming can also be initiated by pressing and holding the Stay function key for two seconds on the PC5508Z and LCD5500Z keypads, if programmed by the installer. For more information regarding Stay arming, please see section 3.6 “Function Keys” on page 11.

### 3.3 Automatic Arming
The system can be programmed to Auto-Arm at a specific time every day if it is in the disarmed condition. In order for the Auto-Arm function to work properly, you must program the correct Time of Day. For programming the clock and auto-arm times, see “[*][6] User Functions” on page 10.

When the system’s internal clock matches the Auto-Arm Time, the panel will check the system status. If the system is armed, the panel will do nothing until the next day at the auto-arm time, when it will check the system again. If the system is disarmed at the auto-arm time, the panel will sound the buzzer of all keypads for one minute. If a valid access code is entered, auto-arming will be cancelled.

If no code is entered, the panel will auto-arm. Auto-arming will be cancelled if a zone is violated at the end of a pre-alert. If the zone is restored, the panel will add the zone back into the system.

**NOTE:** Auto arming can only be cancelled by entering a valid access code at any keypad.

### 3.4 Resetting the System After an Alarm

When a user disarms the system after there has been an alarm on a burglary zone, the keypads may become locked to the end user. This will happen if the Remote Reset option is turned on. See section 5.21 “Remote Reset of System (Lock & Reset Codes)” on page 24.

When the keypads are locked, users will not be able to perform any system functions, except for viewing the alarm memory (“[*][3]”) or activating command outputs such as sensor reset (“[*][7]”). The rest of the system will function as normal (i.e. alarms and troubles will still be monitored).

Users will only be able to unlock the system by entering an Unlock Code provided by the installer or central station.

**NOTE:** If the Remote Reset option is turned on, you must use either LED keypads (PC1555RKZ, PC5508Z), or LCD5500Z with software version v2.2U and higher.

### 3.5 “[*]” Commands
The “[*]” key commands provide an easy way for the user to access basic system programming – such as programming access codes or bypassing zones. The user can also use the “[*]” key commands to check on the system’s status, including viewing trouble conditions and displaying the event buffer on the LCD keypad.

The “[*]” key commands can be performed from both LCD and LED keypads. The LED keypad uses the zone indicator lights to display command information. The LCD display provides written information, guiding the user through each command. The commands in this section are explained as viewed from an LED keypad. When using an LCD keypad, use the arrow keys (< >) to scroll through information provided. Otherwise, the functions remain the same for both keypad types.

**[*][1] Bypassing and Activating Stay/Away Zones**

Use the “[*][1]” keypad command to bypass individual zones. A bypassed zone will not cause an alarm.

**NOTE:** Zones can only be bypassed when the system is not armed.
If the **Code Required for Bypass** option is enabled (section [015], option [5]), only access codes with the bypass attribute enabled will be able to bypass zones (see section 5.1 “Programming Security Codes” on page 15). Users can also bypass groups of zones. To be able to bypass zone groups, users must enter user code 40, 41, or 42. To program a bypass group, bypass the zones that you want in the group, and then enter [95]. To bypass the same group of zones again, in the [*][1] menu enter [91].

If the option **Code Required for Bypass** is turned off, all users will be able to bypass groups of zones, as described above.

If the **Bypass Status Displayed While Armed** option is chosen, the Bypass (or System) light will be ON while the system is armed to indicate any bypassed zones (see section 5.17 “Arming/Disarming Options” on page 23).

**NOTE:** When you disarm the system, all manually-bypassed zones will be unbypassed.

### Activate Stay/Away Zones

If the system is armed in stay mode, the [*][1] command can be used to activate the stay/away zones.

#### [*][2] Trouble Display

The panel constantly monitors itself for several different trouble conditions. If a trouble condition is present, the Trouble (or System) light will be on and the keypad will beep twice every 10 seconds. When the system is disarmed, users can silence the trouble beep for faults and tampers by entering an access code. For other troubles, users can silence the trouble beep by pressing any key at any system keypad.

The PC5132-NB receiver detects jamming signals that can prevent the receiver from properly receiving transmissions from enrolled devices. If the system detects jamming signals for longer than 30 seconds, the Trouble (or System) light will turn on. The keypad will not sound trouble beeps for an RF Jam trouble unless the **Audible RF Trouble (Keypad Beeps)** option is turned on. If the system detects jamming signals for longer than 5 minutes, the panel will send a General System Trouble reporting code.

### Troubles are Latching

To view trouble conditions from an LED keypad:

1. Press [*][2].
2. The keypad will flash the Trouble (or System) light. The zone indicator lights corresponding to the present trouble conditions will be ON.

When using an LCD keypad, the trouble conditions will be listed on the display. Use the arrow (<> keys) to scroll through the list of present trouble conditions.

**NOTE:** Troubles can be viewed while armed using the LCD keypad, provided the keypad is version 2.0 or later. Older keypads will incorrectly display “Fire Trouble”. If using older LCD keypads, programming section [013], option [3] as OFF will ensure troubles are displayed correctly.

<table>
<thead>
<tr>
<th>Light</th>
<th>Trouble</th>
</tr>
</thead>
</table>
| **1** | Service Required: Press [1] to determine the specific trouble. Lights 1 - 5 will light up to indicate the trouble:  
  - Light [1] Low Battery: Main panel backup battery charge is low (below 11.5 volts under load). Trouble is restored when the battery charges over 12.5 volts.  
  - Light [3] General System Trouble: There is an RF jam trouble, or a printer connected to the PC5400 Printer module has a fault and is off-line.  
  - Light [5] General System Supervisory: The panel has lost communication with a module connected to the Keybus (see section 2.6 “Supervision” on page 5). The event buffer will log the event.  

  **NOTE:** All tamper conditions must be physically restored before the trouble condition will clear.  
  - Lights [6-8] – Not used  

| **NOTE:** If you remove and then restore power to the main panel in order to service any PC5204 module, or any module being powered by a PC5204, you must also remove and then restore power to the PC5204 and any connected modules. This ensures that any troubles present on the module are correctly logged and/or annunciated. |
|-------|---------|
| **2** | AC Failure: AC power is no longer being supplied to the control panel. The Trouble (or System) light will flash if an AC Failure is present, if the Trouble Light Flashes if AC Fails option is programmed (section [016], option [2]). This trouble will not be displayed if the AC Trouble Displayed option is disabled (section [016], option [1]). See section 5.8 “Communicator – Reporting Codes” on page 18 for information on AC trouble reporting.  

| **Telephone Line Monitoring Trouble (TLM):** There is a problem with the telephone line (See section 5.12 “Telephone Line Monitor (TLM)” on page 22.) |
|-------|---------|
| **4** | Failure to Communicate (FTC): The communicator failed to communicate with any of the programmed telephone numbers (see section 5.5 “Communicator – Dialing” on page 17).  

| **5** | Zone Fault (including Fire Zone): A zone on the system is experiencing trouble, meaning that a zone could not provide an alarm to the panel if required to do so (e.g. a fire zone is open, or there is a short on a DEOL zone, or a supervision fault on a wireless zone). When a zone fault trouble condition occurs, the keypad(s) on the system will start to beep. Press [5] while in Trouble mode to view the affected zones.  

  **NOTE:** A Fire zone trouble will be generated and displayed in the armed state.  

| **6** | Zone Tamper: A zone configured for Double End Of Line resistor supervision has a tamper condition, or the tamper switch is open on a wireless device. When a tamper condition occurs, the keypad(s) will start to beep. Press [6] while in the Trouble mode to view the affected zones. If a zone is tampered or faulted, it must be fully restored to clear the trouble.  

  **NOTE:** By enabling Tamper/Faults Do Not Show as Open in section [013], option [4], Faults and Tampers will not show as open on the keypad, and will be hidden from the end user. If the option is disabled, Faults and Tampers will be displayed on the keypad  

  **NOTE:** Once a zone is tampered or faulted, it must be completely restored before the trouble condition will clear.
**Light** | **Trouble**
---|---
7 | **Device Low Battery:** A wireless device has a low battery condition. Press [7] one, two, or three times to view which devices are experiencing battery failure. An LED keypad will indicate battery failure using zone lights 1 to 8. The following will occur:

- **Keypad beeps:** Keypad displays:
  - Press [7] 1 Zones with low batteries (LED keypad - zone lights 1 to 8)
  - Press [7] again 2 For future use
  - Press [7] again 3 Wireless keys with low batteries (LED keypad - zone lights 1 to 8)

To view the battery condition of wireless keys 9 through 16, you must use an LCD keypad.

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

| [*][3] | **Alarm Memory**
---|---
The Memory (or System) light will be on if any alarm occurred during the last armed period or – in the case of 24 hour zones – if an alarm occurred while the panel was disarmed.

To view alarm memory, press [*][3]. The keypad will flash the Memory (or System) light and the zone indicator lights corresponding to the alarm or tamper conditions which occurred during or since the last armed period. To clear the Memory (or System) light, arm and disarm the system.

| [*][4] | **Door Chime On/Off**
The door chime feature is used to sound a tone from the keypad whenever a zone programmed as a chime zone is activated (see section 5.3 “Zone Attributes” on page 16). If the door chime feature is enabled, the keypad will emit five short beeps whenever a chime zone is activated. Designated entry/exit doors are often defined as chime zones. The feature can be turned on or off while the system is armed or disarmed.

| [*][5] | **Programming Access Codes**
There are 37 access codes available to the user. They are:

- **Access code (40)................. One master code**
- **Access codes (01)-(32)........... 32 general access codes**
- **Access codes (33)-(34)........... Two duress codes**
- **Access codes (41)-(42)........... Two supervisor codes**

All access codes have the ability to arm or disarm the system and can activate the PGM Outputs using the [*][7] commands. Access codes can be either four or six digits (see section 5.1 “Programming Security Codes” on page 15).

For a description of how to program access codes from LCD or LED keypads, see the PC585 Instruction Manual.

| Master Code – Access Code (40) |
---|---
By default, the Master Code is enabled to perform any keypad function. This code can be used to program all access codes. If the **Master Code Not Changeable** option is enabled (section [015], option [6]), the Master Code can only be changed by the Installer.

| General Access Codes – Access Codes (01) to (32) |
---|---
General access codes can arm and disarm the system. When the **Code Required for Bypassing** option is enabled, users will need to enter a valid access code when bypassing zones. Individual access codes can have the Zone Bypassing attribute disabled under Access Code Attribute programming. For more information regarding access code options, please see section 5.1 “Programming Security Codes” on page 15.

| Duress Code – Access Code (33) and (34) |
---|---
Duress codes will send a duress reporting code to the central station when entered.

**NOTE:** If a duress code is programmed, when it is used, the panel will always send a reporting code to the central station, even if the attributes of the duress code are turned off.

| Supervisor Codes – Access Code (41) and (42) |
---|---
These codes can be used to program general access and duress codes. The two supervisor codes have master code attributes by default. These settings can be changed.

| Access Code Attributes |
---|---
There are two access code attributes which can be programmed for each code. To program each attribute, enter [*][5][Master Code][9] to enter the attribute programming mode. Then enter the code number [01-32,33,34,41,42]. Enter the attribute number:
- **Attribute [1]......User enabled for arming, disarming, alarm reset, [*][7][1-2] options, auto arm cancellation**
- **Attribute [2]......Not used**
- **Attribute [3]......Zone bypassing enabled**
- **Attribute [4]......Not used**

**NOTE:** Master code attributes cannot be changed.

| [*][6] | **User Functions**
---|---
This command can be used to program several different functions:

**To program User Functions:**

1. Press [*][6][Master Code]. The Program (or System) light will flash.
   - **[1] – Time and Date**
     - The time and date must be accurate for the auto-arm or test transmission functions to work properly and for the event buffer to time and date stamp all events.
     - Enter the time (hour and minute) using 24hr format [HH MM] from 00:00 to 23:59.
     - Enter the date by month, day and year [MM DD YY].
   - **[2] – Auto-Arm Enable/Disable**
     - To enable or disable auto-arming, press [2]. The keypad will sound three short beeps when auto-arm is enabled and one long beep when disabled. For more information, see section 3.3 “Automatic Arming” on page 8.
   - **[3] – Auto-Arm Time**
     - The system can be programmed to arm automatically at a pre-set time. When programming the auto-arm time, enter the time (hour and minute) using 24hr format [HH MM]. For more information, see section 3.3 “Automatic Arming” on page 8.
   - **[4] – System Test**
     - When [4] is pressed the panel will test the bell output, keypad lights and the communicator for two seconds. The panel will also send a System Test Reporting code, if programmed (see section 5.8 “Communicator – Reporting Codes” on page 18).
   - **[5] – Enable DLS (Downloading)**
     - When [5] is pressed, the panel will enable the downloading option for one or six hours depending on the option selected in programming section [702], [7]. During this
time, the panel will answer incoming downloading calls (see section 5.10 “Downloading” on page 20).

- [6] - User Initiated Call-Up
  When [6] is pressed, the panel will initiate a call to the downloading computer.

Additional Features Available from the LCD Keypad
Additional features, including access to the event buffer, are available using the LCD keypad. Use the arrow keys (< >) to scroll through the [*][6] menu and press the [*] key to select the following commands:

Viewing the Event Buffer from an LCD Keypad
Select “View Event Buffer” from the [*][6] menu. The keypad will display the event, event number, time and date along with the zone number and access code, if applicable. Press [*] to toggle between this information and the event itself. Use the arrow keys (< >) to scroll through the events in the buffer. When you have finished viewing the event buffer, press [#] to exit.

Brightness Control
You can select from 10 different backlighting levels. Use the arrow keys (< >) to scroll to the desired backlighting level. Press [#] to exit.

Contrast Control
You can select from 10 different display contrast levels. Use the arrow keys (< >) to scroll to the desired contrast level. Press [#] to exit.

Keypad Sounder Control
You can select from 21 different keypad tones. Use the arrow keys (< >) to scroll to the desired keypad sound level and press [#] to exit. This feature can be accessed on LED keypads by pressing and holding the [*] key.

[*][7] Command Output Functions
The user can activate programmable output functions using the [*][7][1-2] commands. The outputs may be activated when the system is either armed or disarmed.

[*][7][1] – Command Output Option #1:
Press [*][7][1][Access Code, if required] to activate outputs programmed as PGM output option [19]. This output can be used for operating devices such as a garage door opener, lighting or door strikes.

[*][7][2] – Command Output Option #2:
Press [*][7][2][Access Code, if required] to activate all outputs programmed as one of PGM output options [03] or [20].

Special Note: Traditionally, [*][7][2] has been reserved for resetting smoke detectors. Smoke detectors should now be programmed as output [03] “Sensor Reset”. If using output option [03], do not program [20] Command Output Option #2. Please see section 5.11 “PGM Output Options” on page 21 for more information.

[*][8] Installer’s Programming
Enter [*][8] followed by the Installer’s Code to access Installer’s Programming. See sections 4 and 5 for more information.

[*][9] Arming Without Entry Delay
When the system is armed with the [*][9] command, the panel will cancel the entry delay. Delay 1 and Delay 2 type zones will be instant and Stay/Away zones will be bypassed as soon as the exit delay has ended (see section 5.2 “Zone Programming” on page 15). The user must enter a valid access code after pressing [*][9].

3.6 Function Keys
There are five function keys on each keypad labelled Stay, Away, Chime, Reset and Exit. Each key is programmed by default to perform one of the functions described below. Press and hold the appropriate key for two seconds to activate a function.

NOTE: On the PC1555RKZ keypad, use number keys 1 - 5 for the function keys.

“Stay” – (03) Stay Arm
The system will arm in the Stay mode (see section 3.2 “Auto Bypass – Stay Arming” on page 8). Enable the Quick Arm feature (programming section [015], option [4]) to have this key function without the need to enter an access code. If Quick Arm is not enabled, the user will have to enter an access code before the system will stay arm.

“Away” – (04) Away Arm
The system will arm in the Away mode (see section 3.2 “Auto Bypass – Stay Arming” on page 8). Enable the Quick Arm feature (programming section [015], option [4]) to have this key function without the need to enter an access code. If Quick Arm is not enabled, the user will have to enter an access code before the system will arm.

“Chime” – (06) Door Chime On / Off
The Door Chime feature will turn ON or OFF (see “[*][4] Door Chime On/Off” on page 10).

“Reset” – (14) Sensor Reset or [*][7][2]
The panel will activate all PGM outputs programmed as option [03] Sensor Reset or [20] Command Output Option #2. (See [*][7][2] Command Output Functions” on page 11).

“Exit” – (16) Activate Quick Exit
The panel will activate the Quick Exit feature (See section 3.5 “[*] Commands” on page 8).

Additional Function Key Options
The programming of any function key on any keypad may be changed to one of the options listed below. (See section 2.5 “Keypad Assignment” on page 4 for instructions on changing function key programming.) Each option is listed according to the programming code, followed by the corresponding [*] key command. For more information regarding each function, please refer to the appropriate part of section 3.5 “[*] Commands” on page 8.

Please see section 5.11 “PGM Output Options” on page 21 for more information.
Null Key: The key is not used and will perform no function when pressed.

For future use

Stay Arm: As described above.

Away Arm: As described above.

No-Entry Delay Arm: A valid access code must also be entered.

Door Chime On / Off: As described above.

System Test: A valid master code must also be entered.

Bypass Mode: A valid access code may need to be entered.

Trouble Display

Alarm Memory

Programming Access Codes: A valid master code must also be entered.

User Functions: A valid master code must also be entered.

Command Output Option #1: A valid access code may need to be entered.

Reset (Command Output Option #2): As described above.

For future use

Quick Exit: As described above.

Reactivate Stay/Away Zones

For future use

3.7 Features Available for the LCD5500Z

These features are only available for LCD5500Z keypads with zone inputs:

Automatic Scrolling of Alarms in Memory

The LCD5500Z keypad allows automatic scrolling through alarms in memory while the keypad is idle. This feature, if enabled, will override the clock display. This option can be programmed in LCD programming section [66], option [4].

24 Hour Time Display Option

Each LCD5500Z can be programmed to display time using a 24-hour clock, instead of a 12-hour, am/pm clock. Program this option in LCD programming section [66], option [3].

Keypad Zones

See section 2.11 “Keypad Zones” on page 6.

Viewing Troubles While Armed

See section “[*][2] Trouble Display” on page 9 for information on how to view troubles.

Backlighting Boost

The LCD5500Z, PC1555RKZ and PC5508Z zone input keypads will provide extra number pad lighting when any key is pressed. The backlighting boost will last for an additional 30 seconds after the last keypress.
Section 4: How to Program

The following section of the manual describes the Installer’s Programming function and how to program the various sections.

**NOTE:** Read the following section of the manual very carefully before you begin programming. We also recommend filling out the Programming Worksheets section before you program the panel.

For your reference, the corresponding programming sections for the functions listed are highlighted in text boxes such as this one.

### 4.1 Installer’s Programming

Installer’s Programming is used to program all communicator and panel options. The Installer’s Code is [0585] by default but should be changed to prevent unauthorized access to programming.

- **Installer’s Code**

#### 4.2 Programming Decimal Data

A set number of programming boxes are allotted for each section requiring decimal data (e.g.: codes, telephone numbers). If a digit is entered for each program box, the panel will automatically exit from the selected programming section. The Ready light will turn OFF and the Armed light will turn ON. On the PC1555RKZ and PC5508Z keypads, you can also press the [#] key to exit a programming section without entering data for every box. This is handy if you only need to change digits in the first few programming boxes. All other digits in the programming section will remain unchanged.

#### 4.3 Programming HEX Data

On occasion, hexadecimal (HEX) digits may be required. To program a HEX digit press the [*] key. The panel will enter HEX programming and Ready light will begin to flash.

The following are the numbers which should be pressed to enter the appropriate HEX digit:

- 1 = A
- 2 = B
- 3 = C
- 4 = D
- 5 = E
- 6 = F

Once the correct HEX digit has been entered, the Ready light will continue to flash. If another HEX digit is required, press the corresponding number. If a decimal digit is required, press the [*] key again. The Ready light will turn on and the panel will return to regular decimal programming.

**Example:**
To enter ‘C1’ for a closing by user 1, you would enter:

```
[*][3][*], [1]:
[*] to enter Hexadecimal mode (Ready light flashes)
[3] to enter C
[*] to return to decimal mode (Ready light is solid)
[1] to enter digit 1
```

**NOTE:** If Ready light is flashing, any number you enter will be programmed as the HEX equivalent.

If you are using a pulse communications format, a decimal zero [0] does not transmit. Programming a zero [0] tells the panel not to send any pulses for that digit. Decimal zero [0] is a filler digit. To transmit a zero [0], it must be programmed as a Hexadecimal ‘A’.

**Example:**
For the three digit account number ‘403’, you would enter:

```
[4], [*][1][*][3], [0]:
[4] to enter the digit 4
[*] to enter Hexadecimal mode (Ready light flashes)
[1] to enter A
[*] to return to decimal mode (Ready light is solid)
[3] to enter the digit 3
[0] to enter the digit 0 as a filler digit.
```
4.4 Programming Toggle Option Sections
Some programming sections contain several toggle options. The panel will use zone lights 1 through 8 to indicate if the different options are enabled or disabled. Press the number corresponding to the option to turn it ON or OFF. Once all the toggle options have been selected correctly, press the [#] key to exit the section and save the changes. The Ready light will turn OFF and the Armed light will turn ON.
Refer the programming worksheets to determine what each option represents and whether the light should be ON or OFF for your application.

4.5 Viewing Programming

LED Keypads
Any programming section can be viewed from an LED keypad. When a programming section is entered, the keypad will immediately display the first digit of information programmed in that section.

The keypad displays the information using a binary format, according to the following chart:

<table>
<thead>
<tr>
<th>Value</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone 1</td>
<td>zone_light_OFF</td>
<td>zone_light_ON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone 2</td>
<td>zone_light_OFF</td>
<td>zone_light_ON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone 3</td>
<td>zone_light_OFF</td>
<td>zone_light_ON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone 4</td>
<td>zone_light_OFF</td>
<td>zone_light_ON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Press any of the Emergency Keys (Fire, Auxiliary or Panic) to advance to the next digit. When all the digits in a section have been viewed, the panel will exit the section; the Ready Light will turn OFF and the Armed light will turn ON, waiting for the next three-digit programming section number to be entered. Press the [#] key to exit the section.

LCD Keypad
When a programming section is entered, the keypad will immediately display all the information programmed in that section. Use the arrow keys (< >) to scroll through the data being displayed. Scroll past the end of the data displayed or press the [#] key to exit the section.
The following section explains the operation of all programmable features and options and provides a summary of all corresponding programming locations.

### 5.1 Programming Security Codes

There are three codes which can be programmed by the installer in the Installer’s Programming function: the Master code, the Installer’s code, and a Maintenance code. All other access codes can be programmed through the [*][5] command (see section 3.5 “[*] Commands” on page 8).

The master code can also be programmed by the user as access code (40). If the Master Code Not Changeable option is enabled, the system master code can only be changed by the installer.

General access codes can arm and disarm the system. When the Code Required for Bypassing option is enabled, users will need to enter a valid access code when bypassing zones. Individual access codes can have the Zone Bypassing attribute disabled under access code attribute programming (see section 3.5 “[*] Commands” on page 8).

- Installer’s Code
- Master Code
- Maintenance Code
- Master Code Not Changeable
- Code Required for Bypassing

**NOTE:** The Maintenance code is limited to arming and disarming the system. The Maintenance code cannot use [*][9] to arm the system, bypass zones, or perform [*][7] command functions.

### 5.2 Zone Programming

All eight zones are enabled by default. Unused zones should be disabled in programming section [202].

Section [001] will allow you to select how each of the zones you use will operate. Each zone requires a two-digit code to be programmed, which describes the zone definition. Select a definition from the list below.

In addition, each zone has eight different attributes which may be programmed in sections [101] to [108] (see section 5.3 “Zone Attributes” on page 16).

#### Zone Definitions

**[00] Null Zone**

The zone is vacant. Unused zones should be programmed as Null zones.

**[01] Final Door Set Zone**

If this zone type is programmed, infinite exit delay will commence when arming is initiated. In order to complete the arming sequence after infinite exit delay has begun, the Final Door Set zone will have to be violated and restored. When the system is armed, this zone will function as a Delay Zone.

**[02] Delay Zone**

This zone type, normally used for entry/exit doors, can be violated during the exit delay time without causing an alarm. Once the exit delay has expired, opening the zone will start the entry delay timer. During the entry delay time, the keypad buzzer will sound steadily to advise the user that the system should be disarmed. If the panel is disarmed before the entry time expires, no alarm will be generated.

**[03] Instant Zone**

This zone type will cause an instant alarm if it is violated when the panel is armed. Typically, this zone is used for windows, patio doors or other perimeter zones, and glass break detectors.

**[04] Interior Zone**

This zone will not cause an alarm if violated during the entry delay. If the zone is violated before the entry delay has begun, it will cause an instant alarm. Typically, this zone is used for interior protection devices, such as motion detectors.

**[05] Interior Stay/Away Zone**

This zone type works similarly to the Interior zone type, except that it will be automatically bypassed under the following conditions:
- When the panel is armed in the Stay Mode (see section 3.6 “Function Keys” on page 11).
- When the panel is armed without entry delay (see “[*][9] Arming Without Entry Delay” on page 11).
- When the panel is armed with an access code and a Delay type zone is NOT tripped during the exit delay.

The automatic bypass prevents the user from having to manually bypass interior type zones when arming at home. This zone is typically used for interior protection devices, such as motion detectors.

**[06] Delay Stay/Away Zone**

This zone type will operate similarly to Interior Stay/Away zones, except that it will always provide an entry delay. Typically, this zone is used for interior protection devices, such as motion detectors. This zone option will help prevent false alarms since it always provides an entry delay time for the user to turn off the panel.

**NOTE:** Hardwire motion detectors covering entry/exit doors that are using wireless transmitters must be programmed as Delay Stay/Away. If not, the panel may see the motion detector violation before the entry/exit transmitter has time to transmit to the receiver, causing a false alarm.

**[07] Delayed 24 Hour Fire Zone**

**NOTE:** Do not wire Fire zones on keypad zone terminals if the DEOL supervision option is enabled for the panel (section [013], option [2]).

When this zone is violated, the alarm output will be immediately activated (pre-alert) but the communicator will be delayed for 30 seconds. If the user presses any key on any keypad during this delay, the alarm output and the communicator will be delayed an additional 90 seconds, giving the user time to correct the problem. If the zone is still violated after the 90 second delay, the panel will sound the alarm output and delay the communicator for 30 seconds.

If the user does not press a key during the 30 second pre-alert, the alarm output will latch and the panel will communicate the alarm to the central station. The alarm will sound until the Bell Cutoff time expires (Section [005] “System Times”), or until a code is entered (see Section 5.13 “Bell” on page 23).

**NOTE:** If a second Fire type zone is violated or if the Fire keys are pressed during the delay period, the panel will latch the alarm output and will immediately communicate the alarm.
A violated Fire zone will be displayed on all keypads and can be delayed at any keypad. Typically this zone is used for latching smoke detectors.

[08] Standard 24 Hour Fire Zone
NOTE: Do not wire Fire zones on keypad zone terminals if the DEOL supervision option is enabled for the panel (section [013], option [2]).

When this zone is violated, the panel will immediately latch the alarm output and communicate to the central station. The alarm will sound until the Bell Cutoff time expires, or until a code is entered (see section 5.13 “Bell” on page 23). A violated Fire zone will be displayed on all keypads. Typically this zone is used for pull stations.

[09] 24 Hour Supervisory Zone
If this zone is violated when the system is either armed or disarmed, the panel will report to the central station, and will log the zone alarm to the Event Buffer. This zone gives a silent alarm by default.

NOTE: Do not wire 24-Hour Supervisory zones on keypad zone terminals.

[10] 24 Hour Supervisory Buzzer Zone
If this zone is violated when the system is either armed or disarmed, the panel will immediately latch the keypad buzzer until a valid access code is entered and will immediately communicate to the central station.

If this zone is violated when the system is either armed or disarmed, the panel will immediately latch the alarm output and communicate to the central station. The alarm will sound until the Bell Cutoff time expires, or until a code is entered (see section 5.13 “Bell” on page 23).

[12] - [20]
The following zone definitions operate similar to the 24 Hour Burglary except for the System Event output type and the SIA identifier:

[12] 24 Hour Holdup Zone - This zone gives a silent alarm by default.

[13] 24 Hour Gas Zone

[14] 24 Hour Heat Zone

[15] 24 Hour Medical Zone

[16] 24 Hour Panic Zone

[17] 24 Hour Non-Medical Emergency Zone

[18] 24 Hour Sprinkler Zone

[19] 24 Hour Water Flow Zone

[20] 24 Hour Freezer Zone

[21] 24 Hour Latching Tamper
If this zone is violated, the installer must enter Installer’s Programming before the system can be armed.

NOTE: Wireless zones should not be programmed as zone types [22] - [24].

[22] Momentary Keyswitch Arm Zone
Momentary violation of this zone will alternately arm/disarm the system. Tamper and faults will not arm/disarm the system, but only activate the appropriate trouble.

[23] Maintained Keyswitch Arm Zone
When this zone is violated, the system will arm. When this zone is secured, the system will disarm. Tamper and faults will not arm/disarm the system, but only activate the appropriate trouble.

[24] For future use

[25] Interior Delay Zone
This zone type is normally used with motion detectors and has a standard exit delay time.

If the panel is Away armed (a delay zone is violated during the exit delay, or the Away function key is used), the Interior Delay zone will work the same as the Interior zone [04].

If the panel is Stay armed (a delay zone is NOT violated during the exit delay, the Stay key is used, or [*][9][1] is used for arming), a violation of the zone will initiate Entry Delay 1.

[27] Push to Set Zone
If any zones are programmed as Push to Set, when the system is armed, the panel will begin an infinite audible exit delay. When a user violates and restores a Push to Set zone, the panel will terminate the Exit Delay and arm the system.

[28] 24 Hour Bell/Buzzer Zone
This zone works like a 24-Hour Burglary zone (zone type [11]) while armed, and a 24-Hour Supervisory Buzzer zone (zone type [10]) while disarmed. When the panel is armed and this zone is violated, the bell sounds until the bell time-out timer expires. When the panel is disarmed and this zone is violated, the keypad buzzers sound until a user enters an access code.

[87] Delayed 24 Hour Fire (Wireless)
This zone type operates the same as [07] Delayed 24 Hour Fire Zone and must be used if the smoke detector is wireless.

[88] Standard 24 Hour Fire (Wireless)
This zone type operates the same as [08] Standard 24 Hour Fire Zone and must be used if the smoke detector is wireless.

5.3 Zone Attributes
NOTE: All zones, with the exception of 24 Hour and Fire, will provide an exit delay.

NOTE: Do not change the attributes for Fire Zones from the default settings.

Additional zone attributes can be programmed to customize the operation of a zone for a specific application. The following attributes are programmable for each zone:

- **Audible / Silent** — This attribute determines whether or not the zone will activate the alarm output.
- **Pulsed / Steady** — This attribute determines whether the alarm output will be steady or will pulse on and off every second.
- **Activate Chime** — This attribute determines whether or not the zone will activate the chime feature (see “*[4] Door Chime On/Off” on page 10).
- **Bypass Enable** — This attribute determines whether or not the zone can be manually bypassed (see “*[1] Bypassing and Activating Stay/Away Zones” on page 8).
- **Force Arm Enable** — This attribute determines whether or not the system can be armed while a zone is violated.
- **Swinger Shutdown Enable** — This attribute determines whether or not the panel will shut down the communicator and bell for a zone once its swinger limit has been reached (see section 5.19 “Swinger Shutdown” on page 24).
- **Transmission Delay Enable** — This attribute determines whether or not the panel will delay communicating the alarm reporting code for the programmed Transmission
Communicator – Reporting Codes

When an event with a valid reporting code occurs (See section 5.8), the panel will not attempt to call central station. If communication is not established, the panel will hang up and wait for 20 seconds, then perform another five second dial tone search. The panel will then force dial if force dialing is enabled. The whole sequence counts as one dialing attempt.

**NOTE:** Any zone with the wireless attribute enabled will not cause an alarm for a fault condition when armed (or any time for 24-hour zones).

**Zone Attributes:** Sections [101]-[108]; [1]-[8]

### 5.4 Assigning Keypad Zones

“Z” keypads have zone inputs to which devices—such as door contacts—can be connected. (See section 2.11 “Keypad Zones” on page 6 for wiring information.)

Once the keypad zones are installed, assign the zone in programming section [020] Keypad Zone Assignments. Enter the 2 digit zone designated for each keypad (slot) from 01-08.

Keypad Zone Assignments [020]

### 5.5 Communicator – Dialing

If the Communicator Disable option is selected, the panel will not attempt to call central station. If communication is established, the panel will attempt to call central station when an event with a valid reporting code occurs (See section 5.8 “Communicator – Reporting Codes” on page 18).

The Communicator Call Direction options are used to select which telephone number the panel will dial when an event occurs.

When the DTMF Dialing option is enabled, the panel will dial using DTMF (touch tone). If the Switch to Pulse Dial option is enabled, the panel will switch to pulse dialing on the fifth attempt to call the central station. When this option is disabled, the panel will always dial using DTMF. If DTMF Dialing is disabled, the panel will always pulse dial.

**NOTE:** Pulse dialing is not allowed under the CTR21 standard.

To comply with CTR21, the DTMF Dialing option must be selected, and the Switch to Pulse Dial option must be disabled.

When the Force Dialing option is enabled, the panel will dial out regardless of the presence of dial tone. Each dialing attempt will follow this pattern:

a) the panel pick up the telephone line and search for dial tone for 5 seconds

b) if no dial tone is found, the panel will hang up and wait for 20 seconds

c) the panel will pick up the telephone line again and search for a dial tone for 5 seconds

d) the panel will then dial regardless of the presence of dial tone

If there is no initial handshake recognized within 40 seconds the panel will then hang up the line.

If the Force Dialing option is disabled, each attempt will still follow the above pattern, except that the panel will not dial in step d if no dial tone is detected.

The Delay Between Dialing Attempts timer adds a delay before the next call is dialed.

The Anti-Jam Feature works as follows: if there is no dial tone present on the initial dial tone search, the panel will hang up the phone for 90ms, and then perform another dial tone search. If no dial tone is detected, the panel will hang up for 20 seconds, then perform another five second dial tone search. The panel will then force dial if force dialing is enabled. The whole sequence counts as one dialing attempt.

### Maximum Dialing Attempts

This option determines the maximum number of attempts the panel will make to send a signal to the central station before indicating a Failure to Communicate (FTC) trouble condition. The maximum number of dialing attempts that can be programmed is 15.

The 3rd Telephone Number can be used to back up the 1st in the event of an FTC. (See section 5.7 “Communicator – Telephone Numbers” on page 17). If a later communication attempt is successful, the FTC reporting code(s) programmed in section [351] will be transmitted along with the unreported events from an earlier unsuccessful communication.

When Bell on FTC when Armed is enabled in programming section [702], option [8], an FTC during the armed period will sound an Audible Alarm for the length of Bell time-out or until the system is disarmed. If FTC Trouble Only when Armed is enabled, only the keypad buzzer will sound trouble beeps every 10 seconds until a key is pressed.

**NOTE:** Contact your local telephone company to confirm which settings should be used.

Maximum Dialing Attempts [160]

Post Dial Wait for Handshake [161]

Communicator Call Direction Options [361]-[368]

DTMF or Pulse Dialing [380]: [3]

Switch to Pulse Dialing on Fifth Attempt [380]: [4]

Communicator Enable/Disable [380]: [1]

Anti-Jam Feature [701]: [8]

Pulse Dialing Make/Break Ratio [702]: [1]

Force Dialing [702]: [2]

ID Tone Enabled [702]: [5]

2100Hz/1300Hz [702]: [6]

Bell on FTC/Trouble Only [702]: [8]

Delay Between Dialing Attempts [703]

### 5.6 Communicator – Account Numbers

The account number is used by the central station to distinguish between panels. There are two account numbers programmable for the PC585.

First Account Code (4 digits) [310]

Second Account Code (4 digits) [311]

### 5.7 Communicator – Telephone Numbers

The panel can use three different telephone numbers for communicating with the central station. The First Telephone Number is the primary number, the Second Telephone Num-
ber is the secondary number and the Third Telephone Number will back up the First telephone number if enabled.

**NOTE:** The Third Telephone Number will NOT back up the Second Telephone Number.

**NOTE:** If you enter a telephone number section (sections [301] - [303]) at an LED keypad, pressing [#] will delete the programmed telephone number and change all the digits to [F].

If the Alternate Dial option is enabled, the panel will alternate between the first and third telephone numbers when attempting to call the central station. If the option is disabled, the panel will only attempt to call the Third telephone number after failing to communicate with the first telephone number.

**NOTE:** To use the Third Telephone Number, you must enable it in section [380], option [5], and program it in section [303].

Telephone numbers can be up to 32 digits. This allows you to add special digits if required. To program the telephone number, enter the numbers 0 through 9 as required. The following is a list of programmable HEX digits and the functions they perform:

- HEX (B) - simulates the [*] key on a touch tone telephone
- HEX (C) - simulates the [#] key on a touch tone telephone
- HEX (D) - forces the panel to search for dial tone
- HEX (E) - forces the panel to pause for 2 seconds
- HEX (F) - marks the end of the telephone number

**NOTE:** The first digit of all telephone numbers must be the HEX digit 'D' for dial tone search, or HEX digit 'E' for a two-second pause.

---

### 5.8 Communicator – Reporting Codes

The panel can be programmed to send events to the central station by sending the Reporting Code programmed for a particular event.

Reporting codes can be one or two digits and can use HEX digits (A through F). For a complete description of reporting codes which can be programmed and lists of automatic Contact ID and SIA format codes, please see Appendix A.

**NOTE:** Do not use the digit C in a reporting code when using Pager Format. In most cases, the digit C will be interpreted as a [#] which will terminate the page before it has finished.

#### Reporting Codes

First Telephone Number ................. Section [301]
Second Telephone Number .............. Section [302]
Third Telephone Number ............... Section [303]
Third Telephone Number Enable ......... Section [380]: [5]
Alternate Dial ......................... Section [380]: [6]

#### Cross Zone Police Reporting Code

The Cross Zone Police Code Alarm will be sent when two different alarms occur during any armed-to-armed period. When an alarm occurs while the panel is armed and a second alarm occurs on a different zone during the same armed period, or after the system is disarmed, this code will be sent. All zone types contribute to this alarm. The cross zone police code will be transmitted immediately unless either or both zones have the Transmission Delay attribute enabled. If so, the code will be delayed for the programmed transmission delay time.

---

**Zone Restorals**

If the Restoral on Bell Time-out option is selected, the panel will send the Zone Restoral Reporting Code for the zone if the bell cut-off time has expired and the zone is secured. If the zone is not secured when the bell cut-off time expires, the panel will send the restoral immediately once the zone is secured, or when the system is disarmed. If the Restoral on Bell Time-out option is not selected, the panel will immediately send the Zone Restoral Reporting Code when the zone is secured, regardless of whether or not the alarm output is active.

**NOTE:** Two Hour type zones will report the restoral immediately when the zone is secured.

---

**Restoral on Bell Time-out ............ Section [380]: [2]**

---

**Closings (Arming Codes)**

If the Closing Confirmation option is enabled, once the exit delay expires, the keypad will sound a series of eight beeps to confirm to the user that the closing code was sent and received by the central station.

The panel identifies which zones are bypassed on a Partial Closing. To do this, the panel will send the partial closing reporting code, and then the alarm restore reporting code(s) for the zone(s) which are bypassed.

For example, if a panel is armed with Access Code 40 with Zones 3 and 5 bypassed, the panel will transmit:

- Partial Closing
- Alarm Restore Zone 3
- Alarm Restore Zone 5
- Closing By User Code 40

The panel will follow the Alarm Restore Call Direction options programming.

**NOTE:** This feature does not apply to the SIA format, which uses CG-ZZ to identify zones for Partial Close.

---

**Closing Confirmation .................. Section [381]: [4]**

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**Openings/Closings by Wireless Key**

The event will be logged and transmitted as special closing or opening by keyswitch.

**Wireless Maintenance**

The panel will transmit a Wireless Device Low Battery Alarm reporting code if a low battery condition is indicated by a detector. Transmission and logging to the event buffer of the trouble will be delayed by the number of days programmed for Zone Low Battery Transmission Delay. The Wireless Device Low Battery Restoral reporting code will be transmitted when the problem is corrected. The specific zone that caused the trouble will be recorded in the event buffer.

**NOTE:** The restoral will not be transmitted until all detectors indicate good battery conditions.

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**Wireless Maintenance Reporting Codes ........ Section [353]**

Zone Low Battery Transmission Delay .......... Section [370]

---

**AC Failure Trouble Alarm Code**

To prevent the panel from transmitting an AC Failure Trouble Alarm reporting code during short power outages, the panel will not send the signal unless AC power is lost for the amount
of minutes programmed for the **AC Failure Communication Delay**. The **AC Failure Trouble Restoration** reporting code follows the AC failure communication delay as well.

**NOTE:** If AC Failure Communications Delay is programmed as “000,” then the AC failure transmission will be immediate.

---

### 5.9 Communicator – Reporting Formats

Each communication telephone number can be programmed to report using any of the following formats: Contact ID, SIA, Pager, Private Line, Scanners, and Sur-Gard 4-8-1. The **Communicator Call Direction** options can be used to disable the reporting of events such as Openings and Closings.

**NOTE:** Do not program the 2nd telephone number to use Contact ID or SIA reporting code formats (section [360]) if Automatic reporting codes are selected for SIA (section [381]).

The following is a description of each reporting format:

**Contact ID**

Contact ID is a specialized format that will communicate information using tones rather than pulses. This format allows more information to be sent faster than other formats. For example, in addition to reporting an alarm in zone one, the Contact ID format will also report the type of alarm, such as an Entry/Exit alarm.

A two-digit number from Appendix A must be entered in programming sections [320] to [353] for each event to be transmitted. The two-digit number determines the type of alarm. The panel will automatically generate all other information, including the zone number.

**Additional Notes on Contact ID**

1. Account numbers must be four digits.
2. All reporting codes must be two digits.
3. Substitute the HEX digit ‘A’ for the ‘0’.
4. To prevent the panel from reporting an event, the reporting code should be programmed as [00].
5. To change the Contact ID Partial Close Identifier from (4) to (5), change the programming in section [018]: [4].

Please refer to Appendix A for a list of Contact ID Identifiers.

**SIA**

SIA is a specialized format that will communicate information quickly using Frequency Shift Keying (FSK) rather than pulses. The SIA format will automatically generate the type of signal being transmitted, such as Burglary, Fire, Panic etc. The two-digit reporting code is used to identify the zone or access code number.

**NOTE:** If the Automatic SIA option is selected, the panel will automatically generate all reporting codes, eliminating the need to program these items.

If the **SIA Sends Automatic Reporting Codes** option is enabled, the panel will operate as follows:

1. If an event's reporting code is programmed as [00], the panel will not attempt to call the central station.

2. If the reporting code for an event is programmed as anything from [01] to [FF], the panel will automatically generate the zone or access code number and send the reporting code.

If the **SIA Sends Programmed Reporting Codes** option is enabled, the panel will operate as follows:

1. If an event's reporting code is programmed as [00] or [FF], the panel will not attempt to call central station.
2. If the reporting code for an event is programmed as anything from [01] to [FE], the panel will send the programmed reporting code.

Please refer to Appendix A for a list of SIA identifiers.

---

### SIA Sends Automatic Reporting Codes . . . Section [381]: [3]

**Pager Format**

The communication format option for either telephone number can be programmed as **Pager** format. If an event occurs and the **Communicator Call Direction** options direct the call to a telephone number with the Pager Format selected, the panel will attempt to page.

When calling a pager, extra digits will be required in order for the format to function properly. The following is a list of Hex digits and the functions they perform:

- Hex [B] - simulates the [*] key on a touch tone telephone
- Hex [C] - simulates the [#] key on a touch tone telephone
- Hex [D] - forces the panel to search for dial tone
- Hex [E] - two second pause
- Hex [F] - marks the end of the telephone number

The panel will attempt to call the pager once. Once the appropriate telephone number is dialed, the panel will send the account number and Reporting Code followed by the [#] key (Hex [C]).

The panel has no way of confirming if the pager was called successfully. A Failure To Communicate trouble only will be generated if the panel detects a busy tone on all dialing attempts, or if no dial tone is detected on all dialing attempts.

The pager format will not cause any form of ringback.

**NOTE:** The Pager Format cannot be used with the GSM1000 cellular communicator.

**NOTE:** Do not use the digit C in a reporting code when using Pager Format. In most cases, the digit C will be interpreted as a [6] which will terminate the page before it has finished.

**NOTE:** If the panel detects a busy signal, it will attempt to page again. It will make the maximum number of attempts programmed in section [160].

**NOTE:** Force dialing should be disabled when using Pager format.

**NOTE:** When using Pager format, you must program two hex digit E's at the end of the telephone number.

---

### Private Line Format

The **Private Line** format allows the communication of zone alarms directly to a user over a telephone line. When an event occurs that the panel is programmed to communicate, the panel will seize the line and dial the programmed telephone number(s). The panel then emits a double beep on the line every three seconds. This indicates to the user receiving the call that the control panel is calling.

The user must acknowledge the call by pressing 1, 2, 4, 5, 7, 8, 0, *, or # from any touchtone telephone. The panel will wait for this acknowledgment for the duration of **Post Dial Wait for Handshake** timer.

The panel will then indicate which zone is in alarm by sounding a corresponding number of beeps (e.g. three beeps for...
Zone 3). The user must then press a key (1, 2, 4, 5, 7, 8, 0, * or #) to acknowledge the alarm. If the panel has another alarm to communicate, it will sound a corresponding number of beeps for the new zone alarm. The user must then press a key to acknowledge the signal. When there are no further alarms, the panel will hang up.

**NOTE:** The keys 3, 6 and 9 are not valid handshakes.

**NOTE:** Events not received by the central station due to an FTC will not be transmitted via the Private Line format.

### Scantronics and Sur-Gard 4-8-1 Formats
These are DTMF formats that send reporting codes as:
- One 4-digit account code
- Eight 1-digit reporting channels (event code)
- One 1-digit status channel

The software automatically generates a code for the event based on the programming of the call direction groups.

<table>
<thead>
<tr>
<th>Channels</th>
<th>Account Code</th>
<th>Event Code</th>
<th>Status Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8</td>
<td>x x x x x x x x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When you program the reporting codes for zones and events (programming sections [320]-[353]), program them in the format XY, where:

- X = channels 1-8
- Y = event code (0-9).

**NOTE:** If your central station uses a Scantronics 5100 receiver, only program numbers from 1 to 6 for the event code.

#### Example:
If you program the zone 3 alarm reporting code as [31], the panel will send event code 1 in channel 3. The panel will send the number 5 for each of the other channels, so that the event code will look like:

5 5 1 5 5 5 5

The panel will send the status code (i) based on the status of the zone:

- 7 = Alarms, Tampers, Restorals, Openings & Closings
- 8 = Trouble or Trouble Restoral
- 9 = Test Transmission

#### Example:
If there is an alarm on Zone 3 the panel will send:

aaa a a 5 5 1 5 5 5 5 7

To disable communication for specific events, program ‘00’ or ‘FF’ for the reporting code.

The Scantronics and Sur-Gard 4-8-1 formats work similarly. Select one or the other depending on the type of receiver in use at the central station.

### 5.10 Downloading

The required downloading software is DLS-3 version 1.2 and up.

Downloading allows you to program the entire control panel via a computer, a modem, and a telephone line. All functions, features, their changes and status – such as trouble conditions and open zones – can be viewed or programmed through downloading.

**NOTE:** Downloading is always enabled for six hours each time the panel is powered up, unless the User Can Enable DLS Window option is disabled.

The panel will answer calls for downloading when the programmed Number of Rings is heard by the panel.

If the **Answering Machine/Double Call** option is enabled (or during the first six hours after power up), the panel will answer incoming calls for downloading in the following manner:

1. The panel hears one or two rings then misses a ring.
2. At this point the panel will start a the double-call timer.
3. If the panel hears another ring before the **Answering Machine Double-Call Timer** expires, it will answer on the first ring of the second call.

The panel will immediately go on line and begin downloading. If the **Call-Back** option is enabled, the panel and the computer will both hang up. The panel will then call the **Downloading Computer’s Telephone Number** and wait for the computer to answer. Once the computer answers, downloading will begin.

If the **User Enabled DLS Window** option is ON, the user can activate the downloading feature for a set period of time by entering [*][6][Master Code][5].

If the **Full 6-hour User Enabled DLS Window** option is enabled, when the user opens the DLS window with [*][6][Master code][5], the DLS window will remain open for six hours. The DLS window will remain open after a successful hang-up from a downloading call. If the **One Time 1-hour User Enabled DLS Window** option is enabled, when the user opens the DLS window with [*][6][Master code][5], the DLS window will stay open for one hour, and will close after a successful hang-up from a downloading call.

After six hours, the panel will not answer incoming calls unless the Answering Machine/Double Call option is enabled, or the **Number of Rings** is programmed to be more than [0].

If the **User Initiated Call-Up** option is enabled, the user can have the panel initiate a call to the downloading computer by pressing [*][6][Master Code][6].

The **Download Access Code** and **Panel Identifier Code** are for security and proper identification. Both the panel and the computer file should contain the same information programmed before attempting to download.

The time to complete a successful download can be significantly reduced with the use of the PC-LINK. This adaptor makes it possible to perform on-site downloading. **To Initiate Local Downloading via the PC-LINK**, enter [*][8][Installer’s Code][499][Installer’s Code][499]. All keypads will be busy for the duration of the PC-LINK connection. The status LEDs will display the current system status on the keypad where the PC-LINK was initiated. For more information on connecting the PC-LINK, refer to your “PC-LINK Download Kit Instruction Sheet”.

**NOTE:** When a zone status upload is performed through PC-LINK, the information uploaded may not be accurate. For more information, refer to your DLS-3 manual.

**NOTE:** When uploading labels from LCD keypads, only labels from the LCD keypad assigned to slot 8 will be uploaded.

---

**Answering Machine/Double Call** . . . . . . . Section [401]: [1]
**User Enable DLS Window** . . . . . . . . . . . . . Section [401]: [2]
**Call-Back** . . . . . . . . . . . . . . . . . . . . . . . Section [401]: [3]
**User-initiated Call-up enabled/disabled** . . . . . Section [401]: [4]
**One/Six Hour User-enabled DLS Window** . Section [702]: [7]
**Answering Machine Double Call Timer** . . . . . Section [405]
**Number of Rings to Answer On** . . . . . . . . . . . Section [406]
**Initiate Local Downloading (PC-LINK)** . . . . . Section [499]
5.11 PGM Output Options

Programmable outputs PGM1 and PGM2 on the main board can be programmed by selecting one of the output options listed below (exceptions noted).

Main Board PGM Outputs ...................................... Section [009]

NOTE: PGM outputs cannot be disabled in installer’s programming. To disable a PGM output, you must remove all wiring from the output.

[01] Burglary and Fire Bell Output
The output will activate when the alarm output is active and will deactivate when the alarm output is silenced. If the alarm output is pulsing, the PGM output will pulse as well. This output will follow the activation of the alarm output (pre-alarm) for delayed fire zones.

[02] For future use

[03] Sensor Reset ([*][7][2])
NOTE: This output will normally be active (switched to ground).
This option is used to reset power for latching smoke detectors. The output will deactivate for five seconds when the [*][7][2] command is entered (see "[*][7] Command Output Functions" on page 11). The keypad buzzer will not sound for the five second period. After performing a sensor reset, wait 15 seconds before attempting to arm the system.
Please refer to the Control Panel Wiring Diagram in this manual for wiring instructions.
NOTE: Only ONE of options [03] Sensor Reset and [20] Command Output Option #2 may be programmed on the same system.

[04] For future use

[05] Armed Status
When the system is armed, the PGM output will activate. The output deactivates when the system is disarmed.

[06] Ready To Arm
The PGM will be active as long as the system is ready to arm and 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.

[07] Keypad Buzzer Follower Mode
The PGM will activate when any of the following events occur and will remain active for as long as the keypad buzzer is active:
- Door Chime
- Auto-Arm Prealert
- 24 Hour Supervisory Buzzer Zone

[08] Courtesy Pulse
Upon arming, the PGM output will activate for the duration of the exit delay plus an additional two minutes. Upon disarming, the PGM output will activate for the duration of the entry delay plus an additional two minutes.

[09] System Trouble Output
The PGM output will activate when any of the selected trouble conditions are present. It will deactivate when all the selected trouble conditions are cleared.
The PGM attributes for this option, programmed in Sections [141] to [142], differ from the standard selection of attributes. Program which trouble conditions will activate the output by selecting some or all of the following attributes:

Attribute

[1].........Service Required (battery, bell, general trouble, general tamper, general supervisory)
[2].........AC Failure
[3].........Telephone Line Trouble
[4].........Failure to Communicate
[5].........Fire Trouble / Zone Fault
[6].........Zone Tamper
[7].........Zone Low Battery
[8].........Loss of Clock

[10] System Event (Strobe Output)
The output activates when any of the selected system events (alarms) occur on the system.
NOTE: This output will activate for silent and audible alarms or medical conditions only. It will not activate during pre-alarm or delays.

If attribute [8] is turned ON, the output will activate for the number of seconds programmed in the PGM output timer (section [164]).
If attribute [8] is turned OFF, in the armed state, the output will deactivate only once the system is disarmed. If an alarm activates this output in the disarmed state, the output will deactivate if a user enters a valid access code while the Bell Cut-off timer is counting down. The output will also deactivate if someone arms the system after the Bell Cut-off has expired. This output can be used to indicate that an alarm has occurred before entering the premises.
The PGM attributes for this option, programmed in Sections [141] to [142], differ from the standard selection of attributes. Program which events will activate the output by selecting some or all of the following attributes:

Attribute

[1].........Burglary (Delay, Instant, Interior, Stay/Away and 24 Hour Burglary Zones)
[2].........Fire (Fire Keys, Fire Zones)
[3].........Panic (Panic Keys and Panic Zones)
[4].........Medical (Auxiliary Keys, Medical and Emergency Zones)
[5].........Supervisory (Supervisory, Freezer and Water Zones)
[6].........Priority (Gas, Heat, Sprinkler and 24 Hour Latching Zones)
[7].........Holdup (Holdup zones)
[8].........Output Follows Timer (output will activate for the number of seconds programmed in the PGM Output Timer) / Output Latched

NOTE: If attribute [8] is turned ON, attributes [1-7] must also be turned ON.

PGM Output Timer ................................................. Section [164]

[11] System Tamper (All Sources)
The PGM output will activate when any tamper condition is present and will deactivate when all tampers are restored.

[12] TLM and Alarm
The PGM output activates when the system experiences both a telephone line trouble and an alarm. When the system is armed, the output will deactivate only if an access code is entered or if the telephone line is restored.
If an alarm activates this output in the disarmed state, the output will deactivate if a user enters a valid access code while the Bell Cut-off timer is counting down, or if the telephone line...
is restored. The output will also deactivate if someone arms the system after the Bell Cut-off has expired.

**NOTE:** This output will activate for all silent and audible alarms except the Duress alarm.

The output will activate for two seconds after the control panel receives the kissoff transmission from the central station.

[14] Ground Start Pulse
The PGM Output will activate for two seconds to obtain a dial tone on Ground Start telephone equipment before the panel attempts to dial. Insert two 2-second pauses at the beginning of the telephone number when using this option.

This output can be activated and deactivated remotely using the DLS software.

[16] GSM1000 Support (PGM1 Only)
The PGM output will be used as a data wire to communicate telephone number information for the GSM1000 cellular unit.

[17] Away Armed Status
This output activates upon initiation of arming the system in the Away mode. The output deactivates when the panel is disarmed.

[18] Stay Armed Status
This output activates upon initiation of arming the system in the Stay mode. The output deactivates when the panel is disarmed.

**NOTE:** If you include a Push to Set zone on the system, PGM output types [17] and [18] will not activate unless a user violates this zone (i.e. pushes the button). Once the user has violated the Push to Set zone, PGMs programmed with [17] and [18] will activate.

[19] [1][7][1] Command Output Option #1
[20] [1][7][2] Command Output Option #2
These outputs are user-initiated by entering [1][7][1-2] at any keypad. When any output is activated, three acknowledgment beeps are sounded.

**NOTES on Option [20] [1][7][2]:**
- Press [1][7][2][Access Code, if required] to activate any output programmed as one of PGM output option [03] or [20].
- Traditionally, [1][7][2] has been reserved for resetting smoke detectors. Smoke detectors should now be programmed as output [03] “Sensor Reset”.
- **NOTE:** Only one of options [03] Sensor Reset and [20][1][7][2] Command Output Option #2 may be programmed on the same system.

[21]-[24] For future use

**PGM Output Attributes**
In addition to programming the output type, you must also program the PGM output attributes for each output.

PGM output options [09] “System Trouble” and [10] “System Event” have their own unique set of attributes listed below the description of each output type.

PGM output options [01], [03], [05]-[08], [11]-[26] have the following attributes:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>ON</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] Output Enabled</td>
<td>Disabled</td>
<td></td>
</tr>
<tr>
<td>[4] Output Pulled Output ON/OFF</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:**
- Attribute OFF: the output de-energizes when activated
- Attribute OFF: the output energizes when activated

**NOTE:** When initiated by the user:
- Attribute OFF: the output will toggle ON or OFF when initiated by the user.
- (Only applicable to options [19]-[20].)

**[5] Access Code Req. No code Req.**
- Attribute ON: the output requires a code for activation.
- Attribute OFF: no code required.
- (Only applicable to keypad-activated outputs)

PGM attributes return to their default settings when you change PGM output options. Please see the programming worksheets for a list of the default settings for each PGM output type.

Care should be taken in selecting the normal and active states of each PGM output to ensure that an undesirable output state does not occur after a loss and restore of AC power.

**NOTE:** Attribute [3] must be ON (default) for PGM output option [16].

**NOTE:** If you program more than one PGM output as the same output type (e.g. if PGM1 and PGM2 are both programmed as [19] Command Output 1), the settings for output attributes [1], [2] and [5] must be the same. This does not apply to outputs programmed as types [09] and [10].

**PGM Output Attributes . . . . . . . . . . . . . . Section [141]-[142]**

### 5.12 Telephone Line Monitor (TLM)
When the TLM Enable option is selected, the panel will supervise the telephone line and will indicate a trouble condition if the telephone line is disconnected.

If the TLM Enable option is ON, the panel will check the telephone line every 10 seconds. If the telephone line voltage is below 3V for the number of checks programmed in the TLM Trouble Delay section, the panel will report a TLM trouble.

The default number of checks is 3. Enter a number from [003] to [255] in the TLM Trouble Delay section to change the number of checks before the TLM trouble is reported. Programming a delay means that a momentary interruption of the telephone line will not cause a trouble condition.

If the TLM Trouble Beeps When Armed option is enabled, the panel will indicate a TLM trouble at the keypad while the system is armed. To activate the bell output in the case of a TLM trouble while the system is armed, the TLM Audible (Bell) When Armed option must be selected.

When the Bell Delay option is enabled with the system armed, and the alarm that initiates the Bell Delay occurs after a TLM trouble, Bell Delay will be cancelled and the bell will activate. If a TLM trouble occurs when the system is armed and an alarm condition where the Bell Delay is active already exists, the Bell Delay will be cancelled and the bell will sound.

When the trouble condition is restored, the panel can send a TLM Restoral reporting code. Any events which occur while the telephone line is down will also be communicated.

If a GSM1000, or LINKS2X50 is being used, the panel can be programmed to report a TLM Trouble Reporting Code.

**TLM Enable/Disable . . . . . . . . . . . . . . Section [015]-[17]**
- TLM Trouble Beeps When Armed
- TLM Audible (Bell) When Armed . . . . . . . Section [015]-[18]
- TLM Trouble Reporting Code . . . . . . . . . . . Section [349]
5.13 Bell
If you program the Bell Delay timer, after a zone triggers an audible burglary alarm, the panel will delay sounding the bell for the programmed amount of time (000-255 minutes). If a user enters an access code during this time period, the panel will not activate the bell.

**NOTE:** Zones programmed as 24-hour zones will not follow the Bell Delay timer

**NOTE:** The Bell Delay timer will also delay any PGM outputs that follow the main bell.

Bell Trouble Latching indicates a bell trouble is present and the keypad buzzer will sound until a valid access code is entered.

When an alarm occurs that activates the bell, it will continue to sound until the number of minutes programmed for the Bell Cut-off time have passed.

The panel supervises the Bell output. If an open condition is detected, the panel will immediately indicate a trouble condition by beeping the keypad twice every 10 seconds to alert the owner of the problem. The panel can send a Bell Circuit Trouble and Trouble Restoral reporting codes to indicate the situation (see section 5.8 “Communicator – Reporting Codes” on page 18).

If a Bell Trouble is present at the time the user enters their code to arm the system, arming will not be allowed.

If Fire Bell Continuous is enabled, the bell will sound until a code is entered. If disabled, the bell will sound until a code is entered or the bell cut-off time has expired.

Bell Cut-off ........................................ Section [005]
Bell Delay Timer ................................. Section [175]
Bell Circuit Trouble Reporting Code ...... Section [349]
Bell Circuit Trouble Restoral Reporting Code . Section [350]
Fire Bell Continuous .......................... Section [014]: [8]

5.14 Test Transmission
To ensure that the communication link with the central station is functioning properly, program the panel to send a test transmission signal on a regular basis.

The panel can send a Periodic Test Transmission Reporting Code at the programmed Test Transmission Time of Day. The Test Transmission Cycle determines the period of time between tests. The option Land Line Test Transmission in Minutes/Days allows you to select whether the Land Line Test Transmission cycle will be counted in minutes or days. If you have selected the test transmission cycle to be in minutes, the Test Transmission Time of Day counter will not apply.

**NOTE:** If you have selected the Land Line Test Transmission in Minutes option, do not program the test transmission cycle to be less than 10 minutes.

**NOTE:** The GSM1000 Test Transmission can only be programmed in days.

If you program the test transmission cycle for a longer period of time than it was programmed for previously, the system will wait the original time period before the next test transmission is sent, and then begin reporting with the new interval.

The panel can also send a test for the GSM1000 Cellular Communicator, if used. If the GSM1000 Test Transmission Code is programmed, the panel will send a cellular test at the interval programmed in the GSM1000 Test Transmission Cycle.

Users can also generate a communicator test. If the System Test Reporting Code is programmed, the panel will send the signal when the System Test keypad command is entered (see “[*][6] User Functions” on page 10).

Test Transmission Reporting Codes .................. Section [352]
Test Transmission Time of Day ....................... Section [371]
Test Transmission Cycles ............................ Section [370]
Land Line Test Transmission M/D ................. Section [702]: [3]

5.15 Transmission Delay
If the transmission delay zone attribute is selected for a given zone, the panel will delay reporting an alarm for that zone for the number of seconds programmed for the Transmission Delay Time. If the panel is disarmed before the delay time expires, the panel will not report the event.

Transmission Delay Time .......................... Section [370]

5.16 Fire, Auxiliary and Panic Keys
The emergency keys are available on all keypads. These keys must be pressed and held for two seconds before they will activate. This two second delay is designed to help prevent accidental activation.

If the [F] / Bell Key option is enabled, when the Fire keys are pressed and held for two seconds, the panel will activate the alarm output. The alarm output will sound until a code is entered or until the bell cut-off time expires. Communication of the signal to central station is immediate.

If the [A] / Alarm Key is pressed and held for two seconds, the panel will sound the keypad beeps three times to verify activation. The panel will beep the keypad ten times rapidly when a kissoff is received, to verify communication to the central station.

If the [P] / Panic Key is pressed and held for two seconds, the panel will immediately communicate the signal to central station.

If [P] Key Audible Bell and Buzzer option is enabled, when a user presses the [P] / Panic key, the keypad will beep three times and the panel will activate the alarm output until an access code is entered or the bell cut-off expires. If the option is disabled, the Panic alarm will be completely silent.

Each LCD keypad may be programmed to have the [F], [A], & [P] keys enabled or disabled. Please refer to Appendix B: “Programming LCD Keypads” on page 44.

**NOTE:** The Fire, Auxiliary, Panic keys will operate even if Keypad Blanking is active (See section 5.23 “Keypad Blanking” on page 25).

[P] Key Enable .................................. Section [015]: [1]
[P] Key Audible Bell and Buzzer ................. Section [015]: [2]

5.17 Arming/Disarming Options
If the Quick Arm option is enabled, the panel can be armed without an access code by entering [*][0] or by pressing the Stay or Away function key.

The Quick Exit option, if enabled, will allow someone to leave an armed premises through a Delay type zone without having to disarm and re-arm the system. See “[*][0] Quick Exit” on page 11.

The Opening After Alarm Keypad Ringback option will cause the keypad to beep 8 times rapidly after the Opening
After Alarm reporting code has been successfully transmitted to the central station.

**Closing Confirmation**, if enabled, will cause the keypad to beep 8 times rapidly after the closing reporting code has been successfully transmitted to central station.

If the **Bypass Status Displayed While Armed** option is chosen, the Bypass light will be ON while the system is armed to indicate that there are bypassed zones.

If the **AC/DC Inhibit Arming** option is enabled, the panel will not arm if there is an AC or DC (battery) trouble present on the system. Arming will not be allowed until the AC or battery trouble is cleared. If no AC or battery trouble is currently present, when a user attempts to arm the system, the panel will do an automatic battery test of the panel. If the battery is good, the system will arm. If the battery is bad, the system will not arm.

**NOTE:** Wireless keys can be used to disarm only while Entry Delay is active.

Bell Trouble inhibits arming when a bell trouble is present, arming the system will not be allowed.

---

**5.18 Entry/Exit Delay Options**

Two different Entry Delays can be programmed: the first entry delay will be enabled for Final Door Set Zone and the second for a Delay type zone. Only one Exit Delay can be programmed.

**NOTE:** When the panel is armed, the entry delay will follow the entry delay time programmed for the delay zone which is violated first.

Upon arming, the panel will begin the exit delay. If the **Audible Exit Delay with Urgency** option is enabled, the keypad will beep at one second intervals until the exit delay expires. The keypad will beep rapidly for the last 10 seconds of exit delay to warn the user that the system is about to arm. If this option is disabled, the keypad will not beep during the exit delay.

Upon entry, if a Delay type zone is violated, the panel will begin the entry delay. The keypad will emit a steady tone. The keypad will warn the user that the system is about to arm. If this option is enabled, the keypad will beep at one second intervals until the exit delay expires. The keypad will beep 8 times rapidly after the closing reporting code has been successfully transmitted to the central station.

The **Swinger Shutdown** option is enabled, the panel will warn the user that the system is about to arm. If this option is enabled, the keypad will beep at one second intervals until the exit delay expires. The keypad will beep 8 times rapidly after the closing reporting code has been successfully transmitted to the central station.

**NOTE:** Wireless keys can be used to disarm only while Entry Delay is active.

Bell Trouble inhibits arming when a bell trouble is present, arming the system will not be allowed.

---

**5.20 Event Buffer**

The panel will store the last 128 events which occurred on the system. The event buffer will contain the name, time and date of each event, along with the zone number, access code number, or any other information pertaining to the event.

The **Event Buffer Follows Swinger Shutdown** option is enabled, the Event Buffer will not store events after the Swinger Shutdown level has been reached. This will prevent the panel from overwriting the entire buffer if a problem exists.

The event buffer can be viewed in three different ways: from an LCD keypad (see [*][6] User Functions* on page 10), printed on-site using the PCS400 printer module, or it can be uploaded using DLS software.

**NOTE:** If a user enters the Duress code to disarm the system, the keypads will lock and will display a 4-digit Lock Code.

**NOTE:** If the Remote Reset option is turned on, you must use either LED keypads (PC1555RKZ, PC5508Z), or LCD5500Z with software version v2.2U and higher.

When the keypads are locked, users will not be able to perform any system functions, except for viewing the alarm memory ([*][3]) or activating command outputs such as sensor reset ([*][7]). The rest of the system will function as normal (i.e. alarms and troubles will still be monitored).

Users will only be able to unlock the system by entering a Reset Code provided by the installer or central station. To get the code, the user will have to call the installer or central station and provide the 4-digit Lock Code which will be displayed on the keypad.

On LCD keypads, the user will see:

---

**5.19 Swinger Shutdown**

The swinger shutdown feature is designed to prevent a “run-away” communicator from tying up the central station. After the panel has communicated the programmed number of transmissions for an event, it will no longer report that event until the swinger shutdown is reset. Different swinger shutdown levels can be set for zone alarms, zone tampers and maintenance signals.

By default, each swinger shutdown limit is set to [003]. The panel will not send more than three signals for each zone until the swinger shutdown is reset.

The Bell output will not be activated for alarms on zones that have exceeded the limit of alarms set in the Swinger Shutdown counter.

Swinger shutdown will be reset every day at midnight or when the panel is armed. Once reset, the panel will again communicate normally.

---

**Swinger Shutdown**  . . . . . . . . . . . . . . . . . . Section [370]
Remote Reset Rqd
Code XXXX

where XXXX is the Lock Code.

LED keypads will show each number of the Lock Code in sequence, using the zone number lights. For example, if the Lock Code is [1234], the keypad will turn on the lights 1, 2, 3, and 4 for 1 second each, in sequence. The display will pause for 3 seconds, and then repeat the lock code.

Instruct the users to take note of the code displayed on the keypad and then call the installer or central station to get the Reset Code. When the user enters the correct Reset Code on the keypad, the keypad will work normally.

Installers or central station operators will need to have DSC's Remote Reset software package installed in order to provide users with the Reset Code. Please refer to the Remote Reset software documentation for complete instructions.

NOTE: The keypad will also be unlocked if you enter Installer's software documentation for complete instructions.

5.22 Keypad Lockout Options
The panel can be programmed to “lock out” keypads if a series of incorrect access codes are entered. Once the Number of Invalid Codes Before Lockout limit has been reached, the panel will lock out all keypads for the lockout duration and log the event to the event buffer. For the duration of the lockout, the panel will sound an error tone when any key is pressed.

NOTE: The Invalid Code Counter will be reset every hour.

To disable the keypad lockout option, program the Number of Invalid Codes Before Lockout as [000].

NOTE: If Keypad Lockout is active, the panel CANNOT be armed / disarmed with a keyswitch.

5.23 Keypad Blanking
If the Blank Keypad When Not in Use option is enabled, the panel will turn off all lights and LCDs on the keypads when no keys are pressed for 30 seconds. The keys, however, will remain backlit.

The panel will turn the lights and LCDs back on if entry delay begins or an audible alarm occurs. The lights and LCDs will also come on if a key is pressed or, if a valid access code is entered when the Code Required to Restore Blanking option is enabled.

NOTE: If using a PC5132 v3.0 or greater, and wireless keys, do not enable the Code Required to Restore Blanking option, as the keys will not function correctly.

If the Power Save Mode option is enabled, the panel will blank all keypad lights including backlighting when AC power fails, in order to conserve the backup battery.

5.24 Keypad Backlighting
The keys of all the keypads can be backlit to provide easy viewing in dim lighting conditions. If the Keypad Backlighting option is enabled the keys will be illuminated.

Keypad Backlighting Option . . . . . . . . . . . Section [016]: [5]

5.25 Keypad Tamper
If the Keypad Tamper option is selected, the panel will display and transmit a General System Tamper reporting code if any keypad is removed from the wall. When the keypad tamper is restored, the panel will transmit the General System Tamper Restoral reporting code. All keypads should be properly installed and secured before enabling this option.

If the All System Tamper Reset option is enabled, any system tampers must be reset by entering [*][8][Installer’s Code] before the system can be armed. Auto-Arming and Keyswitch arming will also be prevented in the presence of any system tamper.

The Auto Arm Cancellation code is not transmitted when a reset is required because a user has not cancelled the auto arming sequence.

NOTE: After enabling keypad tamper options, it is recommended to tamper and restore all keypads to ensure proper functioning.

5.26 GSM1000 Cellular Communicators
The GSM1000 Cellular Communicators can be used three different ways: as the sole communicator for the panel, as a backup for either or both telephone numbers or as a redundant backup to the land line communicator, where the panel will call both the land line and via the GSM1000. A GSM1000 Preamble is programmable for each telephone number in the event that the land line number is local but the GSM1000 is required to dial an exchange. When programming a GSM1000 Preamble, all unused digits must be programmed with a hexadecimal “F”.

You may need to program a longer delay between dialing attempts to ensure proper operation of the GSM1000.

Using GSM1000 as the Sole Communicator
The panel can be programmed to report an event only using the GSM1000 cellular communicator. To program this option, select only the GSM1000 in the Communicator Call Direction options. The Call GSM1000 as well as Land Line option must also be enabled.

When the selected event occurs the panel will only attempt to call central station using the GSM1000.

Using the GSM1000 as a Backup Communicator
The panel can be programmed to call using the GSM1000 Cellular Communicator if the panel is having difficulty communicating an event using the land line. To program this option, select both the telephone number and GSM1000 options in the Communicator Call Direction options. The GSM1000 is Backup of Land Lines option must be selected.

When used as a backup communicator, the panel will attempt to call the central station in the following manner:

- the panel will try to call using land lines – if unsuccessful, the panel will try to call using the GSM1000
- if unsuccessful, the panel will try to call using the land lines on the next dialing attempt

This process will continue until the panel has successfully communicated with the central station or until the panel’s programmed number of dialing attempts have been exhausted.
**5.29 Clock Adjust**

In order to compensate for timing inaccuracies, the panel may be programmed to add or subtract seconds during the last minute of each day using the Clock Adjust programming section. Valid entries are 01 - 99. The default setting is 60 seconds. To determine the value to be programmed in this section, monitor the amount of time lost or gained by the panel over a period of time. Then, calculate the average amount of time per day that the panel gains or loses. If the clock's timing is off, it may be corrected with this setting.

**Example #1:** The clock loses an average of 9 seconds per day. **Solution:** Program the panel to adjust the clock by 51 seconds (instead of the default 60 seconds) for the last minute of each day in section [700]. This will speed up the panel's clock by 9 seconds, correcting the problem.

**Example #2:** The clock gains an average of 11 seconds per day. **Solution:** Program the panel to adjust the clock by 71 seconds (instead of the default 60 seconds) for the last minute of each day in section [700]. This will slow down the panel's clock by 11 seconds, correcting the problem.

**NOTE:** If the auto-arm time is set for 23:59, any change to the Clock Adjust option will directly affect the auto-arm pre-alert time.

**5.30 Timebase**

In cases of unstable AC power input you can use the internal crystal to keep a more accurate timebase by enabling the Timebase is Internal Crystal option.

If the 50 or 60Hz AC power input is very stable it can be used as the timebase, by enabling the Timebase is AC line option.

**5.31 Resetting Factory Defaults**

On occasion, it may be necessary to default the main control panel or one of the connected modules: the LINKS2X50 Radio interface, the PCS132 wireless receiver, and the PCS400 Printer module.

To default the main control panel (hardware), perform the following:

1. Remove AC and battery from the panel.
2. Remove all wires from the Zone 1 and PGTM1 terminals.
3. With a piece of wire short the Zone 1 terminal to the PGTM1 terminal.
4. Apply AC power to the main panel.
5. When Zone Light 1 is lit on the keypad the default is complete.
6. Remove AC power from the control.
7. Reconnect all original wiring and power up the control.

**NOTE:** AC power must be used to power the panel. The panel will not default if only the battery is used.

To default the main control panel software and other modules, perform the following:

1. Enter the Installer's Programming mode.
2. Enter the appropriate programming section [XXX].
3. Enter the Installer's Code.
4. Re-enter the appropriate programming section [XXX].

The panel will take a few seconds to perform the default. When the keypad is again operational the default is complete.
NOTE: If using Identified Wireless Keys (PC5132 v3.0 or later only), when the main panel is defaulted, all wireless key access codes must be re-programmed. Refer to your PC5132 v3.0 Installation Manual for more information.

Restore Alternative Communicator (LINKS2X50) to Default Programming . . . . . . . . . . . . . . Section [993]
Restore PC5132 to Default Programming . . . . . Section [996]
Restore PC5400 to Default Programming . . . . Section [997]
Restore Panel to Default Programming . . . . . Section [999]

5.32 Installer’s Lockout
If Installer’s Lockout is selected, a hardware default cannot be performed. If a software default is performed, all programming will restore to factory default.

If Installer’s Lockout Disable is selected, the panel will restore all programming to factory defaults when a hardware or software default is performed on the main control panel.

To enable or disable Installer’s Lockout, perform the following:
1. Enter the Installer’s Programming mode.
2. Enter the appropriate programming section: [990] or [991].
3. Enter the Installer’s Code.
4. Re-enter the appropriate programming section: [990] or [991].

Installer Lockout Enable . . . . . . . . . . . . . . . . . . Section [990]
Installer Lockout Disable . . . . . . . . . . . . . . . . . . Section [991]

5.33 Walk Test (Installer)
The Installer Walk Test can be used to test the alarm state of each zone of the panel. The walk test cannot be used to test zone type [24].

Before beginning the walk test, ensure the following conditions are met:
1. The panel is disarmed
2. The Keypad Blanking option is disabled (section [016]: [3])
3. The Fire Bell is Continuous option is disabled (section [014]: [8])
4. The Transmission Delay is disabled, if Transmission Delay is not required (section [370])

NOTE: Fire Troubles are not supported in Walk Test.

To perform a Walk Test:
Step 1 - Enter Installer Programming
Step 2 - Enter Section [901]
When any zone is violated the panel will activate the Bell Output for two seconds, log the event to the event buffer and communicate the alarm to central station. Each zone should be tested several times during the test. Check the event buffer to ensure that all zones and FAP keys are functioning properly.

To stop the test:
Step 1 - Enter Installer Programming
Step 2 - Enter Section [901]
Check the event buffer after the Walk Test is complete, to ensure that the Audible/Silent 24-hr PGM alarms have been restored.

NOTE: The Alarm Memory is cleared upon entering Walk Test mode. When the Walk Test is complete, the Alarm Memory light will remain lit, but there will be no alarms in memory. The light will turn off the next time the panel is armed.

Installer Walk Test Enable/Disable . . . . . . . . . Section [901]
## Section 6: Programming Worksheets

### For the Record

Customer: ________________________________________________________________

Address: ________________________________________________________________

Telephone: ___________________________________________ Installation Date: _______________________________________

Installer's Code: ____________________________________________________________________________________

<table>
<thead>
<tr>
<th>Module Name</th>
<th>Description</th>
<th>Location</th>
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<tbody>
<tr>
<td>PC585</td>
<td>Main Panel</td>
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</tr>
<tr>
<td>PC5132</td>
<td>Wireless Receiver</td>
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</tr>
<tr>
<td>PC5400</td>
<td>Serial Printer Module</td>
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<tr>
<td>GSM1000</td>
<td>Cellular Communicator</td>
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<td>LINKS2X50</td>
<td>Long Range Radio</td>
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### Keypads

<table>
<thead>
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<th>Keypad Type</th>
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</thead>
<tbody>
<tr>
<td>Keypad 1</td>
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</tr>
<tr>
<td>Keypad 2</td>
<td></td>
</tr>
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<td>Keypad 3</td>
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</tr>
<tr>
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<td></td>
</tr>
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</tr>
<tr>
<td>Keypad 6</td>
<td></td>
</tr>
<tr>
<td>Keypad 7</td>
<td></td>
</tr>
<tr>
<td>Keypad 8</td>
<td></td>
</tr>
</tbody>
</table>

Zone programming can be found in sections [001], [101] - [108], [020] and [202]. Use this area to record a summary of your zone programming. Refer to Appendix B: “Programming LCD Keypads” on page 44, for instructions on programming zone labels.

<table>
<thead>
<tr>
<th>System Zone</th>
<th>Zone Label</th>
<th>Zone Type</th>
<th>Zone Attributes*</th>
<th>Serial Number (Wireless)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Zone Attributes:

- Option 1: Audible/Silent
- Option 2: Steady/Pulsed
- Option 3: Chime
- Option 4: Bypass
- Option 5: Force
- Option 6: Swinger Shutdown
- Option 7: Transmission Delay
- Option 8: Wireless
Keypad Programming

[000] Keypad Enrollment (Section 2.5 “Keypad Assignment” on page 4)

NOTE: This must be done at each keypad requiring programming.

[0] slot [Valid entries are 11-18; ie. enter [11] for slot 1, [12] for slot 2, etc.]
[1] Function Key 1 Assignment (Valid entries are 00-17)
[2] Function Key 2 Assignment (Valid entries are 00-17)
[3] Function Key 3 Assignment (Valid entries are 00-17)
[4] Function Key 4 Assignment (Valid entries are 00-17)
[5] Function Key 5 Assignment (Valid entries are 00-17)

Function Key Options:

<table>
<thead>
<tr>
<th>slot</th>
<th>Function Key 1 Options</th>
<th>Function Key 2 Options</th>
<th>Function Key 3 Options</th>
<th>Function Key 4 Options</th>
<th>Function Key 5 Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Null Key</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>01</td>
<td>For future use</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>For future use</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>03</td>
<td>Stay Arm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>Away Arm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>[*][9] No-Entry Arm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>[*][4] Chime On / Off</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>07</td>
<td>[*][6][——][4] System Test</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Keypads must be installed to use 24-hour Buzzer zones.

Basic Programming

Zone Definitions

<table>
<thead>
<tr>
<th>Zone Definition</th>
<th>Default</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null Zone (Not Used)</td>
<td>Zone 1</td>
<td>Zone 5</td>
</tr>
<tr>
<td>Final Door Set</td>
<td>Zone 2</td>
<td>Zone 6</td>
</tr>
<tr>
<td>Delay</td>
<td>Zone 3</td>
<td>Zone 7</td>
</tr>
<tr>
<td>Interior</td>
<td>Zone 4</td>
<td>Zone 8</td>
</tr>
</tbody>
</table>

NOTE: Keypads are assigned in section [020]. Zone Attributes are assigned in sections [101] - [108]. Zone assignment is in section [202].
**[005] System Times**

Default | Valid entries: [001-255]  
---|---  
030 | Entry Delay for Final Door Set (in seconds) and 5.18 “Entry/Exit Delay Options” on page 24)  
045 | Entry Delay (in seconds) and 5.18 “Entry/Exit Delay Options” on page 24)  
030 | Exit Delay (in seconds) and 5.18 “Entry/Exit Delay Options” on page 24)  
020 | Bell Cut-off (in minutes) and 5.13 “Bell” on page 23)  

**[006] Installer’s Code** (Section 4.1 “Installer’s Programming” on page 13)

Default  
5555  

**[007] Master Code** (Section 5.1 “Programming Security Codes” on page 15)

Default  
1234  

**[008] Maintenance Code** (Section 5.1 “Programming Security Codes” on page 15)

Default  
AAAA  

**[009] PGM Output Programming (PGM 1 and 2)** (Section 5.11 “PGM Output Options” on page 21)

Programmable Output Options

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Burglary and Fire Bell Output</td>
</tr>
<tr>
<td>02</td>
<td>For future use</td>
</tr>
<tr>
<td>03</td>
<td>Sensor Reset</td>
</tr>
<tr>
<td>04</td>
<td>For future use</td>
</tr>
<tr>
<td>05</td>
<td>System Armed Status</td>
</tr>
<tr>
<td>06</td>
<td>Ready To Arm</td>
</tr>
<tr>
<td>07</td>
<td>Keypad Buzzer Follow Mode</td>
</tr>
<tr>
<td>08</td>
<td>Courtesy Pulse</td>
</tr>
<tr>
<td>09</td>
<td>System Trouble Output (with Trouble options)</td>
</tr>
<tr>
<td>10</td>
<td>System Event [Strobe (with Event options)]</td>
</tr>
<tr>
<td>11</td>
<td>System Tamper (all sources: zones, kpd, modules)</td>
</tr>
<tr>
<td>12</td>
<td>TLM and Alarm</td>
</tr>
<tr>
<td>13</td>
<td>Kissoff Output</td>
</tr>
</tbody>
</table>

NOTE: Output types [03] and [20] cannot be used together on the same system.

<table>
<thead>
<tr>
<th>Default</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>PGM 1</td>
</tr>
<tr>
<td>07</td>
<td>PGM 2</td>
</tr>
</tbody>
</table>

Program PGM Option Attributes in sections [141] & [142].

**[012] Keypad Lockout Options** (Section 5.22 “Keypad Lockout Options” on page 25)

NOTE: If Keypad Lockout is active, the panel cannot be disarmed with a keyswitch.

Default  
000 | Number of Invalid Codes Before Lockout (001-255 codes)  
000 | Lockout Duration (001-255 minutes)  

**[013] First System Option Code**

Default | Option | ON | Off | Section | Page #  
---|---|---|---|---|---  
OFF | 1 | Normally Closed Loops | End-of-Line Resistors | 2.8 | 5  
ON | 2 | Double End-of-Line Resistors | Single End-of-Line Resistors | 2.8 | 5  
OFF* | 3 | Panel shows all troubles when armed | Panel shows only Fire troubles when armed | 3.5 | 8  
OFF | 4 | Tampers/Faults do not show as open | Tampers/Faults show as open | 3.5 | 8  
OFF | 5 | For future use |  |  |  
OFF | 6 | Audible Exit Fault Enabled | Audible Exit Fault Disabled | 5.18 | 24  
ON | 7 | Event Buffer Follows Swinger Shutdown | Event Buffer Logs Events Past shutdown | 5.20 | 24  
OFF | 8 | For future use |  |  |  

* Option 3 must be OFF if LCD keypads older than v2.0 are used.
[014] Second System Option Code

<table>
<thead>
<tr>
<th>Default</th>
<th>Option ON</th>
<th>ON</th>
<th>Section Page #</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>1-5</td>
<td>For future use</td>
<td></td>
</tr>
<tr>
<td>ON</td>
<td>6</td>
<td>Audible Exit with Urgency</td>
<td>5.18 24</td>
</tr>
<tr>
<td>OFF</td>
<td>7</td>
<td>Exit Delay Termination Enabled</td>
<td>5.18 24</td>
</tr>
<tr>
<td>ON</td>
<td>8</td>
<td>Fire Bell is Continuous</td>
<td>5.13 23</td>
</tr>
</tbody>
</table>

*When using a PC5132 version 2.1 or older with WLS909 Wireless Keys, option [4] must be ON for the Arm button to work.*

[015] Third System Option Code

<table>
<thead>
<tr>
<th>Default</th>
<th>Option ON</th>
<th>ON</th>
<th>Section Page #</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td>1</td>
<td>Fire Keys Enabled</td>
<td>5.16 23</td>
</tr>
<tr>
<td>ON</td>
<td>2</td>
<td>Panic Keys Audible (Bell / Beeps)</td>
<td>5.16 23</td>
</tr>
<tr>
<td>ON</td>
<td>3</td>
<td>Quick Exit Enabled</td>
<td>3.5 8</td>
</tr>
<tr>
<td>OFF</td>
<td>4</td>
<td>Quick Arm Enabled</td>
<td>3.5 8</td>
</tr>
<tr>
<td>ON</td>
<td>5</td>
<td>Code Required For Bypassing</td>
<td>3.5 8</td>
</tr>
<tr>
<td>OFF</td>
<td>6</td>
<td>Master Code Not Changeable</td>
<td>5.1 15</td>
</tr>
<tr>
<td>ON</td>
<td>7</td>
<td>TLM Enabled</td>
<td>5.12 22</td>
</tr>
<tr>
<td>OFF</td>
<td>8</td>
<td>TLM Audible (Bell) When Armed</td>
<td>5.12 22</td>
</tr>
</tbody>
</table>

[016] Fourth System Option Code

<table>
<thead>
<tr>
<th>Default</th>
<th>Option ON</th>
<th>ON</th>
<th>Section Page #</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td>1</td>
<td>AC Trouble Displayed</td>
<td>3.5 8</td>
</tr>
<tr>
<td>ON</td>
<td>2</td>
<td>Trouble Light Flashes if AC Fails</td>
<td>3.5 8</td>
</tr>
<tr>
<td>OFF</td>
<td>3</td>
<td>Blank Keypad When Not Used</td>
<td>5.23 25</td>
</tr>
<tr>
<td>OFF</td>
<td>4</td>
<td>Code Required to Remove Kypd Blanking</td>
<td>5.23 25</td>
</tr>
<tr>
<td>ON</td>
<td>5</td>
<td>Keypad Backlighting is enabled</td>
<td>5.24 25</td>
</tr>
<tr>
<td>ON</td>
<td>6</td>
<td>Power Save Mode enabled</td>
<td>5.23 25</td>
</tr>
<tr>
<td>OFF</td>
<td>7</td>
<td>Bypass Status Displayed While Armed</td>
<td>5.17 23</td>
</tr>
<tr>
<td>OFF</td>
<td>8</td>
<td>Keypad Tampers enabled</td>
<td>5.25 25</td>
</tr>
</tbody>
</table>

[017] Fifth System Option Code

<table>
<thead>
<tr>
<th>Default</th>
<th>Option ON</th>
<th>ON</th>
<th>Section Page #</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>1</td>
<td>For future use</td>
<td></td>
</tr>
<tr>
<td>OFF</td>
<td>2-8</td>
<td>For future use</td>
<td></td>
</tr>
</tbody>
</table>

[018] Sixth System Option Code

<table>
<thead>
<tr>
<th>Default</th>
<th>Option ON</th>
<th>ON</th>
<th>Section Page #</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>1</td>
<td>For future use</td>
<td></td>
</tr>
<tr>
<td>OFF</td>
<td>2</td>
<td>Engineer’s Reset Enabled</td>
<td>5.28 26</td>
</tr>
<tr>
<td>OFF</td>
<td>3</td>
<td>For future use</td>
<td></td>
</tr>
<tr>
<td>OFF</td>
<td>4</td>
<td>Contact I.D. Partial Close Identifier is 5</td>
<td>5.9 19</td>
</tr>
<tr>
<td>OFF</td>
<td>5</td>
<td>For future use</td>
<td></td>
</tr>
<tr>
<td>ON</td>
<td>6</td>
<td>Audible RF Jam Trouble (Keypad Beeps)Silent RF Jam Trouble</td>
<td>3.5 8</td>
</tr>
<tr>
<td>OFF</td>
<td>7</td>
<td>Remote Reset Enabled</td>
<td>5.21 24</td>
</tr>
<tr>
<td>OFF</td>
<td>8</td>
<td>For future use</td>
<td></td>
</tr>
</tbody>
</table>
**Keypad Zone Assignments** *(Section 2.11 "Keypad Zones" on page 6)*

*NOTE:* Only one keypad may be assigned to a zone.

<table>
<thead>
<tr>
<th>Default</th>
<th>Keypad Slot</th>
<th>Zone</th>
<th>Valid Zone Entries</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Keypad (slot 1)</td>
<td>Zone</td>
<td>01-08</td>
</tr>
<tr>
<td>00</td>
<td>Keypad (slot 2)</td>
<td>Zone</td>
<td>01-08</td>
</tr>
<tr>
<td>00</td>
<td>Keypad (slot 3)</td>
<td>Zone</td>
<td>01-08</td>
</tr>
<tr>
<td>00</td>
<td>Keypad (slot 4)</td>
<td>Zone</td>
<td>01-08</td>
</tr>
<tr>
<td>00</td>
<td>Keypad (slot 5)</td>
<td>Zone</td>
<td>01-08</td>
</tr>
<tr>
<td>00</td>
<td>Keypad (slot 6)</td>
<td>Zone</td>
<td>01-08</td>
</tr>
<tr>
<td>00</td>
<td>Keypad (slot 7)</td>
<td>Zone</td>
<td>01-08</td>
</tr>
<tr>
<td>00</td>
<td>Keypad (slot 8)</td>
<td>Zone</td>
<td>01-08</td>
</tr>
</tbody>
</table>
### Advanced System Programming

#### Zone Attributes (Section 5.3 “Zone Attributes” on page 16)

Zone Attribute Defaults (Y = Option ON; N = Option OFF):

<table>
<thead>
<tr>
<th>Attribute:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ON</td>
<td>Audible</td>
<td>Steady</td>
<td>Chime</td>
<td>Bypass</td>
<td>Force</td>
<td>Swing</td>
<td>Tx. Delay</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Silent</td>
<td>Pulsed</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Zone Type:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>00 Null Zone</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>01 Final Door Set</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>02 Delay</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>03 Instant</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>04 Interior</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>05 Int. Stay/Away</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>06 Dly. Stay/Away</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>07 Dly. 24hr Fire (Hardw.)</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>08 Stand. 24hr Fire (Hardw.)</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>09 24hr Superv.</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10 24hr Superv. Buzzer</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>11 24hr Burglary</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>12 24hr Holdup</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>13 24hr Gas</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>14 24hr Heat</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>15 24hr Medical</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>16 24hr Panic</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>17 24hr Emergency</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>18 24hr Sprinkler</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>19 24hr Water</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>20 24hr Freeze</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>21 24hr Latching Tamper</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>22 Momentary Keyswitch</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>23 Maintained Keyswitch</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>24 Interior Delay</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>25 Push to Set</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>26 24-hour Bell/Buzzer</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>27 24hr Fire (Wireless)</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>28 24-hour Bell/Buzzer</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>29 24hr Fire (Wireless)</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>30 24hr Sprinkler</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>31 24hr Medical</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>32 24hr Panic</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>33 24hr Emergency</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

Section | Zone # | Zone Type*
---------|-------|------------------------
[101] | 1 ( ) | ______ ______ ______ ______ ______ ______ ______ |
[102] | 2 ( ) | ______ ______ ______ ______ ______ ______ ______ |
[103] | 3 ( ) | ______ ______ ______ ______ ______ ______ ______ |
[104] | 4 ( ) | ______ ______ ______ ______ ______ ______ ______ |
[105] | 5 ( ) | ______ ______ ______ ______ ______ ______ ______ |
[106] | 6 ( ) | ______ ______ ______ ______ ______ ______ ______ |
[107] | 7 ( ) | ______ ______ ______ ______ ______ ______ ______ |
[108] | 8 ( ) | ______ ______ ______ ______ ______ ______ ______ |

*Record here based on programming in section [001]
**PGM Output Attributes** (Section 5.11 “PGM Output Options” on page 21)

Program only the following attributes for the PGM Options listed. All others will be ignored. PGM Options are programmed in [009]. **PGM Attribute Defaults (Y = Attribute ON; N = Attribute OFF):**

<table>
<thead>
<tr>
<th>Attribute:</th>
<th>ON</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>PGM Option</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[01] Burg. / Fire Bell</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[03] Sensor Reset</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>[05] Armed Status</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[06] Ready To Arm</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[07] Kypd Bzz Fllw</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[08] Courtesy Pulse</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[12] TLM and Alarm</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[14] Gnd Stri Pulse</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[16] GSM1000 Support</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[17] Away Armed Status</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[18] Stay Armed Status</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[19] Comm. Output #1</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>[20] Comm. Output #2</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attribute:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>PGM Option</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[09] System Trouble</td>
<td>Serv. req.</td>
<td>Disabled</td>
<td>AC Fail</td>
<td>Disabled</td>
<td>TLM Fault</td>
<td>Disabled</td>
<td>FTC</td>
<td>Disabled</td>
</tr>
</tbody>
</table>

*If attribute [8] is turned ON, attributes [1-7] must also be turned ON.

**Section PGM Output Type**

<table>
<thead>
<tr>
<th>Section #</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>[141]</td>
<td>( )</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>[142]</td>
<td>( )</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

*Record here based on programming in [009].
Maximum Dialing Attempts to Each Telephone Number (Section 5.5 “Communicator – Dialing” on page 17)
Default: 007 ________ Valid entries are 001-015 attempts (do not enter 000).

Post Dial Wait for Handshake (All Formats) (Section 5.5 “Communicator – Dialing” on page 17)
Default: 040 ________ Valid entries are 001-255 seconds

PGM Output Timer (Section 5.11 “PGM Output Options” on page 21)
Default: 005 ________ Valid entries are 001-255 seconds

Bell Delay Timer (Section 5.13 “Bell” on page 23)
Default: 000 ________ Valid entries are 001-255 minutes

Zone Assignments (Section 5.2 “Zone Programming” on page 15)
Program zone definitions in section [001] and zone attributes in sections [101] - [108].
Program keypad zone assignments in section [202].

NOTE: Any zones not used on the system should be disabled in this section. Disabled wireless zones should have a blank serial number (e.g. [000000]).

Zones 1-8: Default = ON

<table>
<thead>
<tr>
<th>Section</th>
<th>Option:</th>
<th>Zone 1</th>
<th>Zone 2</th>
<th>Zone 3</th>
<th>Zone 4</th>
<th>Zone 5</th>
<th>Zone 6</th>
<th>Zone 7</th>
<th>Zone 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>[202]</td>
<td></td>
<td>______</td>
<td>______</td>
<td>______</td>
<td>______</td>
<td>______</td>
<td>______</td>
<td>______</td>
<td>______</td>
</tr>
</tbody>
</table>

Communicator Programming

NOTE: For sections [301] to [353], the content of every section by default is [F].

First Telephone Number (32 Digits) (Section 5.7 “Communicator – Telephone Numbers” on page 17)

Second Telephone Number (32 Digits) (Section 5.7 “Communicator – Telephone Numbers” on page 17)

Third Telephone Number (32 Digits) (Section 5.7 “Communicator – Telephone Numbers” on page 17)

First/Third Telephone Number Account Code (Section 5.6 “Communicator – Account Numbers” on page 17)

Second Telephone Number Account Code (Section 5.6 “Communicator – Account Numbers” on page 17)

Alarm Reporting Codes, Zones 1-8 (Section 5.8 “Communicator – Reporting Codes” on pg. 18, & Appendix A)

Zone 1 Zone 2 Zone 3 Zone 4 Zone 5 Zone 6 Zone 7 Zone 8

Alarm Restoral Reporting Codes, Zones 1-8 (Section 5.8 “Communicator – Reporting Codes” on pg. 18, & Appendix A)

Zone 1 Zone 2 Zone 3 Zone 4 Zone 5 Zone 6 Zone 7 Zone 8

Miscellaneous Alarm Reporting Codes (Section 5.8 “Communicator – Reporting Codes” on pg. 18, & Appendix A)

_______ Duress Alarm ________ Zone Expander Supervisory Alarm
_______ Opening After Alarm ________ Zone Expander Supervisory Restoral
_______ Recent Closing ________ Cross Zone Police Code Alarm
[329] Priority Alarm and Restoral (Section 5.8 “Communicator – Reporting Codes” on pg. 18, & Appendix A)

- Keypad Fire Alarm
- Keypad Auxiliary Alarm
- Keypad Panic Alarm
- For future use

[330] Tamper Reporting Codes, Zones 1-8 (Section 5.8 “Communicator – Reporting Codes” on pg. 18, & Appendix A)

<table>
<thead>
<tr>
<th>Zone 1</th>
<th>Zone 2</th>
<th>Zone 3</th>
<th>Zone 4</th>
<th>Zone 5</th>
<th>Zone 6</th>
<th>Zone 7</th>
<th>Zone 8</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

[334] Tamper Restoral Reporting Codes, Zones 1-8 (Section 5.8 “Communicator – Reporting Codes” on pg. 18, & Appendix A)

<table>
<thead>
<tr>
<th>Zone 1</th>
<th>Zone 2</th>
<th>Zone 3</th>
<th>Zone 4</th>
<th>Zone 5</th>
<th>Zone 6</th>
<th>Zone 7</th>
<th>Zone 8</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

[338] Miscellaneous Tamper Reporting Codes (Section 5.8 “Communicator – Reporting Codes” on pg. 18, & Appendix A)

- General System Tamper
- Keypad Lockout

Closing (Arming) Reporting Codes, Access Codes 1-32 (Section 5.8 “Communicator – Reporting Codes” on pg. 18, & Appendix A)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

[342] Miscellaneous Closing (Arming) Reporting Codes

Closing by Duress Code 33 Closing by Supervisory Code 42
Closing by Supervisory Code 41

Opening (Disarming) Reporting Codes, Access Codes 1-8 (Section 5.8 “Communicator – Reporting Codes” on pg. 18, & Appendix A)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[347] Miscellaneous Opening (Disarming) Reporting Codes

Opening by Duress Code 33 Opening by Supervisory Code 42
Opening by Supervisory Code 41
### Programming Worksheets

#### Maintenance Alarm Reporting Codes
(Section 5.8 “Communicator – Reporting Codes” on pg. 18, & Appendix A)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Battery Trouble Alarm</td>
</tr>
<tr>
<td>02</td>
<td>AC Failure Trouble Alarm</td>
</tr>
<tr>
<td>03</td>
<td>Bell Circuit Trouble Alarm</td>
</tr>
<tr>
<td>04</td>
<td>Fire Trouble Alarm</td>
</tr>
<tr>
<td>05</td>
<td>Auxiliary Power Supply Trouble Alarm</td>
</tr>
<tr>
<td>06</td>
<td>TLM Trouble Code (via GSM1000)</td>
</tr>
<tr>
<td>07</td>
<td>General System Trouble</td>
</tr>
<tr>
<td>08</td>
<td>General System Supervisory</td>
</tr>
</tbody>
</table>

#### Maintenance Restoral Reporting Codes
(Section 5.8 “Communicator – Reporting Codes” on pg. 18, & Appendix A)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Battery Trouble Restoral</td>
</tr>
<tr>
<td>02</td>
<td>AC Failure Trouble Restoral</td>
</tr>
<tr>
<td>03</td>
<td>Bell Circuit Trouble Restoral</td>
</tr>
<tr>
<td>04</td>
<td>Fire Trouble Restoral</td>
</tr>
<tr>
<td>05</td>
<td>Auxiliary Power Supply Trouble Restoral</td>
</tr>
<tr>
<td>06</td>
<td>TLM Restoral</td>
</tr>
<tr>
<td>07</td>
<td>General System Trouble Restore</td>
</tr>
<tr>
<td>08</td>
<td>General System Supervisory Restore</td>
</tr>
</tbody>
</table>

#### Miscellaneous Maintenance Reporting Codes
(Section 5.8 “Communicator – Reporting Codes” on pg. 18, & Appendix A)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Telephone Number 1 Failure to Communicate</td>
</tr>
<tr>
<td>02</td>
<td>Telephone Number 2 Failure to Communicate</td>
</tr>
<tr>
<td>03</td>
<td>Event Buffer is 75% Full Since Last Upload</td>
</tr>
<tr>
<td>04</td>
<td>DLS Lead IN</td>
</tr>
<tr>
<td>05</td>
<td>DLS Lead OUT</td>
</tr>
<tr>
<td>06</td>
<td>General Zone Trouble Alarm</td>
</tr>
<tr>
<td>07</td>
<td>General Zone Trouble Restore</td>
</tr>
<tr>
<td>08</td>
<td>For future use</td>
</tr>
</tbody>
</table>

#### Test Transmission Reporting Codes
(Section 5.8 “Communicator – Reporting Codes” on pg. 18, & Appendix A)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Periodic Test Transmission</td>
</tr>
<tr>
<td>02</td>
<td>GSM1000 Test Transmission Code*</td>
</tr>
<tr>
<td>03</td>
<td>System Test</td>
</tr>
</tbody>
</table>

*The GSM1000 Test Transmission Code must be programmed as “00” for the GSM1000 Test Transmission to be disabled.

#### Wireless Maintenance Reporting Codes
(Section 5.8 “Communicator – Reporting Codes” on pg. 18, & Appendix A)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Wireless Device Low Battery Alarm</td>
</tr>
<tr>
<td>02</td>
<td>Wireless Device Low Battery Restore</td>
</tr>
</tbody>
</table>

#### Communicator Format Options
(Section 5.9 “Communicator – Reporting Formats” on page 19)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Default</td>
</tr>
<tr>
<td>01</td>
<td>1st/3rd Telephone Number</td>
</tr>
<tr>
<td>02</td>
<td>2nd Telephone Number</td>
</tr>
<tr>
<td>03</td>
<td>SIA FSK</td>
</tr>
<tr>
<td>04</td>
<td>Pager</td>
</tr>
<tr>
<td>05</td>
<td>Private Line</td>
</tr>
<tr>
<td>06</td>
<td>Scantronics Fast Slot 4-8-1</td>
</tr>
</tbody>
</table>

#### Alarm/Restore Communicator Call Directions
(Section 5.5 “Communicator – Dialing” on page 17)

<table>
<thead>
<tr>
<th>Code</th>
<th>Option</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td>01</td>
<td>1st Telephone Number</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>02</td>
<td>2nd Telephone Number</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>03</td>
<td>1st Telephone Number (via GSM1000)</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>04</td>
<td>2nd Telephone Number (via GSM1000)</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>05</td>
<td>For future use</td>
<td></td>
</tr>
</tbody>
</table>
### [363] Tamper/Restore Communicator Call Directions (Section 5.5 “Communicator – Dialing” on page 17)

<table>
<thead>
<tr>
<th>Default</th>
<th>Option</th>
<th>ON</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td>____</td>
<td>1st Telephone Number</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>____</td>
<td>2nd Telephone Number</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>____</td>
<td>1st Telephone Number (via GSM1000)</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>____</td>
<td>2nd Telephone Number (via GSM1000)</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>____</td>
<td>5-8</td>
<td>For future use</td>
</tr>
</tbody>
</table>

### [365] Opening/Closing Communicator Call Directions (Section 5.5 “Communicator – Dialing” on page 17)

<table>
<thead>
<tr>
<th>Default</th>
<th>Option</th>
<th>ON</th>
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</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>____</td>
<td>1st Telephone Number</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>____</td>
<td>2nd Telephone Number</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>____</td>
<td>1st Telephone Number (via GSM1000)</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>____</td>
<td>2nd Telephone Number (via GSM1000)</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>____</td>
<td>5-8</td>
<td>For future use</td>
</tr>
</tbody>
</table>

### [367] System Maintenance Alarm/Restore Communicator Call Directions (Section 5.5 “Communicator – Dialing” on page 17)

<table>
<thead>
<tr>
<th>Default</th>
<th>Option</th>
<th>ON</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>____</td>
<td>1st Telephone Number</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>____</td>
<td>2nd Telephone Number</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>____</td>
<td>1st Telephone Number (via GSM1000)</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>____</td>
<td>2nd Telephone Number (via GSM1000)</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>____</td>
<td>5-8</td>
<td>For future use</td>
</tr>
</tbody>
</table>

### [368] System Test Transmissions Communicator Call Directions (Section 5.5 “Communicator – Dialing” on page 17)

<table>
<thead>
<tr>
<th>Default</th>
<th>Option</th>
<th>ON</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>____</td>
<td>1st Telephone Number</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>____</td>
<td>2nd Telephone Number</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>____</td>
<td>1st Telephone Number (via GSM1000)</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>____</td>
<td>2nd Telephone Number (via GSM1000)</td>
<td>Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>____</td>
<td>5-8</td>
<td>For future use</td>
</tr>
</tbody>
</table>

**NOTE:** The GSM1000 backup call directions will only back up their respective telephone numbers.

### [370] Communication Variables

<table>
<thead>
<tr>
<th>Default</th>
<th>Section</th>
<th>Page #</th>
</tr>
</thead>
<tbody>
<tr>
<td>003</td>
<td>5.19</td>
<td>24</td>
</tr>
<tr>
<td>003</td>
<td>5.19</td>
<td>24</td>
</tr>
<tr>
<td>003</td>
<td>5.19</td>
<td>24</td>
</tr>
<tr>
<td>003</td>
<td>5.15</td>
<td>23</td>
</tr>
<tr>
<td>090</td>
<td>5.8</td>
<td>18</td>
</tr>
<tr>
<td>000</td>
<td>5.12</td>
<td>18</td>
</tr>
<tr>
<td>003</td>
<td>5.14</td>
<td>23</td>
</tr>
<tr>
<td>003</td>
<td>5.14</td>
<td>23</td>
</tr>
<tr>
<td>003</td>
<td>5.8</td>
<td>18</td>
</tr>
</tbody>
</table>

†Depends on programming in section [702], option [3].

**NOTE:** To disable the AC failure communications delay, program [000].
[371] Test Transmission Time of Day (Section 5.14 “Test Transmission” on page 23)

NOTE: If the land line test transmission cycle is programmed in minutes (section [702], option [3]), this section will not affect the land line test transmission cycle.

Default
9999 _____________ (Valid entries are 0000-2359, 9999 to disable)

[380] First Communicator Option Code

<table>
<thead>
<tr>
<th>Default</th>
<th>Option</th>
<th>ON</th>
<th>OFF</th>
<th>Section</th>
<th>Page #</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>1</td>
<td>Communications Enabled</td>
<td>Communications Disabled</td>
<td>5.5</td>
<td>17</td>
</tr>
<tr>
<td>OFF</td>
<td>2</td>
<td>Restorals on Bell Time-out</td>
<td>Restorals Follow Zones</td>
<td>5.8</td>
<td>18</td>
</tr>
<tr>
<td>OFF*</td>
<td>3</td>
<td>Pulse Dialing</td>
<td>DTMF Dialing</td>
<td>5.5</td>
<td>17</td>
</tr>
<tr>
<td>OFF*</td>
<td>4</td>
<td>Switch to Pulse Dialing on 5th Attempt</td>
<td>DTMF Dial For All Attempts</td>
<td>5.5</td>
<td>17</td>
</tr>
<tr>
<td>ON</td>
<td>5</td>
<td>3rd Telephone Number enabled</td>
<td>3rd Telephone Number disabled</td>
<td>5.7</td>
<td>17</td>
</tr>
<tr>
<td>ON</td>
<td>6</td>
<td>Alternate Dial (1st and 3rd)</td>
<td>Call 1st Number, Backup to 3rd</td>
<td>5.7</td>
<td>17</td>
</tr>
<tr>
<td>OFF</td>
<td>7</td>
<td>Call GSM1000 as well as Land Line</td>
<td>GSM1000 is Backup of Land Line(s)</td>
<td>5.26</td>
<td>25</td>
</tr>
<tr>
<td>OFF</td>
<td>8</td>
<td>For future use</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*NOTE: Pulse dialing is not allowed under the CTR21 standard. To comply with CTR21, the DTMF Dialing and the DTMF Dial For All Attempts options must be selected.

[381] Second Communicator Option Code

<table>
<thead>
<tr>
<th>Default</th>
<th>Option</th>
<th>ON</th>
<th>OFF</th>
<th>Section</th>
<th>Page #</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>1</td>
<td>Open After Alarm Kypd Ringback Enabled</td>
<td>Open After Airm Kypd Ringback Disabled</td>
<td>5.17</td>
<td>23</td>
</tr>
<tr>
<td>OFF</td>
<td>2</td>
<td>For future use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OFF</td>
<td>4</td>
<td>Closing Confirmation Enabled</td>
<td>Closing Confirmation Disabled</td>
<td>5.17</td>
<td>23</td>
</tr>
<tr>
<td>OFF</td>
<td>5-6</td>
<td>For future use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OFF</td>
<td>7-8</td>
<td>For future use</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[390] GSM1000 Preamble (First Telephone Number) (Section 5.26 “GSM1000 Cellular Communicators” on page 25)

Default: FFFF _____________ (Program all unused digits with Hex F)

[391] GSM1000 Preamble (Second Telephone Number) (Section 5.26 “GSM1000 Cellular Communicators” on page 25)

Default: FFFF _____________ (Program all unused digits with Hex F)

[392] GSM1000 Preamble (Third Telephone Number) (Section 5.26 “GSM1000 Cellular Communicators” on page 25)

Default: FFFF _____________ (Program all unused digits with Hex F)

[393] GSM1000 Special Function Preamble (All Telephone Numbers) (Section 5.26 “GSM1000 Cellular Communicators” on page 25)

Default: FFFFFF _____________ (Program all unused digits with Hex F)

- Enter [*][2][*] (HEX B) to dial [*]
- Enter [*][3][*] (HEX C) to dial [#]
Download Options

[401] First Downloading Option Code (Section 5.10 “Downloading” on page 20)

<table>
<thead>
<tr>
<th>Default</th>
<th>Option</th>
<th>ON</th>
<th>Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td>1</td>
<td>ON</td>
<td>Answering Machine/Double Call Enabled Answering Machine/Double Call Disabled</td>
</tr>
<tr>
<td>ON</td>
<td>2</td>
<td>OFF</td>
<td>User Can Enable DLS Window User Cannot Enable DLS Window</td>
</tr>
<tr>
<td>OFF</td>
<td>3</td>
<td>OFF</td>
<td>Call-Back Enabled Call-Back Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>4</td>
<td>OFF</td>
<td>User-initiated Call-up Enabled User-initiated Call-up Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>5-8</td>
<td>OFF</td>
<td>For future use</td>
</tr>
</tbody>
</table>

[402] Downloading Computer's Telephone Number (32 Digits) (Section 5.10 “Downloading” on page 20)

[403] Downloading Access Code (Section 5.10 “Downloading” on page 20)

Default: 0585 Enter 4 HEX digits

[404] Panel Identification Code (Section 5.10 “Downloading” on page 20)

Default: 0585 Enter 4 HEX digits

[405] Answering Machine Double-call Timer (Section 5.10 “Downloading” on page 20)

Default: 060 (Valid entries are 001-255 seconds)

[406] Number of Rings to Answer On (Section 5.10 “Downloading” on page 20)

Default: 000 (Valid entries are 000-255 rings)

International Programming

[700] Clock Adjust (Section 5.29 “Clock Adjust” on page 26)

Default: 60 (Valid entries are 01-99 seconds)

[701] First International Options Code

<table>
<thead>
<tr>
<th>Default</th>
<th>Option</th>
<th>ON</th>
<th>Off</th>
<th>Section</th>
<th>Page #</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td>1</td>
<td>ON</td>
<td>50 Hz AC</td>
<td>2.2</td>
<td>3</td>
</tr>
<tr>
<td>OFF</td>
<td>2</td>
<td>OFF</td>
<td>Time Base is Internal Crystal Time Base is AC Line</td>
<td>5.30</td>
<td>26</td>
</tr>
<tr>
<td>ON</td>
<td>3</td>
<td>OFF</td>
<td>AC/DC Inhibit Arming Enabled Disables</td>
<td>5.17</td>
<td>24</td>
</tr>
<tr>
<td>OFF</td>
<td>4</td>
<td>OFF</td>
<td>All System Tamper Requires Installer Reset All System Tamper follow Restore</td>
<td>5.25</td>
<td>25</td>
</tr>
<tr>
<td>OFF</td>
<td>5-6</td>
<td>OFF</td>
<td>For future use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OFF</td>
<td>7</td>
<td>OFF</td>
<td>High Current Battery Charge Standard Current Battery Charge</td>
<td>2.2</td>
<td>3</td>
</tr>
<tr>
<td>OFF</td>
<td>8</td>
<td>OFF</td>
<td>For future use</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[702] Second International Options Code

<table>
<thead>
<tr>
<th>Default</th>
<th>Option</th>
<th>ON</th>
<th>Off</th>
<th>Section</th>
<th>Page #</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td>1</td>
<td>ON</td>
<td>Pulse Dialing Make/Break Ratio is 33/67 Pulse Dialing Make/Break Ratio is 40/60</td>
<td>5.5</td>
<td>17</td>
</tr>
<tr>
<td>ON</td>
<td>2</td>
<td>OFF</td>
<td>Force Dialing enabled Force Dialing disabled</td>
<td>5.5</td>
<td>17</td>
</tr>
<tr>
<td>OFF</td>
<td>3</td>
<td>OFF</td>
<td>Land line Test Transmission in minutes Land line Test Transmission in days</td>
<td>5.14</td>
<td>23</td>
</tr>
<tr>
<td>OFF</td>
<td>4</td>
<td>OFF</td>
<td>For future use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OFF</td>
<td>5</td>
<td>OFF</td>
<td>ID Tone enabled ID Tone disabled</td>
<td>5.5</td>
<td>17</td>
</tr>
<tr>
<td>OFF</td>
<td>6</td>
<td>OFF</td>
<td>2100 HZ ID Tone 1300 HZ ID Tone</td>
<td>5.5</td>
<td>17</td>
</tr>
<tr>
<td>OFF</td>
<td>7</td>
<td>OFF</td>
<td>One Time 1-Hr User enabled DLS Window Full 6-Hr User enabled DLS Window</td>
<td>5.10</td>
<td>20</td>
</tr>
<tr>
<td>OFF</td>
<td>8</td>
<td>OFF</td>
<td>Bell on FTC when armed FTC Trouble only when armed</td>
<td>5.5</td>
<td>17</td>
</tr>
</tbody>
</table>
[703] Delay Between Dialing Attempts (Section 5.5 “Communicator – Dialing” on page 17)
Default: 001 _________ (Valid entries are 000-255 Seconds)

Module Programming

[801] PC5400 Printer Module Programming
Please refer to your PC5400 Installation Manual for installation and programming instructions.

[803] Alternative Communicator Programming
Please refer to your LINKS2X50 Installation Manual for installation and programming instructions.

[804] PC5132 Wireless Expansion Programming
Please refer to your PC5132 Installation Manual for programming locations and instructions.

Special Installer Functions

[901] Installer Walk Test Mode Enable / Disable (Section 5.33 “Walk Test (Installer)” on page 27)

[902] Module Supervision Reset (Section 2.7 “Removing Modules” on page 5)

[903] Module Supervision Field (Section 2.6 “Supervision” on page 5)

[904] Wireless Module Placement Test
For more information, please refer to your PC5132 Installation Manual
• Select the module / transmitter (Zones 01-8).
• Press [#] to Cancel.

<table>
<thead>
<tr>
<th>Placement</th>
<th>Led Keypad</th>
<th>LCD Keypad</th>
<th>Buzzer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>Light 1 ON Steady</td>
<td>“GOOD”</td>
<td>1 Beep</td>
</tr>
<tr>
<td>Fair</td>
<td>Light 2 ON Steady</td>
<td>“FAIR”</td>
<td>2 Beeps</td>
</tr>
<tr>
<td>Bad</td>
<td>Light 3 ON Steady</td>
<td>“BAD”</td>
<td>3 Beeps</td>
</tr>
</tbody>
</table>

[990] Installer Lockout Enable (Section 5.32 “Installer’s Lockout” on page 27)
[991] Installer Lockout Disable (Section 5.32 “Installer’s Lockout” on page 27)
[993] Restore LINKS2X50 Factory Default Programming (Section 5.31 “Resetting Factory Defaults” on page 26)
[996] Restore PC5132 Factory Default Programming (Section 5.31 “Resetting Factory Defaults” on page 26)
[997] Restore PC5400 Factory Default Programming (Section 5.31 “Resetting Factory Defaults” on page 26)
[999] Restore PC585 Factory Default Programming (Section 5.31 “Resetting Factory Defaults” on page 26)
Appendix A: Reporting Codes

The following tables contain Contact ID and Automatic SIA format reporting codes. For more information on reporting code formats and notes about individual reporting codes, see sections 5.8 “Communicator – Reporting Codes” on page 18 and 5.9 “Communicator – Reporting Formats” on page 19.

**Contact ID**

The first digit (in parentheses) will automatically be sent by the control. 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 - January 1996. 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 = Partition/Area Identifier  
BA = Burglary Alarm  
01 = Zone 1  
```

### Reporting Codes Table

<table>
<thead>
<tr>
<th>Section #</th>
<th>Reporting Code</th>
<th>Code Sent When...</th>
<th>Dialer Direction*</th>
<th>Contact ID Codes</th>
<th>SIA Auto Rep Codes**</th>
</tr>
</thead>
<tbody>
<tr>
<td>[320]</td>
<td>Zone Alarms</td>
<td>zone goes into alarm</td>
<td>A/R (1) 3A</td>
<td>See Table 3</td>
<td></td>
</tr>
<tr>
<td>[324]</td>
<td>Zone Restorals</td>
<td>alarm condition has been restored</td>
<td>A/R (1) 3A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[330]</td>
<td>Zone Tamper/Restoral</td>
<td>zone exhibits a tamper condition/tamper condition restored</td>
<td>T/R (1) 44</td>
<td>TA-ZZ/TR-ZZ</td>
<td></td>
</tr>
<tr>
<td>[334]</td>
<td>Duress Alarm</td>
<td>duress code entered at keypad</td>
<td>A/R (1) 21</td>
<td>HA-00</td>
<td></td>
</tr>
<tr>
<td>[328]</td>
<td>Opening After Alarm</td>
<td>system disarmed with alarm in memory</td>
<td>A/R (4) A6</td>
<td>CR-00</td>
<td></td>
</tr>
<tr>
<td>[328]</td>
<td>Recent Closing</td>
<td>alarm occurs within two minutes of system arming</td>
<td>A/R (4) 59</td>
<td>CR-00</td>
<td></td>
</tr>
<tr>
<td>[328]</td>
<td>Zone Expander Supervisory Alarm/Rest.</td>
<td>panel loses/restores supervisory transmission over the Keybus from enrolled PC5132 module or keypads with zone inputs</td>
<td>A/R (1) 43</td>
<td>UA-00/UF-00</td>
<td></td>
</tr>
<tr>
<td>[328]</td>
<td>Cross Zone (Police Code) Alarm</td>
<td>two zones on the same partition go into alarm during any given armed-to-armed period (incl. 24Hr zones)</td>
<td>A/R (1) 4A</td>
<td>BV-00</td>
<td></td>
</tr>
<tr>
<td>[329]</td>
<td>[F] Key Alarm/Rest. Keypad fire alarm (alarm and restore rep. codes sent together)</td>
<td>A/R (1) 15</td>
<td>FA-00/FH-00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[329]</td>
<td>[A] Key Alarm/Rest. Keypad auxiliary alarm (alarm and restore rep. codes sent together)</td>
<td>A/R (1) AA</td>
<td>MA-00/MH-00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[329]</td>
<td>[P] Key Alarm/Rest. Keypad panic alarm (alarm and restore rep. codes sent together)</td>
<td>A/R (1) 2A</td>
<td>PA-00/PF-00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[338]</td>
<td>General System Tamper/Rest. enrolled module with tamper inputs has a tamper alarm/all module tampers restored</td>
<td>T/R (1) 45</td>
<td>TA-00/TR-00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[338]</td>
<td>Keypad Lockout max. number of incorrect access codes has been entered at a keypad</td>
<td>T/R (4) 21</td>
<td>JA-00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[339-343]</td>
<td>Closings system armed (user 01-34, 40-42 indicated)</td>
<td>O/C (4) A2</td>
<td>CL-UU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[343]</td>
<td>Partial Closing one or more zones bypassed when system armed</td>
<td>O/C (4) 7A</td>
<td>CG-ZZ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[343]</td>
<td>Special Closing Closing (arming) using one of the following methods: quick arm, auto arm, keyswitch, function key, maintenance code, DLS software</td>
<td>O/C (4) AA</td>
<td>CL-00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[344-348]</td>
<td>Openings system disarmed (user 01-34, 40-42 indicated)</td>
<td>O/C (4) A2</td>
<td>OP-UU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[348]</td>
<td>Auto Arm Cancellation auto arm cancelled</td>
<td>O/C (4) A5</td>
<td>CE-00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[348]</td>
<td>Special Opening Opening (disarming) using one of the following methods: keyswitch, maintenance code, DLS software</td>
<td>O/C (4) AA</td>
<td>OP-00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[349-350]</td>
<td>Battery Trouble/Rest. PCS585 battery is low/battery restored</td>
<td>MA/R (2) A2</td>
<td>YI-00/YR-00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

** UU = user number (user01-42); ZZ = zone number (01-32)
### Table 2: 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.

<table>
<thead>
<tr>
<th>Medical Alarms</th>
<th>Fire Alarms</th>
<th>General Alarms</th>
<th>Panic Alarms</th>
<th>Burglar Alarms</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)34 Entry / Exit</td>
<td>(1)11 Smoke</td>
<td>(1)34 24 Hour Non-Burglary</td>
<td>(1)52 Refrigeration</td>
<td>(1)57 Low bottled Gas level</td>
</tr>
<tr>
<td>(1)35 Day / Night</td>
<td>(1)12 Combustion</td>
<td>(1)55 24 Hour Non-Burglary</td>
<td>(1)53 Loss of Heat</td>
<td>(1)58 High Temp</td>
</tr>
<tr>
<td>(1)36 Outdoor</td>
<td>(1)13 Water Flow</td>
<td>(1)56 Day Trouble</td>
<td>(1)54 Water Leakage</td>
<td>(1)59 Low Temp</td>
</tr>
<tr>
<td>(1)37 Tamper</td>
<td>(1)14 Heat</td>
<td>(1)57 Near Alarm</td>
<td>(1)55 Foil Break</td>
<td>(1)60 Loss of Air Flow</td>
</tr>
<tr>
<td>(1)38 Near Alarm</td>
<td>(1)15 Pull Station</td>
<td>(1)58 Near Alarm</td>
<td>(1)56 Day Trouble</td>
<td></td>
</tr>
<tr>
<td>(1)39 Smoke</td>
<td>(1)16 Duct</td>
<td>(1)59 Gas detected</td>
<td>(1)57 Low bottled Gas level</td>
<td>(1)61 Loss of Air Flow</td>
</tr>
<tr>
<td>(1)40 General Alarm</td>
<td>(1)17 Flame</td>
<td>(1)60 Refrigeration</td>
<td>(1)58 High Temp</td>
<td></td>
</tr>
<tr>
<td>(1)41 Exp. module failure</td>
<td>(1)18 Near Alarm</td>
<td>(1)61 Day Trouble</td>
<td>(1)59 Low Temp</td>
<td></td>
</tr>
<tr>
<td>(1)42 Cross Zone Police Code</td>
<td>(1)19 Flame</td>
<td>(1)62 Gas detected</td>
<td>(1)60 Loss of Air Flow</td>
<td></td>
</tr>
<tr>
<td>(1)43 Sensor tamper</td>
<td>(1)2024 Hour Non-Burglary</td>
<td>(1)63 Day Trouble</td>
<td>(1)61 Loss of Air Flow</td>
<td></td>
</tr>
<tr>
<td>(1)44 Module Tamper</td>
<td>(1)2124 Hour Non-Burglary</td>
<td>(1)64 Gas detected</td>
<td>(1)62 Day Trouble</td>
<td></td>
</tr>
<tr>
<td>(1)45 Gas detected</td>
<td>(1)2224 Hour Non-Burglary</td>
<td>(1)65 Day Trouble</td>
<td>(1)63 Gas detected</td>
<td></td>
</tr>
<tr>
<td>(1)46 Smoke</td>
<td>(1)2324 Hour Non-Burglary</td>
<td>(1)66 Gas detected</td>
<td>(1)64 Gas detected</td>
<td></td>
</tr>
<tr>
<td>(1)47 Sensor tamper</td>
<td>(1)2424 Hour Non-Burglary</td>
<td>(1)67 Day Trouble</td>
<td>(1)65 Gas detected</td>
<td></td>
</tr>
<tr>
<td>(1)48 Module Tamper</td>
<td>(1)2524 Hour Non-Burglary</td>
<td>(1)68 Gas detected</td>
<td>(1)66 Gas detected</td>
<td></td>
</tr>
<tr>
<td>(1)49 Gas detected</td>
<td>(1)2624 Hour Non-Burglary</td>
<td>(1)69 Day Trouble</td>
<td>(1)67 Gas detected</td>
<td></td>
</tr>
<tr>
<td>(1)50 Smoke</td>
<td>(1)2724 Hour Non-Burglary</td>
<td>(1)70 Gas detected</td>
<td>(1)68 Gas detected</td>
<td></td>
</tr>
<tr>
<td>(1)51 Sensor tamper</td>
<td>(1)2824 Hour Non-Burglary</td>
<td>(1)71 Day Trouble</td>
<td>(1)69 Gas detected</td>
<td></td>
</tr>
<tr>
<td>(1)52 Module Tamper</td>
<td>(1)2924 Hour Non-Burglary</td>
<td>(1)72 Gas detected</td>
<td>(1)70 Gas detected</td>
<td></td>
</tr>
<tr>
<td>(1)53 Gas detected</td>
<td>(1)3024 Hour Non-Burglary</td>
<td>(1)73 Day Trouble</td>
<td>(1)71 Gas detected</td>
<td></td>
</tr>
<tr>
<td>(1)54 Smoke</td>
<td>(1)3124 Hour Non-Burglary</td>
<td>(1)74 Gas detected</td>
<td>(1)72 Gas detected</td>
<td></td>
</tr>
<tr>
<td>(1)55 Sensor tamper</td>
<td>(1)3224 Hour Non-Burglary</td>
<td>(1)75 Day Trouble</td>
<td>(1)73 Gas detected</td>
<td></td>
</tr>
<tr>
<td>(1)56 Module Tamper</td>
<td>(1)3324 Hour Non-Burglary</td>
<td>(1)76 Gas detected</td>
<td>(1)74 Gas detected</td>
<td></td>
</tr>
</tbody>
</table>

### Table 3: SIA Format Automatic Zone Alarm/Restoral Codes

<table>
<thead>
<tr>
<th>Zone Definition</th>
<th>SIA Auto Rep Codes*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delay, Instant, Interior, Delay Stay/Away, Interior Stay/Away, 24Hr Burg.</td>
<td>BA-ZZ/BH-ZZ</td>
</tr>
<tr>
<td>Standard 24Hr Fire, Delayed 24Hr Fire</td>
<td>FA-ZZ/FH-ZZ</td>
</tr>
<tr>
<td>24Hr Supervisory</td>
<td>US-ZZ/UR-ZZ</td>
</tr>
<tr>
<td>24Hr Supervisory Buzzer</td>
<td>UA-ZZ/UH-ZZ</td>
</tr>
<tr>
<td>24Hr Sprinkler</td>
<td>SA-ZZ/SH-ZZ</td>
</tr>
<tr>
<td>24Hr Gas</td>
<td>GA-ZZ/GH-ZZ</td>
</tr>
<tr>
<td>24Hr Heat</td>
<td>KA-ZZ/KH-ZZ</td>
</tr>
<tr>
<td>24Hr Medical</td>
<td>MA-ZZ/MH-ZZ</td>
</tr>
<tr>
<td>24Hr Emergency (non-medical)</td>
<td>QA-ZZ/OH-ZZ</td>
</tr>
<tr>
<td>24Hr Waterflow</td>
<td>WA-ZZ/NH-ZZ</td>
</tr>
<tr>
<td>24Hr Freeze</td>
<td>ZA-ZZ/ZH-ZZ</td>
</tr>
<tr>
<td>24Hr Holdup</td>
<td>HA-ZZ/HH-ZZ</td>
</tr>
<tr>
<td>24Hr Panic</td>
<td>PA-ZZ/PH-ZZ</td>
</tr>
<tr>
<td>Latching 24Hr, 24-Hr Bell/Buzzer</td>
<td>BA-ZZ/BH-ZZ</td>
</tr>
</tbody>
</table>

* ZZ = zones 01-32
Appendix B: Programming LCD Keypads

If you have an LCD5500Z v2.2U Keypad, additional programming is required for proper operation. The following is a description of the available programming options and their accompanying programming sections:

**How to Enter LCD Programming**

Follow the programming procedure as outlined in Section 4 by pressing [*][8][Installer's Code]. Press the [*] key. Enter the two digit Section number to be programmed.

**Programmable Labels – Sections [01] - [08], [33], [34], [40], [44], [51], [52]**

Zone labels and other LCD display identifiers can be customized to make operation of the system easier for the end user. The following procedure should be used for creating all LCD labels:

- Enter Installer's Programming. Enter the Number corresponding to the label to be programmed.
- Use the arrow keys (<>) to move the underline bar underneath the letter to be changed.
- Press the number key [1] to [9] corresponding to the letter you require. The first time you press the number the first letter will appear. Pressing the number key again will display the next letter. Refer to the following chart:
  
<table>
<thead>
<tr>
<th>Number</th>
<th>Alphabet</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A, B, C, 1</td>
</tr>
<tr>
<td>2</td>
<td>D, E, F, 2</td>
</tr>
<tr>
<td>3</td>
<td>G, H, I, 3</td>
</tr>
<tr>
<td>4</td>
<td>J, K, L, 4</td>
</tr>
<tr>
<td>5</td>
<td>M, N, O, 5</td>
</tr>
<tr>
<td>6</td>
<td>P, Q, R, 6</td>
</tr>
<tr>
<td>7</td>
<td>S, T, U, 7</td>
</tr>
<tr>
<td>8</td>
<td>V, W, X, 8</td>
</tr>
<tr>
<td>9</td>
<td>Y, Z, 9, 0</td>
</tr>
<tr>
<td>0</td>
<td>Space</td>
</tr>
</tbody>
</table>

- When the required letter or number is displayed use the arrow keys (<>) to scroll to the next letter.
- When you are finished programming the label, press the [*] key, scroll to “Save,” then press [*].
- Continue from Step 2 until all labels are programmed.

**[01] to [08] Zone Labels (14 Characters)**

- Default: “Zone 1” ___________________________________________________________________________
- Default: “Zone 2” ___________________________________________________________________________
- Default: “Zone 3” ___________________________________________________________________________
- Default: “Zone 4” ___________________________________________________________________________
- Default: “Zone 5” ___________________________________________________________________________
- Default: “Zone 6” ___________________________________________________________________________
- Default: “Zone 7” ___________________________________________________________________________
- Default: “Zone 8” ___________________________________________________________________________

**[33] Fire Alarm Label (14 Characters)**

- Default: “Fire Zone” _________________________________________________________________________

**[34] System Label (14 Characters)**

- Default: “System” __________________________________________________________________________

**[40] to [44] [*][7][1-2] Command Output Option Labels (14 Characters)**

- [40] Default: “Command O/P 1” ___________________________________________________________________________
- [44] Default: “Command O/P 2” ___________________________________________________________________________

**[51] Fail to Arm Event Message**

- Default: “System Has Failed to Arm” _______________________________________________________________________

**[52] Alarm When Armed Event Message**

- Default: “Alarm Occurred While Armed < >” ___________________________________________________________________

**[60] First User Display Mask**

<table>
<thead>
<tr>
<th>Default</th>
<th>Option</th>
<th>ON</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td>1</td>
<td>Hold P]anic Keys prompt ON</td>
<td>Hold P]anic Keys prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>2</td>
<td>Zone Bypassing prompt ON</td>
<td>Zone Bypass prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>3</td>
<td>Troubles prompt ON</td>
<td>Troubles prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>4</td>
<td>Alarm Memory prompt ON</td>
<td>Alarm Memory prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>5</td>
<td>Door Chime Control prompt ON</td>
<td>Door Chime Control prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>6</td>
<td>Access Codes prompt ON</td>
<td>Access Codes prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>7</td>
<td>User Functions prompt ON</td>
<td>User Functions prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>8</td>
<td>Output Control prompt ON</td>
<td>Output Control prompt OFF</td>
</tr>
</tbody>
</table>
### [61] Second User Display Mask

<table>
<thead>
<tr>
<th>Default</th>
<th>Option</th>
<th>ON</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>1</td>
<td>Installer Programming prompt ON</td>
<td>Installer Programming prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>2</td>
<td>Stay Arm prompt ON</td>
<td>Stay Arm prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>3</td>
<td>Quick Arm prompt ON</td>
<td>Quick Arm prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>4</td>
<td>Interior Arm prompt ON</td>
<td>Interior Arm prompt OFF</td>
</tr>
<tr>
<td>OFF</td>
<td>5</td>
<td>Quick Exit prompt ON</td>
<td>Quick Exit prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>6</td>
<td>View Event Buffer prompt ON</td>
<td>View Event Buffer prompt OFF</td>
</tr>
<tr>
<td>OFF</td>
<td>7-8</td>
<td>For future use</td>
<td>For future use</td>
</tr>
</tbody>
</table>

### [62] Third User Display Mask

<table>
<thead>
<tr>
<th>Default</th>
<th>Option</th>
<th>ON</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td>1</td>
<td>System Test prompt ON</td>
<td>System Test prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>2</td>
<td>Time and Date prompt ON</td>
<td>Time and Date prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>3</td>
<td>Auto-Arm Control prompt ON</td>
<td>Auto-Arm Days prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>4</td>
<td>Auto-Arm Time prompt ON</td>
<td>Auto-Arm Time prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>5</td>
<td>Download Enable prompt ON</td>
<td>Download Enable prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>6</td>
<td>Bright Control prompt ON</td>
<td>Bright Control prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>7</td>
<td>Contrast Control prompt ON</td>
<td>Contrast Control prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>8</td>
<td>Buzzer Control prompt ON</td>
<td>Buzzer Control prompt OFF</td>
</tr>
</tbody>
</table>

### [63] Downloaded LCD Message Duration

*Default: 003 (Valid entries are 000-255, 000=Unlimited Message Display. This number represents the number of times the Downloaded message is cleared by pressing any key while the message is up after timeout)*

### [64] Key Options

<table>
<thead>
<tr>
<th>Default</th>
<th>Option</th>
<th>ON</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td>1</td>
<td>[F]ire Keys enabled</td>
<td>[F]ire Keys disabled</td>
</tr>
<tr>
<td>ON</td>
<td>2</td>
<td>[A]uxiliary Keys enabled</td>
<td>[A]uxiliary Keys disabled</td>
</tr>
<tr>
<td>ON</td>
<td>3</td>
<td>[P]anic Keys enabled</td>
<td>[P]anic Keys disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>4-8</td>
<td>For future use</td>
<td>For future use</td>
</tr>
</tbody>
</table>

### [65] Fourth User Display Mask

<table>
<thead>
<tr>
<th>Default</th>
<th>Option</th>
<th>ON</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td>1</td>
<td>User Initiated Call-up Prompt ON</td>
<td>User Initiated Call-up Prompt OFF</td>
</tr>
<tr>
<td>OFF</td>
<td>2</td>
<td>For future use</td>
<td>For future use</td>
</tr>
<tr>
<td>OFF</td>
<td>3</td>
<td>For future use</td>
<td>For future use</td>
</tr>
<tr>
<td>ON</td>
<td>4</td>
<td>Command Output #1 prompt ON</td>
<td>Command Output #1 prompt OFF</td>
</tr>
<tr>
<td>ON</td>
<td>5</td>
<td>Command Output #2 prompt ON</td>
<td>Command Output #2 prompt OFF</td>
</tr>
<tr>
<td>OFF</td>
<td>6-8</td>
<td>For future use</td>
<td>For future use</td>
</tr>
</tbody>
</table>

### [66] Keypad Options

<table>
<thead>
<tr>
<th>Default</th>
<th>Option</th>
<th>ON</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td>1</td>
<td>Display Access Code when Programming</td>
<td>Display ‘X’ when Programming</td>
</tr>
<tr>
<td>ON</td>
<td>2</td>
<td>Local Clock Display Enabled</td>
<td>Local Clock Display Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>3</td>
<td>Local Clock Displays 24 Hour time</td>
<td>Local Clock Displays AM/PM</td>
</tr>
<tr>
<td>OFF</td>
<td>4</td>
<td>Auto Alarm Memory Scroll Enabled</td>
<td>Auto Alarm Memory Scroll Disabled</td>
</tr>
<tr>
<td>OFF</td>
<td>5-8</td>
<td>For future use</td>
<td>For future use</td>
</tr>
</tbody>
</table>

### [97] View Software Version

### [98] Initiate Global Label Broadcast

All LCD programming is done per keypad. If more than one LCD keypad are present on the system, and the PC5400 receives labels, labels programmed at one keypad can be broadcast to all other LCD keypads. Perform the following procedure in order to broadcast labels:

1. Program one LCD keypad completely.
2. Make sure all LCD keypads are connected to the Keybus.
3. Enter Installer’s Programming, then enter Section [98] at the keypad that was programmed. The keypad will now broadcast all the information programmed to all the other LCD keypads on the system.
4. When the keypad is finished press the [#] key to exit.

### [99] Reset LCD EEPROM to Factory Defaults
<table>
<thead>
<tr>
<th>ASCII Characters</th>
</tr>
</thead>
<tbody>
<tr>
<td># $ % ^ &amp; ~ @ \</td>
</tr>
</tbody>
</table>
WARNING Please Read Carefully

Note to Installers

WARNING

Avoid the harmful effects of an emergency situation.
Regardless of its capabilities, an alarm system is not a substitute for property or life insurance. An alarm system can alert and/or police department is highly recommended if this service is available.

CAUTION

Inadequate Installation

 tuần, purchaser’s time, the claims of third parties, including customers, and injury to property.

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 any implied warranties of merchantability or Fitness for a particular purpose) And of all other obligations or liabilities on the part of Digital Security Controls Ltd.

Limited Warranty

Digital Security Controls Ltd. 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 Ltd. shall, at its option, repair or replace any defective product submitted 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 owner must promptly notify Digital Security Controls Ltd. 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.

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 Ltd. 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 Ltd. must first obtain an authorization number. Digital Security Controls Ltd. 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 Ltd. 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 Ltd.);
- 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.

Digital Security Controls Ltd. Digital Security Controls Ltd. neither assumes 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 Ltd. 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 Ltd. 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 Ltd. must first obtain an authorization number. Digital Security Controls Ltd. will not accept any shipment whatsoever for which prior authorization has not been obtained.

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

Products which Digital Security Controls Ltd. 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.

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Digital Security Controls Ltd. 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 Ltd. must first obtain an authorization number. Digital Security Controls Ltd. will not accept any shipment whatsoever for which prior authorization has not been obtained.

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

Products which Digital Security Controls Ltd. 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.
## Changes for PC585 v2.5U

The PC585 v2.5U software incorporates several new features and changes. The most important additions are listed below:

### Trouble Detection and Reporting
- Radio frequency jamming detection and reporting (See “[2] Trouble Display” on page 9.)

### New Options
- Remote Reset option (See 5.21 “Remote Reset of System (Lock and Reset Codes)” on page 24.)
- Users can bypass groups of zones (See “[1] Bypassing and Activating Stay/Away Zones” on page 8.)
- Bell Trouble inhibits arming

### New Downloading Software
- AC/DC inhibits arming
- TLM and cancels Bell Delay
- Arming cancellation with Zone open at end of Exit Delay
- Final Door Set zone type
- Entry/Exit route zone type
- Disarming via Wireless Key
- Bell Trouble Latching

### New Downloading Software
- Downloading software DLS-3 v1.3 must be used. Do not attempt to perform downloading/uploading functions with other software versions.

---

### PC585 Module Compatibility

<table>
<thead>
<tr>
<th>Module</th>
<th>Compatible?</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classic Escort (VPM-1)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Escort5580</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>PC-16 Out</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>PC5204</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>PC5208</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>PC5108</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>PC5108L</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>PC5132 v1.X</td>
<td>Yes</td>
<td>No support for Wireless Keys, Pendants or Handheld Keypads</td>
</tr>
<tr>
<td>PC5132 v2.X</td>
<td>Yes</td>
<td>No identified Wireless Keys support</td>
</tr>
<tr>
<td>PC5132 v3.X</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>PC5506</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>PC55XX</td>
<td>Yes</td>
<td>No Keypad zone support</td>
</tr>
<tr>
<td>PC55XXZ</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>LCD5500 v1.X</td>
<td>Yes</td>
<td>No Keypad zone support; Some display messages not supported</td>
</tr>
<tr>
<td>LCD5500Z v2.X</td>
<td>Yes</td>
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<tr>
<td>LCD600</td>
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<tr>
<td>LED615</td>
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<tr>
<td>SL-XX</td>
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<tr>
<td>PC1500RK</td>
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<td>PC1555RKZ</td>
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<td>PC5908</td>
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<tr>
<td>PC5928</td>
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<tr>
<td>PC5400 Printer Module v1.X to v2.1</td>
<td>Yes</td>
<td>Some printing messages not supported</td>
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<td>PC5400 Printer Module v2.2</td>
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<td>GSM1000</td>
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<tr>
<td>Links2150</td>
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<tr>
<td>Links2450</td>
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Toronto • Canada • www.dsc.com
UK Technical Support Fax# 01482 222262
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