DIGIPLEX™

"The Ultimate Security Solution"

Digiplex Control Panel

Reference & Installation Manual

PARADOX
SECURITY SYSTEMS

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Paradox Security Systems has once-again redefined the boundaries of the security industry and is proud to introduce the Digiplex Control Panel. A new generation in control panel technology, the Digiplex Control Panel uses a quad-wire communication bus (DIGI-BUS) which provides power and two-way communication with up to 95 modules (keypads, motion detectors, expander modules, etc.). This combined with 4 true partitions, event call direction and the zone numbering feature, simplifies the task of installing or making changes to your security system. The innovative new programming method makes programming the control panel logical and much simpler to execute. This new generation of control panels offers increased capabilities with countless new features without compromising its user-friendliness. If anything, these new control panels are easier to use and easier to install, making the Digiplex Control Panel the ultimate in reliable security protection.

1.1 FEATURES

- DIGI-BUS (4-WIRE COMMUNICATION BUS):
  - Provides power and two-way communication to all modules connected to the DIGI-BUS.
  - 95 module support
  - All bus modules have "Plug & Play" capability
  - Connect modules up to 3000ft (914m) from the control panel.
  - Full System Supervision.
- 48 fully programmable zones
- 8 independent keyswitch zones (does not use any of the 48 zones)
- 4 on-board hardwired input terminals for use with non-bus detection devices (expandable to 48).
- 4 True Partitions:
  Most features and options in the Digiplex System can be independently set for each partition such as event reporting, entry/exit delay, bell squawk, quick arming, panics and many more. All zones, keyswitches, user codes and keypads are assigned to specific partitions, making this a true partitioned system.
- 63 User Codes, 1 Installer, 1 Master
- 4 fully programmable outputs (PGMs). PGM1 can be set as a 2-wire smoke detector input. Optional 5A relay also available.
- Simple, direct and logical programming
- Event Call Direction:
  The Digiplex Control Panel events are divided into three event groups for each partition and two system event groups. Each event group can be programmed with a separate dialing sequence for each partition.
- 4 Central Station Telephone Numbers
- SIA, Contact ID, Pager Format and many more Communicator Formats
- Upload/download capability using new Paradox upload/download Software for Windows.
- And much, much, more…

1.2 SPECIFICATIONS

- AC Power: 16VAC, 20/40VA, 50-60Hz
- Battery: 12VDC, 7Ah minimum
- Aux. Power:
  2 outputs, each @ 12VDC 1.1A max.
- Bell Output: 1A, fuseless shutdown @ 3A
- PGM Output: PGM1 (100mA), PGM2 – PGM4 (30mA) and PGM5 (5A optional relay)
- Event Buffer: 736 events

1.3 ACCESSORIES

LCD Keypad (DGP-641)

48-zone, 32-character programmable LCD keypad that connects to the DIGI-BUS. Most messages in the LCD keypad are programmable. View zone, event and trouble status for one or more partitions, display entry/exit delay, adjust contrast, backlight, and many other features. On-board PGM output and hardwired zone input.

LED Keypads (DGP-610 & DGP-620)

The cost-effective 10-zone and 20-zone LED keypads connect to the DIGI-BUS and provide a user-friendly display of the system's status. Includes on-board PGM output and hardwired zone input.

ZX4 Zone Expander Module (DGP-ZX4)

Connected to the control panel's EXPANSION input, this module will add 4 hardwired-input terminals to the Digiplex System (8 zones with ATZ enabled).

ZX8 Zone Expander Module (DGP-ZX8)

Connected to the DIGI-BUS, this module will add 8 hardwired-input terminals to the Digiplex System (16 zones if ATZ is enabled). Each module has one on-board PGM output.

Digital Bus Detectors (DGP-25 & DGP-60)

Totally software-driven, digital detectors are more intelligent and more powerful than any other detection device. This patent-pending, break through technology revolutionizes the security industry in the same way the compact disc revolutionized music and home entertainment. By connecting directly onto the DIGI-BUS, you no longer have to set jumpers and complicated dip switches. Simply program their sensitivity and other settings through any keypad in the system.

Digital Bus Pet Detector (DGP-70)

Animal lovers can maximize their security protection thanks to the power of true digital analysis with an intelligent patent-pending "pet-friendly" lens. There's no need to compromise performance or detector sensitivity to deliver pet immunity.

Impulse - Wireless Zone Module (DGP-319)

Connected to the DIGI-BUS, this module will allow you to add 16 wireless zones (using the ***Liberator™*** detectors and door contacts) as well as 16 remote controls. This module also includes two programmable 5A relays.

DigiPrint (coming soon)

Connected to the DIGI-BUS, the *Digiprint* will print the control panel's events and its associated modules. You can print all events or only selected events. Each Digiprint module has one on-board PGM output.

PGM Expander Module (coming soon)

Connected to the DIGI-BUS, this module will add 8 PGM outputs to the system.

Power Supply (coming soon)

Connected to the DIGI-BUS, this 3A Switching Power Supply can be supervised by the control panel and will provide four programmable 5A relays.

DigiVox (coming soon)

Voice Dialer that connects to the DIGI-BUS.

Bus Door Contact (coming soon)

Door contact that will connect to the DIGI-BUS as well as provide an added input terminal.

2.1 LOCATION & MOUNTING

Before mounting the cabinet, push the five white nylon-mounting studs into the back of the cabinet. Pull all cables into the cabinet and prepare them for connection before mounting the circuit board into the back of the cabinet. Select an installation site that is not easily accessible to intruders and leave at least 2" around the panel box to permit adequate ventilation and heat dissipation. The installation site should be dry and close to an AC source, ground connection and telephone line connection.

2.2 EARTH GROUND

Connect the zone and dialer ground terminals from the control panel to the cabinet and cold water pipe or grounding rod as per local electrical codes.

For maximum lightning protection, use separate earth grounds for the zone and dialer grounds as shown in figure 2.2!

2.3 AC POWER

Use a 16.5VAC (50/60Hz) transformer with a minimum 20VA rating to provide sufficient AC power. For increased power you can use a transformer with a 40VA rating. For UL Listed systems, you can use Amseco Models XP-1620 or XP-1640. Do not use any switch-controlled outlets to power the transformer. Connect the transformer as shown in figure 2.2.

Do not connect the transformer or the back-up battery until all wiring is completed!

2.4 BACK-UP BATTERY

In order to provide power during power loss, connect a 12VDC 7Ah rechargeable acid/lead or gel cell back-up battery as shown in figure 2.2. Connect the back-up battery after applying AC power. When installing verify proper polarity, as reversed connections will blow the battery fuse. For information on how to set the *Battery Charge Current* to either 350mA or 700mA, please refer to section 12.3 of this manual.

2.4.1 Battery Test

The control panel conducts a dynamic battery test under load every 64 seconds. If the battery is disconnected, if its capacity is too low or if the battery voltage drops to 10.5 volts or less when there is no AC, the *"Battery Trouble"* message will appear in the *Trouble Display* (see section 14). At 8.5 volts, the panel shuts down and all outputs close.

2.5 AUXILIARY POWER TERMINALS

The Digiplex Control Panel has two auxiliary outputs. For details on available output power of each output, please refer to figure 2.2 on the following page. You can use the auxiliary power supply to power the motion detectors, keypads and other accessories in your security system. A fuseless circuit protects each auxiliary output against current overload and automatically shuts down if the current exceeds 1.1A. Auxiliary power will resume once the overload condition has restored.

2.6 TELEPHONE LINE CONNECTION

Connect the incoming telephone company wires into the TIP and RING connections of the control panel. Then run the wires from T1 and R1 to the telephone system as shown in figure 2.1.

Figure 2.1 - Telephone Line Connections

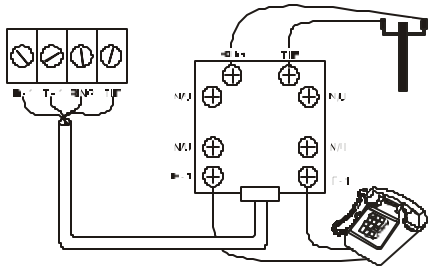
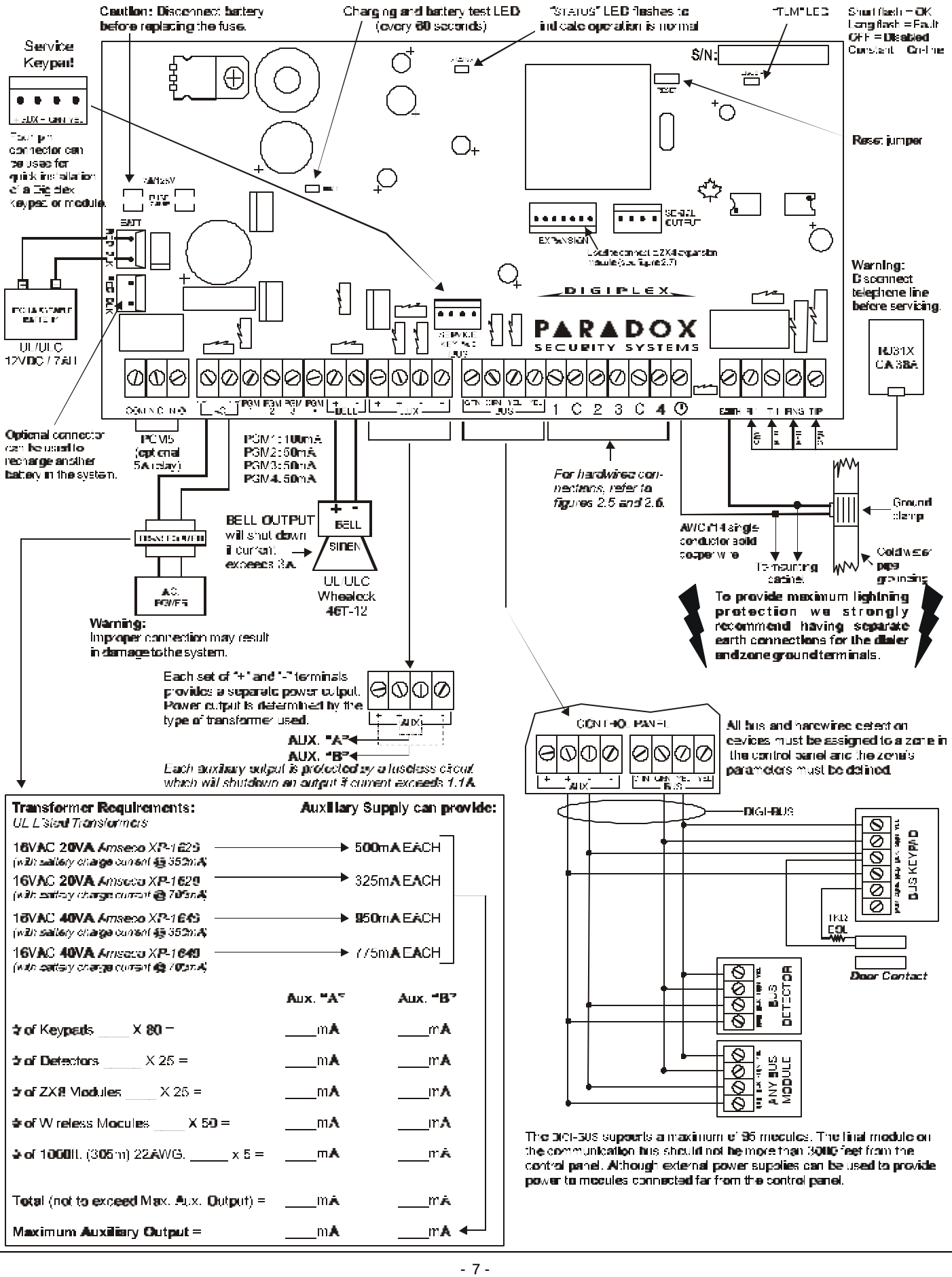


Figure 2.2 - Digiplex PCB Layout



Transformer Requirements: *UL Listed Transformers*

Auxiliary Supply can provide:

16VAC **20VA** *Amseco XP-1625* *(with battery charge current @ 352mA)* → 500mA EACH

16VAC **20VA** *Amseco XP-1620* *(with battery charge current @ 709mA)* → 325mA EACH

16VAC **40VA** *Amseco XP-1645* *(with battery charge current @ 352mA)* → 950mA EACH

16VAC **40VA** *Amseco XP-1640* *(with battery charge current @ 709mA)* → 775mA EACH

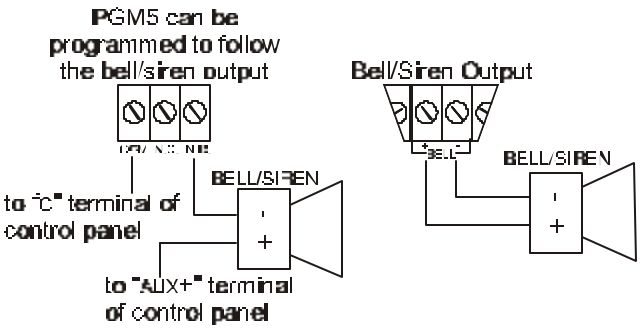
	Aux. "A"	Aux. "B"
# of Keypads ____ X 80 =	____mA	____mA
# of Detectors ____ X 25 =	____mA	____mA
# of ZX8 Modules ____ X 25 =	____mA	____mA
# of Wireless Modules ____ X 50 =	____mA	____mA
# of 1000ft. (305m) 22AWG. ____ x 5 =	____mA	____mA
Total (not to exceed Max. Aux. Output) =	____mA	____mA
Maximum **Auxiliary Output** =	____mA	____mA

2.7 BELL/SIREN OUTPUT

The BELL+ and BELL- terminals power bells and/or other warning devices requiring a steady voltage output during an alarm. The bell output supplies 12VDC upon alarm and can support two 20-watt or two 30-watt sirens. The bell output uses a fuseless circuit and will automatically shut down if the current exceeds 3A. If the load on the BELL terminals returns to normal (≤3A), the control panel will re-instate power to the BELL terminals. When connecting sirens (speakers with built-in siren drivers) please verify correct polarity as shown in Figure 2.6. Please note that PGM5 is rated at 5A and can be used to power bells and/or other warning devices (see Figure 2.3) by programming it as a bell/siren output. Please refer to *Programmable Outputs* in section 11.

When the bell/siren output isn't used, the "Bell Absent" message will appear in the Trouble Display. To avoid this, connect a 1KW resistor across the bell output.

Figure 2.3 - Bell/Siren

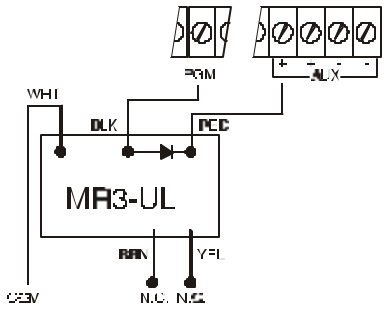


2.8 PROGRAMMABLE OUTPUTS

The Digiplex Control Panel includes five programmable outputs. When a specific event or condition occurs in the system, a PGM can be programmed to reset smoke detectors, activate strobe lights, open/close garage doors and much more. For details on how to program the PGMs, refer to section 11.

PGM1 provides a maximum 100mA output, PGM2 to PGM4 provide a maximum 50mA output and PGM5 provides a maximum 5A output. If the current draw on the PGM is to exceed the current output, we recommend the use of a relay as show in figure 2.4. PGM1 to PGM4 are normally open outputs and PGM5 is a normally open or normally closed 5A relay. Also note that PGM1 can be programmed as 2-wire smoke detector input. For more information, refer to sections 2.15.1 and 11.3 of this manual.

Figure 2.4 - PGM: Relay Output



2.9 BUS ZONE CONNECTIONS

The DIGI-BUS is a 4-wire communication bus that provides power and two-way communication between the control panel and all modules connected to it. All bus detectors, keypads and Digiplex Modules are connected to the DIGI-BUS, which can support up to 95 modules. Connect the four terminals labeled RED, BLK, GRN and YEL of each detector, keypad or module to the corresponding terminals of the control panel as shown in figure 2.2. Please note that all bus modules can be connected in a star and/or daisy chain configuration. The final device on the communication bus should not be more than 3000 feet from the control panel. For information on how to assign a detection device to a zone in the control panel, please refer to *Zone Programming* in section 5.

2.10 KEYPAD ZONE CONNECTIONS

Each keypad has one traditional hardwired-input terminal, allowing you to connect one traditional detector or door contact directly to the keypad.

Example: A door contact located at the entry point of an establishment can be wired directly to the input terminal of the entry point keypad instead of wiring the door contact all the way to the control panel.

Even with the ATZ feature enabled in the control panel, only one device can be connected to the keypad's hardwired-input terminal. No tamper recognition on keypad zones. Keypad zone follows control panel's EOL definition.

Devices connected to the keypad's input terminal must be assigned to a zone in the control panel and

the zone's parameters must be defined. Please refer to *Zone Programming* in section 5 for more information. The keypad will communicate the status of the zone to the control panel. The detection device is connected as shown in figure 2.2.

2.11 SINGLE ZONE CONNECTIONS

In addition to the DIGI-BUS, the Digiplex Control Panel includes four hardwired-input terminals for use with traditional hardwired (non-bus) door contacts, smoke detectors and/or detectors. *ZX8 Zone Expander Modules* are available, which when connected to the DIGI-BUS will provide eight additional hardwire-input terminals. The control panel also supports one on-board Expansion Module, the *ZX4.* The *ZX4* will add four hardwired-input terminals to the control panel (see section 2.13). Devices connected to hardwired-input terminals must be assigned to a zone and the zone's parameters must be defined. Please refer to *Zone Programming* in section 5 of this manual for more information. Figure 2.5 demonstrates single zone (*ATZ* disabled) hardwire-input terminal connections recognized by the Digiplex system.

2.12 DOUBLE ZONE CONNECTIONS

Enabling the *ATZ* feature (see section 5.7), allows you to install two detection devices per input terminal. The *ATZ* feature is a software-oriented feature. Therefore, there is no need for extra modules, simply connect the devices as shown in figure 2.6 on the following page. Devices connected to input terminals must be assigned to a zone and the zone's parameters must be defined. Please refer to *Zone Programming* in section 5 of this manual for more information.

Figure 2.5 - Single Zone Input Connections

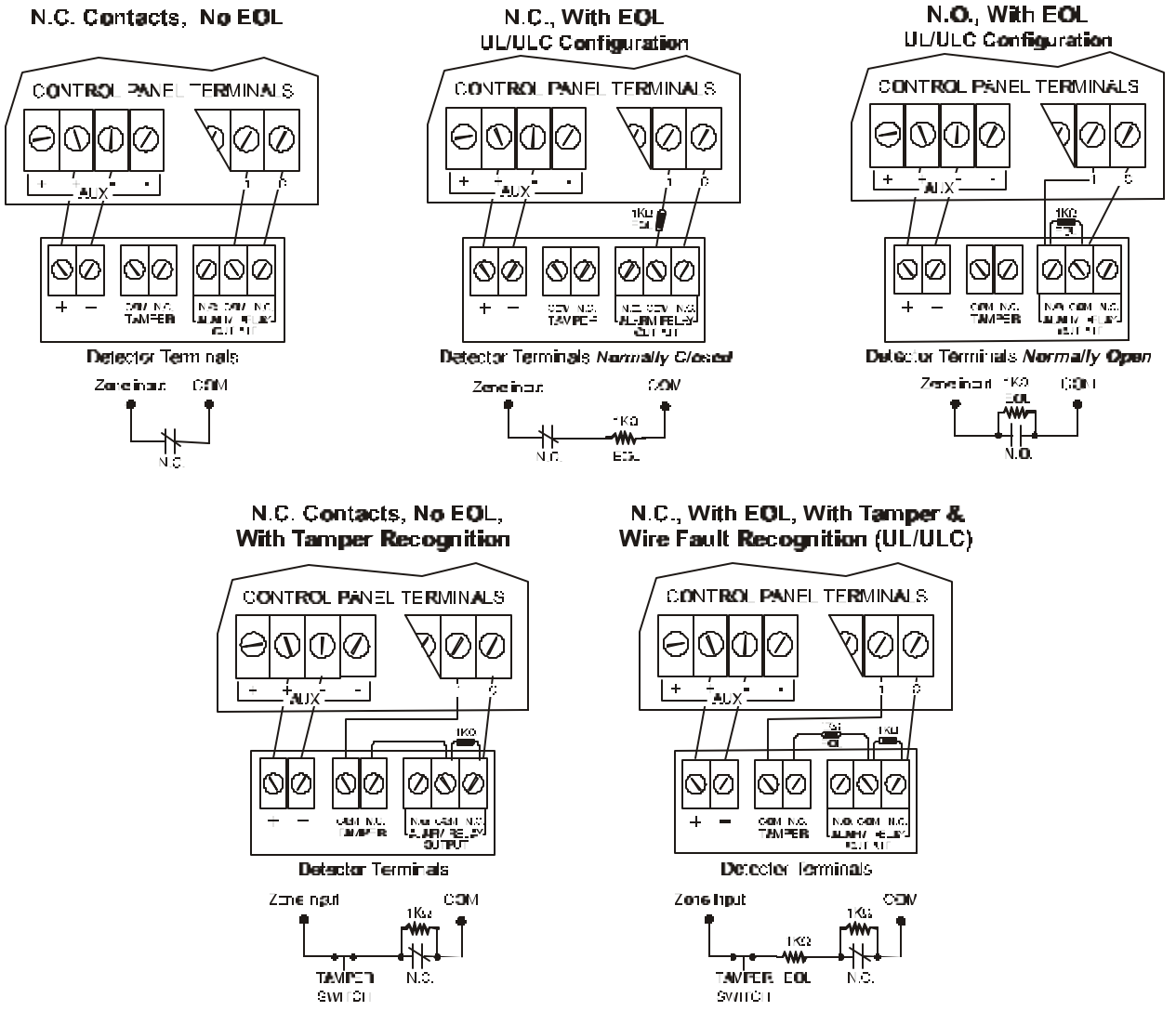
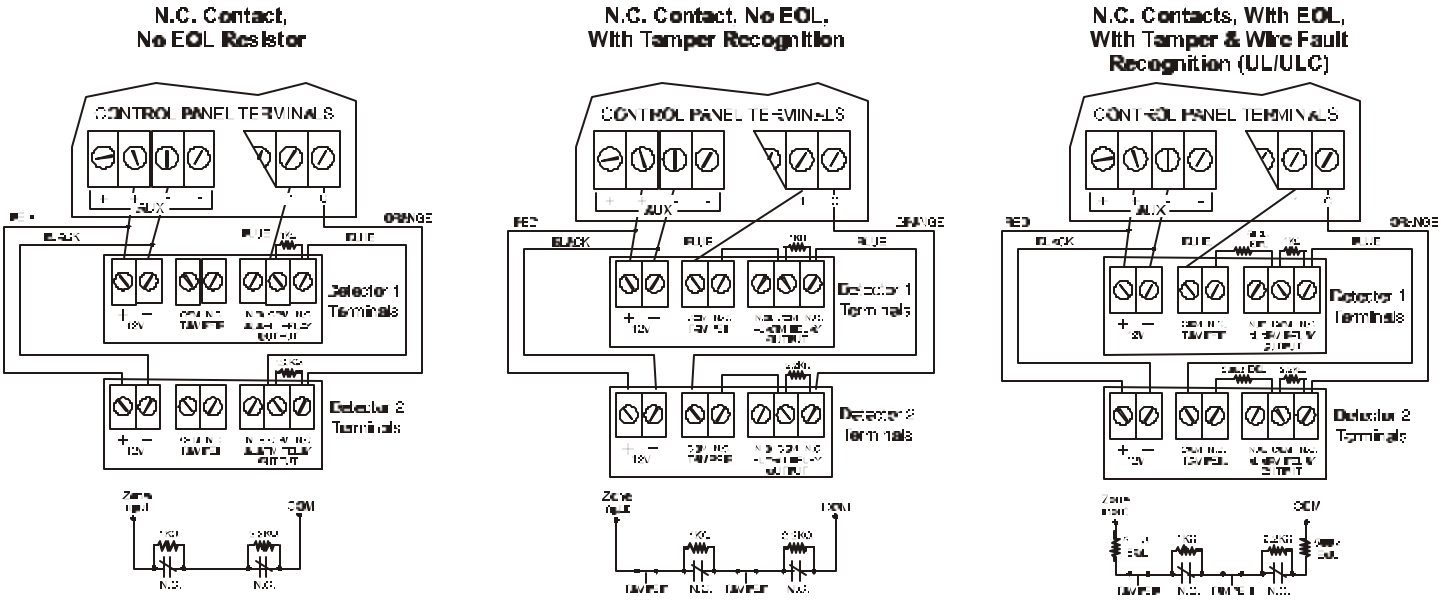


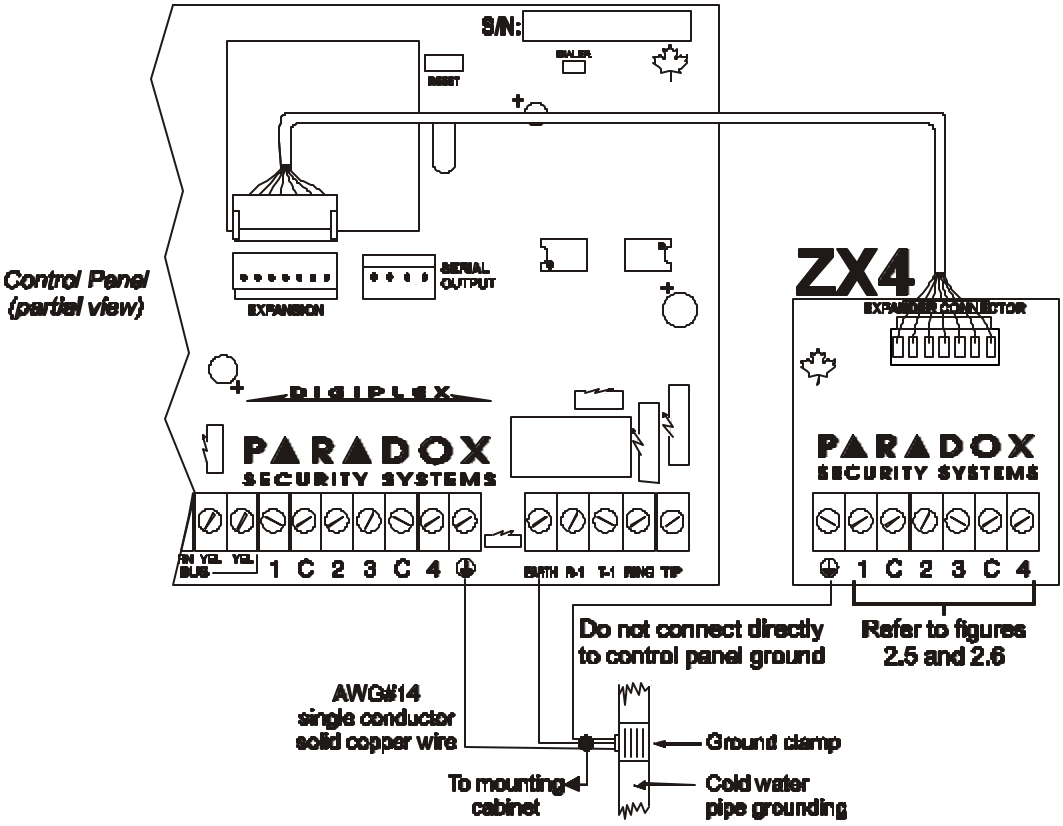
Figure 2.6 - Double Zone Input Terminal Connections



2.13 CONNECTING THE *ZX4*

The *ZX4* is a 4-Zone Expansion Module that connects directly to the control panel through its on-board EXPANSION connector as shown in figure 2.7. The *ZX4* provides four additional hardwired-input terminals. Detection devices are connected to the *ZX4's* terminals in the same way they are connected to the control panel as shown in figures 2.5 and 2.6. Devices connected to hardwired-input terminals must be assigned to a zone and the zone's parameters must be defined. Please refer to *Zone Programming* in section 5 of this manual.

Figure 2.7 - Connecting the ZX4



For the purposes of *Zone Programming*, the control panel recognizes the ZX4's inputs as follows:

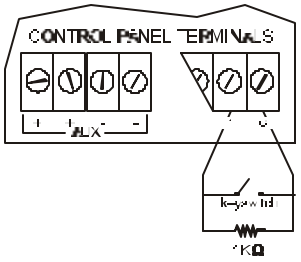
NO ATZ:
ZX4 Input 1 = *Input 009*
ZX4 Input 2 = *Input 010*
ZX4 Input 3 = *Input 011*
ZX4 Input 4 = *Input 012*

ATZ Enabled:
ZX4 Input 1 = *Input 009 & 013*
ZX4 Input 2 = *Input 010 & 014*
ZX4 Input 3 = *Input 011 & 015*
ZX4 Input 4 = *Input 012 & 016*

2.14 KEYSWITCH CONNECTIONS

Connect the keyswitches to the keypad, control panel, or *Zone Expander Module's* hardwired-input terminals as shown in figure 2.8. Once a keyswitch is connected, it must be assigned a keyswitch zone and its parameters must be defined as described in *Keyswitch Programming* (see section 6 of this manual).

Figure 2.8 - Keyswitch Connections



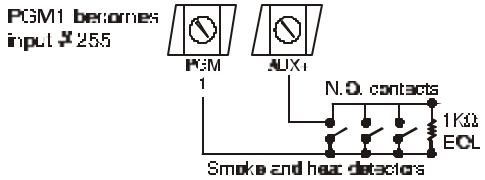
2.15 FIRE CIRCUITS

Connect the smoke detectors used in the security system using any of the following methods. Smoke detectors connected to the control panel or zone expander input terminals must be assigned to a zone in the control panel and the zone's parameters must be defined as a *Fire Zone*. For more details, refer to *Zone Programming* in section 5 of this manual.

2.15.1 Standard Installation

PGM1 can be defined as a 2-wire smoke detector input (see section 11.3); enabling smoke detectors to be connected as shown in figure 2.12. *Fire Zones* must use a 1KΩ EOL resistor. If there is a line short or if the smoke detector becomes active, whether the system is armed or disarmed, the control panel will generate an alarm. If the line is open, the *"Zone Fault"* trouble indication will appear in the *Trouble Display* and will transmit the appropriate report code to the central station (if programmed).

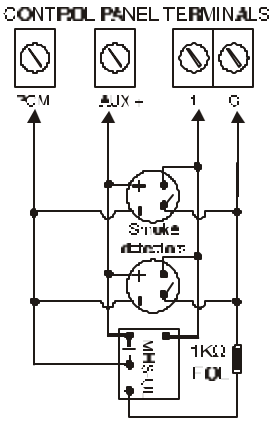
Figure 2.9 - PGM1: 2-Wire Smoke Detector Input



2.15.2 UL/ULC Installation

Connect the 4-wire smoke detectors and a relay as shown in figure 2.10. In the event power is interrupted, the relay will cause the control panel to transmit the *Global Fire Loop Trouble* report if programmed in section [697]. To reset (unlatch) the smoke detectors after an alarm, verify that the negative (-) of the smoke detectors are connected to a PGM as shown in figure 2.10. Then program the PGM with the *"Smoke Reset"* activation event (see section 11.1 of this manual) to interrupt power to the smoke detector for four seconds when the [CLEAR] and [ENTER] keys are pressed and held for 2 seconds.

FIGURE 2.10 - FIRE ZONES UL/ULC INSTALLATION



SINGLE FIRE ZONE CONNECTIONS ONLY
If the ATZ feature is enabled, do not use the extra input (i.e. in the above example, input 005 can not be used as a zone).

PROGRAMMING METHOD

The Digiplex Control Panel can be programmed using the Paradox Upload/Download Software for Windows® or manually by using a keypad as described below. We highly recommend programming the control panel with the Upload/Download software, as it greatly simplifies the process and reduces the potential of data errors.

3.1 UPLOAD/DOWNLOAD SOFTWARE

Remotely program the Digiplex Control Panels using the Paradox Upload/Download Software, or perform on-site programming. Please refer to section 13 for details on how to set up the control panel to function with the upload/download software.

3.2 PROGRAMMING MODE

Use the supplied *"Programming Guide"* to keep track of which sections were programmed and how. In order to program anything in the Digiplex Control Panel you must enter the programming mode.

To enter Control Panel Programming Mode:

Step 1 – *Press & Hold **[0]** key*

Step 2 – *Key in **[INSTALLER CODE]***
Default is 000000

Step 3 – *Key in 3-digit **[SECTION]***
Every feature and or option is programmed into a three-digit section from **[001]** to **[979]**.

Step 4 – *Key in required **[DATA]***
The type of data required will be detailed in the *"Programming Guide"* and/or explained in the appropriate section of this manual.

- Most of the Digiplex Control Panel Options are programmed using the **Feature Select Method,** where each number from 1 to 8 corresponds to a specific feature or option. Set these options by turning the number corresponding to the feature ON or OFF. The option is considered ON when the number appears within the brackets on the LCD keypad or when the number is illuminated on an LED Keypad. You turn options ON and OFF by pressing the corresponding buttons on the keypad. Press the keys as many times as you need until all 8 options in the current section are set. When the options are set, press the **[ENTER]** or **[▲]** key to save.

- Certain sections may require the entry of one or more **Hexadecimal** values from 0 to F:

  [0] to **[9]** = values 0 to 9 respectively
  [STAY] key = A
  [FORCE] key = B
  [ARM] key = C
  [DISARM] key = D
  [BYP] key = E
  [MEM] key = F

- Certain sections may require the entry of a **3-digit Decimal** value from 000 to 255.

After entering the required data, the control panel will save the data and automatically advance to the next section, or press the **[ENTER]** key to save whatever data has been entered and automatically advance to the next section. Press the **[CLEAR]** key to revert to the preceding step, unless you are entering data, in which case it will erase the current data entry.

To enter the Module Programming Mode:

Step 1 – *Press & Hold **[0]** key*

Step 2 – *Key in **[INSTALLER CODE]***
Default is 000000

Step 3 – *Key in section **[953]***

Step 4 – *Key in 8-digit **[SERIAL NUMBER]** of the module you wish to program*

Step 5 – *Key in 3-digit **[SECTION]** & required **[DATA]*** Refer to installation manual of desired module for details.

3.3 PROGRAMMING BUS MODULES

The control panel will redirect all programming to the selected module. To exit the *Module Programming Mode*, press the **[CLEAR]** key as many times as needed to return to the desired screen. Please note that a module's serial number can be located on the module's PC board or it may already be recorded in the module's *Programming Guide*.

The Digiplex control panel supports the following access codes:

- 63 *User Access Codes*
- 1 *System Master Code*
- 1 *Installer Code*.

4.1 Installer Code

Section [800]
{Default: **000000**} The *Installer Code* is used to enter the control panel's programming mode, which allows you to program all the features, options and commands of the control panel and any modules connected to the DIGI-BUS. The *Installer Code* can not program the *User Access Codes*. The *Installer Code* is six digits in length where each digit can be any value from 0-9.

*Press & Hold **[0]** + **[INSTALLER CODE]** + **[800]** + New 6-digit **[INSTALLER CODE]***

4.2 Access Code Length

Section [504] – Options [2] & [3]

[2]	[3]	Option
Off	Off	4-Digit Access Codes
Off	On	6-Digit Access Codes
On	Off	Same as On/On
On	On	Flexible Access Codes Access codes can be between 1 and 6 digits in length. When programming flexible access codes with less than 6-digits, press the [ENTER] key.

When you change the *Access Code Length* from 4 digits to 6 digits, the control panel will automatically add the last 2 digits by using the first 2 digits. For example, if your Access Code is 1234 and you switch to 6 digits the code will become 123412. When you change the *Access Code Length* from 6 digits to 4 digits, the control panel will automatically remove the last 2 digits.

4.3 System Master Code

{Default: **123456**} With the *System Master Code* a user can use any of the available arming methods with access to all partitions and can program all *User Access Codes*, *User Options* and *User Partition Assignments*. The *System Master Code* can use any digits from 0 to 9. The length of the *System Master Code* is determined by the *Access Code Length* feature (see section 4.2 above).

The System Master Code cannot be set to less than 4-digits in length.

4.3.1 System Master Code Reset

Using the *Installer Code*, enter section **[950]** to reset the *System Master Code* to **123456**.

The Installer can program the User Code Options and Partition Assignment but cannot program the System Master Code or the User Access Codes.

4.4 User Options

The *User Options* define how each *User Access Code* can arm or disarm the system. Regardless of these settings, all users can *Regular Arm* (see section 14) assigned partitions (see section 4.5 of this manual) and all users except those with the *Arm Only* option (see section 4.4.4) can disarm an assigned partition. Select one or more of the options described in the following sub-sections for each *User Access Code* as shown in figure 4.1 on the following page. The *System Master Code* or a user with the *Master Feature* enabled can also program the *User Options* using a different method of programming (see section 14).

4.4.1 Master Feature

Sections [802] to [864] – Options [1] & [2]

[1]	[2]	Option
Off	Off	Master Feature Disabled
Off	On	Master Feature Disabled
On	Off	Users can create or modify *User Access Codes* that have the same partition assignment.
On	On	Users can create or modify *User Access Codes* with the same partition assignment and program the *User Options & Partition Assignment* (assigns only partitions the *Master Feature Code* has access to).

4.4.2 Duress

Sections [802] to [864] – Option [3]

When a user is forced to arm or disarm their system, entering a *Duress* enabled *User Access Code* (option [3] on) will arm or disarm the system and, if programmed, will immediately transmit a silent alert to the Central Station.

4.4.3 Bypass Programming

Sections [802] to [864] – Option [4]

The *User Access Code* with option [4] enabled can program bypass entries as described in section 14.

4.4.4 Arm Only

Sections [802] to [864] – Option [5]

The *User Access Code* with option [5] enabled can arm assigned partitions but can not disarm any partitions. The type of arming is determined by the other *User Options* selected. Please note that with the *Arm Only* option, the user who just armed the system can cancel arming by re-entering the same *User Access Code* during the *Exit Delay*.

4.4.5 Stay & Instant Arming

Sections [802] to [864] – Option [6]

The *User Access Code* with option [6] enabled, can *Stay Arm* or *Instant Arm* (see section 14) assigned partitions.

4.4.6 Force Arming

Sections [802] to [864] - Option [7]

The *User Access Code* with option [7] enabled will be able *to Force* arm assigned partitions as described in section 14.

4.4.7 User Menu Access Conditions

Sections [802] to [864] - Option [8]

This feature will govern which partitions users have access to when entering their access codes. With option **[8] on**, the control panel will grant access to all partitions assigned to the *User Access Code*. With option **[8] off**, the control panel will only grant access to partitions that have been assigned to both the *User Access Code* and the keypad.

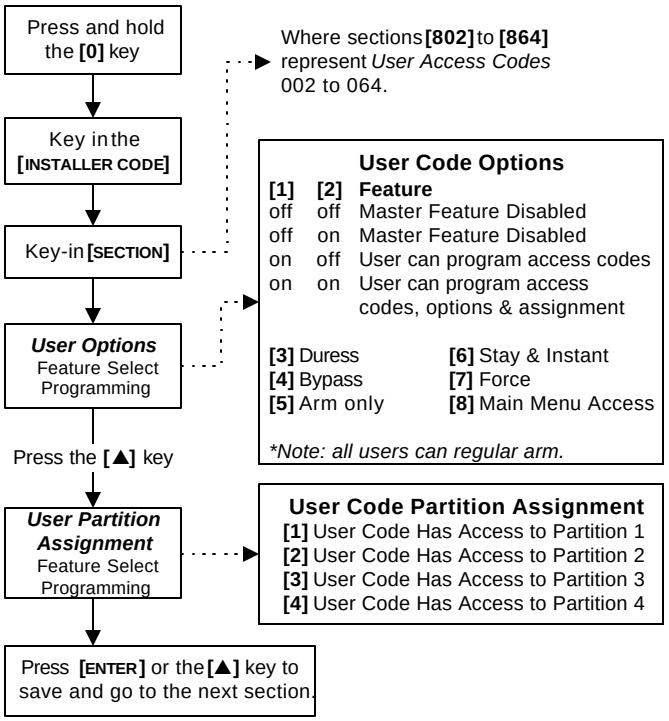
4.5 User Partition Assignment

Sections [802] to [864] – Options [1] to [4]

Each of the 63 *User Access Codes* can be assigned to one or more partitions. A user can only arm, disarm and view status of assigned partitions. Select one or more of the partitions for each *User Access Code* as shown in figure 4.1. The *System Master Code* or a user with the *Master Feature* enabled can also program the *User Partition Assignment* using a different method of programming (see section 14).

Figure 4.1 - Programming User Parameters

Using the method described below, the Installer can program the User Code Options and User Code Partition Assignment but can not program any User Access Codes.



4.6 Multiple Action Feature

Section [504] – Option [1]

By enabling option **[1]** in section **[504]**, users will remain in the *User Menu* after entering their access code. This allows users to perform more than one action without having to re-enter their access code. With option **[1] off** in section **[504]**, the control panel will exit the *User Menu* after every action.

ZONE PROGRAMMING

All detection devices, whether connected to the control panel, keypads or zone expander modules must be assigned to a zone and that zone must be defined as described in this section:

- Serial # of the Device/Module
- Input # of the Device/Module

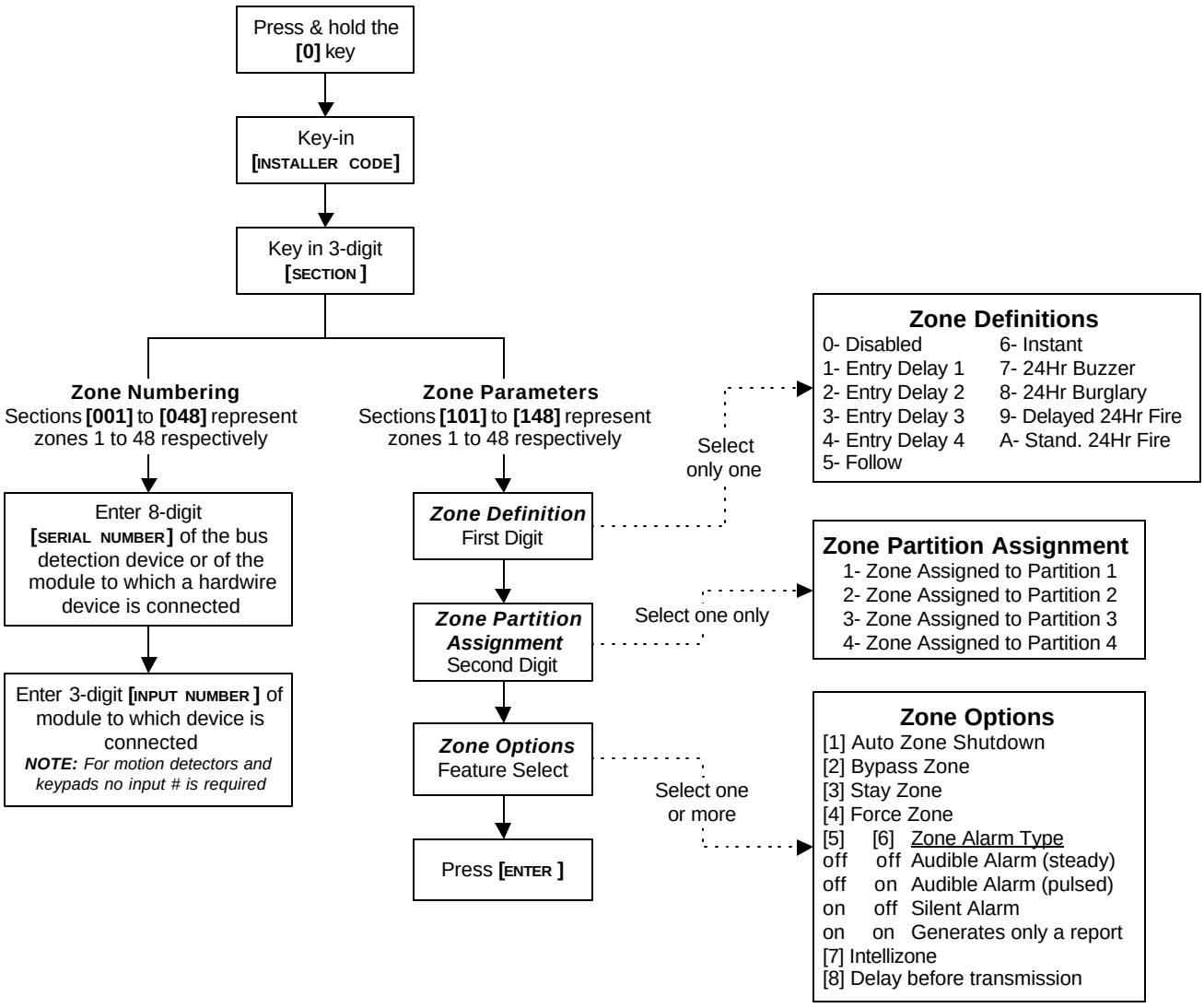
} Zone Numbering **[001]** to **[048]**

- Zone Definition
- Zone Partition Assignment
- Zone Options

} Zone Parameters **[101]** to **[148]**

The *Zone Numbering* feature enables you to individually assign each detection device to any desired zone in the Digiplex system. Please refer to section 5.1 of this manual for details. The *Zone Parameters* define the type of zone, the zone's partition assignment and how the control panel will react when an alarm condition occurs on that zone (see sections 5.2 to 5.4). For more information on the installation of devices and modules, please refer to section 2 of this manual.

Figure 5.1 - Zone Programming



5.1 ZONE NUMBERING

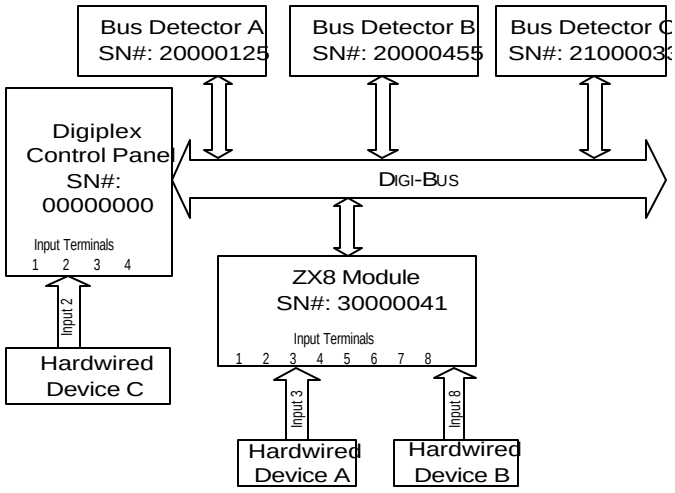
Sections [001] to [048]

The *Zone Numbering* feature allows you to assign any detection device in the system, to any of the 48 zones. This feature tells the control panel where the device is connected and which of the 48 zones is assigned to that device.

- To assign a bus detector connected to the DIGI-BUS, program the detector's serial number into the section corresponding to the desired zone (i.e. zone 34 = section [034]).
- To assign a detection device connected to a module or control panel's hardwired-input terminal. Program the module's or control panel's serial number and the number of the input to which the device is connected into the section corresponding to the desired zone. Refer to the appropriate module's *Installation Manual* for details of its input numbers. Note: an input number is not required for keypad zones.

If PGM1 is defined as a smoke detector input (see section 11.3), the control panel will recognize it as input # 255.

Figure 5.2 - Example of Zone Numbering



	Zone#	Section#	Serial#	Input#
Bus Detector A:	1 =	[001]	20000125	N/A
Bus Detector B:	2 =	[002]	20000455	N/A
Bus Detector C:	3 =	[003]	21000033	N/A
Hardwired Device A:	4 =	[004]	30000041	003
Hardwired Device B:	5 =	[005]	30000041	008
Hardwired Device C:	6 =	[006]	00000000	002

5.2 ZONE DEFINITIONS

Select one of the 11 available zone definitions described below (also refer to figure 5.1).

5.2.1 Zone Disabled

Sections [101] - [148]: First digit = 0

Disables the corresponding zone.

5.2.2 Entry Delays 1 to 4

Sections [101] - [148]: First digit = 1 to 4

When an armed zone with the *Entry Delay* definition opens, the control panel will not generate an alarm until the programmed *Entry Delay Timer* has elapsed. A zone can be defined with one of four Entry Delays each with a separate *Entry Delay Timer*. To program the *Entry Delay Timer*, key in the desired 3-digit delay value (000-255 seconds) into the corresponding section:

- Entry Delay 1 Timer : **[230]**
- Entry Delay 2 Timer : **[231]**
- Entry Delay 3 Timer : **[232]**
- Entry Delay 4 Timer : **[233]**

Entry Delay zones are commonly used at the entry/exit points of the protected area (i.e. front/back door, garage). Using different *Entry Delays* is useful when, for example, one entry point requires a longer delay than the other entry point, or in a partitioned system where each partition may require a different *Entry Delay*.

5.2.3 Follow Zones

Sections [101] – [148]: First digit = 5

If an armed *Follow* zone opens, the control panel will immediately generate an alarm. If an armed *Entry Delay* zone (see section 5.2.2) opens before the *Follow* zone, the control panel will wait until the end of the entry delay period before generating an alarm. If more than one *Entry Delay* zone opens before the *Follow* zone, the control panel will wait until the end of the first entry delay period before generating an alarm.

5.2.4 Instant Zones

Sections [101] – [148]: First digit = 6

When an armed *Instant* zone opens, the control panel immediately generates an alarm. *Instant* zones are commonly used for windows, patio doors, skylights and other perimeter type zones.

5.2.5 "24Hr" Buzzer Zones

Sections [101] – [148]: First digit = 7

Whenever a *"24Hr" Buzzer* zone opens, whether the zone is armed or disarmed, the control panel will set off the keypad buzzer to indicate the zone was breached. The control panel will report the alarm, but

will not enable the bell/siren output. Enter any valid access code on the keypad to stop the buzzer.

Only keypads assigned to the same partition as the "24HR" Buzzer zone will set off the buzzer.

5.2.6 "24Hr" Burglary Zones

Sections [101] – [148]: First digit = 8

Whenever a *"24Hr" Burglary* zone opens, whether the system is armed or disarmed, the control panel will immediately generate an alarm. Detection devices connected to hardwired-input terminals will only cause the control panel to generate an alarm after the *Input Speed* (see section 5.5) has elapsed.

5.2.7 Delayed "24Hr." Fire Zone

Sections [101] – [148]: First digit = 9

The *Delayed "24Hr." Fire Zone* definition described in figure 5.4 is commonly used in residential homes where a smoke detector often generates false alarms (i.e. cigarette smoke, burning bread, etc.).

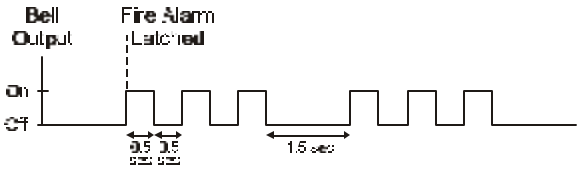
Note only keypads assigned to the same partition as the Delayed "24HR" Fire zone will activate the buzzer.

5.2.8 Standard "24Hr" Fire Zone

Sections [101] - [148]: First digit = A

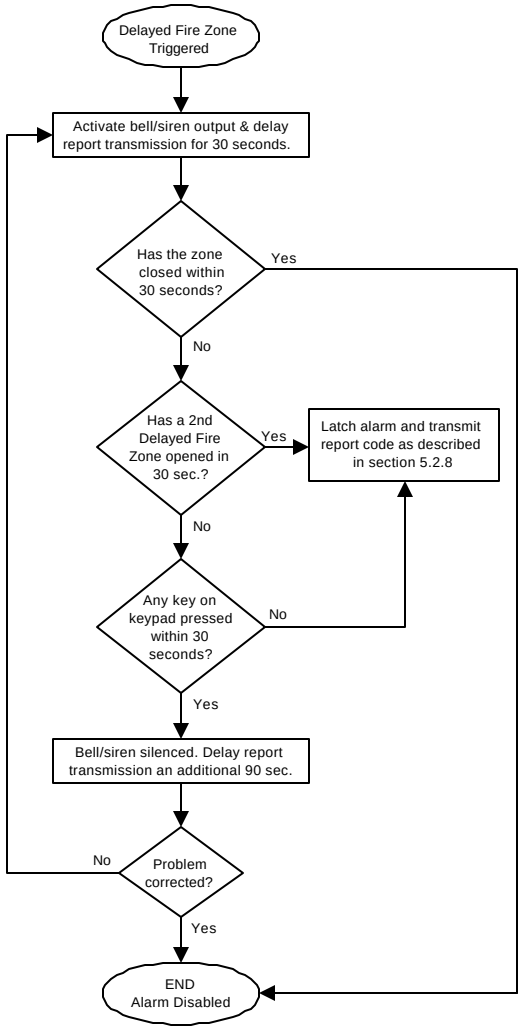
For information on how to connect smoke detectors to the control panel, refer to *Fire Circuits* in section 2.15. Whenever a *Standard "24Hr." Fire Zone* opens, whether it is armed or disarmed, the control panel will generate the following:

Figure 5.3 - Bell/Siren Output During Fire Alarm



- The control panel can send the appropriate "Zone Alarm" report code (see section 9.2.5) to the central station.
- If a tamper/wiring fault occurs on a *Fire Zone*, the control panel can send a "Global Fire Loop Trouble Report (see section 9.2.11) to the Central Station. A "Zone Fault Trouble" will also appear in the keypad's *Trouble Display*.
- Fire alarms are always audible, regardless of other settings. Fire alarms will generate an intermittent bell/siren output signal as demonstrated in *Figure 5-3*.

Figure 5.4 - Delayed 24Hr. Fire Zone



5.3 ZONE PARTITION ASSIGNMENT

Sections [101] - [148]: Second digit = 1-4

The control panel provides the option of partitioning the security system into two, three, or four completely independent systems. Therefore, each zone must be assigned to one partition as described in figure 5.1 on page 15. For more information on *Partitioning,* refer to section 12.6.

5.4 ZONE OPTIONS

Each zone can be programmed with one or more of the options described below. Program the zone options as described in figure 5.1 on page 15.

5.4.1 Auto Zone Shutdown

Sections [101] – [148]: Option [1]

If, in a single armed period, an *Auto Zone* Shutdown zone communicates more than the number of alarm transmissions defined by the *Auto Zone* Shutdown Limit, the control panel will no longer generate an alarm for that zone. To program the *Auto Zone Shutdown Limit*, key in the desired 3-digit counter (000-015) into section **[217]**. Entering 000 disables this feature. The *Auto Zone Shutdown Limit* resets upon arming the system.

5.4.2 Bypass Zones

Sections [101] – [148]: Option [2]

Only zones with option [2] enabled can be *Manually Bypassed* (see section 14 for details). Fire Zones can not be bypassed.

5.4.3 Stay Zones

Sections [101] – [148]: Option [3]

Only zones with option [3] enabled will be bypassed when the system is *Stay Armed* (see section 14 for details). All other zones will remain activated. *Fire Zones* can not be set as Stay Zones.

5.4.4 Force Zones

Sections [101] – [148]: Option [4]

Only zones with option [4] enabled can be bypassed when the system is *Force* armed (see section 14 for details). *Fire Zones* can not be set as Force Zones.

5.4.5 Alarm Types

Sections [101] - [148]: Options [5] & [6]

Options		
[5]	**[6]**	**Zone Alarm Type**
OFF	OFF	Steady Audible Alarm
OFF	ON	Pulsed Audible Alarm
ON	OFF	Silent Alarm
ON	ON	Generates a report only

- A *"Steady Audible Alarm"* will transmit the appropriate report code (if programmed) and generates an alarm providing a steady output for any bells or sirens connected to the control panel.
- A *"Pulsed Audible Alarm"* will transmit the appropriate report code and generates an alarm providing a pulsed output (see figure 5.3 on page 17) for any bells or sirens connected to the control panel.
- A *"Silent Alarm"* will transmit the appropriate report code and generates an alarm without activating any bells or sirens (e.g. keypad indicates an alarm and the system must be disarmed).
- A *"Report Only"*, will send the report code to the central station. Unlike a silent alarm, no access codes are required to cancel the alarm. *Fire Zones* cannot be set to "report only".

5.4.6 Intellizone

Sections [101] – [148]: Option [7]

If an alarm condition occurs on a zone with option [7] enabled, the control panel will trigger the *Intellizone Delay* and will seek confirmation of the alarm before generating an alarm. An alarm will only be generated if one of the following conditions occurs during the *Intellizone Delay*:

(a) An alarm condition occurs on any another intellizone during the *Intellizone Delay*.
(b) The zone in alarm has restored and re-occurred during the *Intellizone Delay*.
(c) The zone in alarm remains in alarm for the entire *Intellizone Delay*.

To program the *Intellizone Delay*, key in the desired 3-digit delay value (010-255 seconds), into section **[200]**. *Fire Zones* can not be set as Intellizones.

5.4.7 Delay Alarm Transmission

Sections [101] – [148]: Option [8]

When an alarm condition occurs on a zone with option [8] enabled, the control panel will generate an alarm but will not report the alarm to the central station until the end of the *Alarm Transmission Delay*. During this period, disarming the system will cancel any report originating from this zone. To program the *Alarm Transmission Delay*, key in the desired 3-digit delay value (001-255 seconds, 000= instant) into section **[256]**. This feature is commonly used with *Entry Delay* zones in order to reduce the occurrence of false alarms created by new users who may not disarm the system in time.

5.5 INPUT SPEED

Sections [201] to [216]: 000-255 X 20msec.

{Default: **600mS**} The *Input Speed* defines how quickly the control panel will respond to an open zone detected on any hardwired-input terminal. The control panel will not display and/or respond to an open zone until the programmed *Input Speed* elapses. All other zone definitions and options do not come into effect until the *Input Speed* has elapsed. The *Input Speed*

does not apply to bus detectors connected to the DIGI-BUS.

Example:
The system is armed and the zone speed is set for 600m seconds. A zone opens and closes in less than 600m seconds, the control panel will not respond (i.e. no reporting, no alarm and no display on the keypad).

This prevents any momentary glitches from causing an alarm or unnecessary reporting. The *Input Speed* for each input terminal can be set from 20ms to 5.1s, by programming the desired value (001-255 X 20ms) into the appropriate section.

[201] Control Panel Terminal 1/ Input 001 speed
[202] Control Panel Terminal 2/ Input 002 speed
[203] Control Panel Terminal 3/ Input 003 speed
[204] Control Panel Terminal 4/ Input 004 speed
[205] Control Panel Doubler 1/ Input 005 speed
[206] Control Panel Doubler 2/ Input 006 speed
[207] Control Panel Doubler 3/ Input 007 speed
[208] Control Panel Doubler 4/ Input 008 speed

The optional ZX4 On-Board Zone Expander (see section 2.13 for details):
[209] ZX4 Terminal 1/Input 009 speed
[210] ZX4 Terminal 2/Input 010 speed
[211] ZX4 Terminal 3/Input 011 speed
[212] ZX4 Terminal 4/Input 012 speed
[213] ZX4 Doubler 1/Input 013 speed
[214] ZX4 Doubler 2/Input 014 speed
[215] ZX4 Doubler 3/Input 015 speed
[216] ZX4 Doubler 4/Input 016 speed

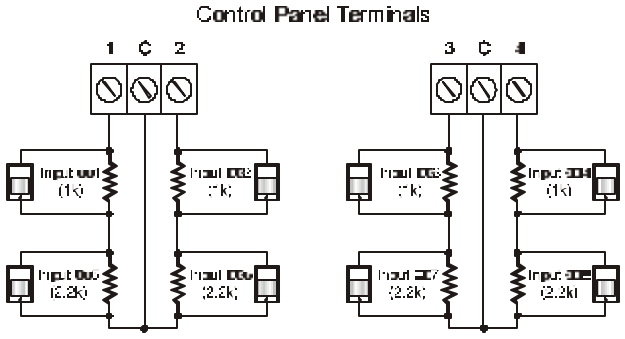
5.6 EOL ZONES

Section [504]: Option [7]
If detection devices connected to hardwired-input terminals use 1KΩ end of line resistors, enable option **[7]** in section **[504]**. For more information on the use of EOL resistors, refer to *Input Connections* in sections 2.11 & 2.12.

5.7 ZONE DOUBLING (ATZ)

Section [504]: Option [8]
Enabling the *ATZ* feature allows you to install two detection devices per zone input terminal. Each detection device will have its own zone, displaying zone status on the keypad and sending separate alarm codes for each zone. The extra zones are recognized as described in figure 5.5. For information on how to connect the detection devices, please refer to *Double Zone Connections* in section 2.12. Please note that *Fire Zones* can not be doubled.

Figure 5.5 - ATZ Input Terminal Recognition



Note :If a zone has been defined as a *Fire Zone*, the corresponding input cannot be used. For example, if you assign input 002 to zone 4 (Fire Zone) do not assign input 6 to any zone. For information on ATZ input terminal recognition for the ZX4 Module, refer to section 2.13.

K E Y S W I T C H P R O G R A M M I N G

The Digiplex Control Panel can support up to 8 keyswitch zones in addition to 48 standard zones. A keyswitch allows a user to arm or disarm a system by pressing a button or by toggling a keyswitch. The keyswitches are connected to the hardwired-input terminals of either the Digiplex Control Panel, Zone Expander Modules or the Keypad. For more information on the installation of keyswitches, please refer to in section 2.14. Keyswitches must be assigned to a keyswitch zone and that zone must be defined as described in this section:

- Serial # of the Module
- Input # of the Module

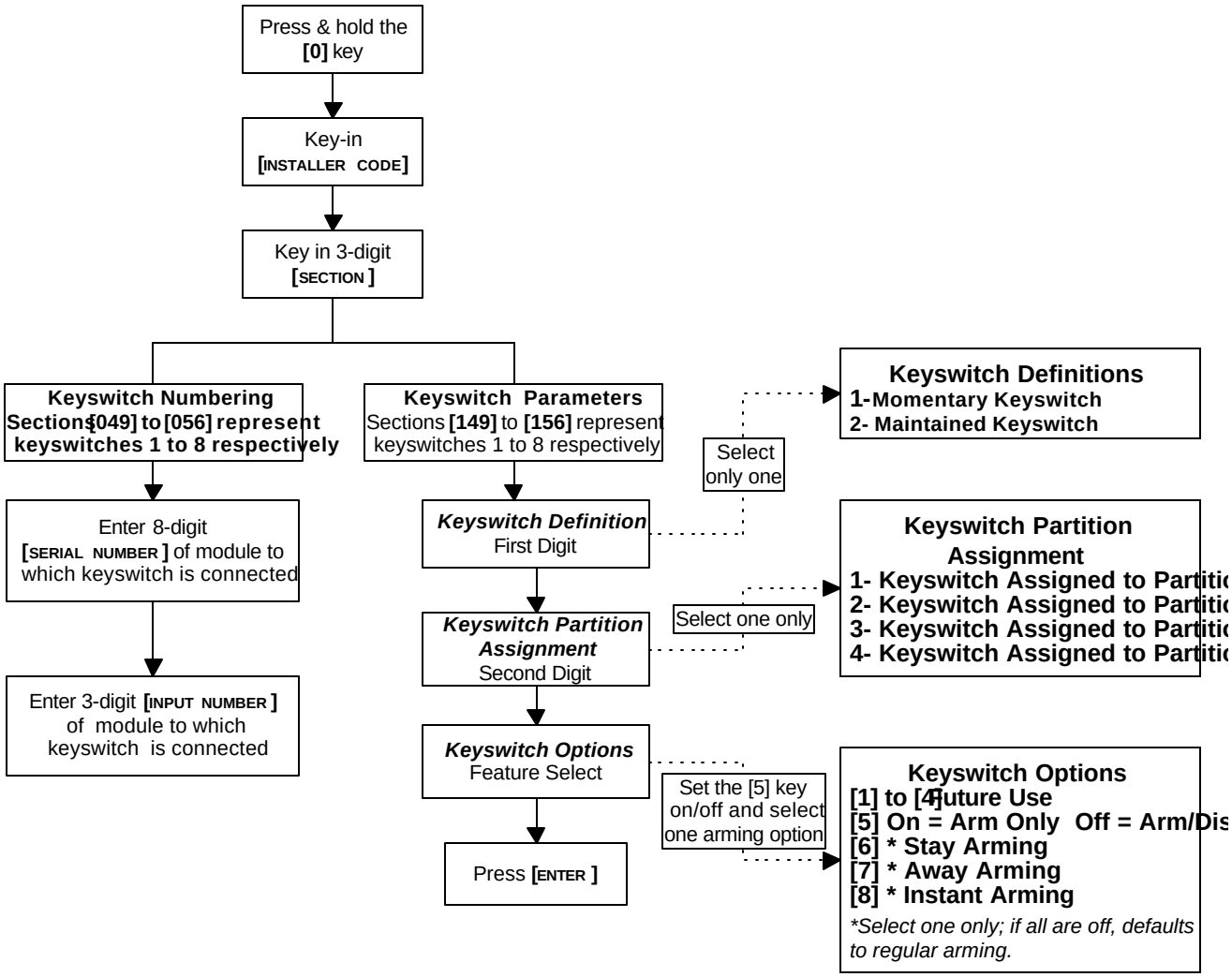
} Keyswitch Numbering **[049]** to **[056]**

- Keyswitch Definitions
- Keyswitch Partition Assignment
- Keyswitch Options

} Keyswitch Parameters **[149]** to **[156]**

The *Keyswitch Numbering* feature enables you to individually assign each input to any keyswitch zone in the Digiplex system. Please refer to section 6.1 of this manual for details. The *Keyswitch Parameters* define the keyswitch's partition assignment and its arming method (see sections 6.2 to 6.4).

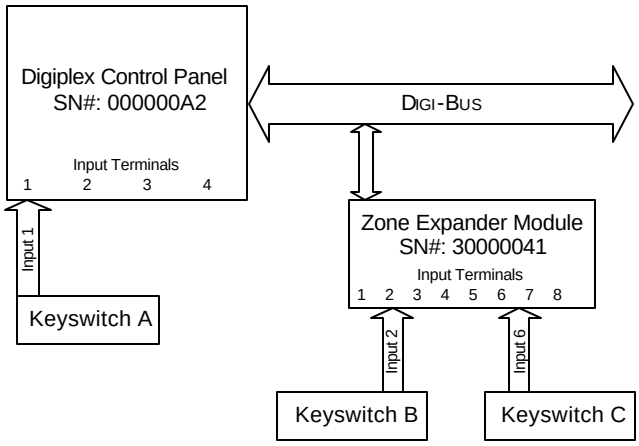
Figure 6.1 - Keyswitch Programming



6.1 KEYSWITCH NUMBERING

Sections [049] to [056]
The *Keyswitch Numbering* feature allows you to assign any hardwired-input in the system, to any of the 8 keyswitch zones in the Digiplex Control Panel. This feature tells the control panel where the keyswitch is connected and which of the 8 keyswitch zones is assigned to that keyswitch. To assign a keyswitch connected to a hard-wired input terminal, program the module's serial number and the number of the input to which the keyswitch is connected, into the section corresponding to the desired keyswitch zone (see figure 6.2).

Figure 6.2 - Example of Keyswitch Numbering



	Keyswitch Zone #	*Section*	*Serial#*	*Input#*
Keyswitch A:	*1 =*	*[049]*	*000000A2*	*001*
Keyswitch B:	*2 =*	*[050]*	*30000041*	*002*
Keyswitch C:	*3 =*	*[051]*	*30000041*	*006*

6.2 KEYSWITCH DEFINITIONS

Select one of the 2 available keyswitch definitions described below (see figure 6.1 on page 20).

6.2.1 Keyswitch Disabled

Sections [149] – [156]: First digit = 0
Disables keyswitch input.

6.2.2 Momentary Keyswitch

Sections [149] – [156]: First digit = 1
To arm a partition using the *Momentary Keyswitch*, turn on the keyswitch for approximately three seconds then turn it off. Repeating this sequence will disarm the system. The selected *Keyswitch Option* (see section 6.4) determines the type of arming.

6.2.3 Maintained Keyswitch

Sections [149] – [156]: First digit = 2
To arm a partition using the *Maintained Keyswitch*, turn the switch from the "on" to the "off" position. To disarm a partition set the keyswitch in the "on" position. In the case of an "Arm Only" option, the control panel will not perform any action when the switch is in the "on" position. The selected *Keyswitch Option* (see section 6.4) determines the type of arming.

6.3 KEYSWITCH PARTITION ASSIGNMENT

Sections [149] to [156]: Second digit = 1 to 4
The control panel provides the option of partitioning the security system into two, three, or four completely independent systems. Therefore, each keyswitch must be assigned to one partition as described in figure 6.1 on page 20. For more information on *Partitioning,* refer to section 12.6.

6.4 KEYSWITCH OPTIONS

Each keyswitch zone can be programmed with one or more of the options described below. Program the zone options as described in figure 6.1 on page 20.

6.4.1 Arm/Disarm Option (Keyswitch)

Sections [149] to [156]:
[5] ON = *Arm Only*
[5] OFF = *Arm & Disarm*

Please note that only one of the arming options (Stay, Force, Instant, and Regular) can be selected.

6.4.2 Stay Arming (Keyswitch)

Sections [149] to [156]: Option [6]
Activating the keyswitch will bypass any zones defined as *Stay Zones* (see section 5.4.3) in the selected partition. All other zones will remain activated. For more information on *Stay Arming,* refer to section 14.

6.4.3 Force Arming (Keyswitch)

Sections [149] to [156]: Option [7]
Activating the keyswitch will arm the selected partition, bypassing any open zones defined as

Force Zones (see section 5.4.4) at the time of arming. For more information on *Force Arming,* refer to section 14.

6.4.4 Instant Arming (Keyswitch)

Sections [149] – [156]: Option [8]
This option is identical to *Stay Arming* except that all armed zones will become *Instant Zones* (see section 5.2.4). For more information on *Instant Arming,* refer to section 14.

6.4.5 Regular Arming (Keyswitch)

[149] to [156]: Option [6] to [8]
When options [6] to [8] are off, the keyswitch arming option will default to *Regular Arming* (see section 14).

7.1 ARMING FOLLOWS PARTITION

Sections [505], [509], [513], [517]: Options [1] to [4]
A partition can be set to follow the arming and disarming status of one or more partitions. If a partition is set to follow more than one partition, the partition will arm when all selected partitions are armed. However, the partition will disarm as soon as one of the selected partitions is disarmed. For more details on how these options are programmed, please refer to the *Programming Guide*.

Example:
If options [2] and [3] are on in section [505], Partition 1 will automatically arm whenever partitions 2 and 3 are armed. Partition 1 will disarm when either partition 2 or partition 3 is disarmed.

7.2 NO ARMING ON BATTERY FAIL

Section [503]: Option [8]
With option [8] on in section [503], the control panel can restrict arming if the control panel detects a battery loss or if the battery voltage is less than 10.5. The control panel will not arm any partition until all battery trouble conditions are rectified.

7.3 NO ARMING ON TAMPER

Section [501]: Option [8]
With option [8] on in section [501], the control panel can restrict arming if the control panel detects a tamper on a zone or module (see section 9.2.8). The control panel will not arm any partition until all tamper trouble conditions are rectified and the Installer Code has been entered to clear the troubles.

7.4 TIMED AUTO ARMING

Option [5] - Sections [505], [509], [513], [517]
With this option enabled, the control panel will arm the selected partition every day at the time specified by the *Auto Arm Timer* (see section 7.4.1). If the partition is automatically armed, the control panel will transmit the "auto arming" report code programmed in section **[618]**. If the control panel cannot arm the partition (i.e. open zone), it will try again on the following day. The type of arming is determined by the *Auto Arming Option* (see section 7.6). Regardless of whether the partition was successfully armed or not, the control panel will always transmit the "Late to Close" report code programmed in section **[618]**. Since the control panel can enable this feature for each individual partition, select the section that corresponds to the desired partition and turn on option **[5]**.

7.4.1 Auto Arm Timer

Sections [271] to [274]
If *Timed Auto-Arming* is enabled (see above), the control panel will send the "Late to Close" report code and attempt to arm the system at the time specified by the *Auto-Arm Timer*.

Sections **[271]** to **[274]** represent timers for partitions 1 through 4 respectively. Select the section corresponding to the partition and program the time you wish the control panel to arm the selected partition and/or send the "Late to Close" report code. Please note that the control panel will enter a 60-second *Exit Delay* period before arming the system. At this point, *Auto-Arming* can be cancelled by entering a valid access code.

Example:
*A user would like to automatically arm partition 2 everyday at 6:15PM. To do so, enable "Timed Auto Arming" for partition 2 by turning on option **[5]** in section **[509]**. Then enter **18:15** in section **[272]**.*

7.5 NO MOVEMENT AUTO ARMING

Sections [505], [509], [513], [517]: Option [6]
If no movement occurs in a partition's protected area for the period specified by the *No Movement Timer* (see section 7.5.1), the control panel will automatically arm that partition. The control panel will transmit the "no movement" report code programmed in section **[618]** upon arming. The type of arming is determined by the *Auto Arming Option* (see section 7.6). Regardless of whether the partition was successfully armed or not, the control panel will always transmit the "Late to Close" report code (see section 9.2.2 of this manual). As the control panel can enable this feature for each individual partition, select the section that corresponds to the desired partition and turn on option **[6]**.

7.5.1 No Movement Timer

Sections [222] to [225]: 001-255 X 15min.
If *No Movement Auto-Arming* is enabled (see section 7.5), the control panel send the "No Movement" report code and attempt to arm the system at the time specified by the *No Movement Timer*.

If *No Movement Auto-Arming* is disabled, the control panel will still send the "No Movement" report code at the time specified by the *No Movement Timer*.

Sections **[222]** to **[225]** represent timers for partitions 1 through 4 respectively. Select the section corresponding to the desired partition and program the interval of time (001-255 x15 minutes, 000=disabled) without movement you wish the control panel to wait before arming and/or sending the "No Movement" report code.

Example:
*A user would like to arm partition 1 whenever there is no movement for a period of 4 hours. First, enable the "Auto Arm on No Movement" feature for partition 1 by turning on option **[6]** in section **[505]**. Then in section **[222]** enter **016** (16x15min. = 240min. = 4 hours).*

7.6 AUTO ARMING OPTIONS

Section [505], [509], [513], [517]: Option [7]
When using the auto arming features (see sections 7.4 and 7.5), the control panel can *Force Arm* or *Stay Arm* the selected partition. In the section corresponding to the desired partition set option [7]:
Option **[7] ON** = *Stay Arming* (see section 14)
OFF = *Force Arming* (see section 14)

7.7 ONE-TOUCH FEATURES

[508], [512], [516], [520]: Options [1] to [6]
The *One-Touch* features allow users to arm or disarm a partition without having to enter any access codes. As the control panel can enable the *Quick Arming* features for each individual partition. Select the section that corresponds to the desired partition and turn the desired options on or off as listed below.

Option **[1] ON** = Press and hold the [ARM] key for 2 seconds to *Regular Arm* (see section 14)

Option **[2] ON** = Press and hold the [STAY] key for 2 seconds to *Stay Arm* (see section 14)

Option **[3] ON** = Press and hold the [5] key for 2 seconds to *Instant Arm* (see section 14)

Option **[4] ON** = Press and hold the [FORCE] key for 2 seconds to *Force Arm* (see section 14)

Option **[5] ON** = Press and hold the [DISARM] key for 2 seconds to *Disarm* a Stay or Instant armed partition (see section 14)

Option **[6] ON** = Press and hold the [BYP] key for 2 seconds to perform *Bypass Programming* (see section 14).

Option **[7]** ON = Press and hold the [7] key for 2 seconds to access the Event Display.

7.8 EXIT DELAY

Sections [226] to [229]: 001-255 seconds
The *Exit Delay* determines the amount of time a user has to leave the protected area before the control panel arms the partition. Program the *Exit Delay* from 001 to 255 seconds (000=60 seconds), where sections **[226]** to **[229]** represent partitions 1 through 4 respectively. The *Exit Delay* applies to all zones in the selected partition except *24Hr. Zones*.

7.8.1 Exit Delay Termination

Sections [505], [509], [513], [517]: Option [8]
The control panel can reduce the *Exit Delay* to 5 seconds when an *Entry Delay* zone (see section 5.2.2) is opened and closed during the *Exit Delay*. As the control panel can enable this feature for each individual partition, select the section that corresponds to the desired partition and turn on option [8].

Example:
A user arms a partition with an "Exit Delay" of 45 seconds. After 15 seconds, the user leaves the protected area through the front door (Entry Delay zone). When the door closes, the control panel will reduce the "Exit Delay" from 30 seconds to 5 seconds.

7.8.2 No Exit Delay on Remote Arm

[508], [512], [516], [520]: Option [8]
When using the ***Impulse Wireless Module***, the control panel will cancel the *Exit Delay* and immediately arm the system when a user has activated arming using a remote control.

7.9 KEYPAD LOCK-OUT FEATURE

Sections [220] & [221]
If a consecutive number of invalid codes are entered into the keypad, the control panel can be set to lockout access from a keypad for a specified period.

Program the number of consecutive invalid codes from 001 to 255 (000=disabled) into section **[220]**. Program the duration of the keypad lockout from 001 to 255 minutes into section **[221]**. Although, programming 000 into section [221] will not lockout the keypad, but the control panel will transmit the "keypad lockout" report code programmed in section **[689]**.

7.10 MAXIMUM BYPASS ENTRIES

Section [238] to [241]: 001-255
Sections **[238]** to **[241]** represent *Maximum Bypass Entries* for partitions 1 through 4 respectively. Select the section corresponding to the desired partition and enter any value between 001 and 255 (000=no limit) to determine the maximum number of zones that can be bypassed in a selected partition.

Example:
Section [238] is programmed with 010. When Bypass Programming (see section 14), the control panel will not let the user bypass more than 10 zones in partition 1.

7.11 DISPLAY "BYPASS" IF ARMED

Section [504]: Option [5]
When enabled (option **[5]** on), the keypad will not display that there are bypassed zones when the system is armed.

7.12 BELL SQUAWK

Options [1] to [6] – [507], [511], [515], & [519]
As the control panel can enable the *Bell Squawk* features for each individual partition, select the section that corresponds to the desired partition and turn on the desired option as listed below.

Option [1] ON **–** *BELL SQUAWK UPON DISARMING*
The bell or siren will emit two half-second "squawks" upon disarming. Turn off option [1] to disable this feature.

Option [2] **ON –** *BELL SQUAWK UPON ARMING*
The bell or siren will emit a half-second "squawk" upon arming. Turning off option [2] will disable this feature.

Option [3] **ON –** *BELL SQUAWK ON AUTO ARM*
The bell or siren will emit half-second squawks at 1-second intervals during the 60-seconds before a partition automatically arms itself. During the final 10 seconds of the 60-second period, the bell or siren will emit three half-second squawks at 1-second intervals. Turning off option [3] will disable this feature.

Option [4] **ON –** *BELL SQUAWK DURING EXIT DELAY*
The bell or siren will emit half-second squawks at 1-second intervals during the Exit Delay period. During the final 10 seconds of the Exit Delay, the bell or siren will emit three half-second squawks at 1-second intervals. Turning off option [4] will disable this feature.

Option [5] **ON –** *BELL SQUAWK DURING ENTRY DELAY*
The bell or siren will emit half-second squawks at 1-second intervals during the Entry Delay period. Turning off option [5] will disable this feature.

Option [6] ON – *BELL SQUAWK ON REMOTE ARMING*
When using the ***Impulse Wireless Module***, the bell or siren will emit a half-second "squawk" upon arming or disarming with a remote control.

7.13 RING-BACK

[507], [511], [515], [519]: Options [7] & [8]
After disarming the system, the control panel can warn the user that there has been an alarm and that it may be dangerous to enter by having the keypad "beep" 10 times and/or by squawking the bell 10 times. The user should leave immediately and contact the central station from a secure location. As the control panel can enable the Ring-Back features for each individual partition, select the section that corresponds to the desired partition and turn on the desired option as listed below.

Option [7] **ON** = *Bell Squawk Ring-Back Enabled*
Option [8] **ON** = *Keypad Ring-Back Enabled*

7.14 SWITCH TO STAY ARMING

If no Entry Delay zone is opened and closed during the Exit Delay after Regular Arming a partition, the control panel can switch from Regular Arming to Stay Arming. As the control panel can enable Switch to Stay Arming for each individual partition, select the section that corresponds to the desired partition and turn on the corresponding option as listed below.
Partition 1 = *Option [1] – Section [505]*
Partition 2 = *Option [2] – Section [509]*
Partition 3 = *Option [3] – Section [513]*
Partition 4 = *Option [4] – Section [517]*

8.1 BELL/ALARM OUTPUT

Section [500]: Options [5] to [8]
When a partition generates an alarm, the control panel can toggle the onboard "BELL/ALARM" output enabling any bells or sirens connected to it. As the control panel can enable this feature for each individual partition, in section **[500]** turn on the option that corresponds to the desired partition, where options **[5]** to **[8]** represent partitions 1 through 4 respectively.

8.2 BELL CUT-OFF TIMER

Sections [234] to [237]: 001-255 minutes
After an audible alarm, the bell or siren will stop upon disarming of the partition or when the *Bell Cut-Off Timer* has elapsed. As the control panel can set a *Bell Cut-Off Timer* for each individual partition, select the section corresponding to the desired partition and enter any value between 001 and 255 minutes (000=5 minutes).

8.2.1 No Bell Cut-Off on Fire Alarm

Section [502]: Option [8]
The control panel can disable the *Bell Cut-Off Timer* when alarms generated from zones defined as *Standard* or *Delayed Fire Zones* (see section 5.2) occur. The bell/siren output will remain enabled until a user cancels the partition in alarm.

8.2.2 Recycle Alarm

Sections [242] to [249]
Once the *Bell Cut-Off Timer* has elapsed and after the *Recycle Delay* has elapsed, the Recycle Alarm feature will re-verify the zone status and if there are any open zones, the control panel will generate another alarm.

In the section corresponding to the desired partition, program the number of times (001-255, 000=no limit) in one armed period you wish the control panel to re-verify the zone status after bell cut-off. Where sections **[242]** to **[245]** represent partitions 1 through 4.

In the section corresponding to the desired partition, program the *Recycle Delay* from 001-255 minutes (000=disabled). Where sections **[246]** to **[249]** represent partitions 1 through 4. The *Recycle Delay* is the amount of time after Bell Cut-off the control panel will wait before re-verifying the zone status.

8.3 TAMPER RECOGNITION OPTIONS

Section [501]: Options [5] & [6]
If a tamper or wire fault occurs in an **armed** partition, regardless of the Tamper Recognition Options, the control panel will always generate an alarm, unless Tamper Recognition has been disabled as described below. Alarms will be silent or audible depending on individual zone settings.

If a tamper or wire fault occurs in a **disarmed** partition, the control panel will generate an incident depending on the following settings:

[5] OFF / [6] OFF - *TAMPER RECOGNITION DISABLED*
The control panel will not perform any action other than generate a standard alarm when a tamper or wire fault occurs in an armed. If the system is disarmed, the control panel will display the zone as open in the keypad display but will not generate an alarm or trouble. This option is not permitted on UL systems.

[5] OFF / [6] ON - *SILENT ALARM*
Same as *"Trouble Only",* but it will also generate a silent alarm (no bells or sirens).

[5] ON / [6] OFF - *TROUBLE ONLY*
When a tamper wiring failure occurs, the "Zone Fault" trouble will appear in the keypad's *Trouble Display* and the control panel will transmit the appropriate report code (see section 9.2).

[5] ON / [6] ON - *AUDIBLE ALARM*
Same as *"Trouble Only"*, except it will also generate an audible alarm.

8.3.1 Tamper Bypass Options

Section [501] - Option [7]
With option [7] enabled in section [501], *Tamper Recognition* follows the zone bypass definition. This means the control panel will not perform any action if a tamper or wire fault occurs on a bypassed zone. With option [7] disabled, the *Tamper Recognition* ignores the bypass definition. This means the control panel will generate an incident (see *Tamper*

Recognition) if a tamper or wire fault occurs on a bypassed zone.

8.4 KEYPAD PANIC OPTIONS

Sections [506], [510], [514], [518] - Options [1] to [6]
As the control panel can enable Keypad Panic Options for each individual partition, select the section that corresponds to the desired partition and set options [1] through [6] on/off to obtain the desired options as described below.

Option [1] ON – *PANIC 1*
Pressing the [1] & [3] keys simultaneously on the keypad for 2 seconds will generate a silent or audible alarm as defined by option [4].

Option [2] ON – *PANIC 2*
Pressing the [4] & [6] keys simultaneously on the keypad for 2 seconds will generate a silent or audible alarm as defined by option [5].

Option [3] ON – *PANIC 3*
Pressing the [7] & [9] keys simultaneously on the keypad for 2 seconds will generate a silent or audible alarm as defined by option [6].

Option [4] ON = *Panic 1* – Silent
OFF = *Panic 1* – Audible

Option [5] ON = *Panic 2* – Silent
OFF = *Panic 2* – Audible

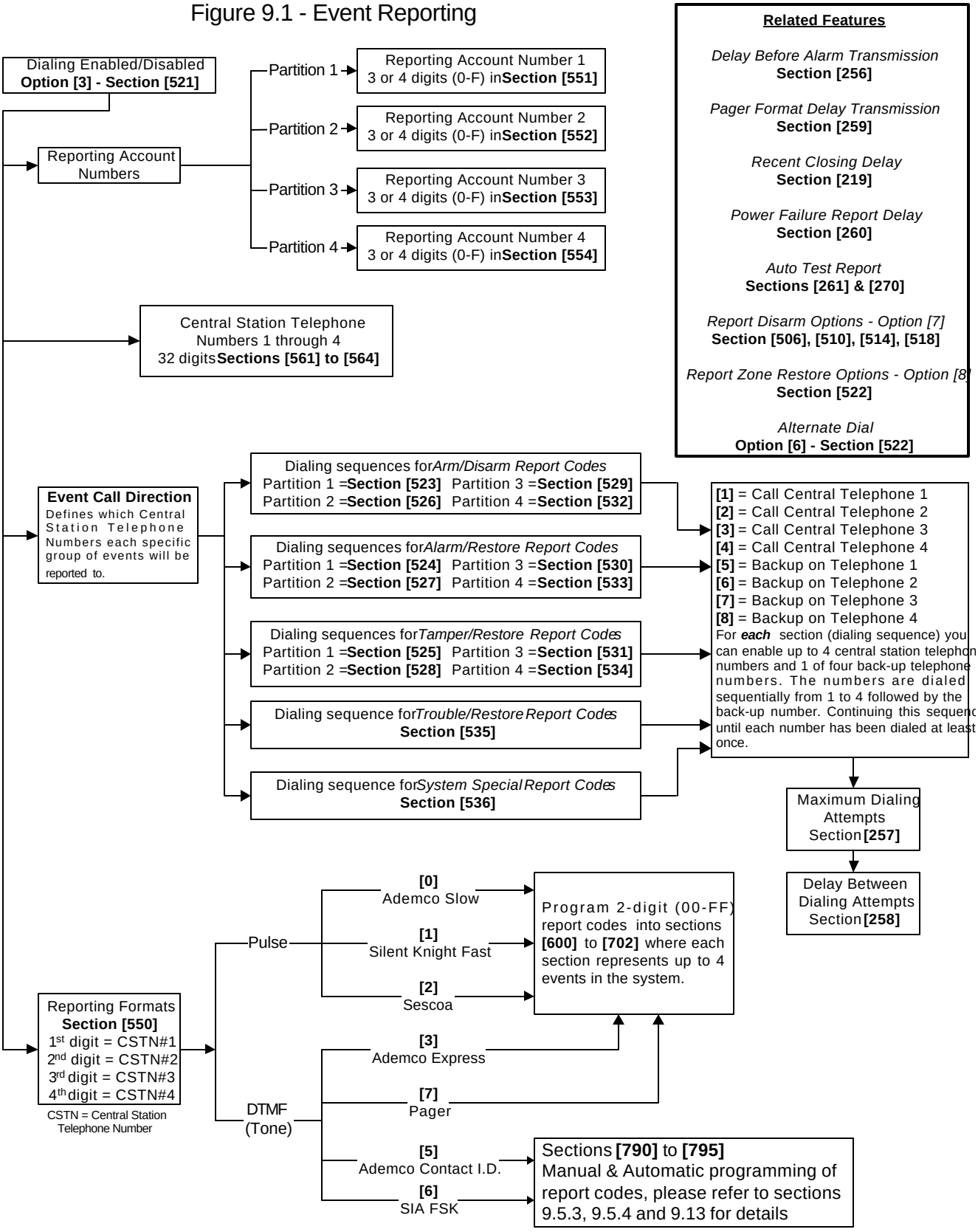
Option [6] ON = *Panic 3* – Silent
OFF = *Panic 3* – Pulsed (Fire)

Silent operation:
The control panel emits a single confirmation beep and transmits the appropriate report code (see section 9.2.5) to the central station.

Audible operation:
The alarm output (bell/siren) activates until a user cancels the alarm with a valid User Access Code or when the *Bell Cut-Off Timer* elapses (see section 8.2).

Fire operation:
Same as audible operation, except that the bell/siren output will be pulsed as shown in figure 5.3 on page 17.

Figure 9.1 - Event Reporting



9.1 REPORTING ENABLED

Section [521]: Option [3]
This option will either enable or disable event reporting. With option **[3]** on in section **[521]** event reporting will be enabled. When an event (e.g. open zone) occurs in the system, the control panel verifies if a report code was programmed in the section corresponding to the event. If a report code is programmed, the control panel will dial the central station telephone number defined by the *Event Call Direction* feature. When the central station answers, the control panel will transmit the system account code, followed by the programmed report code.

9.2 REPORT CODES

A report code is a 2-digit or 1-digit hexadecimal value, consisting of digits from 0 to F. Each section from **[600]** to **[702]** represents a set of four specific events. Each of these events can be programmed with a 1-digit or 2-digit report code. For a comprehensive list of the events and their relevant sections, please refer to the *"Digiplex Programming Guide"*. Please note that only the Ademco Slow, Silent Knight, Sescoa and Pager Formats support 1-digit report codes.

When a specific event occurs, the control panel will send the programmed report code to the central station. The method of report code transmission is defined by the following two items: *Reporting Formats* (see section 9.5) and *Event Call Direction* (see section 9.6). These two items define how and where the report codes are transmitted. If you are using the Ademco CID or SIA formats an *Auto Report Code Programming* feature is available. Using this feature, sections **[600]** to **[702]** do not have to be manually programmed (see section 9.13). For more information, see *Reporting Formats* in section 9.5. The following sub-sections provide a brief description of the events that the control panel can report.

9.2.1 Arming Report Codes

Sections [600] to [617]
A report code can be programmed for each of the sixty-four User Access Codes and 8 keyswitch zones. When using an access code or keyswitch to arm one or more partitions, the control panel can send the appropriate report code to the central station, identifying which access code or keyswitch zone was used to arm the partition(s).

9.2.2 *Special Arming Report Codes*

Sections [618] to [619]
Whenever the system is armed using one of the special arming features listed below, the control panel can send the appropriate report code to the central station, identifying how the system was armed.

Section [618]
- *Auto Arming*: see section 7.4
- *PC Arming*: system armed using PC software
- *Late to Close:* see section 7.4
- *No Movement*: see section 7.5

Section [619]
- *Partial Arming*: when partitions are Stay Armed, Instant Armed or armed with bypassed zones
- *Quick Arming*: partitions armed using any of the One-Touch Arming features (see section 7.7)

9.2.3 Disarming Report Codes

Sections [620] to [637]
A report code can be programmed for each of the sixty-four User Access Codes and 8 keyswitch zones. Whenever an access code or keyswitch is used to disarm one or more partitions, the control panel can send the appropriate report code to the central station, identifying which access code or keyswitch was used to disarm the partition(s). The control panel can transmit the report codes every time a partition is disarmed or only when disarmed following an alarm. Please refer to *Disarm Reporting Options* in section 9.10.

9.2.4 Special Disarming Report Codes

Section [638]
Whenever using one of the special disarming features listed below, the control panel can send the report code to the central station, identifying how the system was disarmed. The control panel can transmit the report codes every time a partition is disarmed or only when disarmed following an alarm. Please refer to *Disarm Reporting Options* in section 9.10.

Section [638]
- *Cancel Auto-Arm*: if a user disarms the partition during the auto-arm 60-second delay
- *Quick Disarm:* partitions armed using the One-Touch Disarming feature (see section 7.7)
- *PC Disarm*: when the PC software is used to disarm the system

9.2.5 Zone Alarm Report Codes

Sections [639] to [650]

A report code can be programmed for each of the forty-eight available zones. Whenever a zone generates an alarm, the control panel can send the appropriate report code to the central station, identifying which zone generated an alarm.

9.2.6 *Zone Restore Report Codes*

Sections [651] to [662]

A report code can be programmed for each of the forty-eight available zones. The control panel can transmit these report codes to the central station when the zone closes after generating an alarm or once the bell has cut-off after alarm generation. Please refer to *Zone Restore Report Options* in section 9.11.

9.2.7 Special Alarm Report Codes

Sections [663] to [664]

Whenever the system generates an alarm due to one of the conditions listed below, the control panel can send the appropriate report code to the central station, identifying the type of alarm.

Section [663]

- *Emergency Panic*: if the panic keys [1] & [3] have been pressed (see section 8.4)
- *Auxiliary Panic*: if the panic keys [4] & [6] have been pressed (see section 8.4)
- *Fire Panic*: if the panic keys [7] & [9] have been pressed (see section 8.4)
- *Recent Closing*: if after having armed the system, an alarm is generated within the Recent Close Delay (see section 9.7)

Section [664]

- *Auto Zone Shutdown*: a zone communicates more than the programmed number of transmissions in a single armed period (see section 5.4.1)
- *Duress*: a Duress enabled access code is keyed-in (see section 4.4.2).

9.2.8 Zone Tamper Report Codes

Section [665] to [676]

A report code can be programmed for each of the forty-eight available zones. Whenever a tamper or wire fault occurs on a zone, the control panel can send the appropriate report code to the central station, identifying which zone was tampered. If the Tamper Recognition Options (see section 8.3) are disabled, the control panel will not report the occurrence of any tampers or wire faults.

9.2.9 Zone Tamper Restore Codes

Sections [677] to [688]

A report code can be programmed for each of the forty-eight available zones. Whenever a tampered zone is restored, the control panel can send the appropriate report code to the central station, identifying which zone has been restored.

9.2.10 Special Tamper Report Codes

Section [689]

- *Keypad Lockout:* (see section 7.9)

9.2.11 System Trouble Codes

Section [690]

- *AC Failure*: no AC input detected on the control panel. The control panel can delay reporting this event, please refer to *Power Fail Report Delay* in section 9.9.
- *Battery Failure*: the back-up battery is disconnected or the battery voltage is ≤ 10.5V
- *Auxiliary Supply*: one of the auxiliary power supplies current is ≥1.1A

Section [691]

- *Bell Output*: the bell/siren output is disconnected or the current is ≥3A
- *Timer Loss*: the control panel detects a loss in panel time (see section 12.8)
- *Global Fire Loop Trouble*: a tamper has been detected on a fire zone (see section 5.2)

Section [692]

- *Bus Fault*: a bus module has been removed from the DIGI-BUS.
- *Module Tamper*: a tamper or wire fault is detected on a module other than a motion detector connected to the DIGI-BUS
- *ROM Check Error:* Problem with on-board Read-Only Memory
- *Module TLM:* TLM failure detected on back-up voice dialer connected to the DIGI-BUS

Section [693]

- *Module Fail to Communicate:* A Back-up voice dialer has failed to communicate with the central station
- *Printer Fault*: the Digiprint has detected an error (see *Digiprint Manual* for details).
- *Module AC Failure*: Bus Power Supply

- *Module Battery Failure*: Bus Power Supply

Section [694]
- *Module Auxiliary Failure:* Bus Power Supply
- *Wireless Module Battery Low*
- *Wireless Module Supervision*

Section [695]
- *Phone Number 1 Fail to Communicate*
- *Phone Number 2 Fail to Communicate*
- *Phone Number 3 Fail to Communicate*
- *Phone Number 4 Fail to Communicate*

Please note there is no fail to communicate for Pager telephone numbers.

9.2.12 System Trouble Restore Codes

Section [696]
- *TLM*: a TLM failure has restored.

If the Telephone Line Monitoring (see section 10.1) is disabled, the control panel will not transmit this report code.

- *AC Failure Restored*
- *Battery Failure Restored*
- *Auxiliary Supply Restored*

Section [697]
- *Bell Output Restored*
- *Time programmed*
- *Global Fire Loop Trouble Restored*

Section [698]
- *Bus Fault Restored*
- *Module Tamper Restore*
- *ROM Check Error Restore*
- *Module TLM Restore*

Section [699]
- *Printer Fault Restored*
- *Module AC Failure Restore*
- *Module Battery Failure Restore*

Section [700]
- *Module Auxiliary Failure Restore*
- *Wireless Module Battery Low Restore*
- *Wireless Module Supervision Restore*

9.2.13 Special Reporting Codes

Section [701] & [702]

Whenever the system generates one of the instances listed below, the control panel can send the appropriate report code to the central station, identifying the type of system occurrence.

Section [701]
- *Cold Start*: the control panel was completely shutdown (total power loss) and the control panel was re-started
- *Warm Start*: the control panel performs a reset due to any sudden problem other than power loss
- *Test Report*: a test report has been generated automatically (see section 9.8)

Section [702]
- *Upload/Download Software Access*: the control panel has ended communication with the Upload/Download software
- *Installer In*: installer has entered the programming mode
- *Installer Out*: installer has exited the programming mode

9.3 CENTRAL STATION PHONE

Sections [561] to [564]

The Digiplex Control Panel can dial up to 4 different central station telephone numbers. Sections **[561]** to **[564]** represent central station telephone numbers 1 through 4. You can enter any digit from 0 to 9 and any special keys or functions (see table 9.1) up to a maximum of 32 digits. Please refer to *Event Call Direction* in section 9.6 & *Reporting Formats* in section 9.5, for more information on how these telephone numbers are used.

Table 9.1 – Special Telephone Number Keys

[STAY] = *
[FORCE] = #
[ARM] = Switch to Tone Dialing
[DISARM] = Wait for second dial tone
[BYP] = 4-second pause
[MEM] = Insert
[TRBL] = Delete
[ACC] = Delete from cursor to the end

9.4 PARTITION ACCOUNT

Sections [551] to [554]

All report codes are preceded by a 4-digit or 3-digit Partition Account Number to ensure correct identification of active zones in a partitioned system. Sections **[551]** to **[554]** represent Partition

Account Codes for partitions 1 through 4. Partition account numbers can be any hexa-digit from 0 to F.

Example:
If a zone generates an alarm in Partition 1, the control panel will send Partition Account Number 1 followed by the appropriate report code.

9.5 REPORTING FORMATS

Section [550]
The Digiplex Control Panel can use a number of different reporting formats and each of the four *Central Station Phone #*s (see section 9.3) can be programmed with a different reporting format. The first digit entered into section **[550]** represents the reporting format (see table 9.2) used to communicate with central station telephone number 1, the second digit represents telephone number 2 and so forth.

Table 9.2 - Reporting Formats

0 = Ademco slow (1400Hz, 1900Hz, 10BPS)
1 = Silent Knight fast (1400Hz, 1900Hz, 20BPS)
2 = Secscoa (2300Hz, 1800Hz, 20BPS)
3 = Ademco Express (DTMF 4+2)
4 = Reserved for Future Use
5 = Ademco Contact ID
6 = SIA FSK
7 = Pager

9.5.1 Standard Pulse Formats
The Digiplex Control Panel can use the Ademco, Silent Knight and Sescoa standard pulse reporting formats (see table 9.2).

9.5.2 Ademco Express
The Ademco Express is a high-speed reporting format, which communicates 2-digit (00-FF) report codes programmed into sections **[600]** to **[702]**, at a speed of 2 seconds per report code. Unlike other Ademco formats, the Ademco Express does not use the Contact ID Report Codes.

9.5.3 Ademco Contact ID
Ademco Contact ID is a fast communicator format that uses tone reporting instead of pulse reporting. This communicator format also uses a pre-defined list of industry standard messages and report codes that will suit most of your basic installation needs. To manually program the report codes, key in the **2-digit hexadecimal** values from the *"Contact ID Report Codes List"* in the *Programming Guide* into the desired report codes in sections [600] to [702] (see section 9.2 of this manual). You can also enter **00** to disable reporting or **FF** to use the default report code from the *"Automatic Report Code List"* in the *Programming Guide*. To automatically program a set of default contact ID codes, refer to section 9.13 of this manual.

9.5.4 SIA FSK
SIA FSK is a fast communicator format that uses tone reporting instead of pulse reporting. This communicator format uses a pre-defined list of industry standard messages and report codes that will suit most of your basic installation needs. To manually program the report codes, enter **00** to disable reporting or **FF** to use the default report code from the *"Automatic Report Code List"* in the *Programming Guide*. To automatically program a set of default SIA FSK codes, refer to section 9.13 of this manual.

9.5.5 Pager Reporting Format
Using this format allows the control panel to transmit report codes to a pager. A pound "#" is automatically generated. Please refer to *Pager Delay* in section 9.12.

9.6 EVENT CALL DIRECTION

Sections [522] to [535]
As shown in figure 9.1, the Control Panel events are divided into three event groups for each partition and two global event groups. Each event group can be programmed to dial up to four central station telephone numbers and one of four back-up telephone numbers for each partition. The numbers are dialed sequentially starting from 1, skipping any disabled numbers and stopping once all selected telephone numbers have been reached. If the control panel fails to report to one central station telephone number. After the *Maximum Dialing Attempts* (see section 9.6.1), the control panel will dial the selected back-up telephone number, unless the *Alternate Backup Option* is enabled (see section 9.6.3). In which case it will dial the backup number after every failed attempt.

9.6.1 Maximum Dialing Attempts

Section [257]: 001-255

The number (000=8; 001-255) programmed into section **[257]** determines how many times the control panel will dial the same central station telephone number before proceeding to the next number. Also refer to section 9.6.3.

9.6.2 Delay Between Dialing Attempts

Section [258]: 001-255 seconds

This delay will determine the amount of time the control panel will wait between dialing attempts. This delay can be set from 001 to 255 seconds (000 = 20 seconds).

9.6.3 Alternate Backup Option

Section [522]: Option [6]

With option **[6]** enabled in section **[522]**, the control panel will dial the selected back-up telephone number after every failed attempt to contact a central station telephone number. Otherwise (option [6] off), the control panel will only dial the back-up telephone number after the *Maximum Dialing Attempts* (see section 9.6.1) to one central station telephone number have failed.

9.7 RECENT CLOSE DELAY

Section [219]: 000-255 seconds

If after having armed the system, an alarm is generated within the period (000-255 seconds) programmed into section **[219]**, the control panel will transmit the recent close report code programmed into section **[663]**.

9.8 AUTO TEST REPORT

Sections [261] & [270]

The control panel will transmit the test report code programmed into section **[701]** after the number of days (000-255) programmed into section **[261]** has elapsed and at the time (00:00 to 23:59) programmed into section **[270]**.

9.8.1 Hourly Test Transmission

Section [522]: Option [3]

Alternatively, the control panel can transmit the test report code programmed into section **[701]** every hour. Turn off option [3] to disable this feature. Program the minute of each hour it sends the test report into section **[270]**.

9.9 POWER FAIL REPORT DELAY

Section [260]: 001-255 minutes

The control panel will delay transmission of the "AC Failure" report code programmed into section **[690]** by the period (000-255 minutes) programmed into section **[260]**.

9.10 DISARM REPORTING OPTIONS

Sections [506], [510], [514], [518]: Option [7]

As the control panel can enable the Disarming Reporting Options for each individual partition, select the section that corresponds to the desired partition and turn option [7] on or off to set the desired option.

Option [7]

ON – *REPORT ON DISARM AFTER ALARM ONLY*

The Digiplex Control Panel will send *Disarming Report Codes* (see section 9.2.3) to the central station only when the system is disarmed following an alarm.

OFF – *REPORT ON DISARM*

The Digiplex Control Panel will send the *Disarming Report Codes* (see section 9.2.3) to the central station whenever a partition is disarmed.

9.11 ZONE RESTORE REPORT OPTIONS

Section [522]: Option [8]

ON – *REPORT ON ZONE CLOSURE*

The control panel will send the "Zone Alarm Restore" report codes (see section 9.2.5) to the central station as soon as the zone returns to normal (zone closure) or upon disarming

OFF – *REPORT ON BELL CUT-OFF*

The control panel will send the zone alarm restore report codes (see section 9.2.5) to the central station when the *Bell Cut-Off Timer* has elapsed or when the alarm has been cancelled (see section 8.2).

9.12 PAGER DELAY

Section [259]
When using the *Pager Reporting Format* (see section 9.5.5), the control panel will wait for the delay period (001 to 060 seconds) programmed into section **[259]** before uploading the report codes to the pager. This is to allow time for the pager system to provide a dial tone or to bypass the "welcome" message before sending data.

9.13 AUTO REPORT CODE PROGRAMMING

Sections [790] to [795]
When using either the Contact ID or SIA *Reporting Formats* (see section 9.5), the Digiplex system can automatically program a set of default report codes. From programming mode (see section 3.2) enter any of the following sections to set the indicated report codes:

Section [790] – *ALL CODES*
Sets all report codes in sections [600] to [702] with the default values from the *"Automatic Report Codes List"* in the *Programming Guide*.

Section [791] – *ARMING & DISARMING CODES*
Sets all report codes in sections [600] to [638] with the default values from the *"Automatic Report Codes List"* in the *Programming Guide*.

Section [792] – *ALARM RESTORE CODES*
Sets all report codes in sections [639] to [664] with the default values from the *"Automatic Report Codes List"* in the *Programming Guide*.

Section [793] – *TAMPER & TAMPER RESTORE CODES*
Sets all report codes in sections [665] to [689] with the default values from the *"Automatic Report Codes List"* in the *Programming Guide*.

Section [794] – *TROUBLE RESTORE CODES*
Sets all report codes in sections [690] to [700] with the default values from the *"Automatic Report Codes List"* in the *Programming Guide*.

Section [795] – *SPECIAL CODES*
Sets all report codes in sections [701] to [702] with the default values from the *"Automatic Report Codes List"* in the *Programming Guide*.

Please note that even after automatic report codes have been set, you can still use the manual programming method (see sections 9.5.3 & 9.5.4) to program remaining report codes or change some of the defaults.

10.1 TELEPHONE LINE MONITORING

Options [1] & [2] - Section [520]
When enabled, the system verifies the existence of a telephone line once every second. After each successful test, the dialer LED (green light) on the control panel flashes briefly. A line test failure occurs when the TLM detects less than 3 volts for the period defined by the *TLM Fail Timer* (see section 10.1.1). If the line test fails, the dialer LED will flash and will generate one or more conditions as defined by the TLM settings below, until the control panel detects the telephone line again. Please note that when the dialer detects a telephone ring, the TLM test stops for 1 minute.

[1] OFF / [2] OFF – *TLM DISABLED*

[1] OFF / [2] ON – *ALARM IF SYSTEM ARMED*
Upon line test failure, the "Communicator" trouble will appear in the keypad's *Trouble Display* and the control panel will generate an alarm if the system is armed.

[1] ON / [2] OFF – *TROUBLE ONLY*
Upon line test failure, the "Communicator" trouble will appear in the keypad's *Trouble Display*.

[1] ON / [2] ON – *SILENT ALARM BECOMES AUDIBLE*
Upon line test failure, the "Communicator" trouble will appear in the keypad's *Trouble Display* and cause a silent zone or silent panic alarm to switch to audible mode.

10.1.1 TLM Fail Timer

Section [255]: 016-255 X 2 seconds
If the TLM does not detect the existence of a telephone line for the duration of this period, the control panel will generate the condition(s) defined by the TLM options (section 10.1). Enter any value between 016 and 255 (value is X2 seconds) into section **[255]**. Entering a value between 000 and 016 will set the TLM fail timer to 32 seconds.

10.2 TONE/PULSE DIALING

Section [521]: Option [4]
By turning on option [4], the control panel can dial and transmit information using the tone/DTMF format. If option [4] is off, the control panel will use the pulse dialing format. Refer to section 10.3 below for setting the pulse ratio.

10.3 PULSE RATIO

Section [521]: Option [5]
When using Pulse dialing (see section 10.2) you can select one of two Pulse Ratios.
ON = *NORTH AMERICAN PULSE RATIO OF 1:1.5*
OFF = *EUROPEAN PULSE RATIO OF 1:2*

10.4 BUSY TONE DETECTION

Section [521]: Option [6]
The control panel can immediately hang-up if it receives a busy signal when dialing an outside number. Turn option [6] off to disable this feature.

10.5 SWITCH TO PULSE

Section [521]: Option [7]
When reporting events to the central station, the control panel can switch from tone dialing to pulse dialing on the fifth attempt. The control panel continues to use pulse dialing until it establishes communication. If switching to another central station telephone number, the control panel will return to tone dialing and will switch back to pulse dialing on the fifth attempt. Turn off option [7] to disable this feature.

10.6 BELL ON COMMUNICATION FAIL

Section [520]: Option [8]
If the control panel fails to communicate with the central station when the system is armed, the control panel can enable the BELL output, setting off any bells or sirens connected to the output. Turn off option [8] to disable this feature.

10.7 DIAL TONE DELAY

Section [522]: Option [7]
OFF = *Dialer will **continue** to dial if no dial tone is present after 8 seconds* (default).
ON = *Dialer will **hang-up** if no dial tone is present after 32 seconds*

PROGRAMMABLE OUTPUTS

A PGM is a programmable output that toggles to its opposite state (i.e. a normally open PGM will close) when a specific event has occurred in the system. For example, a PGM can be used to reset smoke detectors, activate strobe lights, open/close garage doors and much more. When a PGM closes, the control panel supplies a ground to the PGM activating any device or relay connected to it. When a PGM opens, the circuit opens from ground, therefore, not providing any power to devices connected to it. The control panel provides a maximum of 100mA with PGM1 and 50mA with PGMs 2 to 4. PGM1 to PGM4 are normally open outputs and PGM5 is a normally open or normally closed 5A relay. For information on how to connect a relay to a PGM please refer to section 2.8.

11.1 PGM ACTIVATION EVENT

Sections [400], [402], [404], [406], [408]
PGM Activation will activate the selected PGM when a specific event(s) occurs in the system. For example, the control panel can be programmed to activate PGM2 whenever the system is *Force Armed*. The control panel can set separate activation events for each PGM. To program a PGM activation event:

1. Enter the section that represents the desired PGM.
   PGM1 = [400] PGM4 = [406]
   PGM2 = [402] PGM5 = [408]
   PGM3 = [404]

2. Enter the **first digit** (see *"PGM Programming Table"*) where each digit from **0 to F** represents a specific group of events.

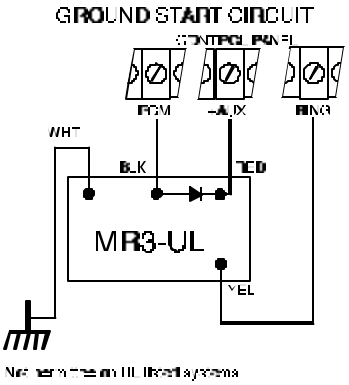
3. Then enter the **second digit** (see *"PGM Programming Table"*), which can be any digit from **0 to F** depending on the first digit.

4. After entering the second digit use the **feature select** method (enable/disable options **[1] to [8]**) to select up to eight specific events as detailed in the *"PGM Programming Table"*.

For details on the available activation events please refer to the *"PGM Programming Table".* Below you will find brief details on just a few of the available activation events:

Smoke Reset: Activates the PGM for a period of 4 seconds every time the [CLEAR] and [ENTER] keys are pressed and held for 2 seconds. Please refer to section 2.15.2 for instructions on connecting the PGM in order to perform a smoke detector reset.

Ground Start: Just before the control panel attempts to dial an outside line when using ground start telephone equipment, the PGM will activate for the period defined by the *PGM Delay* (see section 11.2.2). Please note that the *PGM De-activation Option* must be set to *Timed* (see section 11.2.2).



Kissoff: After receiving a handshake from the central station, the control panel activates the PGM for the period defined by the *PGM Delay* (see section 11.2.2). This can be used to latch the central station connection to another device such as a microphone/speaker module. Please note that the *PGM De-activation Option* must be set to *Timed* (see section 11.2).

Strobe: Activates the PGM whenever the system is in alarm. The PGM will remain activated even after bell cut-off and will wait until the alarm is cancelled before deactivating the PGM.

Safety Mismatch: If a module is connected to the DIGI-BUS after enabling the *System Guard Lock* (see section 12.5), the control panel will activate the PGM.

11.2 PGM DE-ACTIVATION OPTION

Section [502]: Options [1] to [5]
The control panel can de-activate an activated PGM (see section 11.1) one of two ways:

Option OFF = Follow:

1. If the first digit of the *PGM Activation Event* is set at 1, 2, 3, 4, 5, 6, or 7, the PGM will remain activated until the PGM Activation Event has ended. It will ignore the *PGM De-activation Event*.
2. If the first digit of the *PGM Activation Event* is set at 8, 9, A, B, C, D, E, or F, the PGM will remain activated until the *PGM De-activation Event* occurs.

Option ON = Timed:

After activating the PGM, the control panel will start the *PGM delay timer* (see section 11.2.2) and the PGM will de-activate only when the PGM delay timer has elapsed regardless of the *PGM De-activation Event*.

11.2.1 PGM De-Activation Event

Sections [401], [403], [405], [407], [409]

If the *PGM De-activation Option* is set to *Follow* (see section 11.2), the PGM will de-activate when the programmed event occurs. To program a PGM de-activation event:

1. Enter the section that represents the desired PGM.
   PGM1 = [401] PGM4 = [407]
   PGM2 = [403] PGM5 = [409]
   PGM3 = [405]
2. Follow steps 2 to 4 in section 11.1.

If the *PGM De-activation Option* is set for *Timed*, the PGM will ignore the *PGM De-activation Event*.

11.2.2 PGM Delay

Sections [241] to [250]: 000-255

To program the PGM Delay, enter the section that corresponds to the desired PGM Delay, where sections **[250]** to **[254]** represent PGM1 to PGM5 respectively and enter a value from 001 to 255 (000 = 5). The value entered is in either in seconds or minutes this is determined by the *PGM Time Base Selection* (see section 11.2.3).

11.2.3 PGM Time Base Selection

Section [503]: Options [1] to [5]

Options [1] through [5] in section [503] represent the *Time Base Selection* for the *PGM Delay* (see section 11.2.2) of PGMs 1 through 5 respectively:

Option ON = Minutes
Option OFF = Seconds

11.3 PGM1 IS SMOKE INPUT

Section [502]: Option [7]

Enabling option **[7]** in section **[502]** will set PGM1 to act as a zone input for two-wire smoke detectors. When programming *Zone Numbering* (see section 5.1), the control panel will recognize PGM1 as input number 255. For more information on how to connect two-wire smoke detectors, please refer to section 2.15.1.

PGM Programming Table

Note1*: 0 = All partitions enabled in the system (see section 12.6)

1 = Partition 1 3 = Partition 3

2 = Partition 2 4 = Partition 4

First Digit	Event	Second Digit	Feature Select Programming							
			1	2	3	4	5	6	7	8
0	*PGM Disabled*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	*Status 1*	Note1*	Regular Armed	Force Armed	Stay Armed	Instant Armed	Strobe (until alarm cancelled)	Silent Alarm (until cancel alarm/bell cut-off)	Audible Alarm (until cancel alarm/bell cut-off)	Fire Alarm (until alarm cancelled or bell cut-off)
2	*Status 2*	Note1*	Ready Status	Exit Delay	Entry Delay	Trouble	Alarm Memory	Zones Bypassed (armed/not)	User or Installer Program-ming	Keypad Lockout
3	*Status 3*	Note1*	Intellizone Delay	Fire Delay	Auto Arm	Access	Tamper	Zone Low Battery	Fire Loop	Zone Supervision
4	*Status 4*	0	Chime Partition 1	Chime Partition 2	Chime Partition 3	Chime Partition 4	Siren Partition 1	Siren Partition 2	Siren Partition 3	Siren Partition 4
		1	N/A	N/A	N/A	N/A	Smoke Reset	Ground Start	Kissoff	Safety Mismatch
		2	System Trouble	Dialer Trouble	Module Trouble	Bus Trouble	N/A	N/A	N/A	Timer Loss
		3	AC Fail	Battery Fail	Aux. Limit	Bell Limit	No Bell	ROM Error	N/A	N/A
		4	TLM	Fail to Com1	Fail to Com2	Fail to Com3	Fail to Com4	Fail to ComPC	N/A	N/A
		5	Module Tamper	Module ROM Error	Module TLM	Module Fail to Com Phone#	Printer Fault	Module AC Fail	Module Battery Fail	Module Aux. Fail
		6	Missing Keypad	Missing Any Module	N/A	N/A	N/A	Global Bus Failure	Bus Overload	Module Bus Com Fail
5 & 6	*N/A*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	*At the Selected Time*	0	00:00	00:15	00:30	00:45	01:00	01:15	01:30	01:45
		1	02:00	02:15	02:30	02:45	03:00	03:15	03:30	03:45
		2	04:00	04:15	04:30	04:45	05:00	05:15	05:30	05:45
		3	06:00	06:15	06:30	06:45	07:00	07:15	07:30	07:45
		4	08:00	08:15	08:30	08:45	09:00	09:15	09:30	09:45
		5	10:00	10:15	10:30	10:45	11:00	11:15	11:30	11:45
		6	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45
		7	14:00	14:15	14:30	14:45	15:00	15:15	15:30	15:45
		8	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45
		9	18:00	18:15	18:30	18:45	19:00	19:15	19:30	19:45
		A	20:00	20:15	20:30	20:45	21:00	21:15	21:30	21:45
		B	22:00	22:15	22:30	22:45	23:00	23:15	23:30	23:45
8	*Utility Keys*	0	Keys 1-2	Keys 4-5	Keys 7-8	CLEAR-0	Keys 2-3	Keys 5-6	Keys 8-9	0-ENTER
9	*Valid code Access*	0	Keypad 1	Keypad 2	Keypad 3	Keypad 4	Keypad 5	Keypad 6	Keypad 7	Keypad 8
		1	Keypad 9	Keypad 10	Keypad 11	Keypad 12	Keypad 13	Keypad 14	Keypad 15	Keypad 16
		2	Keypad 17	Keypad 18	Keypad 19	Keypad 20	Keypad 21	Keypad 22	Keypad 23	Keypad 24
		3	Keypad 25	Keypad 26	Keypad 27	Keypad 28	Keypad 29	Keypad 30	Keypad 31	Keypad 32
	User code Entered	8	Code # 1	Code # 2	Code # 3	Code # 4	Code # 5	Code # 6	Code # 7	Code # 8
		9	Code # 9	Code # 10	Code # 11	Code # 12	Code # 13	Code # 14	Code # 15	Code # 16
		A	Code # 17	Code # 18	Code # 19	Code # 20	Code # 21	Code # 22	Code # 23	Code # 24
		B	Code # 25	Code # 26	Code # 27	Code # 28	Code # 29	Code # 30	Code # 31	Code # 32
		C	Code # 33	Code # 34	Code # 35	Code # 36	Code # 37	Code # 38	Code # 39	Code # 40
		D	Code # 41	Code # 42	Code # 43	Code # 44	Code # 45	Code # 46	Code # 47	Code # 48
		E	Code # 49	Code # 50	Code # 51	Code # 52	Code # 53	Code # 54	Code # 55	Code # 56
		F	Code # 57	Code # 58	Code # 59	Code # 60	Code # 61	Code # 62	Code # 63	Code # 64

First Digit	Event	Second Digit	Feature Select Programming							
			1	2	3	4	5	6	7	8
A	*Arming*	0	Code # 1	Code # 2	Code # 3	Code # 4	Code # 5	Code # 6	Code # 7	Code # 8
		1	Code # 9	Code # 10	Code # 11	Code # 12	Code # 13	Code # 14	Code # 15	Code # 16
		2	Code # 17	Code # 18	Code # 19	Code # 20	Code # 21	Code # 22	Code # 23	Code # 24
		3	Code # 25	Code # 26	Code # 27	Code # 28	Code # 29	Code # 30	Code # 31	Code # 32
		4	Code # 33	Code # 34	Code # 35	Code # 36	Code # 37	Code # 38	Code # 39	Code # 40
		5	Code # 41	Code # 42	Code # 43	Code # 44	Code # 45	Code # 46	Code # 47	Code # 48
		6	Code # 49	Code # 50	Code # 51	Code # 52	Code # 53	Code # 54	Code # 55	Code # 56
		7	Code # 57	Code # 58	Code # 59	Code # 60	Code # 61	Code # 62	Code # 63	Code # 64
	Disarming	8	Code # 1	Code # 2	Code # 3	Code # 4	Code # 5	Code # 6	Code # 7	Code # 8
		9	Code # 9	Code # 10	Code # 11	Code # 12	Code # 13	Code # 14	Code # 15	Code # 16
		A	Code # 17	Code # 18	Code # 19	Code # 20	Code # 21	Code # 22	Code # 23	Code # 24
		B	Code # 25	Code # 26	Code # 27	Code # 28	Code # 29	Code # 30	Code # 31	Code # 32
		C	Code # 33	Code # 34	Code # 35	Code # 36	Code # 37	Code # 38	Code # 39	Code # 40
		D	Code # 41	Code # 42	Code # 43	Code # 44	Code # 45	Code # 46	Code # 47	Code # 48
		E	Code # 49	Code # 50	Code # 51	Code # 52	Code # 53	Code # 54	Code # 55	Code # 56
		F	Code # 57	Code # 58	Code # 59	Code # 60	Code # 61	Code # 62	Code # 63	Code # 64
B	*Zone is OK*	0	Zone # 1	Zone # 2	Zone # 3	Zone # 4	Zone # 5	Zone # 6	Zone # 7	Zone # 8
		1	Zone # 9	Zone # 10	Zone # 11	Zone # 12	Zone # 13	Zone # 14	Zone # 15	Zone # 16
		2	Zone # 17	Zone # 18	Zone # 19	Zone # 20	Zone # 21	Zone # 22	Zone # 23	Zone # 24
		3	Zone # 25	Zone # 26	Zone # 27	Zone # 28	Zone # 29	Zone # 30	Zone # 31	Zone # 32
		4	Zone # 33	Zone # 34	Zone # 35	Zone # 36	Zone # 37	Zone # 38	Zone # 39	Zone # 40
		5	Zone # 41	Zone # 42	Zone # 43	Zone # 44	Zone # 45	Zone # 46	Zone # 47	Zone # 48
	Zone is Open	8	Zone # 1	Zone # 2	Zone # 3	Zone # 4	Zone # 5	Zone # 6	Zone # 7	Zone # 8
		9	Zone # 9	Zone # 10	Zone # 11	Zone # 12	Zone # 13	Zone # 14	Zone # 15	Zone # 16
		A	Zone # 17	Zone # 18	Zone # 19	Zone # 20	Zone # 21	Zone # 22	Zone # 23	Zone # 24
		B	Zone # 25	Zone # 26	Zone # 27	Zone # 28	Zone # 29	Zone # 30	Zone # 31	Zone # 32
		C	Zone # 33	Zone # 34	Zone # 35	Zone # 36	Zone # 37	Zone # 38	Zone # 39	Zone # 40
		D	Zone # 41	Zone # 42	Zone # 43	Zone # 44	Zone # 45	Zone # 46	Zone # 47	Zone # 48
C	*Auto Zone Shutdown*	0	Zone # 1	Zone # 2	Zone # 3	Zone # 4	Zone # 5	Zone # 6	Zone # 7	Zone # 8
		1	Zone # 9	Zone # 10	Zone # 11	Zone # 12	Zone # 13	Zone # 14	Zone # 15	Zone # 16
		2	Zone # 17	Zone # 18	Zone # 19	Zone # 20	Zone # 21	Zone # 22	Zone # 23	Zone # 24
		3	Zone # 25	Zone # 26	Zone # 27	Zone # 28	Zone # 29	Zone # 30	Zone # 31	Zone # 32
		4	Zone # 33	Zone # 34	Zone # 35	Zone # 36	Zone # 37	Zone # 38	Zone # 39	Zone # 40
		5	Zone # 41	Zone # 42	Zone # 43	Zone # 44	Zone # 45	Zone # 46	Zone # 47	Zone # 48
	Zone Bypass (Upon Arming)	8	Zone # 1	Zone # 2	Zone # 3	Zone # 4	Zone # 5	Zone # 6	Zone # 7	Zone # 8
		9	Zone # 9	Zone # 10	Zone # 11	Zone # 12	Zone # 13	Zone # 14	Zone # 15	Zone # 16
		A	Zone # 17	Zone # 18	Zone # 19	Zone # 20	Zone # 21	Zone # 22	Zone # 23	Zone # 24
		B	Zone # 25	Zone # 26	Zone # 27	Zone # 28	Zone # 29	Zone # 30	Zone # 31	Zone # 32
		C	Zone # 33	Zone # 34	Zone # 35	Zone # 36	Zone # 37	Zone # 38	Zone # 39	Zone # 40
		D	Zone # 41	Zone # 42	Zone # 43	Zone # 44	Zone # 45	Zone # 46	Zone # 47	Zone # 48
D	*Zone Fault (Tamper / Fire loop)*	0	Zone # 1	Zone # 2	Zone # 3	Zone # 4	Zone # 5	Zone # 6	Zone # 7	Zone # 8
		1	Zone # 9	Zone # 10	Zone # 11	Zone # 12	Zone # 13	Zone # 14	Zone # 15	Zone # 16
		2	Zone # 17	Zone # 18	Zone # 19	Zone # 20	Zone # 21	Zone # 22	Zone # 23	Zone # 24
		3	Zone # 25	Zone # 26	Zone # 27	Zone # 28	Zone # 29	Zone # 30	Zone # 31	Zone # 32
		4	Zone # 33	Zone # 34	Zone # 35	Zone # 36	Zone # 37	Zone # 38	Zone # 39	Zone # 40
		5	Zone # 41	Zone # 42	Zone # 43	Zone # 44	Zone # 45	Zone # 46	Zone # 47	Zone # 48
	Fault RF Zone	8	Zone # 1	Zone # 2	Zone # 3	Zone # 4	Zone # 5	Zone # 6	Zone # 7	Zone # 8
		9	Zone # 9	Zone # 10	Zone # 11	Zone # 12	Zone # 13	Zone # 14	Zone # 15	Zone # 16
	(Low battery Supervision)	A	Zone # 17	Zone # 18	Zone # 19	Zone # 20	Zone # 21	Zone # 22	Zone # 23	Zone # 24
		B	Zone # 25	Zone # 26	Zone # 27	Zone # 28	Zone # 29	Zone # 30	Zone # 31	Zone # 32
		C	Zone # 33	Zone # 34	Zone # 35	Zone # 36	Zone # 37	Zone # 38	Zone # 39	Zone # 40
		D	Zone # 41	Zone # 42	Zone # 43	Zone # 44	Zone # 45	Zone # 46	Zone # 47	Zone # 48
E	*Fire/Burg. Alarms*	0	Zone # 1	Zone # 2	Zone # 3	Zone # 4	Zone # 5	Zone # 6	Zone # 7	Zone # 8
		1	Zone # 9	Zone # 10	Zone # 11	Zone # 12	Zone # 13	Zone # 14	Zone # 15	Zone # 16
		2	Zone # 17	Zone # 18	Zone # 19	Zone # 20	Zone # 21	Zone # 22	Zone # 23	Zone # 24
		3	Zone # 25	Zone # 26	Zone # 27	Zone # 28	Zone # 29	Zone # 30	Zone # 31	Zone # 32

First Digit	Event	Second Digit	Feature Select Programming							
			1	2	3	4	5	6	7	8
		4	Zone # 33	Zone # 34	Zone # 35	Zone # 36	Zone # 37	Zone # 38	Zone # 39	Zone # 40
		5	Zone # 41	Zone # 42	Zone # 43	Zone # 44	Zone # 45	Zone # 46	Zone # 47	Zone # 48
	Fire/Burg. Restore	8	Zone # 1	Zone # 2	Zone # 3	Zone # 4	Zone # 5	Zone # 6	Zone # 7	Zone # 8
		9	Zone # 9	Zone # 10	Zone # 11	Zone # 12	Zone # 13	Zone # 14	Zone # 15	Zone # 16
		A	Zone # 17	Zone # 18	Zone # 19	Zone # 20	Zone # 21	Zone # 22	Zone # 23	Zone # 24
		B	Zone # 25	Zone # 26	Zone # 27	Zone # 28	Zone # 29	Zone # 30	Zone # 31	Zone # 32
		C	Zone # 33	Zone # 34	Zone # 35	Zone # 36	Zone # 37	Zone # 38	Zone # 39	Zone # 40
		D	Zone # 41	Zone # 42	Zone # 43	Zone # 44	Zone # 45	Zone # 46	Zone # 47	Zone # 48
F	*Module Troubles*	0	Bus Fault	Module Tamper	ROM error	Module TLM	Fail to comm.	Printer Fault	AC Fail	Battery Fail
		1	Auxiliary Output fail	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		8	Bus Fault Restore	Module Tamper Restore	ROM error Restore	Module TLM Restore	Fail to Com. Restore	Printer Fault Restore	AC Fail Restore	Batt. Fail Restore
		9	Aux Fail	N/A	N/A	N/A	N/A	N/A	N/A	N/A

12.1 HARDWARE RESET

Performing a hardware reset will set the Installer Code, the System Master Code to factory default and clears the Event Buffer.

1) Make sure the *Installer Code Lock* is disabled (see section 12.4)
2) Remove the battery and AC power from the control panel.
3) Set the "reset" jumper to on by placing a jumper on the "reset" pins of the control panel.
4) Re-connect the AC power and the battery to the control panel.
5) Wait 10 seconds and remove the jumper.

12.2 SOFTWARE RESET

Performing a software reset will set certain parameters to default values or program certain sections with a set of pre-defined values. To do so:

1. Make sure the "RESET" jumper on the control panel is on.
2. Enter *Programming Mode* (see section 3.2).
3. Enter the 3-digit [SECTION] corresponding to the software reset you wish to perform:

Section [970]: Entering this section will reset all programmable sections from [001] to [990] to default values.

Section [971]: Entering this section will set the following defaults for a system using one partition:

- Partition 1 is enabled
- Bell/Siren Output is enabled for partition 1
- Zone 1 is Entry Delay1, Partition 1 and Bypass enabled
  Zones 2 & 3 are Follow, Partition 1 and Bypass enabled
  Zones 4 to 48 are Instant, Partition 1 and Bypass enabled
- User #02 is assigned to partition 1 with the Master Feature, Bypass Programming, Force and Stay Arming enabled
  User #03 to 64 are assigned to partition 1 with Bypass Programming, Force and Stay Arming enabled

Section [972]: Entering this section will set the following defaults for a system using 2 partitions:

- Partition 1 & 2 are enabled
- Bell/Siren Output is enabled for partition 1 & 2
- Zone 1 is Entry Delay1, Partition 1 and Bypass enabled
  Zones 2 & 3 are Follow, Partition 1 and Bypass enabled
  Zones 4 to 24 are Instant, Partition 1 and Bypass enabled
- Zone 25 is Entry Delay2, Partition 2 and Bypass enabled
  Zones 26 & 27 are Follow , Partition2 and Bypass enabled
  Zones 28 to 48 are Instant, Partition 2 and Bypass enabled
- User #02 is assigned to partition 1 with the Master Feature, Bypass Programming, Force and Stay Arming enabled
  User #03 to 31 are assigned to partition 1 with Bypass Programming, Force and Stay Arming enabled
- User #32 is assigned to partition 2 with the Master Feature, Bypass Programming, Force and Stay Arming enabled
  User #33 to 64 are assigned to partition 2 with Bypass Programming, Force and Stay Arming enabled

Section [973]: Entering this section will set the following defaults for a system using 3 partitions:

- Partitions 1 to 3 are enabled
- Bell/Siren Output is enabled for partitions 1 to 3
- Zone 1 is Entry Delay1, Partition 1 and Bypass enabled
  Zones 2 & 3 are Follow, Partition 1 and Bypass enabled
  Zones 4 to 16 are Instant, Partition 1 and Bypass enabled
- Zone 17 is Entry Delay2, Partition 2 and Bypass enabled
  Zones 18 & 19 are Follow, Partition2 and Bypass enabled
  Zones 20 to 32 are Instant, Partition 2 and Bypass enabled
- Zone 33 is Entry Delay3, Partition 3 and Bypass enabled
  Zones 34 & 35 are Follow, Partition 3 and Bypass enabled
  Zones 36 to 48 are Instant, Partition 3 and Bypass enabled
- User #02 is assigned to partition 1 with the Master Feature, Bypass Programming, Force and Stay Arming enabled
  User #03 to 21 are assigned to partition 1 with Bypass Programming, Force and Stay Arming enabled
- User #22 is assigned to partition 2 with the Master Feature, Bypass Programming, Force and Stay Arming enabled
  User #23 to 42 are assigned to partition 2 with Bypass Programming, Force and Stay Arming enabled
- User #43 is assigned to partition 3 with the Master Feature, Bypass Programming, Force and Stay Arming enabled
  User #44 to 64 are assigned to partition 2 with Bypass Programming, Force and Stay Arming enabled

Section [974]: Entering this section will set the following defaults for a system using 4 partitions:

- Partitions 1 to 4 are enabled
- Bell/Siren Output is enabled for partitions 1 to 4
- Zone 1 is Entry Delay1, Partition 1 and Bypass enabled
  Zones 2 & 3 are Follow, Partition 1 and Bypass enabled
  Zones 4 to 12 are Instant, Partition 1 and Bypass enabled
- Zone 13 is Entry Delay2, Partition 2 and Bypass enabled
  Zones 14 & 15 are Follow, Partition2 and Bypass enabled
  Zones 16 to 24 are Instant, Partition 2 and Bypass enabled
- Zone 25 is Entry Delay3, Partition 3 and Bypass enabled
  Zones 26 & 27 are Follow, Partition 3 and Bypass enabled
  Zones 28 to 36 are Instant, Partition 3 and Bypass enabled
- Zone 37 is Entry Delay4, Partition 4 and Bypass enabled
  Zones 38 & 39 are Follow, Partition 4 and Bypass enabled
  Zones 40 to 48 are Instant, Partition 4 and Bypass enabled
- User #02 is assigned to partition 1 with the Master Feature, Bypass Programming, Force and Stay Arming enabled
  User #03 to 16 are assigned to partition 1 with Bypass Programming, Force and Stay Arming enabled
- User #17 is assigned to partition 2 with the Master Feature, Bypass Programming, Force and Stay Arming enabled
  User #18 to 32 are assigned to partition 2 with Bypass Programming, Force and Stay Arming enabled
- User #33 is assigned to partition 3 with the Master Feature, Bypass Programming, Force and Stay Arming enabled
  User #34 to 48 are assigned to partition 3 with Bypass Programming, Force and Stay Arming enabled

- User #49 is assigned to partition 4 with the Master Feature, Bypass Programming, Force and Stay Arming enabled
  User #50 to 64 are assigned to partition 4 with Bypass Programming, Force and Stay Arming enabled

Section [975]: Entering this section will reset all Zone and Keyswitch programming sections from [001] to [156] to default values.

Section [976]: Entering this section will reset all programmable timers in sections [200] to [274] to default values.

Section [977]: Entering this section will reset all PGM and option sections from [400] to [522] to default values.

Section [978]: Entering this section will reset all communication sections from [523] to [702] to default values.

Section [979]: Entering this section will reset all user code sections from [802] to [864] to default values.

12.3 BATTERY CHARGE CURRENT

Section [503]: Option [6]
ON = Battery Charge Current – 700mA
OFF = Battery Charge Current – 350mA

12.4 INSTALLER CODE LOCK

Section [801]
{Default: **Unlocked**} Program 147 into section **[801]** to lock all programming. Hence, performing a hardware reset as described in section 12.1 will not affect the current panel settings. To remove the Installer Lock, enter 000 into section [801].

12.5 SYSTEM GUARD LOCK

Section [990]
The *System Guard Lock* will protect the entire system from unauthorized access. By enabling this feature, the control panel will wait 8 days before performing the lock. At midnight on the eighth day, the control panel will lock all modules on the communication bus to the Central Station Telephone Numbers. Once locked, the PC and Central Station Telephone Numbers cannot be changed. Modules can be added to the system, the control panel will automatically recognize the new modules and lock them to the system. You can remove locked devices and install them in another system as long as the Central Station Telephone Numbers are the same. To enable this feature, simply enter section [900]. The lock sequence can only be cancelled by re-entering section [990] before the end of the eight days.

Once enabled, you can not remove the System Guard Lock. To remove the Installation Lock, contact your local distributor.

12.6 PARTITIONING

Section [500]: Options [1] to [4]
The Digiplex Control Panel can provide your system with up to four completely independent partitions. Most features and options in the Digiplex System can be independently set for each partition such as event reporting, entry/exit delay, bell squawk, quick arming, panics and many more. All zones, keyswitch zones, user codes and system modules are assigned to specific partitions, making this a true partitioned system. In section **[500]**, enable the option(s) that correspond to the desired partition(s). Where options **[1]** to **[4]** represent partitions 1 through 4.

12.6.1 Panel Partition Assignment

Section [450]
The control panel will report system events as originating from the partitions enabled in this section. The *System Troubles* (i.e. AC Failure, TLM Failure, etc.) can only be viewed through the partitions enabled in this section.
00 = All enabled partitions (see section [500])
01 = Control Panel installed in Partition 1
02 = Control Panel installed in Partition 2
03 = Control Panel installed in Partition 3
04 = Control Panel installed in Partition 4

12.7 INSTALLER FUNCTION KEYS

Press and hold the **[0]** key and key in the **[INSTALLER CODE]** in order to access the following function keys.

[STAY] – *TEST REPORT*
Sends the "Test Report" report code programmed in section **[701]** to the central station.

[FORCE] – *CALL UPLOAD/DOWNLOAD SOFTWARE*:
Will dial the PC telephone number programmed in section [560] in order to initiate communication will a computer using the Paradox Upload/Download software.

[ARM] – *Answer UPLOAD/DOWNLOAD SOFTWARE*:
Will force the control panel to answer a call made by the Central Monitoring Station that is using the Upload/download software.

[DISARM] – *CANCEL COMMUNICATION*
Pressing this function key cancels all communication with the Central Station or the Upload/Download Software until the next reportable event.

[MEM] – *INSTALLER TEST MODE*
The installer test mode will allow you to perform walk tests where the bell or siren will squawk to indicate opened zones. Press [MEM] again to exit. Partitions can not be armed if the *Installer Test Mode* is enabled.

[TRBL] – *START MODULE SCAN*
Starts a module scan where the keypad will display the serial number of each module connected to the DIGI-BUS.

12.8 SYSTEM DATE & TIME

The *System Date and Time* is programmed through the *User Menu*, please refer to section 14.

12.8.1 Daylight Savings Time

Section [502]: Option [6]
By enabling option [6] in section [502], the control panel will automatically adjust the system's clock (time) for daylight saving changes.

12.9 SHABBAT FEATURE

Section [522]: Option [4]
With option [4] on, all keypads in the system will no longer display any system status through either the LCD or the LEDs between midnight Friday and midnight Saturday. The LCD will only display the date and time and the backlight will be disabled. Pressing a key will access all the usual commands and features.

12.10 MODULE RESET

Section [951]
To reset a module that is connected to the DIGI-BUS to its default values, key in the module's serial number into section **[951]**.

12.11 LOCATE MODULE

Section [952]
If you wish to locate a specific module (e.g. detector, zone expander, etc.) connected to the DIGI-BUS, key in the module's serial number into section **[952]**. The green "LOCATE" LED on the module will begin to flash until the serial number is re-entered into section **[952]** or the appropriate "tamper" or "unlocate" switch on the module is pressed.

12.12 MODULE PROGRAMMING

Section [953]
All modules connected to the DIGI-BUS are programmed through the control panel. Therefore, if you wish to program a module, enter section **[953]** and key in the module's serial number. At this point, any sections entered will be those of the selected module. For details on how to program the modules, refer to the module's instructions or programming guide. To exit this mode, press the [CLEAR] key until you are in "Normal Mode".

12.13 MODULE BROADCAST

Section [954]
This feature allows you to copy the contents of all programming sections from one bus module to one or more of the same type of module. In section **[954]**, key in the serial number of the source module, then enter the serial numbers of all the destination modules you wish to program and press **[ACC]**.

Example:
*You've completed the programming of a zone expander module (sn#30540033) and you wish to program another two zone expander modules (sn#30540075 & sn#30412100) with the same settings and options. Press and the [0] button + key in the Installer Code + **[954]** + **30540033** + **30540075** + **30412100** + **[ACC]**. The control panel will automatically copy the contents of 30540033 into the other two zone expander modules.*

12.14 REMOVE MODULE

Section [955]
After entering section **[955]**, the control panel will scan all modules connected to the DIGI-BUS displaying their serial numbers on the keypad's LCD

screen. If any missing modules are detected (i.e. detector removed from the bus) during this scan, the control panel will erase the module's serial number, removing the module from the control panel's memory.

12.15 POWER SAVE MODE

Section [504]: Options [4]
When the control panel is running on the back-up battery (no AC), the control panel can set all keypads into a "sleep mode". In "sleep mode" the keypad's backlight and LEDs will be disabled and the LCD screen will no longer display any messages until a key is pressed, an alarm occurs or during an entry delay.

12.16 AUTO TROUBLE SHUTDOWN

Section [218]: 001-015 (000=disabled)
If in a 24-hour period, a trouble has occurred more than the number of times programmed in section **[218]**, the control panel will no longer report this trouble. Please note that each trouble its own counter. This counter is reset every day at midnight or when a *Module Scan* is performed (see section 12.7 of this manual). Also note that it can not be set to more than 15.

12.17 NO AC FAIL DISPLAY

Section [503]: Option [7]
With option [7] in section [503] enabled, the control panel will not display the AC Failure as a trouble. This means that when an AC Failure occurs, the AC LED will not illuminate, the trouble will not appear in the *Trouble Display* and there will be no trouble beep. The AC Failure report code, however, will be reported.

13.1 PANEL ANSWER OPTIONS

Sections [451] & [452]
The following two options define how the control panel answers an incoming call from a computer using the Upload/Download Software.

13.1.1 Answering Machine Override

When using Upload/Download Software to communicate remotely with an installation site that uses an answering machine or service, the answering machine override must be programmed. Using the Upload/Download Software, call the installation site and on the second ring press the "Enter" key on the keyboard to hang-up. After hanging up, the Upload/Download Software will immediately call the installation site back. The value (00-15 X 4 seconds) programmed in section **[451]** represents the delay period the control panel will wait between the first and second call. If the installation site is called back within the programmed delay period, the control panel will override the answering machine or service by picking–up the line on the first ring. To disable this option program "00" in section [451].

Example: A security installation is using an answering machine set to answer after three rings, section [450] has been programmed with "10" (40 seconds). When you call the installation site with the Upload/Download Software the first time, wait two rings and press "Enter" on the keyboard. The Upload/Download Software will immediately call the installation site back. If the second call is made within 40 seconds, the control panel will pick up the line on the first ring. If it takes more than 40 seconds, the control panel will not answer on the first ring and the answering machine will answer after three rings.

13.1.2 Number of Rings

The value (01-15, 000=disabled) programmed in section **[452]** represents the number of rings the control panel will wait before picking-up the line. If the line is not answered after the number of programmed rings, the control panel will answer the call. Note the control panel resets the "ring" counter every 10 seconds. Therefore, if there is more than 10 seconds between each ring, the control panel will reset the counter on the next call.

13.2 PANEL IDENTIFIER

Section [555]
This four-digit code identifies the control panel to the Upload/Download Software before initiating upload or download. The control panel will verify if the panel identifier in the Upload/Download Software is the same; if the codes do not match, the control panel will not establish communication. Therefore, be sure to program the same panel identifier into both the Digiplex Control Panel and the Upload/Download Software. To program the Panel Identifier, key in the desired 4-digit hexadecimal number into section **[555]**.

13.3 PC PASSWORD

Section [556]
This four-digit password identifies the PC to the panel, before beginning the download process. Program the same PC Password into both the Digiplex Control Panel and the Upload/Download Software. If the passwords do not match, the Upload/Download Software will not establish communication. To program the PC Password, enter the desired 4-digit hexadecimal number into section **[556]**.

13.4 PC TELEPHONE NUMBER

Section [560]
The control panel will dial this number when trying to initiate communication with a computer using the Upload/Download Software. You can enter any digit from 0 to 9 and any special keys or functions (see table 9.1 on page 31), up to a maximum of 32 digits into section **[560]**.

13.5 CALL UPLOAD/DOWNLOAD SOFTWARE

Press and hold the **[0]** key, enter the **[INSTALLER CODE]** and press **[FORCE]** to dial the PC telephone number programmed in section **[560]** in order to communicate with the Upload/Download Software. The control panel and the Upload/Download Software will verify that the Panel Identifier and the PC Password match before establishing communication.

13.6 ANSWER UPLOAD/DOWNLOAD SOFTWARE

In order to perform on-site upload/download connect your computer directly to the control panel using an ADP-1 line adapter. In Upload/Download Software set "Dialing Condition" to "Blind Dial". Program the panel telephone number in Upload/Download Software and follow the instructions on the ADP-1 adapter. When the computer has dialed, press and hold the **[0]** key, enter the **[INSTALLER CODE]** and press **[FORCE]** to manually answer Upload/Download Software from the control panel.

13.7 EVENT BUFFER TRANSMISSION

Option [2] – Section [522]
When the event buffer reaches 50% capacity, the control panel will make two attempts to establish communication with a PC using the Upload/Download Software by calling the PC Telephone Number programmed in section **[560]**. The Upload/Download software must be in "wait to dial" mode. When the system establishes communication, it will upload the contents of the event buffer to the Upload/Download software. If communication is interrupted before completing transmission or if after two attempts, communication is not established, the system will wait until the event buffer attains another 50% capacity before attempting to re-communicate with the central station. When the Event Buffer is full, each subsequent new event will erase the oldest event in the buffer. The Digiplex Control Panel has a 736 Event Buffer.

13.8 CALL BACK FEATURE

Option [1] - Section [522]
For additional security, when a PC using the Upload/Download software attempts to communicate with the control panel, the control panel can hang-up and call the PC back in order to re-verify identification codes and re-establish communication. When the control panel hangs-up, the Upload/Download software automatically goes into "wait for call mode", ready to answer when the control panel calls back. Please note the *PC Telephone Number* must be programmed in order to use the Call Back feature.

USER/KEYPAD FEATURES

This section will be included in future revisions of this manual. For the moment, all information that has been referenced to this section can be found in the appropriate *Keypad's User Guide*.

FCC WARNINGS

IMPORTANT INFORMATION

This equipment complies with Part 68 of the FCC rules subpart D and CS-03. Inside the cover of this equipment is a label that contains, among other information, the FCC registration number of this equipment.

NOTIFICATION TO TELEPHONE COMPANY

Upon request, customer shall notify telephone company of particular line to which the connection will be made, and provide the FCC registration number and the ringer equivalence of the protective circuit.

FCC REGISTRATION NUMBER:	5A7CAN-22633 - AL - E
RINGER EQUIVALENCE NUMBER:	0.1B (U.S. & Canada)
USOC JACK:	RJ31X (USA), CA31A (CANADA)

TELEPHONE CONNECTION REQUIREMENTS

Except for telephone company-provided ringers, all connections to the telephone network shall be made through standard plugs and telephone company-provided jacks, or equivalent, in such a manner as to allow for easy, immediate disconnection of terminal equipment. Standard jacks shall be so arranged that, if plug connected thereto is withdrawn, no interference to operation of equipment at customer's premises which remains connected to telephone network shall occur by reason of such withdrawal.

INCIDENCE OF HARM

Should terminal equipment/protective circuitry cause harm to telephone network, telephone company shall, where practicable, notify customer that temporary disconnection of service may be required; however, where prior notice is not practicable, the telephone company may temporarily discontinue service if action is deemed reasonable in circumstances. In case of temporary discontinuance, telephone company shall promptly notify customer and will be given opportunity to correct the situation.

CHANGES IN TELEPHONE COMPANY EQUIPMENT OR FACILITIES

The telephone company may make changes in its communication facilities, equipment operations or procedures, where such actions are reasonably required and proper in its business. Should any such changes render customer's terminal equipment incompatible with the telephone company facilities, the customer shall be given adequate notice to effect the modifications to maintain uninterrupted service.

GENERAL

This equipment shall not be used on coin telephone lines. Connection to party line service is subject to state tariffs.

RINGER EQUIVALENCE NUMBER (REN)

The ren is useful to determine the quantity of devices that you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, sum of the ren's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices that you may connect to your line, you may want to contact your local telephone company.

EQUIPMENT MAINTENANCE FACILITY

If you experience trouble with this telephone equipment, please contact facility indicated below for information on obtaining service or repairs. The telephone company may ask that you disconnect this equipment from network until problem is corrected or until you are sure that the equipment is not malfunctioning.

FCC PART 15, WARNINGS **INFORMATION TO USER**

This equipment has been tested and found to comply with the limits for Class B digital devices, pursuant to Part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to equipment intermittently, the user is encouraged to try to correct the interference by one or more of the following measures: (1) reorient or relocate the receiving antenna; (2) increase the separation between the equipment and receiver; (3) connect the equipment to an outlet on a circuit other than the one to which the receiver is connected, or (4) consult the dealer or an experienced radio/tv technician for assistance.

CAUTION:

Changes or modifications not expressly approved by PARADOX SECURITY SYSTEMS could void the user's authority to operate the equipment.

ATTACHMENT LIMITATION NOTICE

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make such connections themselves, but should contact the appropriate electrical inspection authority, or electrician, as appropriate.

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the total of the Load Numbers of all of the devices does not exceed 100.

Industry Canada certification is only applicable to installation of devices which include transformers approved by the Canadian Standards Association (CSA).

RESTRICTIONS CONCERNANT LE RACCORDEMENT DE MATÉRIEL

L'étiquette d'Industrie Canada identifie le matériel homologué. Cette étiquette certifie que le matériel est conforme à certaines normes de protection, d'exploitation et de sécurité des réseaux de télécommunications. Le Ministère garantir toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. De plus, le matériel doit être installé en suivant une méthode acceptable de raccordement. L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empêchent pas la dégradation du service dans certaines situations.

Les réparations de matériel homologué doivent être effectuées par un centre de service d'entretien canadien autorisé désigné par le fournisseur. La compagnie de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause d'un mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à la terre de la source d'energie électrique, des lignes téléphoniques et des canalisations d'eau métalliques, s'il y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales.

AVERTISSEMENT: L'utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à une service d'inspection des installations électriques, ou à un électricien, selon le cas.

"L'indice de charge (IC) assigné à chaque dispositif indique, pour éviter toute surcharge, le pourcentage de la charge totale qui peut être raccordée à un circuit téléphonique bouclé utilisé par ce dispositif. La terminaison du circuit bouclé peut être constituée de n'importe quelle combinaison de dispositifs, pourvu que la somme des indices de charge de l'ensemble des dispositifs ne dépasse pas 100.

La certification d'Industrie Canada s'applique seulement aux installations d'appareils utilisant un transformateur approuvé par l'Association Canadienne de Normalisation (CSA).

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