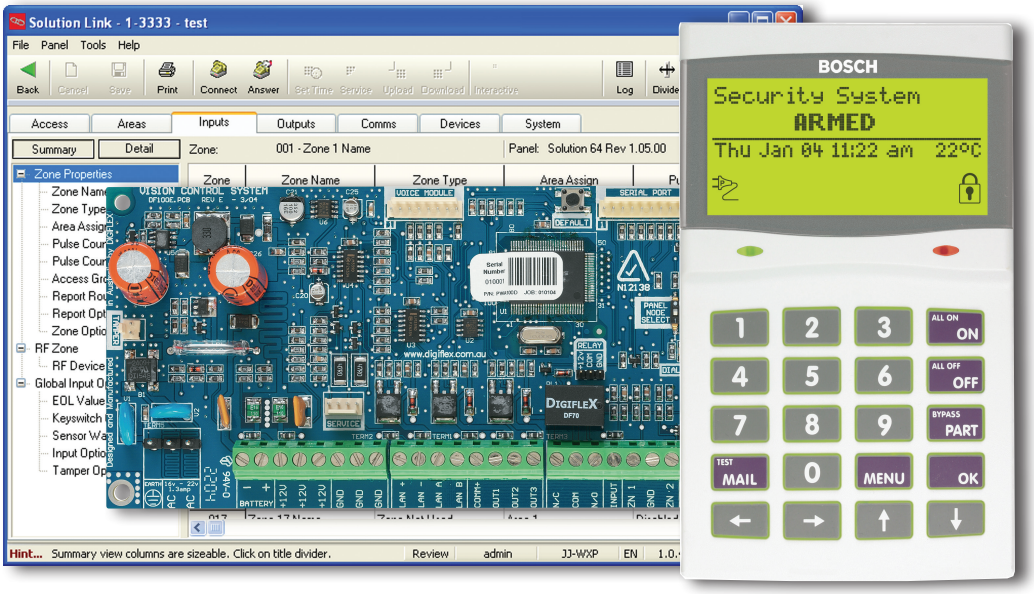
Solution 16plus



Security Systems

EN | Installation Manual
Security System

BOSCH

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TELEPERMIT NOTE

The grant of a Telepermit for a device in no way indicates Telecom acceptance of responsibility for the correct operation of that device under all operating conditions.

This equipment shall not be used in any manner that could constitute a nuisance to other Telecom customers.

Immediately disconnect this equipment should it become physically damaged, and arrange for its disposal or repair.

The transmit level from this device is set as a fixed level and because of this there may be circumstances where the performance is less than optimal. Before reporting such occurrences as faults, please check the line with a standard telepermitted telephone.

Warnings

1) **This product must be installed by a qualified and licensed security installer.**

2) **This product may not perform as expected if installed incorrectly.**

3) **Some features of this product, including but not limited to Back to Base reporting, SMS and Email Reporting and Automatic Time and Date Adjustments require a working telephone line to operate and telephone communication service provider charges are applicable.**

4) **Australian standard AS 2201 requires regular service by qualified and licensed security persons and regular user testing. Please consult your security alarm company for further details.**

5) **Incorrect programming of parameters can result in operation contrary to what may be desired.**

6) **Leave the mains adapter plugged in at all times.**

7) **Leave the telephone line plugged in at all times under normal conditions.**

8) **The Product Identification Label for this product which is supplied in the resistor pack, must be affixed to the outside of the enclosure during installation.**

SOLUTION 16plus
Intrusion Control Panel

BOSCH

N12138 TELEPERMIT CE N12138 Made in Australia

TELEPERMIT
This Bosch Solution 16plus Alarm System may be connected to the Telecom Network
PTC 211 / 06 / 063
RN = 0.5

9) **This equipment shall not be set up to make automatic calls to the Telecom '111' Emergency Service.**

CONTENTS

SECTION 10

SECTION 11

SECTION 12

SECTION 13

SECTION 14

SECTION 1

Overview

FEATURES

Listed below are the main features of the Solution 16^{plus} Control Panels.

- Individual Box Tamper Circuit Monitoring
- Telephone Line Busy Tone Detect
- RAS Intelli-connect® CLI Caller Line Identification
- Daylight Savings Auto Time Adjust
- Senior Watch
- System Maintenance Interval Reminder
- System Weekly Test Reminder
- Area Inactivity Interval
- Temporary Pin Code
- Dual Reporting
- Alarm Report Abort/cancel Options
- 8 Programmable Holiday Calendars
- 8 Programmable Schedules
- 8 On-board Zones (Exp To 16 Wired or Wireless)
- Fire Alarm Verification
- 48 Pin Codes
- 3 Supervised High Power Digital Outputs
- 1 Relay 2 Amp Form (C) Contact (Expandable to 5)
- Supervised Siren Driver
- Partitionable To 4 Areas
- Dialler Reports SIA, Contact ID, SMS and Email Formats
- Supervised LAN Keypads (Maximum 8 Keypads)
- Keyswitch Input
- 256 History Event Memory
- Fully Menu Text Programmable
- Programmable Via Solutionlink Software(Remote/Direct)
- Telephone Line Fail Monitor
- Time Executed Functions
- 60 Output Event Types
- Exit Restart
- Expansion Module SuperSolution
- DTMF Tone Decoder Built In
- Remote and Auto Arming

OVERVIEW

Zones

The Solution 16^{plus} control panel provides up to 16 separate zones of protection. Zone programming determines the panel's response to open/short and tamper conditions on the zone loop.

Areas

The control panel supports up to 4 separate areas. You can assign all zones to a single area, or you can assign each zone to a combination of different areas.

You can arm and disarm the control panel by area, alternatively, you can arm and disarm several areas at the same time.

Dialler

The control panel has a built-in dialler to send reports to the receiving party (ie. Security company monitoring station, mobile phone etc).

Keypads

You can connect a maximum of 8 fully supervised keypads to the control panel. The available current affects the total number of keypads that you can connect without the need to provide additional power supplies.

History Log

The control panel can store up to 256 history events from all 8 areas. All events are stored in the log, even if they are programmed not to report via the on-board dialler.

You can view the control panel's history log via keypad, serial printer (optional), or by connection of a personal computer (direct/remote) using the SolutionLink upload/download software.

Programming

You can program the Solution 16^{plus} either by a keypad or using a personal computer using the SolutionLink upload/download software.

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SECTION 2

Installing the Hardware

ABOUT THE PANEL

ENCLOSURES

The MW700 - Small Enclosure and MW710 - Large Enclosure have been designed to reduce installation time and improve aesthetics on larger installations where often multiple enclosures need to be located in close proximity to each other.

A number of new features have been incorporated including a new style tamper bracket which can be easily installed before or after the enclosure is mounted to the wall, an anti tamper lid which insures the cabinet tamper triggers when the lid is removed, easier access for flexible and rigid conduits, additional 20mm cable entry knockouts and a new board mounting system using removable spring clips.

The MW700 and MW710 enclosures include numerous holes, allowing the PCB mounting clips to be positioned in the most appropriate location for each installation.

Note *For ease, it is recomended that the PCB mounting clips are installed from the rear of the enclosure before mounting it to the wall.*

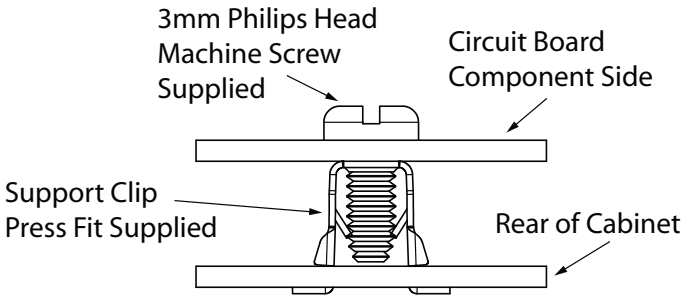


Figure 1: PCB and Mounting Clip Installation Diagram

ENCLOSURE FIXING METHOD

CM700 - Small Enclosure

Use appropriate fasteners capable of handling a minimum of 6kg to fix the cabinet against a sturdy surface using the mounting holes provided.

CM710 - Large Cabinet

Use appropriate fasteners capable of handling a minimum of 12kg to fix the cabinet against a sturdy surface using the mounting holes provided.

INSTALLING THE TAMPER SWITCH

The tamper switch can be located on either the left or right hand side of the cabinet to suit the installation. Before installing the bracket, fit the tamper lead to the switch and then insert it into the bracket.

Once the enclosure has been mounted to the wall, insert the tamper bracket into the rectangular hole in the top flange of the enclosure and then slide the base of the bracket toward the top until the tamper switch locates in the rear of the enclosure.

Depress the tamper a few times with your finger to ensure smooth operation.

Figure 2: Tamper Bracket Installation

ENCLOSURE MODULE SPACES

The MW700 enclosure has space for 2 large modules or 4 small modules while the optional MW710 enclosure has space for up to 4 large modules or 8 small ones. The enclosures have been designed so that any combination of large and small units can be neatly mounted together on the wall.

Each module is mounted to the enclosure using 4 or more clip in standoffs. The clips can be inserted from the rear of the enclosure before mounting it to the wall, or from the front of the enclosure after it has been mounted. Both methods should be performed using your finger tips to prevent damage to the standoff. (Standoffs and screws are supplied with each module).

All compatible add on modules will mount on these spaces. See below for list if modules which can be added to the 64 control panel.

Module	Space Occupied
Solution 16plus Control Panel	2 Module Spaces
CM104 Zone Expander	1 Module Space
CM110 Output Expander	1 Module Space
CM120 LAN Power Supply	1 Module Space
CM195 RF Receiver Expander	1 Module Space

Table 1: Expansion Options

Use the above table to help determine which size cabinet you will require for the job.

On some export models, one module space will not be available as the mains transformer mounts in this location.

INSTALLING PANELS AND MODULES

Once the enclosure is secured in place, install the panels and modules onto the mounting clip using the supplied 3mm screws. Do not over tighten the screws.

When fitting panels or large modules, you should use 5 mounting clips, one in each corner of the PCB and one in the middle of the PCB underneath the main terminal blocks. When mounting small modules, only 4 clips are required, 1 in each corner.

Both enclosures are supplied with tamper switches, tamper leads, tamper brackets and a quantity of mounting clips and screws. If required, additional mounting clips and screws may be purchased in bags of 50 clips (10 packs x 5pcs). (P/N: MW890)

Note

The supplied mounting clips are designed to use the 3mm machine screws supplied with the enclosure. The use of self tapping screws will damage the clips.

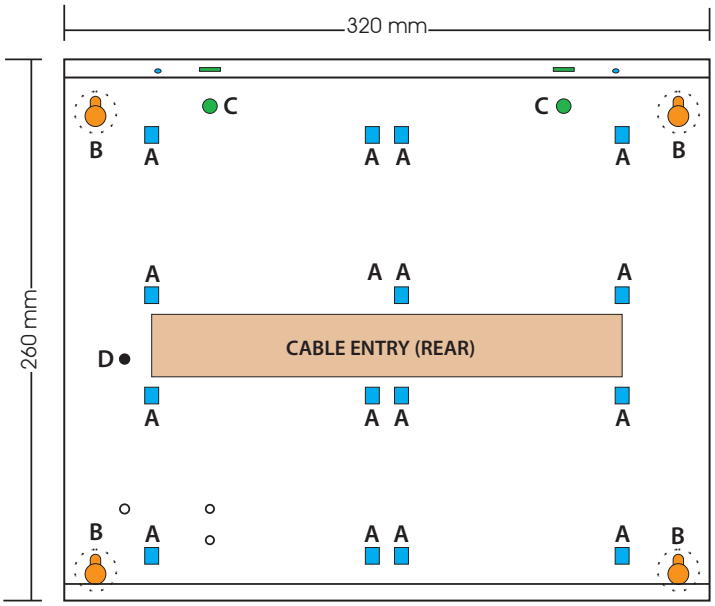


Figure 3: MW700 - Small Enclosure Details

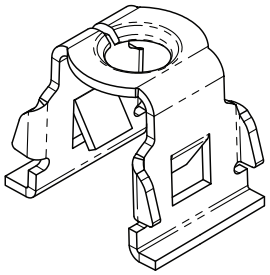
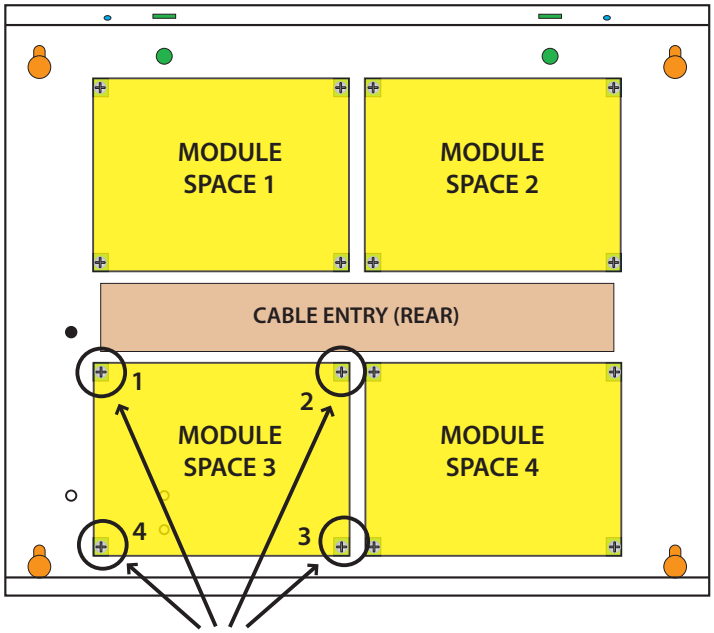


Figure 4: PCB Mounting Clip

The following example shows the MW700 -Small enclosure configured using 4 small modules.



When installing small modules, you should fit 4 mounting clips as shown.

When installing large modules, you should fit 5 mounting clips as shown.
Clip 5 provides support under the main terminal block only. No screw is fitted.

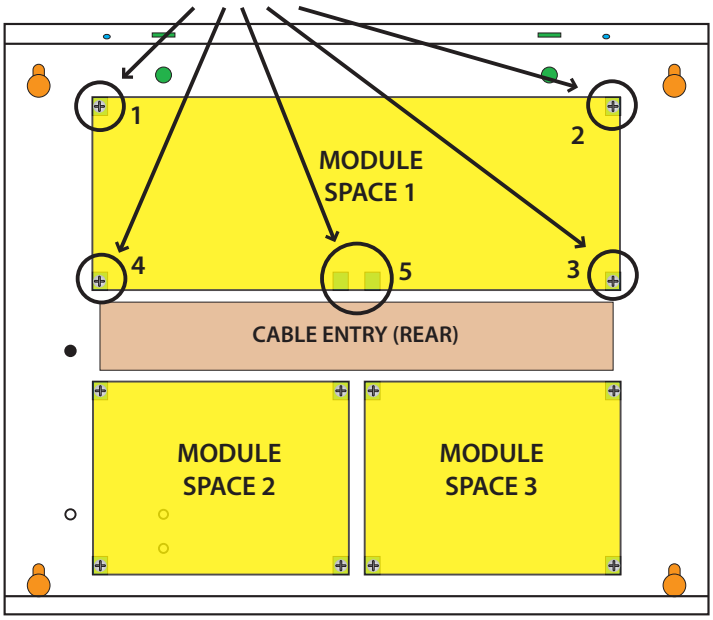


Figure 5: MW700 Configuration Examples

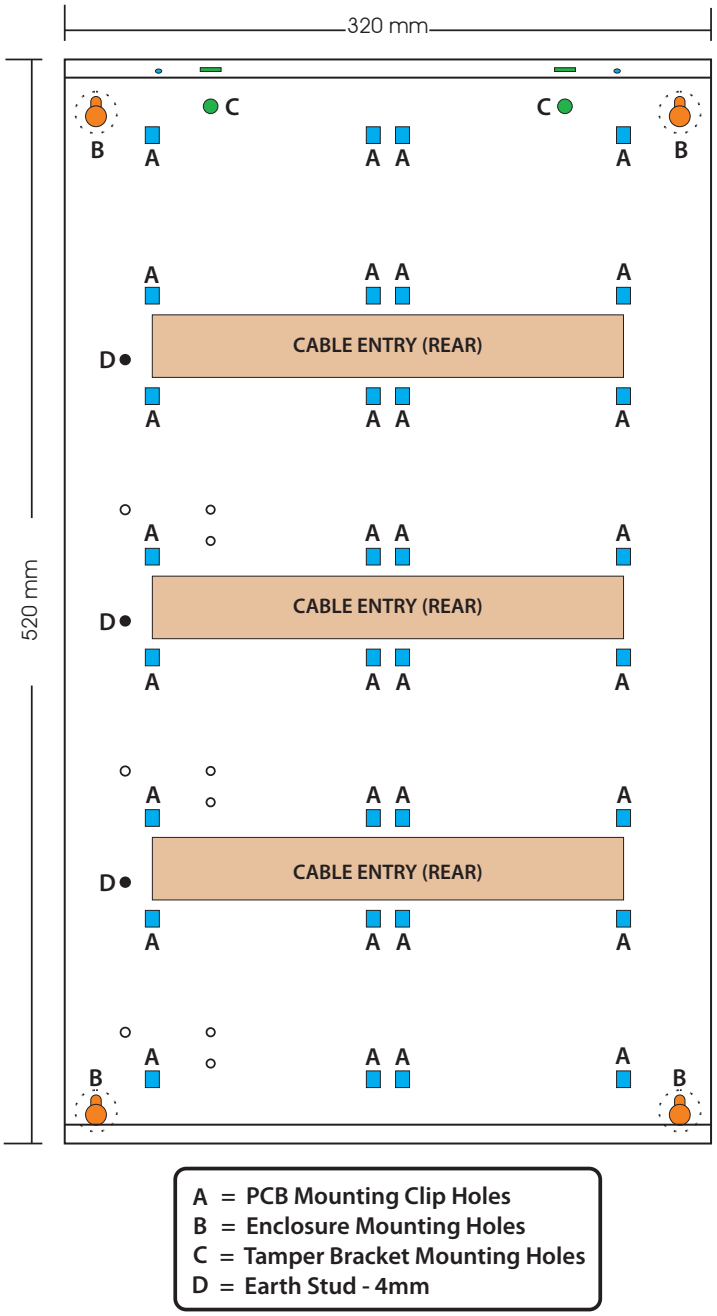
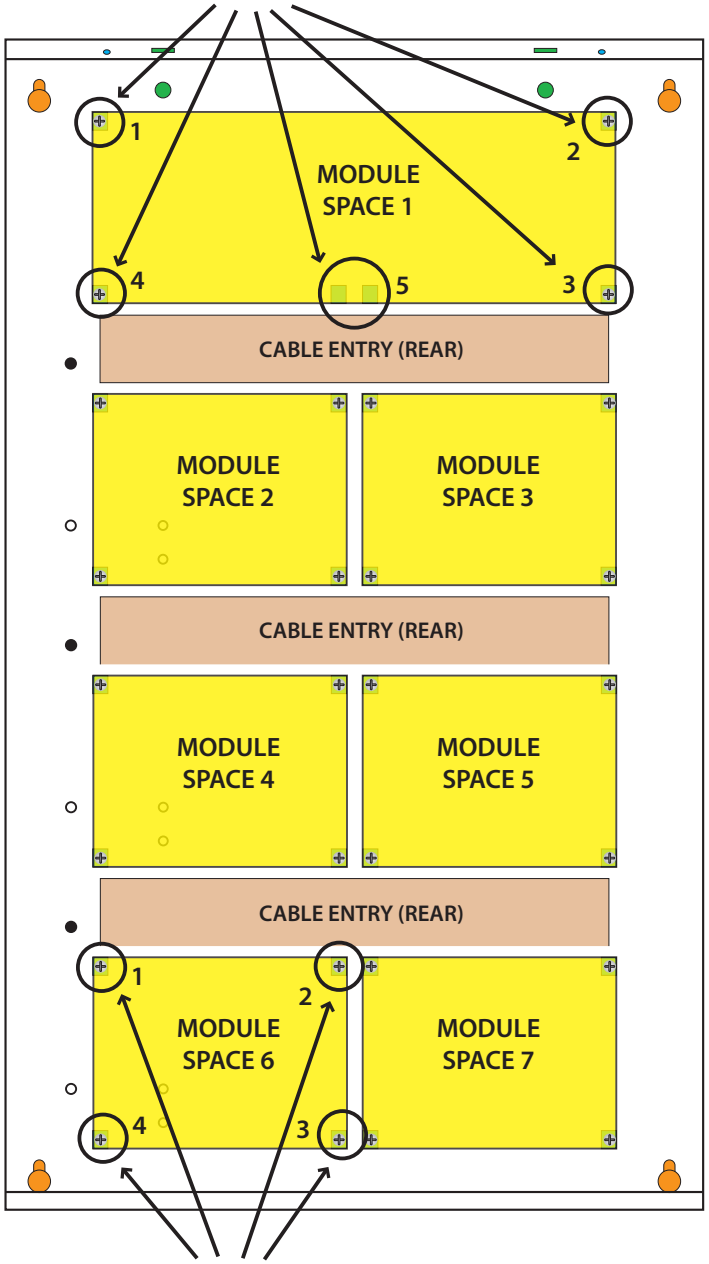


Figure 6: MW710 - Large Enclosure Details

The following examples show the MW710 - Large enclosure configured using 6 small modules and 1 large module.

When installing large modules you should fit 5 mounting clips as shown.
Clip 5 provides support under the main terminal block only. No screw is fitted.



When installing small modules, you should fit 4 mounting clips as shown.

Figure 7: MW710 Configuration Examples

CONNECTING POWER TO THE PANEL

For normal operation, the panel requires both A.C. and DC power sources. The A.C. source can be provided either by an external adapter or by an internal transformer depending on the model and country of sale.

When connecting using the A.C adapter, feed the cable in to the enclosure and terminate the wires on the removable terminal block supplied before connection it to the PCB.

If using a 3 wire Adaptor, then the earth wire should also be terminated onto the terminal block. Always check the orientation of the terminal block with the PCB markings before connecting it to the PCB.

CONNECTING THE BATTERY

The panel is supplied with a set of battey leads to suit the chosen enclosure. Connect the Red Battery lead to the Battery (+) terminal and the Black Battery lead to the Battery (-) terminal on the PCB.

Once terminated onto the PCB connect the other end of the leads to the battery paying attention to the polarity.

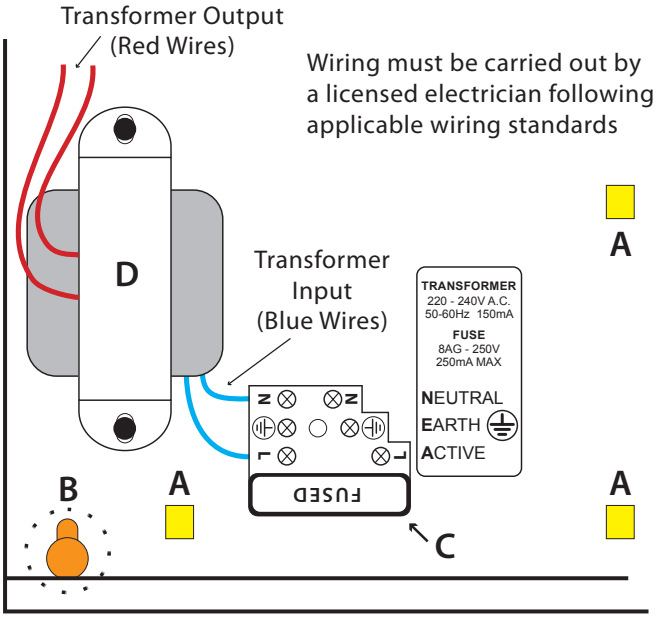
A.C. MAINS TRANSFORMER OPTION

On models with an internal transformer, a permanent connection shall be made to the mains supply. See Figure 8. This must be completed by a suitably qualified electrician according to the applicable wiring standards and regulations.

Next connect the transformer output wires (red) to the removable terminal block supplied and then connect it to the PCB. Always check the orientation of the terminal block with the PCB markings before connecting.

Note

For permanently connected equipment, a readily accessable disconnect device shall be installed in a location near to the equipment.



A = PCB Mounting Clip Holes
B = Enclosure Mounting Holes
C = Fused Terminal Block
D = Transformer

Figure 8: Internal Transformer Connection Diagram

PANEL LED INDICATORS

The control panel PCB has two LED indicators (Dialler and Status LED's) which display the following information.

Condition	Meaning
Off	Offline
On	On Line (Dialling/Answered)
Flashing	Incoming Call

Table 2: Dialler Indicator LED

Condition	Meaning
Off	Error
On	Error
Flash Once Every 2 Seconds	OK
Flash Fast	AC or Battery Trouble

Table 3: Status Indicator LED

Note

During factory defaulting the Status and Dialler LED indicators will flash alternatively for approximately 15 seconds.

KEYPAD BUTTON FUNCTIONS

The Graphic Keypad has 20, silicone rubber push button keys. The buttons allow you to input instructions and navigate the menu screens as required. Some buttons have a secondary function which is activated by holding them down for two seconds.

Each button's function is described below

Key	Description
0 to 9	The numeric keys allow you to enter numbers when required
MENU	Use the [MENU] and the numeric keys to enter commands. The [MENU] key is also used to go back one level when navigating through menus or to exit a programming location without saving changes.
ALL ON ON	The [ON] key allows you to turn an area or output on. To turn all areas on at the same time when the system has been partitioned, press and hold the [ON] key for two seconds.
BYPASS PART	The [PART] key allows you to turn an area Part On. This key can also be used to bypass a zone or multiple zones when you press and hold for two seconds.
ALL OFF OFF	The [OFF] key allows you to turn an area or output off. To turn all areas off at the same time when the system has been partitioned, press and hold the [OFF] key for two seconds.
OK	The [OK] key allows you to save any changes and exit the command.
TEST MAIL	The [MAIL] key allows you to read stored mail. This key can also be used to initiate a dialler test when you press and hold for two seconds.
←	The [←] key allows you to move the cursor to the left when programming text or telephone numbers.
→	The [→] key allows you to move the cursor to the right when programming text or telephone numbers.
↑	The [↑] key allows you to navigate through menus or to toggle characters when programming text or telephone numbers.
↓	The [↓] key allows you to navigate through menus or to toggle characters when programming text or telephone numbers. Pressing the [↓] key when the area is disarmed will display any current trouble conditions.
1 + 3 for 2 sec	Pressing the 1 and 3 keys together and holding them down for 2 seconds will cause a Panic alarm to be triggered. If programmed the sirens will sound and the monitoring station will be notified.
4 + 6 for 2 sec	Pressing the 4 and 6 keys together and holding them down for 2 seconds will cause a Fire alarm to be triggered. If programmed the sirens will sound and the monitoring station will be notified.
7 + 9 for 2 sec	Pressing the 7 and 9 keys together and holding them down for 2 seconds will cause a Medical alarm to be triggered. If programmed the sirens will sound and the monitoring station will be notified.

Table 4: Keypad Button Functions

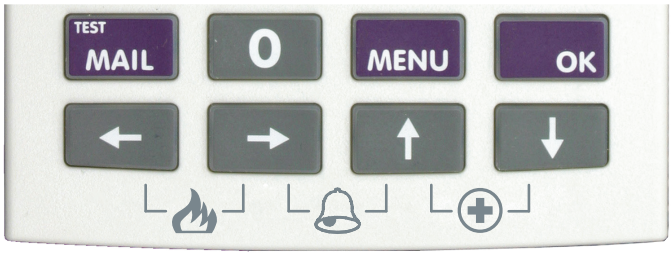


Figure 9: Keypad Emergency Buttons

The new methods are easier for the end user to remember and also allow for labelling to be applied to the keypad further simplifying operation. At this time both old and new methods function.

KEYPAD EMERGENCY ALARM TRIGGER'S	
Key Sequence	**Event Triggered**
← + → Hold for 2 seconds	Keypad Fire Alarm
→ + ↑ Hold for 2 seconds	Keypad Panic Alarm
↑ + ↓ Hold for 2 seconds	Keypad Medical Alarm

Table 5: Keypad Emergency Alarm Trigger's

KEYPAD SETUP

The Solution 16plus control panel can have a maximum of 8 keypads connected via the LAN terminals. Each keypad must be set to a unique address before they will operate.

Each keypad needs to be assigned to a home area via MENU 6-1-3. This sets the area the keypad will display and control by default. Keypads can be locked to a home area or allowed to roam or move between areas.

When the system is powered up, any keypads which have not been assigned a home area will be automatically set to home area 1.

Set each keypad address using the table below as a guide.

Note

Only 1 Keypad can be assigned to each address. All Keypads are supplied from the factory set to address 1. (OFF-OFF-OFF-OFF).

KEYPAD ADDRESS SELECTION

Figure 10: Kyepad Address Selection

Keypad DIP Switch Address Settings				
Keypad To Address	S1	S2	S3	S4
Keypad 1	Off	Off	Off	Off
Keypad 2	On	Off	Off	Off
Keypad 3	Off	On	Off	Off
Keypad 4	On	On	Off	Off
Keypad 5	Off	Off	On	Off
Keypad 6	On	Off	On	Off
Keypad 7	Off	On	On	Off
Keypad 8	On	On	On	Off

Table 6: Keypad DIP Switch Address Settings

STATUS ICONS & LED INDICATORS

The following table lists the function of each of the ICON Symbols and LED Indicators on the Graphic Keypad Display.

Icon	Status	Meaning
1 2 3 4 5 6 7 8	The keypad can display the current status of up to 4 areas simultaneously via the Area Icon Indicators. This option can be disabled in MENU 6-1-4	
	On	The area is turned All On or Part On
	Off	The area is turned Off
	Flashing Fast	The area has an alarm
	On	System power is normal
	Flashing	System power is missing
	Flashing	A fire alarm is active
	Off	No fire alarm
	On	Fire alarm in memory (Turn the area All On and Off to Clear).
	On	The existing service or trouble condition has been acknowledged.
	Off	No service or trouble conditions exist
	Flashing	A service / trouble condition is present that has not been acknowledged.
	On	The area is turned Part On.
	Off	The area is not turned Part On.
	On	The area is turned off.
	Off	The area is turned All On or Part On
	On	The area is turned All On
	Off	The area is turned Off
	On	You have mail waiting to be read
	Off	No Mail
	On	Area is ready to turn on (All On / Part On)
	Off	Not ready, Zone Open
Red LED	**On**	All On
	Flashing	Alarm
Green LED	**On**	Area is off.
	Flashing	Area not ready to turn on
Red & Green LED	**Flashing**	Installer programming mode is active.

Table 7: ICON & LED Indicator Meanings

KEYPAD TONES

Your keypad emits several distinct tones and displays text to alert you to system events. The volume of the keypad tones can be adjusted in MENU 6-1-0.

Type	Meaning
Fire Alarm Tone	When a fire zone sounds an alarm, the keypad will sound 3 seconds on and 2 seconds off (repeat).
Burglary Alarm Tone	When a burglary zone activates while your system is turned on, your keypad emits a continuous siren tone. It sounds for the time set by your security company.
Trouble Tone	When a system component is not functioning properly, your keypad sounds 4 fast short beeps followed by a 5 second pause (repeat).
Key Press Tone	Pressing any key on the keypad sounds one short beep, indicating that the key press is accepted.
Entry Delay Tone	When you enter the premises through a zone programmed for entry delay, the keypad sound a Hi/Low tone to remind you to turn off the area. If the area is not turned off before the entry delay expires, an alarm condition will sound and a report may be sent to your alarm company.
Exit Delay Tone	After you turn an area All On, the keypad will sound 1 short beep every second. During the last 10 seconds fast short beeps will be heard. If you don't exit before the delay time expires and an exit delay door is faulted, an alarm occurs.
Error Tone	If you press an incorrect key, your keypad will sound a 2 second tone.
Menu Mode	The keypad will sound a Hi / Lo tone to indicate you have entered MENU Mode and a Lo/Hi tone to indicate you have exited MENU mode.
Chime Tone	The keypad sounds fast short beeps to alert you when a zone programmed for chime is faulted or unsealled.

Table 8: Keypad Tone Meanings

EOL RESISTOR COLOUR CODE

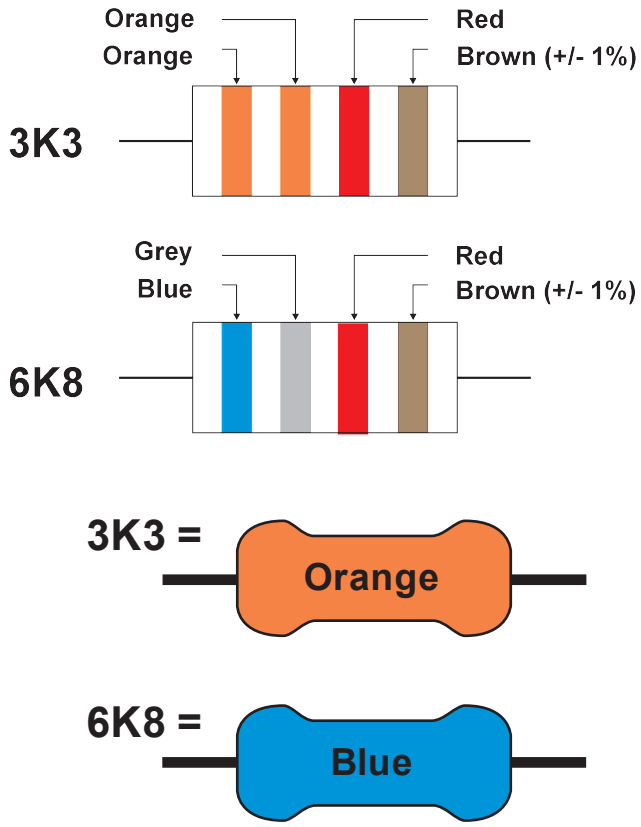


Figure 11: EOL Resistor Colour Chart

Selected Resistor Colour Codes				
Value	**Band 1**	**Band 2**	**Band 3**	**Band 4**
2K2	RED	RED	RED	BROWN
4K7	YELLOW	VIOLET	RED	BROWN
5K6	GREEN	BLUE	RED	BROWN
8K1	GREY	BROWN	RED	BROWN
10K	BROWN	BLACK	ORANGE	BROWN
12K	BROWN	RED	ORANGE	BROWN
22K	RED	RED	ORANGE	BROWN

Table 9: EOL Resisstor Colour Codes

Because of variations in the colours used to mark resistors it is recommended that you use a multimeter to verify the value of resistors rather than rely on the colour code.

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SECTION 3

Wiring Diagrams

ZONE WIRING

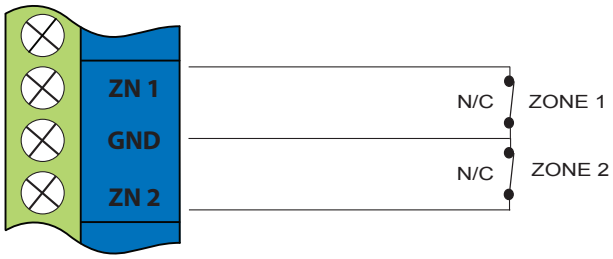


Figure 12: N/C No EOL Zone

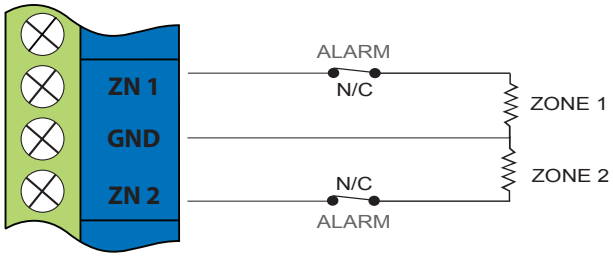


Figure 13: N/C Single EOL Zone

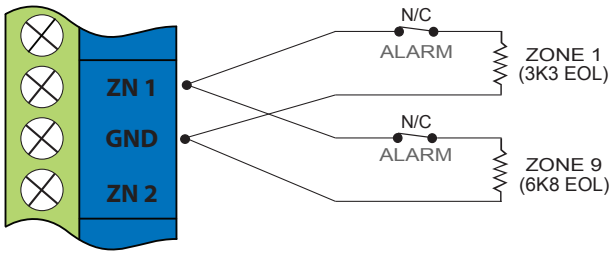


Figure 14: N/C Split EOL Zone

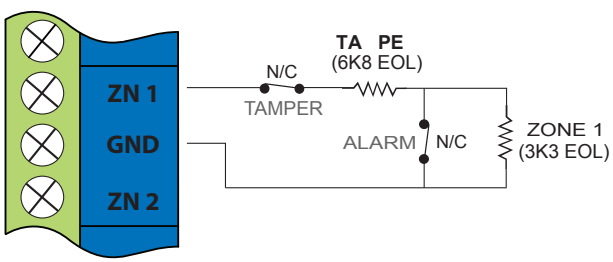


Figure 15: N/C Zone With Tamper

Note

The Above diagrams display the zone wiring configurations using Normally-Closed Alarm contacts and Normally-Open Alarm Contacts. When using Normally-Open Alarm Contacts you must select Inverted Seal for each zone in MENU 3-1-8. A shorted loop is a tamper condition for all EOL zone configurations.

Figure 16: N/O No EOL Zone

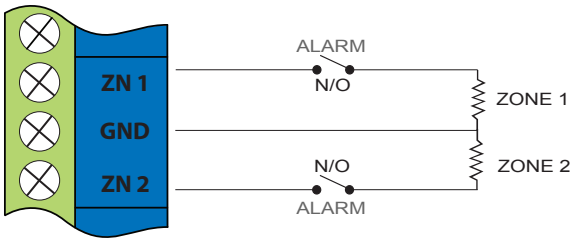


Figure 17: N/O Single EOL Zone

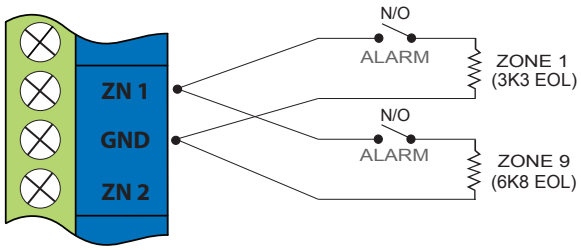


Figure 18: N/O Split EOL Zone

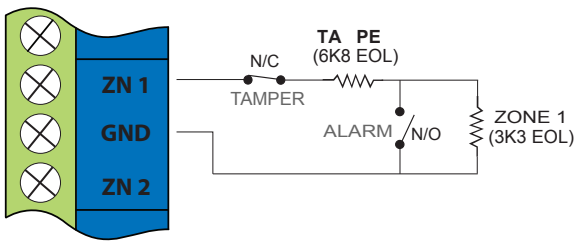


Figure 19: N/O Zone With Tamper

BOARD CONNECTORS

The following table lists the various sockets, pin headers and switches located on the panel and their functions.

Connector	Description
Service	This socket allow you to connect a service Keypad to the panel during installation.
Tamper	This socket is used to connect the panel enclosure tamper switch.
Default	This push button is used to reset the control panel back to factory default.
Voice Module	This is used to connect the optional Voice Command Module (CM100).
Serial	This socket is used to connect serial devices to the control system like a Serial STU.
Telco	This is a RJ12 6P/4C connector that allows you to connect the control panel to the PSTN telephone line.
Relay	The relay select PIN's allow you to easily program the relay common contact to switch either +12v or GND by fitting a plug on link.

Table 10: Board Connector Descriptions

TERMINAL DESCRIPTIONS

Nº	Name	Description
1	Earth	Earth wire from this terminal is connected to the Mains earth.
2 3	~ (AC) ~ (AC)	Connection of the A.C. plug pack transformer
4 5	BAT (-) BAT (+)	Negative and positive connections to the stand-by battery. 12 VDC / 7AH
6 7 8 9 10 11	+12 V +12 V +12 V GND GND GND	These terminals are used to power detectors and LAN devices up to 750 mA.
12 13	LAN + LAN -	These terminals are used to power LAN devices up to 750 mA.
14	LAN A	Connect the LAN A data terminal of any LAN device (eg. Keypads, expansion boards) to this terminal. The control panel supports up to 300 m of 24/0.20 (18 AWG) wire on these terminals.
15	LAN B	Connect the LAN B data terminal of any LAN device (eg. Keypads, expansion boards) to this terminal. The control panel supports up to 300 m of 24/0.20 (18 AWG) wire on these terminals.
16	COMM+	Alarm power capable of providing a maximum of 2 Amp (+). This terminal is PTC Fuse protected.
17 18 19	OUT 1 OUT 2 OUT 3	Programmable output, capable of providing a maximum of 500 mA (-). This terminal is PTC Fuse protected.
20 21 22	N/C COM N/O	2 A @ 24 VDC Relay Output - Form C contact
23	INPUT	Programmable Input for RF Receivers, Keyswitch and other devices.
24	ZN 1	Zone 1 and 9 sensor loop input (+).
25	GND	Common (-) for Zone 1 and 2 sensor loop.
26	ZN 2	Zone 2 and 10 sensor loop input (+).
27	ZN 3	Zone 3 and 11 sensor loop input (+).
28	GND	Common (-) for Zone 3 and 4 sensor loop.
29	ZN 4	Zone 4 and 12 sensor loop input (+).
30	ZN 5	Zone 5 and 13 sensor loop input (+).
31	GND	Common (-) for Zone 5 and 6 sensor loop.
32	ZN 6	Zone 6 and 14 sensor loop input (+).
33	ZN 7	Zone 7 and 15 sensor loop input (+).
34	GND	Common (-) for Zone 7 and 8 sensor loop.
35	ZN 8	Zone 8 and 16 sensor loop input (+).
36 37	IN IN	These terminals are used to connect the telephone line from the street.
38 39	OUT OUT	These terminals are used to connect the premises telephones.

Table 11: Terminall Block Descriptions and Functions

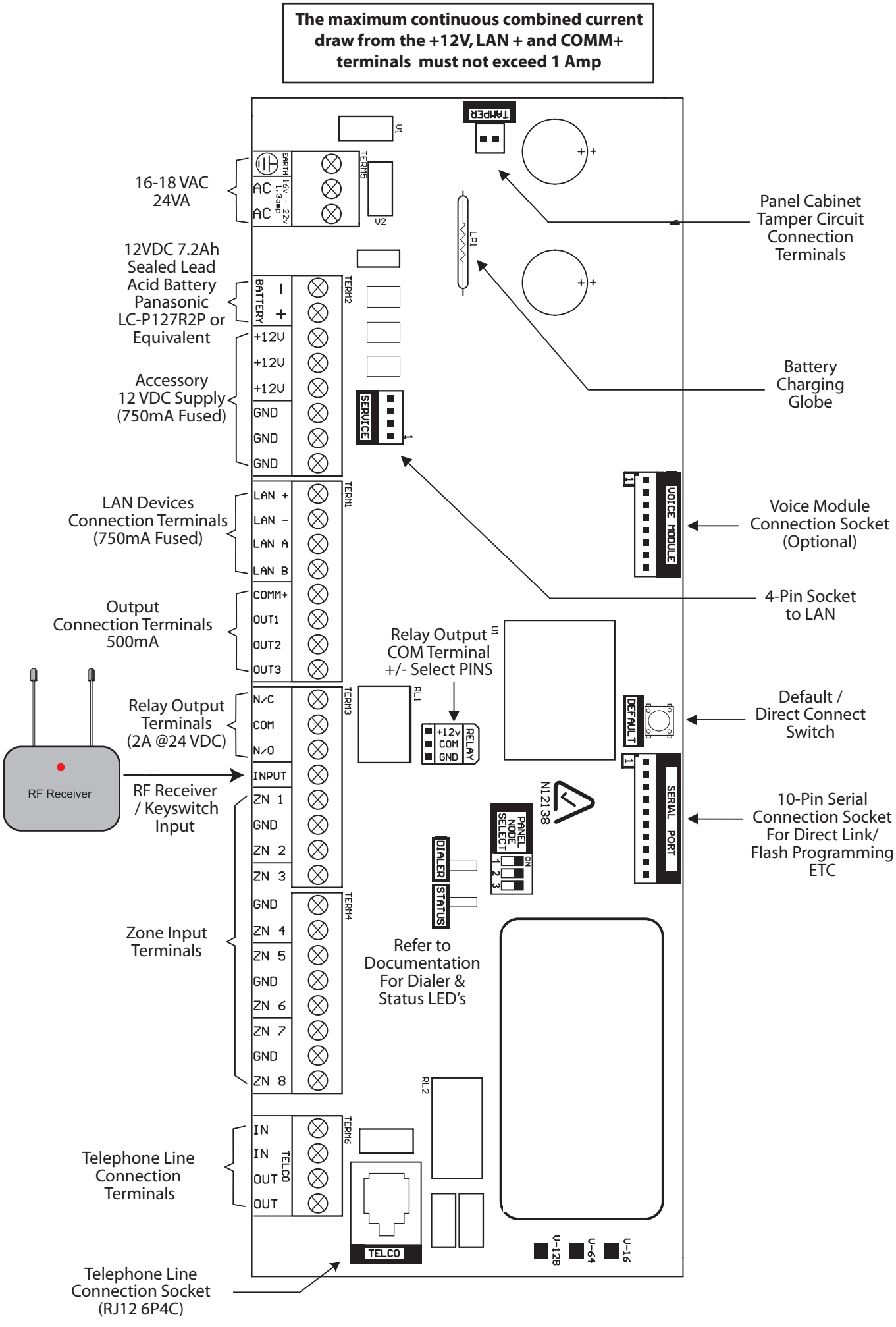


Figure 20: Terminal Descriptions

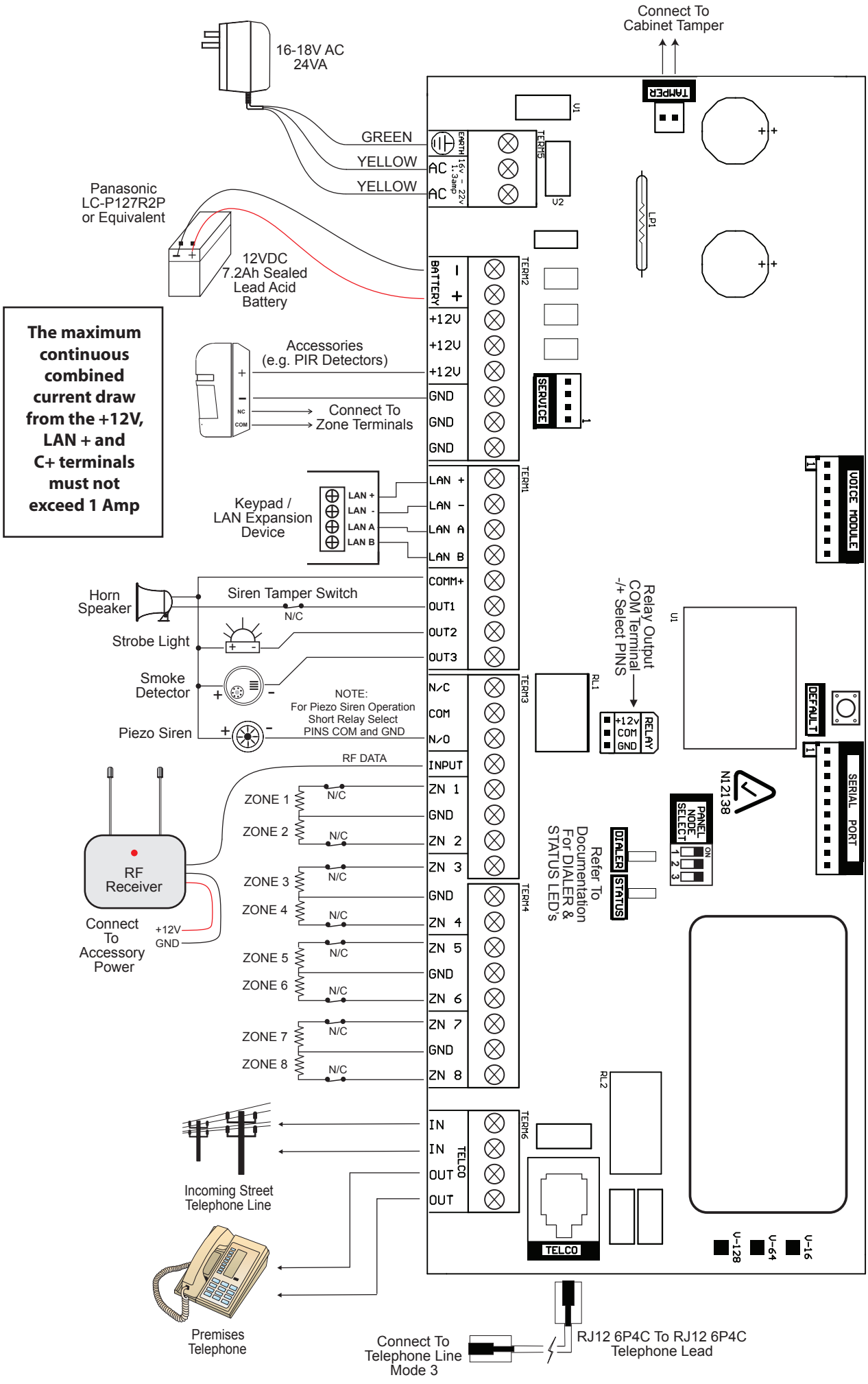


Figure 21: Wiring Diagram

SECTION 4

Programming Overview

The Solution 16^{plus} Control System incorporates a menu text driven interface. This interface is very similar to that found on many mobile phones. Once programming mode is entered you will see a number of menu options in the display and these may vary depending in the user authority level.

ENTERING PROGRAMMING MODE

To enter installer program mode enter, PIN + [MENU].
The default Installer PIN is 1234.

The Red and Green LED indicators on the keypad will flash to confirm Installer programming mode is active.

Note *All areas must be disarmed with no active alarms. To disarm all areas enter the Installer PIN and hold the* [OFF] *Key for 2 seconds.*

EXITING PROGRAMMING MODE

Press and hold down [MENU] key for 2 seconds.

The system will scan all schedules and peform the functions relative to the current system. For example if a timed output should be operated then it will operate and if the system should be armed it will arm.

Note *You can also select Exit and press* [OK] *from each menu level.*

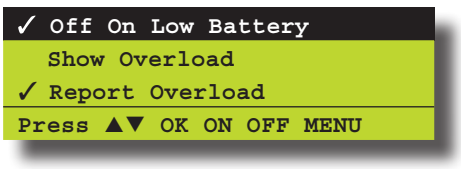
COMMAND MENUS

When you first enter programming mode a special menu called the Command Menu will appear at the top of the menu tree. The Command Menu provides a list of the most common system funtions like "Turn Chime Mode On", "Move To An Area" or "Turn An Area On".

Use the up and down arrow keys to navigate and press [OK] to select the command.

PROGRAMMING OPTION BIT MENUS

Use the up and down arrow keys to scroll through the 8 different options. To enable an option, press the [ON] key – a tick will be displayed. To disable an option, press the [OFF] key.



To save programming changes, press [OK] or press [MENU] to exit without saving.

NAVIGATING THE MENUS

Using the up and down arrow keys to navigate, locate the desired menu item using the highlight bar and then press the [OK] key to select.

A new list of menu items will appear. Repeat the above until the desired menu item is located.

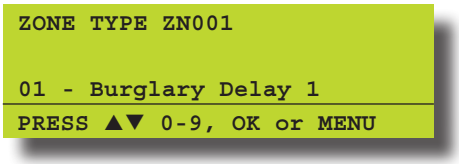
To navigate backwards through the menu items press the [MENU] key at any time. Alternatively if you know the direct menu item number press [MENU] + Item Number.

Key	Description
←	Scrolls Cursor Left
→	Scrolls Cursor Right
↑	Scrolls Cursor Up
↓	Scrolls Cursor Down
OK	Enter Menu Options or Saves Changes
MENU	Go Back One Level, Abort Current Change or Hold Down to Exit Programming Mode
0 to 9	Enter Data Value
ON	Turn On Bit Option
OFF	Turn Off Bit Option, Clear to End of Line

Table 12: Keys Used During Programming

LIST OPTIONS

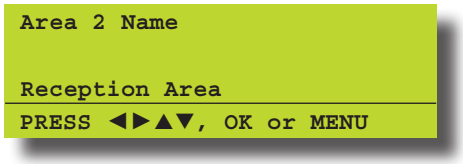
Use the up and down arrow keys to step through the available options. Press [OK] to save or [MENU] to exit without saving.



Note *You can also enter the option number directly followed by [OK]. You must press the [OK] a second time to confirm the current setting.*

ALPHA TEXT

Text descriptions are available for Area Name, Zone Name, User Name, Schedule Name, Holiday Name, Prox Reader Name and Output Name. Each name can have a maximum of 16 characters.



When programming text, each numeric key represents a different group of characters.

Pressing the same numeric key repeatedly will step you through the available characters assigned to the key. The text key layout is the same as most phones. Refer to the table below for detailed character information.

Key	Characters Assigned To Each Numeric Key								
1	.	,	?	!	-	&	`	1	
2	A	B	C	a	b	c	2		
3	D	E	F	d	e	f	3		
4	G	H	I	g	h	i	4		
5	J	K	L	j	k	l	5		
6	M	N	O	m	n	o	6		
7	P	Q	R	S	p	q	r	s	7
8	T	U	V	t	u	v	8		
9	W	X	Y	Z	w	x	y	z	9
0	SPACE	0							
↑	Scroll Up through entire character list								
↓	Scroll Down through entire character list								
←	Move to left one character position								
→	Move to right one character position								
OFF	Clear from cursor postiion to end of line								

Table 13: Text Keypad Character Set

Once the desired character is displayed press the right arrow key to move to the next character position.

To save programming changes, press [OK] or press [MENU] to exit without saving.

Note

The following additional special characters are available by scrolling using the up and down arrow keys.

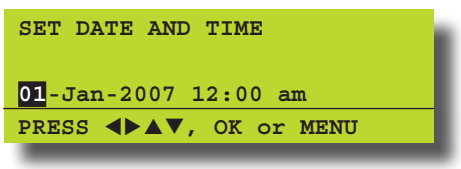
+ - @ # $ " & % * : ( ) / < > =

CLOCK PROGRAMMING

Use the left and right arrow keys to move to the field and use the up and down keys to change. Press [OK] to save or [MENU] to exit without saving.

Note

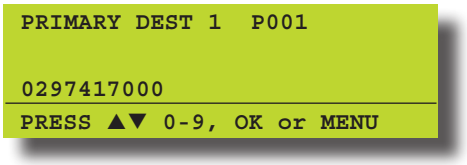
Scroll through the hours to change from am to pm.



TELEPHONE NUMBERS

To program, select primary telephone number under MENU 5-1-1 then enter the digits of the telephone number and press the [OK] key to save.

Use the up and down arrow keys to program special characters (*, # and Pause).



Key	Characters Assigned To Each Numeric Key
0 to 9	Enter the Digits 0 to 9
↑ ↓	Scroll Up through entire character list 0 - 9 * # , comma = 2 second pause
← →	Move to left or right one character position
OFF	Clear from cursor position to end of line

Table 14: Phone Number Character Set

To save programming changes, press [OK] or press [MENU] to exit without saving.

GETTING STARTED BACK TO BASE

The following steps are the mimimum requirements to get the system reporting back to base. Examples assume the panel is disarmed with no alarms and starting from the factory default settings.

1) **Enter Program mode.**
   [1234 + MENU]

2) **Set Time and Date.**
   [MENU 7-1-0]

3) **Change Default Installer PIN.**
   [MENU 1-5-2]

4) **Change Default Master Code PIN.**
   [MENU 1-1-1]

5) **Enter Account (client) Number, Area 1.**
   [MENU 2-2-0]

6) **Enter Base Primary Telephone Number.**
   [MENU 5-1-1]

7) **Enter Base Secondary Telephone Number.**
   [MENU 5-1-2]

8) **Hold Down MENU For 2 Seconds To Exit.**

9) **SERVICE MODE**

Service mode when activated disables dialler reporting, prevents all alarms and prevents all users from arming the system.

Turning Service Mode ON

1) **Enter Program Mode.**
   [1234 + MENU]

2) **Turn Service Mode On.**
   [MENU 7-0-8]

3) **Follow Display Prompts.**

4) **Hold down MENU to exit.**

Note *Keypads will display the word "SERVICE" in the middle of the display when service mode is active.*

Turning Service Mode OFF

1) **Enter Program Mode.**
   [1234 + MENU]

2) **Turn Service Mode On.**
   [MENU 7-0-8]

3) **Follow Display Prompts.**

4) **Hold down MENU To Exit.**

Note *You must exit Service Mode to reactivate the system. Service mode will automatically exit after 2 hours.*

DEFAULTING THE SYSTEM

Defaulting the system will reset all programming options back to the factory default setting. All programming information will be erased.

Hardware Default

1) **Remove All Power To The System. AC and Battery.**

2) **Press and Hold The Default Push Button Down Then Apply Power To The System.**

3) **Release Button, The Panel Will Reset And Revert To Normal Operation When Default Is Complete.**

Software Default

1) **Enter Program Mode.**
   [1234 +MENU]

2) **Select Factory Default Option.**
   [MENU 7-0-4)

3) **The Panel Will Reset And Revert To Normal Operation When Default Is Complete.**

Note *You can disable factory defaulting using MENU 7-7-4. If factory defaulting has been disabled you must know the installer PIN to perform a factory default otherwise the system will need to be returned to your supplier for defaulting. Charges will apply.*

TRIGGERING A DURESS ALARM

If your PIN is 2580, to send a duress report when the area is off, Enter, [2] + [5] + [8] + [0] + [8] + [0] + [OK] or [ON].

If your PIN is 2580, to send a duress report when the area is on, Enter, [2] + [5] + [8] + [0] + [8] + [0] + [OFF].

Note *Duress alarms are triggered by entering the user PIN followed by the last 2 digits of the user PIN followed by the ON or OFF key.*

DOMESTIC TEMPLATE DEFAULTS

The following table list the changes that will occur when you select domestic default. See MENU 7-0-3 — Domestic Default.

Program Option	Domestic Default Value
All Trouble Reports	Disabled
All Bypass Reports	Disabled
All Restore Reports	Disabled
Destination 1 TX Format	Domestic Reporting
Open / Close Reports	Disabled (all areas)
System Events Route	Log Only

Table 15: Domesting Reporting Defaults

DIRECT LINK PROGRAMMING

The panel can be programmed via the SolutionLink™ Upload/Download software in either Direct Link or Remote Link modes. For Direct Link you will need a CM900 Direct Link module which is used to connect the panels serial port to the PC.

Once the cable is connected you will need to hold down the default switch on the panel for 5 seconds to initiate the programming session. See the board layout drawings in Section 3 of this manual for the default switch location.

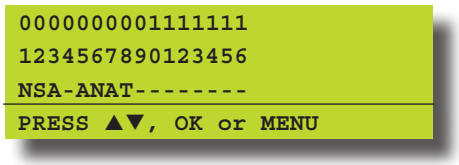
ZONE ARRAY

The feature allows you to view the condition of all zones on the panel in banks of 16 zones at a time. From the installer programing mode press MENU 3-0-1 to access the zone array.

Use the up and down arrow keys to scroll up and down the zone banks and Press [OK] or [MENU] when finished.

The following information can be displayed depending on the current zone status.

N= NORMAL
S = SHORTED
A= ALARM
T= TAMPER
- = DISABLED



In the above example screen,

N = Zone 01 and 06 are Normal (Sealed)
S = Zone 02 is Shorted
A = Zone 03,05,07 are in Alarm (Unsealed)
T = Zone 08 is in Tamper Alarm (Unsealed)
- = Zone 04, 09-16 are Disabled (Unused)

TESTING THE SYSTEM

You will need to be in programming mode before accessing the test functions listed below.

Walk Test

Use the walk test command MENU 3-9-0 to test and verify that all zones work correctly.

External Audible Test

Use MENU 4-9-0 to test and verify that all horn speakers operate. This test will sound the horn speaker for two seconds.

Internal Audible Test

Use MENU 4-9-1 to test and verify that all 12 VDC sirens operate. This test will sound the siren for two seconds.

Strobe Test

Use MENU 4-9-2 To test and verify that the strobe operates. This test will turn on the strobe until you manually stop the test.

Battery Test

Use MENU 7-9-1 to test the back-up battery that is connected to the control panel.

Communication Test

Use MENU 5-9-0 to test the telephone reporting capability of the control panel. You can also activate a communication test by holding down the Test / Mail key on the keypad.

BASIC REPORTING REFERENCE

The following table is a shortform point ID listing.

For a complete listing of all the CID and SIA event reporting information that will be sent by the control panel you will need to view the base station template document that is included on the SolutionLink CD or contact your distributor.

Point ID Table	Module Description
Ur999	Installer
Ur001 - 256	Users
Ur000	Quick Arm
Zn999	Keyfob Low Battery
Zn998	Keyfob Panic Alarm
Zn891-898	Panels 1-8
Zn881-888	Keypads 1-8
Zn871-878	Ethernet 1-8
Zn861-868	GSM 1-8
Zn851-858	Output Expander 1-8
Zn841-848	Serial Expander 1-8
Zn831-838	Lan P/Supply 1-8
Zn821-828	RF Reciever 1-8
Zn811-818	Access 1-8
Zn801-808	X10 1-8
Zn791-798	Lift 1-8
Zn001-128	Zones

Table 16: Shortform Point ID Listing

DTMF CONTROL FUNCTIONS

The control panel includes comprehensive DTMF control of individual areas and outputs with full user PIN and TIMER GROUP access verification.

Unlike other systems, no additional hardware or modules are required for DTMF control. To configure the desired functions see MENU 5-3-5 DTMF Options.

How to Use DTMF Control

1. Once the panel answers the incoming call, if either option 1, 2, 3 or 4 in MENU 5-3-5 is enabled, then the panel will play a short welcome jingle. You now have approximately 5 seconds to enter a valid PIN and log onto the panel.

2. Enter PIN followed by the # key. If the PIN is valid the system will respond with two short beeps. If the PIN is invalid then a single long beep will be heard.

If a valid PIN is not entered in time, the panel will attempt to establish a modem connection as if connecting to the SolutionLink software.

If this happens you will need to hang up for approximately 60 seconds before trying again.

3. Once validated, the following commands can be performed. See the table below. If no keys are pressed for 20 seconds then the panel will play the exit jingle before terminating the session and hanging up. Pressing ## at any time while connected will cause the panel to terminate the session.

DTMF CONTROL FUNCTIONS		
Operation	**Command**	**Response**
Quick Arm All Areas	0 + #	2 x Beeps
Log In OK	USER PIN + #	Welcome Jingle
Log In Failed	USER PIN + #	Long Beep
Turn Area ON	1 + (Area Nº1-8) + 1 + #	2 x Beeps (Low - High)
Turn Area OFF	1 + (Area Nº1-8) + 2 + #	2 x Beeps (High - Low)
Turn Output ON	2 + (Output Nº1-16) + 1 + #	2 x Beeps (Low - High)
Turn Output OFF	2 + (Output Nº1-16) + 2 + #	2 x Beeps (High - Low)
End Session	# + #	Exit Jingle

Table 17: DTMF Remote Control Functions

DTMF EXAMPLES

Each example below shows the log on step for clarity. In practise is only necessary to log on once per DTMF control session.

To turn Area 1 ON enter the following

2 + 5 + 8 + 0 + # = Log ON

1 + 1 + 1 + # = Arm Area 1

To turn Output 10 ON enter the following

2 + 5 + 8 + 0 + # = Log ON

2 + 10 + 1 + # = Turn Output 10 ON

To turn Output 12 OFF enter the following

2 + 5 + 8 + 0 + # = Log ON

2 + 12 + 2 + # = Turn Output 12 OFF

Note

If the DTMF Quick Arm option is enabled then it is possible to remotely arm all areas without logging onto the panel. Simply enter 0 + # following the welcome jingle.

Make sure that the phone being used to remotely control the panel is set to transmit DTMF tones when keys are pressed during the call. This option is disabled by default on some phones.

MENU REFERENCE TABLE

The Solution Controller includes a simple text menu system which makes all levels of programming extremely easy. Once a valid PIN has been entered followed by the MENU key, the system will automatically determine which menus and options the PIN holder has access to and only those items will be displayed.

There are four basic grouping levels used. Throughout the manual, symbols have been placed near each menu option so that you can easily relate the authority level which is required to access them.

A = A = All (No PIN Required)

U = U = User PIN Has Access

M = M = Master PIN Has Access

I = I = Installer PIN Has Access

The following table lists all programming menus and the authority level required to access them.

	0	Commands
UMI	2-0-1	Turn Area On/Off
UMI	2-0-2	Turn All Areas On
UMI	2-0-3	Turn All Areas Off
UMI	2-0-4	Move To Area
AUMI	2-0-5	Chime On/Off
UMI	1-1-0	Change Own PIN
AUMI	3-0-0	Zone Status
AUMI	4-0-0	Output Status
UMI	4-0-1	Turn Output On/Off
MI	7-1-0	Set Date & Time
UMI	3-0-5	Smoke Sensor Reset
UMI	3-9-0	Walk Test All Zones
MI	4-9-0	External Siren Test
MI	4-9-1	Internal Siren Test
MI	4-9-2	Strobe Test
MI	5-0-0	Set Domestic Number
UMI	5-0-1	Call/Answer RAS
UMI	7-9-1	Battery Test
UMI	5-9-0	Test Dialler
I	7-0-8	Service Mode
UMI		About

	1	Access
	1-0	**Commands**
MI	1-0-0	Erase User
	1-1	**PIN Codes**
UMI	1-1-0	Change Own PIN
M	1-1-1	Change Other PIN
MI	1-1-2	Add PIN
MI	1-1-3	Delete PIN
I	1-1-4	View PIN
	1-2	**Token**
MI	1-2-0	Add Token
MI	1-2-1	Delete Token
MI	1-2-2	Token Status
	1-3	**RF Keyfob**
MI	1-3-0	Add Keyfob
MI	1-3-1	Delete Keyfob
I	1-3-2	Test Keyfob
	1-4	**User Properties**
MI	1-4-0	User Name
MI	1-4-1	Area Assignment
I	1-4-2	User Options
MI	1-4-4	Timer Group
MI	1-4-5	Access Assignment
I	**1-5**	**Global Properties**
I	1-5-0	PIN Length
I	1-5-1	PIN Retry Count
I	1-5-2	Installer PIN
I	1-5-3	PIN Expire Time
I	**1-6**	**Prox Reader**
I	1-6-0	Name
I	1-6-1	Area Assignment
I	1-6-2	Access Group
I	1-6-3	Reader Options

	2	Areas
	2-0	**Commands**
AUMI	2-0-0	Area Status
UMI	2-0-1	Turn Area On/Off
UMI	2-0-2	Turn All Areas On
UMI	2-0-3	Turn All Areas Off
UMI	2-0-4	Move To Area
AUMI	2-0-5	Chime On/Off
UMI	2-0-6	Chime Mode
	2-1	**Area Properties**
MI	2-1-0	Area Name
I	2-1-1	General Options
I	2-1-2	Input Options
I	2-1-3	Output Options
I	2-1-4	Reporting Options
I	2-1-5	Strobe Trigger
	2-2	**Reporting**
I	2-2-0	Account Dest 1
I	2-2-1	Account Dest 2
I	2-2-2	Open Close Route
	2-9	**Area Testing**
I	2-9-0	Area Watch
I	2-9-1	User Test Interval
I	2-9-2	Service Interval
I	2-9-3	Test Options

	3	Inputs
	3-0	**Commands**
AMI	3-0-0	Zone Status
I	3-0-1	Zone Array
UMI	3-0-2	Bypass Zones
MI	3-0-3	Set Chime Zones
MI	3-0-4	Set Part 2 Zones
UMI	3-0-5	Smoke Sensor Reset
	3-1	**Zone Properties**
MI	3-1-0	Zone Name
I	3-1-1	Zone Type
I	3-1-2	Area Assignment
I	3-1-3	Pulse Count
I	3-1-4	Pulse Count Time
I	3-1-5	Access Group
I	3-1-6	Report Route
I	3-1-7	Report Options
I	3-1-8	Zone Options
	3-3	**RF Zone**
I	3-3-0	Add RF Device
I	3-3-1	Delete RF Device
I	3-3-2	Test RF Device
	3-4	**Global Input Options**
I	3-4-0	EOL Value
I	3-4-1	Keyswitch Options
I	3-4-2	Input Options
	3-5	**PGM Input**
I	3-5-0	Input Type
	3-6	**Tamper Inputs**
I	3-6-0	Tamper Options
	3-9	**Input Testing**
UMI	3-9-0	Walk Test All Zones
UMI	3-9-1	Walk Test A Zone
I	3-9-2	Sensor Watch Time

	4	Outputs
	4-0	**Commands**
AUMI	4-0-0	Output Status
UMI	4-0-1	Turn Output On/Off
	4-1	**Properties**
MI	4-1-0	Output Name
I	4-1-1	Event Type
I	4-1-2	Event Assignment
I	4-1-3	Output Polarity
I	4-1-4	Timer Parameter
I	4-1-5	Output Options
I	4-1-6	Macro Group
	4-9	**Output Testing**
MI	4-9-0	External Siren Test
MI	4-9-1	Internal Siren Test
MI	4-9-2	Strobe Test

	5	Comms
	5-0	**Commands**
MI	5-0-0	Set Domestic Number
UMI	5-0-1	Call /Answer RAS
MI	5-0-2	Call Forward On/Off
MI	5-0-3	Check Web Email
MI	5-0-4	Email System Log
MI	5-0-5	Start Direct Link
MI	5-0-6	Voice Setup
	5-0-7	Reserved
	5-0-8	Register Customer
I	5-0-9	Register Installer
	5-1	**Telephone Numbers**
I	5-1-0	Number Prefix
I	5-1-1	Primary Dest 1
I	5-1-2	Secondary Dest 1
I	5-1-3	Primary Dest 2
I	5-1-4	Secondary Dest 2
MI	5-1-5	Domestic Numbers
MI	5-1-6	Call Forward On
MI	5-1-7	Call Forward Off
	5-2	**Properties**
I	5-2-0	Call Attempt Count
I	5-2-1	Dialler Options
I	5-2-2	Phone Line Options
I	5-2-3	Country
I	5-2-7	Set SMS Password
	5-3	**Remote Access**
I	5-3-0	Call Back Number
I	5-3-1	RAS Security PIN
I	5-3-2	Log Threshold
I	5-3-3	Ring Count
I	5-3-4	RAS Options
I	5-3-5	DTMF Options
I	5-3-6	Voice Access Code
I	5-3-7	CLI Numbers
	5-4	**Dialler Reporting**
I	5-4-0	TX Format Dest 1
I	5-4-1	TX Format Dest 2
I	5-4-2	Test Route
I	5-4-3	System Route
I	5-4-4	Emergency Route
I	5-4-5	Swinger Dialler
I	5-4-6	Burg Report Delay
I	5-4-7	Fire Report Delay
	5-5	**My Alarm**
MI	5-5-8	Email Address
MI	5-5-9	Email Options
	5-9	**Comms Test**
UMI	5-9-0	Send Test Report
I	5-9-1	Test Report Time
I	5-9-2	Test Report Period
I	5-9-3	Test Report Options
I	5-9-4	Test Route
I	5-9-5	Dial Number Test

	6	**Devices**
	6-0	**Commands**
UMI	6-0-0	LAN Status
I	6-0-1	LAN Secure
	6-1	**Keypads**
MI	6-1-0	Volume
MI	6-1-1	Contrast
MI	6-1-2	Backlight
I	6-1-3	Home Area
I	6-1-4	General Options
I	6-1-5	Beeper Options
I	6-1-6	Emergency Keys
I	6-1-7	Access Group
I	6-1-8	Lockout Time
	6-2	**RF Devices**
I	6-2-0	Receiver Options
I	6-2-1	Supervision Time
I	6-2-2	RF Device Options
I	6-2-3	Add RF Keypad
I	6-2-4	Delete RF Keypad
I	6-2-5	View RF Device ID
	6-3	**Serial Device**
I	6-3-0	Device Type
I	6-3-1	Baud Rate
I	6-3-2	Flow Control
	6-5	**GSM Modem**
	6-6	**Ethernet**
	6-7	**Access Controller**
	6-8	**X10 Device**

	7	**System**
	7-0	**Commands**
UMI	7-0-0	Panel Status
UMI	7-0-1	System Trouble
UMI	7-0-2	History Log
I	7-0-3	Domestic Default
I	7-0-4	Factory Default
I	7-0-5	Template Default
I	7-0-8	Service Mode
	7-1	**Clock**
MI	7-1-0	Set Date & Time
I	7-1-1	Summertime On
I	7-1-2	Summertime Off
	7-2	**Timers**
I	7-2-0	Exit Time
I	7-2-1	Entry Time 1
I	7-2-2	Entry Time 2
I	7-2-3	Part Entry Time
I	7-2-4	Auto Arm Pre Alert
I	7-2-5	Output Pre Alert
I	7-2-6	Senior Watch Time
	7-3	**Power**
I	7-3-0	AC Options
I	7-3-1	Battery Options
I	7-3-2	Fuse Options
	7-4	**Siren**
I	7-4-0	Tone
I	7-4-1	Speed
I	7-4-2	Volume
I	7-4-3	Swinger Siren
	7-5	**Schedules (TEF)**
MI	7-5-0	Name
MI	7-5-1	Time
MI	7-5-2	Day
I	7-5-3	Function
I	7-5-4	Index
	7-6	**Holidays**
MI	7-6-0	Name
MI	7-6-1	Start Stop Dates
	7-7	**System Options**
I	7-7-0	General Options
I	7-7-1	Area Options
I	7-7-2	Keypad Idle Screen
MI	7-7-3	Keypad Hi/Lo Temp
I	7-7-4	Installer Options
I	7-7-5	Language
MI	7-7-7	Site Name
	7-9	**System Testing**
UMI	7-9-0	Walk Test All Zones
UMI	7-9-1	Battery Test

Table 18: Menu Reference Table

SECTION 5

Access Programming

The Solution 16^{plus} has 48 users which can each use any combination of pin, radio keyfob or a proximity token to operate the system. A total of 8 proximity readers can be connected, which are integrated within the individual keypads.

Each user can be assigned their own unique name up to 16 characters long to identify the user within the system and to present a greeting message when operating the system. User PIN's can be configured for 1 to 8 digits or variable where users can have different pin lengths up to 8 digits long. All users have options which can be set to control their authority level within the system, whether they are allowed to bypass zones or send open close reports see MENU 1-4-2 — User Options.

The installer Ur999 is a special user within the system and has ultimate privileges which can not be changed. The Installer PIN can arm or disarm the system and has access to all menus at all times. This is a very powerful user pin and should be treated with utmost respect so that it is not widely known.

Timer Group

Users can belong to a timer group that determines whether or not the user is allowed access to the system. To create a timer group you will need to setup a schedule with start and stop times then set the function to Timer Group and select an index 1 to 8 to represent the timer group. Each user that you require to be restricted is then assigned to the timer group number you selected.

Multiple schedules can be used to create multiple access times within the day and holiday schedules can also be linked with schedules.

Example:

Restricting access to only Monday to Friday 8am to 10pm.

1) **Pick a timer group number between 1-8 lets say 5.**

2) **Setup a schedule start time 8am, stop time 10pm, days MTWTF, Function =Timer Group, Index=5**

3) **Assign each restricted user to Timer Group 5**

Schedules

Schedules determine the valid operating times and days and then the schedule is linked to a timer group number. Users which are to be restricted are then assigned to the same timer group number as the schedule.

Access Group

A user can be restricted to certain doors within a building and this is done by assigning the user to one or more access groups. When a user presents his token to a proximity reader, the user parameters are checked and if the user has a matching access group assignment to the reader access group assignment then access is granted.

The output used to operate the door strike will also need to have the same access group assignment number so that it operates at the same time. To restrict a user from accessing doors outside specified times, create a timer group and assign the user to the timer group.

Example:

Prox reader operating a door.

1) **Assign proximity reader 9 to an access group 1-8 say 4**

2) **Set an output Event type=Access group and Index=4**

3) **Assign user to access group 4, a user can belong to multiple access groups to access multiple doors.**

4) **Assign reader to area 0 and disable arm/disarm options**

5) **Present token to reader to access door**

Example:

Prox reader operating door and disarm Area 1.

1) **Assign proximity reader 9 to an access group 1-8 say 4**

2) **Set an output Event type=Access group and Index=4**

3) **Assign user to access group 4, a user can belong to multiple access groups to access multiple doors.**

4) **Assign reader to area 1, enable arming option**

5) **Present token to reader to disarm, present token again to release door.**

Example:

Prox reader operating door and arm/disarm Area 1.

1) **Assign proximity reader 9 to an access group 1-8 say 4**

2) **Set an output Event type=Access group and Index=4**

3) **Assign user to access group 4, a user can belong to multiple access groups to access multiple doors.**

4) **Assign reader to area 1, enable arming/disarming and Badging option.**

5) **Present token to disarm, present token to release door, present token 3 times to arm system.**

USER DEFAULT TABLE

Parameter	User 1	User 2 - 48
Add PIN	2580	
Name	User 1	User 2 - 48
Area Assignment	1	1
User Options		
Has Master PIN Privileges	Y	
Expire PIN Code		
Is Arm Only Code		
Can Bypass Zones	Y	Y
Can Auto Bypass Zones	Y	Y
Send 'Open/Close' Reports	Y	Y
Timer Group		
Access Group		

Table 19: User Default Programming Options

USER PIN CODES

At factory default, each PIN is set to 4 digits in length. The default PIN for User 1 (Master user) is 2580. Only the Installer can change the PIN Length see MENU 1-5-0 — PIN Length.

Access > PIN Codes >

Erase User I-M **MENU 1-0-0**

This command allows the installer or a master code user, to erase the user. When an installer erases a user, it will return back to factory default all information relating to the following:

- PIN
- Token ID
- RF Keyfob ID
- Name
- Timer Group
- Access Group
- Area Assignment

1) **Enter [MENU] + [1] + [0] + [0] and using the arrow keys highlight the user to be erased then press [OK].**

```
Ur001 John Smith
Ur002 Debbie Smith
Ur003 User 3 Name
Press ▲▼ OK or MENU
```

2) **Verify the user name to be erased and press [OK]. To abort press [MENU].**

```
To Erase user Ur001
John Smith
Press OK.
Press OK or MENU
```

Access > PIN Codes >

Change Own PIN I-M-U **MENU 1-1-0**

This command allows a user to change their own PIN. The new PIN should have the same number of digits as the old PIN unless the variable code length option has been enabled. See MENU 1-5-0 — PIN Length.

1) **Enter [MENU] + [1] + [1] + [0]. The keypad will prompt you to enter a new PIN.**

```
Enter New PIN for
Debbie Smith Ur002

Press OK or MENU
```

2) **Enter the new PIN, then press [OK]. If the error message "PIN Not Allowed" is displayed , press [OK] and try a different PIN.**

3) **The keypad will now prompt you to confirm the new PIN again.**

```
Confirm New PIN for
Debbie Smith Ur002
****
Press OK or MENU
```

Note

If you attempt to enter a new PIN which already exists the system will display PIN Not Allowed. The next time the original PIN holder disarms the system they will be notified that their PIN code has been compromised. The compromised PIN message will continue to be displayed until the original user changes their PIN.

Access > PIN Codes >

Change Other PIN I-M **MENU 1-1-1**

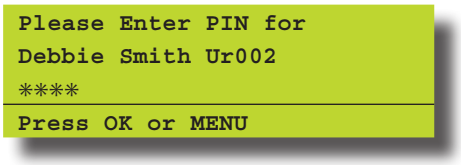
This command allows the Installer or Master user to change other user PINs. The Master User can only change PINs for other users in the same area.

The new PIN should have the same number of digits as the old PIN unless the variable code length option has been enabled. See MENU 1-5-0 — PIN Length.

1) **Enter [MENU] + [1] + [1] + [1] and use the up and down arrows to highlight the user in the list then press [OK].**

```
Ur001 John Smith
Ur002 Debbie Smith
Ur003 User 3 Name
Press ▲▼ OK or MENU
```

2) **Enter the new PIN, then press [OK]. If the error message "PIN Not Allowed" is displayed , press [OK] and try a different PIN.**



3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

If you attempt to enter a new PIN which already exists the system will display PIN Not Allowed. The next time the original PIN holder disarms the system they will be notified that their PIN code has been compromised. The compromised PIN message will continue to be displayed until the original user changes their PIN.

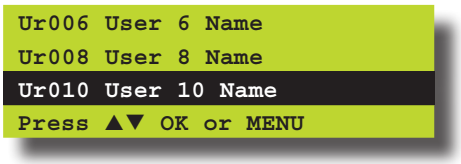
Access > PIN Codes >

Add PIN I-M **MENU 1-1-2**

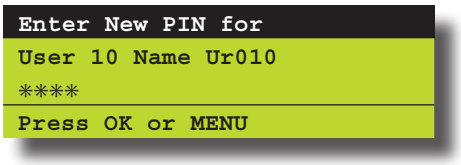
This command allows the Installer or Master user to add a PIN for a user that currently does not have a PIN assigned.

The Master user can only program a new PIN for users that have been assigned to the same area(s) as the Master user.

1) **Enter [MENU] + [1] + [1] + [2] and use the up and down arrows to highlight the user in the list then press [OK]. The system will only list users that dont already have PINs assigned.**



2) **Enter the new PIN, then press [OK]. If the error message "PIN Not Allowed" is displayed , press [OK] and try a different PIN.**



3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

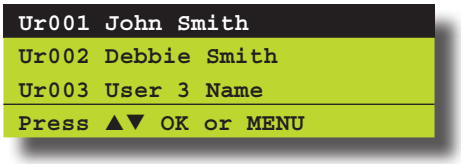
If you attempt to enter a new PIN which already exists the system will display PIN Not Allowed. The next time the original PIN holder disarms the system they will be notified that their PIN code has been compromised. The compromised PIN message will continue to be displayed until the original user changes their PIN.

Access > PIN Codes >

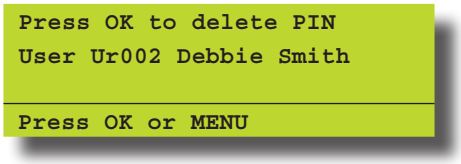
Delete PIN I-M **MENU 1-1-3**

This menu allows security installers and Master Users the ability to delete other users PINs. A Master user can only delete a PIN for users that have been assigned to the same area(s). The Installer and Master user cannot delete their own PIN.

1) **Press [MENU] + [1] + [1] + [3] and use the up and down arrows to highlight the user in the list then press [OK]. The system will only list users that can be deleted.**



2) **Press [OK] to delete the PIN or press [MENU] to cancel.**

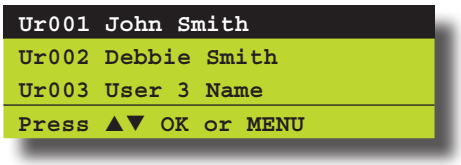


Access > PIN Codes >

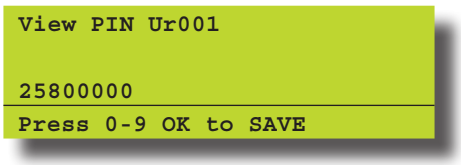
View PIN I **MENU 1-1-4**

This menu allows the Installer to view the actual PIN for any user.

1) **Press [MENU] + [1] + [1] + [4] and use the up and down arrows to highlight the user in the list then press [OK].**



2) **The PIN will always display 8 digits however only the number of digits corresponding to the global PIN Length setting are valid.**



3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

USER TOKENS

This section outlines how to add and delete tokens. Tokens provide an alternate method for users to turn the system on and off or operate a door strike.

A token is a plastic card that has a unique ID number. Each user can be assigned a PIN as well as a Token for greater flexibility.

A Token can be presented to a keypad with a built in reader or to an external reader module to operate the system.

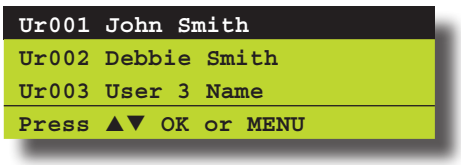
Tokens will follow all user settings.

Access > Token >

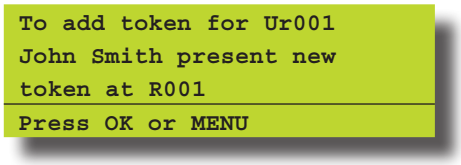
Add Token I-M **MENU 1-2-0**

This command allows the Installer or Master User to assign a Token ID for each user. Only one Token can be assigned to each user. To change a Token for an existing user you will need to first delete the old Token before adding the new one. See MENU 1-2-1 — Delete Token

1) **Enter [MENU] + [1] + [2] + [0] and use the up and down arrows to highlight the user in the list then press [OK]. The system will only list users that dont already have Tokens assigned.**



2) **Swipe the token card past the reader. As you swipe the token, the reader will sound a single beep to confirm that the token has been learnt.**



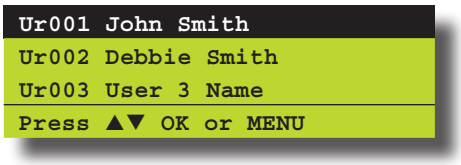
Note *If the Add Token command is initiated from a keypad that does not have a built in reader, you will need to select a reader from the list before proceeding. Swipe the Token at the selected reader.*

Access > Token >

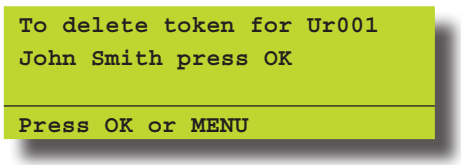
Delete Token I-M **MENU 1-2-1**

This command allows the Installer or Master User to delete Token IDs which have been programmed into the system.

1) **Enter [MENU] + [1] + [2] + [1] and use the up and down arrows to highlight the user in the list then press [OK]. The system will only list users that have Tokens assigned to them.**



2) **Press [OK] to delete the token or press [MENU] to exit without saving.**

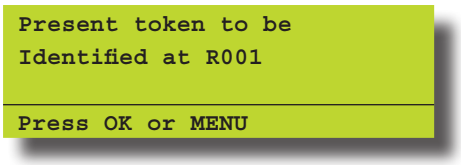


Access > Token >

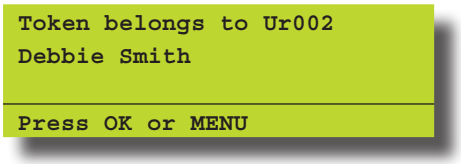
Token Status I-M **MENU 1-2-2**

This command allows the Installer or Master User to identify who a Token has been assigned to. You will need to have the token in order to do the test. This command can only be performed at a prox keypad.

1) **Enter [MENU] + [1] + [2] + [2]. The system will prompt you to swipe the token to be checked.**



2) **Present the token to the keypad, you will hear a confirmation beep and the display will show the token status.**



3) **To exit, press [OK] or [MENU].**

USER RF KEYFOBS

This section outlines how to add and delete RF keyfobs. RF Keyfobs provide an alternate method for users to turn the system on and off.

There are two methods for adding RF Keyfobs, Direct Entry and Learn Mode. The system will prompt for the appropriate method depending on the Receiver type fitted to the system.

The RF Keyfob must be compatible with the RF Receiver that has been programmed in MENU 3-5-0 — Input Type.

Refer to MENU 6-2-2 — RF Device Options to configure the following preferences for RF Keyfobs.

- **Audible RF Keyfob Panic,**
- **Report RF Keyfob Panic and**
- **RF Keyfob 'Part On' Arming Allowed.**

RF Keyfobs will follow all user settings.

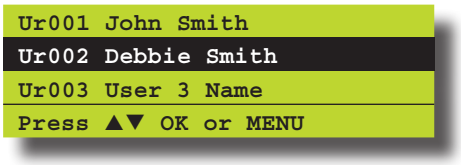
Access > RF Keyfob >

Add Keyfob I-M **MENU 1-3-0**

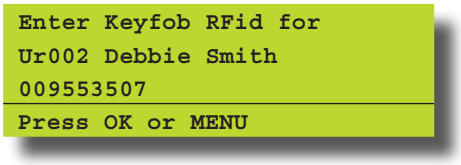
This menu allows the Installer or a Master User to assign an RF Keyfob to a user. All users can have an RF Keyfob assigned if required.

<u>Keyfob Direct Entry Mode</u>

1) **Enter [MENU] + [1] + [3] + [0] and use the up and down arrows to highlight the user in the list then press [OK]. The system will only list users that dont already have an RF Keyfob assigned.**



2) **Enter the RF Keyfob ID Number.**



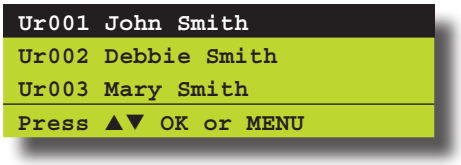
3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Access > RF Keyfob >

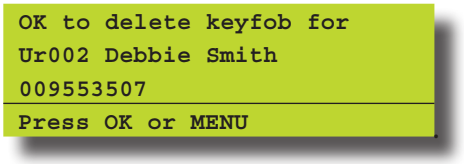
Delete Keyfob I-M **MENU 1-3-1**

This command allows the Installer or a Master User to delete an RF Keyfob ID that has been assigned to a user.

1) **Enter [MENU] + [1] + [3] + [1] and use the up and down arrows to highlight the user in the list then press [OK]. The system will only list users that have an RF Keyfob assigned.**



2) **Press [OK] to delete the RF Keyfob ID number and exit or press [MENU] to exit without saving.**

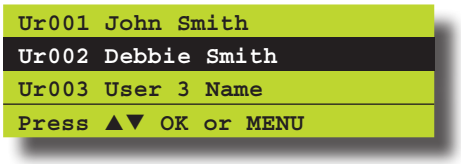


Access > RF Keyfob >

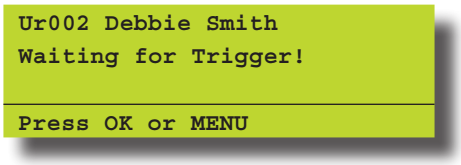
Test Keyfob I **MENU 1-3-2**

This menu allows the installer to test the RF Keyfob operation. Key the transmitter a number of times and the display will show the number of transmissions received and a signal level of GOOD, BAD or AVERAGE.

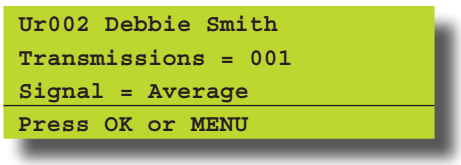
1) **Enter [MENU] + [1] + [3] + [2] and use the up and down arrows to highlight the user in the list then press [OK]. The system will only list users that have an RF Keyfob assigned.**



2) **Press any key on the transmitter you wish to test.**



3) **If the system receives the signal the following screen will appear.**



4) **Repeat step 2 as required and then Press [OK] to exit.**

USER PROPERTIES

This section outlines user properties including User Name, Area Assignment, User Options, Erase User and Access Group.

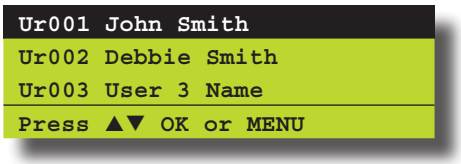
Access > User Properties >

User Name I-M **MENU 1-4-0**

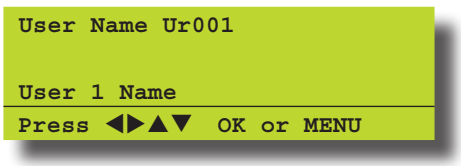
U	s	e	r		1		N	a	m	e					

This menu allows the security Installer or a Master user to program the user's name (max of 16 characters). This name is used for System Greetings, Reporting and Log entries to identify the user by name.

1) **Enter [MENU] + [1] + [4] + [0] and use the up and down arrows to highlight the user in the list then press [OK].**



2) **Use the arrow and number keys to move and change text. When the User Name is complete, press [OK]. At any time you can press the [OFF] key to clear the text from the current cursor position to the end of the line.**



Note *See Alpha Text Programming in Section 4 — Programming Overview for further detail on entering alpha text.*

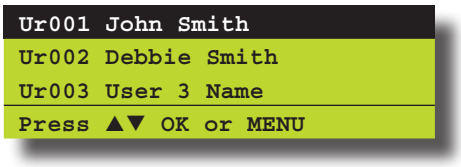
Access > Global Properties >

Area Assignment	I-M	MENU 1-4-1
1	Area 1	Y
2	Area 2	N
3	Area 3	N
4	Area 4	N
5	No Area	N
6	No Area	N
7	No Area	N
8	No Area	N

This menu allows the Installer or Master User to program which areas (1 to 4) other users can access. Each user can be assigned to one or multiple areas.

The Master user is restricted and can only assign other users to any one or multiple areas that the Master user has been assigned to. At factory default, each user is assigned to operate Area 1.

1) **Enter [MENU] + [1] + [4] + [1] and use the up and down arrows to highlight the User in the list then press [OK].**



2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until you have assigned the user to all required areas, then press [OK] to save and exit, or press [MENU] to exit without saving.**

Access > User Properties >

User Option	I	MENU 1-4-2
1	Has Master Code Privileges	Y
2	Expire PIN Code	N
3	Is Arm Only Code	N
4	Can Bypass Zones	Y
5	Can Auto Bypass Zones	Y
6	Send Open / Close Reports	Y
7	Reserved	N
8	Reserved	N

The above options are programmable per User.

1) **Enter [MENU] + [1] + [4] + [2] and select the user from the list then press [OK].**

2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Has Master PIN Code Privileges

Setting this option assigns the user as Master User. Master Users have have access to additional commands for administering the system. Non-Master Users have limited access to menu options. See the Menu Referrence Table in Section 5 for a list of available Master User commands.

Expire PIN Code

Setting this option will cause the User PIN to expire after the time period set in Menu 1-5-3 — PIN Expire Time. The time will reset each time the user PIN operates the system. Valid times are from 1 to 255 Days. Setting the time to 0 will prevent the code from expiring. To reactivate an expired PIN simply enter a new PIN for the User.

Is Arm Only Code

Setting this option restricts the Users PIN code to only turn an area on. The PIN code has no access to turn an area off or reset an alarm.

Can Bypass Zones

Setting this option allows the User to manually bypass and un-bypass zones.

Can Auto Bypass Zones

Setting this option allows the User to to turn the area on, even though one or more zones are still faulted or open. Upon arming, the system will prompt the user to automatically bypass each faulted zone. To prevent users from being able to force arm an area you will need to disable this option.

Send Open/Close Reports

Setting this option will cause the system to send opening and closing reports when the user arms and disarms an area.

UNDERSTANDING TIMER GROUPS

Timer Groups are used to restrict users from operating doors outside given times, days or holidays. To do this you need to create a timer group, then assign one or more schedules to the timer group to specify the access period, day of the week and holidays. To now restrict the user, they must belong also to the same timer group. This now restricts the user from accessing the system outside the nominated times and days within the schedules linked to the timer group.

User

Can only belong to 1 timer group.

Schedules

Multiple schedules can be linked to the same timer group.

Timer Groups

There are 8 different timer groups available.

Timer Group Example

1) **To set up a timer group you need to select an unused timer group number from 1 to 8, in this example we will assume timer group number to be 5.**

2) **Select an unused schedule and program the times and day of the week then assign the schedule to timer group 5**

3) **Then under user properties assign the users who you wish to restrict to timer group 5. Remember that you are only able to assign a user to one access group.**

A master code holder is able to change the schedules so they can change the access times for a given user. If a user tries to operate the system outside their assigned timer group periods then access will be denied.

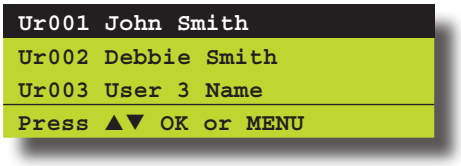
Access > User Properties >

Timer Group I-M **MENU 1-4-4**

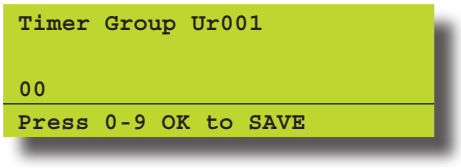
0

This menu is used to assign a User to a Timer Group. Timer Groups can be used to restrict User access to be within specific times defined by schedules. Each User can only be assigned to one Timer Group. Setting this option to 0 will give the User 24 hour access to the system.

1) **Enter [MENU] + [1] + [4] + [4] and select the user from the list then press [OK].**



2) **Using the numeric keys, enter the Timer Group. Valid entries are 1 – 8 or 0 to disable.**



3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

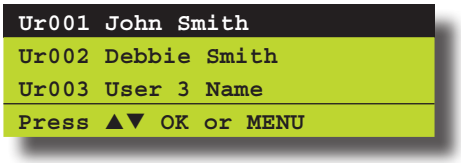
Access > User Properties >

Access Assignment I-M **MENU 1-4-5**

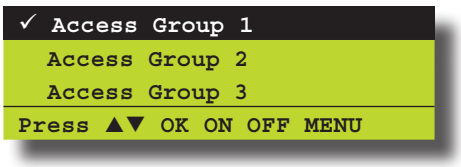
1	Access Group 1	N
2	Access Group 2	N
3	Access Group 3	N
4	Access Group 4	N
5	Access Group 5	N
6	Access Group 6	N
7	Access Group 7	N
8	Access Group 8	N

This menu allows you to assign each user to one or more access groups. An access group is used to allow and/or restrict which users have access to various system outputs. These outputs can be used to control door strikes etc.

1) **Enter [MENU] + [1] + [4] + [5] and select the user from the list then press [OK].**



2) **Use the up and down arrow keys to highlight the Access Group then press the [ON] key to select or the [OFF] key to deselect.**



3) **Repeat Step 2 until all required Access Groups are programmed, then press [OK] to save and exit or press [MENU] to exit without saving.**

Access > Global Properties >

PIN Length I **MENU 1-5-0**

4

0 = Variable

1 = 1 Digit	4 = 4 Digits	7 = 7 Digits
2 = 2 Digits	5 = 5 Digits	8 = 8 Digits
3 = 3 Digits	6 = 6 Digits	

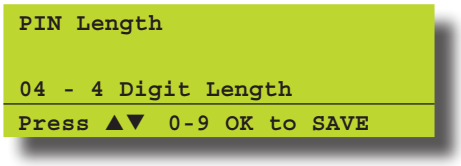
(*** System Wide Parameter ***)

At factory default, all User PINs are set to be 4 digits long. This menu allows you to change the length for all PIN codes.

If you select the Variable code length option then you are free to create pin codes with different code lengths. For example User 1 could have a 4 digit code while user 3 can have an 8 digit code.

Variable pin lengths are useful for increasing security levels. Another use would be to program a single digit code to trigger an output. To do this create a code which is not assigned to an area and then map this to the required output.

1) **Enter [MENU] + [1] + [5] + [0]. The keypad will display the current PIN length.**



2) **Select the required PIN length using the up and down arrow keys then press [OK] to save and exit or press [MENU] to exit without saving.**

Access > Global Properties >

PIN Retry Count **MENU 1-5-1**

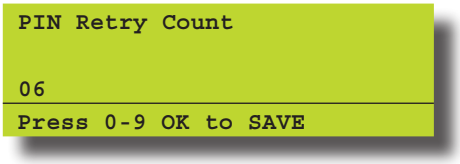
(*** System Wide Parameter ***) 6

This menu sets how many times an invalid PIN can be entered before the keypad will be quarantined or locked out. See MENU 6-1-8 — Keypad Lockout Time to set the lockout time period.

An Access Denied report will be sent to the base station when the keypad is quanrantined. If keypad lockout is not required set this option to 0.

The PIN retry count is reset every time the corresponding area is turned All On, Part On or Off.

1) **Enter [MENU] + [1] + [5] + [1]. The keypad will display the current PIN retry count.**



2) **Enter the required PIN Retry Count using the up and down arrow keys then press [OK] to save and exit or press [MENU] to exit without saving. Valid entries are 1 - 15 , 0 = Unlimited.**

Access > Global Properties >

Installer PIN **MENU 1-5-2**

(*** System Wide Parameter ***) 1 2 3 4

This menu sets the Installer PIN. The Installer can access all menu functions and can also disarm one or multiple areas. The Installer PIN Can Be Up To 8 Digits Long.

The factory default Installer PIN is 1234.

1) **Enter [MENU] + [1] + [5] + [2]. The keypad will display the current Installer PIN.**

2) **Enter the required PIN Retry Count using the up and down arrow keys then press [OK] to save and exit or press [MENU] to exit without saving.**

Access > Global Properties >

PIN Expire Time **MENU 1-5-3**

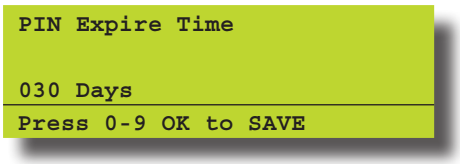
0 3 0

(*** System Wide Parameter ***) **DAYS**

This menu programs how many days PINs that have been programmed to expire, will be able to operate the system. Every time a valid temporary code is used, the Expire Time counter will restart.

To renew a temporary user, the Installer or Master user must reprogram the PIN. The PIN Expire Time is global for all temporary PIN users.

1) **Enter [MENU] + [1] + [5] + [3]. The keypad will display the current PIN Expire Time.**



2) **Enter the new PIN Expire Time using the numeric keys. Valid entries are 0 - 255 days.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving. cursor position to the end of the line.**

PROX READERS

Access > Prox Reader >

Name **MENU 1-6-0**

R e a d e r 1 N a m e

This menu allows you to program the name or location description of the prox reader. Up to 8 different Readers can be used on the Solution 16plus via keypads that have built-in Readers.

1) **Enter [MENU] + [1] + [6] + [0] and select the Reader from the list and press [OK].**

2) **Use the arrow and number keys to move and change text. When the Reader Name is complete, press [OK]. At any time you can press the [OFF] key to clear the text from the current cursor position to the end of the line.**

Note *See Alpha Text Programming in Section 4 - Programming Overview for further detail on entering alpha text.*

Access > Prox Reader >

Area Assignment **MENU 1-6-1**

1

This menu programs which area (1 to 4) the Reader will operate. Each reader can only be assigned to operate a single area.

When using a prox keypad reader, if you set the area assignment to a specific area number then only that area will arm / disarm when a valid token is used.

If you set the area assignment to 0 (zero), and a token is presented then the keypad will move to the first area which that user has access to. If the same token is presented a second time then the area currenttly in focus will arm or disarm.

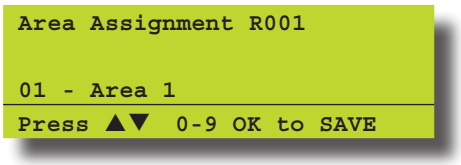
If the user wants to arm / disarm a different area which they have

access to, then after swiping their token the first time, they can use the left and right arrow keys to move to the desired area and then swipe their token a second time to operate.

If the user wants to arm / disarm all areas they belong to, then after swiping their token once, they can press and hold the [ON] key to arm or the [OFF] key to disarm all areas they belong to.

1) **Enter [MENU] + [1] + [6] + [1] and select the Reader from the list and press [OK].**

2) **Select the required Area using the up and down arrow keys then press [OK] to save and exit or press [MENU] to exit without saving.**



The keypad display will return back to its home area if no keys are pressed or tokens are presented for 60 seconds.

Access > Prox Reader >

Access Assignment I **MENU 1-6-2**

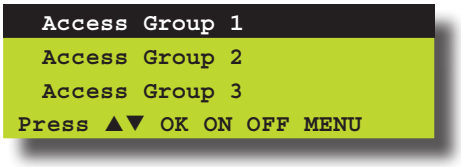
1	Access Group 1	N
2	Access Group 2	N
3	Access Group 3	N
4	Access Group 4	N
5	Access Group 5	N
6	Access Group 6	N
7	Access Group 7	N
8	Access Group 8	N

This menu is used to assign a Prox Reader to one or more Access Groups (1 to 8). Access Groups are used to restrict user access to doors.

Setting this option to 0 means the reader will not operate any system outputs.

1) **Enter [MENU] + [1] + [6] + [2] and select the Reader from the list then press [OK].**

2) **Select the required Access Group using the up and down arrow keys then press [ON] to enabled and [OFF] to disable.**



3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Access > Prox Reader >

Reader Options I **MENU 1-6-3**

1	Arming Allowed	Y
2	Disarming Allowed	Y
3	Badging Required	N
4	Zero Exit Time	N
5	Part On Badging	N
6	Arm If Single User Area	N
7	Reserved	N
8	Arm All User Areas	N

1) **Enter [MENU] + [1] + [6] + [3] and select the Reader from the list then press [OK].**

2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all Reader options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Arming Allowed

Selecting this option allows the prox reader to arm the area that it is assigned to when a valid token is presented. The User must have access to the Area that the Reader has been assigned to.
See MENU 1-6-1 — Reader Area Assignment

Disarming Allowed

Selecting this option allows the prox reader to disarm the area that it is assigned when a valid token is presented. The User must have access to the Area that the Reader has been assigned to.
See MENU 1-6-1 — Reader Area Assignment.

Badging Required

Selecting this option allows the user to unlock a door and arm an Area from a single reader. This option is only relevant if Arming Allowed has been selected.

When the area is disarmed, presenting the Token once will unlock the door. Presenting the Token 3 times within 5 seconds will arm the Area.

When the area is armed, presenting the Token once will disarm the area. Presenting the Token a second time will unlock the door.

Zero Exit Time

Selecting this option allow the User to arm the area from the reader with no exit time.

Part On Badging

Selecting this option allows the user to arm the area using their token in Part On and Part 2 On modes. This funtion is only available at Prox enabled Keypads.

To Arm In All On Mode

From the disarmed state, present the token once to fully arm the area.

To Arm In Part Mode

Present the token twice within 5 seconds and the area will arm in Part Mode.

To Arm In Part Mode

Present the token three times within 5 seconds and the area will arm in Part Mode 2.

Arm If Single User Area

This option allows a roaming reader to turn on only the first area that the token user has been assigned to (ie multi area user). This allows the user to log on when the token is swiped the second time. Swiping the token a third time will turn the first area that the user has been assigned to All On.

Arm All User Areas

This option allows a token user to turn on or off all areas that the user has been assign to at the same time. This option can be set per reader.

Note

NEW in Software version 1.02 and later.

»»END OF SECTION««

SECTION 6

Area Programming

The Solution 16^{plus} has 4 different areas each with its own specific programmable options.

Under the commands menu you can interrogate the status of an area, turn chime mode on/off, move to an area or arm and disarm a specific area.

The customer account number is programmable for each individual area as well as input, output and general options. Each time you are presented with an option that is area specific, the menu will prompt you to specify the area first.

Partitioning

The Solution 16^{plus} control system can be partitioned into 4 individual areas. Each area has its own individual properties which determine how the area operates. The default name for AREA-1 is "Security System" and it can be changed to any other name using the area properties menu. All zones and users are assigned to AREA-1 so no assigning of users or zones is required for non partitioned systems by default.

To create an area, assign one or more zones to the area of your choice. A zone can only belong to one area and any number of zones can belong to a single area. Each area operates independently from other areas as if it were another security panel and there are numerous options available to tailor just how the entire system should operate. If you require a common area that automatically arms when all other areas are armed, and disarms as soon as any other area is disarmed, then Area 1 can be set as a common area. To make area 1 a common area, set the option under MENU 7-7-1 — Area Options.

All keypads connected to the system have the ability to display the arm/disarm condition of every area at the same time using the area icons on the display. This is selectable per keypad under MENU 6-1-4 — General Options.

Once you log onto a keypad using your pin code + OK the system knows who you are and will allow you to use the left arrow key to move from the current area to the next area that your assigned to. To move areas without having to enter your code select the option under MENU 7-7-1 — Area Options and then simply step through all the available areas using the arrow keys. Each keypad is assigned a home area and will automatically revert back to this area after 60 seconds.

The system outputs must be configured to operate for their corresponding areas. The external siren, internal siren and strobe outputs are defaulted to output index 0 and will operate for any area . If you want the output to operate for multiple areas then the output index needs to be set to 0.

Example: Simple Two Area System

1) Assign zones to area 1 and area 2

2) Assign the home areas for the keypads

3) Assign users to areas

4) Set outputs to operate individually or common for all areas.

5) Set account code for each area

6) Set options,

Code to Change areas or just arrow key

Which keypads to display area icons

Reset Sirens by any user on any area

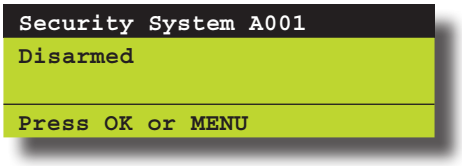
AREA COMMANDS

Areas > Commands >

Area Status A-I-M-U **MENU 2-0-0**

This command allows you to view the condition of any area in the system. In the following example Area 1 has the name "Security System" and it is currently in the Disarmed State.

1) **Enter [MENU] + [2] + [0] + [0] and select the area to view and press [OK].**

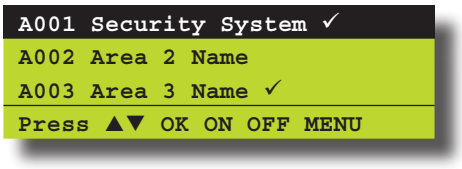


Areas > Commands >

Turn Area On/Off I-M-U **MENU 2-0-1**

This command allows you to turn on or off areas. If an area has already been turned All On or Part On, a 'tick' (✓) will be displayed on the right side of the area name.

1) **Enter [MENU] + [2] + [0] + [1] and select the area and press [OK] to change the current state.**



Areas > Commands >

Turn All Areas On I-M-U **MENU 2-0-2**

This command allows you to turn on all areas that your PIN has been assigned to at the same time. An alternative method for arming all areas is to enter your PIN then press and hold the [ON] key for 2 seconds.

1) **Enter [MENU] + [2] + [0] + [2]. The keypad will display the exit time bar to prompt you to exit all areas. You should leave all areas now.**

2) **When exit time has expired, the keypad will display that all areas are turned All On (Armed).**

Note *The Display Area Icons option is programmable per keypad. If this option has not been selected then Area icons 1 to 4 will not be displayed. See Menu 6-1-4 — Display Area Icons.*

Areas > Commands >

Turn All Areas Off I-M-U **MENU 2-0-3**

This command allows you to turn off all areas that your PIN has been assigned to at the same time. This command cannot be accessed from a keypad that is in the armed state.

1) **Enter [MENU] + [2] + [0] + [3] to disarm all areas.**

2) **An alternative method for disarming all areas is to enter your PIN then press an hold the [OFF] key for 2 seconds.**

Areas > Commands >

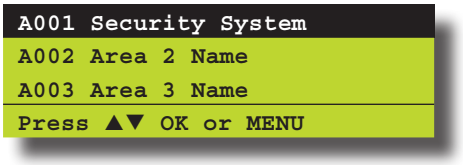
Move To Area I-M **MENU 2-0-4**

Each keypad on the system can operate any area, however you can only operate the area which is currently being displayed. The Move to Area command allows you to change the current keypad view from one area to another.

An alternative method for changing the current area being displayed is to enter your PIN and then press the left or right arrow keys. Keep pressing the arrow key until the desired area is displayed. Only areas which have been assigned to the PIN will be available for view.

If you move to another area the keypad will automatically revert back to its assigned home area after 2 minutes. See Menu 6-1-3, Home Area.

1) **Enter [MENU] + [2] + [0] + [4] and select the area from the list and press [OK] to move to the selected area.**



Note *Turn off option Menu 6-1-4, Pin To change Area and use the [←] and [→] keys to move through all areas on the system without the need to enter your pin.*

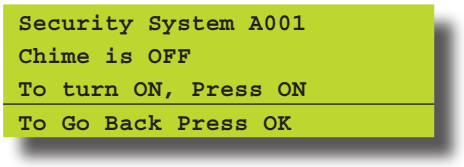
Areas > Commands >

Chime On/Off A-I-M-U **MENU 2-0-5**

Chime mode allows you to monitor a zone (or group of zones) by sounding the keypad buzzer or activating a programmable output. This can be useful when you need to monitor the front or back entrance to a premises while in the disarmed state.

To select which zones will be monitored for chime see Menu 3-0-3 — Set Chime Zones.

1) **To turn chime mode On or Off enter [MENU] + [2] + [0] + [5] and select the area from the list then press [OK].**



Note *The Chime Tone will only be heard on keypads programmed to sound the chime tone. See Menu 6-1-5 — Chime Tone. Software Revision 1.02 and higher now resets any outputs that are programmed to follow chime zones when a user turns off chime mode.*

Areas > Commands >

Chime Mode I-M **MENU 2-0-6**

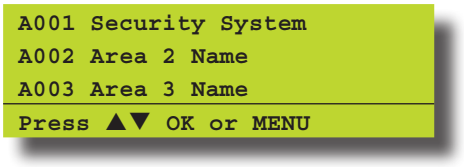
The Chime Mode option allows you to program how chime zones will operate on an area by area basis. In latching mode a valid PIN will need to be entered to reset the chime alarm.

It is now possible to stop the chime alarm if the door is left open for a long period of time or to only trigger the chime alarm if the door is left open for a period of time

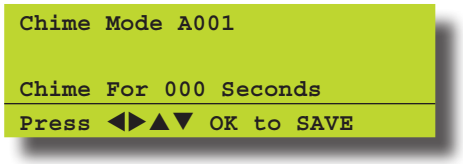
Available options include;

Chime Always
Chime For 000 Seconds
Chime After 000 Seconds
Chime Latching

1) **To set the required chime mode enter [MENU] + [2] + [0] + [6] and select the area from the list then press [OK].**



2) **Use the up and down arrow keys to select the required chime mode. If the chosen type requires a time parameter use the right arrow to move to the time field and then use the up and down arrow key to select the appropriate time. When finished press [OK].**



AREA PROPERTIES

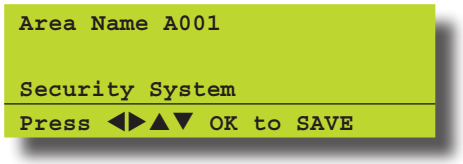
Areas > Area Properties >

Area Name I-M **MENU 2-1-0**

A	r	e	a		1		N	a	m	e					

This menu allows you to program the name for each area. Each area name can be programmed with up to 16 characters. At factory default, only Area 1 is used. The Solution control panel can have a maximum of 8 independent areas programmed.

1) **Enter [MENU] + [2] + [1] + [0] and select the area from the list and press [OK].**



2) **Use the arrow and number keys to move and change text. When the Area Name is complete, press [OK]. At any time you can press the [OFF] key to clear the text from the current cursor position to the end of the line.**

Note *See Alpha Text section in Section 4 - Programming Overview for further detail on entering alpha text.*

Areas > Properties >

General Options I **MENU 2-1-1**

1	Exit Time Restart	N
2	Reset Alarm Memory On Disarm	N
3	Duress Allowed	Y
4	Acknowledge All Faults	N
5	Single Button Arming - All On	Y
6	Single Button Arming - Part On	Y
7	Link To Common Area	Y
8	Single Button Part Off	N

The above options are programmable per area.

1) **Enter [MENU] + [2] + [1] + [1] and select the area from the list then press [OK].**

2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Exit Time Restart

The exit delay timer will restart (once per arming cycle) when the same entry/exit delay zone is faulted a second time during exit delay (eg. If an entry/exit delay zone is unsealled, restored and unsealled a second time during exit delay = exit time restart).

Reset Alarm Memory On Disarm

Clears all alarm memories displayed on the keypad when a user has turned the corresponding area off. If this option is not set, alarm memory will continue to display until the user has turned the corresponding area 'on' again.

Duress Allowed

If a user is being forced to turn off the security system under duress they can disarm the system and initiate a silent duress alarm.

To trigger the duress alarm enter your PIN then repeat the last two digits of your PIN before pressing [ON], [OFF], or [OK] key.

Example:

If your PIN is 2580, to send a duress report when the area is off, Enter, [2] + [5] + [8] + [0] + [8] + [0] + [OK] or [ON].

If your PIN is 2580, to send a duress report when the area is on, Enter, [2] + [5] + [8] + [0] + [8] + [0] + [OFF].

Note *Software Version 1.02 or higher has been corrected to now send 'Duress' reports in SIA format.*

Acknowledge All Faults

If this option has been programmed, the control panel will force a user to acknowledge each trouble condition even though the trouble condition has already cleared.

If this option is not programmed, any trouble condition that occurs will not have to be acknowledged if it has already been rectified or cleared.

Single Button Arming Allowed – All On

This option allows users to simply press the ON key to turn the area ON. All zones being armed must be sealled. If open and close reports are programmed, the user ID number will report as 000.

Single Button Arming Allowed – Part On

This option allows users to simply press the Part On key to turn the area Part On. All zones in the being armed must be sealled. If open and close reports in Part Mode are programmed, the user ID number will report as 000.

Link To Common Area

This option causes the selected area or areas to control the common area. If this option is not selected for an area then it will be able to operate independant of the common area. See MENU 7-7-1 — Area Options to enable the common area.

Single Button Part Off

This option allows users to disarm from Part Mode or Part Mode 2 simply by pressing the OFF key. This function will only work if there are no alarms in effect, and the entry timer is not running.

Areas > Properties >

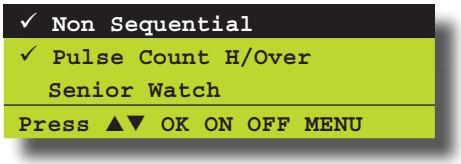
Input Options **MENU 2-1-2**

1	Non Sequential Handover (Entry Path)	Y
2	Pulse Count Handover Allowed	Y
3	Senior Watch	N
4	Reset Smoke On Arming	Y
5	Reserved	N
6	Reserved	N
7	Reserved	N
8	Reserved	N

The above options are programmable per area.

1) **Enter [MENU] + [2] + [1] + [2] and select the area from the list then press [OK].**

2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**



3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Non Sequential Handover

With Non-Sequential entry path you can trigger handover zones in any order provided that an entry delay zone was triggered first.

If this option is not programmed, handover zones must be triggered in numerical sequence provided that an entry delay zone was triggered first.

If a handover zone is triggered before an entry delay zone is triggered an instant alarm will occur.

Pulse Count Handover Allowed

This option allows zones from the same area that have both pulse count and pulse count time programmed the ability to hand over pulses to other pulse count zones during their respective pulse count time. Only zones that have an active pulse count time can accept pulse count handover from another zone.

Burglary delay zones can only handover pulses to other burglary delay zones. Burglary instant and/or handover zones can handover pulses to other burglary instant and/or handover zones. 24 hour non-fire zone types can only handover pulses to other 24 hour non fire zones. A 24-hour fire zone can only handover pulses to another 24-hour fire zone.

Senior Watch

This option requires at least one burglary zone in the corresponding area to be faulted and restored during the senior watch time. If no burglary zone has register during the senior watch time, the keypad will sound an alarm.

To warn the user that senior watch time is about to expire, the keypad will sound the auto arm pre-alert time (if programmed) prior to sounding the alarm. See MENU 7-2-6 — Senior Watch Time.

This feature is not applicable when the corresponding area is turned All On.

An output (Output Event Type 51) can be programmed to operate as follow Senior Watch if required.

Reset Smoke On Arming

This option when set, will trigger any output that is programmed as event type 49 - Smoke Sensor GND to operate on the next arming cycle, therefore resetting the connected smoke sensors each time the area is armed.

If this option is not set then a manual reset will need to be performed via MENU 3-0-5.

Areas > Properties >

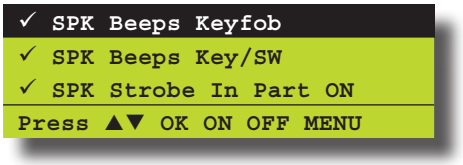
Output Options **MENU 2-1-3**

1	Arm/Disarm Speaker Beeps Via RF Keyfob	Y
2	Arm/Disarm Speaker Beeps Via Keyswitch	Y
3	Siren / Strobe When Part On Allowed	Y
4	Alarm On PIN Retry Violations	Y
5	Alarm On Exit Error	N
6	Alarm On Keyswitch Tamper (Only If System Armed)	Y
7	Reserved	N
8	Reserved	N

The above options are programmable per area.

1) **Enter [MENU] + [2] + [1] + [3] and select the area from the list then press [OK].**

2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**



3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Arm/Disarm Speaker Beeps Via RF Key Fob

This option allows audible beeps via the speaker output to verify to the user that they have successfully turned the area On or Off using the RF keyfob. The speaker output will sound One beep for Off, two beeps for On and three beeps for Part On.

Arm/Disarm Speaker Beeps Via Keyswitch

This option allows audible beeps via the speaker output to verify to the user that they have successfully turned the area On or Off using a Keyswitch. The speaker output will sound One beep for Off, two beeps for On.

Siren / Strobe When Part On Allowed

This option allows the strobe and audible alarms to operate when the system is turned Part On or Part 2 On mode.

Alarm On PIN Retry Violations

When the PIN Retry Count as programmed in MENU 1-5-1 is reached an audible alarm will occur.

Alarm On Exit Error

This option allows you to sound an alarm when an exit error occurs.

An exit error occurs when an entry/exit delay zone becomes unsealled during exit delay time and remains unsealled at the end of exit delay time. If this happens, the entry delay will start. If the area is not turned off (disarmed) before the entry delay time expires an alarm will occur.

Note *Software Version 1.02 and higher has been corrected to send exit error reports via CID format. Previous versions failed to send exit error reports in CID, however, reporting in SIA format was not effected.*

Alarm On Keyswitch Tamper

This option allows you to sound an alarm when a tamper condition occurs on a zone programmed as a Keyswitch Zone.
Refer to Menu 3-1-1 — Zone Type in Section 8 - Input Programming for information on programming zones to be a keyswitch input.

Areas > Properties >

Reporting Options **MENU 2-1-4**

1	Report PIN Retry	Y
2	Report Exit Error	Y
3	Smart Lockout	N
4	Reserved	N
5	Cancel Reports	Y
6	Reserved	N
7	Open / Close Reports For Part On	N
8	Open / Close Reports Only After Alarm	N

The above options are programmable per area.

1) **Enter [MENU] + [2] + [1] + [4] and select the area from the list then press [OK].**

2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Report PIN Retry

When the PIN Retry Count as programmed in Menu 1-5-1 is reached a Wrong Code Entry alarm report will be sent to the Control Room.

Report Exit Error

This option allows the system to report and Exit Error Alarm.

An exit error occurs when an entry/exit delay zone becomes unsealled during exit delay time and remains unsealled at the end of exit delay time. If this happens, the entry delay will start. If the area is not turned off (disarmed) before the entry delay time expires an Exit Error alarm report will be sent.

Smart Lockout

Smart lockout allows and previously locked zones to reactivate during the siren run time when a new alarm event occurs.

Cancel Reports

When set, a Cancel report will be sent if a user disarms the area before the siren timer expires.

Note *Software Version 1.07 and higher has been corrected to send the current user ID with the cancel report. In previous software, the user ID that was sent as part of the cancel report was from the previous arm/disarm cycle.*

Open/Close Reports For Part On

When set, the panel will Send Open or Close reports when the system is armed in Part On mode.

Note *Software Version 1.07 and higher has been corrected to only send open and close reports for Part On/Off when this option has been programmed. Previous software would still send a closing report even is this option was not programmed whn the system had send a previous 'Open' report.*

Open/Close Reports Only After Alarm

When set, the panel will send a single Open / Close report if a previous alarm has occured. This report will be sent for all users regardless of whether or not they have been programmed to send Open/Close reports.

Areas > Properties >

Strobe Trigger **MENU 2-1-5**

1	Audible Burglary Alarm	Y
2	Silent Burglary Alarm	N
3	Fire Alarm	Y
4	Arm / Disarm Flash Via RF Keyfob	N
5	Arm / Disarm Flash Via Keyswitch or PGM Input	N
6	Reserved	N
7	24-Hour Alarm	Y
8	Reserved	N

Programming any of these options allow the strobe output to operate when the corresponding event occurs. The strobe light must be connected to an output programmed as a Event Type 48 for it to operate. See Section 8 — output Programming for more Information on output event types.

1) **Enter [MENU] + [2] + [1] + [5] and select the area from the list then press [OK].**

2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Audible Burglary Alarm

When selected, the panel will activate the strobe output when an audible burglary zone has triggered an alarm.

Silent Burglary Alarm

When selected, the panel will activate the strobe output when a silent burglary zone has triggered an alarm.

Fire Alarm

When selected, the panel will activate the strobe output when a zone programmed as fire (audible or silent) has triggered an alarm.

Arm/Disarm Flash Via RF Keyfob

When slected, the panel will activate the strobe output for six seconds when a user turns the area on via an RF Key fob. This provides silent feedback to the user that the signal has been received.

Arm/Disarm Flash Via Keyswitch or PGM Input

When selected, the panel will activate the strobe output for six seconds when a user turns the area on via a Keyswitch Input or the Programmable Input. This provides silent feedback to the user that the signal has been received.

24-Hour Alarm

When selected, the panel will activate the strobe output when a zone programmed as 24-hour (audible or silent) has registered an alarm. Zones programmed as 24-Hour Hold-Up are not included.

Note

Software versions eariler than 1.07 would not operate the strobe when a 24 hour panic zone is faulted.

AREA REPORTING

Areas > Reporting >

Account Dest 1 I **MENU 2-2-0**

0	0	0	0	0	0	0	0	0	0

The area account number identifies which control panel is reporting to the security company's base station receiver. Each destination can have a different account number programmed. The number should be entered from left to right with trailing zeros.

1) **Enter [MENU] + [2] + [2] + [0] and select the area from the list then press [OK].**

2) **Using the numeric keys, enter the new account number. Use the up and down arrows to select special characters BCDEF.**

```
Account Dest 1 A001

1604000000
Press ▲▼ 0-9 OK to SAVE
```

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Areas > Reporting >

Account Dest 2 **MENU 2-2-1**

0	0	0	0	0	0	0	0	0	0

The area account number identifies which control panel is reporting to the security company's base station receiver. Each destination can have a different account number programmed. The number should be entered from left to right with trailing zeros.

1) **Enter [MENU] + [2] + [2] + [1] and select the area from the list then press [OK].**

2) **Using the numeric keys, enter the new account number. Use the up and down arrows to select special characters BCDEF.**

```
Account Dest 2 A001

1604000000
Press ▲▼ 0-9 OK to SAVE
```

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Areas > Reporting >

Open / Close Route I **MENU 2-2-2**

1

0 = Report Events To Log Only
1 = Report Events To Destination 1 + Log
2 = Report Events To Destination 2 + Log
3 = Report Events To Destination 1 & Destination 2 + Log
4 = Report Events To Destination 2 If Destination 1 Fails + Log

This menu programs the destination for open and close reports. Only one option can be programmed in this menu.

1) **Enter [MENU] + [2] + [2] + [2] and select the area from the list then press [OK].**

2) **Use the numeric keys 0-9 or the up and down arrow keys to select the desired option.**

```
Open/Close Route A001

01 - Dest 1 + Log
Press ▲▼ 0-9 OK to SAVE
```

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

AREA TESTING

Areas > Area Testing >

Area Watch I **MENU 2-9-0**

0	1	2

(*** System Wide Parameter ***) **WEEKS**

This menu programs the number of weeks (001 – 255 weeks / 000 = disabled) an area can remain disarmed before registering an 'Inactivity Interval' report. A restore signal will be sent when the area is next armed and the exit time expires.

1) **Enter [MENU] + [2] + [9] + [0] . The keypad will display the current number of weeks programmed for area watch.**

```
Area Watch

012 Weeks
Press 0-9 OK to SAVE
```

2) **Using the numeric keys, enter the number of weeks that an area can remain turned off betore a trouble condition will occur. Valid entries are 1 – 255 Weeks or 000 to disable.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Areas > Area Testing >

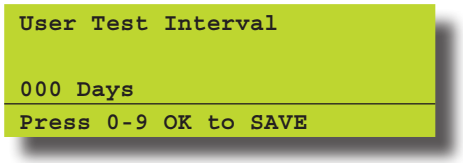
User Test Interval **I** **MENU 2-9-1**

0	0	0

(*** System Wide Parameter ***) **DAYS**

This menu sets the number of days before it will prompt the user to walk test the system. To clear the trouble condition, you will need to perform the 'Walk Test' function.

1) **Enter [MENU] + [2] + [9] + [1]. The keypad will display the current number of weeks between User Test intervals.**



2) **Using the numeric keys, enter the number of days between each user test interval. Valid entries are 1 – 255 Days or 000 to disable.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Areas > Area Testing >

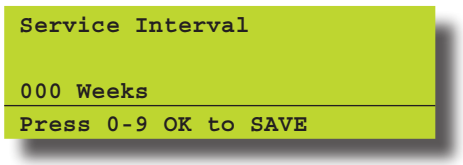
Service Interval **I** **MENU 2-9-2**

0	0	0

(*** System Wide Parameter ***) **WEEKS**

This menu sets the number of weeks between service intervals. When a service interval is due, a trouble condition will display on the keypad to remind the customer that a system check is required by the security company. When viewing the trouble condition, the keypad will display 'Call For Service'. To clear the trouble condition, the installer must enter and exit installer's programming mode.

1) **Enter [MENU] + [2] + [9] + [2]. The keypad will display the current number of weeks between user test intervals.**



2) **Using the numeric keys, enter the number of weeks between each user Service Interval. Valid entries are 1 – 255 Weeks or 000 to disable.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Areas > Area Testing >

Test Options **I** **MENU 2-9-3**

1	User Test Required	Y
2	Reserved	N
3	Reserved	N
4	Reserved	N
5	Reserved	N
6	Walk Test Reports	Y
7	Walk Test 24-Hour Zones	N
8	Walk Test Fire Zones	N

The above options are programmable per area.

1) **Enter [MENU] + [2] + [9] + [3] and select the area from the list then press [OK].**

2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

User Test Required

This option allows the keypad assigned to the corresponding area to display a trouble condition when a user test is due. The trouble condition can be cleared by performing a walk test.

Walk Test Reports

This option allows the corresponding area to send Walk Test reports when a user enters/exits walk test mode and test zones.

Walk Test 24-Hour Zones

This option allows any 24-hour (non-fire) zone assigned to the corresponding area to be tested during walk test.

Walk Test Fire Zones

This option allows 24-hour fire zone assigned to the corresponding area to be tested during walk test.

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SECTION 7

Input Programming

The Solution 16^{plus} is capable of controlling up to 16 inputs in either hardwire or wireless configuration. Each input can have its own unique name up to 16 characters to identify it on the system for display and reporting purposes.

Under the commands menu you are able to view the status of any input, bypass a zone, define which zones will operate in chime mode, define which zones operate in part 2 mode and reset smoke detectors.

There is a command called Zone Array that allows the installer to view the condition of inputs in banks of 16. This is extremely helpful when commissioning a system or fault finding.

There are numerous configurations for each hardwire input. The end of line resistor can be configured to eliminate the need to change the end of line resistors on a job when doing a change over. Input zones can be setup as alarm only, alarm + tamper or even split end of line.

For normally open contacts the system is wired exactly the same as for normally closed but there is an option provided that inverts the sealed state of a zone.

When arming the system, all zones will be tested by default and you may wish to turn this option off for certain zones so that you don't continually alert the operator during arming.

The sensor watch feature lets you monitor zones to ensure that they are working and detecting movement within a determined programmable period.

Zones by default can be bypassed and you should disable this option for zones you don't want to be able to bypass, for example 24hr, fire, holdup or panic zone types.

The PGM input is a special input that can be configured to accept data from a number of different RF receiver manufacturers or simply be used as an keyswitch input.

The tamper options configure the system behaviour for cabinet tamper alarms and also for the cabinet tamper of the peripheral devices.

ZONE CONFIGURATION TABLES							
Device	Address SW 1 2 3	Single EOL Zones	Physical Zone Numbering	Alarm + Tamper Zones	Physical Zone Numbering	Split EOL Zones	Physical Zone Numbering
Solution Panel	---	8	1 to 8	8	1 to 8	16	1 to 16
CM104B Expander	OFF OFF OFF	8	9 to 16	8	9 to 16		
Total Zones		16		16		16	

Table 20: Zone Configuration

INPUT COMMANDS

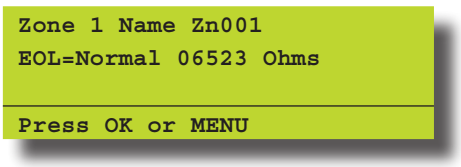
Inputs > Commands >

Zone Status A-I-M-U **MENU 3-0-0**

This menu allows you to view the zone status of each zone (i.e. Normal, Alarm or Tamper).

1) **Enter [MENU] + [3] + [0] + [0] and select the zone you want to view from the list then press [OK]. Alternatively, you can directly enter the zone number to view then press [OK].**

2) **The keypad will display the zone status and EOL resistance value.**



3) **Press the [OK] key to exit.**

Inputs > Commands >

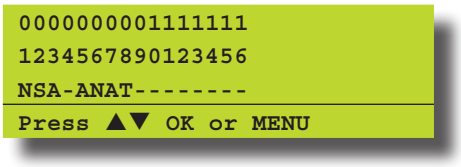
Zone Array I **MENU 3-0-1**

This menu allows you to view zones in groups of sixteen. The top two rows of the display show the zone number, the third row displays the zone status

N= NORMAL
S = SHORTED
A= ALARM
T= TAMPER
- = DISABLED

1) **Enter [MENU] + [3] + [0] + [1] and use the up and down arrows to select the zone group to view.**

2) **The keypad will display the following zone array information for Zones 1 to 16.**



In the above example screen,
N = Zone 01 and 06 are Normal (Sealed)
S = Zone 02 is Shorted
A = Zone 03,05,07 are in Alarm (Unsealed)
T = Zone 08 is in Tamper Alarm (Unsealed)
- = Zone 04, 09-16 are Disabled (Unused)

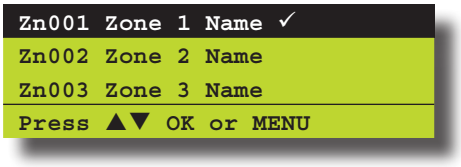
3) **When finished press [OK] or [MENU] to exit.**

Inputs > Commands >

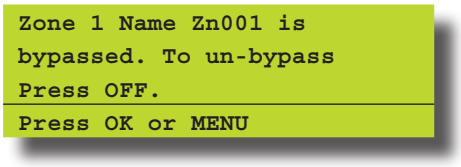
Bypass Zones I-M-U **MENU 3-0-2**

This menu allows users with the appropriate access level to manually bypass zones effectively removing them from the area for the current arming cycle. All zone types including 24hour zones can be bypassed.Bypassed zones will be reset when the area is turned off or disarmed.

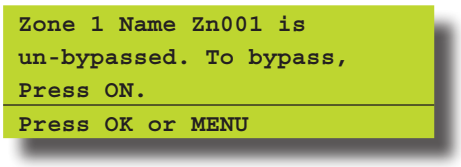
1) **Enter [MENU] + [3] + [0] + [2]. A list of zones that can be bypassed will display on the keypad. A tick displayed on the right side of the zone name indicates that the zone is already bypassed.**



2) **Using the up and down arrow keys highlight the zone that you want to bypass, then press [OK]. Alternatively, you can enter the zone number that you want to bypass, then press [OK]. If the zone is bypassed, the keypad will prompt:**



3) **If the zone is not bypassed, the keypad will prompt:**



4) **Press [ON] or [OFF] to toggle the zone(s) bypass state then Press [OK] to save and exit or press [MENU] to exit without saving.**

5) **Repeat steps 1 to 4 to bypass or un-bypass additional zones.**

Inputs > Commands >

Set Chime Zones

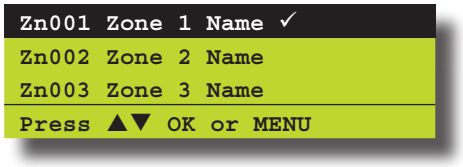
I-M MENU 3-0-3

This menu allows you to program zones to be monitored when chime mode is activated. Chime mode is ideal for monitoring a front door in a shop, a pool gate or other entrance points. To sound the keypad buzzer when a chime zone is opened (faulted) See MENU 6-1-5 — Beeper Options. To activate Chime mode enter PIN + [MENU], select the Commands option and use the arrow keys to scroll to the Chime On/Off menu.

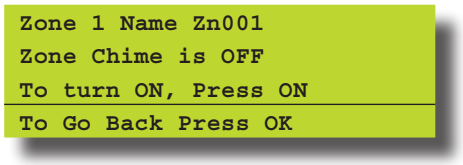
Chime mode only works when the area is disarmed.

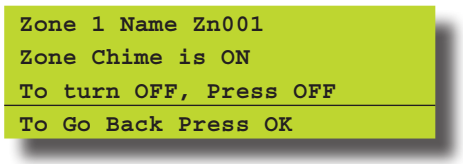
1) **Enter [MENU] + [3] + [0] + [3] and use the up and down arrows to highlight the area from the list then press [OK].**

2) **Use the up and down arrow keys to highlight the zone(s) you want to program as Chime Zones then press [OK]. Alternatively, you can enter the zone number directly then press [OK]. A tick mark displayed on the right side of the zone name indicates that the zone is already set for chime.**



3) **One of the following messages will be displayed depending on the current zone programming.**





4) **Press [ON] or [OFF] to toggle the zone to be monitored when Chime Mode is turned on then press [OK] to save and exit or [MENU] to exit without saving.**

Inputs > Commands >

Set Part 2 Zones

I-M MENU 3-0-4

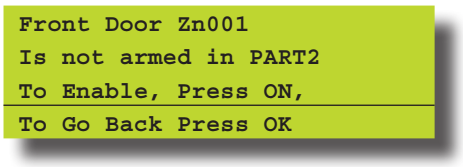
This menu allows you to program which zones are to be excluded or bypassed when an area has been turned On in Part Mode 2.

1) **Enter [MENU] + [3] + [0] + [4] and use the up and down arrows to highlight the area from the list then press [OK].**

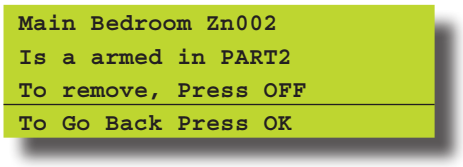
2) **Use the up and down arrow keys to select the zone(s) that you want to disable in Part 2, then press [OK]. Alternatively, you can enter the zone number directly then press [OK]. Zones marked with a tick are active and will alarm in Part 2 mode.**

3) **One of the following messages will be displayed depending on the current zone programming.**

4) **Press [ON] to arm the zone in Part 2 mode or press [OK] to exit.**



5) **Press [OFF] to disarm the zone in Part 2 mode or press [OK] to exit.**



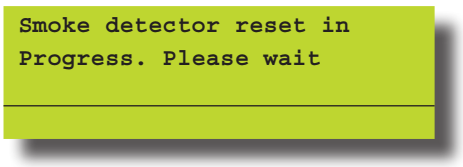
Inputs > Commands >

Smoke Sensor Reset

I-M-U MENU 3-0-5

This command allows you to reset smoke sensors. When initiated this command will cause any outputs programmed as Event Type 49 — Smoke Sensor GND in the chosen area to turn off for 10 seconds.

1) **Enter [MENU] + [3] + [0] + [5] and use the up and down arrows to highlight the area that you want to reset the smoke detectors in then press [OK].**



2) **The keypad will automatically return to the menu when all smoke detectors in the area has been reset.**

Note *Smoke detectors must have the negative power terminal connected to an output programmed as Event Type 49 for this command to work.*

ZONE DEFAULT TABLE

The table below lists the default values for all zone parameters in the Solution 16plus. By default, zones 5 to 16 are set as Instant zones. Zones marked as Not Used do not require EOL resistors to be fitted.

Programming Option	Zone 1	Zone 2	Zone 3	Zone 4	Zones 5 to 16
Zone Name	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5 - Zone 16
Zone Type	1 = Delay 1	5 = Handover	5 = Handover	5 = Handover	3 = Instant
Area Assignment	1	1	1	1	1
Pulse Count	0	0	0	0	0
Pulse Count Time (Sec's)	120	120	120	120	120
Access Group	0	0	0	0	0
Report Route	2	2	2	2	2
Reporting Options					
Lockout Dialler	Y	Y	Y	Y	Y
Report Alarm	Y	Y	Y	Y	Y
Report Alarm Restore	Y	Y	Y	Y	Y
Report Trouble	Y	Y	Y	Y	Y
Report Trouble Restore	Y	Y	Y	Y	Y
Report Bypass	Y	Y	Y	Y	Y
Report Bypass Restore	Y	Y	Y	Y	Y
Delay Report	N	N	N	N	N
Zone Options					
Lockout Siren	Y	Y	Y	Y	Y
Silent Alarm	N	N	N	N	N
Inverted Seal	N	N	N	N	N
Bypass Allowed	Y	Y	Y	Y	Y
Sensor Watch	N	N	N	N	N
Armed When Part On	Y	Y	Y	Y	Y
Reserved	N	N	N	N	N
Test On Exit	N	Y	Y	Y	Y

Table 21: Zone Defaults

ZONE PROPERTIES

Inputs > Zone Properties >

Zone Name I-M **MENU 3-1-0**

Z	o	n	e		1		N	a	m	e					

This menu allows you to program the name for each zone. Zone names can be up to 16 characters long.

1) **Enter [MENU] + [3] + [1] + [0] and use the up and down arrows to highlight the Zone in the list then press [OK]. Alternatively, you can enter the zone number directly and press [OK].**

2) **User the arrow and number keys to move and change text. When the Zone Name is complete, press [OK]. At any time you can press the [OFF] key to clear the text from the current cursor position to the end of the line.**

```
Zone Name Zn001

Zone 1 Name
Press ◀▶▲▼ OK to SAVE
```

Note *See Alpha Text Programming in Section 4 - Programming Overview for further detail on entering alpha text.*

Inputs > Zone Properties >

Zone Type I **MENU 3-1-1**

1

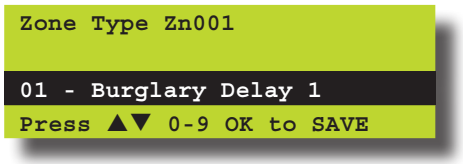
This menu allows you to configure the zone type or behaviour for every zone in the system. Each zone should be assigned to a Zone Type that defines the way in which the panel will respond when an alarm is triggered on that zone. Refer to the table and descriptions below for the available Zone Type selections.

Zone Types
0 = Zone Not Used
1 = Burglary Delay 1 (Entry Timer 1)
2 = Burglary Delay 2 (Entry Timer 2)
3 = Burglary Instant 1 (With Exit Delay)
4 = Burglary Instant 2 (No Exit Delay)
5 = Burglary Handover
6 = Burglary 24-Hour
7 = Tamper 24-Hour
8 = Hold Up 24-Hour (Silent & Invisible)
9 = Medical 24-Hour
10 = Panic 24-Hour
11 = Fire 24-Hour
12 = Reserved
13 = Keyswitch Zone
14 = Display Only
15 = 24-Hour Non Burglary

Table 22: Zone Types

1) **Press [MENU] + [3] + [1] + [1] and use the up and down arrows to highlight the Zone in the list then press [OK]. Alternatively, you can enter the zone number directly and press [OK].**

2) **Use the up and down arrow keys to select the Zone Type required then Press [OK] to save and exit or press [MENU] to exit without saving.**



0 – Zone Not Used

Program the zone type as zero if the zone is not being used.

1 – Burglary Delay 1

Zones programmed as Delay 1 will cause Entry Timer 1 to start when tripped. The user must disarm the area before entry timer expires or an alarm will occur. Zones set as Burglary Delay 1 are only active when the area is armed. See MENU 7-2-1 — Entry Time 1 to set the required delay time.

2 – Burglary Delay 2

Zones programmed as Delay 2 will cause Entry Timer 2 to start when tripped. The user must disarm the area before entry timer expires or an alarm will occur. Zones set as Burglary Delay 2 are only active when the area is armed. See MENU 7-2-2 — Entry Time 2 to set the required delay time.

3 – Burglary Instant 1

Zones programmed as Instant 1 will immediatly cause the alarm to trigger when the zone is tripped. ie No Entry Delay. Zones set as Burglary Instant 1 have Exit Delay and are only active when the area is armed. See MENU 7-2-0 — Exit Time

4 – Burglary Instant 2

Zones programmed as Instant 2 will immediatly cause the alarm to trigger when the zone is triggered. ie. No Entry Delay. Zones set as Burglary Instant 2 have NO Exit Delay and are only active when the area is armed.

5 – Burglary Handover

A Handover zone will provide a delayed alarm only when a delay zone has been tripped first (ie. the entry time is active) otherwise it will trigger an instant alarm.

Zones programmed as Handover can be set to sequential or non-sequential handover. At factory default, handover is set to sequential which means that zone must be triggerred in numerical order for the delay to handover. Non Sequential Handover means the zone do not have to be programmed in numerical order. In both cases an entry delay zone must be triggered first for the delay to handover.
See MENU 2-1-2 — Input Options to set Non Sequential Handover.

Note *The Zone Types listed above will only trigger an alarm if the system or area is in the armed state and the exit time has exprired. Zones must be sealled at the end of exit time to trigger alarms.*

6 – Burglary 24-Hour

Zones programmed as 24-hour burglary will trigger an alarm as soon as the zone becomes faulted regardless of what state the area is in. 24-Hour zones are active 24 hours a day. A 24hr Burglary report will be sent to the central station receiver.

7 – Tamper 24-Hour

Zones programmed as 24-Hour Tamper will trigger an alarm as soon as the zone becomes faulted regardless of what state the area is in. 24-Hour zones are active 24 hours a day. A 24hr Tamper report will be sent to the central station receiver.

8 – Hold Up 24-Hour

Zones programmed as 24-Hour Hold Up will trigger a Silent alarm as soon as the zone becomes faulted regardless of what state the area is in. 24-Hour zones are active 24 hours a day. A 24hr Hold Up report will be sent to the central station receiver. No Siren/Strobe or Keypad indication will be given. To view the status of a 24hr hold up zone, refer to MENU 3-0-1.

Note *In software versions earlier than 1.07 the keypad would display the status of 24hr hold up zones via the status line. To rectify this please upgrade the panel firmware.*

9 – Medical 24-Hour

This zone type is used for personal medical emergency alarms. Zones programmed as 24-Medical will trigger an alarm as soon as the zone becomes faulted regardless of what state the area is in. A 24hr Medical report will be sent to the central station receiver.

10 – Panic 24-Hour

This zone type is used for a general type of emergency including the presence of one or more unwanted persons trying to gain entry to the premises. It will sound an alarm at any time as soon as the zone becomes faulted regardless of what state the area is in. A 24hr Panic report will be sent to the central station receiver.

11 – Fire 24-Hour

This zone type is used for Fire and Smoke detector alarms. Zones programmed as 24hr Fire will trigger an alarm as soon as the zone becomes faulted regardless of what state the area is in. A 24hr Fire report will be sent to the central station receiver.

If a horn speaker is connected and programmed, a distinct fire sound will be heard to indicate that it is a fire alarm that has registered. The fire sound via the horn speaker is different than the burglary sound.

13 – Keyswitch

A keyswitch zone can be used as an input terminal to turn on and/or off an area. Refer to MENU 3-4-1 — Keyswitch Options to select the various options such as latching or momentary arm and/or disarm etc. When reporting back to base, the keyswitch user number will follow the actual zone number.

14 – Display Only

A display zone is not a burglary zone. It can never sound the sirens or trigger the dialler. Its purpose is to only display on the keypad when faulted.

15 – 24-Hour Non Burglary

This zone type operates as a 24-hour type and is used for non-specific alarms such as water level or temperature sensors.

Note *The 24 Hour Zone Types listed above are active 24hrs a day. They will trigger an alarm regardless of whether or not the system or area is in the Armed, Part Armed or Disarmed state.*

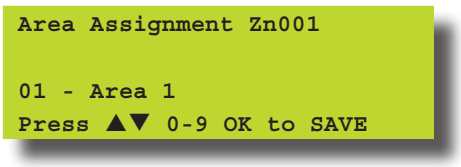
Inputs > Zone Properties >

Area Assignment **MENU 3-1-2**

1

This menu programs which area or partition each zone belongs to. The system can be partitioned to a maximum of 4 separate areas. Each zone can only be assigned to a single area. For installations requiring a common access point, it is possible to set Area 1 to be a common area. See MENU 7-7-1 — Area Options

1) **Press [MENU] + [3] + [1] + [2] and use the up and down arrows to highlight the Zone in the list then press [OK]. Alternatively, you can enter the zone number directly and press [OK].**



2) **Use the up and down arrows to select the area that you want to assign the zone to.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Inputs > Zone Properties >

Pulse Count **MENU 3-1-3**

0 0

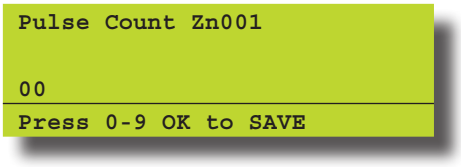
PULSES

Pulse Count sets the number of trigger pulses a single zone must receive before an alarm will be tripped. The number of pulses must be detected within the Pulse Count Time period for an alarm to occur. See MENU 3-1-4 — Pulse Count Time

A feature called Pulse Count Handover can be enabled allowing pulses registered by one zone to handover to another zone provided they are the same Zone Type (ie. instant zone to instant zone) and in the same Area. See MENU 2-1-2 — Input Options

When pulse count hands over from one zone to another and an alarm is triggered, a cross alarm report will be sent to the central station.

1) **Press [MENU] + [3] + [1] + [3]and use the up and down arrows to highlight the Zone in the list then press [OK]. Alternatively, you can enter the zone number directly and press [OK]. The keypad will display the current pulse count time for the chosen zone.**



2) **Using the numeric keys, enter the number of pulses required. Valid entries are 0 – 15 pulses.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Inputs > Zone Properties >

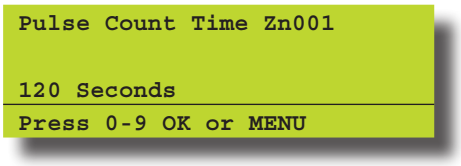
Pulse Count Time **MENU 3-1-4**

1 2 0

SECONDS

This menu sets the time period during which the number of zone trigger pulses must be received for an alarm to occur. The zone must be set as a Pulse Count Zone for this time to have any effect.

1) **Press [MENU] + [3] + [1] + [4] and use the up and down arrows to highlight the Zone in the list then press [OK]. Alternatively, you can enter the zone number directly and press [OK]. The keypad will display the current pulse count time.**



2) **Using the numeric keys, enter the required Pulse Count Time. Valid entries are 0 – 255 seconds.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

UNDERSTANDING ACCESS GROUPS

Access Groups are used to link Readers, Users and Outputs together to allow you to operate a door strike when a user token is presented to a given reader. To do this you need to create an access group and assign the user, the reader and the output to the same access group.

Users

A user can belong to multiple Access Groups.

Outputs

An output can only belong to 1 Access Group.

Reader

A reader can belong to only 1 Access Group.

Access Group

There are 8 different access groups.

Door Access Group Example

1) **To set up a door access group you need to select an unused Access Group number from 1 to 8, in this example we will assume the Access Group number to be 5.**

2) **Under user properties assign the users who you wish to have access to Access Group 5. Remember that you are able to assign users to more than one Access Group.**

3) **Now select the output that will be used to operate the door strike and assign it to Access Group 5. You also need to set the output type to ACCESS and the polarity to one shot low with a time of how long you would like the strike to operate. Generally a strike would be operated for 5 seconds.**

4) **Assign the Reader under Reader properties to Access Group 5.**

When a user who belongs to Access Group 5 presents their token to the reader that is assigned to Access Group 5, the assigned output will operate releasing the door strike.

A reader can belong not only to a Access Group but also to an Area if arming and disarming is required from the reader.

If a user presents their token to an reader that has an area assigned, then the user Access Group and Area Permissions are both checked. If the area is armed and the user belongs to the same area as the Reader and the same Access Group, the system will disarm and allow access.

If the user does not belong to the same area as the reader but the Access Groups match, then door access will only be available to that user if the area is disarmed.

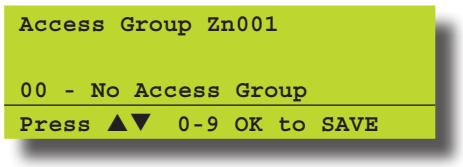
When using the same reader for door access as well as arming, you need to select the badging option MENU 1-6-3 — Reader Options. Badging requires that you present your token 3 times in succession within 5 seconds to arm the system.

Inputs > Zone Properties >

Access Group **MENU 3-1-5**

0

1) **Press [MENU] + [3] + [1] + [5] and use the up and down arrows to highlight the Zone in the list then press [OK]. Alternatively, you can enter the zone number directly and press [OK]. The keypad will display the current Access Group setting.**



2) **Use the up and down arrows to select the Access Group that you want to assign the zone to.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Inputs > Zone Properties >

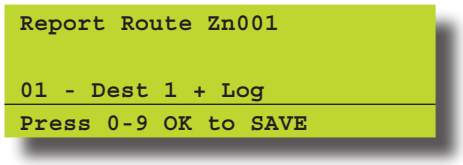
Report Route **MENU 3-1-6**

1

0 = Report Events To Log Only
1 = Report Events To Destination 1 + Log
2 = Report Events To Destination 2 + Log
3 = Report Events To Destination 1 & Destination 2 + Log
4 = Report Events To Destination 2 If Destination 1 Fails +Log

This menu sets the Zone Report Route or Report Destination for each individual zone in the system. All events such as alarms and troubles for each zone will be reported according to this menu setting. Each zone can only be assigned to one report route from the list above.

1) **Press [MENU] + [3] + [1] + [6] and use the up and down arrows to highlight the Zone in the list then press [OK]. Alternatively, you can enter the zone number directly and press [OK]. The keypad will display the current Zone Report Route.**



2) **Use the up and down arrows to select the Report Route that you want to assign the zone to.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Note *At factory default all Zones are set to report to Destination 1 and the System Log. See the Zone Default Table for more information on Zone default settings.*

Inputs > Zone Properties >

Report Options **MENU 3-1-7**

1	Lockout Dialler	Y
2	Report Alarm	Y
3	Report Trouble	Y
4	Report Bypass	Y
5	Reserved	N
6	Reserved	N
7	Report Restores	Y
8	Delay Report	N

The above options are programmable per zone.

1) **Press [MENU] + [3] + [1] + [7] and use the up and down arrows to highlight the Zone in the list then press [OK]. Alternatively, you can enter the zone number directly and press [OK]. The keypad will display the Report Options for the currently selected zone.**

2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Lockout Dialler

Setting this option will enable Dialler Lockout functionality for the respective zone(s). All zones in the system can be individually programmed for Dialler Lockout.

When enabled the zone will be allowed to transmit alarm reports each time it is triggered provided that the Swinger Dialler count has not been reached. If the zone is triggered and the Swinger Dialler count has been reached then the zone will become locked out and no further reports will be sent for that zone. Dialler lockout will be reset on the next arming cycle.

See MENU 5-4-5 — Swinger Dialler to set the number of times a zone is allowed to trigger before being locked out.

Report Alarm

Setting this option will enable the system to Report Alarm events for the respective zone. All zones in the system can be individually programmed to report alarms.

Report Trouble

Setting this option will enable the system to Report Trouble events for the respective zone. A Trouble report will be sent if the zone is left unsealled at the end of exit time. All zones in the system can be individually programmed to report trouble events.

Report Bypass

Setting this option will enable the system to Report Zone Bypass events for the respective zone. A Bypass report will be sent at the end of exit time for zones which have been manually bypassed. All zones in the system can be individually programmed to report Zone Bypass events.

Note

Software Version 1.02 and higher now allows bypass reports for non-burglary zones including keyswitch, Display Only and 24hr Non Burglary zones.

Report Restores

Setting this option allows the system to send Restore reports for zones that have already sent a previous alarm or trouble report on the same arming cycle.

1) **Burglary Zone alarms and troubles restore when the zone reseals or the area is disarmed.**

2) **24hr Zone alarms and troubles restore when the zone reseals.**

3) **Bypassed Zone restore when the area is disarmed.**

Delay Report

Setting this option will cause the system to delay alarm reports for the selected zone. This option can be enabled to allow a user to enter their PIN and disable the report in case they have caused a false alarm. If a PIN is not entered within the delay time, the system will trigger the sirens and send the report as normal.

See MENU 5-4-6 — Burg Report Delay and MENU 5-4-7 — Fire Report Delay to set the delay time.

If a PIN code is entered after the delay time has expired, and the sirens are still sounding, the system will send the Alarm report followed by a Cancel report.

Note

Software Version 1.02 and higher corrected. Previous versions would ignore the delay time and report events immediateley.

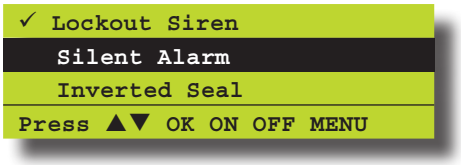
Inputs > Zone Properties >

Zone Options		**MENU 3-1-8**
1	Lockout Siren	Y
2	Silent Alarm	N
3	Inverted Seal	N
4	Bypass Allowed	Y
5	Sensor Watch	N
6	Armed When in Part Mode 1	Y
7	Reserved	N
8	Test On Exit	Y

The above options are programmable per zone.

1) **Press [MENU] + [3] + [1] + [8] and use the up and down arrows to highlight the Zone in the list then press [OK]. Alternatively, you can enter the zone number directly and press [OK]. The keypad will display the Zone Options for the currently selected zone.**

2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**



3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Lockout Siren

Setting this option will enable Siren Lockout functionality for the respective zone(s). All zones in the system can be individually programmed for Siren Lockout.

When enabled the respective zone will be allowed to cause the sirens to sound each time a new alarm is triggered provided that the Swinger Siren count has not been reached. If the zone is triggered and the Swinger Siren count has been reached then the siren will become locked out for that zone and no further siren activations will occur from that zone. Only zones which have been locked out are prevented from triggering the sirens.

Siren lockout will be reset on the next arming cycle.
See MENU 7-4-3 — Swinger Siren to set the shutdown count.

Silent Alarm

Setting this option will set the correspondiing zone to become a silent zone. Audible alarm outputs will not sound when a silent zone is triggered.

Inverted Seal

Setting this option allows a normally-open sensor or device to operate as a normally-closed device by reversing the open/closed state of the zone loop. (eg. When the zone loop is open, the system will register the zone loop as closed or normal.)

Bypass Allowed

Setting this option allows users with the appropriate access level to manually bypass this zone effectively removing it from the area for the current arming cycle. All zone types including 24hour zones can be bypassed if this option is selected. Bypassed zones will be reset when the area is turned off or disarmed.

Sensor Watch

Setting this option causes the system to monitor the zone's activity while the corresponding area is in the disarmed state. If the zone fails to unseal and reseal at least once during the Sensor Watch Time period a system trouble will be displayed on the keypad and a Sensor Watch report for the corresponding zone will be sent to the programmed destination. See MENU 3-9-2 — Sensor Watch to set the time period.

Note *Sensor Watch monitoring is only active when the area is in the disarmed state. 24 hour zone types cannot be monitored using the Sensor Watch feature.*

Armed When In Part Mode 1

Setting this option causes the zone to be active or monitored when the corresponding area is armed in Part On Mode 1.

If this option is not set, the corresponding zone will be inactive when the area is armed in Part Mode 1 allowing users to move freely within this zone and not trigger an alarm.

Test On Exit

Setting this option will cause the system to prompt the user that a zone or zones are not sealled when they attempt to arm the area in which the zone belongs. An error beep will sound and a zone trouble message will display on the keypad advising the user to seal the zone(s) or to bypass them before the area will arm.

If this option is disabled the zone will not be tested during the arming sequence and the system will arm. If the zone(s) are unsealled at the end of exit time a Zone Trouble report will be sent.

ADDING RF SENSORS

The Solution 16plus panel supports a wide range of 3rd party wireless movement sensors, door contacts and smoke detectors allowing you to choose the most appropriate devices for each installation.

There are basically two different methods for adding RF devices to the Solution 16plus, Direct Entry and Learn Mode. The system will prompt for the appropriate method depending on the Receiver type you have fitted.

In all cases the RF sensor must be compatible with the RF Receiver that is installed. See MENU 3-5-0 — Input Type.

Note *Zones configured as RF zone will follow all other zone properties.*

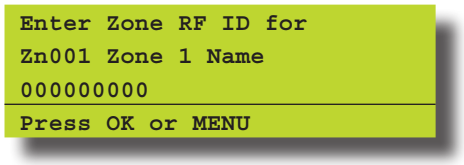
RF Sensor - Direct Entry Mode

Inputs > RF Zone >

Add RF Device I **MENU 3-3-0**

This menu allows you to program an RF device to a zone. Only one device can be connected to each zone up to a maximum of 16 RF devices per system.

1) **Press [MENU] + [3] + [3] + [0] and use the up and down arrows to highlight the zone you want to program in the list and press[OK]. Alternatively, you can enter the zone number directly and press [OK]. The system will only list zones that dont already have an RF device programmed.**

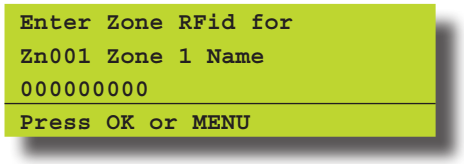


2) **Using the numeric keys, enter the RF device ID number.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

RF Sensor - Learn Mode

1) **Press [MENU] + [3] + [3] + [0] and use the up and down arrows to highlight the zone you want to program in the list and press [OK]. Alternatively, you can enter the zone number directly and press [OK]. The system will only list zone that dont already have and RF device programmed.**



2) **Trigger the RF sensor so that transmits a valid signal.**

3) **Once the device code has been learnt the system will automatically exit and return to the menu.**

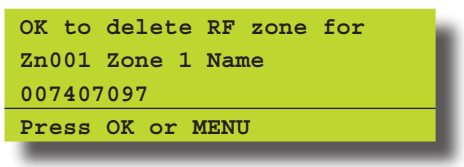
Note *Make sure that only one device is triggerred when the system is in learn mode. Devices that have already been learnt cannot be learnt again unless they are deleted from the system first.*

Inputs > RF Zone >

Delete RF Device I **MENU 3-3-1**

This menu allows you to delete an RF device .

1) **Press [MENU] + [3] + [3] + [1] and use the up and down arrows to highlight the zone in the list and press[OK]. The keypad will only list zones that have an ID programmed. If no zones have an ID number programmed, the keypad will display:**



2) **Press [OK] to DELETE the RF device and exit or press [MENU] to exit without deleting.**

Inputs > RF Zone >

Test RF Device I **MENU 3-3-2**

This menu allows you to test just how good the current position is for an RF device. Enter the command and you will be presented with a list of RF zones in the current area that are available for test. Use the arrow keys to highlight the zone to test and press OK. At any time press menu to exit.

1) **Press [MENU] + [3] + [3] + [2] and use the up and down arrows to highlight the zone you want to test in the list and press [OK]. Alternatively, you can enter the zone number directly and press [OK]. The system will only list RF zones in the current area.**

```
Zn002 Zone 2 Name
Waiting For Trigger

Press OK or MENU
```

2) **Once a signal is received the following information will be displayed.**

```
Zn002 Zone 2 Name
Transmission = 001
Signal = Good
Press OK or MENU
```

Signal can = Good, Average or Relocate

Every time you send a transmission, the number of transmissions will increment and the average of the signals with be displayed. Be sure to send a few transmissions to establish a more accurate signal measurement.

GLOBAL INPUT OPTIONS

Inputs > Global Input Options >

EOL Value I **MENU 3-4-0**

0 = No EOL [5]

1 = 1K0	**6 = 4K7**	**11 = 6K8 with Tamper (2K2)**
2 = 1K5	**7 = 5K6**	**12 = 10K with Tamper (10K)**
3 = 2K2	**8 = 6K8**	**13 = 22K**
4 = 2K7	**9 = 8K1**	**14 = 3K3 with Tamper (6K8)**
5 = 3K3	**10 = 10K**	**15 = Split EOL (Parallel)** *(3K3 = Primary, 6K8 = Secondary)*

This menu programs the End Of Line resistor (EOL) value that is global for all hard-wired zones including zones on the Zone Expander Module. Only one EOL Value can be programmed.

Setting the EOL Value to type 0 to 14 will configure the system as 8 hardwired zones . Additional zones via optional zone expander boards will start on zone 9. Setting the EOL as type 15 will configure the system as 16 hardwired zones

1) **Press [MENU] + [3] + [4] + [0]. The keypad will display the current EOL value (Default = 5).**

```
EOL Value

05 - 3k3 Ohm
Press ▲▼ 0-9 OK to SAVE
```

2) **Use the up and down arrows to select the EOL Value you want to use then press [OK] to save and exit or press [MENU] to exit without saving.**

Inputs > Global Input Options >

Keyswitch Options I **MENU 3-4-1**

0 = Latching - All On/Off	**5 =** Momentary All On/Off	[0]
1 = Latching - All On	**6 =** Momentary - All On	
2 = Latching Part On/Off	**7 =** Momentary - Part On/Off	
3 = Latching - Part On	**8 =** Momentary - Part On	
4 = Latching Off	**9 =** Momentary - Off	

(*** System Wide Parameter ***)

This menu programs the properties for any zone in the system programmed as a keyswitch zone. Only one option can be selected for the entire system which means that all keyswitches fitted will behave the same way.

The system can send Open and Close reports based on the keyswitch operation with the zone number representing the user number in the report.

1) **Press [MENU] + [3] + [4] + [1]. The keypad will display the current keyswitch options (Default = 0 Disabled).**

```
Keyswitch Options

00 - Latching All On/Off
Press ▲▼ 0-9 OK to SAVE
```

2) **Use the up and down arrows to select the required keyswitch option then press [OK] to save and exit or press [MENU] to exit without saving.**

Inputs > Global Input Options >

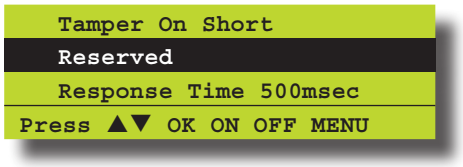
Input Options I **MENU 3-4-2**

1	Tamper On Short	N
2	Reserved	N
3	Response Time 500ms	N
4	Reserved	N
5	Keyswitch Open/Close	N
6	Alarm On Tamper	N
7	Reserved	N
8	Reserved	N

(*** System Wide Parameter ***)

This menu programs the various global input options which will effect all zones on the system.

1) **Press [MENU] + [3] + [4] + [2]. The keypad will display the current input options.**



2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Tamper On Short

Setting this option will cause any Zone which become shorted to report a tamper alarm condition for the zone.

Response Time 500ms

Setting this option will increase the response time for all zones to 500ms.

Keyswitch Open/Close

This feature allows you to select whether or not a zone programmed as a Keyswitch Zone, will send opening and closing reports. The default is set to Off.

Alarm On Tamper

This option allows tamper circuits on RF sensors and hardwire zones to sound an alarm when faulted when their corresponding area is turned off (disarmed). This option is available in version 1.02 and higher.

Inputs > PGM Input >

Input Type I **MENU 3-5-0**

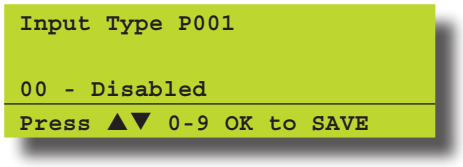
0

- **0 =** Disabled
- **1 =** Latching - On/Off (RF Relay)
- **2 =** Momentary - On/Off (RF Relay)
- **3 =** Digiflex RF On/Off
- **4 =** Bosch Serial RF Receiver
- **5 =** Crow Serial RF Receiver
- **6 =** Ness Serial RF Receiver
- **7 =** Inovonics Serial RF RX
- **8 =** Secure Wireless RF RX

This menu option is used to configure the systems programmable input terminal. Various devices can be connected including keyswitches of radio controlled relays etc. When RF zones are required you need to connect the RF receiver to this input

Connect keyswitch between Input terminal and GND. See Wiring Diagrams in Section 3 for various connection diagrams.

1) **Press [MENU] + [3] + [5] + [0]. The keypad will display the current input type (Default = 0 Disabled).**



2) **Use the up and down arrows to select the required Input Device Type then press [OK] to save and exit or press [MENU] to exit without saving.**

The Latching and Momentary On/Off modes are active low, and when triggered, they will automatically force arm the area.

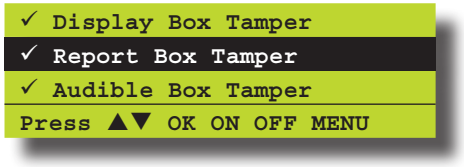
Inputs > Tamper Inputs >

Tamper Options I **MENU 3-6-0**

1	Display Panel Tamper	Y
2	Report Panel Tamper	Y
3	Audible Panel Tamper	Y
4	Display Expander Tamper	N
5	Report Expander Tamper	N
6	Audible Expander Tamper	N
7	Reserved	N
8	Reserved	N

This menu programs how the various system tamper inputs behave when faulted. These dedicated tamper inputs are active 24 hours a day when enabled.

1) **Press [MENU] + [3] + [6] + [0]. The keypad will display the current tamper options.**



2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Display Cabinet Tamper

Setting this option allows the keypad to display a trouble condition when the tamper circuit that monitors the systems cabinet is faulted. The trouble condition will clear when the tamper circuit has restored.

Report Cabinet Tamper

Setting this option allows the panel to send a Cabinet Tamper report when the cabinet tamper circuit is faulted. A Cabinet Tamper Restore report will be sent when the tamper circuit has restored.

Audible Cabinet Tamper

Setting this option will cause the panel to sound the sirens when the cabinet tamper circuit is faulted.

Display Expander Tamper

Setting this option causes the system to display tamper events which have occured on peripheral modules.

Report Expander Tamper

Setting this option enables peripheral tamper reporting.

Audible Expander Tamper

Setting this option causes the system to trigger an audible alarm when a peripheral tamper is triggered.

INPUT TESTING

Inputs > Input Testing >

Walk Test All Zones I-M-U **MENU 3-9-0**

This menu allows you to test all zones within an area at the same time. To perform a successfull walk test, each zone in the area must be sealed and unsealed. Users must have access to the area they want to test.

Once the mode is activated all zones in the area will be listed one after the other on the keypad display. As each zone is successfully tested it will be removed from the list leaving only those zone still to be tested in the list.

1) **Press [MENU] + [3] + [9] + [0] and select the area to walk test from the list then press [OK].**

2) **The keypad will begin scrolling all of the zones that are to be tested as per the below display.**

```
To test zone Zn001
open then close
Zone 1 Name
Press OK or MENU
```

```
To test zone Zn002
open then close
Zone 2 Name
Press OK or MENU
```

3) **Open and close each zone in the list. Zones that have been successfully tested are removed from the keypad scroll list. When all zones have been tested, the keypad will display:**

```
All zones have been
sucessfully tested

Press OK or MENU
```

4) **Press [OK] or [MENU] to exit.**

Inputs > Input Testing >

Walk Test A Zone I-M-U **MENU 3-9-1**

This menu allows you to select a single zone to be walk tested. To perform a successfull walk test, the sellected zone must be sealled and unsealled. Users must have access to the zone they want to test.

1) **Press [MENU] + [3] + [9] + [1] and use the up and down arrows to highlight the zone you want to walk test in the list and press[OK]. Alternatively, you can enter the zone number directly and press [OK].**

2) **The keypad will display the zone to be tested.**

```
To test zone Zn001
open then close
Zone 1 Name
Press OK or MENU
```

3) **Open and close the zone that needs to be tested. When the test has been completed the keypad will display:**

```
Zn001 Zone 1 Name
Test Successful

Press OK or MENU
```

4) **Press [OK] or [MENU] to exit.**

Inputs > Input Testing >

Sensor Watch Time I **MENU 3-9-2**

0	3	0

(*** System Wide Parameter ***) **DAYS**

This menu programs the Sensor Watch Time interval. Zones programmed for Sensor Watch are required to seal and unseal at least once within the Sensor Watch Time period or a trouble message will be displayed on the keypad and a Zone Trouble report sent.

Valid entries are 1 -255 Days and 0 = Sensor Watch Disabled

1) **Press [MENU] + [3] + [9] + [2]. The keypad will display the current sensor watch time (Default = 30 days).**

```
Sensor Watch Time

030 Days
Press 0-9 OK to SAVE
```

2) **Using the numeric keys, enter the new Sensor Watch time in days then press [OK] to save and exit or press [MENU] to exit without saving.**

Note *Sensor Watch monitoring is only active when the area is in the disarmed state. 24 hour zone types cannot be monitored using the Sensor Watch feature.*

» » E N D O F S E C T I O N « «

SECTION 8

Output Programming

The Solution 16^{plus} is capable of controlling up to 8 outputs. The first 4 outputs are on the main control board and an additional 4 outputs are provided using an output expander module. Each output can have its own unique name up to 16 characters to identify it on the system for display and reporting purposes.

Under the commands menu you are able to view the status of any output and to change its on/off condition. In the case of latching output types, you will be required to reset the output manually using these commands.

Outputs are programmed using an event type. First select the event type that will cause the output to trigger. Then select the polarity of the event, if it is low and goes high or high and goes low. If the event is pulsing or one shot type, the time parameter must also be programmed to define the time of the pulse.

Event Assignment, this is extremely important parameter and has a different meaning depending on the event type selected. For example, event type "24 - Area Part On" the event assignment selects the Area that is armed in part on for the output to trigger. If you set the event assignment to 1, then it will correspond to area 1 and so on, setting it to zero means all areas. See the event type table for more detail on the relationship of event type to event assignment.

Outputs 1 and 2 are special outputs that can be configured as horn speaker polarity types and are monitored to report a device connection trouble. Output 4 is a dry relay contact which has a optional jumper that allows you to switch positive or negative without the need to add additional wiring.

The outputs are all protected and will shut down individually under overload conditions. A report will be generated and a displayed on the keypad to indicate the trouble condition.

OUTPUT COMMANDS

Outputs > Commands >

Output Status A-I-M-U **MENU 4-0-0**

This command allows you to view the current status of any system output.

1) **Press [MENU] + [4] + [0] + [0] and select the output you want to view from the list then press [OK]. Alternatively, you can directly enter the output number that you want to view then press [OK].**

2) **The keypad will display the following when the output is currently in the OFF state and ready to activate.**

```
Output 1 Name Op001
Is OFF and Ready

Press OK or MENU
```

3) **The keypad will display the following when the output is currently in the OFF state but the connection is missing.**

```
Output 1 Name Op001
Is OFF and Ready
Connection Trouble
Press OK or MENU
```

4) **The keypad will display the following when the output is currently in the ON state and ready.**

```
Output 1 Name Op001
Is ON and Timing
Triggered
Press OK or MENU
```

5) **The keypad will display the following when the output is currently in the ON state but the connection is missing.**

```
Output 1 Name Op001
Is ON and Timing
Connection Trouble
Press OK or MENU
```

6) **Press [OK] or [MENU] to exit.**

Outputs > Commands >

Turn Output On/Off I-M-U **MENU 4-0-1**

This command allows you to manuallly turn any output ON or OFF. Outputs can be configured to control various functions including outside lighting, pool pumps, watering systems, air conditioners etc.

1) **Press [MENU] + [4] + [0] + [1] and select the output you want to operate from the list then press [OK]. Alternatively, you can directly enter the output number then press [OK].**

2) **The keypad will display the following when the output is off. To turn the Output On, press [ON].**

```
External Siren Op001
Output is OFF,
To turn ON, Press ON.
To Go Back Press OK
```

3) **The keypad will display the following when the output is on. To turn the output Off, press [OFF].**

```
External siren Op001
Output is ON,
To turn OFF, Press OFF.
To Go Back Press OK
```

4) **Press [OK] or [MENU] when finished.**

OUTPUT PROPERTIES

Outputs > Properties >

Output Name I-M **MENU 4-1-0**

O	u	t	p	u	t		1		N	a	m	e			

This menu allows you to program the name for each output. Output names can be up to 16 characters long.

1) **Enter [MENU] + [4] + [1] + [0] and use the up and down arrows to highlight the Output in the list then press [OK]. Alternatively, you can enter the output number directly and press [OK].**

2) **Use the arrow and number keys to move and change text. When the Output Name is complete, press [OK]. At any time you can press the [OFF] key to clear the text from the current cursor position to the end of the line. .**

```
Output Name Op001

External Siren
Press ◀▶▲▼ OK to SAVE
```

Note *See Alpha Text Programming in Section 4 — Programming Overview for further detail on entering alpha text.*

Outputs > Properties >

Event Type I **MENU 4-1-1**

0	0	0

This menu allows you to set the output event type. See the Output Event Type Table and Event Type Descriptions in this section for more information on the available options.

1) **Press [MENU] + [4] + [1] + [1] and use the up and down arrows to highlight the Output in the list then press [OK]. Alternatively, you can directly enter the output number and press [OK].**

2) **Use the up and down arrow keys to select the Event Type required then press [OK] to save and exit or press [MENU] to exit without saving. It is also possible to directly enter the Event Type number then press [OK].**

```
Event Type Op001

36 - External Audible
Press ▲▼ 0-9 OK to SaveU
```

1 - Battery Trouble

This event type will cause the output to operate when the panel detects a low or missing stand-by battery and will reset once a successful battery test has been performed.

Battery tests are performed automatically every 4 hours and when the system is armed. A manual test can also be requested at any time while the system is disarmed. See MENU 7-9-1 — Battery Test

2 – AC Trouble

This event type will cause the output to operate when the panel detects that the AC mains power has been missing for 1 minute and will reset when the power has been restored for 1 minute.

3 – Telephone Line Trouble

This event type will cause the output to operate when the panel detects that the telco line has been disconnected for 30 seconds and will reset when the line has been restored.

4 – Comm Fail – Destination 1 / 2

This event type will cause the output to operate if the panel fails to report to destination1 or 2 or both. The panel will try to send the report as many times as set in the call attempt counter before registering a comm fail.

The output will restore as soon as a successful report has been sent to the destination that has previously failed to report. If both Destination 1 and Destination 2 had failed to report then successful report to both destinations will need to be made before the output will reset. See MENU 5-2-0 — Call Attempt Count

5 – Third Failed Dialler Attempt

This event type will cause the output to operate when the panel has made 3 unsuccessful call attempts to the base station. The output will reset when all pending messages have been sent or when the maximum number of call attempts have been made.

6 – Destination 1 Reporting

This event type will cause the output to operate when the panel is communicating to Destination 1 and will reset when the transmission ends.

7 – Destination 2 Reporting

This event type will cause the output to operate when the panel is communicating to Destination 2 and will reset when the transmission ends.

8 – Destination 1/2 Kiss-Off

This event type will cause the output to operate when the panel receives an kiss-off acknowledgment from the receiving party while communication to destination 1 or 2. It is recommended that this output is programmed with a one-shot timer.

9 – Destination 1 Kiss-Off

This event type will cause the output to operate when the panel receives a kiss-off acknowledgment from the receiving party while communicating to destination 1. It is recommended that this output is programmed with a one-shot timer.

10 – Destination 2 Kiss-Off

This event type will cause the output to operate when the panel receives a kiss-off acknowledgment from the receiving party while communicating to destination 2. It is recommended that this output is programmed with a one-shot timer.

11 – Dialler Disabled

This event type will cause the output to operate if the panel reporting functions are manually disabled and will reset when reporting is enabled. See MENU 5-2-1 — Dialer Options.

12 – Horn Speaker Missing

This event type will cause the output to operate when the panel detects that a horn speaker is missing. The output will reset when the horn speaker is reconnected. Only output 1 and 2 can be programmed as a horn speaker outputs. See MENU 4-1-3 — Output Polarity for information on configuring an output to drive a horn speaker

13 – Output Trouble

This event type will cause the output to operate when the panel detects that an output device is missing or in an overload condition. The output will reset when all failed outputs have restored or the overload condition has been removed.

14 – Panel On-Line

This event type will cause the output to operate when the panel seizes the phone line and will reset when the phone line is released.

15 – Incoming Call

This event type will cause the output to operate when the panel detects an incoming call on the phone line and will reset when the ring signal stops.

16 – System Trouble

This event type will cause the output to operate when the panel detects a system trouble condition and will reset when the condition is cleared.

17 – Box Tamper

This event type will cause the output to operate when the panel detects that the onboard cabinet tamper circuit is open. The output will reset when the tamper circuit is closed. No EOL resistor is required on this input.

18 – Zone Trouble

This event type will cause the output to operate when the panel detects that a zone has a trouble condition and will reset when the trouble condition has cleared.

19 – Zone Mirror

This event type will cause the output to operate when a specific zone is open or unsealed and will reset when the zone closes.
See MENU 4-1-2 — Event Assignment for infomation on how to set the zone to mirror.

20 – Zone Alarm

This event type will cause the output to operate when a specific zone has triggered an alarm and will reset when the corresponding area is disarmed. For a non 24hour zone to trigger an alarm the area must be armed. See MENU 4-1-2 — Event Assignment for infomation on how to set the zone to monitor.

21 – Area Disarmed

This event type will cause the output to operate as soon as the corresponding area is disarmed and will reset when the area is armed in either the All On or Part On modes.

If the output event assignment for this output is set to zero (all areas), then all areas must be disarmed for the output to operate. The output will reset as soon as any area is armed in either the All On or Part On modes.

22 – Area Armed (Any)

This event type will cause the output to operate when the selected area is armed in either All On or Part On mode. The output will reset when the area is disarmed.

If the event assignment for this output has been set to zero (all areas) then the output will only operate when all areas have been armed in All On or Part On mode. The output will reset as soon any area is disarmed.

23 – Area All On

This event type will cause the output to operate as soon as a specific area is armed All On mode and will reset when the area is disarmed.

If the event assignment for this output has been set to zero (all areas), then the output will only operate when all areas have been armed in the All On mode and will reset as soon as any area is disarmed.

24 – Area Part On

This event type will cause the output to operate as soon as a specific area is armed Part On mode and will reset when the area is disarmed.

If the event assignment for this output has been set to zero (all areas), then the output will only operate when all areas have been armed in the Part On mode and will reset as soon as any area is disarmed.

25 – Area Part 2 On

This event type will cause the output to operate as soon as a specific area is armed Part 2 On mode and will reset when the ares is disarmed.

If the event assignment for this output has been set to zero (all areas), then the output will only operate when all areas have been armed in the Part 2 On mode and will reset as soon as any area is disarmed.

26 – Entry Time

This event type will cause the output to operate while either Entry Timer 1, Entry Timer 2 or the Part Mode Entry Timer is active. The output will reset when the entry timer expires or the corresponding area is disarmed.

27 – Exit Time

This event type will cause the output to operate while Exit Timer is active. The output will reset when the exit timer expires or the corresponding area is disarmed.

28 – End Of Exit Time

This event type will cause the output to operate when the Exit Time expires and will reset when the corresponding area is disarmed.

29 – Chime On

This event type will cause the output to operate when Chime Mode is activated and will reset when Chime Mode is turned off.

If the event assignment for this output is set to zero (all areas), then the output will operate as soon as Chime Mode is activated in any area and will reset when Chime Mode is turned off in all areas.

30 - Chime Zone Faulted

This event type will cause the output to operate when a specific Chime Zone is triggered and reset when the Chime Zone reseals.

If the event assignment for this output is set to zero (all areas), then the output will operate as soon as any chime zone is triggered provided that Chime Mode is on in those areas. The output will reset when all Chime Zones are resealed. For this event type to work Chime Mode must be turned on. See MENU 2-0-5 — Chime On/Off

31 – Auto Arm Pre-Alert

This event type will cause the output to operate when the Auto Arm Pre-Alert Timer is active and will reset when the Pre-Alert Timer expires or a valid user code is entered.

Note *New - Software Version 1.02 and later allows the output to reset when the auto arm pre-alert time has been delayed by by the user.*

32 – Ready To Arm All On

This event type will cause the output to operate when the area is disarmed and all zones in the area are sealled. The output will reset when the area is armed or when a zone becomes unsealed.

If the event assignment for this output is set to zero (all areas), then the output will only operate if all areas are disarmed and all zones are sealed. The output will reset if any area is armed or if any zone becomes unsealed.

33 – Ready To Arm Part On

This event type will cause the output to operate when the area is disarmed and all zones in the area which are to be monitored in Part On mode are sealed. The output will reset when the area is armed or when a Part On zone becomes unsealled.

If the event assignment for this output is set to zero (all areas), then the output will only operate if all areas are disarmed and all Part On zones are sealed. The output will reset if any area is armed or if any Part On zone becomes unsealed.

34 – Ready To Arm Part 2 On

This event type will cause the output to operate when the area is disarmed and all zones in the area which are to be monitored in Part 2 On mode are sealled. The output will reset when the area is armed or when a Part 2 On zone becomes unsealed.

If the event assignment for this output is set to zero (all areas), then the output will only operate if all areas are disarmed and all Part 2 On zones are sealed. The output will reset if any area is armed or if any Part 2 On zone becomes unsealed.

35 – 'Close' Report Sent OK

This event type will cause the output to operate when the Closing report has been acknowledged (Kissed-Off) by the control room receiver. The output will reset when the area is disarmed. If the output has been assigned to multiple areas then it will only reset when all areas have been disarmed.

36 – External Siren (Spk Beeps)

This event type will cause the output to operate when any audible alarm occurs. The output will reset when the system or area is disarmed.

This event type will also generate speaker beeps when the system or area is armed via a RF Keyfob, the Programmable Input Terminal or Keyswitch zone.

- **1 beep when the area is disarmed**
- **2 beeps when the area is armed All On**
- **3 beeps when the area is armed Part On**

37 – Internal Siren

This event type will cause the output to operate when any audible alarm occurs. The output will reset when the system or area is disarmed. No speaker beeps are generated for this event type.

38 – Alarm Any (Silent or Audible)

This event type will cause the output to operate when any silent or audible alarm occurs. The output will reset when the system or area is disarmed

39 – Fire Alarm

This event type will cause the output to operate when any audible fire zone or keypad emergency fire alarm occurs. The output will reset when the system or area is disarmed.

40 – Burglary Alarm

This event type will cause the output to operate when any audible burglary alarm (including keypad emergency panic, medical and tamper alarm) occurs. The output will reset when the system or area is disarmed.

41 – Silent Alarm

This event type will cause the output to operate when any silent alarm occurs (including silent fire and silent keypad emergency alarms). The output will reset when the system or area is disarmed.

Note *New - Software Version 1.07 and later now correctly follows the silent alarm zone setting for 24hr hold up zone types. Previous software versions would not operate an output programmed for silent alarm when a 24hr hold up zone was in alarm.*

42 – Duress Alarm

This event type will cause the output to operate when a user initiates a Duress alarm.

43 – Keypad Medical

This event type will cause the output to operate when a silent or audible medical alarm has been initiated from the keypad. The output will reset when the system or area is disarmed.

To initiate a medical emergency via the keypad, simultaneously press and hold the [7] and [9] keys for 2 seconds.

44 – Keypad Fire

This event type will cause the output to operate when a silent or audible fire alarm has been initiated from the keypad. The output will reset when the system or area is disarmed.

To initiate a fire emergency via the keypad, simultaneously press and and hold the [4] and [6] keys for 2 seconds.

45 – Keypad Panic

This event type will cause the output to operate when a silent or audible panic alarm has been initiated from the keypad. The output will reset when the system or area is disarmed.

To initiate a panic emergency via the keypad, simultaneously press and hold [1] and [3] keys.

46 – Keypad Tamper

This event type will cause the output to operate when the tamper circuit on the rear of the keypad is triggered. The output will reset when a valid user PIN is entered.

47 – Access Denied

This event type will trigger if you attempt to enter an incorrect code more times than programmed in the pin retry count location. The event assignment will be the area number for this event type.

48 – Strobe

This event type is used to operate a stobe warning light. The output can be made to operate when any of the following events occur. At leaset one strobe event must be selected for this output type to operate. See MENU 2-1-5 — Strobe Trigger option.

Strobe trigger options include:

- **= Audible Burglary Alarm**
- **= Silent Burglary Alarm**
- **= Fire Alarm**
- **= Arm/Disarm Flash Via RF Keyfob**
- **= Arm/Disarm Flash Via Keyswitch or PGM Input**
- **= 24-Hour Alarm**

49 – Smoke Sensor GND

This output is used to allow smoke detectors to be automatically reset when the system is disarmed. You should connect the GND terminal of all smoke detectors in the system to outputs which are set to this event type.

For this output type to perform correctly you should program the output polarity as type 11 - Normally Low One Shot Open and program the output time parameter to be 5 seconds. The smoke sensor needs to be connected to a zone input programmed as fire.

If fire alarm verification is required, we recommend that you program the zone pulse count tor 2 pulses and the pulse count time to 90 seconds for each fire zone.

50 – Sensor Watch

This event type will cause the output to operate when a zone sensor watch fault has occured. The output will reset when the system or area in armed. See MENU 3-1-8 — Zone Options in Section 7 - Input Programming for more information on Sensor Watch.

51 – Senior Watch

This event type will cause the output to operate when a Senior Watch fault has occured. See MENU 2-1-2 — Input Options in Section 6 - Area Programming for more information on Senior Watch.

52 – Exit Error

This event type will cause the output to operate when a Entry/Exit Delay zone becomes unsealed during exit time and remains unsealed when the exit time expires. The output will reset when the system is disarmed.

53 – RF Keyfob Function 1

This event type will cause the output to operate when Key X is pressed on the Keyfob. This function requires a 4 button keyfob.

54 – RF Keyfob Function 2

This event type will cause the output to operate when Key Y is pressed on the Keyfob. This function requires a 4 button keyfob.

55 – Output Pre Alert

This event type will cause the output to operate when the output pre-alert timer is active and will reset when the pre-alert timer expires.

56 – Follow PIN

This event type will cause the output to operate when a specified user PIN is entered via the keypad or when the corresponding user's keyfob or token is used.

You should program the User whose PIN is to be followed into the Event Assignment for this output.

57 – Part Entry Time

This event type will cause the output to operate when the Part Entry timer is active and will reset when Part Entry time expires.

58 – Schedule

This event type will cause the output to operate when a specific schedule occurs. The output requires a schedule to be programmed to operate an output. The output programmed to follow the schedule must match that programmed in the schedule index.

59 – Keypad Temperature Alarm

This event type will cause the output to operate when the keypad temperature increases above the maximum or falls below the minimum set temperature. The output will reset when the temperature reads between the maximum and minimum values. See MENU 7-7-3 — Keypad Hi/Lo Temp in Section 11 - System Programming

60 – Access Group

This event type will cause the output to operate when a user assigned to the same Access Group swipes their token. The prox reader must be assigned to the same Access Group as the Output and User.

The Event Assignment is the Access Group Number.

Outputs > Properties >

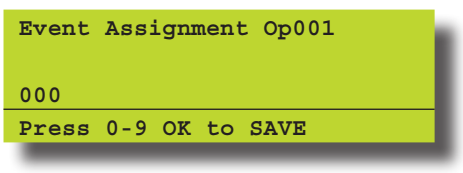
Event Assignment I **MENU 4-1-2**

0	0	0

This menu allows you to assign an Output event to an Area number (1 to 4), a User number (1 to 48), a Zone number (1 to 16) or a Group number (1 to 8) that the output will follow. Programming a zero will assign the output event to follow any area, user, zone or access group depending on the event type.

Refer to Output Event Type Table for a complete listing of available options.

1) **Press [MENU] + [4] + [1] + [2] and select the output you want to operate from the list then press [OK]. Alternatively, you can directly enter the output number then press [OK]. The keypad will display the current Event Assignment.**



2) **Using the numeric keys, enter the Output Event Assignment then press [OK] to save and exit or press [MENU] to exit without saving.**

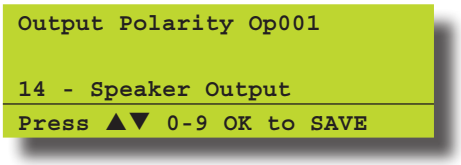
Outputs > Properties >

Output Polarity **MENU 4-1-3**

0 0

The output polarity programs how the output will operate. Only one option (0 – 15) can be programmed per output. See the Output Polarity description for more detailled information.

1) **Press [MENU] + [4] + [1] + [3] and use the up and down arrows to highlight the output in the list and press [OK]. The keypad will display the current output polarity.**



2) **Use the up and down arrow keys to select the Output Polarity required then press [OK] to save and exit or press [MENU] to exit without saving.**

Note

Software Version 1.02 and higher has corrected the output polarity - "Low with Pre Delay' and 'Open With Pre Delay'.

Option	Polarity
0	Normally Open Going Low
1	Normally Open Going Low With Pre Delay
2	Normally Open Latching Low
3	Normally Open Pulsing Low
4	Normally Open One Shot Low
5	Normally Open One Shot Low + Retrigger
6	Normally Open One Shot Low + Reset
7	Normally Low Going Open
8	Normally Low Going Open With Pre Delay
9	Normally Low Latching Open
10	Normally Low Pulsing Open
11	Normally Low One Shot Open
12	Normally Low One Shot Open + Retrigger
13	Normally Low One Shot Open + Reset
14	Horn Speaker (Output 1 or 2 Only)
15	Toggle On / Toggle Off

Table 23: Output Polarity Types

Normally Open Going Low

Output is normally open circuit and switches to GND when the event occurs. The output will reset when the output event restores. Time parameters do not apply to this polarity type.

Normally Open Going Low With Pre Delay

Output is normally open circuit and switches to GND when the event occurs provided the time parameter has expired. The output will reset when the output event restores. Time parameters will only set the Pre Delay when this polarity is selected.

Normally Open Latching Low

Output is normally open circuit and will switch to zero volts when the event occurs. The output can only be reset manually using the Output Command Menu.

Normally Open Pulsing Low

Output is normally open circuit and will pulse LOW when the event occurs. The output will reset when the output event restores. Use the Time Parameter to set the pulse duration.

Normally Open One Shot Low

Output is normally open circuit and switches to GND when the event occurs. The output will only reset when the time specified in the Time Parameter expires. The output will run for the full duration and cannot be manually reset.

Normally Open One Show Low + Retrigger

Output is normally open circuit and switches to GND when the event occurs. The output will retrigger each time the event occurs. The output will reset when the one shot time has expired.

This polarity is ideally suited for security lighting control. A sensor can be used to trigger an output event and then each time the sensor triggers, the output will operate. The light will turn off when the one shot timer expires.

Normally Open One Shot Low + Reset

Output is normally open circuit and will switch to GND when the event occurs. The output will reset when the one shot timer expires or when the event has restored. This means the operation of the output can be shortened based on the event and or the programmed time parameter.

Normally Low Going Open

Output is normally GND and will switch to open circuit when the event occurs. The output will reset when the output event restores. Time parameters do not apply to this polarity type.

Normally Low Going Open With Pre Delay

Output is normally GND and will switch to open circuit when the event occurs provided the time parameter has expired. The output will reset when the output event restores. Time parameters will only set the Pre Delay when this polarity is selected.

Normally Low Latching Open

Output is normally GND and will switch to open circuit when the event occurs. The output can only be reset maually usning the output Command Menu.

Normally Low Pulsing Open

Output is normally LOW and will pulse OPEN when the event occurs. The output will reset when the output event restores. Use the Time Parameter to set the pulse duration.

Normally Low One Shot Open

Output is normally LOW and will switch to open circuit when the event occurs. The output will only reset when the time specified in the Time Parameter expires. The output will run for the full duration and cannot be manually reset.

Normally Low One Show Open + Retrigger

Output is normally LOW and will switch to open circuit when the event occurs. The output will retrigger each time the event occurs. The output will reset when the one shot time has expired.

Normally Low One Shot Open + Reset

Output is normally LOW and will switch to open circuit when the event occurs. The output will reset when the one shot timer expires or the event has restored. This means the operation of the output can be shortened based on the event and or the programmed time parameter.

Horn Speaker (Output 1 or 2 Only)

This polarity can only be used for Output 1 and Output 2 when a horn speaker has been connected.

Toggle On / Toggle Off

This polarity allows the output to turn on when the event occurs. The output will toggle off when the event occurs again. This polarity does not follow any time parameters.

Note *NEW - Software 1.07 and higher - Toggle On / Off.*

TIMED OUTPUTS

Outputs > Properties >

Time Parameter **MENU 4-1-4**

Hour	Minute	Seconds	10th Sec
0 0 0	0 0 0	0 0 0	0 0 0

The time base parameter is only applicable for output types that are programmed as one shot or pulsing. Program 0 to 255 for each of the units (Hour, Minute, Seconds and 10th of a Second) for the time parameter. If required, add the units together to give the total one shot time or pulsing on/off time.

1) **Press [MENU] + [4] + [1] + [4] and select the output you want to program from the list then press [OK]. Alternatively, you can directly enter the output number then press [OK].**

2) **Using the numeric keys, enter the length of time for each parameter. If required, use the [←] and [→] keys to move the cursor left and right between each time parameter.**

```
Output Timing Op001
Hrs   Mins   Sec   Tenth
000   000    000   000
Press ▲▼ 0-9 OK to SAVE
```

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Note *Software Version 1.02 and higher now allows outputs to operate longer than 1 hour. Previous software version would not operate longer than 1 hour.*

One Shot Mode

The time base is the length of time that the output will operate. For Example you may want a strobe output to operate for 1 hour, Either of the examples below will achieve the 1 hour time.

Total Time	Hour	Minute	Seconds	10th Sec
60 Minutes	001	000	000	000
60 Minutes	000	060	000	000

Table 24: Example - Output One Shot Timer

Pulsing Mode

The time base is the unit of time that the output will pulse on and off. If the time base is programmed for 60 seconds, the output will pulse on for 60 seconds and then off for 60 seconds (repeat) until the output is reset.

Outputs > Properties >

Output Options **MENU 4-1-5**

1	Do Not Operate On Low Battery	Y
2	Display Overload	Y
3	Report Overload	Y
4	Display Device Fail	Y
5	Report Device Fail	Y
6	Alarm On Device Fail	N
7	Block If All On	N
8	Display Status Message	N

1) **Press [MENU] + [4] + [1] + [5] and select the output you want to program from the list then press [OK]. Alternatively, you can directly enter the output number then press [OK].**

2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

```
✓ Off On Low Battery
✓ Display Overload
✓ Report Overload
Press ▲▼ OK ON OFF MENU
```

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Do Not Operate Output On Low Battery

This option forces the control panel not to operate the output when a low battery or missing battery condition is in effect. Once the low battery condition restores, the output will return to normal operation.

Display Output Overload

This option allows the keypad to display a trouble condition when output current exceeds its maximum limit.

Report Output Overload

This option allows the panel to send an Output Overload report when the output current exceeds its maximum limit. A restore report will be sent when the current overload condition no longer exists.

Display Missing Output Device

This option allows the panel to display a trouble condition when it detects that the output device is missing. The trouble condition will clear when the output device has been restored.

Report Missing Output Device

This option causes the panel to send an Output Trouble report when it detects that the output device is missing. A restore report will be sent when the when the output device is reconnected.

Alarm When Missing Output Device

This option causes the panel to sound an alarm when the output device becomes missing.

Note

New - Software Version 1.02 and later sounds an alarm when the system is armed or disarmed. Previous software versions would only sound an alarm when the system was armed?

Block If All On

This option prevents the output from turning on when the corresponding area is turned All On. When the area is off, Part On or Part 2 On, the output can again operate when the output event occurs.

Display Status Message

This option allows the keypad to display the output that is currently active on the keypad.

Outputs > Properties >

Macro Group I **MENU 4-1-6**

Reserved

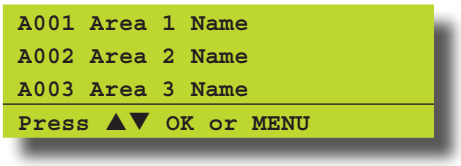
OUTPUT TESTING

Outputs > Testing >

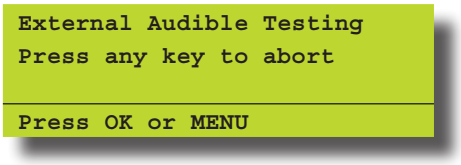
External Siren Test I-M **MENU 4-9-0**

This menu allows you to test the operation of any output programmed as event type 36 (External Audible) or Event Type 36 (Fire Alarm) for 5 seconds.

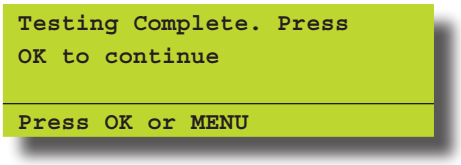
1) **Enter [MENU] + [4] + [9] + [0] and select the area you want to test the external sirens in from the list then press [OK].**



2) **Any outputs programmed for event type 36 or 39 in the chosen area will now operate. The keypad will display the following during the siren test.**



3) **When the siren test is complete, the keypad will display the following:**



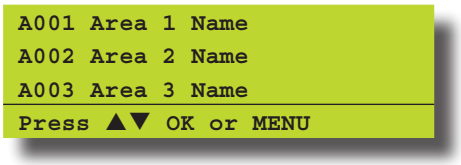
4) **Press [OK] to exit.**

Outputs > Testing >

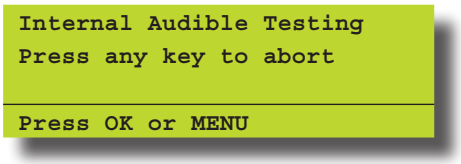
Internal Bell Test I-M **MENU 4-9-1**

This menu allows you to test any output programmed as event type 37 (Internal Audible) or event type 39 (Fire Alarm) for 5 seconds.

1) **Enter [MENU] + [4] + [9] + [1] and select the area you want to test the internal sirens in from the list then press [OK].**



2) **Any outputs programmed for event type 37 or 39 in the chosen area will now operate. The keypad will display the following during the siren test.**



3) **When the bell test is complete, the keypad will display the testing complete message.**

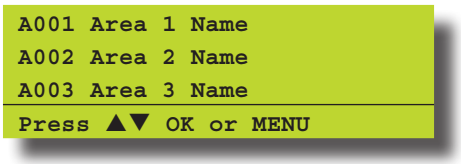
4) **Press [OK] to exit.**

Outputs > Testing >

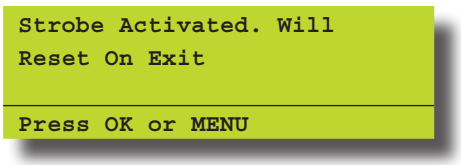
Strobe Siren Test I-M **MENU 4-9-2**

This menu allows you to test the any outputs programmed as event type 48, Strobe light. This test is not timed and needs to be manually stopped when testing is completed.

1) **Enter [MENU] + [4] + [9] + [2] and select the area you want to test the strobe lights in from the list then press [OK].**



2) **Any outputs programmed for event type 48 in the chosen area will now operate. The keypad will display the following during the siren test.**



3) **Check and verify that the strobe lights are working correctly then press [OK] to end the test.**

OUTPUT EVENT TYPE TABLE

0 = Disabled					
1 = Battery Trouble	P	26 = Entry Time	A	51 = Senior Watch	A
2 = AC Trouble	P	27 = Exit Time	A	52 = Exit Error	A
3 = Telephone Line Trouble	P	28 = End Of Exit Time	A	53 = RF Key Fob Function 1	A
4 = Comm Fail – Destination 1 / 2	P	29 = Chime On	A	54 = RF Key Fob Function 2	A
5 = Third Dialler Attempt	P	30 = Chime Zone Triggered	A	55 = Output Pre- Alert	A
6 = Destination 1 Reporting	P	31 = Auto Arm Pre-Alert	A	56 = Follow PIN Code	U
7 = Destination 2 Reporting	P	32 = Ready To Arm All On	A	57 = Part Entry Time	A
8 = Destination 1 or 2 Kiss Off	P	33 = Ready To Arm Part On	A	58 = Time Schedule	S
9 = Destination 1 Kiss Off	P	34 = Ready To Arm Part 2 On	A	59 = Temperature Alarm	K
10 = Destination 2 Kiss Off	P	35 = Closing Report Sent OK	A	60 = Access Group	G
11 = Dialler Disabled	P	36 = External Siren (Spk Beeps)	A		
12 = Output Device Missing	P	37 = Internal Siren	A		
13 = Output Trouble	O	38 = Alarm Any (silent or Audible)	A		
14 = Panel On Line	P	39 = Fire Alarm	A		
15 = Incoming Call	P	40 = Burglary Alarm	A		
16 = System Trouble	P	41 = Silent Alarm	A	(A) = Area Event Assignment	
17 = Box Tamper	P	42 = Duress Alarm	A	(P) = Panel Event Assignment	
18 = Zone Trouble	Z	43 = Keypad Medical	A	(O) = Output Event Assignment	
19 = Zone Mirror	Z	44 = Keypad Fire	A	(Z) = Zone Event Assignment	
20 = Zone Alarm	Z	45 = Keypad Panic	A	(U) = User Event Assignment	
21 = Area Disarmed	A	46 = Device Tamper	A	(S) = Schedule Event Assignment	
22 = Area Armed (Any)	A	47 = Access Denied	A	(G) = Access Group Event Assignment	
23 = Area All On	A	48 = Strobe	A	(K) = Keypad	
24 = Area Part On	A	49 = Smoke Sensor GND	A		
25 = Area Part 2 On	A	50 = Sensor Watch	A		

Table 25: Output Event Types

OUTPUT DEFAULT TABLE

The table below list the default values for all Output parameters in the Solution 16plus. Outputs 1 to 3 are High current digital outputs and Output 4 is the onboard relay output. Outputs 5 to 8 are only available if the optional Output Relay Expander Boards (CM110) are fitted. Options marked N/A = Not Applicable.

Programming Option	Output 1	Output 2	Output 3	Output 4	Output 5 to 8
Output Name	**External Siren**	**Strobe Light**	**Smoke Sensor PWR**	**Internal Siren**	**Output x Name**
Event Type	**36 (External Siren)**	**48 (Strobe)**	**49 (Smoke Sensor GND)**	**37 (Internal Siren)**	**0**
Event Assignment	**0**	**0**	**0**	**0**	**1**
Output Polarity	**14**	**6**	**11**	**6**	**0**
Time Parameter					
N° Of Hours	**000**	**008**	**000**	**000**	**000**
N° Of Minutes	**005**	**000**	**000**	**005**	**000**
N° Of Seconds	**000**	**000**	**010**	**000**	**000**
N° Of 1/10 Seconds	**000**	**000**	**000**	**000**	**000**
Output Options					
Do not Operate If Low Battery	**Y**	**Y**	**Y**	**Y**	**N**
Display Output Overload	**Y**	**Y**	**Y**	**N/A**	**N/A**
Report Output Overload	**Y**	**Y**	**Y**	**N/A**	**N/A**
Display Missing Output Device	**Y**	**N**	**N**	**N/A**	**N/A**
Report Missing Output Device	**Y**	**N**	**N**	**N/A**	**N/A**
Alarm On Device Fail	**N**	**N**	**N**	**N**	**N/A**
Block Output If Armed All On	**N**	**N**	**N**	**N**	**N**
Display Status On Keypad	**N**	**N**	**N**	**N**	**N**

Table 26: Output Default Table

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SECTION 9

Comms Programming

The Solution 16^{plus} has a built in dialler that connects directly to a standard PSTN telephone line. To program the dialler you must set the telephone number to dial and then the reporting format to send the information in.

The command menu allows you to set the Domestic Numbers, initiate a SolutionLink Upload / Download session, turn on/off call forwarding.

There are two independent reporting routes that define where a reportable event should be sent, by default all events will report through route 1. Reportable events in the system are categorised into Alarm, System, Emergency, Open/Close and Test. This means that you are able to steer these different event categories to different report routes. A report route is just like an independent dialler, it has its own primary and secondary telephone numbers and reporting format.

Example: Route 1 = CID, Route 2 = SMS

If you set the reporting route for Open/Close as Route 2 and all other events to Route 1, then all reports will be sent to route 1 in Contact ID format and then all open close reports will be sent through SMS. This is very handy if you want to monitor what time your children come home from school or cleaners entering or leaving your premises.

Telephone numbers can be 32 digits long and characters 0-9 * # and , are supported with the comma representing a 2 second pause. Destination route 1 and route 2 both have their own Primary and Secondary telephone numbers, Domestic reporting has 3 telephone numbers and remote access has one call back number.

There are two back to base monitoring formats called CID and SIA, both formats are all predefined so the system will always send the same reporting code for the same event. The type of zone selected under zone type automatically determines the reporting code to the base station. If a zone is defined as Medical then when it goes into alarm the report will be Medical Alarm, if a zone is programmed as a Fire zone then the report will automatically be Fire Alarm.

COMMS PROGRAMMING COMMANDS

Comms > Commands >

Set Domestic Number I-M **MENU 5-0-0**

Domestic reporting allows the Solution control panel to send reports to personal telephone numbers (eg. mobile telephone numbers). Up to three different telephone numbers can be programmed, each having a maximum of 32 digits.

Each telephone call needs to be acknowledged by the user that answers the incoming call. If the user fails to acknowledge the call, the Solution control panel will make another attempt to report until the maximum number of call attempts has been reached. To acknowledge the call, the user needs to press the [#] key on their telephone.

1) **Enter [MENU] + [5] + [0] + [0]. If the panel has not configured to report via domestic format, the keypad will display the following:**

```
Domestic Reports Not
Enabled. Please Contact
Your Security Service
Provider
```

2) **If the control panel has been configured to report via domestic format, the keypad will display information for telephone number 1.**

3) **Using the arrow and numeric keys, enter all the digits of the first telephone number. You can change a single digit in the number by scrolling the cursor left or right. For special characters (eg. , = pause * or # etc), use the up and down arrow keys. To clear all text from the cursor position to the right, press the [OFF] key.**

```
Domestic Phone Number 1

97417_
Press ▲▼ 0-9 OK to SAVE
```

4) **When the first number is complete press [OK] to program telephone number 2 if required.**

Note

See MENU 5-4-0 and 5-4-1 to configure the Transmission Format to Domestic Reporting.

```
Domestic Phone Number 2

86538_
Press ▲▼ 0-9 OK to SAVE
```

5) **When the second number is complete press [OK] to program telephone number 3 if required.**

```
Domestic Phone Number 3

73653_
Press ▲▼ 0-9 OK to SAVE
```

6) **When finished press [OK] to save and exit or press [MENU] to cancel.**

Comms > Commands >

Call / Answer RAS (SolutionLink) I-M-U **MENU 5-0-1**

This command allows you to initiate a modem call to an off-site computer for programming changes or updates. The off-site computer must be connected to the telephone line that is programmed in the call back telephone number and be set to wait for an incoming call from the same customer that initiates the modem call.

If the phone is ringing and this command is enetered, then the panel will answer the call and attempt to start a SolutionLink RAS session.

Comms > Commands >

Call Forward On/Off I-M **MENU 5-0-2**

This command allows you to turn on and off the call forward feature. When you turn on call forwarding, the panel will automatically activate and de-activate the call forward on and call forward off sequence accordingly when you turn Area 1 All On and Off (arm and disarm).

1) **Enter [MENU] + [5] + [0] + [2]. If the call forward status is OFF, the keypad will display:**

```
Call Forward On/Off
Call Forward is OFF
To turn ON, Press ON
To Go Back Press OK
```

If the call forward status is ON, the keypad will display:

```
Call Forward On/Off
Call Forward is ON
To Turn OFF, Press OFF
To Go Back Press OK
```

2) **To toggle call forward on, press the [ON] key or press the [OFF] key to turn call forward off.**

3) **Press [OK] to save and exit, or press [MENU] to cancel.**

See MENU 5-1-6 and MENU 5-1-7 to program the Call Forward ON and Call Forward OFF number sequence.

Comms > Commands >

Check Web Email I-M **MENU 5-0-3**

Reserved

Comms > Commands >

Email System Log I-M **MENU 5-0-4**

Reserved

Comms > Commands >

Start Direct Link Session I-M **MENU 5-0-5**

This menu allows the installer or master user to start a direct link session without the need to press and hold the default button on the control panel.

1) **Enter [MENU] + [5] + [0] + [5]. The keypad will display the following:**

```
Waiting for Direct Link
Attempt!

Press OK or MENU
```

Once the computer and control panel establishes a connection, the command will automatically exit.

2) **Press [OK] or [MENU] to exit.**

Comms > Commands >

Voice Setup I-M **MENU 5-0-6**

This menu allows the master user to record their own customised greeting and zone description message that will be played back to users that are programmed to receive domestic telephone calls from the alarm system.

These messages should be clear enough so that the user receiving the telephone call from the control panel can then take the appropriate action.

This feature requires an optional voice module to be fitted to the control panel by your installer. Additional programming information is included with the voice module.

PHONE NUMBER PROGRAMMING

Comms > Telephone Number >

Number Prefix I **MENU 5-1-0**

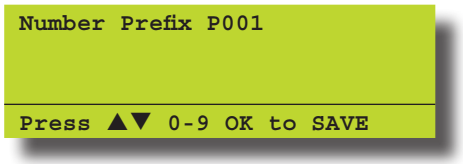
1 Digits 32

The number prefix allows you to program the customer

account number and pass code (PIN) to access the telephone line exchange when using a pre-paid telephone account (e.g. Telstra Communic8 Pre-Paid Home account), or when a number followed by a pause is required to get an outside line on a PABX system.

The number prefix is global for all telephone numbers programmed in both Destination 1 and Destination 2 (including the domestic telephone numbers and call forward sequences). the prefix will be dialled immediately before the number.

1) **Enter [MENU] + [5] + [1] + [0]. The keypad will display the current Telco Number Prefix.**



2) **Using the numeric keys, enter all the digits of the telephone number prefix. You can change a single digit by scrolling the cursor left or right. For special characters including, pause, * or #, use the up and down arrow keys.**

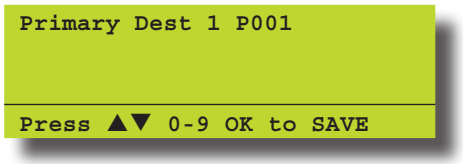
3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Comms > Telephone Number >

Primary Dest 1 I **MENU 5-1-1**

This menu sets the primary telephone number for Report Destination 1. This will typically be the primary base station receiver number.

1) **Enter [MENU] + [5] + [1] + [1]. The keypad will display the current Primary Telephone Number for Destination 1.**



2) **Using the numeric keys, enter all the digits of the telephone number. You can change a single digit by scrolling the cursor left or right. For special characters including, pause, * or #, use the up and down arrow keys.**

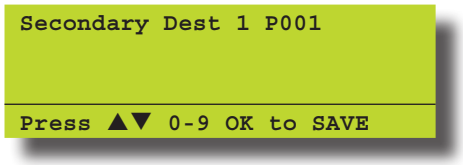
3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Comms > Telephone Number >

Secondary Dest 1 I **MENU 5-1-2**

This menu sets the secondary telephone number for Destination 1. This will typically be the secondary base station receiver number.

1) **Enter [MENU] + [5] + [1] + [2]. The keypad will display the current Secondary Telephone Number for Destination 1.**



2) **Using the numeric keys, enter all the digits of the telephone number. You can change a single digit by scrolling the cursor left or right. For special characters including, pause, * or #, use the up and down arrow keys.**

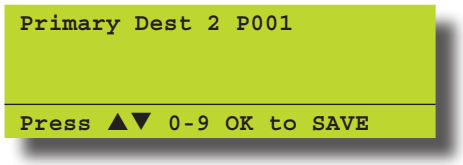
3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Comms > Telephone Number >

Primary Dest 2 I **MENU 5-1-3**

This menu sets the primary telephone number for destination 2. This location will typically be required when the panel is configured for dual reporting.

1) **Enter [MENU] + [5] + [1] + [3]. The keypad will display the current Primary Telephone Number for Destination 2.**



2) **Using the numeric keys, enter all the digits of the telephone number. You can change a single digit by scrolling the cursor left or right. For special characters including, pause, * or #, use the up and down arrow keys.**

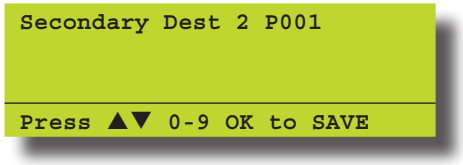
3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Comms > Telephone Number >

Secondary Dest 2 I **MENU 5-1-4**

This menu sets the secondary telephone number for Destination 2. This location will typically be required when the panel is configured for dual reporting.

1) **Enter [MENU] + [5] + [1] + [4]. The keypad will display the current Secondary Telephone Number for Destination 2.**



2) **Using the numeric keys, enter all the digits of the telephone number. You can change a single digit by scrolling the cursor left or right. For special characters including, pause, * or #, use the up and down arrow keys.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Comms > Telephone Number >

Domestic I-M **MENU 5-1-5**

	1	Digits	32
First Number			
Second Number			
Third Number			

Refer to Menu 5-0-0 for instructions on Domestic Phone Number setup.

Note *Up to 3 Phone numbers can be entered for Domestic dialing. Press [OK] after each telephone number is entered to save and move to the next number.*

Comms > Telephone Number >

Call Forward On I-M **MENU 5-1-6**

1							Digits			32
*	6	1	,	*	2	0	#			

The panel is able to activate certain Telco services such as Call Forwarding when the system is armed. Call forwarding means that your customer will no longer need to remember to manually activate the Call Forward On feature via the telephone before leaving.

MENU 5-1-6 allows you to program the Call Forward On number sequence. When armed the panel will automatically seize the phone line and dial the number sequence and then hang up.

In Australia, a typical sequence for activating the Call-Forward On feature (All Calls) might be:

*61 0416123456 *20 #

***61** diversion type - Call Forward On - Immediate.

0416123456 Telephone number that you want calls to be diverted to. Example shows mobile number.

***20** 20 second delay

end of sequence

1) **Enter [MENU] + [5] + [1] + [6]. The keypad will display any current Call Forward sequnces.**

```
Call Forward On P001

*61,*20#
Press ▲▼ 0-9 OK to SAVE
```

2) **Using the numeric keys, enter all digits for the sequence. You can change a single digit by scrolling the cursor left or right. For special characters including, pause, * or #, use the up and down arrow keys.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Comms > Telephone Number >

Call Forward Off I-M **MENU 5-1-7**

1							Digits			32
#	6	1	#							

The panel is also able to deactivate certain Telco services such as Call Forwarding when the system is disarmed. This means that your customer will no longer need to remember to manually deactivate Call Forwarding when they disarm the system.

MENU 5-1-7 allows you to program the Call Forward Off number sequence. When disarmed the panel will automatically seize the phone line and dial the number sequence and then hang up.

In Australia, a typical sequence for deactivating the Call-Forward On feature (All Calls) might be:

***61 #**

***61 =** diversion type - Call Forward On - Immediate.

 # = end of sequence

1) **Enter [MENU] + [5] + [1] + [7]. The keypad will display any current Call Forward Off sequences.**

```
Call Forward Off P001

#61#
Press ▲▼ 0-9 OK to SAVE
```

2) **Using the numeric keys, enter all digits for the sequence. You can change a single digit by scrolling the cursor left or right. For special characters including, pause, * or #, use the up and down arrow keys.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

COMMS PROPERTIES

Comms > Properties >

Call Attempt Count I **MENU 5-2-0**

0 6

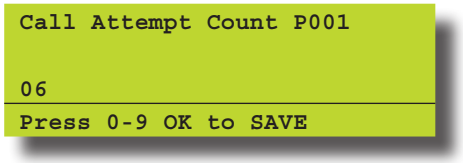
This menu programs the maximum number of call attempts the panel will make per destination in order to deliver the report signal.

At factory default, the maximum number of call attempts per event is 6 when reporting to a single destination and 12 attempts when reporting to 2 destinations. (6 attempts per destination)

Domestic dialling also follows the call attempt count. However, the call attempt count will be spread over total phone numbers programmed for domestic reporting, ie. if three domestic telephone numbers are programmed and the call attempt

count is 6, the panel will dial telephone number 1, telephone number 2 and telephone number 3, then repeat once giving a total of 6 attempts). if the call is acknowledged no further calls will be made for that event.

1) **Press [MENU] + [5] + [2] + [0]. The keypad will display the current number of call attempts per destination. (Default = 6).**



2) **Using the numeric keys, enter the required number of call attempts per destination.Valid entries are 1 to 15. 0 = reporting disabled**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

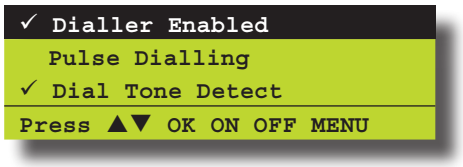
Note *Setting the Call Attempt count to zero will disable all reporting for Detination 1 and Destination 2*

Comms > Properties >

Dialler Options **MENU 5-2-1**

1	Dialler Enabled	Y
2	Pulse Dialling	N
3	Dial Tone Detect	Y
4	Busy Tone Detect	N
5	Reserved	Y
6	Extend Handshake Wait Period To 1 Minute	N
7	Reserved	N
8	Abort Failed Reports	Y

1) **Press [MENU] + [5] + [2] + [1]. The keypad will display the current Dialler Options.**



2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Dialler Enabled

This option enables the dialler reporting function. When disabled, all dialler reporting will stop.

Pulse Dialling

This option will configure the panel to use pulse or decadic dialling rather than tone or DTMF dialling. DTMF dialling should always be used unless the telephone network you are communicating on does not support it.

Dial Tone Detect

This option configures the panel to start dialling as soon as it detects dial tone on the line. This can speed up the dialing process by up to 3 seconds. If no tone is detected the panel will blind dial after 4 seconds.

If this option is disabled the panel will blind dial.

Busy Tone Detect

This option configures the panel to detect busy tone. If a busy tone is detected during the dialling sequence, the panel will immediatly hang up and move on to the next number in the sequence in an attempt to get the report through as quickly as possible.

If this option is disabled, the panel will wait for a period of 30 seconds before dialling the next telephone number in the sequence. The 30 second timer starts when the first digit of the first telephone number is dialled.

Mirror Reporting To WEB Email

Reserved.

Extend Handshake Wait Period To 1 Minute

This option sets the panel to wait for up to 60 seconds to receive a valid handshake signal from the base station receiver. The handshake tone indicates to the panel that it has reached the security company's base station receiver and can now send it's pending reports.

If this option is disabled the handshake wait time will default to 30 seconds.

Abort Failed Reports

Setting this option will cause a failled report to be flagged in the log and no further reports will be made for that event.

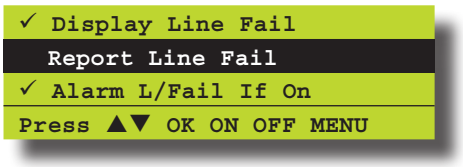
Note *A report will be failled if the number of programmed dial attempts has been reached .*

Comms > Properties >

Phone Line Options **MENU 5-2-2**

1	Display Telephone Line Fail	Y
2	Report Telephone Line Fail	Y
3	Alarm On Line Fail If Armed	N
4	Alarm On Line Fail If Disarmed	N
5	Reserved	N
6	Reserved	N
7	Reserved	N
8	Display Phone In Use	N

1) **Press [MENU] + [5] + [2] + [2]. The keypad will display the current Phone Line Options.**



2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Software Version 1.02 and higher will now continue to display Telco Line Fail in alarm memory after the siren outputs time out. Previous software revisions would no longer display on the keypad that the Telco line failed once the siren run time expired.

Display Telephone Line Fail

This option sets the panel to display a trouble signal on the keypad display when the panel detects a teleco line fail condition.

Report Telephone Line Fail

This option sets the panel to send a line fail report when it detects a telco line fail condition. If configured, the panel is able to report this signal via an alternative reporting method such as the GSM cellular network.

If no alternative route exists then the panel will send the signal and restore when the PSTN line is reconnected.

Alarm On Telephone Line Fail If Armed

This option sets the panel to trigger an alarm when the telco line fails provided that the area is turned All On or Part On. In a multi-area system this option is global and will be triggered if only one area in the system is in the armed state. The alarm will continue to sound until a valid PIN is entered or the siren timer expires.

Alarm On Telephone Line Fail If Disarmed

This option sets the panel to trigger an alarm when the telco line fails provided that the area is turned OFF or disarmed. In a multi-area system this option is global and will be triggered if only one area in the system is in the disarmed state. The alarm will continue to sound until a valid PIN is entered or the siren timer expires.

Display 'Phone In Use'

This option allows the keypad to display Phone In Use when the telephone line has been looped by the control panel for either incoming or outgoing calls. If this option is disabled, no indication is provided on the keypad.

The dialler status indicator LED located on the main panel will always show the status of the dialler. See Section 3 - Wiring Diagrams for more information.

Comms > Properties >

Country I **MENU 5-2-3**

0 = Australia [0]

1 = New Zealand	6 = Portugal	11 = China
2 = Italy	7 = Hungary	12 = Hong Kong
3 = Greece	8 = Czech Republic	13 = Malaysia
4 = Cyprus	9 = Poland	14 = Brazil
5 = Spain	10 = Bulgaria	15 = Reserved

This menu automatically sets the dialling parameters including dial and busy tones etc. for the country the panel is working in.

(*** System Wide Parameter ***)

1) **Press [MENU] + [5] + [2] + [3]. The keypad will display the currently selected country. The default country is Australia.**

2) **Use the up and down arrow keys to select the appropriate country then Press [OK].**

```
Ln001 AUSTRALIA
Ln002 NEW ZEALAND
Ln003 ITALY
Press ▲▼ OK or MENU
```

3) **Press [OK] to confirm and save and exit or press [MENU] to exit without saving.**

```
WARNING: Press OK to set
dialler to
AUSTRALIA
```

For correct dialler operation, you must make sure that the correct country selection is made for your location. If your country is not listed here please contact your Digiflex distibutor.

Comms > Properties >

Set SMS Password I **MENU 5-2-7**

p	a	s	s	w	d										

This menu sets the SMS password which is required whenever SMS reporting is selected. The password will typically be defined by the service provider or Telco carrier who you are using to route the message.

By default the SMS password is set to suit the Telstra Network in Australia.

1) **Enter [MENU] + 5+2+7. The keypad will display the current SMS password.**

2) **Use the arrow and number keys to move and change text. When the password is complete, press [OK]. At any time you can press the [OFF] key to clear the text from the current cursor position to the end of the line.**

```
SMS Pager Password

passwd
Press ◀▶▲▼ OK to SAVE
```

See Alpha Text Programming in Section 4 - Programming Overview for further detail on entering alpha text.

Comms > Remote Access >

Call Back Number I **MENU 5-3-0**

1 Digits 32

This menu sets the call back telephone number which can be used to establish a SolutionLink RAS connection to the panel for remote programming. The remote computers modem should be connected to this number and Solutionlink should be set to wait for an incomming call.

The installer or customer can force the panel to dial this number by entering MENU 5-0-1.

For higher security the panel can be configured to always use this number for callback verification when establishing a SolutionLink remote access connection. The following steps outline the callback procedure.

Step 1) Use Solutionlink RAS to call panel from remote computer.

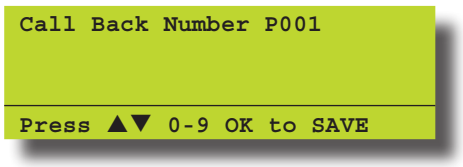
Step 2) Panel will answer, acknowledge the request and then hang up.

Step 3) Panel will then dial the callback number.

Step 4) SolutionLink will answer the call and establish a RAS session.

Note *See MENU 5-3-4 to force Callback Verification for every RAS Session.*

1) **Press [MENU] + [5] + [3] + [0]. The keypad will display the current Call Back telephone number if programmed.**



2) **Using the numeric keys, enter all the digits of the Call Back number. You can change a single digit by scrolling the cursor left or right. For special characters including, pause, * or #, use the up and down arrow keys.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Note *You must add any area codes or other special access numbers which are required to be able to dial the remote computer from the panel phone line. Simply add these numbers before the Call Back number.*

Comms > Remote Access >

RAS Security PIN **MENU 5-3-1**

1	2	3	4	5	6	7	8

The RAS security PIN programmed here must match the security PIN programmed in the customer file of the SolutionLink RAS upload/download database otherwise a connection to the panel cannot be established.

1) **Press [MENU] + [5] + [3] + [1]. The keypad will display the current RAS Security PIN. The default = 12345678.**

2) **Using the numeric keys, enter all the digits of the new RAS security PIN. You can change a single digit by scrolling the cursor left or right.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Comms > Remote Access >

Log Threshold **MENU 5-3-2**

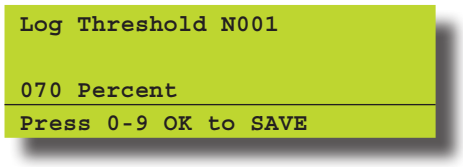
7	0	%

The control panel can store up to 256 system events in its built in history log. A newly installed panel will have 100% of its log space available for new events (0% full). As the panel starts to store events in the log, the capacity for new events is reduced. The history log is 100% full when event 256 is stored in memory. Event 257 will start to overwrite the oldest events in the log.

When the Log Threshold option is programmed, the panel will send a 'Log Threshold' report to the base station when the event log reaches the percentage as set since the last SolutionLink session.

If the event log reaches 100% capacity before a SolutionLink RAS session is established then the system will send a 'Log Overflow' report. The panel will also log these events in its memory.

1) **Press [MENU] + [5] + [3] + [2]. The keypad will display the current threshold limit. The default is 70% full.**



2) **Using the numeric keys enter the new threshold limit, then press [OK] to save and exit or press [MENU] to exit without saving. There is no need to enter the % symbol.**

Note *Each time a SolutionLink RAS session is established with the panel, the log information will be uploaded to the SolutionLink database where it can be reported on or archived for later use*

Comms > Remote Access >

Ring Count **MENU 5-3-3**

0 = No Answer

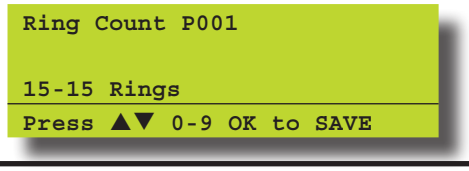
1 to 15 = Answer Ring Count

20

This menu sets the number of rings the panel will wait until answering an incoming call. Programming a zero will stop the panel from answering any incoming calls.

Note *In Software version 1.02 and higher, the ring count has been changed to make it easy for new users to lean and simpler to use when establishing a remote connection. In earlier versions, the panel would count rings as follows: RING..RING.....RING..RING would be counted as 1 ring. The panel will now count rings as follows: RING..RING would be counted as 1 ring. Occasionally, you will hear half a ring at the moment the line is switched through to the premises. In this case the panel will count the rings as follows: RING.....RING..RING would be counted as 1 ring..*

1) **Press [MENU] + [5] + [3] + [3]. The keypad will display the current ring count.**



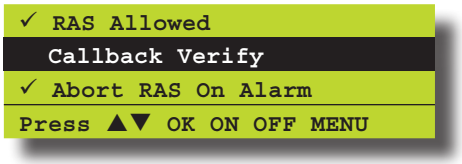
2) **Use the up and down arrow keys to select the required ring count then Press [OK] to save and exit or press [MENU] to exit without saving.**

If answering machine bypass is required to allow a SolutionLink connection to be made without the answering machine answering the call, see MENU 5-3-4 — SolutionLink RAS Options

Comms > Remote Access >

SolutionLink RAS Options		MENU 5-3-4
1	RAS Allowed	Y
2	Call Back Verification Required	N
3	Terminate RAS on Alarm	Y
4	Answer Bypass	Y
5	Answer Incoming Call Only If Armed	N
6	Tone Bypass	Y
7	Allow User Functions Via Remote Access Software	Y
8	Report / Log RAS Start / End Sessions	Y

1) **Press [MENU] + [5] + [3] + [4]. The keypad will display the current RAS options.**



2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

RAS Allowed

This option allows you to configure the panel via the SolutionLink RAS upload/download software using a PC.

There are two different methods of connection avialable;

1) **Direct Connect – via serial cable.**

2) **Remote Connect – via telephone line.**

See Direct Link and SolutionLink RAS Upload/Download programming in Section 5 — Programming Overview for more information.

Call Back Verification Required

Setting this option will force the panel to use call back verification for all remote SolutionLink RAS sessions. See MENU 5-3-0 — Call back Number for more information.

Terminate RAS On Alarm

If this option is programmed, the RAS connection between the panel and the remote upload / download computer will be terminated if panel registers an alarm that needs to be reported.

Answering Machine Bypass

Answering machine bypass allows you to establiish a RAS connection to a panel when there is an answering machine or facsimile machine connected on the same telephone line.

1) **Using SolutionLink call the paneland let the phone ring no more than 4 times before hanging up.**

2) **Wait a minimum of 8 seconds (but no more than 60 seconds) before calling the panel again. This time the panel will answer the incoming call as soon as it registers the first ring and the connection will be established.**

Answer Incoming Call Only If Armed

Setting this option will prevent the panel from answering an incoming call unless at least one area on the system is armed. If all areas are off the panel will not answer the call. This option would be useful in a busy office when due to the large volume of incomming calls answering machine bypass may not be effective.

Tone Bypass

It is often difficult to establish a remote connection to a panel if the customer picks up the phone or if a fax or answering machine answers the call before the panel does.

While the ultimate solution to this problem is the use the CLI Intelliconnect method, this requires the customer to enable CLI via their telco provider.

When enabled, the new Tone Bypass option (MENU 5-3-4) tells the panel to listen to every answered call and to look for a specific sequence of DTMF tones.

The tone sequence will be sent by the remote programming software and when the panel recognises them, it will immediately seize the line away from the answering party and the programming session will commence.

The feature requires SolutionLink remote programming software version 1.03 or higher.

Remote Program Editing Only When Disarmed

Setting this option will prevent a SolutionLink RAS connection to the panel while any are is armed.

Allow 'User Functions' Via Remote Access Software

Setting this option allows access to user functions via the RAS upload/download software. If this option is not programmed, user functions will be disabled.

Report RAS Start / End Sessions

Setting this option will cause the panel to report the start and end of RAS programming sessions to the base station and the history log.

Comms > Remote Access >

DTMF Options		MENU 5-3-5
1	DTMF Arming	Y
2	DTMF Disarming	N
3	DTMF User Functions	N
4	DTMF Quick Arm ([0] + [#])	Y
5	Reserved	N
6	Reserved	N
7	Reserved	N
8	Reserved	N

1) **Press [MENU] + [5] + [3] + [5]. The keypad will display the current DTMF options.**

2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

DTMF Arming

Setting this option enables user to remotely arm one or more areas on the panel using their PIN and a touch tone phone. This option requires the Solution Interactive Voice module to be fitted.

DTMF Disarming

Setting this option enables users to remotely disarm one or more areas on the panel using their PIN and a touch tone telephone. This option requires the Solution Interactive Voice module to be fitted.

DTMF User Functions

Setting this option enables access to user DTMF functions using their PIN and a touch tone telephone. This option requires the Solution Interactive Voice module to be fitted.

DTMF Quick Arm

Setting this option allows users and control room operators to remotely arm the system using a touch tone phone without the need for a PIN.

To arm the system call the number which the panel is connected to and when the panel answer you will here 3 beeps in accending frequency if the panel is in the disarmed condition. Press [0] + [#] to arm. You will hear 3 beeps in decending order when the panel arms.

Note *All areas on the system will be armed regardless of there condition when using the DTMF quick arm function.*

Unlike other systems, no additional hardware or modules are required for DTMF control.

1. Once the panel answers the incoming call, if either option 1, 2, 3 or 4 in MENU 5-3-5 is enabled, then the panel will play a short welcome jingle. You now have approximately 5 seconds to enter a valid PIN and log onto the panel.

2. Enter PIN followed by the # key. If the PIN is valid the system will respond with two short beeps. If the PIN is invalid then a single long beep will be heard.

   If a valid PIN is not entered in time, the panel will attempt to establish a modem connection as if connecting to the SolutionLink software. If this happens you will need to hang up for approximately 60 seconds before trying again.

3. Once validated, the following commands can be performed. See the table below. If no keys are pressed for 20 seconds then the panel will play the exit jingle before terminating the session and hanging up. Pressing ## at any time while connected will cause the panel to terminate the session.

DTMF CONTROL FUNCTIONS		
Operation	**Command**	**Response**
Quick Arm All Areas	0 + #	2 x Beeps
Log In OK	USER PIN + #	Welcome Jingle
Log In Failed	USER PIN + #	Long Beep
Turn Area ON	1 + (Area Nº1-8) + 1 + #	2 x Beeps (Low - High)
Turn Area OFF	1 + (Area Nº1-8) + 2 + #	2 x Beeps (High - Low)
Turn Output ON	2 + (Output Nº1-16) + 1 + #	2 x Beeps (Low - High)
Turn Output OFF	2 + (Output Nº1-16) + 2 + #	2 x Beeps (High - Low)
End Session	# + #	Exit Jingle

Table 27: DTMF Control Functions

DTMF EXAMPLES

Each example below shows the log on step for clarity. In practise is only necessary to log on once per DTMF control session.

To turn Area 1 ON enter the following

2 + 5 + 8 + 0 + # = Log ON

1 + 1 + 1 + # = Arm Area 1

To turn Output 10 ON enter the following

2 + 5 + 8 + 0 + # = Log ON

2 + 10 + 1 + # = Turn Output 10 ON

To turn Output 12 OFF enter the following

2 + 5 + 8 + 0 + # = Log ON

2 + 12 + 2 + # = Turn Output 12 OFF

Note *If the DTMF Quick Arm option is enabled then it is possible to remotely arm all areas without logging onto the panel. Simply enter 0 + # following the welcome jingle. Make sure that the phone being used to remotely control the panel is set to transmit DTMF tones when keys are pressed during the call. This option is disabled by default on some phones.*

Comms > Remote Access >

Voice Access Code I **MENU 5-3-6**

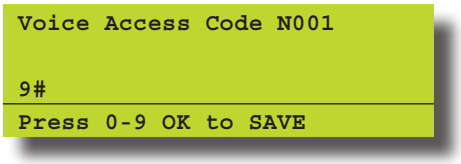
9 #

This option sets a 2 digit code which is used to access the panel from any internal phone connected to the same telco line as the panel. For this option to work, a CM100 Voice Module must be connected to the panel.

This default number may need to be changed depending on the country and or telco exchange / PABX system being used. Make sure that when the code is entered, no external phone services are selected or activated. If they are, then change the code to something else.

It is important to realise that this code is only used to start the connection process. Once a connection is established, the voice module will ask the user to enter their PIN before they will be able to control the panel. The Voice Access Code is shared by all users who need this type of access to the panel. See the CM100 documention for more details.

1) **Press [MENU] + [5] + [3] + [6]. The keypad will display the current DTMF options.**



2) **Using the numeric keys enter the new Voice Access Code then press [OK] to save and exit or press [MENU] to exit without saving.**

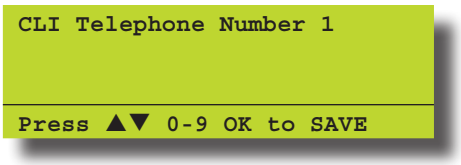
Comms > Remiote Access >

CLI Number I **MENU 5-3-7**

First Number	1	Digits	32
Second Number	1	Digits	32
Third Number	1	Digits	32

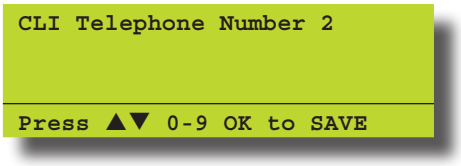
CLI Numbers (Call Line Identification) allows the Solution control panel to answer an incoming call only when the control panel identifies that the incoming call is from any one of the three CLI numbers programmed. Up to three different CLI telephone numbers can be programmed, each having a maximum of 32 digits.

1) **Enter [MENU] + [5] + [3] + [7]. The keypad will display information for CLI number 1.**



2) **Using the numeric keys, enter all the digits for CLI number 1. You can change a single digit by scrolling the cursor left or right. For special characters including, pause, * or #, use the up and down arrow keys.**

3) **Press [OK] to program CLI number 2.**



4) **Using the numeric keys, enter all the digits for CLI number 2 .**

5) **Press [OK] to program CLI number 3.**

6) **When finished Press [OK] to save and exit or press [MENU] to exit without saving.**

Note *Up to 3 Phone numbers can be entered for CLI Call Line Identification for remote access detection. You must enter STD code plus the compete number for this option to work. Press [OK] after each telephone number is entered to save and move to the next number.*

REPORTING OPTIONS

Comms > Dialler Reporting >

TX Format Dest 1 I **MENU 5-4-0**

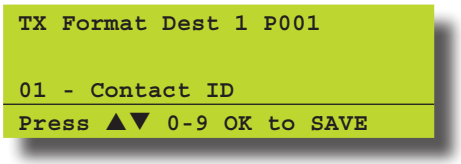
1

0 = Disable		
1 = Contact ID	7 = Domestic	
2 = SIA	8 = Voice	13 = Reserved
3 = Serial STU	9 = SIA+	14 = SMS - No Parity
4 = GSM	10 = Reserved	15 = Reserved
5 = WEB MAIL	11 = Reserved	
6 = SMS	12 = Reserved	

This menu allows you to program the transmission format or language the panel will use to send event reports to Destination 1. The panel has two separate destinations that reports can be sent to and each one can be set to use a different transmission format depending on the application.

At factory default, all reports are routed to Destination 1.

1) **Press [MENU] + [5] + [4] + [0]. The keypad will display the current Transmission Format for Destination 1.**



2) **Use the up and down arrow keys to select the Transmission Format required then Press [OK] to save and exit or press [MENU] to exit without saving.**

Note *Option 14 - SMS - No Parity, is only available in version 1.02 or higher.*

Comms > Dialler Reporting >

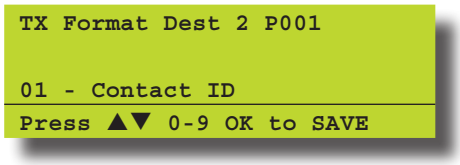
TX Format Dest 2 I **MENU 5-4-1**

1

0 = Disable		
1 = Contact ID	7 = Domestic	
2 = SIA	8 = Voice	13 = Reserved
3 = Serial STU	9 = SIA +	14 = SMS - No Parity
4 = GSM	10 = Reserved	15 = Reserved
5 = WEB MAIL	11 = Reserved	
6 = SMS	12 = Reserved	

This menu allows you to program the transmission format or language the panel will use to send event reports to Destination 2.

1) **Press [MENU] + [5] + [4] + [1]. The keypad will display the current Transmission Format for Destination 2.**



2) **Use the up and down arrow keys to select the Transmission Format required then Press [OK] to save and exit or press [MENU] to exit without saving.**

Option 14 - SMS - No Parity, is only available in version 1.02 or higher.

Comms > Dialler Reporting

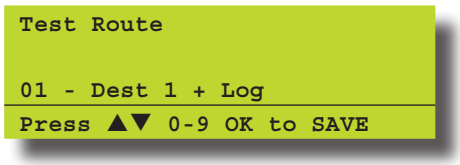
Test Route I **MENU 5-4-2**

0 = Report Events To Log Only [1]
1 = Report Events To Destination 1 + Log
2 = Report Events To Destination 2 + Log
3 = Report Events To Destination 1 & Destination 2 + Log
4 = Report Events To Destination 2 If Destination 1 Fails + Log

This menu programs which destination will be used to send both manual and automatic test reports.

(*** System Wide Parameter ***)

1) **Press [MENU] + [5] + [4] + [2]. The keypad will display the current Test Route.**



2) **Use the up and down arrow keys to select the Test Route required then Press [OK] to save and exit or press [MENU] to exit without saving.**

Comms > Dialler Reporting

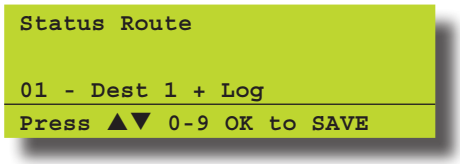
Status Route I **MENU 5-4-3**

0 = Report Events To Log Only [1]
1 = Report Events To Destination 1 + Log
2 = Report Events To Destination 2 + Log
3 = Report Events To Destination 1 & Destination 2 + Log
4 = Report Events To Destination 2 If Destination 1 Fails + Log

This menu sets the report destination that will be used to send all system event reports.

(*** System Wide Parameter ***)

1) **Press [MENU] + [5] + [4] + [3]. The keypad will display the current Status Report route.**



2) **Use the up and down arrow keys to select the Test Route required then Press [OK] to save and exit or press [MENU] to exit without saving.**

Comms > Dialler Reporting

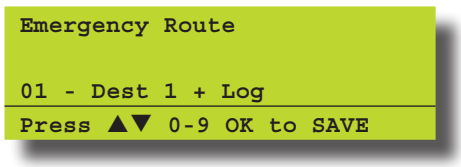
Emergency Route I **MENU 5-4-4**

0 = Report Events To Log Only [1]
1 = Report Events To Destination 1 + Log
2 = Report Events To Destination 2 + Log
3 = Report Events To Destination 1 & Destination 2 + Log
4 = Report Events To Destination 2 If Destination 1 Fails + Log

This menu programs the destination that all Keypad emergency alarms are reported.

(*** System Wide Parameter ***)

1) **Press [MENU] + [5] + [4] + [4]. The keypad will display the current Emergency Route.**



2) **Use the up and down arrow keys to select the Keypad Emergency route required then Press [OK] to save and exit or press [MENU] to exit without saving.**

Comms > Dialler Reporting >

Swinger Dialler I **MENU 5-4-5**

(*** System Wide Parameter ***) [0][6]

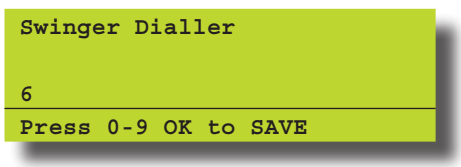
Swinger Dialler can be used to prevent a faulty or run-a-way PIR from continually re-triggering the zone and reporting to the base station.

The Swinger Dialler count sets the maximum number of times an individual zone can trigger an alarm during the current arming cycle before it is locked out.

If this option is not programmed, the panel will continue to report the alarm signal until the system or area is disarmed.

Only zones that have been programmed for Lockout Dialler in MENU 3-1-7 — Report Options will follow the Swinger Dialler count.

1) **Press [MENU] + [5] + [4] + [5]. The keypad will display the current Swinger Dialler count.**



2) **Using the numeric keys, enter the new Swinger Dialler count then press [OK] to save and exit or press [MENU] to exit without saving. Valid entries are 0 - 15 / 0 = disabled.**

Comms > Dialler Reporting >

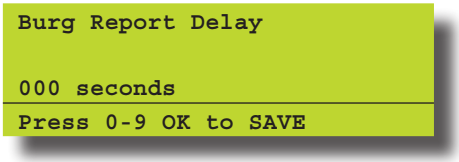
Burg Report Delay I **MENU 5-4-6**

0	0	0

(*** System Wide Parameter ***) **SECONDS**

This menu programs how long the panel will delay reporting Burglary alarm reports. Only burglary (non-fire) zones that have been programmed for Delay Report in MENU 3-1-7 — Report Option will follow the Burglary Report Delay time.

1) **Press [MENU] + [5] + [4] + [6]. The keypad will display the current burglary report delay time.**



2) **Using the numeric keys, enter the new report delay time then press [OK] to save and exit or press [MENU] to exit without saving. Valid entires are 0 to 255 seconds**

Comms > Dialler Reporting >

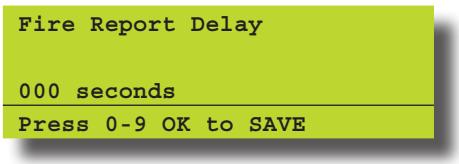
Fire Report Delay I **MENU 5-4-7**

0	0	0

(*** System Wide Parameter ***) **SECONDS**

This menu programs how long the panel will delay reporting fire zone alarm reports. Only fire zones that have been programmed for Delay Report in MENU 3-1-7 — Report Option will follow the Fire Report Delay time.

1) **Press [MENU] + [5] + [4] + [7]. The keypad will display the current Fire Report Delay time.**



2) **Using the numeric keys, enter the new report delay time then press [OK] to save and exit or press [MENU] to exit without saving. Valid entires are 0 to 255 seconds.**

COMMS REGISTRATION

Comms > Registration >

Customer I **MENU 5-5-0**

Reserved for future use.

Comms > Registration >

Installer I **MENU 5-5-1**

Reserved for future use.

Comms > Comms Test >

Email Address I-M **MENU 5-5-8**

This menu allows the master user to program an email address that the system will send email reports to. A maximum of 80 characters can be used to program the email address.

1) **Enter your Master PIN + [MENU].**

2) **Enter [5] + [5] + [8] + [OK].**

The keypad will display the current email address.

3) **Use the numeric, [0] to [9], [←] and [→] keys to enter or change the email address as required.**

At any time you can use the [↑] and [↓] keys to scroll through the complete list of available characters.

To clear all characters from the cursor position to the right, press the [OFF] key.

4) **When the email address is complete, press [OK] to save and exit, or press [MENU] to exit without saving.**

To stop email reporting simply remove the email address or disable all of the email options in MENU 5-5-9.

Note *When entering an email address the @ symbol is represented on the keypad display as a. To enter this character press the 1 key repeatedly until the symbol appears in the display.*

Comms > MyAlarm >

Email Options I-M **MENU 5-5-9**

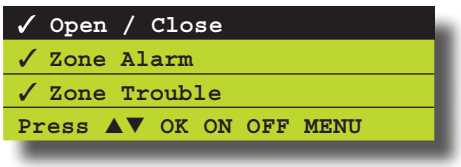
1	Open / Close Reports	Y
2	Zone Alarm Reports	Y
3	Zone Trouble Reports	Y
4	System Reports	Y
5	Access Reports	Y
6	Reserved	N
7	Reserved	N
8	Reserved	N

This menu allows the master user to select which event types will be reported using the email reporting function. By default the first 4 options are set to report via email. Follow the procedure below to configure the required options.

1) **Enter your Master PIN + [MENU].**

2) **Enter [5] + [5] + [9] + [OK].**

The keypad will display the list of current options. Options with a preceeding tick mark are selected.



3) **Use the [↑] and [↓] keys to highlight the feature that you want to program, then use the [ON] and [OFF] keys to turn on and off the features as required.**

4) **When all email options are programmed, press [OK] to save and exit, or press [MENU] to exit without saving.**

Open / Close Reports
This option allows the control panel to report 'open' and 'close' reports via email.

Zone Alarm Reports
this option allows the control panel to report zone 'alarm' and 'restore' reports via email.

Zone Trouble Reports
This option allows the control panel to report zone 'trouble' and 'restore' reports via email when a user turns on an area that has faulted zones.

System Reports
This option allows the control panel to report via email numerous system reports (e.g. AC Fail, Low Battery etc) via email.

Access Reports
This option allows the control panel to report via email when a valid token has been swiped eg. 'Access Granted' or 'Access Denied'.

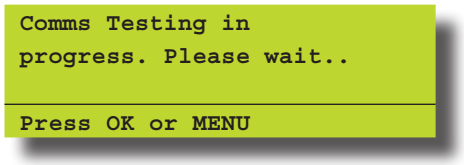
COMMS TESTING

Comms > Comms Test >

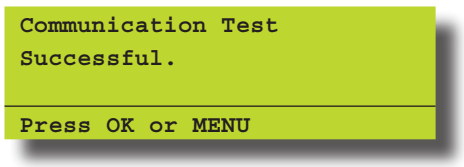
Send Test Report I-M-U **MENU 5-9-0**

This menu allows you to test the reporting functions of the Solution control panel by manually sending a Test report to the receiving party (i.e. security company monitoring station, mobile telephone etc).

1) **Enter [MENU] + [5] + [9] + [0]. The keypad will prompt that it is in the process of sending a test report.**



2) **If the test is successful, the keypad will prompt:**



3) **If the test fails, the keypad will prompt:**

4) **Press [OK] or [MENU] to exit.**

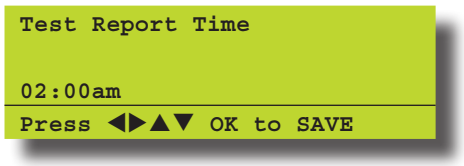
Comms > Comms Test >

Test Report Time I **MENU 5-9-1**

Test Time
02 : 00 am
HH **MM**

This menu programs the time of the day that the panel will send the automatic Test Report to the base station receiver. Automatic test reports are used to verify the panels ability to report events via the telephone line on an ongoing basis.

1) **Press [MENU] + [5] + [9] + [1]. The keypad will display the current Test Report Time.**



2) **Use the left, right, up and down arrow keys to select the Test Report time required then Press [OK] to save and exit or press [MENU] to exit without saving.**

Note

Scroll through the hours using the up and down arrow keys to change the time from am to pm.

Comms > Comms Test >

Test Report Period **MENU 5-9-2**

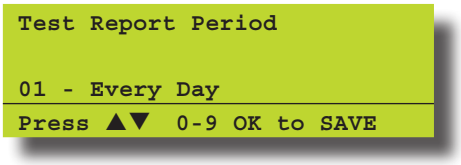
0 = No Test Report
1 = Every Day
2 = Every Week
3 = Every Month

[1]

This menu programs how often the control panel will send a test report. Only one option can be programmed.

(*** System Wide Parameter ***)

1) **Press [MENU] + [5] + [9] + [2]. The keypad will display the current Test Report Period.**



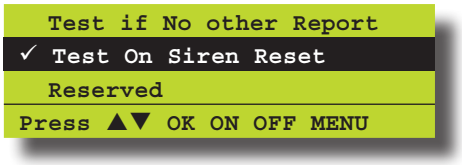
2) **Use the up and down arrow keys to select the Test Report Period then Press [OK] to save and exit or press [MENU] to exit without saving.**

Comms > Comms Test >

Test Report Options **MENU 5-9-3**

1	Send Test Reports Only If No Other Report	N
2	Send Test Reports On Audible Time Out	Y
3	Reserved	N
4	Reserved	N
5	Reserved	N
6	Reserved	N
7	Reserved	N
8	Reserved	N

1) **3Press [MENU] + [5] + [9] + [3]. The keypad will display the current Test Report Options.**



2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Send Test Reports Only If No Other Report

Setting this option will cause the system to only send its automatic Test report if no other area report has been sent within the test report time period as programmed in MENU 5-9-2.

Send Test Reports On Audible Time Out

Setting this option will delay the Automatic Test Report if the sirens are running when the test report time expires. This effectively keeps the telco line free to make any further alarm reports which may be triggered while the sirens are running. The panel will send the cued Test Report as soon as the siren run-time has expired.

Comms > Comms Test >

Test Route **MENU 5-9-4**

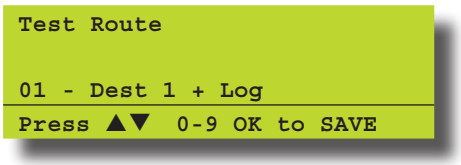
0 = Report Events To Log Only
1 = Report Events To Destination 1 + Log
2 = Report Events To Destination 2 + Log
3 = Report Events To Destination 1 & Destination 2 + Log
4 = Report Events To Destination 2 If Destination 1 Fails + Log

[1]

This menu programs which destination will be used to send both manual and automatic test reports.

(*** System Wide Parameter ***)

1) **Press [MENU] + [5] + [9] + [4]. The keypad will display the current Test Route.**



2) **Use the up and down arrow keys to select the Test Route required then Press [OK] to save and exit or press [MENU] to exit without saving.**

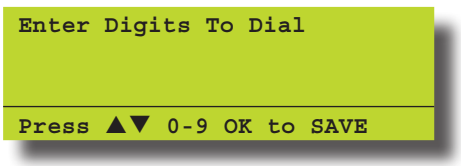
Comms > Comms Test >

Dial Number Test **MENU 5-9-5**

This option provides a quick and easy way for the Installer to test the communication path for the panel while they are onsite without the need to trigger test reports and then verify them with the base station. Once the telco wiring has been completed, enter your mobile phone or another test number into this location and press [OK]. The panel will then seize the phone line and dial the programmed number.

1) **Press [MENU] + [5] + [9] + [5].**

2) **Use the numeric keys to enter the the test number. You can change a single digit in the number by scrolling the cursor left or right. For special characters (eg. , = pause * or # etc), use the up and down arrow keys. To clear all text from the cursor position to the right, press the [OFF] key.**



3) **Press [OK] when finished to start the test.**

Note

The panel will make only one attempt to call this number per activation. To perform multiple tests repeat the sequence. There is no need to answer the test call.

» » E N D O F S E C T I O N « «

SECTION 10

Device Programming

This chapter covers the different device types and the numerous programmable options which can be used to control how a device operates.

The commands menu allows you to view the status of any device in the system and will display its condition as well as the temperature and voltage where available.

Keypads are the most common device used in the system and must be assigned to a home area if they are to operate correctly in a system. You are also able to set the contrast, backlight and beeper volume to your own personal preference.

RF Devices can also be connected to the system and from this menu you are able to set supervision times, receiver jamming, tamper options and more.

DEVICE COMMANDS

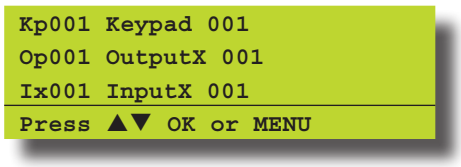
Devices > Commands >

LAN Status I-M-U **MENU 6-0-0**

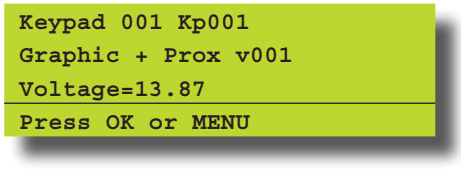
This command will allow you to view the status of any LAN device connected to the panel. The following information is available: This menu is available from v1.04 and higher.

- **Line 1 = LAN Device and Number**
- **Line 2 = Firmware Version**
- **Line 3 = Voltage, Temperature & Area Assignment.**

1) **Press [MENU] + [6] + [0] + [0] and use the up and down arrows to highlight the device in the list and press [OK]. The display will show the device status.**



2) **The status line will scroll the keypad voltage, temperature and area while the device type and firmware version number are continuously displayed.**



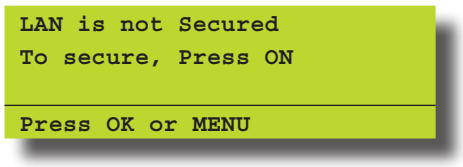
3) **Press [OK] or [MENU] to exit when finished.**

Devices > Commands >

LAN Secure I **MENU 6-0-1**

If the LAN network is secure, this will prevent the system detecting additional LAN devices when the system has been powered down, additional devices connected and powered back up again. If the LAN network is not secured, the system will automatically detect any additional devices added when the system has been powered down and then powered back up again.

1) **Press [MENU] + [6] + [0] + [1]. If the system LAN is not secured, the keypad will display the following.**



2) **Use the ON and OFF keys to toggle LAN secure on or off.**

3) **Press [OK] to exit.**

KEYPAD OPTIONS

Devices > Keypads >

Keypad Volume I-M **MENU 6-1-0**

This menu allows you to adjust the volume of the keypad's speaker to suit the application or customer preference. Each keypad on the system can be adjusted separately.

1) **Press [MENU] + [6] + [1] + [0] and use the up and down arrows to highlight the keypad in the list then press [OK].**

2) **Use the arrow keys to set the required volume level. Each time a key is pressed, you will hear a beep indicating the new volume level. When finished press [OK].**

To completely silence the keypad speaker, simply move the slider all the way to the left. This will disable the keypad speaker for all functions including key press beeps.

Devices > Keypads >

Keypad Contrast I-M **MENU 6-1-1**

This menu allows you to adjust the contrast of the keypad's LCD display to suit the application or customer preference. Each keypad on the system can be adjusted separately.

1) **Press [MENU] + [6] + [1] + [1] and use the up and down arrows to highlight the keypad in the list then press [OK].**

2) **Use the arrow keys to set the required contrast level. Each time a key is pressed the contrast will adjust to the new level. When finished press [OK].**

Devices > Keypads >

Keypad Backlight I-M **MENU 6-1-2**

This menu allows you to adjust the brightness of the backlight on the keypad's LCD display. Each keypad can be adjusted separately to suit the customers needs.

1) **Press [MENU] + [6] + [1] + [2] and use the up and down arrows to highlight the keypad in the list then press [OK].**

2) **Use the arrow keys to set the required backlight level. Each time a key is pressed the backlight will adjust to the new level. When finished press [OK].**

Devices > Keypads >

Home Area I **MENU 6-1-3**

1

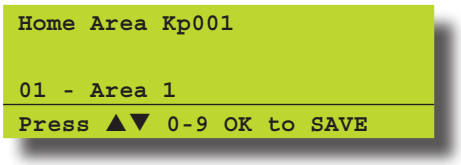
This menu allows you to assign each keypad to a default home area (Area 1 to 4). Only 1 home area can be programmed for each keypad.

If a user toggles the keypad display to view a different area, the keypad will automatically timeout and move back to the home area if no key is pressed for a period of 60 seconds.

To prevent users from viewing areas which they do not have access to, you will need to enable the PIN To Change Area option. Setting this option will set the system to request a user's PIN before allowing them to view another area. The system will only allow a user to view the areas they have access to. See MENU 6-1-4 — Keypad General Options.

1) **Press [MENU] + [6] + [1] + [3] and use the up and down arrows to highlight the keypad in the list then press [OK].**

2) **Use the up and down arrow keys to select the Home Area required then Press [OK] to save and exit or press [MENU] to exit without saving.**



All keypads must be set to a unique address via the node select switch on the keypad and they all must have a home area programmed to work correctly. Area 1 is the default Home Area.

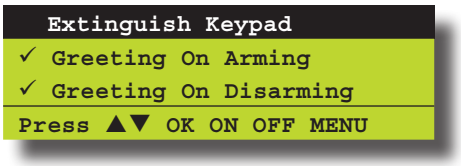
Devices > Keypads >

General Options I **MENU 6-1-4**

1	Keypad Extinguish	N
2	Greeting On Arm	Y
3	Greeting On Disarm	Y
4	Enable Rear Tamper	N
5	PIN To Change Area	N
6	Home Area Only	N
7	Report Keypad Temperature	Y
8	Display Area ICON Indicators	N

The above options can be configured independantly for each keypad fitted to the system.

1) **Press [MENU] + [6] + [1] + [4] and use the up and down arrows to highlight the keypad in the list then press [OK].**



2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Keypad Extinguish

Setting this option configures the panel to automatically turn off the keypad backlighting after an inactivity period of 60 seconds. As soon as a key is pressed or an alarm occurs, the keypad backlight will turn on.

Greeting On Arm

Setting this option configures the keypad to display a farewell greeting when the user arms an area. The greeting will include the user name if programmed.

Greeting On Disarm

Setting this option configures the keypad to display a welcome greeting when the user disarms an area. The greeting will reflect the time of day and include the user name if programmed.

- **Good Morning Greeting = 00:00 to 11:59**
- **Good Afternoon Greeting = 12:00 to 17:59**
- **Good Evening Greeting = 18:00 to 23:59**

Enable Rear Tamper

Setting this option enables the panel to trigger an alarm when the keypad's inbuilt tamper circuit becomes faulted. A tamper alarm report will be sent to the base station, a tamper alarm restore will be sent when the tamper has been reset.

For this option to work, the keypad model being used must have the on-board tamper switch fitted.

PIN To Change Area

Setting this option will prevent a user from switching between different areas on the keypad unless they enter a valid user PIN.

When this option is not set, users will be able to change the keypad view to all other areas in the system regardless of whether or not they have access to those areas.

Home Area Only

Setting this option will force the keypad to display only it's assigned home area information. Therefore a user cannot toggle (or move) the keypad display to show that of a different area when the system has been partitioned.

Report Keypad Temperature

This option sets the keypad to report a temperature alarm to the base station if the keypads temperature falls below or rises above the minumum and maximum temperatures programmed in MENU 7-7-3 — Keypad Hi/Lo Temp.

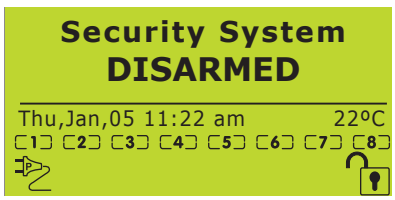
An output can be programmed to operate when a keypad hi/low temperature fail condition occurs irrespective of whether or not this option is set.

See MENU 6-1-5 — Beeper Options to set the keypad to always show the current temperature in the display.

Display Area ICON Indicators

This option sets the keypad to show the AREA ICON indicators in the keypad display at all times. The Icons show the status of all areas on the system without having to press any keys.

When the Area Icon is ON the corresponding area is armed and when the Area Icon is OFF or not visible the corresponding area is disarmed.



Devices > Keypads >

Beeper Options **MENU 6-1-5**

1	Trouble Alert Beeps	Y
2	Entry Warning	Y
3	Exit Warning	Y
4	Chime Tone	Y
5	Display Temperature	N
6	PIN Arming Not Allowed	N
7	Installer PIN Not Allowed	N
8	Show Alarm When Armed	N

The above options can be configured independantly for each keypad fitted to the system.

1) **Press [MENU] + [6] + [1] + [5] and use the up and down arrows to highlight the keypad in the list then press [OK].**

2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Trouble Alert Beeps

Setting this option will cause the keypad to sound a trouble alert tone to notify the user that the panel has a trouble condition that needs to be rectified. Press the [OK] to acknowledge the trouble condition and stop the alert tone. Press the down arrow for more information on the trouble condition.

Note

See MENU 7-7-1 — Area Options if you would like to delay the audible trouble alert tone during the night when the panel is used in residential applications.

Entry Warning

Setting this option will cause the keypad to sound an entry warning alert tone when the entry timer is running. The tone will stop when a key is pressed or when the entry time expires.

Exit Warning

Setting this option will cause the keypad to sound an exit warning alert tone when the exit timer is running. The tone will stop when the timer expires.

Chime Tone

Setting this option will cause the keypad to sound a chime alert tone when a chime zone is faulted. Chime zones are active when the area is disarmed and are typically used to monitor the front door of a shop. The chime alert tone will stop when the zone reseals.

Display Temperature

Setting this option configures the panel to always show the current keypad temperature in the display. Each keypad can be set to display its own temperature. It is possible to trigger a temperature alarm based on the keypad temperature. See MENU 7-7-3 — Keypad Hi/Lo Temp for more information.

PIN Arming Not Allowed

Situations may arise where a keypad is only required for door access. In this situation, to prevent a user the ability to turn the area that the keypad has been assigned to on or off, programming this option will still allow the user to operate the door strike that have the appropriate access group level.

Installer PIN Arming Not Allowed

This option prevents the installer PIN to access menus or to turn the system on or off at any keypad programmed with this option.

Show Alarm When Armed

This option allows the keypad to display which zone registered an alarm when the area is turned on. The keypad will scroll all zones one at a time if multiple zones registered an alarm.

Devices > Keypads >

Emergency Keys **MENU 6-1-6**

1	Audible Keypad Fire	Y
2	Report Keypad Fire	Y
3	Audible Keypad Medical	Y
4	Report Keypad Medical	Y
5	Audible Keypad Panic (Invisible If Not Set)	N
6	Report Keypad Panic	N
7	Reserved	N
8	Reserved	N

The above options can be configured independantly for each keypad fitted to the system.

1) **Press [MENU] + [6] + [1] + [6] and use the up and down arrows to highlight the keypad in the list then press [OK].**

2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Note *Software Version 1.02 and higher will now display keypad generated alarms in alarm memory.*

Audible Keypad Fire

Setting this option allows the panel to sound an audible alarm when a Keypad Fire Emergency Alarm has been triggered via the keypad. To initiate a fire emergency via the keypad, press and hold the [4] + [6] keys down for two seconds. Enter a valid user PIN to reset the alarm condition.

Report Keypad Fire

Setting this option allows the panel to send a Fire report to the base station when a Keypad Fire Emergency Alarm has been triggered via the keypad.

Audible Keypad Medical

Setting this option allows the panel to sound an audible alarm when a Keypad Medical Emergency Alarm has been triggered via the keypad. To initiate a medical emergency via the keypad, press and hold the [7] + [9] keys down for two seconds. Enter a valid user PIN to reset the alarm condition.

Report Keypad Medical

Setting this option allows the panel to send a Medical report (event 43) to the base station when a Keypad Medical Emergency Alarm has been triggered via the keypad.

Audible Keypad Panic

Setting this option allows the panel to sound an audible alarm when a Keypad Panic Emergency Alarm has been triggered via the keypad. To initiate a panic emergency via the keypad, press and hold the [1] + [3] keys down for two seconds. Enter a valid user PIN to reset the alarm condition.

Note *If this option is disabled, a keypad panic alarm will not be visible on the keypad display (i.e. Invisible Panic Alarm).*

Report Keypad Panic

Setting this option allows the panel to send a Panic report to the base station when a Keypad Panic Emergency Alarm has been triggered via the keypad.

Note *New Software Version 1.02 and higher introduces a new method for initiating a Keypad Fire, Keypad Medical or Keypad Panic emergency alarms. These are shown below:*

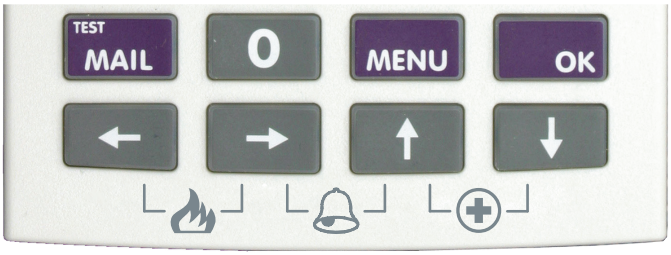


Figure 22: Keypad Emergency Keys

The new methods are easier for the end user to remember and also allow for labelling to be applied to the keypad further simplifying operation. At this time both old and new methods function.

NEW KEYPAD EMERGENCY ALARM TRIGGER'S	
Key Sequence	**Event Triggered**
← + → Hold for 2 seconds	Keypad Fire Alarm
→ + ↑ Hold for 2 seconds	Keypad Panic Alarm
↑ + ↓ Hold for 2 seconds	Keypad Medical Alarm

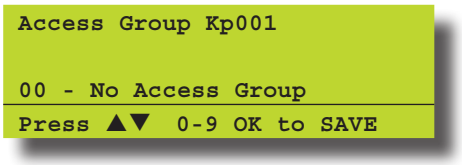
Table 28: Keypad Emergency Keys

Devices > Keypads >

Access Group | **MENU 6-1-7**

0

1) **Press [MENU] + [6] + [1] + [7] and use the up and down arrows to highlight the keypad in the list then press [OK]. Alternatively, you can enter the keypad number directly and press [OK]. The keypad will display the current Access Group setting.**



2) **Use the up and down arrows to select the Access Group that you want to assign the keypad to.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Devices > Keypads >

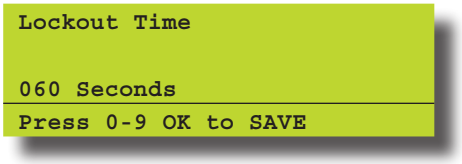
Lockout Time | **MENU 6-1-8**

0 6 0

SECONDS

This menu programs how long a keypad will be quarantined if the PIN retry count value is exceeded. See MENU 1-5-1 — PIN Retry Count. The PIN retry counter is reset when any area is armed or disarmed using a valid PIN. (*** System Wide Parameter ***)

1) **Press [MENU] + [6] + [1] + [8]. The keypad will display the current keypad lockout time.**



2) **Use the numeric keys to program the number of seconds the keypad will be locked out for. Valid entries are 0 - 255, 0 = No Lockout.**

3) **Press [OK] to save and exit, else press [MENU] to exit without saving.**

RF RECEIVER OPTIONS

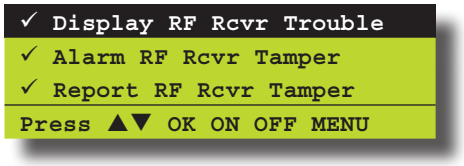
Devices > RF Devices >

Receiver Options | **MENU 6-2-0**

1	Display RF Receiver Troubles	Y
2	Alarm On RF Receiver Tamper	Y
3	Report RF Receiver Tamper	Y
4	Alarm On RF Receiver Jam Detect	N
5	Report RF Receiver Jam Detect	N
6	Alarm On RF Receiver Comms Fail	Y
7	Report RF Receiver Comms Fail	Y
8	Reserved	N

This menu option allows you to configure the various RF receiver functions. Only one RF reciever can be fitted per panel.

1) **Press [MENU] + [6] + [2] + [0]. The keypad will display the current receiver options.**



2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Display RF Receiver Trouble

Setting this option allows the panel to display a trouble condition on the keypad when an RF receiver fail condition occurs.

Alarm On RF Receiver Tamper

Setting this option allows the panel to trigger an alarm when the RF receiver tamper circuit is tripped.

Report Faulted RF Receiver Tamper

Setting this option allows the panel to send an RF Receiver Tamper report to the the base station when the RF receiver tamper circuit is tripped. A restore report will be sent when the tamper circuit is resealled.

Alarm On RF Receiver Jam Detect

Setting this option allows the panel to sound an alarm when the RF Receiver detects a jamming signal. This signal may not be provided by all compatible RF Receivers.

Report Receiver Jam Detect

Setting this option allows the panel to send an RF Receiver Jam report to the base station when the RF Receiver detects a jamming signal. A restore report will be sent as soon as the jamming signal stops.

Alarm On RF Receiver Comms Fail

Setting this option allows the panel to sound an alarm when it is unable to communicate with the RF Receiver.

Report RF Receiver Comms Fail

Setting this option allows the panel to send an RF Receiver Comms Fail report to the base station when the panel is unable to communicate with the RF Receiver. A restore report will be sent as soon as communication is restored between the panel and the RF receiver.

Device > RF Devices >

Supervision Time | **MENU 6-2-1**

0 2 4

HOURS

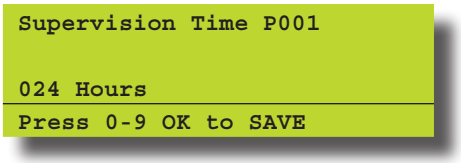
This menu sets the global RF supervision time for all RF devices connected to the system.

RF transmitters (sensor devices) will send a supervisory test signal approximately once every hour. The RF receiver expects to receive this supervisory signal from every transmitting device

within the supervision time period.

The panel will send a Missing report to the base station for any RF device that fails to report within the supervision time.

1) **Press [MENU] + [6] + [2] + [1]. The keypad will display the current RF supervision time.**



2) **Using the numeric keys, enter the number of hours for the RF supervision time. Valid times are 0 - 255 hours, 0 = No Supervision.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

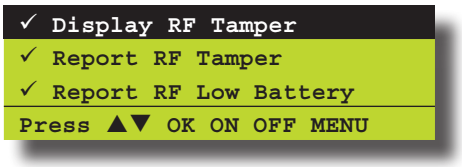
Device > RF Devices >

RF Device Options **MENU 6-2-2**

1	Display RF Tamper	Y
2	Report RF Tamper	Y
3	Report RF Low Battery	Y
4	Report Lost RF Device	Y
5	Open Zone On Lost RF	Y
6	Audible Keyfob Panic	Y
7	Report Keyfob Panic	Y
8	Keyfob Function 1 Key = Part On	Y

This menu option allows you to configure various options and functions for RF devices connected to the system.

1) **Press [MENU] + [6] + [2] + [2]. The keypad will display the current RF Device Options.**



2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Display RF Device Tamper

Setting this option will cause the keypad to display the RF zone when a tamper condition occurs.

Report RF Device Tamper

Setting this option will cause the panel to send an RF Device Faulted report to the base station when the devices tamper curcuit is tripped. A restore report will be sent when the tamper circuit is resealled.

Report RF Device Low Battery

Setting this option will cause the panel to send a report to the base station when the RF device signals to the panel that it has a low battery condition.

Report RF Device Missing

Setting this option will cause the panel to send a report to the base station if the panel detects that an RF device is missing.

Open Zone On RF Device Missing

Setting this option will cause the panel to show a zone fault on the keypad for any RF devices that are missing

Audible RF Key Fob Panic

Setting this option allows users who have RF keyfobs to trigger an audible panic alarm via the keyfob.

Report RF Keyfob Panic

Setting this option will cause the panel to send a Panic report to the base station when a panic alarm has been initiated via a key fob.

Note

New - Software Version 1.05 and higher allows the RF keyfob panic to report low battery by user.

RF Keyfob Function Key 1 = 'Part On'

Setting this option will allow keyfob users to arm an area or all areas of the system using function key 1 on the keyfob.

Devices > RF Devices >

Add RF Keypad **MENU 6-2-3**

Reserved for future use.

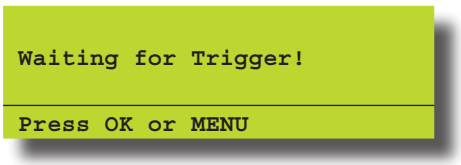
Delete RF Keypad **MENU 6-2-4**

Reserved for future use.

View RF I.D. **MENU 6-2-5**

This command allows you to trap and view a transmitters I.D. number when it has been forgotten or it is no longer legible on the transmitter label. The device being tested must be compatible with the RF receiver fitted to the panel.

1) **Press [MENU] + [6] + [2] + [5]. The system will then begin waiting for a valid trigger signal.**



2) **Trigger the transmitter by pressing any button on the keyfob or by triggering the tamper switch on any sensor.**

```
Type = Keyfob
Ur001 User 1 Name!
RFID = 123456789
Press OK or MENU
```

3) **To test another transmitter, repeat step 2. A beep will be heard each time a new RFID is received and the new number will be displayed.**

SERIAL DEVICE OPTIONS

Devices > Serial Device >

Device Type I **MENU 6-3-0**

0 = Disabled [0]
1 = Serial Printer
2 = Computer

This menu sets the type of serial device that the panel will be connected to.

1) **Press [MENU] + [6] + [3] + [0]. The keypad will display the current device type.**

```
Device Type P001

00 - Diabled
Press 0-9 OK to SAVE
```

2) **Use the up and down arrow keys to select the Device Type required then press [OK] to save and exit or press [MENU] to exit without saving.**

Devices > Serial Device >

Baud Rate I **MENU 6-3-1**

0 = No Device Connected [0]
1 = 300 Baud
2 = 600 Baud
3 = 1200 Baud
4 = 2400 Baud
5 = 9600 Baud
6 = 19200 Baud

This menu sets the baud rate or speed that the panel will send data to the serial device. This should be set to the same baud rate as the serial device.

1) **Press [MENU] + [6] + [3] + [1]. The keypad will display the current baud rate.**

```
Baud Rate P001

00 - No Device Conn
Press 0-9 OK to SAVE
```

2) **Use the up and down arrow keys to select the Baud Rate required then press [OK] to save and exit or press [MENU] to exit without saving.**

Devices > Serial Device >

Flow Control I **MENU 6-3-2**

0 = No Handshaking [0]
1 = Hardware
2 = Xon-Xoff

This menu sets the appropriate flow control for the device you are connecting the serial board to. The flow control method must be the same on both devices for a serial connection to be established.

1) **Press [MENU] + [6] + [3] + [2]. The keypad will display the current flow control setting.**

```
Flow Control P001

00 - No Handshaking
Press 0-9 OK to SAVE
```

2) **Use the up and down arrow keys to select the Flow Control required then press [OK] to save and exit or press [MENU] to exit without saving.**

Devices > GSM Modem >

Report Format I **MENU 6-5-0**

0 = SIA [0]
1 = CID
2 = Domestic

Reserved for future use

Devices > GSM Modem >

Options I **MENU 6-5-1**

0 = Reserved [0]
1 = Reserved
2 = Reserved

Reserved for future use.

» » E N D O F S E C T I O N « «

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SECTION 11

System Programming

This section contains the different parameters required that are system related features.

The commands menu will allow you to view the panel status, system troubles, history log, factory default and entering service mode.

Some of the key parameters in these menus are the setting of the date/time under Clock and Schedules which control all the automated time functions of the system.

SYSTEM COMMANDS

System > Commands >

Panel Status I-M-U **MENU 7-0-0**

This command displays the following panel related information on the keypad display.

Line 1 Displays:
The panel number that you are getting information from (eg. Node 1 = Panel 1 etc). The Solution 16^{plus} is only configured to work with one panel.

Line 2 Displays:
The panel name and firmware version number.

Line 3 Displays:
The current panel temperature, panel power supply voltage and any system troubles which are in effect. This line scrolls all events continiously

1) **Press [MENU] + [7] + [0] + [0] to view the panel status.**

```
Panel 001 P001
Solution 16PLUS V1.11
Temperature 28˚C
Press OK or MENU
```

2) **Press [OK] to exit when finished.**

System > Commands >

System Trouble I-M-U **MENU 7-0-1**

This command lists any system troubles which are currently in effect on the system. Information is diplayed in a list format allowing you to select a paticular event and then drill down to view more specific information.

System trouble events such as Failure To Comminicate or Telco Line Fail are grouped under System Trouble in the list while open zones are displayed individually one per line.

When the keypad is in standby mode, system troubles and open zones will be displayed on the status line of the keypad. From this mode you can access the list of troubles by pressing the down arrow.

1) **Press [MENU] + [7] + [0] + [1] and use the up and down arrows to highlight the trouble event in the list then press [OK].**

```
P001 System Trouble
Zn001 Zone 1 Name
Zn002 Zone 2 Name
Press ▲▼ OK or MENU
```

2) **Selecting System Trouble from the list will show the specific panel version information to be displayed in the first two lines while the third line of the display will scroll all current system trouble events.**

```
Panel 001 P001
Solution 16PLUS V1.11
Date and Time
Press ▲▼ OK or MENU
```

3) **Selecting a Zone from the list will show the currrent zone state.**

```
Zone 1 Zame Zn001
EOL=Open 53020 ohms

Press OK or MENU
```

4) **If no System Troubles are in effect the keypad will display.**

```
There are no
System troubles

Press ▲▼ OK or MENU
```

5) **Press [OK] or [MENU] when finished.**

Note

When in stand-by mode keypads will display system trouble events on the third line of the display.

SYSTEM TROUBLE MESSAGES

The following list shows the systems trouble messages including a description of what has caused the trouble event to occur. System Trouble events are also recorded in the System Event Log.

Power Missing

This trouble message will display when the AC mains power supply to the panel is disconnected or failled and will clear when the power is reconnected. The Mains Power Icon in the keypad will also flash when the power is missing.

Battery Low

This trouble message will display if the panel's backup battery voltage has dropped below 11.5 volts DC during a battery test and will clear when the voltage is above 12.5 volts during a subsequent battery test.

Battery Missing

This trouble message will display if the panel detects that the system's backup battery is missing or has been disconnected.

Battery Reversed

This trouble message will display if the panel detects that the battery connection leads are reversed.

Voltage Low

TBA

Voltage High

TBA

RF Rxer Missing

This trouble message will display if the panel detects the RF receiver is missing or disconnected. The trouble will clear when the receiver is reconnected.

RF Rxer Tamper

This trouble message will display if the panel detects that the tamper circuit on the RF receiver is faulted.

RF Rxer Jammed

This trouble message will display if the connected RF receiver detects RF noise levels that may prevent it from working correctly.

RF Signal Low

This trouble message will display when a connected RF peripheral device such as a RF PIR sends a low battery signal to the receiver.

Comms Trouble R1

This trouble message will display if the panel has failed to send pending reports to Report Destination 1. All possible call attempts will be made before the trouble message is displayed.

Comms Trouble R2

This trouble message will display if the panel has failed to send pending reports to Report Destination 2. All possible call attempts will be made before the trouble message is displayed.

Comms Test Fail

This trouble message will display if the panel has failed to send a periodic test report signal to the base station.

Buss Trouble

This trouble message will display if the panel failed to communicate to a system device which is connected to the LAN bus (e.g. keypad etc).

Default PIN Trbl

This trouble message will display if the panel detects that either the Installer PIN or User 1 PIN is still set to the factory default PIN. Change the PIN to clear the fault.

Date And Time

This trouble message will display if the system date and time has not been set. Program the correct date and time to clear the fault.

Cabinet Tamper

This trouble message will display if the panel detects that it's cabinet tamper input is unsealled. Close the tamper switch to clear the fault.

Panel Missing

TBA

Siren Trouble

This trouble message will display if the panel detects that the horn speaker has been disconnected from the output terminal or is open circuit. Horn speakers can be connected to Output 1 and or Output 2 and must be programmed as horn speaker outputs.

Telco Line Trouble

This trouble message will display if the panel detects that the telephone line has failed or been disconnected for a minimum of 30 seconds. The trouble will clear once the line has been restored for at least 1 minute.

LAN Overload

This trouble message will display if the panel detects that the current load on the LAN+ power terminal has exceeded it's maximum rating of 1Amp DC. See MENU 7-3-2 — Fuse Options.

Comm+ Overload

This trouble message will display if the panel detects that the current load on the COMM+ terminal has exceeded it's maximum rating of 3Amp DC. See MENU 7-3-2 — Fuse Options.

Accessory Overld

This trouble message will display if the panel detects that the current load on the +12V accessory power terminal has exceeded it's maximum current rating of 1Amp D.C. See MENU 7-3-2 — Fuse Options.

Call For Service

This trouble message will display when the Service Interval Timer expires. To clear the message the installer must enter and exit programming mode. See MENU 2-9-2 — Service Interval.

Time For Service

This trouble message will display when the User Test Interval timer expires. To clear the message the user must enter and exit walk test mode. See MENU 2-9-1 — User Test Interval.

Memory Fault

This occurs if the memory checksum is corrupted. To try and correct this, enter programming mode and make a programming change like a user name then exit programming mode. If this problem still persists you must do a full system default.

Default Memory

TBA

Service Mode

This trouble message will display while the system is in Installer Service mode. See MENU 7-0-8 — Service Mode

Phone In Use

This trouble message will display while the panel is using the phone line. The message will clear when the line is released. This message can be prevented from displaying in MENU 5-2-2 — Phone Line Options.

System > Commands >

History Log I-M-U **MENU 7-0-2**

This command allows you to review the last 256 history events in chronological order. Each log entry provides a wealth of information about the event including log even number, time and date stamp, user and zone names and the report route used.

When you enter the history log the most recent event will always be shown first. Once the log memory is full it will wrap and begin overwriting the oldest event in memory.

Each event will show:

Line 1 Displays:
Log Event Number, Event Date & Time and Report Destination 1 and /or 2 report status (S= Sent, P = Pending, F = Fail, A = Abort and L = Log Only).

Line 2 Displays:
Displays the source of the event (eg. zone name and zone number or user name and user number)

Line 3 Displays:
Displays the event description (eg. Walk Test Exited A1).

1) **Press [MENU] + [7] + [0] + [2]. The keypad will display the most recent event from the history log.**

```
E001 Mon,01Oct 03:41 SL
Ur001 User 1 Name
Walk Test Exited A1
Press ▲▼ OK or MENU
```

2) **Use the up and down arrows keys to scroll between history events .**

3) **When finished press [OK] or [MENU] to exit.**

System > Commands >

Domestic Default I **MENU 7-0-3**

This command will configure the control panel for Domestic format reporting (eg. mobile telephones etc). All alarm restore reports and open/close reporting options will be automatically disabled. Therefore, only emergency, burglary and fire reports will be sent.

1) **Press [MENU] + [7] + [0] + [3]. The keypad will display:**

```
To Reconfigure all panel
dialler programming to
DOMESTIC, Press OK or To
Cancel,Press MENU.
```

2) **Press [OK] to start the default process or press [MENU] to cancel and exit.**

3) **The keypad will display the following message during the default process and will exit back to the menu when finished.**

```
Defaulting System
..Please Wait..
```

System > Commands >

Factory Default I **MENU 7-0-4**

This command will erase ALL programmable data and return the control panel to factory default settings. Defaulting the panel will NOT erase any history events that are currently stored in the panel.

1) **Press [MENU] + [7] + [0] + [4]. The keypad will display:**

```
This command will ERASE
All panel programming. To
Continue Press OK, or
MENU to cancel
```

Press [OK] to start the default process or press [MENU] to cancel and exit.

2) **The keypad will display the following message during the default process and will exit back to the menu when finished.**

```
Defaulting System
..Please Wait..
```

Note *During a factory default both the Status and Dialer LED indicators on the panel will flash very quickly to indicate defaulting is still in progress.*

System > Commands >

Template Default I **MENU 7-0-5**

This command allows the installer to download pre-configured templates set up by the Installer on the MyAlarm web interface. The installer can configure up to 4 separate templates.

This feature is currently reserved.

System > Commands >

Service Mode I **MENU 7-0-8**

This command allows the installer to put the panel into service mode before performing system maintenance or upgrades. When in service mode, the following functions are disabled. By default, service mode will automatically terminate after 2 hours if not terminated sooner by the installer.

- Zone Tamper
- Alarm Outputs
- Dialler
- Panel Tamper

1) **Press [MENU] + [7] + [0] + [8]. The keypad will display the current service mode status.**

```
Service Mode
Service Mode is OFF,
To turn ON, Press ON.
Press OK or MENU
```

2) **To turn service mode on, press [ON], or press [OFF] to turn service mode off.**

3) **Press [OK] or [MENU] to exit when finished.**

Note

Service mode will automatically exit after 2 hours if set to do so in MENU 7-7-4 — Installer Options.

SYSTEM CLOCK

System > Clock >

Set Date & Time I-M **MENU 7-1-0**

This menu allows you to set or adjust the panels internal clock.

1) **Press [MENU] + [7] + [1] + [0]. The keypad will display the current date and time.**

```
Set Date And Time

01-Jan-2004 04:37am
Press ◀▶▲▼ OK to SAVE
```

2) **Use the left, right, up and down arrow keys to set the day, month, year, hour and minute. Use left and right keys to scroll the cursor left and right to between the month, day, year, hour and minute.**

3) **When the time is set correctly press [OK] to save and exit or press [MENU] to exit without saving.**

System > Clock >

Summertime On I **MENU 7-1-1**

	Month	Week	Day
At 2:00am	- - -	- - -	- - -

This menu allows you to program when day light savings start during the year. This will allow the panel to automatically adjust it's built in clock accordingly. In Australia, daylight savings moves forward one hour at 2:00 am on the last Sunday of October.

To program Summertime On, you will need to set the month of the year (Jan to Dec), the week of the month (1 to 5) and the day of the week (Sun to Sat) that daylight savings starts.

(*** System Wide Parameter ***)

1) **Press [MENU] + [7] + [1] + [1]. The keypad will display the current Summertime on.**

```
Summertime On
Month Week Day
---   ---  ---
Press ◀▶▲▼ OK to SAVE
```

2) **Use the up and down arrow keys to toggle the month, week and year. Use the left and right keys to move the cursor between the month, week and year.**

3) **When finished press [OK] to save and exit or press [MENU] to exit without saving.**

System > Clock >

Summertime Off I **MENU 7-1-2**

	Month	Week	Day
At 3:00am	- - -	- - -	- - -

This menu allows you to program when day light savings end during the year. This will allow the panel to automatically adjust it's built in clock accordingly. In Australia, daylight savings moves backwards one hour at 3:00 am on the last Sunday of March.

To program Summertime Off, you will need to program the month of the year (Jan to Dec), the week of the month (1 to 5) and the day of the week (Sun to Sat) that daylight saving ends.

(*** System Wide Parameter ***)

1) **Press [MENU] + [7] + [1] + [2]. The keypad will display the current Summertime off.**

```
Summertime Off
Month Week Day
---   ---  ---
Press ◀▶▲▼ OK to SAVE
```

2) **Use the up and down arrow keys to toggle the month, week and year. Use the left and right keys to move the cursor between the month, week and year.**

3) **When finished press [OK] to save and exit or press [MENU] to exit without saving.**

Australian Daylight Savings Times

From 2008, the ACT, NSW, South Australia, Victoria and Tasmania will all start daylight savings on the first Sunday in October and end on the first Sunday in April. This will result in an extra month of daylight savings for the ACT and introduces common start and finish dates in these states.

Daylight Saving Begins	Daylight Saving Ends
Turn Clock Ahead 1 hr	Turn Clock Back 1 hr
Sunday 4 October 2009	Sunday 4 April 2010
Sunday 3 October 2010	Sunday 3 April 2011

SYSTEM TIMERS

System > Timers >

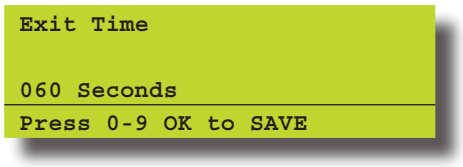
Exit Time I **MENU 7-2-0**

0 6 0

SECONDS

This menu sets the exit time delay period for all areas on the system. The exit timer starts when an area is armed in the On and Part On modes. The keypad will sound an exit warning tone while the exit timer is running. Exit delay time can be programmed between 0 and 255 seconds. (*** System Wide Parameter ***)

1) **Press [MENU] + [7] + [2] + [0]. The keypad will display the current Exit Time.**



2) **Using the numeric keys, enter the required Exit Time in seconds. Valid times are 0 - 255 seconds 0 = No Exit Time.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

System > Timers >

Entry Time 1 I **MENU 7-2-1**

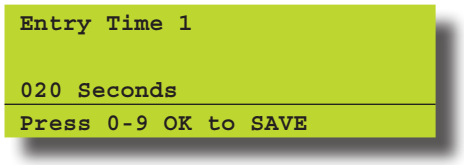
0 2 0

(*** System Wide Parameter ***) **SECONDS**

This menu sets the entry time delay for zones programmed as entry delay 1 zones. Entry Time 1 is common for all areas on the system.

When a zone programmed as Delay 1 is triggered, the entry time will start and the keypad will sound an entry warning tone. Entry Time 1 can be programmed between 0 and 255 seconds.

1) **Press [MENU] + [7] + [2] + [1]. The keypad will display the current Entry Time 1 delay.**



2) **Using the numeric keys, enter the required delay for Entry Time 1 in seconds. Valid times are 0 - 255 seconds 0 = No Entry Time.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

System > Timers >

Entry Time 2 I **MENU 7-2-2**

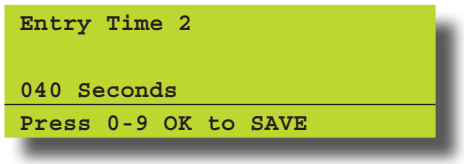
0 4 0

(*** System Wide Parameter ***) **SECONDS**

This menu sets the entry time delay for zones programmed as entry delay 2 zones. Entry Time 2 is common for all areas on the system.

When a zone programmed as Delay 2 is triggered, the entry time will start and the keypad will sound an entry warning tone. Entry Time 2 can be programmed between 0 and 255 seconds.

1) **Press [MENU] + [7] + [2] + [2]. The keypad will display the current entry time.**



2) **Using the numeric keys, enter the required delay for Entry Time 2 in seconds. Valid times are 0 - 255 seconds 0 = No Entry Time.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

System > Timers >

Part Entry Time I **MENU 7-2-3**

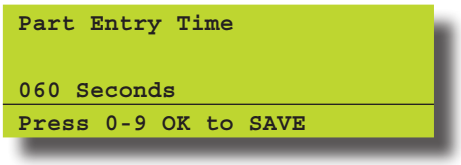
0 6 0

(*** System Wide Parameter ***) **SECONDS**

This menu allows you to program the Part Mode Entry Delay time also know as entry guard. When armed in Part Mode, all active zones retain their normal functionality. ie. instant zones will trigger instantly etc. The part entry timer allows all active zones to have an entry delay when the the area is armed in part mode regardless of their normal functionality.This can help to prevent false alarms when people on site inadvertantly unseal an active zone.

If a valid PIN code is not entered before the timer expires then the alarm will trigger. Programming the entry guard time as zero will disable this feature.

1) **Press [MENU] + [7] + [2] + [3]. The keypad will display the current Part Entry time.**



2) **Using the numeric keys, enter the required delay for the Part Entry Time in seconds. Valid times are 0 - 255 seconds, 0 = No Part Entry Time.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

System > Timers >

Auto Arm Pre-Alert I **MENU 7-2-4**

0	1	0

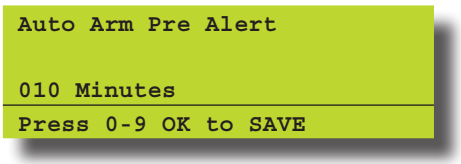
(*** System Wide Parameter ***) **Minutes**

This menu allows you to program the Auto Arm Pre Alert count down timer. The timer is used to warn staff or users that the system is about to auto arm by sounding a tone on the keypad. To set up auto arming see MENU 7-5-0 — System Schedules.

If a valid PIN + [OFF] is entered, the tone will stop and the keypad will prompt the user to either abort or delay the automatic arming. If the user selects the option to delay the auto arm, this sequence will repeat on the hour untill the system is armed manually or automatically.

For example if the system is programmed to auto arm at 8.00pm and the Pre Alert time is set to 10 minutes then at 7.50pm the system will begin sounding the Pre Alert tone on the keypad.

1) **Press [MENU] + [7] + [2] + [4]. The keypad will display the current Pre-Alert Time.**



2) **Using the numeric keys, enter the pre-alert time . Valid times are 0 to 255 minutes. 0 = No Auto Arm Pre Alert.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

System > Timers >

Output Pre-Alert I **MENU 7-2-5**

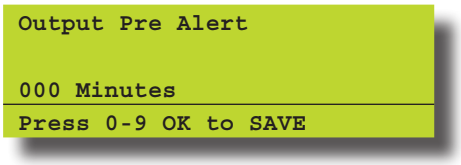
0	0	0

(*** System Wide Parameter ***) **Minutes**

The panel can be programmed to automatically operate an output via a schedule, see MENU 7-5-0 — System Schedules.

This menu allows you to program the Output Pre Alert count down timer. The timer is used to warn staff or users that an output is about to operate by sounding a tone on the keypad.

1) **Press [MENU] + [7] + [2] + [5]. The keypad will display the current Output Pre Alert Time.**



2) **Using the numeric keys, enter the pre-alert time. Valid times are 0 to 255 minutes. 0 = No Output Pre Alert**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

System > Timers >

Senior Watch Time I **MENU 7-2-6**

0	0	0

(*** System Wide Parameter ***) **Hours**

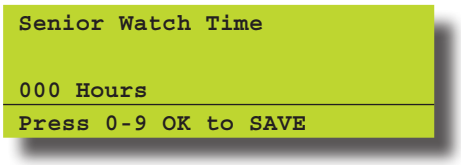
This feature can be used to verify that an elderly person is OK or as a dead man timer for an onsite patrolman or security officer.

This menu allows you to program the Senior Watch Time period. The panel must register at least one burglary zone in the programmed area to unseal and reseal during this time period or the panel will report a Senior Watch alarm to the base station.

A Senior Watch Restore will be sent when at least one zone is unsealed and resealed. Senior Watch monitoring is only active when the corresponding area is in the disarmed state.

Note *Software Version 1.02 and higher corrected. Previous versions could generate spurious dead man reports if an area had senior watch programmed and the senior watch time programmed as zero.*

1) **Press [MENU] + [7] + [2] + [6]. The keypad will display the current senior watch time. (default = 0 hours).**



2) **Using the numeric keys, enter the new senior watch time. Valid times are 0 to 255 hours. 0 = No Senior Watch Time.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

SYSTEM POWER OPTIONS

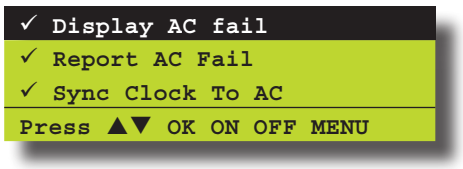
System > Power >

AC Options I **MENU 7-3-0**

1	Display AC Fail	Y
2	Report AC Fail	Y
3	Use AC To Synchronise The System Clock	Y
4	Random AC Report 2hour	N
5	AC Fail After 1 hour	N
6	Reserved	N
7	Reserved	N
8	Display Clock Trouble	Y

This menu option allows you to configure the AC Mains Power system options. (*** System Wide Parameter ***)

1) **Press [MENU] + [7] + [3] + [0]. The keypad will display the current AC Options.**



2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Display AC Fail

Setting this option will cause the panel to flash the Mains Power icon as soon as the AC power supply has failed. If the power remains missing continiously for 1 minute then a system trouble will be registered on the keypad. When the AC power supply returns to normal the Mains Power icon will remain on steady. If this option is disabled then the system will not flash the Mains Power icon and no system trouble will occur.

Report AC Fail

Setting this option will cause the panel to report an AC Fail to the base station if the mains power has been missing for a period of 1 minute. A restore report will be sent once the mains power has been restored for one minute.

Synchronise System Clock to AC

Setting this option allows the panel to syncronise its internal clock with the mains frequency (50hz). This option should be set unless the panel is being used in an area where the mains power is unreliable.

Random AC Reporting 2hr

Setting this option allows the panel to randomly delay (up to 2 hours) the AC Fail report. This option is used to prevent multiple Solution panels from reporting AC fail at the same time.

Note *New - Software Version 1.02 and higher corrected. Previous versions would randomly send within a 2 minute period instead of 2 hours.*

Extend AC Fail To 1 Hour

Setting this option will cause the panel to only send an AC Fail report to the base station if the power has been missing continuously for one hour. The Mains Power icon will operate as normal.

Display Clock Trouble

Setting this option will cause the panel to show a Date and Time System trouble if the power is removed from the system for any period of time such as when performing a system upgrade or service work. If this option is disabled then no system trouble will appear and you will need to remember to set the correct time when you re power the system.

System > Power >

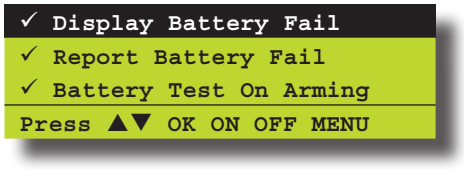
Battery Options I **MENU 7-3-1**

1	Display Battery Fail	Y
2	Report Battery Fail	Y
3	Execute Battery Testing On Arming	Y
4	Arming Allowed On Low Battery	Y
5	Reserved	N
6	Reserved	N
7	Reserved	N
8	Reserved	N

This menu option allows you to configure the standby Battery system options. The system is constantly monitoring the battery condition with a dynamic battery test carried out every 4 hours.

(*** System Wide Parameter ***)

1) **Press [MENU] + [7] + [3] + [1]. The keypad will display the current Battery Options.**



2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Display Battery Fail

Setting this option will cause the keypad to display a Trouble condition when the panel detects that the standby battery is disconnected or that its voltage is low. The trouble condition will clear as soon as the panel has measured the battery voltage is 12.5 volts or greater.

Report Battery Fail

Setting this option will cause the panel to send a Low Battery report to the base station when it measures the battery voltage has dropped below 11.5 volts. A Low Battery Restore report will be sent when the panel detects that the battery voltage is above 12.5 volts.

If the panel fails to detect the battery, or if it measures the battery voltage below 10.2 volts, then a Battery Test Failed report will be sent. A Battery Test restore will be sent when the battery is re-connected or replaced.

Execute Battery Testing On Arming

Setting this option will cause the panel to perform an additional dynamic battery test each time Area 1 is armed All On.

Note *New - Software Version 1.02 and higher corrected. Previous versions would always test the battery on arming regardless if this option was programmed or not.*

Arming Allowed On Low Battery

Setting this option will allow the system to be armed even though the panel currently has a low battery condition.

When this option is disabled, the panel will not arm if there is a low battery condition or if the battery is missing. The user will be notified of the system trouble on the keypad and they will need to have the fault rectified before the system or area can be armed.

Note

Software Version 1.07 and higher now allows a schedule to automatically turn on an area (or multiple areas) irrespective on how this option is programmed. In previous software versions, if this option was disabled, a schedule would not automatically turn on an area if a low or missing battery condition was present and this option was turned off.

System > Power >

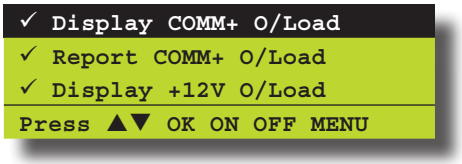
Fuse Options **MENU 7-3-2**

1	Display COMM+ Current Overload Condition	Y
2	Report COMM+ Current Overload Condition	Y
3	Display +12V (Accessories) Current Overload Condition	Y
4	Report +12V (Accessories) Current Overload Condition	Y
5	Display LAN+ Overload Condition	Y
6	Report LAN+ Overload Condition	Y
7	Reserved	N
8	Reserved	N

This menu option allows you to configure the Fuse related system options.

(*** System Wide Parameter ***)

1) **Press [MENU] + [7] + [3] + [2]. The keypad will display the current Fuse Options.**



2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Display COMM + Current Overload

Setting this option allows the keypad to display a system trouble message when the current load on the COMM + terminal exceeds its maximum rating of 3 Amps.

Report COMM + Current Overload

Setting this option will cause the panel to send an Overcurrent Trouble report to the base station when the current load on the COMM + terminal exceeds its maximum rating of 3 Amps.

Display +12V (Accessories) Current Overload

Setting this option allows the keypad to display a system trouble message when the current load on the +12 V terminal exceeds its maximum rating of 1Amp.

Report +12V (Accessories) Current Overload

Setting this option will cause the panel to send an Overcurrent Trouble report to the base station when the current load on the +12 V terminal exceeds its maximum rating of 1Amp.

Display LAN + Current Overload

Setting this option allows the keypad to display a system trouble message when the current load on the LAN+ terminal exceeds its maximum rating of 1Amp.

Report LAN + Current Overload

Setting this option will cause the panel to send an Overcurrent Trouble report to the base station when the current load on the LAN+ terminal exceeds its maximum rating of 1Amp.

HORN SPEAKER OPTIONS

System > Siren >

Tone **MENU 7-4-0**

This menu allows you to customise the tone that is emitted from the horn speaker when a non-fire alarm is triggered. By changing the tone and speed, it is possible to program a unique siren sound for each system when you are installing a number of them in close proximity to each other.

1) **Press [MENU] + [7] + [4] + [0]. The keypad will display the current siren tone.**

2) **Use the up and down arrow keys to change the the siren tone.**

3) **To test the new siren tone press [ON] to sound the siren and press [OFF] to turn the siren off.**

4) **Repeat Steps 2 and 3 until the desired siren tone is achieved then press [OK] to save and exit, or press [MENU] to exit without saving.**

Note

Only outputs programmed as Event Type 46 and or 47 will be affected by this menu option.

System > Siren >

Speed **MENU 7-4-1**

This menu allows you to customise the speed of the siren tone when a non-fire alarm is triggered. By changing the tone and speed, it is possible to program a unique siren sound for each system when you are installing a number of them in close proximity to each other.

1) **Press [MENU] + [7] + [4] + [1]. The keypad will display the current siren speed.**

2) **Use the up and down arrow keys to change the siren speed.**

3) **To test the new siren speed press [ON] to sound the siren and press [OFF] to turn the siren off.**

4) **Repeat Steps 2 and 3 until the desired siren tone is achieved then press [OK] to save and exit, or press [MENU] to exit without saving.**

Note *Only outputs programmed as event type 46 and or 47 will be affected by this menu option.*

System > Siren >

RF Beep Volume I **MENU 7-4-2**

(*** System Wide Parameter ***) 1 5

This menu allows you to program the volume level of the radio key speeker beeps which are heard when the system is armed and disarmed using a radio keyfob.

1) **Press [MENU] + [7] + [4] + [2]. The keypad will display the current siren volume (default = 15).**

```
Volume

15
Press 0-9 OK to SAVE
```

2) **Using the numeric keys, enter the new volume level. Valid entries are 0 to 15 where 15 = the loudest volume and 0 = no speeker beeps.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Note *Only outputs programmed as Event Type 36, horn speaker with beeps will be effected by this menu option.*

System > Siren >

Siren Swinger I **MENU 7-4-3**

(*** System Wide Parameter ***) 3

This menu allows you to program how many times a zone programmed for Lockout Siren can sound the siren during each arming cycle.

At default, zones programmed for Lockout Siren will be able to trigger the siren 3 times before being locked out. The count will be reset when the system or area is next disarmed.

1) **Press [MENU] + [7] + [4] + [3]. The keypad will display the current Swinger Siren count.**

```
Siren Swinger

03
Press 0-9 OK to SAVE
```

2) **Using the numeric keys, enter the new swinger siren count. Valid entries are 0 to 15 where 0 = unlimited.**

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

SYSTEM SCHEDULES

The Solution 16plus has 8 schedules each with a start and stop time as well as the day of the week and holidays. These schedules can be used to operate outputs, arm and disarm different areas at different times. When linked to Timer Groups they will control a users access to the system.

To setup an Auto Arming time simply select a schedule that is not used, set the name to something convenient and the start time to the arming time you require. The stop time should be set to 12:00am which prevents the system from auto disarming.

Now set the function to Area On/Off and the Index to the area to operate. If an index of zero is used then arming will occur for all areas. Finally select the days which you wish auto arming to occur.

To operate an output using a schedule select an unused schedule, set the name to something convenient, set the start time to when to operate the output, set the stop time to when to turn the output off, select the schedule function as Operate Output, set the Index to the output number, set the days of the week to operate and you are finished.

System > Schedules >

Name I-M **MENU 7-5-0**

S	c	h	e	d	u	l	e		1		N	a	m	e	

This menu allows you to program a descriptive text name for each schedule in the system up to 16 characters long. The schdule name will be referred to in other schedule related programming functions.

1) **Enter [MENU] + [7] + [5] + [0] and use the up and down arrows to highlight the Schedule in the list then press [OK]. Alternatively, you can enter the Schedule number directly and press [OK].**

```
Sk001 Schedule 1 Name
Sk002 Schedule 2 Name
Sk003 Schedule 3 Name
Press ▲▼ OK or MENU
```

2) **User the arrow and number keys to move and change text. When the Schedule Name is complete, press [OK]. At any time you can press the [OFF] key to clear the text from the current cursor position to the end of the line.**

```
Name Sk002

Schedule 2 Name
Press ◀▶▲▼ OK to SAVE
```

Note *See Alpha Text Programming in Section 4 - Programming Overview for further detail on entering alpha text.*

System > Schedules >

Time I-M **MENU 7-5-1**

Start Time			Stop Time		
12 : 00 am			12 : 00 am		
HH	MM		HH	MM	

This menu allows you to program the start time and stop time of each schedule.

1) **Enter [MENU] + [7] + [5] + [1] and use the up and down arrows to highlight the Schedule in the list then press [OK]. Alternatively, you can enter the Schedule number directly and press [OK].**

```
Sk001 Schedule 1 Name
Sk002 Schedule 2 Name
Sk003 Schedule 3 Name
Press ▲▼ OK or MENU
```

2) **Using the arrow keys enter the required start and stop times in 12 hour format. To change from AM to PM scroll through the hours using the up or down arrow keys.**

```
Time Sk001
Start Time      Stop Time
12:00am          12:00am
Press ◀▶▲▼ OK to SAVE
```

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Note *If the start time equals the stop time then the schedule is disabled. A time of 12:00AM or --:-- is disabled.*

System > Schedules >

Day I-M **MENU 7-5-2**

Sun	Mon	Tue	Wed	Thu	Fri	Sat	Hol
Y	Y	Y	Y	Y	Y	Y	N

This menu allows you to program which days of the week the schedule will operate. To enable the schedule on a particular day press the the number 1 to 8 which corresponds to the day. For example to enable Monday press [2] and to disable Monday press [2] again.

1) **Enter [MENU] + [7] + [5] + [2] and use the up and down arrows to highlight the Schedule in the list then press [OK]. Alternatively, you can enter the Schedule number directly and press [OK].**

```
Sk001 Schedule 1 Name
Sk002 Schedule 2 Name
Sk003 Schedule 3 Name
Press ▲▼ OK or MENU
```

2) **Press numbers [1] to [8] to enable/disable the days of the week that the schedule will operate.**

```
Day Sk001
S M T W T F S Hol
Y Y Y Y Y Y Y  N
Press 1-8 OK to SAVE
```

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

System > Schedules >

Function I **MENU 7-5-3**

0 = Disabled **0**

1 = Area On/Off

2 = Area Part On/Off

3= Operate Output

4 = Timer Group

This menu allows you to program what function the schedule will perform. There are a number of options which are explained in more detail below. Only one option can be programmed.

1) **Enter [MENU] + [7] + [5] + [3] and use the up and down arrows to highlight the Schedule in the list then press [OK]. Alternatively, you can enter the Schedule number directly and press [OK].**

```
Sk001 Schedule 1 Name
Sk002 Schedule 2 Name
Sk003 Schedule 3 Name
Press ▲▼ OK or MENU
```

2) **Using the up and down arrow keys, select the schedule function that you require then press [OK] to save and exit or press [MENU] to exit without saving.**

```
Function Sk001

00 - Disabled
Press ▲▼ 0-9 OK to SAVE
```

Disabled

Setting this option will disable the schedule.

Area On/Off

Setting this option will cause the system to turn ON at the START time and turn OFF at the STOP time. Setting the Time to 12:00 am will disable the function and you will see --:-- am on the display.

The INDEX is the AREA to turn on and/or off, setting the index to zero will arm and disarm all areas.

Area Part On/Off

Setting this option will cause the system to turn ON in Part Mode 1 at the START time and turn OFF at the STOP time. Setting the Time to 12:00 am will disable the function and you will see --:-- am on the display.

The INDEX is the AREA to turn on and off in Part Mode, setting the index to zero will arm and disarm all areas.

Operate Output

Setting this option will cause the system to operate the output at the start time and turn the output off at the stop time. Setting the Time to 12:00 am will disable the function and you will see --:-- am on the display.

The INDEX is the Ouput Number to turn on and off, setting the index to zero will disable the output.

Timer Group

Setting this option will assign the start and stop times to a Timer Group to restrict user access to doors and areas. The INDEX defines the Timer Group to link to. See MENU 1-4-4 — Timer Group for information on assigning users to timer groups.

System > Schedules >

Index I **MENU 7-5-4**

0

This menu allows you to program which Area, Output or Timer Group the Schedule will operate. The index type is determined by the schedule function which was selected in MENU 7-5-3.

1) **Enter [MENU] + [7] + [5] + [4] and use the up and down arrows to highlight the Schedule in the list then press [OK]. Alternatively, you can enter the Schedule number directly and press [OK].**

```
Sk001 Schedule 1 Name
Sk002 Schedule 2 Name
Sk003 Schedule 3 Name
Press ▲▼ OK or MENU
```

2) **Using the numeric keys, enter the number of the Area, Output or Timer Group that the schedule is to follow then press [OK] to save and exit or press [MENU] to exit without saving.**

```
Index Sk001

000
Press 0-9 OK to SAVE
```

SYSTEM HOLIDAYS

The Solution 16plus has provision for up to 8 individual holiday time periods which can be used to allow or deny access to users or to operate outputs via schedules. Holidays are defined by setting a start and stop date so it is possible to create 1 system holiday that spans multiple days. For example the holiday could start on the 1st Jan and end on the 5th Jan.

System > Holidays >

Name I-M **MENU 7-6-0**

H	o	l	i	d	a	y		1		N	a	m	e		

This menu allows you to program a 16 character text name for each holiday.

1) **Enter [MENU] + [7] + [6] + [0] and use the up and down arrows to highlight the Holiday in the list then press [OK]. Alternatively, you can enter the Holiday number directly and press [OK].**

```
H001 Holiday 1 Name
H002 Holiday 2 Name
H003 Holiday 3 Name
Press ▲▼ OK or MENU
```

2) **User the arrow and number keys to move and change text. When the Holiday Name is complete, press [OK]. At any time you can press the [OFF] key to clear the text from the current cursor position to the end of the line.**

```
Name H001

Holiday 1 Name
Press ◀▶▲▼ OK to SAVE
```

System > Holidays >

Start Stop Dates I-M **MENU 7-6-1**

Start 12am		Stop 12am	
01	Jan	01	Jan
DD	MM	DD	MM

This menu allows you to program the start and stop date for each holiday period. Holidays can be as short as one day or as long as 364 days.

1) **Enter [MENU] + [7] + [6] + [1] and use the up and down arrows to highlight the Holiday in the list then press [OK]. Alternatively, you can enter the Holiday number directly and press [OK].**

2) **Use the up and down arrow keys to select the holiday that you want to change, then press [OK]. Alternatively, you can enter the holiday number, then press [OK]. The keypad will display the holiday start date:**

```
Holiday Dates H001
Start 12am    Stop 12am
01 Jan         01 Jan
Press ◀▶▲▼ OK to SAVE
```

3) **To program, use the left and right arrows to scroll the cursor left and right between the holiday day and month options and use the up and down arrow keys to scroll the day and month.**

4) **Press [OK] to save and exit or press [MENU] to exit without saving.**

Note

If the start day and month equals the stop day and month then no holiday exists. There must be a difference between start and stop dates. Software Version 1.08 and higher has been corrected so that schedules with holidays spanning or crossing over years operate correctly. In previous versions, Auto Arm/Disarm schedules which included holidays that spanned a year (eg. holiday start 29/12 to 02/01) would fail to operate correctly once the new year began.

SYSTEM OPTIONS

System > System Options >

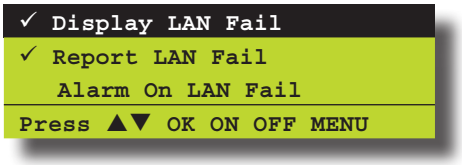
General Options **MENU 7-7-0**

1	Display LAN Fail	Y
2	Report LAN Fail	Y
3	Alarm On LAN Fail	N
4	Reserved	N
5	Cannot Change Own PIN	N
6	Monitor Default PIN Codes	N
7	PIN Always Required	Y
8	Display Menu Numbers	Y

This menu allows you to configure the General system options. All options are global to users, areas and keypads.

(*** System Wide Parameter ***)

1) **Press [MENU] + [7] + [7] + [0]. The keypad will display the current General system options.**



2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Display LAN Fail

Setting this option allows all connected keypads to display a system trouble when a device connected the the system LAN has failed to communicate to the panel.

Report LAN Fail

Setting this option allows the panel to report which LAN device has failed to the base station.

Alarm On LAN Fail

Setting this option allows the panel to sound an alarm when a device connected to the LAN failed to communicate to the panel.

Cannot Change Own PIN

Setting this option prevents all users the ability to change their own PIN.

Monitor Default PIN Codes

Setting this option will cause the panel to monitor the default Installer PIN and User 1 PIN which are factory set to 1234 and 2580 respectively. If either of these codes are left as default then the keypad will display the system trouble Default PIN. The fault will clear once the code or codes have been changed.

PIN Always Required

Setting this option will force the system to request a valid PIN to be entered before any menu functions can be accessed. If this option is not set then some restricted menu options will be available without entering a valid PIN.

Display Menu Numbers

Setting this option causes the keypad to display the menu numbers for all commands and menu programming options. The menu numbers can be used as navigation shortcuts when programming.

System > System Options >

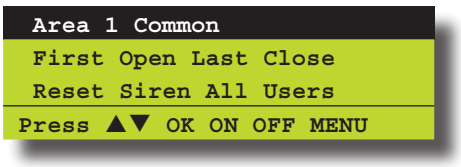
Area Options **MENU 7-7-1**

1	Area 1 = Common Area	N
2	First To Open Last To Close	N
3	Reset Siren All Users (All Areas)	N
4	Power Up In Same State As Powered Down	Y
5	Fault Acknowledge All Areas	Y
6	Delay Trouble Beeps	N
7	Reserved	N
8	Reserved	N

This menu allows you to configure the Area system options. All options are global to users, areas and keypads.

(*** System Wide Parameter ***)

1) **Press [MENU] + [7] + [7] + [1]. The keypad will display the current Area system options.**



2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Area 1 = Common Area

Setting this option will cause the system to automatically arm Area 1 All On when all other areas have been turned on. As soon as any area is turned off the system will automatically turn Area 1 off. Only one common area is available on the system. If no common area is required then do not set this option.

First To Open / Last To Close

Setting this option will cause the system to only report an opening signal to the base station when the first area is Disarmed and a closing signal when the last area has been armed or turned All On.

Reset Siren All Users

Setting this option allows a user with a valid PIN to silence alarm outputs from any keypad on the system without the need to toggle the keypad to the area that the alarm occurred.

If this option has not been programmed, the user will need to toggle the keypad to the area the alarm occurred in and then silence the alarm by entering their PIN followed by the [OFF] key.

Note

Software version 1.07 and higher now allows users that are assigned to multiple areas to reset the swinger dialler and/ or swinger siren from a keypad assigned to a different area to where the lockout has occurred.

Power Up In Same State As Powered Down

Setting this option will cause the panel to power up in the same state as it was when it was powerd down. For example with this option

set if the panel is in the disarmed state and all power is removed for service work to be done. When the power is reapplied, the panel will start in the disarmed state. Any zone that was programmed as bypassed when the power was removed will remain bypassed when the power supply has restored.

If this option is not programmed, the system will always power up in the armed All On state and any zones bypassed prior to power loss will power up as un-bypassed zones.

Fault Acknowledge All Areas

Setting this option allow system trouble faults to be acknowledged from any area or keypad on the system without the need to toggle over to the area the fault occurred in.

Delay Trouble Beeps

Setting this option will prevent any system trouble events from sounding the keypad speaker between the hours of 10pm until 7am. During this time, any new trouble events will be shown in the keypad display.

If any trouble events are still in effect at 7am, the keypad will begin sounding the trouble alert to notify the user of the problem. The function is primarily for use in residential installations.

System > Options >

Keypad Idle Screen I **MENU 7-7-2**

0 = No Idle Screen	2 = Time	0
1 = Date and Time	3 = Custom Screen	

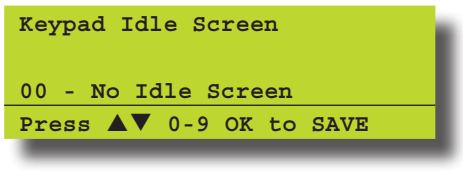
(*** System Wide Parameter ***)

This menu allows you to sellect a keypad Idle Screen which will appear on the display when there has been no activity at the keypad for a period of 2 minutes. The keypad display will return to normal as soon as any key has been pressed.

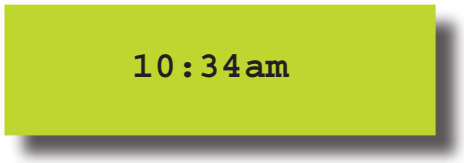
The are two built-in Idle Screens and one custom Idle screen which can be created and programmed only via the SolutionLink upload/download software. The custom screen can be used to display the Installer name and logo or other information as required.

All keypads on the system will display the same screen saver. See the examples below.

1) **Press [MENU] + [7] + [7] + [2]. The keypad will display the current Keypad Idle Screen option.**



2) **Use the up and down arrow keys to select which idle screen you want to display then press [OK] to save and exit or press [MENU] to exit without saving.**



System > Options >

Keypad Hi/Lo Temp I-M **MENU 7-7-3**

	0 0 °C	0 0 °C
(*** System Wide Parameter ***)	**Hi TEMP**	**Lo TEMP**

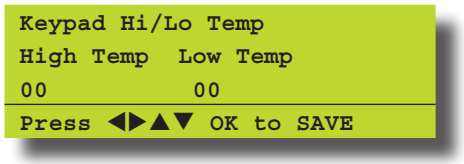
This menu allows you to set the keypad High and Low temperature values which the system will monitor. Valid temperatures are from 00 ˚C minimum to a maximum of 50 ˚C with a tolerance = +/- 1 ˚C.

If the temperature on the selected keypad falls below the minimum set temperature then the keypad will display 'Low Temp xx˚C If the temperature increases above the maximum set temperature then the keypad will display High temp xx˚C.

Where xx = the set temperature to be monitored.

(*** System Wide Parameter ***)

1) **Press [MENU] + [7] + [7] + [3]. The keypad will display the current temperature settings.**



2) **Use the up and down arrow keys to program the High and Low temperatures. Use the left and right arrow keys to move between the High and Low temperatures.**
Valid range =(0˚C to 50˚C).

3) **Press [OK] to save and exit or press [MENU] to exit without saving.**

System > Installer Options >

Installer Options I **MENU 7-7-4**

1	Report/Log Entry/Exit Intstaller Menu	N
2	Report/Log Program Data Change	Y
3	Arm Only Installer PIN	N
4	Reserved	N
5	Auto Exit Installer Menu In 2 Hours	Y
6	Auto Exit Service mode In 2 Hours	Y
7	Reserved	N
8	Factory Defaulting Allowed	Y

This menu allows you to configure the Installer system options.
(*** System Wide Parameter ***)

1) **Press [MENU] + [7] + [7] + [4]. The keypad will display the current Installer options.**

2) **Use the up and down arrow keys to highlight the option then press the [ON] key to enable or the [OFF] key to disable.**

3) **Repeat Step 2 until all options are programmed as required, then press [OK] to save and exit or press [MENU] to exit without saving.**

Report/Log Entry/Exit Installer Menu

Setting this option will cause the panel to make a log entry and to send a report to the base station when the installer enters and exits Installer programming mode. The entry/exit reports will follow the System Route.

Report/Log Program Data Changed

Setting this option will cause the panel to make a log entry and to send a report to the base station when the installer has changed programming data. The data changed reports will follow the System Route.

Arm Only Installer PIN

Setting this option will prevent the installer PIN holder from disarming the system. Normally the installer PIN is able to arm and disarm the system.

Auto Exit Installer Menu In 2 Minutes

Setting this option will cause the panel to automatically terminate Installer programming mode after 2 minutes of no activity on the keypad. If this option is not set, the panel will remain in Installer programming mode until manually terminated.

Auto Exit Service Mode In 2 Hours

Setting this option will cause the panel to automatically terminate service mode after 2 hours of no activity on the keypad keys. If this option is not set, the panel will remain in the service mode until it is manually terminated.

Factory Defaulting Allowed

Setting this option will allow the panel to be defaulted back to the factory setting using the the on board push button switch. See below for defaulting instructions.

If this option is not set then manual defaulting will not function and the only way to default the panel will be by using the current installer PIN. If the installer PIN is not know then the panel will need to be returned to Digiflex for defaulting. A charge applies for this service.

System >Options >

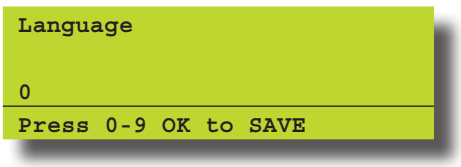
Language I **MENU 7-7-5**

0 = English [0]

1 = Alternate Language

This menu allows you to select the language that will be displayed on the keypad. You have a choice between English (default) or a second language (determined by the country that the control panel is shipped to).

1) **Enter [MENU] + [7] + [7] + [5]. The keypad will display the following:**



2) **Using the numeric keys, enter the language option as required then press [OK] to save and exit or press [MENU] to exit without saving.**

System > System Testing >

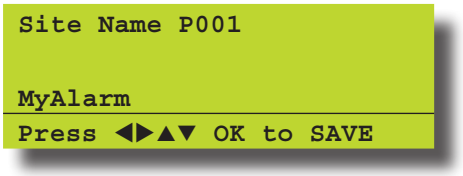
Site Name I-M **MENU 7-7-7**

This menu allows the master user to program the emails subject line to identify the alarm system (eg. site name) to the receiving party. A maximum of 32 characters of text can be entered in this field. Use the [←] and [→] keys to scroll the cursor left and right to view the entire name.

1) **Enter your Master PIN + [MENU].**

2) **Enter [7] + [7] + [7] + [OK].**

The keypad will display the current Site Name.



3) **Using the numeric keys, enter the description of the control panels site name. You can change a single chanracter by scrolling the cursor left [←] and right [→].**

At any time you can use the [↑] and [↓] keys to scroll through the complete list of available characters.

To clear all text from the cursor position to the right, press the [OFF] key.

4) **When the site name is complete, press [OK] to save and exit, or press [MENU] to exit without saving.**

SYSTEM TESTING

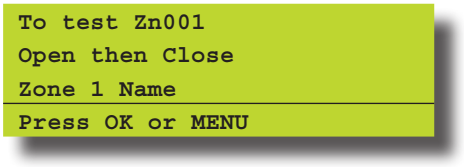
System > System Testing >

Walk Test All Zones I-M-U **MENU 7-9-0**

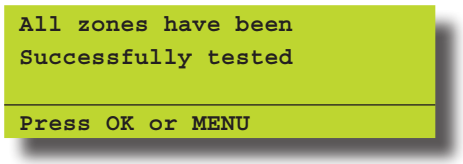
This menu allows you to test all zones within an area at the same time.

1) **Press [MENU] + [7] + [9] + [0]. The keypad will display a list of areas that are available to walk test zones.**

2) **Using the up and down arrow keys, select the area that you want to walk test, then press [OK]. Alternatively, you can enter the area number, then press [OK]. The keypad will begin to scroll all zones that need to be tested.**



3) **Open and close each zone that needs to be tested. A zone that has been successfully tested will no longer scroll on the keypad display. When all zones have been tested, the keypad will display.**



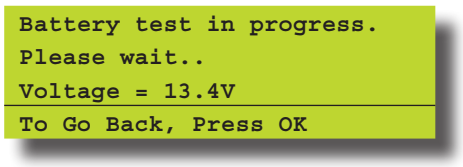
4) **Press [OK] to save and exit or press [MENU] to exit without saving.**

System > System Testing >

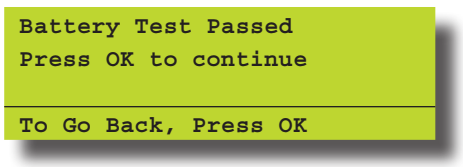
Battery Test I-M-U **MENU 7-9-1**

This menu allows you to test the panels standby battery. The battery test will last about two minutes and the keypad will display the voltage of the battery during the test.

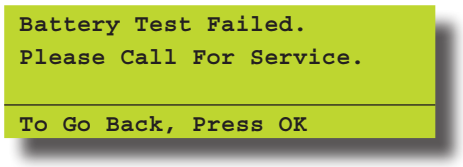
1) **Press [MENU] + [7] + [9] + [1]. The keypad will display the battery voltage whilst under test:**



2) **If the battery has passed the test, the keypad will display:**



3) **If the battery has failed the test, the keypad will display:**



4) **Press [OK] to exit.**

» » E N D O F S E C T I O N « «

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SECTION 12

Programming Examples

This section includes a number of programming examples detailling how to implement some common installation functionality.

Examples are provided to show;

- **How to Open a Garage Door using a Single Digit Code.**
- **How to Open a Garage Door using a 4 Button Keyfob.**
- **How to set Auto Arming for an Area.**
- **How to operate an Output using a Schedule**
- **How to Use a Reader to Unlock a Door.**
- **How to Use a Reader to Unlock a Door and Disarm Area 1.**
- **How to Use a Reader to Unlock a Door and Arm/Disarm.**
- **How to use Call Line Identification.**
- **How to send SMS Reports.**

Opening a Door using a Single Digit Code

The Solution 16^{plus} can be used to operate an electrically controlled door using a single digit code. The example assumes User 10 and Output 5 are being used. (Output 5 is located on the CM110 Output Expander).

Procedure

1) **Set User Pin Code Length MENU 1-5-0 = 0**
   (0 = Variable Length)
2) **Set User 10 - PIN Code MENU 1-1-2 = 5**
3) **Set User 10 - Area Assignment MENU 1-4-1 = NNNNNNNN**
4) **Set Output 5 - Event Type MENU 4-1-1 = 56**
   (56 = Follow Pin)
5) **Set Output 5 - Event Assignment MENU 4-1-2 = 10**
   (10 =User Number)
6) **Set Output 5 - Output Polarity MENU 4-1-3 = 4**
   (4 = Normally Open One Shot Low)
7) **Set Output 5 - Time Parameter MENU 4-1-4 = 000 000 005 000**
   (5 seconds)
8) **Enable Output 5 - Output Options MENU 4-1-5 = Display Status Message**

Wire Output 5 to the appropriate Door Controller input. Each time button 5 on the keypad is pressed the door will activate.

Opening a Garage Door Using a 4 Button RF Keyfob

The following example show how to configure the Solution 16^{plus} to allow control of a grage door as well as arm and disarm functions using a 4 Button Keyfob. The example assumes User 10 and Output 5 are being used. (Output 5 is located on the CM110 Output Expander).

Procedure

1) **Set RF Receiver Type MENU 3-5-0 = D**
   (D = DS Type)
2) **Assign Keyfob to User 10 MENU 1-3-0 = 123456789**
3) **Set Output 5 - Event Type MENU 4-1-1 = 53**
   (53 = RF Keyfob Function 1)
4) **Set Output 5 - Event Assignment MENU 4-1-2 = 1**
   (1 =Area Number)
5) **Set Output 5 - Output Polarity MENU 4-1-3 = 4**
   (4 =Normally Open One Shot Low)
6) **Set Output 5 - Time Parameter MENU 4-1-4 = 000 000 005 000**
   (5 seconds)
7) **Enable Output 5 - Output Options MENU 4-1-5 = Display Status Message.**

Auto Arming an Area

The Solution panel can be configured to automatically arm and or disarm an area automatically if required.

Procedure

To setup an Auto Arming time, select a schedule that is not being used, and program the schedule name to something convenient. Set the start time for the schedule to the arming time you require. The stop time should be set to 12:00am or --:-- am, which prevents the system from auto disarming.

Now set the Schedule Function, MENU 7-5-3 to Area On/Off and the Schedule Index, MENU 7-5-4 to correspond to the area to operate. If an index of 0 is used then arming will occur for all areas. Finally select the days of the week you wish auto arming to occur in MENU7-5-2

Operating an Output with a Schedule

To automatically operate an output using a schedule, select an schedule that is not being used, and program the schedule name to something convenient. Set the start time to the time you want the output to operate, and set the stop time to the time you want the output to turn off. Set the Schedule Function MENU 7-5-3 to Operate Output and set the Schedule Index MENU 7-5-4 to the Output number which is to operate. Finally set the days of the week the output is to operate on.

Unlock a Door using an External Reader

This example assumes Reader 9, Access Group 4 and Output 5 are being used.

Procedure

1) **Assign Proximity Reader 9 to Access Group 4, MENU 1-6-1.**
2) **Set output 5 to Event type = 60 - Access Group and Access Assignment = 4**
3) **Assign the user to Access Group 4, MENU 1-4-5. Users can belong to multiple Access Groups allowing access to multiple doors.**
4) **Assign Reader 8 to Area Assignment = 0 (All Areas) and then set disable arm/disarm options in MENU 1-6-3.**
5) **Present the Token to the Reader to access the door.**

Unlock a Door and Disarm Area 1 using an External Reader

This example assumes Reader 9, Access Group 4 and Output 5 are being used.

Procedure

1) **Assign Proximity Reader 9 to Access Group 4, MENU 1-6-1.**
2) **Set output 5 to Event type = 60 -Access Group and Access Assignment = 4.**
3) **Assign the user to Access Group 4, MENU 1-4-5. Users can belong to multiple Access Groups allowing access to multiple doors.**
4) **Assign Reader 8 to Area Assignment = 1 and then set the disarming option in MENU 1-6-3.**
5) **Present the Token to the Reader to Disarm, present the Token again to release the door.**

Unlock a Door and Arm/Disarm Area 1 using an External Reader

This example assumes Reader 9, Access Group 4 and Output 5 are being used.

Procedure

1) **Assign Proximity Reader 9 to Access Group 4, MENU 1-6-1.**
2) **Set output 5 to Event type = 60 (Access Group) and Access Assignment = 4.**
3) **Assign the user to Access Group 4, MENU 1-4-5. Users can belong to multiple Access Groups allowing access to multiple doors.**
4) **Assign Reader 9 to Area Assignment = 1 then set the arming/ disarming and badging option in MENU 1-6-3.**
5) **Present the token to Disarm, present the Token to release door, present the token 3 times to Arm the system.**

Using C.L.I. to establish Upload/Download Connection

Calling Number Identification is a feature provided by your teleco line provider that can help you identify who is calling by displaying the caller's phone number.

This feature is used by the Solution control panel to identify the telephone number that the upload download computer is calling from. When the Solution panel verifies that the calling number corresponds to any one of the three different numbers programmed in MENU 5-3-7 — CLI Number then the panel will answer the call immediately.

This feature is extremely helpful for remote access using the SolutionLink software to eliminate the need for making multiple calls to fax bypass or annoying customer calls where you have to let the number ring numerous times to trigger the panel into answering your call.

The numbers you store into MENU 5-3-7 should include the full STD number of the calling line you which the panel to answer on.

Almost every telephone line will send its CLI information when making a call however you will not receive the callers line information if you don't specifically request and enable this feature with your telco line provider.

Sending SMS Alarm Reports

The Solution panel is capable of reporting alarm information directly to a mobile phone using SMS messaging without the need to add any additional hardware.

Procedure

1) Determine the required reporting destination and set the reporting format to SMS.
2) Program the access number into the Primary and Secondary telephone numbers.
3) Program the mobile phone number that the messages are to be sent to into the account code for the corresponding destination. In multi-area systems you will need to enter the appropriate mobile phone number for each area.
4) Program the SMS password. The panel default is set for the Telstra network.
5) Program the destination route for each event type which is required to report to SMS. By default all event types report to route 1.

» » E N D O F S E C T I O N « «

SECTION 13

Specifications

Panel	Solution 16^{plus} (Part Number CC100B)
Voltage Input	16-18V A.C. 50-60Hz - 24VA External Power Adaptor or 220-240V A.C. to 18V A.C. 50-60Hz - 24VA Internal Transformer (Primary Power Source)
Continuous Power	1 Amp MAX (Combined power drawn from Accessory Power(+12V) LAN Power (Module LAN +) and Output Power (C+) terminals must not exceed 1 amp)
Alarm Power	4 Amp (Total with Primary and Secondary Power Sources Fitted)
Stand-by Battery	12 VDC, 7.2AH sealed rechargeable battery - Panasonic LC-P127R2P or equivalent. (Secondary Power Source) Dispose of used batteries according to the instructions.
Min Operating Voltage	10.2 VDC
Battery Charger	Pulse by pulse charger. (Note: Charge voltage can't be measured unless battery is fitted.)
Module Connection	Max total LAN length using multi strand security cable = 300m ,
Telephone Connections	RJ-12 Socket or 4-way terminal
Temperature	0˚ to 55˚ C
Enclosure Fixing Method	**MW700B - Small Enclosure** Use appropriate fasteners capable of handling a minimum of 6kg to fix the cabinet against a sturdy surface using the mounting holes provided. **MW710B - Large Enclosure** Use appropriate fasteners capable of handling a minimum of 12kg to fix the cabinet against a sturdy surface using the mounting holes provided.
Relative Humidity	5 to 85% non-condensing.
Compatible Keypads	CP100B - Graphic Keypad (Wh) CP101B - Graphic Keypad With Prox (Wh) CP110B - Graphic Keypad (Bk) CP111B - Graphic Keypad With Prox (Bk)
Compatible Accessories	CM104B - 8/16 Zone Expander CM105B - 16/32 Zone Expander CM106B - Piggyback Expander CM110B - 4 Way Relay Output Module CM120B - 1-Amp LAN Power Supply SW500B - Solution Link (RAS) Software CM900 - Direct Link Interface MW710B - Large Enclosure CM101B - Voice Interface Module CM195 - Multi RF Receiver Interface
Enclosure Dimensions:	P/N: MW700B - (W)320, (H)260, (D)75mm P/N: MW710B - (W)320, (H)520, (D)75mm
PWA Dimensions:	(W) 235, (H) 85, (D) 40mm
Warranty:	3 years from date of manufacture (return to base)

The following parts are supplied with the panel

Panel Assembly Includes	1 x MW700B Metal Enclosure + Tamper 1 x Panel PWA 1 x User Manual	1 x Installer Reference Guide 1 x Resistor Pack
Resistor Pack Includes	1 x Red Battery Lead 1 x Black Battery Lead 1 x 2-Way Shunt With Handle 2 x Phillips Pan Head Zinc Plated Screws 1 x Telephone Cable RJ12 6P/4C 1 x Pack PCB Mounting Clips (5 pc/pack)	10 x 3K3 – 0.25W +/- 1% Metal Film Resistors 10 x 6K8 – 0.25W +/- 1% Metal Film Resistors 1 x 3-Way Removable Terminal Block 1 x Panel Tamper Switch + Tamper Lead 1 x Tamper Switch Bracket 1 x Product Identification Label

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SECTION 14

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