ELECTRONICS
DESIGN &
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Solution 862
Installation Manual

ISSUE 1.30

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MA406I

Solution 862 Installation Manual

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(61-2) 9672 1233

Solution 862

Installation Manual

Document Part Number MA406I

DOCUMENT ISSUE 1.30

Printed 10 May 2001

This documentation is provided to suit *Solution 862* Control Panel (CC406)

Firmware Revision 1.00 – 1.09

Hardware Revision A - J

Alarm Link required = 2.74 or higher

Control Panel Software Version 1.00 – 1.09 = S406_V10

Table Of Contents

Introduction

This section includes the following;

Introduction

Congratulations on selecting the Solution 862 control panel for your installation. So that you can obtain the most from your unit, we suggest that you take the time to read through this manual and familiarise yourself with the numerous outstanding operating and installation features of this system.

You will notice that in all aspects of planning, engineering, styling, operation, convenience and adaptability, we have sought to anticipate your every possible requirement. Programming simplicity and speed have been some of the major considerations and we believe that our objectives in this area have been more than satisfied.

This installation manual will explain all aspects of programming the Solution 862 control panel from factory default to final commissioning. All system parameters and options are detailed, however, suitability is left up to the individual. Every control panel can be tailored to meet all requirements quickly and easily. The programming simplicity will make your installation quick, accurate and rewarding each and every time.

The Solution range of control panels are very popular amongst thousands of people throughout many countries of the world, all who have various levels of technical aptitude and ability. We have tried to aim this installation manual to all levels of readers.

As the Solution control panels continue to be improved over the years, they have become very powerful. Some of its early first-time users have advanced to true "power users" and we need to address their needs too, while maintaining the simplicity of the manual and the product.

Features

The *Solution 862* security system uses the very latest in microprocessor technology to provide you with more useful features and superior reliability and performance.

Following is a list of the main features that the control panel will provide.

- Eight Programmable User Codes (1 – 8)
- Eight Remote Radio User Codes (9 – 16)
- Six Programmable Burglary Zones
- Two Programmable 24 Hour Zones
- Dual Reporting
- On-Board Line Fault Module
- Telco Arming/Disarming Sequence
- Automatic Arming
- Automatic Disarming
- Codepad Duress, Panic, Fire, Medical Alarms
- STAY Mode and AWAY Mode Operation
- Upload/Download Programmable
- Dynamic Battery Testing
- Entry and Exit Warning Beeper
- Remote Arming
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- AC Fail and System Fault Indicators
- Monitored Siren Output
- Strobe Output
- Relay Output
- Separate Fire Alarm Sound
- EDMSAT – Satellite Siren Compatible
- Zone Lockout
- Sensor Watch
- Day Alarm
- Event Memory Recall
- Walk Test Mode
- Delayed Reporting

Quick Start

The following steps will allow you to use the *Solution 862* control panel with the factory default values. The default values allow the control panel to communicate in the Contact ID format. If you are not familiar to programming the *Solution* range of control panels, we suggest that you first read information contained in the programming section beginning on page 22.

1. After all wiring has been completed, connect the AC plug pack to the control panel. Both the MAINS and AWAY indicators will illuminate. The MAINS indicator will display to indicate that the AC mains supply has been connected. The AWAY indicator displays that the system is now armed in the AWAY Mode. If any 24 hour zones are unsealed at the time the system is powered up, the siren, strobe and bell outputs will activate into alarm and the corresponding zone indicator will flash.

2. Enter the default Master Code 2 5 8 0 followed by the [AWAY] button to disarm the system and to reset any alarm that may have occurred during the system power up. The AWAY indicator will extinguish to indicate that the system has now been disarmed. If any zone indicators are flashing, this would indicate that an alarm had occurred on that zone. If a zone indicator is constantly illuminated, this would indicate that the zone is unsealed.

3. The back-up battery should now be connected.

4. Enter the factory default Installer Code 1 2 3 4 followed by the [AWAY] button. Two beeps will be heard and the STAY and AWAY indicators will now flash simultaneously to indicate that you have now entered Installer's Programming Mode. When entering Installer's Programming Mode, you will be automatically positioned at "LOCATION 000", the beginning of the Primary Telephone Number For Receiver 1.

5. Enter the Primary Telephone Number followed by the Secondary Telephone Number and the Subscriber ID Number for Receiver 1. Refer to Dialler Information on page 130 for more information.

Remember that when programming a zero in the telephone numbers of Receiver 1 and Receiver 2, a zero must be programmed as a ten. Programming a zero in the telephone number will indicate the end of the dialling sequence. A zero must be programmed as a zero in all other locations other than the telephone numbers for Receiver 1, Receiver 2 and the Call Back Telephone number, unless otherwise stated.

6. Set the time for the test reports if required. Any other programming changes required may also be made, otherwise the factory default settings will be used. Refer to Test Reporting Time on page 187 for more information on programming test reports.

7. Enter Installer's Command 9 6 0 followed by the [AWAY] button to exit Installer's Programming Mode. Two beeps will be heard and the STAY and AWAY indicators will extinguish. The system has now returned to the disarmed state and is now ready for use. Refer to Installer's Programming Commands on page 29 for more information.

8. Use the Master Code to set the date and time. Refer to Set The Date and Time on page 19 for more information.

How To Set The Date and Time

1. Enter your [MASTER CODE] followed by 6 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Enter the day, month, year, hour and minute using the (DD, MM, YY, HH, MM) format (i.e. DD = Day of the month, MM = Month of the year, YY = Current year, HH = Hour of the day, MM = Minute of the day).

Please note that when programming the hour of the day, you will need to use 24:00 hour format.

3. Press the [AWAY] button when finished.
Two beeps will be heard and the STAY and AWAY indicators will extinguish. If a long beeps is heard, an error was made when entering the date and time.

[MASTER CODE] + 6 + [AWAY]
+ D D + M M + Y Y + H H + M M
+ [AWAY]

Example

If the date and time needs to be set for the 1st January 1997 at 10:30 PM, program the date and time as follows;

2 5 8 0 + 6 + [AWAY]
+ 0 + 1 + 0 + 1 + 9 + 7 + 2 + 2 + 3 + 0
+ [AWAY]

Zone Defaults

The default zone settings of the control panel are listed in the table below. Zones 1 – 6 may be programmed to any of the available zone types. Zones 7 and 8 are limited to that they may only be programmed to any 24 hour or keyswitch type. Refer to "Table 2: Available Zone Types" on page 20 for the different zone types that may be selected.

Zone No	Zone Type	Zone No	Zone Type
1	Delay-1	**5**	Instant
2	Handover	**6**	Instant
3	Handover	**7**	24 Hour Fire
4	Handover	**8**	24 Hour Tamper

Table 1: Zone Defaults For Solution 862

Zone Types

There are thirteen different zone types to choose from when programming zones. These thirteen different zone types are available for all Solution 862 control panels. Refer to Zone Programming on page 161 for more information on programming zones.

Zone Type	Description	Zone Type	Description
0	Instant	**8**	24 Hour Hold-Up
1	Handover	**9**	24 Hour Tamper
2	Delay-1	**10**	Reserved
3	Delay-2	**11**	Keyswitch
4	Reserved	**12**	24 Hour Burglary
5	Reserved	**13**	24 Hour Fire
6	24 Hour Medical	**14**	Chime Only
7	24 Hour Panic	**15**	Zone Not Used

Table 2: Available Zone Types

Programming

This section includes the following;

Programming

The programming options of the control panel are stored in a non-volatile EPROM. This memory will hold all the relevant configuration and user specific data even during a total power loss.

The data retention time is as long as ten years without power; therefore, no reprogramming will be required after powering the control panel down.

The data can be changed as many times as required without the need for any additional specialised equipment. This memory is laid out in numerous locations, each of which holds the data for a specific function.

15 is the maximum value that can be programmed into any location.

In general, the entire programming sequence will consist of nominating the required location number and then enter or change the current data. You will repeat this procedure until all the data has been programmed to suit your requirements. The factory default settings have been selected for reporting to the monitoring station in the Contact ID Format.

The Installers Code only gives access to the Installer's Programming Mode and does NOT arm and disarm the system. Installer's Programming Mode can not be entered when the system is armed, or at any time during siren run time.

Programming of the *Solution 862* control panel can be carried out via any of the following three methods.

- Remote Codepad
- Hand Held Programmer (CC814)
- Alarm Link Upload/Download Software (CC816)

Example

Primary Telephone Number For Receiver 1

LOCATION 000 - 015

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

LOCATION 000 LOCATION 001 LOCATION 004 LOCATION 015

Programming With The Remote Codepad

When programming the control panel via the remote codepad, the system must be in the disarmed state with no alarm memory present.

To access the Installer's Programming Mode, enter the four digit [INSTALLER CODE] followed by the [AWAY] button. The factory default Installer Code is 1 2 3 4. Two beeps will be heard and both the AWAY and the STAY indicators will flash simultaneously to indicate that you have entered Installer's Programming Mode.

When entering Installer's Programming Mode, you will be automatically positioned at "LOCATION 000", the beginning of the Primary Telephone Number for Receiver 1.

Data Value	Zone 1 Indicator	Zone 2 Indicator	Zone 3 Indicator	Zone 4 Indicator	Zone 5 Indicator	Zone 6 Indicator	Zone 7 Indicator	Zone 8 Indicator	MAINS Indicator
0									
1	✓								
2		✓							
3			✓						
4				✓					
5					✓				
6						✓			
7							✓		
8								✓	
9	✓							✓	
10									✓
11	✓								✓
12		✓							✓
13			✓						✓
14				✓					✓
15					✓				✓

Table 3: Codepad Indicators When Programming

Example

To access Installer's Programming Mode, enter the [INSTALLER CODE] followed by the [AWAY] button. Two beeps will be heard and both the AWAY and the STAY indicators will flash simultaneously to indicate that you have entered Installer's Programming Mode. The codepad indicators will display the current data stored in the first location (LOCATION 000).

To move to another programming location, enter the [LOCATION NUMBER] required followed by the [AWAY] button. The data of the new location will now be displayed (e.g. 3 4 followed by the [AWAY] button will automatically step you to the beginning of the Subscriber ID Number for Receiver 1).

To move to the next location, press the [AWAY] button. This will step you to the next location and the data in that location will be displayed (e.g. If you are currently positioned at "LOCATION 034", pressing the [AWAY] button will step you to "LOCATION 035").

If you press the [STAY] button without previously entering a location number, the system will step back one location (e.g. If you are positioned at "LOCATION 035" and you press the [STAY] button, you will step back one location to LOCATION 034).

To change data in the current location, enter the new value (0 – 15) followed by the STAY button. This will store the new data into the location and still leave you positioned at the same location. You will notice that the new information programmed will be displayed on the codepad indicators (e.g. If you enter the value 1 4 followed by the STAY button, both ZONE 4 and the MAINS indicator will illuminate).

To move to the next location, press the AWAY button. The data in the next locations data will now be displayed.

To exit the Installer's Programming Mode, enter command 9 6 0 followed by the AWAY button. Two beeps will be heard and the STAY and AWAY indicators will extinguish. The system will now return to the disarmed state and is now ready for use.

Refer to Installer's Programming Commands on page 29 for further information on commands that can be performed during access of Installer's Programming Mode.

Programming With The Hand Held Programmer

The Hand Held Programmer (CC814) has five, seven segment displays. The three seven segment displays on the left display the current location number and the two seven segment displays on the right display the data for the location currently being displayed.

To connect the hand held programmer, locate the socket marked PROGRAMMING KEY found at the top of the PCB (printed circuit board) next to the Auxiliary Module socket. Observe the triangular markings on the PCB and line them up with the markings on the hand held programmers connecting socket.

When the hand held programmer is correctly connected onto the printed circuit board, one beep will be heard and four centre bars on the hand held programmer will illuminate with either an 'A' or 'U' suffix to indicate the system is armed or unarmed. Only when the Installer's Programming Mode has been accessed will any numerals appear on the display.

WARNING

When connecting the hand held programmer to the control panel, make sure that the switch on the hand held programmer is in the EXT position and that no external programming key has been connected. Failing to do this may corrupt the control panel's memory. If this occurs, the control panel will need to be returned to Electronics Design and Manufacturing Pty Limited where a service fee will be charged to unlock the control panel's memory.

Example

To access the Installer's Programming Mode, enter the [INSTALLER CODE] followed by the # button. The factory default Installers Code is 1 2 3 4. Two beeps will be heard and the hand held programmer will display the current data stored in "LOCATION 000".

To move to another programming location, enter the [LOCATION NUMBER] required followed by the # button. The data of the new location will now be displayed (e.g. 3 4 followed by the # button will automatically step you to the beginning of the Subscriber ID Number for Receiver 1).

To move to the next location, press the # button. This will step you to the next location and the data in that location will be displayed (e.g. If you are currently positioned at “LOCATION 034”, pressing the # button will step you to “LOCATION 035”).

If you press the [STAY] button without previously entering a location number, the system will step back one location (e.g. If you are positioned at “LOCATION 035” and you press the * button, you will step back one location to LOCATION 034).

To change data in the current location, enter the new value (0 – 15) followed by the * button. This will store the new data into the location and still leave you positioned at the same location. You will notice that the new information programmed will be displayed on the data display of the hand held programmer (e.g. If you enter the value 1 4 followed by the * button, the data display will display 14).

To move to the next location, press the # button. The data in the next location will now be displayed.

To exit the Installer's Programming Mode, enter command 960 followed by the # button. Two beeps will be heard and the system will return to the disarmed state. Refer to Installer's Programming Commands on page 29 for further information on commands that can be performed during access of the Installer's Programming Mode.

When using the hand held programmer, any reference in this manual made to the STAY button should be considered as the * button and the AWAY button considered as the # button.

Programming With The Programming Key

The Programming Key (CC891) is a unique device that will allow you to store or copy programming information from your control panel. Once the programming key has information stored in the microprocessor, the programming key may be used to easily program other existing *Solution 862* control panels with the same programming data, or be alternatively used for back up purposes of existing information.

Connecting a programming key, which has been pre-programmed directly onto the control panel in the disarmed state, will automatically initiate a data transfer from the programming key to the control panel memory.

If you have a new programming key, you should first enter the Installer's Programming Mode and program the system as required before connecting the programming key to the control panel.

To connect the programming key, locate the socket marked PROGRAMMING KEY found at the top of the PCB (printed circuit board) next to the Auxiliary Module socket. Observe the triangular markings on the printed circuit board and line them up with the markings on the programming key.

To copy the control panel's data into the programming key, access Installer's Programming Mode (e.g. 1 2 3 4 followed by the # button) and enter Installer's Programming Command 9 6 2 followed by the # button. Refer to Command 962 - Copy Control Panel Memory To Programming Key on page 34 for further information.

To exit the Installer's Programming Mode, enter command 9 6 0 followed by the # button. Two beeps will be heard and the system will return to the disarmed state. Before removing the programming key, wait two seconds for the activity LED to return to its normal state. The programming key will now become your standard data pattern for future programming of your control panels.

It should be noted that when entering the Installer's Programming Mode, inserting a programming key and then changing any location will cause a simultaneous update of not only the programming keys data, but also the control panels data. Therefore, you are not able to change data in the programming key without the same location being changed in the control panels memory.

Connecting a Programming Key (CC891) to the control panel when the programming keys memory is blank will corrupt the control panel's memory unless the Installer's Programming Mode has been entered first. If this occurs, then the control panel will need to be returned to Electronics Design and Manufacturing Pty Limited where a service fee will be charged to unlock the control panel's memory.

Programming Option Bits

When programming these locations, you will notice that there are four alternatives per location. You may select one, two, three or all of these alternatives for each location, however, only one number is required to be programmed. This number is calculated by adding the option bit numbers together.

Example

If at "LOCATION 177" you want options 1, 2 and 4, add the numbers together and the total is the number to be programmed. In this example, the number to be programmed is 7 (i.e. 1 + 2 + 4 = 7).

Option	Description
1	Enabled = Allow Dialler Reporting Functions Disabled = Disable All Dialler Reporting Functions
2	Enable Remote Arming Via The Telephone
4	Enable Answering Machine Bypass Only When Armed
8	Enabled = Use Bell 103 For FSK Format Disabled = CCITT V21 Format

Table 4: Example - Programming Option Bits

Installer's Programming Commands

There are ten different commands that can be used to perform various functions once the Installer's Programming Mode has been entered. To issue the command required, enter the corresponding numerical code followed by the # button.

Command	Description	Page
958	Enable/Disable Zone Status Mode	30
959	Test Programming Key	31
960	Exit Installer's Programming Mode	33
961	Reset Control Panel Back To Factory Default Settings	33
962	Copy The Control Panel Memory To The Programming Key	34
963	Copy The Programming Key Data To The Control Panel	35
964	Erase Programming Key	36
965	Set Up Domestic Dialling Format	37
966	Enable/Disable Automatic Stepping Of Locations During Programming	38
999	This Command Displays The Control Panel's Software Version Number Or Control Panel Type	40

Table 5: Installer's Programming Commands

Command 958 - Enable/Disable Zone Status Mode

This function enables and disables the zone status display mode when using the hand held programmer. The hand held programmer will display the zones on the seven-segment display from left to right. If there is a dash illuminated on the display of the hand held programmer, the corresponding zone is unsealed and if the display is blank, the zone is sealed.

The third (or centre) display shows either the number 4 or the number 8. The number 4 constantly illuminated indicates that zones 1 - 4 are being displayed. The number 8 constantly illuminated indicates that zones 5 - 8 are being displayed.

Pressing the # button will toggle the display between the zones. This feature will prove to be very useful during installation as the hand held programmer allows you to view the status of the zones directly at the control panel, saving you time and money.

How To Enable Zone Status Mode

1. Enter Installers Programming Mode (i.e. 1 2 3 4 followed by the # button).
Two beeps will be heard and the hand held programmer will display the data currently programmed in "LOCATION 000".

2. Enter command 9 5 8 followed by the # button.
Two beeps will be heard and the number 4 will illuminate to indicate zones 1 – 4 are being displayed.

How To Disable Zone Status Mode

1. Enter command 9 5 8 followed by the # button.
Two beeps will be heard and you will return to the Installer's Programming Mode.

Example

A " - " in the display indicates the zone is unsealed.
A blank display indicates the zone is sealed.

À - 4 - - indicates that zone 1 is sealed and zones 2, 3 and 4 are unsealed.

- À 8 À - indicates that zones 5 and 8 are unsealed and zones 6 and 7 are sealed.

Command 959 - Test Programming Key

This command initiates a test to be carried out on the programming key. Only the Programming Key (CC891) may be used with the *Solution 862* control panel.

The programming key test is non-destructive and any data in the programming key will remain intact after the test has been completed. One long beep indicates that the programming key test has failed and two beeps indicates a successful test.

If the programming key has been removed before the test is complete or the programming key has failed, the data in the programming key has become corrupt. Remember not to remove the programming key while the activity LED is constantly illuminated or pulsing rapidly.

How To Test The Programming Key

1. Enter Installer's Programming Mode (i.e. 1 2 3 4 followed by the # button).
Two beeps will be heard and the STAY and AWAY indicators will begin to flash on the remote codepad to indicate that you have entered Installer's Programming Mode. You will also notice that the remote codepad will display the data currently programmed in "LOCATION 000".

2. Plug the programming key onto the pins marked PROGRAMMING KEY on the control panel found at the top of the PCB (printed circuit board) next to the Auxiliary Module socket.

3. Enter command 9 5 9 followed by the # button.
Two beeps will be heard after the programming key has successfully been tested. If you heard a long beep after issuing this command, the programming key has become corrupt and will need to be erased to clear the corrupt data. Refer to Command 964 - Erase Programming Key on page 36 for more information.

4. Before removing the programming key from the control panel, enter command 9 6 0 followed by the # button to exit the Installer's Programming Mode. Two beeps will be heard. The STAY and AWAY indicators will now extinguish on the remote codepad and the system will return to the disarmed state.

Failing to exit Installer's Programming Mode before removing the programming key may result in corrupting the data in the programming key.

How To Test The Programming Key Using The Hand Held Programmer

1. Before connecting the hand held programmer onto the pins marked PROGRAMMING KEY, make sure that the switch on the hand held programmer is in the EXT position and that no external key has been plugged onto the hand held programmer.

2. Enter the Installer's Programming Mode (i.e. 1 2 3 4 followed by the # button). Two beeps will be heard and the hand held programmer will display the data currently programmed in "LOCATION 000".

3. Plug the programming key onto the pins marked EXTERNAL KEY on the hand held programmer.

4. Enter command 9 5 9 followed by the # button.
Two beeps will be heard after the programming key has successfully been tested. If you heard a long beep after issuing this command, the programming key has become corrupt and will need to be erased to clear the corrupt data. Refer to Command 964 - Erase Programming Key on page 36 for more information.

5. Before removing the programming key from the hand held programmer, enter command 9 6 0 followed by the # button to exit the Installer's Programming Mode. Two beeps will be heard and the system will now return to the disarmed state.

Failing to exit Installer's Programming Mode before removing the programming key may result in corrupting the data in the programming key.

Command 960 - Exit Installer's Programming Mode

This command is used to exit the Installer's Programming Mode after you complete programming the control panel.

You may exit Installer's Programming Mode from any location by entering command 9 6 0 followed by the # button. Two beeps will be heard and the system will return to the disarmed state. When using the remote codepad to program the system, you will notice that the STAY and AWAY indicators will extinguish to indicate that you have terminated Installer's Programming Mode.

Command 961- Reset Control Panel Back To Factory Default Settings

This command will reset the control panel back to the factory default values. Refer to the default values shown throughout this manual or the programming sheets on pages 245 for more information.

You may reset the control panel back to the factory default settings from any location when in Installer's Programming Mode. This is achieved by entering command 9 6 1 followed by the # button. Two beeps will be heard and the system will default back to the factory default values.

Command 962 - Copy Control Panel Memory To Programming Key

This command is used to copy the control panel memory to the programming key. Only the Programming Key (CC891) may be used with the *Solution 862* control panel.

How To Copy The Control Panel Memory To The Programming Key

1. Enter Installer's Programming Mode (i.e. 1 2 3 4 followed by the # button).
Two beeps will be heard and the STAY and AWAY indicators will begin to flash on the remote codepad to indicate that you have entered Installer's Programming Mode. You will also notice that the remote codepad will display the data currently programmed in "LOCATION 000".

2. Plug the programming key onto the pins marked PROGRAMMING KEY on the control panel found at the top of the PCB (printed circuit board) next to the Auxiliary Module socket.

3. Enter command 9 6 2 followed by the # button.
Two beeps will be heard after the control panel memory has successfully been copied into the programming key. If you heard a long beep after issuing this command, the programming key has become corrupt and will need to be erased to clear the corrupt data. Refer to Command 964 - Erase Programming Key on page 36 for more information.

4. Before removing the programming key from the control panel, enter command 9 6 0 followed by the # button to exit Installer's Programming Mode. The STAY and AWAY indicators will now extinguish on the remote codepad to indicate that the system has returned to the disarmed state.

Failing to exit Installer's Programming Mode before removing the programming key may result in corrupting the programming key.

How To Copy The Panel Memory To Programming Key Using The Hand Held Programmer

1. Before connecting the hand held programmer onto the pins marked PROGRAMMING KEY, make sure that the switch on the hand held programmer is in the EXT position and that no external key has been plugged onto the hand held programmer.

2. Enter Installer's Programming Mode (i.e. 1 2 3 4 followed by the # button).
Two beeps will be heard and the hand held programmer will display the data currently programmed in "LOCATION 000".

3. Plug the programming key onto the pins marked EXTERNAL KEY on the hand held programmer.

4. Enter command 9 6 2 followed by the # button.
Two beeps will be heard after the control panel memory has successfully been copied into the programming key. If you heard a long beep after issuing this command, the programming key has become corrupt and will need to be erased to clear the corrupt data. Refer to Command 964 - Erase Programming Key on page 36 for more information.

5. Before removing the programming key from the hand held programmer, enter command 9 6 0 followed by the # button to exit Installer's Programming Mode. Two beeps will be heard and the system will now return to the disarmed state.

Failing to exit Installer's Programming Mode before removing the programming key may result in corrupting the programming key.

Command 963 - Copy From Programming Key To Control Panel

This command is used to copy data from the programming key to the control panel. Only the Programming Key (CC891) may be used with the *Solution 862* control panel.

How To Copy The Programming Key Memory To The Control Panel

1. Enter Installer's Programming Mode (i.e. 1 2 3 4 followed by the # button).
Two beeps will be heard and the STAY and AWAY indicators will begin to flash on the remote codepad to indicate that you have entered Installer's Programming Mode. You will also notice that the remote codepad will display the data currently programmed in "LOCATION 000".

2. Connect the programming key onto the pins marked PROGRAMMING KEY on the control panel found at the top of the PCB (printed circuit board) next to the Auxiliary Module socket.

3. Enter command 9 6 3 followed by the # button.
Two beeps will be heard after the programming key's data has successfully been copied into to the control panel. If you heard a long beep after issuing this command, the programming key has become corrupt and will need to be erased to clear the corrupt data. Refer to Command 964 - Erase Programming Key on page 36 for more information.

4. Before removing the programming key from the control panel, enter command 9 6 0 followed by the # button to exit Installer's Programming Mode. The STAY and AWAY indicators will now extinguish on the remote codepad and the system will return to the disarmed state.

Failing to exit Installer's Programming Mode before removing the programming key may result in corrupting the programming key.

How To Copy Programming Key Memory To Control Panel Using Hand Held Programmer

1. Before connecting the hand held programmer onto the pins marked PROGRAMMING KEY, make sure that the switch on the hand held programmer is in the EXT position and that no external key has been plugged onto the hand held programmer.

2. Enter Installer's Programming Mode (i.e. 1 2 3 4 followed by the # button).
Two beeps will be heard and the hand held programmer will display the data currently programmed in "LOCATION 000".

3. Plug the programming key onto the pins marked EXTERNAL KEY on the hand held programmer.

4. Enter command 9 6 3 followed by the # button.
Two beeps will be heard after the programming key's data has successfully been copied into to the control panel. If you heard a long beep after issuing this command, the programming key has become corrupt and will need to be erased to clear the corrupt data. Refer to Command 964 - Erase Programming Key on page 36 for more information.

5. Before removing the programming key from the hand held programmer, enter command 9 6 0 followed by the # button to exit Installer's Programming Mode. Two beeps will be heard and the system will now return to the disarmed state.

Failing to exit Installer's Programming Mode before removing the programming key may result in corrupting the programming key.

Command 964 - Erase Programming Key

This command erases all data from the programming key. Only the Programming Key (CC891) may be used with the *Solution 862* control panel.

How To Erase The Programming Key

1. Enter Installer's Programming Mode (i.e. 1 2 3 4 followed by the # button).
Two beeps will be heard and the STAY and AWAY indicators will begin to flash on the remote codepad to indicate that you have entered Installer's Programming Mode. You will also notice that the remote codepad will display the data currently programmed in "LOCATION 000".

2. Connect the programming key onto the pins marked PROGRAMMING KEY on the control panel found at the top of the PCB (printed circuit board) next to the Auxiliary Module socket.

3. Enter command 9 6 4 followed by the # button.
Two beeps will be heard after the programming keys data has been deleted.

4. Before removing the programming key from the control panel, enter command 9 6 0 followed by the # button to exit Installer's Programming Mode. The STAY and AWAY indicators will now extinguish on the remote codepad and the system will return to the disarmed state.

Failing to exit Installer's Programming Mode before removing the programming key may result in corrupting the programming key.

How To Erase The Programming Key Using The Hand Held Programmer

1. Before connecting the hand held programmer onto the pins marked PROGRAMMING KEY, make sure that the switch on the hand held programmer is in the EXT position and that no external key has been plugged onto the hand held programmer.

2. Enter Installer's Programming Mode (i.e. 1 2 3 4 followed by the # button).
Two beeps will be heard and the hand held programmer will display the data currently programmed in "LOCATION 000".

3. Plug the programming key onto the pins marked EXTERNAL KEY on the hand held programmer.

4. Enter command 9 6 4 followed by the # button.
Two beeps will be heard after the programming keys data has been deleted.

5. Before removing the programming key from the hand held programmer, enter command 9 6 0 followed by the # button to exit Installer's Programming Mode. Two beeps will be heard and the system will now return to the disarmed state.

Failing to exit Installer's Programming Mode before removing the programming key may result in corrupting the programming key.

Command 965 - Set Up Domestic Dialling Format

Command 965 has been included to allow the set up of the domestic dialling format a one step operation. Refer to page 120 for more information on Domestic Dialling Format.

After you enter Installer's Programming Mode, enter command 9 6 5 followed by the # button. The command will automatically set Receiver 1 to domestic reporting and set the following locations only for Receiver 2. No other locations will be changed when command 965 has been issued.

All domestic telephone numbers are stored in "LOCATION 466 – 513". For more information on programming domestic dialling, refer to Setting Up and Programming Domestic Reporting on page 121 for more information.

Location	Description	Setting	
LOCATION 032	Handshake Tone For Receiver 1	**1**	(Handshake Tone)
LOCATION 033	Transmission Format	**4**	(Domestic)
LOCATION 034 – 039	Subscriber ID Number	0, 0, 0, 0, 0, **1**	(1 Beep)
LOCATION 332	Zone Status Reporting Options	**2**	(Receiver 2 Only)
LOCATION 333 – 334	Open/Close Reports	**11, 12**	(Open/Close Reports)
LOCATION 335	Open/Close Reporting Options	**2**	(Receiver 2 Only)
LOCATION 356 - 358	System Status – Access Denied	**6, 7, 12**	(Access Denied)
LOCATION 359	System Status Reporting Options	**2**	(Receiver 2 Only)
LOCATION 360 - 366	Test Reporting Time	0**,** 0, 0, 0, **7, 1, 0**	(Test Reports)
LOCATION 367	Test Reporting Dialler Options	**1**	(Receiver 1 Only)

Table 6: Command 965 Defaults

As you can see from the table above, the transmission format has automatically been set for domestic dialling and the Subscriber ID Number has been set for one identification beep. All reports except zone status reporting and system status reporting have been allocated to Receiver 1 for domestic dialling.

This means that the zone status reports including zone bypass, zone trouble, sensor watch and alarm restore codes as well as system status reports including fuse fail, AC fail, low battery and access denied reports have been allocated to Receiver 2 and will not report unless Receiver 2 has also been set up to report.

Command 966 - Enable/Disable Automatic Stepping Of Locations

This command allows automatic stepping of locations while programming via Installer's Programming Mode. When enabled via the hand held programmer, the decimal point of the left most display will reflect the mode of operation.

If the decimal point is illuminated on the hand held programmer, automatic stepping of locations is active. An automatic increment of the location being programmed will occur as soon as the * button is pressed positioning you at the next location ready for programming.

If the decimal point is not illuminated on the hand held programmer, the automatic stepping of locations is disabled and programming the next location will need to be manually selected by pressing the # button. As you can see from the examples below, auto step mode can be very useful when programming successive locations.

When programming via the remote codepad, there are no visual indications to display if automatic stepping of locations has been enabled.

How To Enable Automatic Stepping Of Locations

1. Enter Installer's Programming Mode (i.e. 1 2 3 4 followed by the # button).
Two beeps will be heard.

If you are using the remote codepad, the STAY and AWAY indicators will begin to flash to indicate that you have entered Installer's Programming Mode. You will also notice that the remote codepad will display the data currently programmed in "LOCATION 000".

2. Enter command 9 6 6 followed by the # button.
Two beeps will be heard.

How To Disable Automatic Stepping Of Locations

1. Enter command 9 6 6 followed by the # button.
Two beeps will be heard.

Example

(Auto Step Enabled)
To enter the Primary Telephone Number "02 pause 9672 1055" with auto step enabled (i.e. Decimal point illuminated when using the hand held programmer).

Press 0 followed by the # button.
(This will position you at "LOCATION 000" being the start of the Primary Telephone Number For Receiver 1).

[10] + * + 2 + * + [13] + * + 9 + * + 6 + * + 7 + * + 2 + * + 1 + * + [10] + * + 5 + * + 5 + * + 0 + *

Example

(Auto Step Disabled)
To enter the Primary Telephone Number "02 pause 9672 1055" with auto step disabled (i.e. Decimal point extinguished when using the hand held programmer).

Press 0 followed by the # button.
(This will position you at "LOCATION 000" being the start of the Primary Telephone Number For Receiver 1).

[10] + * + # + 2 + * + # + [13] + * + # + 9 + * + #
+ 6 + * + # + 7 + * + # + 2 + * + # + 1 + * + #
+ [10] + * + # + 5 + * + # + 5 + * + # + 0 + *

Command 999 - Display Panel Type Or Software Version Number

When using this command via the remote codepad, the codepad will display the panel version of the control panel. As there are two different control panel's using the same PCB, it is difficult to know which control panel the PCB has been set up to be.

The codepad will display a 6 indicating the software of the control panel. Refer to the "Table 7: Control Panel Type" below for more information.

Indicator	Control Panel Type
6	Solution 862

Table 7: Control Panel Type

When using this command via the hand held programmer, the hand held programmer will display the software version number of the control panel.

How To Display The Control Panel Type Or Software Version Number

1. Enter Installer's Programming Mode (i.e. 1 2 3 4 followed by the # button).
Two beeps will be heard and the data currently programmed in "LOCATION 000" will be displayed via the hand held programmer or remote codepad.

If you are using the remote codepad, the STAY and AWAY indicators will begin to flash to indicate that you have entered Installer's Programming Mode.

2. Enter command 9 9 9 followed by the # button.
Two beeps will be heard.

If you are using the hand held programmer, the right display will indicate the software version number of the control panel.

If you are using the remote codepad, the codepad will display a zone indicator corresponding to the control panel type. Refer to "Table 7: Control Panel Type" above for more information.

3. Press the # button to exit this command and return to the Installer's Programming Mode.

4. Enter command 9 6 0 followed by the # button to exit Installer's Programming Mode. Two beeps will be heard and the system will now return to the disarmed state.

If you are using the remote codepad, the STAY and AWAY indicators will extinguish to indicate that you have returned to the disarmed state.

Disable Factory Default

LOCATION 900 0

This feature prevents the control panel from being manually defaulted via the default button or to prevent using a programming key to perform an automatic download to the control panel when the system is disarmed.

A zero programmed into this location will allow defaulting of the control panel. If 15 has been programmed into this location, defaulting of the control panel will not be permitted and the Installer Code MUST be used for further programming of the control panel.

If the Installer Code is not known, the control panel will need to be returned to your EDM Distributor for exchange. A nominal fee applies for this service.

Electronics Design and Manufacturing Pty Limited does not recommend the use of this feature.

If the option is required to disable the option of being able to default the control panel, a special procedure has been implemented to eliminate the possibility of accidentally setting this option. The default button on the PCB must be held down while programming this location.

How To Prevent Manual Defaulting Of The Control Panel

1. Enter Installer's Programming Mode (i.e. 1 2 3 4 followed by the # button).
Two beeps will be heard and the data currently programmed in "LOCATION 000" will be displayed via the hand held programmer or remote codepad.

If you are using a remote codepad, the STAY and AWAY indicators will begin to flash to indicate that Installer's Programming Mode has been accessed.

2. From the hand held programmer or remote codepad, go to "LOCATION 900".
(e.g.. 9 0 0 followed by the # button).

3. Hold down and continue to hold down the DEFAULT button.
The default button will be located at the top of the PCB next to the PROGRAMMING KEY connecting socket.

4. Program a 15 into "LOCATION 900".
(e.g.. 1 5 followed by the * button).

5. Release the default button.

6. Enter command 9 6 0 followed by the # button to exit Installer's Programming Mode. Two beeps will be heard and the system will return to the disarmed state.

If you are using a remote codepad, the STAY and AWAY indicators will extinguish to indicate that the system has returned to the disarmed state.

Defaulting The Control Panel

If the *Solution 862* control panel does not have "LOCATION 900" programmed as 15, follow the procedure outlined below to successfully default the control panel back to the factory default settings.

How To Default The Control Panel Via Installer Code

1. Enter Installer Programming Mode.

(e.g.. 1 2 3 4 followed by the # button). Two beeps will be heard. The STAY and AWAY indicators will begin to flash to indicate that you have accessed programming mode.

2. Enter Installer's Programming Command 9 6 5 followed by the # button.
Two beeps will be heard after the control panel has successfully been defaulted.

3. Enter Installer's Programming Command 960 followed by the # button.
Two beeps will be heard. The STAY and AWAY indicators will cease to flash and the system will return to the disarmed state.

The control panel has now been successfully defaulted back to the factory default settings.

How To Default The Control Panel Via Default Button

1. Disconnect the AC mains supply and the backup battery from the control panel.

2. Hold down and continue to hold down the DEFAULT button.
The default button is located at the top of the PCB next to the PROGRAMMING KEY connecting socket.

3. Reconnect the AC mains supply to the control panel.

4. After reconnecting the AC mains supply, wait for 3-5 seconds before releasing the DEFAULT button.

5. Disarm the system using the default Master Code (e.g.. Enter 2 5 8 0 followed by the # button).

The control panel has now been successfully defaulted back to the factory default settings.

If you hear the dialler seize relay (RL2) click four times while attempting to default the control panel, this would indicate that the feature of defaulting the control panel has been disabled in "LOCATION 900" on page 41. The control panel will need to be returned to Electronics Design and Manufacturing Pty Limited for exchange where a service fee will be charged to unlock the control panel's memory if the Installer Code is not known.

Codepad Indicators

This section includes the following;

- *CP5 Eight Zone LED Codepad*
- *CP5 Eight Zone LCD Codepad*

CP5 Eight Zone LED Codepad

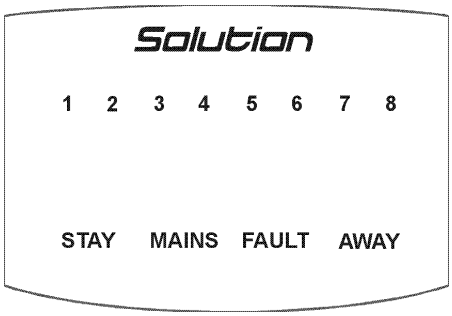


Figure 1: CP5 Eight Zone Codepad (CP508)

The codepad is the communications interface between you and your alarm system. The codepad allows you to issue commands and offers both visual and audible indications that guide you through the general operation.

The codepad incorporates numerous indicators. There are ZONE indicators that are used to show the condition of each zone and four others for general status. The following is a list of situations and the relevant indications that will be seen.

Zone Indicators

The ZONE indicators are used to display the status of the zones. The following table lists the various circumstances that the indicators will display (i.e. Zone Sealed, Zone Unsealed).

Indicator	Definition
On	Zone Is Unsealed
Off	Zone Is Sealed
Flashing Fast (0.25 Sec On – 0.25 Sec Off)	Zone Is In Alarm Condition
Flashing Slow (1 Sec On – 1 Sec Off)	Zone Is Manually Isolated

Table 8: Zone Indicators

AWAY Indicator

The AWAY indicator is used to display that the system is armed in AWAY Mode. The AWAY indicator will also flash in unison with the STAY indicator when Installer's Programming Mode or Master Code Functions are used.

Refer to page 52 for more information on the different methods on arming the system in AWAY Mode.

Indicator	Definition
On	System Is Armed In AWAY Mode
Off	System Is Not Armed In AWAY Mode

Table 9: AWAY Indicator

STAY Indicator

The STAY indicator is used to display that the system is armed in STAY Mode 1 or STAY Mode 2. The STAY indicator will also flash in unison with the AWAY indicator when Installer's Programming Mode or Master Code Functions are used.

Refer to page 54 for the different methods of arming the system in STAY Mode 1. Refer to Zone Options 1 on page 167 for information on setting zones to be automatically isolated in STAY Mode 1. For the method of arming the system in STAY Mode 2, refer to page 57. Refer to Setting STAY Mode 2 Zones on page 85 when using the Installer Code or Setting STAY Mode 2 Zones on page 101 when using the Master Code.

Indicator	Definition
On	System Is Armed In STAY Mode 1 Or STAY Mode 2
Off	System Is Not Armed In STAY Mode
Flashing	Zone Isolating Mode Or Setting STAY Mode 2 Zones

Table 10: STAY Indicator

MAINS Indicator

The MAINS indicator is used to display that the systems AC mains supply is normal or has failed.

When programming numbers (i.e. Installer's Programming Mode or Master Code Functions), the MAINS indicator will illuminate when you program numbers between 10 and 15. The MAINS indicator represents digit 10 plus the value of the illuminated zone indicator (e.g.: If you program a twelve, the MAINS indicator and zone 2 will illuminate).

Indicator	Definition
On	AC Mains Power Normal
Flashing	AC Mains Failure

Table 11: MAINS Indicator

FAULT Indicator

The FAULT indicator is used to display that the system has detected a system fault. Refer to Fault Analysis Mode on page 63 for more information on system faults.

Every time a new system fault has been detected (e.g.: FAULT indicator flashing), the codepad will begin to beep once every minute.

Pressing the AWAY button once will cancel the once a minute beep and acknowledge the fault (e.g.: FAULT indicator on).

Indicator	Definition
On	There Is A System Fault That Needs To Be Rectified
Off	The System Is Normal, There Are No Faults
Flashing	There Is A System Fault Waiting To Be Acknowledged

Table 12: FAULT Indicator

Audible Indicators

In general, the audible indications given out by the codepad are as follows:

Indicator	Definition
One Short Beep	A Button Has Been Pressed On The Codepad Or End Of Exit Time When Armed In Either STAY Mode 1 Or STAY Mode 2
Two Short Beeps	The System Has Accepted Your Code
Three Short Beeps	The Requested Function Has Been Executed
One Long Beep	Indicates The End Of Exit Time In AWAY Mode Or The Requested Operation Has Been Denied Or Aborted
One Short Beep Every Second	Walk Test Mode Is Currently Active Or Warning Before Automatic Arming Takes Place
One Short Beep Every Two Seconds	Telephone Monitor Mode Is Active
One Short Beep Every Minute	There Is A System Fault Waiting To Be Acknowledged

Table 13: Audible Indications

CP5 Eight Zone LCD Codepad

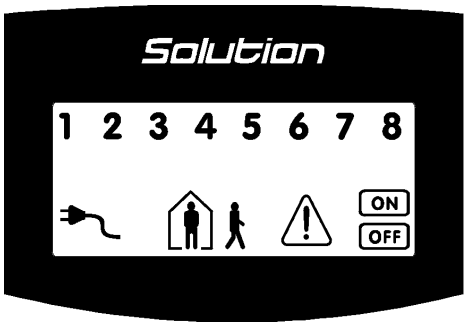


Figure 2: CP5 Eight Zone LCD Codepad (CP508L)

The codepad is the communications interface between you and your alarm system. The codepad allows you to issue commands and offers both visual and audible indications that guide you through the general operation.

The codepad incorporates numerous indicators. There are ZONE indicators that are used to show the condition of each zone and seven others for general status. The following is a list of situations and the relevant indications that will be seen.

Zone Indicators

1 2 3 ....

The ZONE indicators are used to display the status of the zones. The following table lists the various circumstances that the indicators will display (i.e. Zone Sealed, Zone Unsealed).

Indicator	Definition
On	Zone Is Unsealed
Off	Zone Is Sealed
Flashing Fast (0.25 Sec On – 0.25 Sec Off)	Zone Is In Alarm Condition
Flashing Slow (1 Sec On – 1 Sec Off)	Zone Is Manually Isolated

Table 14: Zone Indicators

AWAY Indicator

The AWAY indicator is used to display that the system is armed in AWAY Mode. The **ON** indicator will also illuminate when the system is armed in AWAY Mode. The AWAY indicator will also flash in unison with the STAY indicator when Installer's Programming Mode or Master Code Functions are used.

Refer to page 52 for more information on the different methods on arming the system in AWAY Mode.

Indicator	Definition
On	System Is Armed In AWAY Mode
Off	System Is Not Armed In AWAY Mode

Table 15: AWAY Indicator

STAY Indicator

The STAY indicator is used to display that the system is armed in STAY Mode 1 or STAY Mode 2. The STAY indicator will also flash in unison with the AWAY indicator when Installer's Programming Mode or Master Code Functions are used.

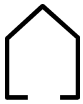
The ON indicator will also illuminate when the system is armed in STAY Mode 1 or STAY Mode 2.

Refer to page 54 for the different methods of arming the system in STAY Mode 1. Refer to Zone Options 1 on page 167 for information on setting zones to be automatically isolated in STAY Mode 1. For the method of arming the system in STAY Mode 2, refer to page 57. Refer to Setting STAY Mode 2 Zones on page 85 when using the Installer Code or Setting STAY Mode 2 Zones on page 101 when using the Master Cod to program zones to be automatically isolated in STAY Mode 2.

Indicator	Definition
On	System Is Armed In STAY Mode 1 Or STAY Mode 2
Off	System Is Not Armed In STAY Mode
Flashing	Zone Isolating Mode Or Setting STAY Mode 2 Zones

Table 16: STAY Indicator

System Disarmed



This indicator will illuminate with the OFF indicator when the system has been disarmed.

MAINS Indicator

The MAINS indicator is used to display that the systems AC mains supply is normal or has failed.

When programming numbers (i.e. Installer's Programming Mode or Master Code Functions), the MAINS indicator will illuminate when you program numbers between 10 and 15. The MAINS indicator represents digit 10 plus the value of the illuminated zone indicator (e.g.: If you program a twelve, the MAINS indicator and zone 2 will illuminate).

Indicator	Definition
On	AC Mains Power Normal
Flashing	AC Mains Failure

Table 17: MAINS Indicator

Zone Isolating Mode

Flashing

This indicator will flash once every 3 seconds when you attempt to isolate zones or program zones to be automatically isolated for STAY Mode 2. The person will flash once every 3 seconds.

Refer to Isolating Zones on page 60 for information on how to manually isolate zones. Refer to Setting STAY Mode 2 Zones on page 85 when using the Installer Code or Setting STAY Mode 2 Zones on page 101 when using the Master Cod to program zones to be automatically isolated in STAY Mode 2.

FAULT Indicator

The FAULT indicator is used to display that the system has detected a system fault. Refer to Fault Analysis Mode on page 63 for more information on system faults.

Every time a new system fault has been detected (e.g.: FAULT indicator flashing), the codepad will begin to beep once every minute.

Pressing the AWAY button once will cancel the once a minute beep and acknowledge the fault (e.g.: FAULT indicator on).

Indicator	Definition
On	There Is A System Fault That Needs To Be Rectified
Off	The System Is Normal, There Are No Faults
Flashing	There Is A System Fault Waiting To Be Acknowledged

Table 18: FAULT Indicator

Programming Mode


Flashing

These two indicators will flash when the system has entered either Installer's Programming Mode or when any Master Code Functions are used.

Off Indicator/Zone Sealed

OFF

The OFF indicator will illuminate when the system is in the disarmed state or Installer's Programming Mode has been entered and will flash when a zone becomes unsealed during the disarmed state. The indicator will stop flashing when all zones are sealed.

On Indicator/Zone In Alarm

ON

The ON indicator will illuminate when the system is armed in AWAY Mode and will flash when an alarm occurs. The indicator will reset once a valid user code has been entered.

Audible Indicators

In general, the audible indications given out by the codepad are as follows:

Indicator	Definition
One Short Beep	A Button Has Been Pressed On The Codepad Or End Of Exit Time When Armed In Either STAY Mode 1 Or STAY Mode 2
Two Short Beeps	The System Has Accepted Your Code
Three Short Beeps	The Requested Function Has Been Executed
One Long Beep	Indicates The End Of Exit Time In AWAY Mode Or The Requested Operation Has Been Denied Or Aborted
One Short Beep Every Second	Walk Test Mode Is Currently Active Or Warning Before Automatic Arming Takes Place
One Short Beep Every Two Seconds	Telephone Monitor Mode Is Active
One Short Beep Every Minute	There Is A System Fault Waiting To Be Acknowledged

Table 19: Audible Indications

System Operations

This section includes the following;

- *Arming The System In AWAY Mode*
- *Disarming The System From AWAY Mode*
- *Arming The System In STAY Mode 1*
- *Disarming The System From STAY Mode 1*
- *Arming The System In STAY Mode 2*
- *Disarming The System From STAY Mode 2*
- *Codepad Duress Alarm*
- *Codepad Panic Alarm*
- *Codepad Fire Alarm*
- *Codepad Medical Alarm*
- *Isolating Zones*
- *Fault Analysis Mode*

System Operations

This section explains the general operations of the system. The operations will explain how to arm and disarm the system in the various modes, how to isolate zones, initiate codepad alarms and determine any fault that may occur.

Arming The System In AWAY Mode

Arming the system in AWAY Mode is normally performed when you leave the premises and require that all zones be activated in a ready state to detect any intrusion.

There are two different methods for arming the system in AWAY Mode. Method one is standard and will always operate. Method two is optional and needs Option 2 in "LOCATION 429" to be enabled on page 220.

If you require to isolate a zone(s) prior to arming the system in AWAY Mode, refer to Isolating Zones on page 60.

Single button arming in AWAY Mode will report as user code number 16.

Method One

How To Arm The System In AWAY Mode

1. Enter your CODE followed by the AWAY button.
Two beeps will be heard and the AWAY indicator will illuminate. Exit time will now commence.

CODE + AWAY

Method Two

How To Arm The System In AWAY Mode

1. Hold down the AWAY button until two beeps are heard.
The AWAY indicator will illuminate and exit time will now commence. Refer to Option 2 in "LOCATION 429" on page 220 to enable single button arming in AWAY Mode.

If a zone is not sealed at the end of exit time, the zone will be automatically isolated and will be constantly illuminated on the remote codepad. The zone will become an active part of the system again as soon as it has resealed (i.e. If a window is left open after exit time has expired, the window will not be an active part of the system until it has closed. Opening the window after exit time has expired will cause an alarm condition).

AWAY

Forced Arming

The feature of arming the system when a zone is not sealed is known as forced arming. Refer to Zone Options 2 on page 171 to enable forced arming for each zone.

If the AWAY indicator does not illuminate and a long beep is heard when attempting to arm the system in AWAY Mode, forced arming is not permitted. If this is the case, you must ensure that all zones are sealed or manually isolated before you can arm the system.

Disarming The System From AWAY Mode

When you enter the premises after the system has been armed in AWAY Mode, you will need to disarm the system from AWAY Mode to disable detection devices that will activate the sirens, strobe and bell outputs.

If there has been an alarm condition prior to disarming the system from AWAY Mode, a flashing ZONE indicator will be displayed, indicating a previous alarm on that zone.

How To Disarm The System From AWAY Mode

1. Enter your CODE followed by the AWAY button.
Two beeps will be heard and the AWAY indicator will extinguish.

CODE + AWAY

Arming The System In STAY Mode 1

Arming the system in STAY Mode 1 is only used when the perimeter and unused areas of the premises need to be armed to detect any would be intruder from entering the premises, at the same time allowing you to move freely within an area which has been automatically isolated.

Programming zones to be automatically isolated in STAY Mode 1 can only be programmed by the installer. Refer to Zone Options 2 on page 171 for further information on setting zones to be automatically isolated in STAY Mode 1.

There are two methods for arming your system in STAY Mode 1. Method one is standard and will always operate. Method two is optional and needs Option 2 in "LOCATION 429" to be enabled on page 220.

Entry Guard Timer For STAY Mode

When arming the system in STAY Mode 1, an optional entry timer called Entry Guard Timer For STAY Mode may be used to delay the sirens, strobe and bell outputs if a zone that has not been automatically isolated has triggered into alarm condition. Entry Guard Timer For STAY Mode is the delay time used for all zones except 24 hour zones when the system is armed in STAY Mode 1 or STAY Mode 2.

If the Entry Guard Timer For STAY Mode has been programmed and a zone that has not been automatically isolated has triggered, the codepad will beep twice a second until the Entry Guard Timer For STAY Mode has expired or the system has been disarmed. If the alarm condition has not been reset before Entry Guard Timer For STAY Mode expires, the strobe, bell and siren outputs will activate into alarm.

Single button arming in STAY Mode 1 will report as user code number 16.

Method One

How To Arm The System In STAY Mode 1

1. Enter your CODE followed by the STAY button.
Two beeps will be heard and the STAY indicator will illuminate. Exit time will now commence.

Any zones that have been programmed to be automatically isolated in STAY Mode 1 will begin to flash until exit time expires. At the end of exit time, the ZONE indicators will extinguish and the codepad will give one short beep.

CODE + STAY

Method Two

How To Arm The System In STAY Mode 1

1. Hold down the STAY button until two beeps are heard.
The STAY indicator will illuminate and exit time will now commence.

Any zones that have been programmed to be automatically isolated in STAY Mode 1 will begin to flash until exit time expires. At the end of exit time, the ZONE indicators will extinguish and the codepad will give one short beep.

If a zone is not sealed at the end of exit time, the zone will be automatically isolated and will be constantly illuminated on the remote codepad. The zone will become an active part of the system again as soon as it has resealed (i.e. If a window is left open after exit time has expired, the window will not be an active part of the system until it has closed. Opening the window after exit time has expired will cause an alarm condition).

Forced Arming

The feature of arming the system when a zone is not sealed is known as forced arming. Refer to Zone Options 2 on page 171 to enable forced arming for each zone.

If the STAY indicator does not illuminate and a long beep is heard when attempting to arm the system in STAY Mode 1, forced arming is not permitted. If this is the case, you must ensure that all zones are sealed or manually isolated before you can arm the system.

Disarming The System From STAY Mode 1

There are two methods for disarming the system from STAY Mode 1. Method one is standard and will always operate. Method two is optional and needs Option 4 to be enabled in "LOCATION 429" on page 220.

Method two will not operate unless both Option 2 and Option 4 has been enabled in "LOCATION 429" on page 220.

Method One

How To Disarm The System From STAY Mode 1

1. Enter your CODE followed by the STAY button.
Two beeps will be heard and the STAY indicator will extinguish. The system is now disarmed.

CODE + STAY

Method Two

A flashing ZONE indicator represents a previous alarm on that zone. If this is the case, a valid user code will need to be used to disarm the system using method one. To enable method two, Option 4 in "LOCATION 429" on page 220 will need to be enabled.

How To Disarm The System From STAY Mode 1

1. Hold down the STAY button until two beeps are heard.
The STAY indicator will extinguish and the system is now disarmed.

STAY

Single button disarming from STAY Mode 1 will report as user code number 16.

Arming The System In STAY Mode 2

Arming the system in STAY Mode 2 is only used when the perimeter and unused areas of the premises need to be armed to detect any would be intruder from entering the premises, at the same time allowing you to move freely within an area which has been automatically isolated.

Programming zones to be automatically isolated in STAY Mode 2 can be programmed either by the Installer Code Function – Setting STAY Mode 2 Zones on page 85 or Master Code Functions - Setting STAY Mode 2 Zones on page 101.

Entry Guard Timer For STAY Mode

When arming the system in STAY Mode 2, an optional entry timer called Entry Guard Timer For STAY Mode may be used to delay the sirens, strobe and bell outputs if a zone that has not been automatically isolated has triggered into alarm condition. Entry Guard Timer For STAY Mode is the delay time used for all zones except 24 hour zones when the system is armed in STAY Mode 1 or STAY Mode 2.

If the Entry Guard Timer For STAY Mode has been programmed and a zone that has not been automatically isolated has triggered, the codepad will beep twice a second until the Entry Guard Timer For STAY Mode has expired or the system has been disarmed. If the alarm condition has not been reset before Entry Guard Timer For STAY Mode expires, the strobe, bell and siren outputs will activate into alarm.

Single button arming in STAY Mode 2 will report as user code number 16.

How To Arm The System In STAY Mode 2

1. Hold down the 0 button until two beeps are heard.
The STAY indicator will illuminate and exit time will now commence.

Any zones that have been programmed to be automatically isolated in STAY Mode 2 will begin to flash until exit time expires. At the end of exit time, the ZONE indicators will extinguish and the codepad will give one short beep.

0

If a zone is not sealed at the end of exit time, the zone will be automatically isolated and will be constantly illuminated on the remote codepad. The zone will become an active part of the system again as soon as it has resealed (i.e. If a window is left open after exit time has expired, the window will not be an active part of the system until it has closed. Opening the window after exit time has expired will cause an alarm condition).

Forced Arming

The feature of arming the system when a zone is not sealed is known as forced arming. Refer to Zone Options 2 on page 171 to enable forced arming for each zone.

If the STAY indicator does not illuminate and a long beep is heard when attempting to arm the system, forced arming is not permitted. If this is the case, you must ensure that all zones are sealed or manually isolated before you can arm the system.

Disarming The System From STAY Mode 2

There are two methods for disarming the system from STAY Mode 2. Method one is standard and will always operate. Method two is optional and needs Option 4 to be enabled in "LOCATION 429" on page 220.

Method two will not operate unless both Option 2 and Option 4 has been enabled in "LOCATION 429" on page 220.

Method One

How To Disarm The System From STAY Mode 2

1. Enter your CODE followed by the STAY button.
Two beeps will be heard and the STAY indicator will extinguish. The system is now disarmed.

CODE + STAY

Method Two

A flashing ZONE indicator represents a previous alarm on that zone. If this is the case a valid user code will need to be used to disarm the system using method one. To enable method two, Option 4 in "LOCATION 429" on page 220 will need to be programmed.

How To Disarm The System From STAY Mode 2

1. Hold down the 0 button until two beeps are heard.
The STAY indicator will extinguish and the system is now disarmed.

0

Single button disarming from STAY Mode 2 will report as user code number 16.

Codepad Duress Alarm

A codepad duress alarm is used as a silent hold up alarm. This will only occur when the number 9 is added to the end of any valid user code that is being used to disarm the system. However, if a user code has a priority level of arming only, entering their user code followed by 9 will still transmit a duress alarm when the system is armed.

A duress alarm (Contact ID Event Code 121) is only useful if your system is reporting back to a monitoring station or pocket pager as domestic reporting format can't decipher which type of alarm had occurred. If you wish to disable the codepad duress alarm report, refer to "LOCATION 336" on page 180 for more information. If you require to activate a duress alarm by adding a number 3 to the end of any valid user code being used to disarm the system, enable Option 2 in "LOCATION 430" on page 221.

CODE + 9 + AWAY

Codepad Panic Alarm

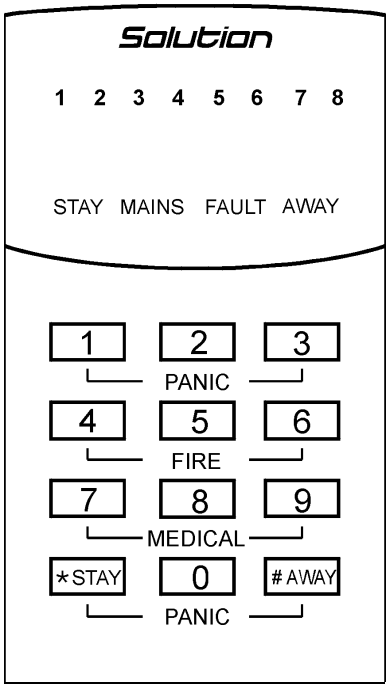


Figure 3: CP5 LED Codepad Showing Audible Alarm Buttons

An audible codepad panic alarm will be activated when both the 1 and 3 buttons or both the STAY and AWAY buttons are pressed simultaneously.

Refer to Option 1 in "LOCATION 425" on page 216 if you wish to program codepad panic to be silent. If you wish to disable the codepad panic alarm report, refer to "LOCATION 337 - 338" on page 180 for more information. A codepad panic alarm will transmit a Contact ID Event Code 120 when reporting back to a base station receiver.

1 + 3 or STAY + AWAY

Codepad Fire Alarm

An audible codepad fire alarm will be activated when both the 4 and 6 buttons on the remote codepad are pressed simultaneously. A distinct fire sound is emitted through the horn speaker to indicate this type of alarm condition. The fire sound is different to the burglary sound.

Refer to Option 2 in "LOCATION 425" on page 216 if you wish to program codepad fire to be silent. If you wish to disable the codepad fire alarm report, refer to "LOCATION 339 - 340" on page 181 for more information. A codepad fire alarm will transmit a Contact ID Event Code 110 to a base station receiver.

4 + 6

Codepad Medical Alarm

An audible codepad medical alarm will be triggered when both the 7 and 9 buttons on the remote codepad are pressed simultaneously.

Refer to Option 4 in "LOCATION 425" on page 216 if you wish to program codepad medical to be silent. If you wish to disable the reporting of the codepad medical alarm report, refer to "LOCATION 341 - 342" on page 181 for more information. A codepad medical alarm will transmit a Contact ID Event Code 100 to a base station receiver.

7 + 9

Isolating Zones

Isolating zones allow you to manually disable one or more zones before arming the system in AWAY Mode, STAY Mode 1 or STAY Mode 2. Once a zone has been isolated, access is allowed into that zone during the armed state without activating the sirens or dialler.

An example when you may require to isolate a zone before arming in AWAY Mode, STAY Mode 1 or STAY Mode 2 may be when a zone PIR detector may be false alarming or that you may need to leave a pet inside a particular zone whilst you are away.

Isolating zones is performed by one of two methods. One way requires the use of a valid user code while the other way does not. The ability to isolate zones is governed by the priority level allocated to each user code holder. Some user code holders may not be able to isolate zones. Refer to User Code Priority on page 153 for further information.

Zones that have been manually isolated using this method will transmit a zone bypass report (Contact ID Event Code 570) for each zone upon arming the system. A zone bypass restore report will be transmitted when the system has been disarmed.

Standard Isolating

Standard isolating allows all operators to be able to isolate zones. Therefore, no code is required to be used when isolating zones.

1. Press the [STAY] button twice.
Three beeps will be heard.

2. * Enter the [ZONE NUMBER] required to be isolated followed by the [STAY] button.
The zone you just selected to be isolated will now begin to flash.

24 hour zones will automatically isolate as soon as the [STAY] button has been pressed. All other burglary zones will automatically isolate only after the system has been armed.

Repeat Step 2 if more than one zone is required to be isolated until all zones that are required to be isolated have been selected.

3. Press the [AWAY] button when finished selecting the zones to be isolated.
Two beeps will be heard and the system will return to the disarmed state.

The zones selected to be isolated when you arm the system in AWAY Mode, STAY Mode 1 or STAY Mode 2 will continue to flash until the system has next been disarmed.

[STAY] + [STAY] + [ZONE NUMBER] + [STAY] + [AWAY]

*** As each zone is selected to be isolated, the corresponding ZONE indicator will begin to flash. If a mistake is made, press the zone number that was incorrectly entered followed by the [STAY] button. This zone is now no longer selected to be isolated and the ZONE indicator will extinguish.**

Example

If you wish to manually isolate zones 1, 3 and 4, the following sequence would be entered below;

[STAY] + [STAY] + 1 + [STAY] + 3 + [STAY]
+ 4 + [STAY] + [AWAY]

Code To Isolate

The method of code to isolate restricts only those user codes that have the priority level Code To Isolate set to be able to isolate zones. Therefore, if any user code has this priority level set, the method of standard isolating will be disabled.

1. Press the [STAY] button.

2. Enter your [CODE].

3. Press the [STAY] button.
Three beeps will be heard and the STAY indicator will begin to flash. If you attempt to enter isolating mode with a user code that has not been allocated for code to isolate, the system will ignore the attempt to enter the mode.

4. * Enter the [ZONE NUMBER] required to be isolated followed by the [STAY] button. The zone you have just selected to be isolated will now begin to flash.

24 hour zones will automatically isolate as soon as the [STAY] button has been pressed. All other burglary zones will automatically isolate only after the system has been armed.

Repeat Step 4 if more than one zone is required to be isolated until all zones that are required to be isolated have been selected.

5. Press the [AWAY] button when finished selecting the zones to be isolated.
Two beeps will be heard and the system will return to the disarmed state.

The zones selected to be isolated when you arm the system in AWAY Mode, STAY Mode 1 or STAY Mode 2 will continue to flash until the system has next been disarmed.

[STAY] + [CODE] + [STAY]
+ [ZONE NUMBER] + [STAY] + [AWAY]

*** As each zone is selected to be isolated, the corresponding ZONE indicator will begin to flash. If a mistake is made, press the zone number that was incorrectly entered followed by the [STAY] button. This zone is now no longer selected to be isolated and the ZONE indicator will extinguish.**

Example

If you wish to manually isolate zones 1, 3 and 4, the following sequence would be entered below;

[STAY] + [CODE] + [STAY]
+ 1 + [STAY] + 3 + [STAY] + 4 + [STAY] + [AWAY]

Fault Analysis Mode

Whenever a system fault occurs, the FAULT or MAINS indicator will flash and the codepad will beep once every minute.

If the MAINS indicator is flashing, this is because the AC mains supply has been disconnected from the control panel. If the AC mains supply has been disconnected continuously for more than 2 minutes, the control panel will send an "AC Loss" signal (Contact ID Event Code 301) to the base station receiver and the codepad will commence beeping once every minute until the AC mains supply has been reconnected or acknowledged by pressing the AWAY button.

When the AC mains supply has been restored, the MAINS indicator will automatically stop flashing and return to its normal state. Once the AC mains supply has been connected continuously for two minutes, the control panel will send an "AC Loss" restore report and the codepad will automatically stop it's once a minute beep.

How To Determine The Type Of System Fault

To determine all system faults other than the AC mains supply, enter fault analysis mode by following the procedures below.

1. Hold down the 5 button until two beeps are heard.
The FAULT indicator will remain steady and the STAY and AWAY indicators will flash in unison with each other.

The illuminated ZONE indicators will indicate the type of system fault that has occurred. Refer to "Table 20: Fault Indicators" below for the list of different system faults that may occur.

2. To exit fault analysis mode, press the AWAY button. The STAY and AWAY indicators will extinguish and the FAULT indicator will remain illuminated.

Zone Indicator	Fault Description
1	Low Battery
2	Date and Time
3	Sensor Watch
4	Horn Speaker Disconnected
5	Telephone Line Fault
6	E^2 Fault
7	Fuse Fail
8	Communications Failure

Table 20: Fault Indicators

How To Acknowledge The System Fault

1. To acknowledge the system fault, press the AWAY button. The FAULT indicator will remain illuminated and the codepad will cease its once a minute beep.

Fault Descriptions

Low Battery

1 A low battery fault will register when the battery supply voltage falls below 10.5 volts or when a dynamic battery test detects a low capacity battery. This fault will clear after a successful dynamic battery test. A dynamic battery test is performed every four hours once power has been connected to the control panel and also every time the system is armed in AWAY Mode, STAY Mode 1 or STAY Mode 2.

When reporting to the base station receiver, the control panel will report a "Battery Test Failure" report (Contact ID Event Code 309) to indicate the low battery fault condition.

Date and Time

2 The date and time fault will register every time the control panel has been powered down. This type of fault will not cause the FAULT indicator on the codepad to flash unless the Auto Arming Time on page 208 has been programmed, otherwise, the date and time fault will only be indicated when entering fault analysis mode. This fault will clear once the date and time has been programmed. Refer to Setting The Date and Time on page 104 for further information on setting the date and time.

Sensor Watch

3 A sensor watch fault will register because one of the detection devices has stopped working or has failed to detect movement for the time period programmed whilst the system is disarmed. The sensor watch fault will clear after the registered zone has been unsealed and resealed again.

To find out which zone has registered the sensor watch fault, hold down the 5 button whilst in fault analysis mode to display the zone that has registered the sensor watch fault. Refer to Sensor Watch Time on page 206 for setting sensor watch time and Zone Options 1 on page 167 for setting zones to be monitored for sensor watch.

When reporting to the base station receiver, a "Self Test Fail" report (Contact ID Event Code 307) will be used to indicate the sensor watch fault.

Horn Speaker Monitor

4 A horn speaker monitor fault will register when the horn speaker becomes disconnected from the control panel. This fault will clear when the horn speaker has been reconnected. Refer to "LOCATION 424" on page 215 to enable monitoring of the horn speaker.

Telephone Line Fault

5 A telephone line fault will register when the telephone line has been disconnected from the control panel for more than 40 seconds. This fault can only occur if Option 1 in "LOCATION 176" on page 141 has been selected. The fault will clear once the telephone line has been reconnected for more than 40 seconds.

E^2 Fault

6 An E^2 fault will register when the control panel detects an internal checksum error. The control panel will need to be powered down and defaulted to clear this fault.

Fuse Fail

7 This fault will occur when either the 1 Amp – 12 V accessories fuse or the 1 Amp codepad fuse has failed. After 10 seconds has expired since the fuse had failed, the control panel will automatically send a System Trouble code (Contact ID Event Code 300) to the base station receiver. After the fuse has been replaced for a period of 10 seconds, a restore report will be sent to the base station receiver.

If both the 1 Amp – 12 V accessories fuse and the 1 Amp codepad fuse have failed, only one system trouble report will be sent to the base station receiver. Only after both fuses have been replaced will any system trouble restore report will be sent to the base station receiver.

Communication Failure

8 A communication failure fault will register if the primary telephone number and secondary telephone number for either Receiver 1 or Receiver 2 is unsuccessful in calling the receiving party.

When a communications fault occurs, to determine which receiver failed to report, hold down the 8 button for two seconds until two beeps are heard. If Receiver 1 failed to report, zone 1 will illuminate. If Receiver 2 failed to report, zone 2 will illuminate.

If the primary telephone number and secondary telephone number for Receiver 1 or Receiver 2 is set up for back to base reporting, Receiver 1 or Receiver 2 has a maximum of twelve call attempts per event to call the base station receiver (If both Receiver 1 and Receiver 2 have the primary telephone number and secondary telephone number programmed, the maximum number of calls will total 24 providing that the event is allocated to report on both receivers).

The control panel will attempt to call the base station receiver up to six times using both the primary telephone number and the secondary telephone number (Only three times if the primary telephone number is programmed). If at this stage the control panel has failed to communicate to the base station receiver, a communications fault will occur and the control panel will wait 10 minutes before attempting to report to the base station receiver for a further 6 attempts. The communication fault will reset on the next successful call attempt.

If Receiver 1 or Receiver 2 is set up for domestic reporting, the control panel will not display a fault if failed to report after the maximum of six call attempts.

If Option 1 in "LOCATION 177" on page 145 is enabled and there are no telephone numbers programmed, no fault condition will occur.

AC Mains Failure

An AC mains supply failure will automatically flash the MAINS indicator. If the AC mains supply has been disconnected continuously for more than two minutes, the remote codepad will beep the codepad buzzer once every minute. If the control panel has been programmed to report an AC mains fail to a base station receiver,"AC Fail" report (Contact ID Event Code 301) will be transmitted.

The MAINS indicator will cease to flash as soon as the AC mains supply has been reconnected. When the AC mains supply has been continuously connected for a period of two minutes, the codepad will cease the once a minute beep and"AC Fail" restore report will be transmitted to the base station receiver.

If Option 1 – Enable AC Fail In 1 Hour in "LOCATION 426" on page 217 has been enabled, the codepad will flash the MAINS indicator as soon as the AC mains supply has been disconnected and will not activate the dialler or the codepad buzzer unless the AC mains supply has been disconnected continuously for a period of 1 hour.

If Option 2 – Ignore AC Mains Fail in "LOCATION 426" on page 217 has been enabled, the codepad will not indicate when the AC mains supply has failed, but the control panel will still report if enabled an "AC Fail" report.

Remote Radio Transmitter Operations

This section includes the following;

- *Remote Radio Transmitter Operations*
- *Changing Or Deleting Remote Radio User Codes*
- *2 Channel Radio Remote Hand Held Transmitter Operations*
- *4 Channel Radio Remote Hand Held Transmitter Operations*

Remote Radio Transmitter Operations

The Solution 862 control panel has the ability to be remotely operated using hand held radio remote transmitters. There is a choice of using either a 2 channel hand held transmitter or a 4 channel hand held transmitter to operate the system.

Both the 2 channel and 4 channel hand held transmitters can remotely arm and disarm the system in AWAY Mode or STAY Mode 1 and activate remote panic alarms. However, the 4-channel hand held transmitter has the added ability to operate the control panels programmable outputs allowing you to activate a garage door or outside lights etc.

Before any hand held radio transmitter can operate the control panel, you will need to teach the control panel the transmitters radio code. Refer to Changing Or Deleting Remote Radio User Codes on page 69 for more information.

Indications Upon Remote Radio Transmitter Operations

When using either the 2 channel or 4 channel hand held transmitters to operate the system, audible and/or visual indications can be provided via the horn speakers or the strobe. This will allow you to operate the system from outside the premises with confidence. Only the installer can program the feature of audible and/or visual indication beeps. Refer to Option 4 – Allow Strobe Indications For Radio Arm/Disarm and Option 8 – Allow Horn Speaker Beeps For Radio Arm/Disarm in "LOCATION 424" on page 215 for more information.

No Of Beeps	System Status
1	System Disarmed
2	System Armed In AWAY Mode
1 Two Tone Beep	System Armed In STAY Mode 1

Table 21: Horn Speaker Indication Beeps For Remote Operations

Strobe Duration	System Status
3 Seconds	System Disarmed
6 Seconds	System Armed In AWAY Mode
6 Seconds	System Armed In STAY Mode 1

Table 22: Strobe Indications For Remote Operations

Remote Radio User Code Priority Levels

The radio remote hand held transmitters may only be programmed to operate as user codes 9 – 16. Priority levels can be allocated to each radio remote hand held transmitter, allowing the transmitter to only arm the system, arm and disarm the system etc. Refer to User Code Priority on page 153 for more information.

Before any hand held radio transmitter can operate the control panel, you will need to teach the control panel the transmitters radio code. Refer to Changing Or Deleting Remote Radio User Codes on page 69 for more information.

Changing Or Deleting Remote Radio User Codes

Up to eight remote radio hand held transmitters (User Codes 9 – 16) may be used to operate the system. Before the control panel will accept any of the signals from any radio remote hand held transmitter, the control panel must learn the code of the transmitter.

You may substituting the Master Code with the Installer Code if required to perform the function of changing or deleting remote radio user codes.

How To Add Or Change A Remote Radio User Code

1. Enter your [MASTER CODE] followed by 1 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Enter the [USER NUMBER] (9-16) that you wish to add or change followed by the [AWAY] button.

Two beeps will be heard and the corresponding codepad indicators will illuminate. Refer to "Table 23: Codepad Indicators Showing Relative Remote User Numbers" on page 70.

3. Now press any of the [TRANSMIT] buttons on the hand held transmitter to allow the control panel to learn the hand held transmitters ID code. Two beeps will be heard and the STAY and AWAY indicators will extinguish.

If you wish to add or change any further remote radio user codes, repeat this procedure as many times as required.

[MASTER CODE] + 1 + [AWAY]
+ [USER NUMBER] + [AWAY] + [TRANSMIT]

When adding or changing remote radio user codes, this function will automatically terminate if a button is not pressed within sixty seconds or by pressing the [AWAY] button. One long beep indicates the code entered already exists or an incorrect user number has been selected.

How To Delete A Remote Radio User Code

1. Enter your [MASTER CODE] followed by 1 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Enter the [USER NUMBER] (9-16) that you wish to delete followed by the [AWAY] button.
Two beeps will be heard and the corresponding ZONE indicator will illuminate. Refer to "Table 23: Codepad Indicators Showing Relative Remote User Numbers" on page 70.

3. Press the [STAY] button to delete the user code.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

If you wish to delete any further remote radio user codes, repeat this procedure as many times as required.

[MASTER CODE] + 1 + [AWAY]
+ [USER NUMBER] + [AWAY] + [STAY]

When deleting remote radio user codes, this function will automatically terminate if a button is not pressed within sixty seconds or by pressing the [AWAY] button. One long beep indicates the an incorrect user number has been selected.

User No	Zone 1 Indicator	Zone 2 Indicator	Zone 3 Indicator	Zone 4 Indicator	Zone 5 Indicator	Zone 6 Indicator	Zone 7 Indicator	Zone 8 Indicator	MAINS Indicator
9	✓							✓	
10									✓
11	✓								✓
12		✓							✓
13			✓						✓
14				✓					✓
15					✓				✓
16						✓			✓

Table 23: Codepad Indicators Showing Relative Remote User Numbers

2 Channel Radio Remote Hand Held Transmitter Operations

Figure 4: 2 Button Hand Held Transmitter (RE012)

All operations via the 2 button radio remote hand held transmitter are fixed once the control panel has been taught the hand held transmitters code. Therefore, there is no programming required for each button of the transmitter.

Arming In AWAY Mode

1. Press the BLACK button on the hand held transmitter for two seconds.
Two beeps will be heard on the remote codepad and the AWAY indicator will illuminate. Exit time will now commence.

If horn speaker indication beeps have been enabled, two beeps will be heard from the horn speaker. If the strobe indications have been enabled, the strobe will flash for 6 seconds to indicate that the system has been armed.

Disarming From AWAY Mode

1. Press either the BLACK or GREEN button on the hand held transmitter for two seconds.

Two beeps will be heard on the remote codepad and the AWAY indicator will extinguish.

If the horn speaker indication beeps have been enabled, one beep will be heard from the horn speaker. If the strobe indications have been enabled, the strobe will flash for 3 seconds to indicate that the system has been disarmed.

Arming In STAY Mode 1

1. Press GREEN button on the hand held transmitter for two seconds.
Two beeps will be heard on the remote codepad and the STAY indicator will now illuminate. Exit time will now commence.

If the horn speaker indication beeps have been enabled, one two-tone beep will be heard from the horn speaker. If the strobe indications have been enabled, the strobe will flash for 6 seconds to indicate that the system has been armed.

Disarming From STAY Mode 1

1. Press either the BLACK or GREEN button on the hand held transmitter for two seconds.

Two beeps will be heard on the remote codepad and the STAY indicator will extinguish.

If the horn speaker indication beeps have been enabled, one beep will be heard from the horn speaker. If the strobe indications have been enabled, the strobe will flash for 3 seconds to indicate that the system has been disarmed.

Panic Alarm

1. Press both the BLACK button and the GREEN button together for two seconds on the hand held transmitter. This will initiate an audible panic alarm that will activate the horn speaker, strobe and internal sirens.

If Option 1 – Enable Codepad Panic To Be Silent has been programmed in "LOCATION 425" on page 216, the remote radio panic alarm will also be silent.

4 Channel Radio Remote Hand Held Transmitter Operations

Figure 5: 4 Button Hand Held Transmitter (RE013)

All operations via the 4 channel radio remote hand held transmitter are fixed once the control panel has been taught the hand held transmitters code. Therefore, there is no programming required for each button of the transmitter. The DOOR and AUX buttons on the 4-channel radio remote hand held transmitter may be used to operate programmable outputs (e.g.: garage door or outside lights etc) on the control panel.

Arming In AWAY Mode

1. Press the AWAY button on the hand held transmitter for two seconds.
Two beeps will be heard on the remote codepad and the AWAY indicator will illuminate. Exit time will now commence.

If horn speaker indication beeps have been enabled, two beeps will be heard from the horn speaker. If the strobe indications have been enabled, the strobe will flash for 6 seconds to indicate that the system has been armed.

Disarming From AWAY Mode

1. Press either the AWAY or STAY button on the hand held transmitter for two seconds.

Two beeps will be heard on the remote codepad and the AWAY indicator will extinguish.

If the horn speaker indication beeps have been enabled, one beep will be heard from the horn speaker. If the strobe indications have been enabled, the strobe will flash for 3 seconds to indicate that the system has been disarmed.

Arming In STAY Mode 1

1. Press STAY button on the hand held transmitter for two seconds.
Two beeps will be heard on the remote codepad and the STAY indicator will now illuminate. Exit time will now commence.

If the horn speaker indication beeps have been enabled, one two-tone beep will be heard from the horn speaker. If the strobe indications have been enabled, the strobe will flash for 6 seconds to indicate that the system has been armed.

Disarming From STAY Mode 1

1. Press either the AWAY or STAY button on the hand held transmitter for two seconds.

Two beeps will be heard on the remote codepad and the STAY indicator will extinguish.

If the horn speaker indication beeps have been enabled, one beep will be heard from the horn speaker. If the strobe indications have been enabled, the strobe will flash for 3 seconds to indicate that the system has been disarmed.

Panic Alarm

1. Press both the AWAY button and the STAY button together for two seconds on the hand held transmitter. This will initiate an audible panic alarm that will activate the horn speaker, strobe and internal sirens.

If Option 1 – Enable Codepad Panic To Be Silent has been programmed in "LOCATION 425" on page 216, the remote radio panic alarm will also be silent.

There are two remote outputs than can be operated from the DOOR and AUX buttons on the 4-channel hand held transmitter. These outputs can only be programmed by the installer. The output event types that can be used are listed in the table below. Refer to the section on Programmable Outputs on page 189 for more information.

Output Event Type	Description	Page
2,11	Radio Control Output 1	197
2,12	Radio Control Output 2	197
2,13	Radio Control Output 1 – Not Armed In AWAY Mode	197
2,14	Radio Control Output 2 – Not Armed In AWAY Mode	197

Table 24: Remote Output Event Types

Turning Output 1 ON

1. Press the DOOR button on the hand held transmitter for two seconds. Output 1 will now turn on.

Turning Output 1 OFF

1. Press the DOOR button on the hand held transmitter for two seconds. Output 1 will now turn off.

Turning Output 2 ON

1. Press the AUX button on the hand held transmitter for two seconds. Output 2 will now turn on.

Turning Output 2 OFF

1. Press the AUX button on the hand held transmitter for two seconds. Output 2 will now turn off.

All reset times of the remote DOOR and AUX buttons are in reference to polarity 1 and 8. Reset times will vary depending on the polarity used.

System Functions

This section includes the following;

- *Installer Code Functions*
- *Master Code Functions*
- *Hold Down Functions*

System Functions

This section explains the more advanced features that are required for testing and regular maintenance of the system. Features such as Installer Code Functions, Master Code Functions and Hold Down Functions are covered in this section.

Installer Code Functions

Installer Code Functions are designed to allow the installer to perform various system tests without the need to know a Master Code.

To enter the required Installer Code function, enter the [INSTALLER CODE] followed by the required [FUNCTION] digit and the [AWAY] button. All available Installer Code functions are listed in "Table 25: Installer Code Functions" outlined below.

[INSTALLER CODE] + [FUNCTION] + [AWAY]

These functions can only be carried out when the system is in the disarmed state.

Function	Description	Page
0	Reserved	
1	Set Number Of Days Until The First Test Report	77
2	Change Domestic Telephone Numbers	78
3	Change Telco Arm/Disarm Sequence	80
4	Setting STAY Mode 2 Zones	85
5	EDMSAT - Satellite Siren Service Mode	86
6	Turning Telephone Monitor Mode On/Off	87
7	Walk Test Mode	87
8	Event Memory Recall Mode	88
9	Reserved	

Table 25: Installer Code Functions

Reserved

0

Set The Number Of Days Until The First Test Report

1

If you require the first test to report (Contact ID Event Code 602) the day after you are installing the control panel and you have programmed the repeat interval between each test report for every 7 days, you will need to set when the first test report will occur. If the first test report is not set using this Installer Code Function, the first test report will be sent to the base station receiver in the number of days programmed in the repeat interval. Refer to "LOCATION 360 - 366" on page 187 for setting the test report time and repeat interval.

How To Set The First Test Report

1. Enter your [INSTALLER CODE] followed by 1 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Enter the [No. OF DAYS] to wait (1 - 15 days) until the first test report is required.

3. Press the [AWAY] button when finished.
Two beeps will be heard and the STAY and AWAY indicators will extinguish. The system will now return to the disarmed state.

[INSTALLER CODE] + 1 + [AWAY]
+ [No. OF DAYS] + [AWAY]

Each time you enter Installer's Programming Mode after you have set when the first test report will occur, the first test report time will default back to the repeat interval time between each test report as set in "LOCATION 366".

Test reports will not report if the Subscriber ID Number is 0000. The number of days decrements by one at 2400 hours as set in "LOCATION 901 – 904" on page 210.

Example

If you programmed the repeat interval in the test reports for every seven days, but wish to have the first test report to begin in two days time, follow the sequence outlined below;

1 2 3 4 + 1 + [AWAY]
+ 2 + [AWAY]

Changing Domestic Phone Numbers

2 When the system has been set up for domestic dialling, this function allows the installer to view and program the required telephone numbers that the system will call in the event of an alarm. For a more detailed description, refer to Domestic Dialling on page 119 for further information.

How To Change Domestic Phone Numbers

1. Enter your [INSTALLER CODE] followed by 2 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

If there are telephone numbers already programmed, they will be displayed one digit at a time via the remote codepad indicators. Refer to "Table 27: Codepad Indicators When Changing Telephone Numbers" on page 79 for the indicators and their meanings.

If there are no telephone numbers programmed, a further two beeps will be heard after entering this mode. These two beeps are normally heard after the last digit of the last phone number has been displayed.

2. Enter all the digits for [PHONE No 1], one digit at a time. You will notice as each digit is entered, the corresponding codepad indicators will illuminate.

3. If there is more than one telephone number, press the [STAY] button followed by the 4 button after the last digit of the telephone number. This will insert a break between the first telephone number and the second telephone number. If there is only one telephone number, press the [AWAY] button to exit this mode.

4. Enter all the digits for [PHONE No. 2], one digit at a time. You will notice as each digit is entered, the corresponding codepad indicators will illuminate.

5. After the last digit of the second telephone number, press the [AWAY] button to exit this mode unless a third telephone number is required. If there is a third telephone number to be programmed, press the [STAY] button followed by the 4 button to insert a break between the second telephone number and the third telephone.

[INSTALLER CODE] + 2 + [AWAY]
+ [PHONE No 1] + [STAY] + 4 + [PHONE No. 2] + [AWAY]

Digit Required	Number To Program	Digit Required	Number To Program
0	0	**8**	8
1	1	**9**	9
2	2	**10**	Refer To Digit 0
3	3	**11**	* Followed By 1
4	4	**12**	* Followed By 2
5	5	**Four Second Pause**	* Followed By 3
6	6	**Break**	* Followed By 4
7	7	**15**	* Followed By 5

Table 26: Domestic Dialling Digits

Example

If you wish to program two separate telephone numbers (9672 1777 and 9672 1233), follow the sequence below and replace the telephone numbers mentioned in the manual with the telephone numbers that you wish to program.

1 2 3 4 + 2 + [AWAY]
+ 9 6 7 2 1 7 7 7 + [STAY] + 4
+ 9 6 7 2 1 2 3 3 + [AWAY]

How To Disable Domestic Dialling

If at any time you wish to cancel domestic dialling for any reason (e.g.. You are moving house and do not wish the system to continue calling your work place or mobile phone etc), you may enter your [INSTALLER CODE] followed by 2 and the [AWAY] button, the [STAY] button followed by the 4 and the [AWAY] button to disable domestic dialling.

[INSTALLER CODE] + 2 + [AWAY] + [STAY] + 4 + [AWAY]

Digit	Zone 1 Indicator	Zone 2 Indicator	Zone 3 Indicator	Zone 4 Indicator	Zone 5 Indicator	Zone 6 Indicator	Zone 7 Indicator	Zone 8 Indicator	MAINS Indicator
0									✓
1	✓								
2		✓							
3			✓						
4				✓					
5					✓				
6						✓			
7							✓		
8								✓	
9	✓							✓	
11	✓								✓
12		✓							✓
Pause			✓						✓
Break				✓					✓
15					✓				✓

Table 27: Codepad Indicators When Changing Telephone Numbers

Change Telco Arm/Disarm Sequence

3 This installer code function allows you to program the call forward sequence to automatically operate when you arm the system in AWAY Mode. This feature is only available if your telecommunication provider has the call forward option available.

When arming the system in AWAY Mode, the control panel will automatically dial the telecommunication exchange to redirect all calls to your mobile phone, pocket pager or answering service. When activated, your telephone will still allow outgoing calls to be made.

Contact your telecommunications provider for more information on call forward operations.

Digit Required	Number To Program	Digit Required	Number To Program
0	0	**8**	8
1	1	**9**	9
2	2	**10**	Refer To Digit 0
3	3	**11**	* Followed By 1
4	4	**12**	* Followed By 2
5	5	**Four Second Pause**	* Followed By 3
6	6	**Break**	* Followed By 4
7	7	**15**	* Followed By 5

Table 28: Telco Arm/Disarm Dialling Digits

Digit	Zone 1 Indicator	Zone 2 Indicator	Zone 3 Indicator	Zone 4 Indicator	Zone 5 Indicator	Zone 6 Indicator	Zone 7 Indicator	Zone 8 Indicator	MAINS Indicator
0									✓
1	✓								
2		✓							
3			✓						
4				✓					
5					✓				
6						✓			
7							✓		
8								✓	
9	✓							✓	
11	✓								✓
12		✓							✓
Pause			✓						✓
Break				✓					✓
15					✓				✓

Table 29: Codepad Indicators For Changing Telco Arm/Disarm Sequence

How To Program Telco Arming Sequence - Easy Call Forward (No Answer On)

1. Enter your [INSTALLER CODE] followed by 3 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Press button 1 followed by the [AWAY] button to change the telco arming sequence. Three beeps will be heard.

If a previous call forwarding sequence has already been programmed, the sequence will be displayed one digit at a time via the remote codepad indicators. Refer to "Table 29: Codepad Indicators For Changing Telco Arm/Disarm Sequence" on page 80 for the indicators and their meanings.

If there is no call forward sequence programmed, a further two beeps will be heard after entering this mode. These two beeps are normally heard after the last digit of the call forward sequence has been displayed.

3. Enter [STAY] 1 6 1 followed by the [PHONE Nº] you wish the control panel to divert all calls to followed by [STAY] 2 and the [AWAY] button. Two beeps will be heard and the system will return to the disarmed state.

[INSTALLER CODE] + 3 + [AWAY]
1 + [AWAY]
[STAY] 1 6 1 + [PHONE Nº] + [STAY] 2 + [AWAY]

Example

If you wish to automatically divert all unanswered incoming calls to another telephone number (e.g.: 9672 1777) when the system is armed in AWAY Mode, follow the example sequence below and replace the telephone number mentioned in the manual with the telephone number that you wish to divert all calls to.

1 2 3 4 + 3 + [AWAY]
+ 1 + [AWAY] + [STAY] 1 6 1 + 9 6 7 2 1 7 7 7
+ [STAY] 2 + [AWAY]

How To Disable The Telco Arming Sequence

If at any time you wish to cancel the telco arming sequence, you may enter your [INSTALLER CODE] followed by 3 and the [AWAY] button, followed by 1 and the [AWAY] button, then the [STAY] button followed by the 4 and the [AWAY] button.

[INSTALLER CODE] + 3 + [AWAY] + 1 + [AWAY]
+ [STAY] + 4 + [AWAY]

How To Program The Telco Disarming Sequence – Easy Call Forward (No Answer Off)

1. Enter your [INSTALLER CODE] followed by 3 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Press button 2 followed by the [AWAY] button to change the telco disarming sequence. Three beeps will be heard.

If a previous telco disarming sequence has already been programmed, the sequence will be displayed one digit at a time via the remote codepad indicators. Refer to "Table 29: Codepad Indicators For Changing Telco Arm/Disarm Sequence" on page 80 for the indicators and their meanings.

If no telco disarming sequence has been programmed, a further two beeps will be heard after entering this mode. These two beeps are normally heard after the last digit of the call forward sequence has been displayed.

3. Enter [STAY] 2 6 1 [STAY] 2 and the [AWAY] button.
Two beeps will be heard and the system will return to the disarmed state.

[INSTALLER CODE] + 3 + [AWAY]
2 + [AWAY]
[STAY] 2 6 1 [STAY] 2 + [AWAY]

How To Disable The Telco Disarming Sequence

If at any time you wish to cancel the telco disarming sequence, you may enter your [INSTALLER CODE] followed by 3 and the [AWAY] button, followed by 2 and the [AWAY] button, then the [STAY] button followed by the 4 and the [AWAY] button.

[INSTALLER CODE] + 3 + [AWAY] + 2 + [AWAY]
+ [STAY] + 4 + [AWAY]

How To Program Telco Arming Sequence - Easy Call Forward (Immediate On)

1. Enter your [INSTALLER CODE] followed by 3 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Press button 1 followed by the [AWAY] button to change the telco arming sequence. Three beeps will be heard.

If a previous call forwarding sequence has already been programmed, the sequence will be displayed one digit at a time via the remote codepad indicators. Refer to "Table 29: Codepad Indicators For Changing Telco Arm/Disarm Sequence" on page 80 for the indicators and their meanings.

If there is no call forward sequence programmed, a further two beeps will be heard after entering this mode. These two beeps are normally heard after the last digit of the call forward sequence has been displayed.

3. Enter [STAY] 1 2 1 followed by the [PHONE Nº] you wish the control panel to divert all calls to followed by [STAY] 2 and the [AWAY] button. Two beeps will be heard and the system will return to the disarmed state.

[INSTALLER CODE] + 3 + [AWAY]
1 + [AWAY]
[STAY] 1 2 1 + [PHONE Nº] + [STAY] 2 + [AWAY]

Example

If you wish to automatically divert all incoming calls to another telephone number (e.g.: 9672 1777) when the system is armed in AWAY Mode, follow the example sequence below and replace the telephone number mentioned in the manual with the telephone number that you wish to divert all calls to.

1 2 3 4 + 3 + [AWAY]
+ 1 + [AWAY] + [STAY] 1 2 1 + 9 6 7 2 1 7 7 7
+ [STAY] 2 + [AWAY]

How To Disable The Telco Arming Sequence

If at any time you wish to cancel the telco arming sequence, you may enter your [INSTALLER CODE] followed by 3 and the [AWAY] button, followed by 1 and the [AWAY] button, then the [STAY] button followed by the 4 and the [AWAY] button.

[INSTALLER CODE] + 3 + [AWAY] + 1 + [AWAY]
+ [STAY] + 4 + [AWAY]

How To Program The Telco Disarming Sequence – Easy Call Forward (Immediate Off)

1. Enter your [INSTALLER CODE] followed by 3 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Press button 2 followed by the [AWAY] button to change the telco disarming sequence. Three beeps will be heard.

If a previous telco disarming sequence has already been programmed, the sequence will be displayed one digit at a time via the remote codepad indicators. Refer to "Table 29: Codepad Indicators For Changing Telco Arm/Disarm Sequence" on page 80 for the indicators and their meanings.

If no telco disarming sequence has been programmed, a further two beeps will be heard after entering this mode. These two beeps are normally heard after the last digit of the call forward sequence has been displayed.

3. Enter [STAY] 2 2 1 [STAY] 2 and the [AWAY] button.
Two beeps will be heard and the system will return to the disarmed state.

[INSTALLER CODE] + 3 + [AWAY]
2 + [AWAY]
[STAY] 2 2 1 [STAY] 2 + [AWAY]

How To Disable The Telco Disarming Sequence

If at any time you wish to cancel the telco disarming sequence, you may enter your [INSTALLER CODE] followed by 3 and the [AWAY] button, followed by 2 and the [AWAY] button, then the [STAY] button followed by the 4 and the [AWAY] button.

[INSTALLER CODE] + 3 + [AWAY] + 2 + [AWAY]
+ [STAY] + 4 + [AWAY]

Setting STAY Mode 2 Zones

4 This function allows the installer to select which zones are to be automatically isolated when the system is armed in STAY Mode 2.

Every time the system is armed in STAY Mode 2, the zones selected using this function will be automatically isolated.

To arm the system in STAY Mode 2, hold down the 0 button until two beeps are heard. Refer to Hold Down Functions on page 107 or Arming The System In STAY Mode 2 on page 57 for more information.

How To Set STAY Mode 2 Zones

1. Enter your [INSTALLER CODE] followed by 4 and the [AWAY] button.
Three beeps will be heard and the STAY indicator will begin to flash.

2. * Enter the [ZONE NUMBER] that you wish to automatically isolate followed by the [STAY] button. The corresponding ZONE indicator will begin to flash to display that you have selected the zone to be automatically isolated every time you arm the system in STAY Mode 2.

If more than one zone is required to be automatically isolated in STAY Mode 2, repeat step 2 until all zones required have been selected.

3. Press the [AWAY] button to exit this function.
Two beeps will be heard and the system will return to the disarmed state. The zones that were selected to be automatically isolated in STAY Mode 2 along with the STAY indicator will extinguish.

[INSTALLER CODE] + 4 + [AWAY]
+ [ZONE NUMBER] + [STAY] + [AWAY]

*** As each zone has been selected to be isolated, the corresponding ZONE indicator will begin to flash. If a mistake has been made, press the zone number that was incorrectly entered followed by the [STAY] button. This zone is now no longer programmed to be isolated and the ZONE indicator will extinguish.**

Example

If you wish to select zones 2, 5 and 6 to be automatically isolated when arming in STAY Mode 2, follow the sequence below.

1 2 3 4 + 4 + [AWAY]
+ 2 + [STAY] + 5 + [STAY] + 6 + [STAY] + [AWAY]

How To Disable STAY Mode 2 Zones

If at any time you wish to disable all zones selected to be automatically isolated for STAY Mode 2, you may enter your [INSTALLER CODE] followed by 4 and the [AWAY] button, followed by the [AWAY] button.

[INSTALLER CODE] + 4 + [AWAY]
+ [AWAY]

Satellite Siren Service Mode

5

If an EDMSAT is connected to Output 1, this function will allow you to perform service work on the system without triggering the satellite siren. The satellite siren will return to its normal working state the next time the system is armed.

How To Enter Satellite Siren Service Mode

1. Enter your [INSTALLER CODE] followed by 5 and the [AWAY] button. Three beeps will be heard.

[INSTALLER CODE] + 5 + [AWAY]

Turning Telephone Monitor Mode On/Off

6

Telephone monitor mode allows the remote codepad to be used for a visual representation of data transmissions between the control panel and the base station receiver. The dialling sequence is also shown in this mode.

The codepad will beep once every two seconds while telephone monitor mode active regardless of whether the system is in Installer's Programming Mode or normal operating mode. The first five indicators are used to display the progressive steps for a transmission to the base station receiver.

Zone Indicator	Dialling Event
1	Telephone Line Seized
2	Dialling Phone Number
3	Handshake Received
4	Data Is Being Transmitted
5	Kiss-Off Received
None	Telephone Line Released

Table 30: Telephone Monitor Mode Indications

How To Turn Telephone Monitor Mode On

1. Enter your [INSTALLER CODE] followed by 6 and the [AWAY] button.
Three beeps will be heard.

How To Turn Telephone Monitor Mode Off

1. Enter your [INSTALLER CODE] followed by 6 and the [AWAY] button.
Two beeps will be heard.

[INSTALLER CODE] + 6 + [AWAY]

Walk Test Mode

7

Walk test mode allows you to test detection devices to ensure that they are functioning correctly. Before activating walk test mode, isolate any zones that are not required for testing. Refer to Isolating Zones on page 60 for further information.

How To Enter Walk Test Mode

1. Enter your [INSTALLER CODE] followed by 7 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash. The codepad will beep once every second while the system is in walk test mode.

2. Unseal and seal the zones to be tested.
The codepad will sound one long beep and the horn speaker will sound one short beep every time a zone is sealed or unsealed.

3. Press the [AWAY] button to exit this function.
Two beeps will be heard and the STAY and AWAY indicators will extinguish. The system has now returned to the disarmed state.

[INSTALLER CODE] + 7 + [AWAY]

Event Memory Recall Mode

8

This function allows you to playback the last forty events that have occurred to the system. The event memory recall mode reports all alarms and arming/disarming of the system in the AWAY Mode, STAY Mode 1 and STAY Mode 2. This function helps with trouble shooting system faults. The events are displayed via the codepad indicators.

How To Enter The Event Memory Recall Mode

1. Enter your [INSTALLER CODE] followed by 8 and the [AWAY] button.
Three beeps will be heard. The events will be played back via the codepad indicators in reverse chronological order.

[INSTALLER CODE] + 8 + [AWAY]

Example

If the events were as follows:

Event No	Event Description
1	System Armed In AWAY Mode
2	Alarm In Zone 3
3	Alarm In Zone 4
4	System Disarmed

Table 31: Event Memory Recall - Example Events

The event memory playback will report as follows:

Event No	Codepad Indicator	Event Description
4	All Indicators Off Except MAINS	System Disarmed
3	Zone 4 + AWAY Indicator Illuminates	Alarm In Zone 4
2	Zone 3 + AWAY Indicator Illuminates	Alarm In Zone 3
1	AWAY Indicator Illuminates	System Armed In AWAY Mode

Table 32: Event Memory Recall - Example Event Playback

A beep and an illuminated codepad indicator indicate each event. Resetting a 24-hour alarm in the disarmed state is indicated by one beep only. After the last event, three beeps will be heard to indicate the end of playback. The replay of event memory can be terminated at any time by pressing the [AWAY] button.

If the system is armed in STAY Mode 1 or STAY Mode 2, the STAY indicator will display the event memory playback. There is no differentiation between arming the system in STAY Mode 1 and STAY Mode 2.

If the control panel has been powered down, the memory of all events will be lost.

Reserved

9

Master Code Functions

Master Code Functions are designed to allow those users that have the appropriate priority level to perform certain functions of a supervisory level. These functions can only be carried out when the system is in the disarmed state.

The default Master Code is 2 5 8 0 and is known as User Code 1. It is possible for the system to have multiple Master Codes. Refer to "User Code Priority" on page 153 for more information.

To enter the required Master Code function, enter the MASTER CODE followed by the required FUNCTION digit and the AWAY button. All available Master Code functions are listed in “Table 33: Master Code Functions” outlined below.

MASTER CODE + FUNCTION + AWAY

Function	Description	Page
0	Reserved	
1	Changing and Deleting User Codes/Radio Codes	90/92
2	Changing Domestic Phone Numbers	94
3	Changing Telco Arm/Disarm Sequence	96
4	Setting STAY Mode 2 Zones	101
5	Turning Outputs On/Off	102
6	Setting The Date and Time	104
7	Walk Test Mode	105
8	Event Memory Recall Mode	106
9	Reserved	

Table 33: Master Code Functions

Reserved

0

Changing and Deleting User Codes

1 This function allows a Master Code holder to add/change or delete any of the system user codes.

How To Add Or Change A User Code

1. Enter your [MASTER CODE] followed by 1 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Enter the [USER NUMBER] (1-8) that you wish to change followed by the [AWAY] button.
Two beeps will be heard and the corresponding ZONE indicator will illuminate. Refer to "Table 35: Codepad Indicators Showing Relative User Numbers" on page 91.

3. Enter the digits required for the [NEW CODE] followed by the [AWAY] button.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

If you wish to change any further user codes, repeat this procedure as many times as required.

[MASTER CODE] + 1 + [AWAY]
+ [USER NUMBER] + [AWAY] + [NEW CODE] + [AWAY]

When adding or changing user codes, this function will automatically terminate if a button is not pressed within sixty seconds or by pressing the [AWAY] button. One long beep indicates the code entered already exists or an incorrect user number has been selected.

Example

If you require to program user code number 2 as 4627, follow the steps outlined below and remember to substitute the default Master Code (2580) with the Master Code that has been programmed.

2 5 8 0 + 1 + [AWAY]
+ 2 + [AWAY]
+ 4 6 2 7 + [AWAY]

How To Delete A User Code

1. Enter your [MASTER CODE] followed by 1 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Enter the [USER NUMBER] (1-8) that you wish to delete followed by the [AWAY] button.
Two beeps will be heard and the corresponding ZONE indicator will illuminate. Refer to "Table 35: Codepad Indicators Showing Relative User Numbers" on page 91.

3. Press the [STAY] button to delete the user code.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

If you wish to delete any further user codes, repeat this procedure as many times as required.

[MASTER CODE] + 1 + [AWAY]
+ [USER NUMBER] + [AWAY] + [STAY]

When deleting user codes, this function will automatically terminate if a button is not pressed within sixty seconds or by pressing the [AWAY] button. One long beep indicates an incorrect user number has been selected.

User No	Zone 1 Indicator	Zone 2 Indicator	Zone 3 Indicator	Zone 4 Indicator	Zone 5 Indicator	Zone 6 Indicator	Zone 7 Indicator	Zone 8 Indicator
1	✓							
2		✓						
3			✓					
4				✓				
5					✓			
6						✓		
7							✓	
8								✓

Table 35: Codepad Indicators Showing Relative User Numbers

Example

If you wish to delete user code number 3, follow the steps outlined below and remember to substitute the default Master Code (2580) with the Master Code that has been programmed.

2 5 8 0 + 1 + [AWAY]
+ 3 + [AWAY]
+ [STAY]

Changing and Deleting Remote Radio User Codes

1 This function allows a Master Code holder to add/change or delete any of the system user codes.

How To Add Or Change A Remote Radio User Code

1. Enter your [MASTER CODE] followed by 1 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Enter the [USER NUMBER] (9-16) that you wish to change followed by the [AWAY] button.
Two beeps will be heard and the corresponding codepad indicators will illuminate. Refer to "Table 36: Codepad Indicators Showing Relative Remote User Numbers" on page 93.

3. Now press any of the [TRANSMIT] buttons on the hand held transmitter.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

If you wish to change any further user codes, repeat this procedure as many times as required.

[MASTER CODE] + 1 + [AWAY]
+ [USER NUMBER] + [AWAY] + [TRANSMIT]

When adding or changing remote radio user codes, this function will automatically terminate if a button is not pressed within sixty seconds or by pressing the [AWAY] button. One long beep indicates the code entered already exists or an incorrect user number has been selected.

How To Delete A Remote Radio User Code

1. Enter your [MASTER CODE] followed by [1] and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Enter the [USER NUMBER] (9-16) that you wish to delete followed by the [AWAY] button.
Two beeps will be heard and the corresponding ZONE indicator will illuminate. Refer to "Table 36: Codepad Indicators Showing Relative Remote User Numbers" on page 93.

3. Press the [STAY] button to delete the user code.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

If you wish to delete any further remote radio user codes, repeat this procedure as many times as required.

[MASTER CODE] + [1] + [AWAY]
+ [USER NUMBER] + [AWAY] + [STAY]

When deleting remote radio user codes, this function will automatically terminate if a button is not pressed within sixty seconds or by pressing the [AWAY] button. One long beep indicates the an incorrect user number has been selected.

User No	Zone 1 Indicator	Zone 2 Indicator	Zone 3 Indicator	Zone 4 Indicator	Zone 5 Indicator	Zone 6 Indicator	Zone 7 Indicator	Zone 8 Indicator	MAINS Indicator
9	✓							✓	
10									✓
11	✓								✓
12		✓							✓
13			✓						✓
14				✓					✓
15					✓				✓
16						✓			✓

Table 36: Codepad Indicators Showing Relative Remote User Numbers

Changing Domestic Phone Numbers

2 When the system has been set up for domestic dialling, this function allows the Master Code holder to view and program the required telephone numbers that the system will call in the event of an alarm. For a more detailed description, refer to Domestic Dialling on page 119 for further information.

How To Change Domestic Phone Numbers

1. Enter your [MASTER CODE] followed by 2 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

If there are telephone numbers already programmed, they will be displayed one digit at a time via the remote codepad indicators. Refer to "Table 38: Codepad Indicators When Changing Domestic Telephone Numbers" on page 95 for the indicators and their meanings.

If there are no telephone numbers programmed, a further two beeps will be heard after entering this mode. These two beeps are normally heard after the last digit of the last phone number has been displayed.

2. Enter all the digits for [PHONE No 1], one digit at a time. You will notice as each digit is entered, the corresponding codepad indicators will illuminate.

3. If there is more than one telephone number, press the [STAY] button followed by the 4 button after the last digit of the telephone number. This will insert a break between the first telephone number and the second telephone number. If there is only one telephone number, press the [AWAY] button to exit this mode.

4. Enter all the digits for [PHONE No. 2], one digit at a time. You will notice as each digit is entered, the corresponding codepad indicators will illuminate.

5. After the last digit of the second telephone number, press the [AWAY] button to exit this mode unless a third telephone number is required. If there is a third telephone number to be programmed, press the [STAY] button followed by the 4 button to insert a break between the second telephone number and the third telephone.

[MASTER CODE] + 2 + [AWAY]
+ [PHONE No 1] + [STAY] + 4 + [PHONE No. 2] + [AWAY]

Digit Required	Number To Program	Digit Required	Number To Program
0	0	**8**	8
1	1	**9**	9
2	2	*****	* Followed By 1
3	3	**#**	* Followed By 2
4	4	**Four Second Pause**	* Followed By 3
5	5	**Break**	* Followed By 4
6	6		
7	7		

Table 36: Domestic Dialling Digits

Example

If you wish to program two separate telephone numbers (9672 1777 and 9672 1233), follow the sequence below and replace the telephone numbers mentioned in the manual with the telephone numbers that you wish to program.

2 5 8 0 + 2 + AWAY
+ 9 6 7 2 1 7 7 7 + STAY + 4
+ 9 6 7 2 1 2 3 3 + AWAY

How To Disable Domestic Dialling

If at any time you wish to cancel domestic dialling for any reason (e.g.. You are moving house and do not wish the system to continue calling your work place or mobile phone etc), you may enter your MASTER CODE followed by 2 and the AWAY button, the STAY button followed by the 4 and the AWAY button to disable domestic dialling.

MASTER CODE + 2 + AWAY + STAY + 4 + AWAY

Digit	Zone 1 Indicator	Zone 2 Indicator	Zone 3 Indicator	Zone 4 Indicator	Zone 5 Indicator	Zone 6 Indicator	Zone 7 Indicator	Zone 8 Indicator	MAINS Indicator
0									✓
1	✓								
2		✓							
3			✓						
4				✓					
5					✓				
6						✓			
7							✓		
8								✓	
9	✓							✓	
*****	✓								✓
#		✓							✓
Pause			✓						✓
Break				✓					✓

Table 38: Codepad Indicators When Changing Domestic Telephone Numbers

Change Telco Arm/Disarm Sequence

3 This Master Code Function allows you to program the call forward sequence to automatically operate when you arm the system in AWAY Mode. This feature is only available if your telecommunication provider has the call forward option available.

When arming the system in AWAY Mode, the control panel will automatically dial the telecommunication exchange to redirect all calls to your mobile phone, pocket pager or answering service. When activated, your telephone will not ring but outgoing calls may still be made. Contact your telecommunications provider for more information on call forward operations.

Digit Required	Number To Program	Digit Required	Number To Program
0	0	**8**	8
1	1	**9**	9
2	2	**10**	Refer To Digit 0
3	3	**11**	* Followed By 1
4	4	**12**	* Followed By 2
5	5	**Four Second Pause**	* Followed By 3
6	6	**Break**	* Followed By 4
7	7	**15**	* Followed By 5

Table 38: Telco Arm/Disarm Dialling Digits

Digit	Zone 1 Indicator	Zone 2 Indicator	Zone 3 Indicator	Zone 4 Indicator	Zone 5 Indicator	Zone 6 Indicator	Zone 7 Indicator	Zone 8 Indicator	MAINS Indicator
0									✓
1	✓								
2		✓							
3			✓						
4				✓					
5					✓				
6						✓			
7							✓		
8								✓	
9	✓							✓	
11	✓								✓
12		✓							✓
Pause			✓						✓
Break				✓					✓
15					✓				✓

Table 39: Codepad Indicators For Changing Telco Arm/Disarm Sequence

How To Program Telco Arming Sequence - Easy Call Forward (No Answer On)

1. Enter your [MASTER CODE] followed by 3 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Press button 1 followed by the [AWAY] button to change the telco arming sequence. Three beeps will be heard.

If a previous telco disarming sequence has already been programmed, the sequence will be displayed one digit at a time via the remote codepad indicators. Refer to "Table 39: Codepad Indicators For Changing Telco Arm/Disarm Sequence" on page 96 for the indicators and their meanings.

If there is no call forward sequence programmed, a further two beeps will be heard after entering this mode. These two beeps are normally heard after the last digit of the call forward sequence has been displayed.

3. Enter [STAY] 1 6 1 followed by the [PHONE Nº] you wish the control panel to divert all calls to followed by [STAY] 2 and the [AWAY] button. Two beeps will be heard and the system will return to the disarmed state.

[MASTER CODE] + 3 + [AWAY]
1 + [AWAY]
[STAY] 1 6 1 + [PHONE Nº] + [STAY] 2 + [AWAY]

Example

If you wish to automatically divert all unanswered incoming calls to another telephone number (e.g.: 9672 1777) when the system is armed in AWAY Mode, follow the example sequence below and replace the telephone number mentioned in the manual with the telephone number that you wish to divert all calls to.

2 5 8 0 + 3 + [AWAY]
+ 1 + [AWAY] + [STAY] 1 6 1 + 9 6 7 2 1 7 7 7
+ [STAY] 2 + [AWAY]

How To Disable The Telco Arming Sequence

If at any time you wish to cancel the telco arming sequence, you may enter your [MASTER CODE] followed by 3 and the [AWAY] button, followed by 1 and the [AWAY] button, then the [STAY] button followed by the 4 and the [AWAY] button.

[MASTER CODE] + 3 + [AWAY] + 1 + [AWAY]
+ [STAY] + 4 + [AWAY]

How To Program The Telco Disarming Sequence – Easy Call Forward (No Answer Off)

1. Enter your [MASTER CODE] followed by 3 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Press button 2 followed by the [AWAY] button to change the telco disarming sequence. Three beeps will be heard.

If a previous telco disarming sequence has already been programmed, the sequence will be displayed one digit at a time via the remote codepad indicators. Refer to "Table 39: Codepad Indicators For Changing Telco Arm/Disarm Sequence" on page 96 for the indicators and their meanings.

If no telco disarming sequence has been programmed, a further two beeps will be heard after entering this mode. These two beeps are normally heard after the last digit of the call forward sequence has been displayed.

3. Enter [STAY] 2 6 1 [STAY] 2 and the [AWAY] button.
Two beeps will be heard and the system will return to the disarmed state.

[MASTER CODE] + 3 + [AWAY]
2 + [AWAY]
[STAY] 2 6 1 [STAY] 2 + [AWAY]

How To Disable The Telco Disarming Sequence

If at any time you wish to cancel the telco disarming sequence, you may enter your [MASTER CODE] followed by 3 and the [AWAY] button, followed by 2 and the [AWAY] button, then the [STAY] button followed by the 4 and the [AWAY] button.

[MASTER CODE] + 3 + [AWAY] + 2 + [AWAY]
+ [STAY] + 4 + [AWAY]

How To Program Telco Arming Sequence - Easy Call Forward (Immediate On)

1. Enter your [MASTER CODE] followed by [3] and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Press button [1] followed by the [AWAY] button to change the telco arming sequence. Three beeps will be heard.

If a previous call forwarding sequence has already been programmed, the sequence will be displayed one digit at a time via the remote codepad indicators. Refer to "Table 39: Codepad Indicators For Changing Telco Arm/Disarm Sequence" on page 96 for the indicators and their meanings.

If there is no call forward sequence programmed, a further two beeps will be heard after entering this mode. These two beeps are normally heard after the last digit of the call forward sequence has been displayed.

3. Enter [STAY] [1] [2] [1] followed by the [PHONE Nº] you wish the control panel to divert all calls to followed by [STAY] [2] and the [AWAY] button. Two beeps will be heard and the system will return to the disarmed state.

[MASTER CODE] + [3] + [AWAY]
[1] + [AWAY]
[STAY] [1] [2] [1] + [PHONE Nº] + [STAY] [2] + [AWAY]

Example

If you wish to automatically divert all incoming calls to another telephone number (e.g.: 9672 1777) when the system is armed in AWAY Mode, follow the example sequence below and replace the telephone number mentioned in the manual with the telephone number that you wish to divert all calls to.

[2] [5] [8] [0] + [3] + [AWAY]
+ [1] + [AWAY] + [STAY] [1] [2] [1] + [9] [6] [7] [2] [1] [7] [7]
+ [STAY] [2] + [AWAY]

How To Disable The Telco Arming Sequence

If at any time you wish to cancel the telco arming sequence, you may enter your [MASTER CODE] followed by [3] and the [AWAY] button, followed by [1] and the [AWAY] button, then the [STAY] button followed by the [4] and the [AWAY] button.

[MASTER CODE] + [3] + [AWAY] + [1] + [AWAY]
+ [STAY] + [4] + [AWAY]

How To Program The Telco Disarming Sequence – Easy Call Forward (Immediate Off)

1. Enter your [MASTER CODE] followed by 3 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Press button 2 followed by the [AWAY] button to change the telco disarming sequence. Three beeps will be heard.

If a previous telco disarming sequence has already been programmed, the sequence will be displayed one digit at a time via the remote codepad indicators. Refer to "Table 39: Codepad Indicators For Changing Telco Arm/Disarm Sequence" on page 96 for the indicators and their meanings.

If no telco disarming sequence has been programmed, a further two beeps will be heard after entering this mode. These two beeps are normally heard after the last digit of the call forward sequence has been displayed.

3. Enter [STAY] 2 2 1 [STAY] 2 and the [AWAY] button.
Two beeps will be heard and the system will return to the disarmed state.

[MASTER CODE] + 3 + [AWAY]
2 + [AWAY]
[STAY] 2 2 1 [STAY] 2 + [AWAY]

How To Disable The Telco Disarming Sequence

If at any time you wish to cancel the telco disarming sequence, you may enter your [MASTER CODE] followed by 3 and the [AWAY] button, followed by 2 and the [AWAY] button, then the [STAY] button followed by the 4 and the [AWAY] button.

[MASTER CODE] + 3 + [AWAY] + 2 + [AWAY]
+ [STAY] + 4 + [AWAY]

Setting STAY Mode 2 Zones

4 This function allows the Master Code Holder to select which zones are to be automatically isolated when the system is armed in STAY Mode 2.

Every time the system is armed in STAY Mode 2, the zones selected using this function will be automatically isolated.

To arm the system in STAY Mode 2, hold down the 0 button until two beeps are heard. Refer to Hold Down Functions on page 107 or Arming The System In STAY Mode 2 on page 57 for more information.

How To Set STAY Mode 2 Zones

1. Enter your [MASTER CODE] followed by 4 and the [AWAY] button.
Three beeps will be heard and the STAY indicator will begin to flash.

2. * Enter the [ZONE NUMBER] that you wish to automatically isolate followed by the [STAY] button. The corresponding ZONE indicator will begin to flash to display that you have selected the zone to be automatically isolated every time you arm the system in STAY Mode 2.

If more than one zone is required to be automatically isolated in STAY Mode 2, repeat step 2 until all zones required have been selected.

3. Press the [AWAY] button to exit this function.
Two beeps will be heard and the system will return to the disarmed state. The zones that were selected to be automatically isolated in STAY Mode 2 and the STAY indicator will extinguish.

[MASTER CODE] + 4 + [AWAY]
+ [ZONE NUMBER] + [STAY] + [AWAY]

*** As each zone has been selected to be isolated, the corresponding ZONE indicator will begin to flash. If a mistake has been made, press the zone number that was incorrectly entered followed by the [STAY] button. This zone is now no longer programmed to be isolated and the ZONE indicator will extinguish.**

Example

If you wish to select zones 2, 5 and 6 to be automatically isolated when arming in STAY Mode 2, follow the sequence below. Remember to substitute the default Master Code (2580) with the Master Code that has been programmed.

2 5 8 0 + 4 + [AWAY]
+ 2 + [STAY] + 5 + [STAY] + 6 + [STAY] + [AWAY]

How To Disable STAY Mode 2 Zones

If at any time you wish to disable all zones selected to be automatically isolated for STAY Mode 2, you may enter your [MASTER CODE] followed by 4 and the [AWAY] button, followed by the [AWAY] button.

[MASTER CODE] + 4 + [AWAY]
+ [AWAY]

Turning Outputs On/Off

5

If an output has been programmed for remote operation, you can turn the remote output on or off using this Master Code function or remotely using the Alarm Link Software.

For this Master Code Function to operate, one or more of the following output event types need to be programmed in any of the programmable outputs.

Output Number 1 = Output Event Type – 2,8 on page 197.
Output Number 2 = Output Event Type – 2,9 on page 197.
Output Number 3 = Output Event Type – 2,10 on page 197.

How To Turn An Output On From The Remote Codepad

1. Enter your [MASTER CODE] followed by 5 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Enter the required [OUTPUT No.] (1-3) followed by the [AWAY] button.
Three beeps will be heard and the output will now turn on. Repeat step 2 if more than one output is required to be turned on.

3. Press the [AWAY] button again to exit this function.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

[MASTER CODE] + 5 + [AWAY]
+ [OUTPUT No.] + [AWAY] + [AWAY]

Example

If Output 2 has been programmed as 281000 in "LOCATION 374 – 379", the Master Code holder may turn on this output following the steps outlined below;

2580 + 5 + [AWAY]
+ 1 + [AWAY] + [AWAY]

How To Turn An Output Off From The Remote Codepad

1. Enter your [MASTER CODE] followed by 5 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Enter the required [OUTPUT No.] (1–3) followed by the [STAY] button.
Two beeps will be heard and the output will now turn off. Repeat step 2 if more than one output is required to be turned off.

3. Press the [AWAY] button again to exit this function.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

[MASTER CODE] + 5 + [AWAY]
+ [OUTPUT No.] + [STAY] + [AWAY]

Example

If Output 2 has been programmed as 2 8 1 0 0 0 in "LOCATION 374 – 379", the Master Code holder may turn off this output following the steps outlined below;

2 5 8 0 + 5 + [AWAY]
+ 1 + [STAY] + [AWAY]

Setting The Date and Time

6

This function only needs to be used when the date and time requires to be changed or the system has been powered down.

If the date and time has not been set using this function, the date and time fault will only display when the Auto Arming Time in "LOCATION 414 - 417" on page 208 has been programmed, or when you enter Fault Analysis Mode by holding down the 5 button.

How To Set The New Date and Time

1. Enter your [MASTER CODE] followed by 6 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Enter the day, month, year, hour and minute using the (DD, MM, YY, HH, MM) format (i.e. DD = Day of the month, MM = Month of the year, YY = Current year, HH = Hour of the day, MM = Minute of the day).

Please note that when programming the hour of the day, you will need to use 24:00 hour format.

3. Press the [AWAY] button when finished.
Two beeps will be heard and the STAY and AWAY indicators will extinguish. If a long beeps is heard, an error was made when entering the date and time.

[MASTER CODE] + 6 + [AWAY]
D D + M M + Y Y + H H + M M
+ [AWAY]

Example

If the date and time needs to be set for the 1st January 1997 at 10:30 PM, program the date and time as follows;

2 5 8 0 + 6 + [AWAY]
0 + 1 + 0 + 1 + 9 + 7 + 2 + 2 + 3 + 0
+ [AWAY]

Walk Test Mode

7 Walk test mode allows you to test detection devices to ensure that they are functioning correctly. Before activating walk test mode, isolate any zones that are not required for testing. Refer to Isolating Zones on page 60 for further information.

How To Enter Walk Test Mode

1. Enter your [MASTER CODE] followed by 7 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash. The codepad will beep once every second while the system is in walk test mode.

2. Unseal and seal the zones to be tested.
The codepad will sound one long beep and the horn speaker will sound one short beep every time a zone is sealed or unsealed.

3. Press the [AWAY] button to exit this function.
Two beeps will be heard and the STAY and AWAY indicators will extinguish. The system has now returned to the disarmed state.

[MASTER CODE] + 7 + [AWAY]

Event Memory Recall Mode

8

This function allows you to playback the last forty events that have occurred to the system. The event memory recall mode reports all alarms and arming/disarming of the system in the AWAY Mode, STAY Mode 1 and STAY Mode 2. This function helps with trouble shooting system faults. The events are displayed via the codepad indicators.

How To Enter The Event Memory Recall Mode

1. Enter your [MASTER CODE] followed by 8 and the [AWAY] button.
Three beeps will be heard. The events will be played back via the codepad indicators in reverse chronological order.

[MASTER CODE] + 8 + [AWAY]

Example

If the events were as follows:

Event No	Event Description
1	System Armed In AWAY Mode
2	Alarm In Zone 3
3	Alarm In Zone 4
4	System Disarmed

Table 40: Event Memory Recall - Example Events

The event memory playback will report as follows:

Event No	Codepad Indicator	Event Description
4	All Indicators Off Except MAINS	System Disarmed
3	Zone 4 + AWAY Indicator Illuminates	Alarm In Zone 4
2	Zone 3 + AWAY Indicator Illuminates	Alarm In Zone 3
1	AWAY Indicator Illuminates	System Armed In AWAY Mode

Table 41: Event Memory Recall - Example Event Playback

A beep and an illuminated codepad indicator indicate each event. Resetting a 24-hour alarm in the disarmed state is indicated by one beep only. After the last event, three beeps will be heard to indicate the end of playback. The replay of event memory can be terminated at any time by pressing the [AWAY] button.

If the system is armed in STAY Mode 1 or STAY Mode 2, the STAY indicator will display during the event memory playback. There is no differentiation between arming the system in STAY Mode 1 and STAY Mode 2.

If the control panel has been powered down, the memory of all events will be lost.

Reserved

9

Hold Down Functions

Hold down functions have been incorporated to allow easy activation of specific operations. When a button is held down for two seconds, two beeps will be heard and a particular function will operate. The hold down functions available are listed below.

Arm The System In AWAY Mode

#

Holding the # button down until two beeps are heard will arm the system in AWAY Mode. Option 2 in "LOCATION 429" on page 220 will need to be enabled for this hold down function to operate.

Arm The System In STAY Mode 1

*

Holding the * button down until two beeps are heard will arm the system in STAY Mode 1. Option 2 in "LOCATION 429" on page 220 will need to be enabled for this hold down function to operate.

If there has not been an alarm during the armed cycle, holding the * button down a second time will disarm the system from STAY Mode 1. If you require single button disarming from STAY Mode 1 using this hold down function, Option 4 in "LOCATION 429" on page 220 will need to be enabled.

If an alarm has occurred or entry warning has triggered, a valid user code will need to be used to disarm the system.

Refer to Zone Options 2 on page 161 for information on programming each zone to be automatically isolated in STAY Mode 1.

Arm The System In STAY Mode 2

0

Holding the 0 button down until two beeps are heard will arm the system in STAY Mode 2. Option 2 in "LOCATION 429" on page 220 will need to be enabled for this function to operate.

If there has not been an alarm during the armed cycle, holding the 0 button down a second time will disarm the system from STAY Mode 2. If you require single button disarming from STAY Mode 2 using this hold down function, Option 4 in "LOCATION 429" on page 220 will need to be enabled.

If an alarm has occurred or entry warning has been triggered, a valid user code will need to be used to disarm the system.

Refer to Setting STAY Mode 2 Zones using the Installer Code function on page 85 or Setting STAY Mode 2 Zones using the Master Code function on page 101 for more information.

Horn Speaker Test

1

Holding the 1 button down until two beeps are heard will sound the horn speaker for a two-second burst. No other sounding device will sound in this mode.

Bell Test

2

Holding the 2 button down until two beeps are heard will sound the internal screamers for a two-second burst. No other sounding device will sound in this mode.

If an EDMSAT (SS914) has been connected to the control panel, this function will test both the horn speaker and the strobe connected to the satellite siren for a two second burst.

Strobe Test

3

Holding the 3 button down will operate the strobe. No other device will operate in this mode.

If an EDMSAT (SS914) has been connected to the control panel, this function will also test the strobe on the satellite siren.

How To Turn Strobe Test ON

1. Hold down the 3 button until three beeps are heard.
The strobe will begin to flash.

How To Turn Strobe Test OFF

1. Hold down the 3 button until two beeps are heard.
The strobe will stop flashing.

Turning Day Alarm On and Off

4

Holding the 4 button down will turn day alarm on or off. If the STAY indicator is required to indicate the status of day alarm operation (enabled/disabled), refer to Option 8 in "LOCATION 428" on page 219 for further information. The STAY indicator when enabled, will flash once every 3 seconds to display when day alarm is active.

How To Turn Day Alarm ON

1. Hold down the 4 button until three beeps are heard.
Day alarm has now been turned on.

How To Turn Day Alarm OFF

1. Hold down the 4 button until two beeps are heard.
Day alarm has now been turned off.

Fault Analysis Mode

5 There are various system faults that can be detected by the control panel. When any of these faults are present, the FAULT indicator will begin to flash and the codepad will beep once every minute. Refer to Fault Descriptions on page 64 for a more detailed description on each fault type.

How To Determine The Type Of Fault

1. Hold the 5 button down until two beeps are heard.
The STAY and AWAY indicators will begin to flash in unison with the FAULT indicator. One or more ZONE indicators (1-8) will illuminate to indicate the type of fault that has occurred.

How To Exit Fault Analysis Mode

1. To exit fault analysis mode, press the AWAY button.
The STAY and AWAY indicators will extinguish and return you to the disarmed state.

Zone Indicator	Fault Description
1	Low Battery
2	Date and Time
3	Sensor Watch
4	Horn Speaker Disconnected
5	Telephone Line Fault
6	E^2 Fault
7	Fuse Fail
8	Communications Failure

Table 42: Fault Indicators

Initiate A Modem Call

6 Holding the 6 button down until two beeps are heard will force the control panel to dial the call back telephone number programmed in "LOCATION 159 - 174" on page 139 in an attempt to connect to the installer's remote computer.

The remote computer will be required to be running the Alarm Link Software (CC816) and will need to be set to "Waiting For An Incoming Call". If no call back telephone number has been programmed, holding down the 6 button will have no effect.

Reset Latching Outputs

7 Holding the 7 button down until two beeps are heard will reset any programmable output that has been programmed to remain on once it has been activated.

The output will need to be programmed with a latching polarity. Refer to Output Polarity on page 199 for further information.

Codepad Buzzer Tone Change

8

Holding the 8 button down continuously will change the tone of the buzzer in the remote codepad. There are fifty different tones to choose from between 1500 Hz - 5000 Hz and they are specific to each codepad. In a multiple codepad installation, each codepad can have a different tone.

How To Change The Tone Of The Buzzer

1. To change the tone of the codepad buzzer, hold the 8 button down continuously. The tone of the buzzer will start to increase in pitch.

2. Release the 8 button when the desired tone has been reached.

Every time the system has been powered down, each codepad will need their individual tone reset using this function.

Send Test Report

9

Holding the 9 button down until two beeps are heard will transmit a test report (Contact ID Event Code 602) that is used to test the dialling and reporting capabilities of the system without causing the sirens to sound.

A test report will not be transmitted if the Subscriber ID Number is 0000. This feature is only applicable if the control panel has been programmed to report via the telephone.

Remote System Operations Via Telephone

This section includes the following;

- *Remote Arming Via The Telephone*

Remote Arming Via The Telephone

This feature allows you to arm your system from any remote location via the telephone line. For obvious security reasons, the system cannot be disarmed using this method. To make use of this feature, you will require a touch-tone telephone or the Phone Controller (CC911).

How To Remotely Arm Your System Via The Telephone

1. Call the telephone number that your control panel has been connected to.

2. When the control panel answers the incoming call, a short jingle will be heard. Hold the phone controller to the mouthpiece of the telephone and press the button on the side of the unit for 3 seconds. You can alternatively press the * button on the touch-tone telephone for 3 seconds to arm the system.

If you hear a number of strange sounding tones when the control panel answers the incoming call, this means that the system has been programmed for remote programming functions. Simply wait for a pause in the tones and follow step 2 to remotely arm the system.

3. After releasing the button on the phone controller or the * button on the touch-tone telephone, two beeps will be heard to indicate that the system has armed in AWAY Mode.

4. Hang up the telephone and the system will remain armed.

If the control panel does not answer the call, this means that the system may already be armed, remote functions have not been enabled or the ring count has been set to zero. Refer to Option 2 in "LOCATION 177" on page 145 to enable remote arming via the telephone and “LOCATION 175” on page 140 to set the number of rings before the control panel will answer.

Where both remote arming and Upload/Download via the Installer’s remote computer have been selected, the control panel will answer the call expecting the remote computer. This is easily noticed, as the modem negotiating tones will be heard rather than the remote arming jingle.

Alarm Link Operations

This section includes the following;

- *Alarm Link Software*
- *Remote Connect*
- *Remote Connect With Customer Control*
- *Remote Connect Without Call Back Verification*
- *Remote Connect With Call Back Verification*
- *Direct Connect*
- *Alarm Link Options*

Alarm Link Software

The *Solution 862* control panel can be remotely programmed or controlled via an IBM or compatible personal computer via the Alarm Link Software (CC816). This facility will allow you to make alterations to your customers control panel without the need to leave your office, thus improving customer service and saving you time and money. For country locations where a control panel may be situated hundreds of kilometres from your office, the Upload/Download feature is invaluable.

When selecting the control panel type during the setup of a new customer database in the Alarm Link Software, refer to the table below to select the software version number that corresponds to the control panel type required.

Control Panels Software Version	Select Panel Type
Solution 862 V1.00 – 1.02	S406_V10

Table 43: Alarm Link Panel Forms

After selecting the correct panel type when adding a new customer in the Alarm Link Software, the Subscriber ID Number and the Installer Code must match that of the control panel for synchronisation when making connection to the control panel. If these two locations do not match that of the control panel, the computer and the control panel will not synchronise.

Remote Connect

The remote connect feature allows you to establish a connection through the telephone network from your IBM or compatible computer to the *Solution 862* control panel anywhere in the country where a telephone line is present. The advantages of this are very obvious and having this facility will allow you to offer faster service to your clients.

Remote Connect With Customer Control

If you wish to configure the control panel so that a remote connection can only be established when the client initiates it through the remote codepad, you will need to program the following information.

"LOCATION 159 - 174" on page 139 will need to have the Call Back Telephone Number programmed and Option 1 in "LOCATION 180" on page 117/148 will need to be disabled. The control panel has now been set so that the client has control of when a remote connection can be established.

To activate the control panel to dial the remote computer to establish a link, hold the 6 button down until two beeps are heard on the remote codepad.

Remote Connect Without Call Back Verification

Remote connect without call back verification can be handy where you have a need to perform Upload/Download functions from multiple locations.

There are two methods that you may program so that the call back verification is disabled. It should be noted that by using this feature you are reducing the security of the control panel.

Method One

Method one allows you to call the control panel from any remote location without the need of having the control panel call back to the computer to establish a link. In using method one, the customer has no access to initiate a modem call by holding down the 6 button. The following locations need to be programmed for this method to operate.

"LOCATION 159 - 174" on page 139 should be programmed as zeros. Option 1 in "LOCATION 180" on page 117/148 will need to be enabled and Option 2 needs to be disabled. The control panel will now allow a connection of the first call without calling the remote computer back to make contact.

Method Two

Method two allows you to program a call back telephone number so that the customer can still initiate a modem call when required, but when calling the control panel via the computer from any remote location, the control panel does not call back the remote computer to establish a link.

"LOCATION 159 - 174" on page 139 should have the call back telephone number programmed if required. Option 1 in "LOCATION 180" on page 117/148 will need to be enabled and Option 2 needs to be disabled.

The control panel will now allow a connection of the first call without calling the remote computer back to make contact but still allow the customer to initiate a modem call by holding down the 6 button when required.

Remote Connect With Call Back Verification

Remote connect with call back verification offers the highest degree of data security by incorporating a two level security check.

The first is the Installer Code combined with the Subscriber ID Number needs to match that of the control panel. Secondly, the control panel will call back the programmed call back telephone number to establish the valid connection. The "Call Back Telephone Number" is the telephone line that the modem and computer has been connected to.

"LOCATION 159 - 174" on page 139 must be programmed with the Call Back Telephone Number and both Option 1 and Option 2 in "LOCATION 180" on page 117/148 will need to be enabled.

Direct Connect

The direct connect feature has been incorporated giving the installer a simple method for programming the *Solution 862* control panel at the office or on site visits using a portable computer. There is no need for telephone lines or modems that makes programming of the control panel completed easily in minutes.

All that is required is the Direct Link Cable (CC808) connected to the correct serial port on your IBM or compatible computer and the other end to the auxiliary module socket on the control panel.

When using the direct connect method of connecting to the control panel, Option 1 in "LOCATION 180" on page 117/148 does not require to be enabled. The direct connect method of programming or operating the control panel will operate regardless of this option being set.

Alarm Link Options

LOCATION 180 3

Option	Description
1	Enable Upload/Download Via Alarm Link
2	Enable Alarm Link Call Back
4	Terminate Alarm Link Connection On Alarm
8	Use External Modem Module (CC811) For Alarm Link Operations

Table 44: Alarm Link Options

Enable Upload/Download Via Alarm Link

1 This option will need to be selected if you require to use the Alarm Link Software (CC816) to remotely program the control panel. The control panel will not respond to the Alarm Link Software if this option is not selected. Refer to Alarm Link Software on page 114 for more information.

Enable Alarm Link Call Back

2 If this option has been selected and a call back telephone number has been programmed, the remote programming computer must be connected to the telephone line that has been programmed in the call back telephone number in "LOCATION 159 - 174" on page 139.

If this option is not selected, it will allow the installer to connect to their customers control panel from any remote location when attempting upload/download operations without the need to wait for the control panel to call back to the remote computer, but still allows the ability for the customer to initiate the modem call from the codepad when requested by holding down the 6 button. Refer to Alarm Link Software on page 114 for more information.

Terminate Alarm Link Connection On Alarm

4 If the control panel is communicating with a remote computer via Alarm Link Software (CC816) and an alarm has registered, the Alarm Link session will be terminated and the relevant alarm message will then be transmitted to the base station receiver.

If an alarm occurs that does not need to report to the base station receiver, the session will not be terminated. If this option has not been selected and an alarm has registered, the Alarm Link software will prompt the operator with a "Terminate" or "Continue" message.

Use External Modem Module (CC811) For Alarm Link Operations

8 If this option has been selected, the control panel will use the external plug-in Module (CC811) for remote programming operations via the Alarm Link Software (CC816). This option should only be enabled where the telephone line is susceptible to noise.

Domestic Dialling

This section includes the following;

Domestic Dialling Format

The locations of the primary telephone number and secondary telephone number for Receiver 1 or Receiver 2 are only used for base station reporting and pager reporting. When either Receiver 1 or Receiver 2 is set up for domestic reporting, both the primary telephone number and the secondary telephone number will be ignored.

The domestic dialling telephone numbers are located separately in “LOCATIONS 466 – 514” making provision to store up to 48 digits. The 48 locations are used to store any number of telephone numbers and subject to the length of each telephone number, it is possible to store 4 or more different telephone numbers for domestic dialling.

If both Receiver 1 and Receiver 2 have been set up for domestic reporting format, you would still have 48 data locations and both Receiver 1 and Receiver 2 would use the same domestic telephone numbers. The ability to program separate domestic telephone numbers for Receiver 1 and Receiver 2 is not available for domestic dialling format.

Refer to Setting Up and Programming Domestic Reporting on page 121 for more information.

Domestic Dialling Function

When the control panel has activated into alarm condition, it will commence dialling the first telephone number programmed. If a busy or engaged tone has been detected, the control panel will hang up and commence dialling the second telephone number (if one is programmed). However, the first call will be counted as one unsuccessful dialling attempt. If the second telephone number is also busy or an engaged tone is detected, the control panel will hang up and commence dialling the third telephone number (if one is programmed) or return to the first telephone number.

If a busy tone is not detected, the control panel will assume that the telephone has been answered and will begin sending its transmission. The transmission sequence consists of an identification beep, followed by a siren tone and a long pause. The transmission sequence will repeat itself until the control panel receives an acknowledgment tone during the pause or the control panel automatically hangs up after a period of two minutes. The identification beep will allow the customer to verify which control panel made the call if more than one control panel is reporting to the same telephone number. The identification beep is programmed in "LOCATION 039" of the Subscriber ID Number For Receiver 1 or “LOCATION 079” of the Subscriber ID Number For Receiver 2.

A maximum of six calls per alarm event will be made when the control panel has been set up for "Domestic Dialling Format". This count includes any unsuccessful calls. The counter will be reset if the zone re-triggers and a further six attempts will be made. The control panel will stop dialling after six attempts or three successful calls. The control panel will also stop dialling if a valid user code has been entered at the remote codepad.

If both Receiver 1 and Receiver 2 have been programmed for domestic dialling, the maximum number of calls per alarm event is twelve.

Acknowledge Domestic Dialling

Once the call has been received, if it is not acknowledged during any of the transmission pauses by pressing the * button on a touch tone telephone or by using the Phone Controller (CC911), the control panel will continue to send its transmission for a period of 2 minutes. It will then hang up and commence dialling the next telephone number. If the call is successfully acknowledged, the control panel will hang up and no further calls will be made for that event.

Setting Up and Programming Domestic Reporting

Programming the control panel for domestic reporting has been made extremely simple by the use of the Installer's Programming Command 965. Refer to Command 965 - Set Up Domestic Dialling Format on page 37 for more information.

How To Set Up The Control Panel For Domestic Dialling

1. Enter Installer's Programming Mode (EG: 1 2 3 4 followed by the [AWAY] button). Two beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Enter Command 9 6 5 followed by the [AWAY] button.
Two beeps will be heard. The control panel has now been set up for Domestic Dialling Format. Refer to Command 965 - Set Up Domestic Dialling Format on page 37 for more information.

3. Exit Installer's Programming Mode by entering Command 9 6 0 followed by the [AWAY] button. Two beeps will be heard and the STAY and AWAY indicators will extinguish. The system will now return to the disarmed state.

4. Enter your [MASTER CODE] followed by 2 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

If there are telephone numbers programmed, they will be displayed one digit at a time via the codepad indicators.

If there are no telephone numbers programmed, a further two beeps will be heard after entering this mode. These two beeps are normally heard after the last digit of the last phone number has been displayed.

5. Enter all the digits for [PHONE No 1], one digit at a time. You will notice as each digit is entered, the corresponding codepad indicators will illuminate.

6. If there is more than one telephone number, press the [STAY] button followed by the 4 button after the last digit of the telephone number. This will insert a break between the first telephone number and the second telephone number. If there is only one telephone number, press the [AWAY] button to exit this mode.

7. Enter all the digits for [PHONE No. 2], one digit at a time. You will notice as each digit is entered, the corresponding codepad indicators will illuminate.

8. After the last digit of the second telephone number, press the [AWAY] button to exit this mode unless a third telephone number is required. If there is a third telephone number to be programmed, press the [STAY] button followed by the 4 button to insert a break between the second telephone number and the third telephone.

[MASTER CODE] + 2 + [AWAY]
+ [PHONE No 1] + [STAY] + 4 + [PHONE No. 2] + [AWAY]

Digit Required	Number To Program	Digit Required	Number To Program
0	0	**8**	8
1	1	**9**	9
2	2	*****	* Followed By 1
3	3	**#**	* Followed By 2
4	4	**Four Second Pause**	* Followed By 3
5	5	**Break**	* Followed By 4
6	6		
7	7		

Table 45: Domestic Dialling Digits

Example

If you wish to program two separate telephone numbers (9672 1777 and 9672 1233), follow the sequence below and replace the telephone numbers mentioned in the manual with the telephone numbers that you wish to program.

2 5 8 0 + 2 + [AWAY]
+ 9 6 7 2 1 7 7 7 + [STAY] + 4
+ 9 6 7 2 1 2 3 3 + [AWAY]

Disable Domestic Dialling

If at any time you wish to cancel domestic dialling for any reason (e.g.. You are moving house and do not wish the system to continue calling your work place or mobile phone etc), you may enter your [MASTER CODE] followed by 2 and the [AWAY] button, the [STAY] button followed by the 4 and the [AWAY] button to disable domestic dialling.

[MASTER CODE] + 2 + [AWAY] + [STAY] + 4 + [AWAY]

Dialler Reporting Formats

This section includes the following;

- *Transmission Formats*
- *Contact ID Format*
- *Point ID Codes*
- *4+2 Reporting Format*
- *Basic Pager Reporting Format*
- *Basic Pager Display Information*

Transmission Formats

When making use of the control panel's dialling and communication features, there are a number of transmission formats available. Refer to "LOCATION 033" on page 133 to set the required transmission format for Receiver 1 and “LOCATION 073” on page 136 to set the required transmission formation for Receiver 2. The Solution 862 control panel comes factory default to report in the Contact ID Format.

Contact ID Format

This format can identify hundreds of protection zones by their unique code and provides a single digit event qualifier and a three digit event code that quickly identifies the condition being reported.

Subscriber ID Number	Qualifier	Event Code	Group Number	Point ID Number
SSSS	**Q**	**XYZ**	**GG**	**CCC**
Four Digit Subscriber ID Number	Event Qualifier, Which Gives Specific Event Information. 1 = New Event Or Opening 3 = New Restore Or Closing	Event Code (Made Up Of 3 Hex Digits)	Group Number (Made Up Of 2 Hex Digits)	Point ID Number (Made Up Of 3 Hex Digits)

Table 46: Contact ID Format Breakdown

In general, Contact ID reporting format is very simple as most of the Event Codes and Point ID Codes have been predefined. The base station software usually only has the ability to identify a zone going into alarm by its Point ID Code and usually pays little attention to the Event Code.

Refer to "Table 47: Point ID Codes" on page 125 for further information on the Solution 862 Point ID Codes.

Point ID Codes

The table below shows the different Point ID Codes and Event Codes that are transmitted to the base station receiver when using Contact ID Reporting Format. All event codes are fixed and will always transmit the same code as there are no programming locations made available to alter these.

Point ID Number	Event Description	Event Code	Explanation	Page
Zones 1 - 8	Burglary Zone	130	Burglary	162
	Medical Zone	100	24 Hour Medical	163
	Panic Zone	120	24 Hour Panic	163
	Hold-Up Zone	122	24 Hour Hold-Up	163
	Tamper Zone	137	24 Hour Tamper	163
	Burglary Zone	133	24 Hour Burglary	164
	Fire	110	24 Hour Fire	164
User Codes 1 - 16	Open/Close Report	401	Opening – User # Closing – User #	151
030	AC Mains Fail	301	AC Power	183
031	Low Battery	309	Battery Test Failure	184
040	Codepad Duress	121	Duress Alarm	180
041	Codepad Panic	120	Panic Alarm	180
046	Codepad Fire	110	Fire Alarm	181
045	Codepad Medical	100	Medical Alarm	181
042	Code Retry Limit Exceeded	421	Access Denied	185
044	Test Report	602	Test Report	187
Zone Specific 1 – 8	Sensor Watch	307	Sensor Self Test Failure	178
Zone Specific 1 - 8	Trouble	380	Sensor Trouble	177
Zone Specific 1 – 8	Bypass	570	Zone Bypass	176
00	Fuse Fail	300	System Trouble	182

Table 47: Point ID Codes

4+2 Reporting Format

The 4+2 Express Format will report a Subscriber ID Number followed by an expansion code and the reporting channel number is transmitted directly after the expansion code.

Subscriber ID Number	Expansion Code	Channel Number
SSSS	A	CH

Table 49: Example Reporting In 4+2 Format

New Event	4 + 2 Report	Event	4 + 2 Report
Alarm	SSSS AC_H	**Alarm Restore**	SSSS R C_H
Trouble	SSSS TC_H	**Trouble Restore**	SSSS TR C_H
Bypass	SSSS BC_H	**Bypass Restore**	SSSS B_R C_H
AC Fail	SSSS EA_C	**AC Fail Restore**	SSSS E_R A_{CR}
Low Battery	SSSS LL_B	**Low Battery Restore**	SSSS L_{BR} L_B
Opening Report	SSSS OU		
Closing Report	SSSS CU		
Test Report	SSSS T_EO		
Program Altered	SSSS P0		
Duress	SSSS DD_0		

Table 50: 4 + 2 Reporting Format

Code	Description	Code	Description
SSSS	Subscriber ID Number	**R**	Alarm Restore Code
A	Alarm	**TR**	Trouble Restore Code
CH	Channel Number	**BR**	Bypass Restore Code
0	Zero	**ER**	AC Fail Restore Code 1st Digit
T	Trouble	**ACR**	AC Fail Restore Code 2nd Digit
B	Bypass	**LR**	Low Battery Restore Code 1st Digit
E	AC Fail Code 1st Digit	**LBR**	Low Battery Restore Code 2nd Digit
AC	AC Fail Code 2nd Digit	**D**	Duress Code 1st Digit
L	Low Battery Code 1st Digit	**D0**	Duress Code 2nd Digit
LB	Low Battery Code 2nd Digit	**P**	Panic Code 1st Digit
OP	Open	**PCH**	Panic Code 2nd Digit
CP	Close	**TP**	Test Code
U	User Number		

Table 51: 4 + 2 Transmission Code Descriptions

Basic Pager Reporting Format

Basic Pager Format requires some interpretation of the numbers that appear on the display, however, it is possible to differentiate between 1000 different control panels when a number of control panels are reporting to the one pager.

How To Setup Receiver 1 For Basic Pager Reporting

1. "LOCATION 000 - 015" on page 131 requires the Basic Pager's access telephone number programmed.
2. “LOCATION 034 – 039” on page 133 requires a Subscriber ID Number programmed.
3. "LOCATION 032" on page 132 requires "Option 5 - Pager Handshake" to be selected.
4. "LOCATION 033" on page 133 requires "Option 5 - Basic Pager Format" to be selected.

How To Setup Receiver 2 For Basic Pager Reporting

1. "LOCATION 040 - 055" on page 134 requires the Basic Pager's access telephone number programmed.
2. “LOCATION 074 – 079” on page 136 requires a Subscriber ID Number programmed.
3. "LOCATION 072" on page 135 requires "Option 5 - Pager Handshake" to be selected.
4. "LOCATION 073" on page 136 requires "Option 5 - Basic Pager Format" to be selected.

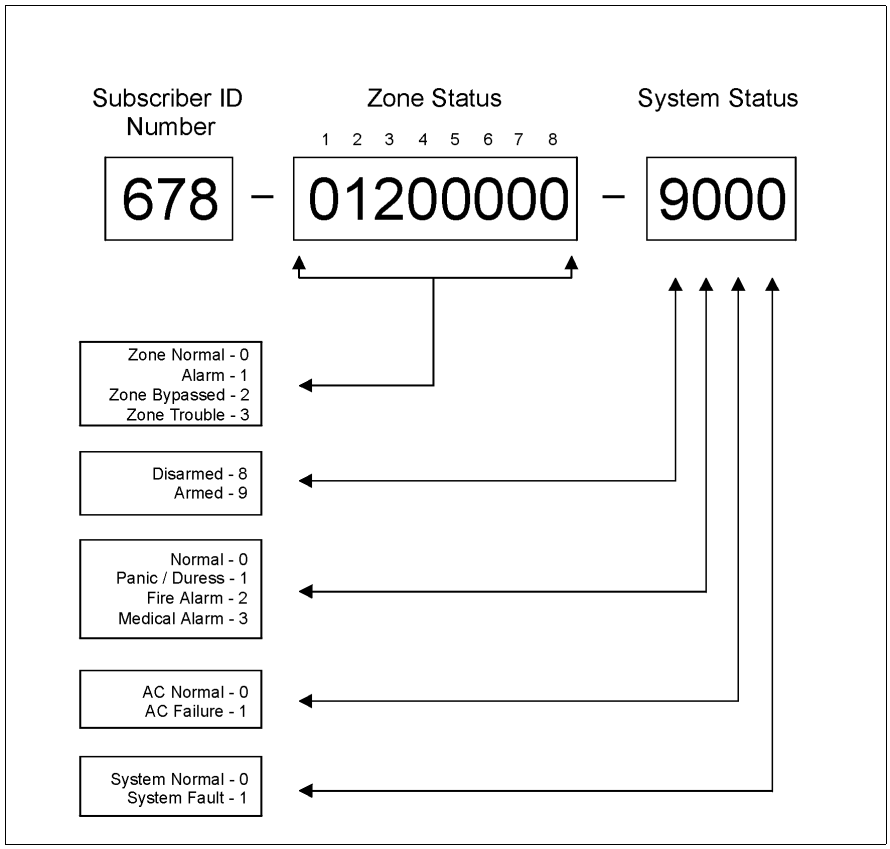


Figure 6: Basic Pager Display

The example in "Figure 6: Basic Pager Display" shows that the transmission has come from Subscriber ID Number 678 and that Zone 2 is in alarm, Zone 3 has been manually isolated, the system is armed, the panic zone is normal, the AC is connected and there is no fault condition.

Basic Pager Display Information

Subscriber ID Number

This is the identification number of the control panel and is programmed in "LOCATION 034 – 039" on page 133 for Receiver 1 and "LOCATION 074 – 079" on page 136 for Receiver 2. The pocket pager will only display the last three digits of the Subscriber ID Number.

Zone Status

The zone status display shows you the status of each zone (1 - 8) of the control panel. The following table below describes what each number means when displayed on the zone status display of the pocket pager.

Number Displayed	Zone Description
0	**Zone Normal** This indicates that the corresponding zone is in the sealed state.
1	**Alarm** This indicates that the corresponding zone is unsealed and in alarm condition.
2	**Zone Bypassed** This indicates that a system operator has manually isolated the corresponding zone. Refer to Isolating Zones on page 60 for information on how to manually isolate a zone(s) prior to arming the system Refer to Zone Status – Bypass Reports on page 176 for more information.
3	**Zone Trouble (Software Version 1.02)** This indicates that a zone was left unsealed after the end of exit time. Refer to Zone Status – Trouble Reports on page 177 for more information.

Table 52: Zone Status Display Descriptions

System Status

The system status information is divided up into 4 digits. The first digit of the system status display indicates whether the system is armed or disarmed (8 = Disarmed / 9 = Armed).

The second digit on the system status display indicates which codepad alarm was triggered by the operator (0 = No Codepad Alarm / 1 = Codepad Panic or Duress / 2 = Codepad Fire Alarm / 3 = Codepad Medical Alarm). Refer to Figure 3: CP5 LED Codepad Showing Audible Alarm Buttons on page 59 for more information.

The third digit on the system status display indicates when the AC mains supply has failed (0 = AC mains supply is normal / 1 = AC mains supply has failed or disconnected).

The fourth digit on the system status display indicates when a system fault has occurred at the control panel (0 = System Normal – There is no faults / 1 = System Fault – There is a fault registered by the control panel). Refer to Fault Analysis Mode on page 63 for more information.

Dialler Information

This section includes the following;

- *Dialler Information*
- *Primary Telephone Number For Receiver 1*
- *Secondary Telephone Number For Receiver 1*
- *Handshake Tone For Receiver 1*
- *Transmission Format For Receiver 1*
- *Subscriber ID Number For Receiver 1*
- *Primary Telephone Number For Receiver 2*
- *Secondary Telephone Number For Receiver 2*
- *Handshake Tone For Receiver 2*
- *Transmission Format For Receiver 2*
- *Subscriber ID Number For Receiver 2*
- *Dialling Format*
- *Telco Arming Sequence*
- *Telco Disarming Sequence*
- *Call Back Telephone Number*
- *Ring Count*
- *Telephone Line Fault Options*

Dialler Information

This section outlines the programming information required for the *Solution 862* control panel when communicating with base station receivers. Typically these parameters specify the telephone numbers to call, the transmission formats, handshake tones and transmission speeds.

The control panel has the ability to report event information from two on-board diallers. The first dialler reports to Receiver 1 and the second dialler reports to Receiver 2. Each dialler has the ability to be programmed with two separate telephone numbers, handshake tone, reporting format type and Subscriber ID Number.

Example

Dialler 1 could be set up to report in Domestic Dialling Format and reports to Receiver 1. Dialler 2 could be set up to report to a base station receiver in Contact ID Format only when Dialler 1 was unsuccessful.

How To Program A Telephone Number

When programming the telephone number, if a '0' is required, it must be programmed as a '10'. Each location in the primary, secondary and call back telephone numbers hold one digit of the telephone number.

To tell the dialler when the end of the telephone number has been reached, a '0' must be inserted at the end of the telephone number. Therefore the dialling sequence will be terminated when a zero appears.

Example

To program the telephone number 9672 1055 as the Primary Telephone Number for Receiver 1, you would program the following:

LOCATION 000 - 015

9 6 7 2 1 [10] 5 5 0 0 0 0 0 0 0 0.

Programming A Four Second Pause In The Telephone Number

To enter a four-second pause in the dialling sequence, you would need to program the value '13'. This may be necessary when the dialler is communicating through an old (slower) telephone exchange or where a PABX system is in place.

Example

To program the telephone number 02 pause 9672 1055 as the Primary Telephone Number for Receiver 2, you would program the following:

LOCATION 040 - 055

[10] 2 [13] 9 6 7 2 1 [10] 5 5 0 0 0 0.

Digit Required	Number To Program	Digit Required	Number To Program
0	10	**8**	8
1	1	**9**	9
2	2	**End Of Number**	0
3	3	*****	11
4	4	**#**	12
5	5	**4 Second Pause**	13
6	6	**Break**	14
7	7		

Table 53: Dialling Digits

Primary Telephone Number For Receiver 1

LOCATION 000 - 015 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

When the control panel needs to transmit a report, the control panel will dial this number in an attempt to contact the monitoring station or pager etc. If the call is successful, the relevant information will be transmitted and the dialler will return back to the stand-by mode.

If unsuccessful, the dialler will attempt two more times using the primary telephone number for receiver 1, after which the secondary telephone number for receiver 1 will be called three times. If the dialling sequence is still unsuccessful, the control panel will then attempt to repeat this procedure dialling the primary telephone number and the secondary telephone number for receiver 2 if programmed.

This procedure will be repeated only once again (i.e. Maximum of 12 call attempts per alarm) after ten minutes if none of the first 6 attempts were successful if only the primary telephone number and secondary telephone number for receiver 1 has been programmed.

If the primary telephone number and secondary telephone numbers for both receiver 1 and receiver 2 have been programmed, a maximum of 24 call attempts per alarm will be made.

Contact your monitoring station or pager company for the relevant telephone numbers before programming these locations.

When Receiver 1 has been set up for domestic reporting, telephone numbers programmed into these locations will be ignored. Refer to Changing Domestic Phone Numbers on page 78 when using the Installer Code function and Changing Domestic Phone Numbers on page 94 when using the Master Code function.

Secondary Telephone Number For Receiver 1

LOCATION 016 - 031 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Refer to the Primary Telephone Number For Receiver 1 for programming information.

When Receiver 1 has been set up for domestic reporting, telephone numbers programmed into these locations will be ignored. Refer to Changing Domestic Phone Numbers on page 78 when using the Installer Code function and Changing Domestic Phone Numbers on page 94 when using the Master Code function.

Handshake Tone For Receiver 1

LOCATION 032 1

This location sets the type of handshake tone required for receiver 1 before data transmissions to the monitoring station will begin.

1. HI LO Handshake Tone is required when the control panel requires to communicate in Contact ID Format or High Speed DTMF.

2. 1400 Hz Handshake Tone is required when the control panel requires to communicate in Ademco Lo Speed Format or Domestic Dialling Format.

3. Reserved.

4. No Handshake Tone is not recommended.

5. Pager Handshake Tone is required when the control panel needs to communicate in Basic Pager Format.

Option	Handshake Tone	Option	Handshake Tone
1	HI LO Handshake (Contact ID Format)	**4**	No Handshake
2	1400 Hz Lo Speed (Ademco Tx At 1900Hz)	**5**	Pager Handshake
3	2300 Hz (Low Speed Sescoa)		

Table 54: Handshake Tones For Receiver 1

Transmission Format For Receiver 1

LOCATION 033 1

Enter the desired transmission format here. This location selects the data format that will be transmitted to the base station receiver. This location also allows you to configure the control panel for domestic or basic pager formats.

Option	Transmission Format	Option	Transmission Format
1	Contact ID	**4**	Domestic
2	4 + 2 Express	**5**	Basic Pager
3	FSK (300 Baud) BELL		

Table 55: Transmission Formats For Receiver 1

Subscriber ID Number For Receiver 1

LOCATION 034 – 039 0 0 0 0 0 0

This number is transmitted to identify the calling control panel. Enter the desired Subscriber ID Number in the six locations provided. For Basic Pager Format, "LOCATION 034 – 036" will be ignored and the first digit of the Subscriber ID Number required must start in "LOCATION 037". When using Domestic Dialling Format, the number of identification beeps will be the number that is programmed in "LOCATION 039". This gives the ability to identify between 15 different control panels calling the same telephone number.

Example

If you wish to program the Subscriber ID Number as 4729, you would program the six locations as follows:

0 0 4 7 2 9

Primary Telephone Number For Receiver 2

LOCATION 040 - 055 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

When the control panel needs to transmit a report, the control panel will dial this number in an attempt to contact the monitoring station or pager etc. If the call is successful, the relevant information will be transmitted and the dialler will return back to the stand-by mode.

If unsuccessful, the dialler will attempt two more times using the primary telephone number for receiver 1, after which the secondary telephone number for receiver 1 will be called three times. If the dialling sequence is still unsuccessful, the control panel will then attempt to repeat this procedure dialling the primary telephone number and the secondary telephone number for receiver 2 if programmed.

This procedure will be repeated only once again (i.e. Maximum of 12 call attempts per alarm) after ten minutes if none of the first 6 attempts were successful if only the primary telephone number and secondary telephone number for receiver 1 has been programmed.

If the primary telephone number and secondary telephone numbers for both receiver 1 and receiver 2 have been programmed, a maximum of 24 call attempts per alarm will be made.

Contact your monitoring station or pager company for the relevant telephone numbers before programming these locations.

When Receiver 2 has been set up for domestic reporting, telephone numbers programmed into these locations will be ignored. Refer to Changing Domestic Phone Numbers on page 78 when using the Installer Code function and Changing Domestic Phone Numbers on page 94 when using the Master Code function.

Secondary Telephone Number For Receiver 2

LOCATION 056 - 071 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Refer to the Primary Telephone Number For Receiver 2 on page 134 for more information.

When Receiver 2 has been set up for domestic reporting, telephone numbers programmed into these locations will be ignored. Refer to Changing Domestic Phone Numbers on page 78 when using the Installer Code function and Changing Domestic Phone Numbers on page 94 when using the Master Code function.

Handshake Tone For Receiver 2

LOCATION 072 1

This location sets the type of handshake tone required for Receiver 2 before data transmissions to the monitoring station will begin.

1. HI LO Handshake Tone is required when the control panel requires to communicate in Contact ID Format or High Speed DTMF.

2. 1400 Hz Handshake Tone is required when the control panel requires to communicate in Ademco Lo Speed Format or Domestic Dialling Format.

3. Reserved.

4. No Handshake Tone is not recommended.

5. Pager Handshake Tone is required when the control panel needs to communicate in Basic Pager Format.

Option	Handshake Tone	Option	Handshake Tone
1	HI LO Handshake (Contact ID Format)	**4**	No Handshake
2	1400 Hz Lo Speed (Ademco Tx At 1900Hz)	**5**	Pager Handshake
3	2300 Hz (Low Speed Sescoa)		

Table 56: Handshake Tones For Receiver 2

Transmission Format For Receiver 2

LOCATION 073 1

Enter the desired transmission format here. This location selects the data format that will be transmitted to the base station receiver. This location also allows you to configure the control panel for domestic or basic pager formats.

Option	Transmission Format	Option	Transmission Format
1	Contact ID	**4**	Domestic
2	4 + 2 Express	**5**	Basic Pager
3	FSK (300 Baud) BELL		

Table 57: Transmission Formats For Receiver 2

Subscriber ID Number For Receiver 2

LOCATION 074 – 079 000000

This number is transmitted to identify the calling control panel. Enter the desired Subscriber ID Number in the six locations provided. For Basic Pager Format, "LOCATION 074 – 076" will be ignored and the first digit of the Subscriber ID Number required must start in "LOCATION 077". When using Domestic Dialling Format, the number of identification beeps will be the number that is programmed in "LOCATION 079". This gives the ability to identify between 15 different control panels calling the same telephone number.

Example

If you wish to program the Subscriber ID Number as 4729, you would program the six locations as follows:

004729

Dialling Format

LOCATION 080 1

The method for dialling telephone numbers is entered here. Options 3 and 6 will alternate the dialling sequence between DTMF and Decadic if the call to the base station receiver was unsuccessful. Caution should be exercised when selecting the dialling method.

Only use the Australian method if the control panel is to be connected to the Australian Telecommunications Network. The International DTMF dialling option should only be used in those countries that allow both the caller and the receiver to terminate the phone call. Using the incorrect format will disable EDM's patent Telephone Anti-Jamming feature.

Option	Dialling Format	Option	Dialling Format
1	Australian DTMF (5 Digits/Second)	**4**	International DTMF (Touch Tone)
2	Australian Decadic	**5**	Reversed Decadic (10 Minus 1)
3	Alternating DTMF & Australian Decadic	**6**	Alternate DTMF & Reversed Decadic

Table 58: Dialling Formats

The alternating sequence is as follows; DTMF - Decadic - DTMF - Decadic - DTMF - Decadic

Reserved

LOCATION 081 – 112

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Telco Arming Sequence

LOCATION 113 – 142

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

These locations allow you to automatically activate call diversion on your telephone when you arm the system in AWAY Mode.

Upon activating the Telco Arming Sequence when arming the system in AWAY Mode, the control panel will redirect all calls to your mobile phone, pocket pager or answering service.

Contact your telecommunications provider for more information on Call Forward operations.

Digit Required	Number To Program	Digit Required	Number To Program
0	10	**8**	8
1	1	**9**	9
2	2	**10**	10
3	3	*****	11
4	4	#	12
5	5	**Four Second Pause**	13
6	6	**Break**	14
7	7	**15**	15

Table 59: Telco Arm/Disarm Dialling Digits

Telco Arming – Call Forward Immediate On

To turn Call Forward Immediate On:

* 2 1 (Telephone number you want calls to go to) #

Example

If you wish to immediately forward all incoming calls to the telephone number 96721055 upon arming the system in AWAY Mode, you would program the following:

[11] 2 1 9 6 7 2 1 [10] 5 5 [12] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Telco Arming – Call Forward No Answer On

To turn Call Forward No Answer On:

* 6 1 (Phone number you want calls to go to) #

Example

If you wish to forward all incoming calls to the telephone number 96721055 upon arming the system in AWAY Mode when there is no answer, you would program the following:

[11] 6 1 9 6 7 2 1 [10] 5 5 [12] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Telco Disarming Sequence

LOCATION 143 – 158 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

These locations allow you to automatically deactivate call diversion on your telephone when you disarm the system from AWAY Mode.

Digit Required	Number To Program	Digit Required	Number To Program
0	10	**8**	8
1	1	**9**	9
2	2	**10**	10
3	3	*****	11
4	4	#	12
5	5	**Four Second Pause**	13
6	6	**Break**	14
7	7	**15**	15

Table 60: Telco Arm/Disarm Dialling Digits

Telco Arming – Call Forward Immediate Off

To turn Call Forward Immediate Off:

2 1

Example

If you wish to disable the Telco Arming – Call Forward Immediate upon disarming the system from AWAY Mode, you would program the following:

[12] 2 1 [12] 0 0 0 0 0 0 0 0 0 0 0 0

Telco Arming – Call Forward No Answer Off

To turn Call Forward No Answer Off:

6 1

Example

If you wish to the Telco Arming – Call Forward No Answer upon arming the system from AWAY Mode, you would program the following:

[12] 6 1 [12] 0 0 0 0 0 0 0 0 0 0 0 0

Call Back Telephone Number

LOCATION 159 - 174 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

This location contains the telephone number that will be called when Upload/Download is requested or the number 6 button is held down to initiate a modem call from the control panel to establish a communications link with the remote computer. The computer must be running the Alarm Link Software (CC816) and will need to be set to "Waiting For An Incoming Call". The Call Back Telephone Number is also required to be programmed if Remote Connect With Call Back Verification on page 115 is required.

Refer to the section - Alarm Link Operations beginning on page 113 for more information.

Ring Count

LOCATION 175 8

This location sets the number of rings before the control panel will answer an incoming call. This should be set at an acceptable level bearing in mind that one ring = "Ring, Ring - Ring, Ring" and that a ring count of 10 represents approximately 60 seconds. This location only has an effect if remote arming and/or remote Upload/Download via Alarm Link Software has been enabled. If this location is programmed as 'zero', then the answering of incoming calls will be totally disabled irrespective of any programmed options.

Answering Machine Bypass

Answering machine bypass has been incorporated so that it is possible to make a connection with the control panel for remote arming or Upload/Download when there is an answering machine or facsimile machine on the same telephone line. There are two different methods of using answering machine bypass as explained below. The secondary method should only be used when there is a large amount of traffic on the line (e.g.. A home office). It will reduce the chance of the control panel incorrectly answering incoming calls.

1. Programming the ring count as 15 will enable "Answering Machine Bypass" in the primary mode. When calling the control panel, let the phone ring for no more than 4 rings and then hang up. If you call again within 45 seconds, the control panel will answer the call on the first ring and the connection will be established. This will prevent the answering machine or facsimile from answering the call. Refer to Option 2 in "LOCATION 177" on page 145 if you wish to enable Answering Machine Bypass Only When System Is Armed.

2. Programming a 14 as the ring count will enable "Answering Machine Bypass" in the secondary mode. In this mode, when calling the control panel, allow the phone to ring for no more than 2 rings and then hang up. Wait a minimum of 8 seconds before calling the control panel again. The control panel will now answer on the first ring. If you do not wait the 8 seconds, the control panel will not answer the call. Refer to Option 2 in "LOCATION 177" on page 145 if you wish to enable Answering Machine Bypass Only When System Is Armed.

You should set the ring count on the answering machine or facsimile machine to be higher than two rings. Four or six rings would be preferred.

Programming a zero into this location will disable the control panel from answering an incoming call.

Telephone Line Fault Options

LOCATION 176 0

When programming this location, you will notice that there are four options per location. If you require options 1, 2, 4 or all of these options, only one number needs to be programmed. This number is calculated by adding the option bit numbers together. Program a 7 if you require options 1, 2 and 4 simultaneously (i.e. 1 + 2 + 4 = 7).

Option	Description
1	Display FAULT Indicator When Telephone Line Fails
2	Sound Alarm When System Is Armed
4	Sound Alarm When System Is Disarmed
8	Reserved

Table 61: Telephone Line Fault Options

The control panel has the ability to monitor the telephone line. If the telephone line has been cut or disconnected for more than forty seconds, the control panel will recognise this and the FAULT indicator will illuminate on the codepad. The FAULT indicator will extinguish once the telephone line has been restored for more than forty seconds.

Option 2 and 4 will not operate unless option 1 has been enabled.

Display FAULT Indicator When Telephone Line Fails

1

The FAULT indicator will flash and the codepad buzzer will beep once every minute if the control panel detects that the telephone line has been disconnected. Refer to Fault Descriptions on page 64 for more information.

Sound Alarm When System Is Armed

2

Option 1 in this location will also need to be selected for this option to operate. If the control panel detects that the telephone line has been disconnected when the system is armed in AWAY Mode, STAY Mode 1 or STAY Mode 2, the horn speaker, bell and strobe outputs will operate.

Sound Alarm When System Is Disarmed

4

Option 1 in this location will also need to be selected for this option to operate. If the control panel detects that the telephone line has been disconnected when the system is disarmed, the horn speaker, bell and strobe outputs will operate.

Reserved

8

If Options 1, 2 and 4 have been added together, the horn speaker, bell, strobe and EDMSAT outputs will operate when the system is armed or disarmed.

LOCATION 748 - 749 46

Location	Description
748	Increments Of 5 ms
749	Increments Of 80 ms

Table 62: Ring Burst Time Locations

(V1.07+) These locations program the ring burst time (Default = 500 ms). If the duration of the telephone ring tone is 1.5 seconds, programming the ring burst time more than the telephone ring duration (1.5 seconds); the control panel will not detect an incoming call. Always program the ring burst time less than the duration of the ring tone.

These locations are factory set and should not be changed unless required.

Dialler Options

This section includes the following;

- *Dialler Options 1*
- *Dialler Options 2*
- *Dialler Options 3*
- *Alarm Link Options*

Programming Option Bits

When programming these locations, you will notice that there are four options per location. You may select one, two, three or all four of these options, however, only one number needs to be programmed. This number is calculated by adding the option bit numbers together.

Example

If at "LOCATION 177" you want options 1, 2 and 4, add the numbers together and the total is the number to be programmed. In this example, the number to be programmed is 7 (i.e. 1 + 2 + 4 = 7).

Option	Description
1	Dialler Reporting Functions Allowed
2	Remote Arming Via The Telephone Allowed
4	Answering Machine Bypass Only When Armed
8	Use Bell 103 For FSK Format (Disabled = CCITT V21)

Table 63: Example - Programming Option Bits

Dialler Options 1

LOCATION 177 9

Option	Description
1	Dialler Reporting Functions Allowed
2	Remote Arming Via The Telephone Allowed
4	Answering Machine Bypass Only When Armed
8	Use Bell 103 For FSK Format (Disabled = CCITT V21)

Table 64: Dialler Options 1

Dialler Reporting Functions Allowed

1 If this option has been selected, the dialler will function for all operations. Upload/Download via Alarm Link Software (CC816) and telephone remote arming will remain operational regardless of this setting.

Disabled = Disable All Dialler Reporting Functions

If this option is not selected, the communication dialler will not operate. Upload/Download via Alarm Link Software (CC816) and telephone remote arming will remain operational regardless of this setting.

Remote Arming Via The Telephone Allowed

2 If this option has been selected, you can remotely arm the system via a standard telephone using the Phone Controller (CC911) or by pressing the * button on your touch tone telephone. Refer to Remote Arming Via The Telephone on page 112 for more information. Forced arming is automatically assumed when this feature is being used. Refer to Zone Options 2 on page 171 for more information on forced arming.

Whether remote functions have been enabled or disabled, this will have no effect on remote arming via the telephone. Refer to Ring Count on page 140 for programming the number of rings before the control panel will answer an incoming call.

Answering Machine Bypass Only When Armed

4 This option needs to be selected if the answering machine bypass feature is required to operate only when the system has been armed in AWAY Mode, STAY Mode 1 or STAY Mode 2. When the system is disarmed, the control panel will not answer any incoming calls. This option is beneficial in high telephone traffic installations where the control panel could answer an incoming call. Refer to Ring Count on page 140 to program answering machine bypass.

Use Bell 103 For FSK Format (Disabled = CCITT V21)

8 If this option is enabled, the control panel will use the transmission frequency BELL 103 at 300 baud. If this option is disabled, the control panel will use the transmission frequency CCITT V21 at 300 baud.

Dialler Options 2

LOCATION 178 **0**

Option	Description
1	Open/Close Reports Only If Previous Alarm
2	Open/Close Reports For STAY Mode 1 and STAY Mode 2
4	Delay Siren Until Transmission Complete
8	Extend Time To Wait For Handshake From 30 To 55 Seconds

Table 65: Dialler Options 2

Open/Close Reports Only If Previous Alarm

1

This option requires Open/Close reports in "LOCATION 333 - 334" to be enabled on page 179 for it to be effective.

An opening report will be transmitted to the base station receiver when the system has been disarmed after an alarm has occurred. When the system has been armed, a closing report will be transmitted. An opening or closing report will not report again until the system has registered another alarm condition.

If the system is disarmed when an alarm occurs, only a closing report will be transmitted when the system is next armed.

Open/Close Reports For STAY Mode 1 and STAY Mode 2

2

If open and close reports are required when the system is armed in STAY Mode 1 or STAY Mode 2, this option will need to be selected.

This option requires Open/Close reports in "LOCATION 333 - 334" to be enabled on page 179 for it to be effective.

Delay Siren Until Transmission Complete

4

If this option has been selected, the EDMSAT, horn speaker, bell and strobe outputs will not activate until the base station receiver has sent a kiss-off back to the control panel after the message has been transmitted. If multiple messages are transmitted, the sirens will activate after the last kiss-off has been sent.

However, the EDMSAT, horn speaker, bell and strobe outputs will activate as soon as a codepad panic, codepad fire and codepad medical alarms have been activated.

Extend Time To Wait For Handshake From 30 - 55 Seconds

8

The control panel after dialling the monitoring station will wait approximately 30 seconds for receipt of a valid handshake tone. The handshake tone indicates to the control panel that it has reached the monitoring station and can now transmit its messages. Enabling this option will extend the wait time from 30 seconds to 55 seconds.

Dialler Options 3

LOCATION 179 0

Option	Description
1	Set DTMF Dialling Pulses To 1 Digit/Second
2	Reserved
4	Change Decadic Dialling To 60/40
8	Reserved

Table 66: Dialler Options 3

Set DTMF Dialling Pulses To 1 Digit/Second

1

If this option is not selected, the dialling format – Australian DTMF dials at the rate of 5 digits per second (i.e. 100 ms tone, 100 ms pause, 100 ms tone, 100 ms pause).

If this option has been selected, the dialling format – Australian DTMF dials at the rate of 1 digit per second (i.e. 500 ms tone, 500 ms pause).

Reserved

2

Change Decadic Dialling To 60/40

4

Some countries have different requirements for decadic dialling. Setting this option will change the dialling characteristics from 65/35 (Australian Standard) to 60/40. This option should only be set when the control panel is used in a country that requires decadic dialling as 60/40. This option has no effect when using DTMF tone dialling.

Reserved

8

LOCATION 180 3

Option	Description
1	Upload/Download Allowed
2	Call Back Phone Number Required For Upload/Download
4	Terminate Upload/Download On Alarm
8	External Modem Module (CC811) Required For Upload/.Download

Table 67: Alarm Link Options

Upload/Download Allowed

1 This option will need to be selected if you require to use the Alarm Link Software (CC816) to remotely program the control panel. The control panel will not respond to the Alarm Link Software if this option is not selected. Refer to Alarm Link Software on page 114 for more information.

Call Back Phone Number Required For Upload/Download

2 If this option has been selected and a call back telephone number has been programmed, the remote programming computer must be connected to the telephone line that has been programmed in the call back telephone number in “LOCATION 159 - 174” on page 139.

If this option is not selected, it will allow the installer to connect to their customers control panel from any remote location when attempting upload/download operations without the need to wait for the control panel to call back to the remote computer, but still allows the ability for the customer to initiate the modem call from the codepad when requested by holding down the 6 button. Refer to Alarm Link Software on page 114 for more information.

Terminate Upload/Download On Alarm

4 If the control panel is communicating with a remote computer via Alarm Link Software (CC816) and an alarm has registered, the “Alarm Link” session will be terminated and the relevant alarm message will then be transmitted to the base station receiver.

If an alarm occurs that does not need to report to the base station receiver, the session will not be terminated. If this option has not been selected and an alarm has registered, the Alarm Link software will prompt the operator with a “Terminate” or “Continue” message.

External Modem Module (CC811) Required For Upload/Download

8 If this option has been selected, the control panel will use the external plug-in Modem Module (CC811) for remote programming operations via the Alarm Link Software (CC816). This option should only be enabled where the telephone line is susceptible to noise.

User Codes

This section includes the following;

- *Installer Code*
- *User Codes*
- *User Code Priority*

Access Codes

This section describes the access codes that are used to assign privileges and access functions for user code holders of the system. Two types of user codes exist within the system, the Installer Code and User Codes. Each of these codes allow specific access and operation of the varied functions of the control panel.

Installer Code

LOCATION 181 - 184 1 2 3 4

This code is used to access the Installer's Programming Mode and can be between one to four digits long. However, after the control panel has been powered up, the Installer Code can disarm the system if it is the first code used. The next time the Installer Code is used, access into Installer's Programming Mode will be made.

Installer Code functions are available to allow the installer to carry out various functions during the disarmed state without the need to remember the customers Master Code. Refer to Installer Code Functions on page 76 for more information.

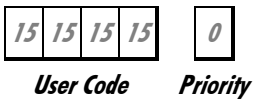
Refer to Programming With The Remote Codepad on page 23 or Programming With The Hand Held Programmer on page 25 for more information on programming the system.

User Codes

LOCATION 185 - 264

The purpose of user codes is to arm and disarm the system as well as perform other specific functions as described in Master Code Functions on page 89.

User codes (1–8) can be any length between one to four digits long. Each user code may have a different priority level multiple user codes may have the same priority level. The priority level controls the behaviour of the code, allowing it to arm only, arm and disarm or be a Master Code holder etc. The priority level of each user code is programmed in the last location of each user code and can only be changed by the installer. A Master Code holder does not have the ability to change priority levels.



There are a total of 16 user codes available that can be changed or deleted at any time by a Master Code holder, however, user codes 9 – 16 can only be remote radio user codes. Refer to Remote Radio Transmitter Operations on page 68 for more information. Multiple Master Codes can be programmed. Refer to Master Code Functions on page 89 for more information on adding, deleting or changing user codes.

The priority level for each user code can only be programmed or altered by the installer.

User Code 16 will report when any of the following methods for arming and disarming are used.

1. Arm and disarm via remote radio control equipment connected to the optional Radio Key/Keyswitch Interface (CC813).

2. Arm and disarm the system via Alarm Link Software (CC816).

3. Arm the system remotely over the telephone.

4. Single button arming in AWAY Mode, STAY Mode 1 or STAY Mode 2.

5. Single button disarming from STAY Mode 1 or STAY Mode 2.

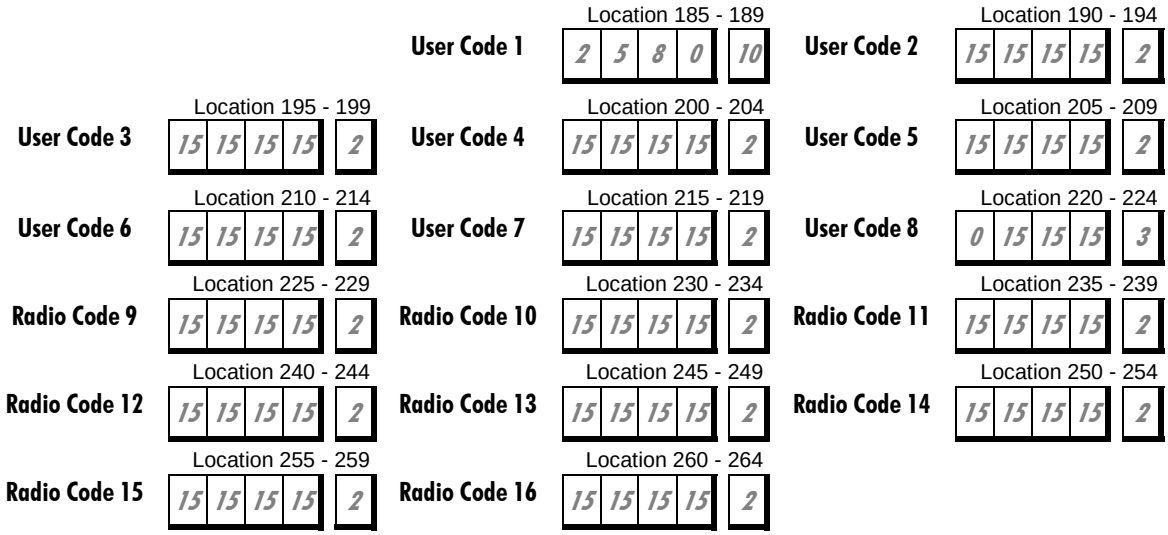
6. Automatic arming in AWAY Mode or STAY Mode 1.

7. Automatic disarming from AWAY Mode or STAY Mode 1 or STAY Mode 2

User Codes

The control panel has the ability to have up to eight programmable user codes (User Codes 1 – 8) to operate the system. Refer to System Operations on page 52 for information on the different methods of arming and disarming the system.

User codes 9 – 16 have been included to allow those systems that require radio remote control via hand held remote transmitters. Refer to Remote Radio Transmitter Operations on page 68 for information on remote operations and adding and deleting remote radio user codes.



User Code Priority

There are ten different priority levels that can be allocated to the user code. Each priority level allows or restricts the functions that different user code holders may perform.

Priority Level	Description
0	Arm/Disarm
1	Arm Only
2	Arm/Disarm + Open/Close Report
3	Arm Only + Close Report
4	Arm/Disarm + Code To Isolate
6	Arm/Disarm + Code To Isolate + Open/Close Report
8	Arm/Disarm + Master Code Functions
10	Arm/Disarm + Master Code Functions + Open/Close Report
12	Arm/Disarm + Master Code Functions + Code To Isolate
14	Arm/Disarm + Master Code Functions + Code To Isolate + Open/Close Report

Meaning	Description
Arm/Disarm	If the user code has this option included in the priority level, the user can arm and disarm the system. A closing report will only occur after a previous code that has the ability to send an opening report has disarmed the system.
Arm Only	If the user code has this option included in the priority level, the user can only arm the system and cannot disarm the system. A closing report will only occur after a previous code that has the ability to send an opening report has disarmed the system.
Open/Close Reports	If the user code has this option included in the priority level, the user will always send open and close reports back to the monitoring station upon disarming and arming the system. This option requires Open/Close reports in "LOCATION 333 - 334" on page 179 to be enabled for it to be effective.
Code To Isolate	If any user code has this option included in the priority level, the method of standard isolating is disabled from the system and only user codes with code to isolate selected can isolate zones prior to arming the system using the method of code to isolate. Refer to Isolating Zones on page 60 for more information.
Master Code Functions	If any user code has this option included in the priority level, the user has access to all Master Code Functions.

Table 68: User Code Priority Levels

Once user code priority levels 4, 6, 12 or 14 have been programmed to any of the available 8 user codes, the method of standard isolating will no longer operate. Only those user codes with the priority level of 4, 6, 12 or 14 will be able to isolate zones using the method code to isolate.

Zone Information

This section includes the following;

LOCATION 265 0

When programming this location, you will notice that there are four options per location. You may select one, two, three or all four of these options, however, only one number needs to be programmed. This number is calculated by adding the option bit numbers together. Program a seven (7) if you require options 1, 2 and 4 simultaneously (i.e. 1 + 2 + 4 = 7).

Option	Day Alarm Zone
1	Zone 1
2	Zone 2
4	Zone 3
8	Zone 4

Table 69: Day Alarm Zones 1 - 4

Day alarm allows a combination of zones to be monitored while the system is in the disarmed state. Indications are available via any of the programmable outputs including the codepad buzzer. This function has been expanded to accommodate latching and non-latching day alarm output event types.

When the system has been armed in AWAY Mode, STAY Mode 1 or STAY Mode 2, zones that have been programmed as day alarm zones will activate the sirens and dialler just as non day alarm zones do. When day alarm has been activated, it will ignore any zone pulse count settings that have been programmed for that zone (i.e. Zone pulse count is only relevant when the system has been armed).

Example

An example of day alarm set up could be the front door of a shop which has a pressure mat or electronic beam that customers activate as they enter to and from the shop. As the customers walk on the pressure mat or break the electronic beam, the codepad buzzer will beep.

Day Alarm Resetting

An output that has been programmed for day alarm resetting will operate when a zone programmed for day alarm has been triggered. The output will reset once the zone has resealed. This will only occur when the system is disarmed. Refer to Output Event Type Day Alarm Resetting on page 193 for more information.

Day Alarm Latching

An output that has been programmed for day alarm latching will operate when a zone programmed for day alarm has been triggered. The ZONE indicator and the latching output will reset when the AWAY button has been pressed. This will only occur when the system is disarmed. Refer to Output Event Type - Day Alarm Latching on page 193 for more information.

Day Alarm Operation

If a zone has been programmed for day alarm, the zone can be isolated in the normal way so that it does not register as a day alarm zone during the disarmed state. Only zones 1 – 4 can be used as day alarm zones.

The STAY indicator can be programmed to indicate whether day alarm has been turned on or off. When day alarm has been turned on, the STAY indicator will flash once every three seconds. Refer to Option 8 in "LOCATION 428" on page 219 for more information.

Monitoring of zones 5 – 8 can be achieved by programming an output to mimic a zone. Refer to Output Event Types on page 192 for more information on all available output types that can be programmed.

How To Turn Day Alarm On

1. Hold down the 4 button until three beeps are heard.

How To Turn Day Alarm Off

1. Hold Down the 4 button until two beeps are heard.

EOL Resistor Value

LOCATION 266 15

Option	Resistor Value	Option	Resistor Value
0	No EOL Resistor	**8**	6K8 (Blue, Grey, Black, Brown) 1%
1	1K (Brown, Black, Red)	**9**	10K (Brown, Black, Orange)
2	1K5 (Brown, Green, Red)	**10**	12K (Brown, Red, Orange)
3	2K2 (Red, Red, Red)	**11**	22K (Red, Red, Orange)
4	3K3 (Orange, Orange, Black, Brown) 1%	**12**	Reserved
5	3K9 (Orange, White, Red)	**13**	Reserved
6	4K7 (Yellow, Violet, Red)	**14**	Reserved
7	5K6 (Green, Blue, Red)	**15**	Split EOL (3K3/6K8) 1% Resistors Required Six Burglary Zones & Two 24 Hour Zones

Table 70: EOL Resistor Value

The control panel has the ability to be programmed for different values of EOL (End Of Line) resistors. This is a global parameter and will effect all four zones simultaneously. It gives the ability to fit the Solution 862 control panel into an existing installation without having to change the EOL resistors. This feature also increases the security of the system as there are eleven possible EOL resistor values that can be used. This makes it extremely difficult for anyone to tamper with the system.

If split EOL resistors have been selected, the control panel will look for six burglary zones (Zones 1 - 4 consisting of 3K3 EOL resistors and zones 5 and 6 in parallel to zones 1 and 2 consisting of 6K8 EOL resistors) and two 24 hour zones (7 and 8) consisting of 6K8 resistors connected in parallel. The zone 1 terminal on the PCB becomes the terminal for zones 1 and 5.

Caution should be exercised when using split EOL resistors to create six burglary zones and two 24 hour zones. This configuration is only suitable for normally closed contacts. If normally open contacts are used, as is the case with most types of smoke detectors, a short circuit on one zone will trigger both zones connected in parallel.

If you require N/O contacts when using split EOL resistors, refer Connections Of Split EOL Resistors Using N/O Contacts on page 160 for information on how to connect N/O contacts.

Connections Of Split EOL Resistors Using N/C Contacts

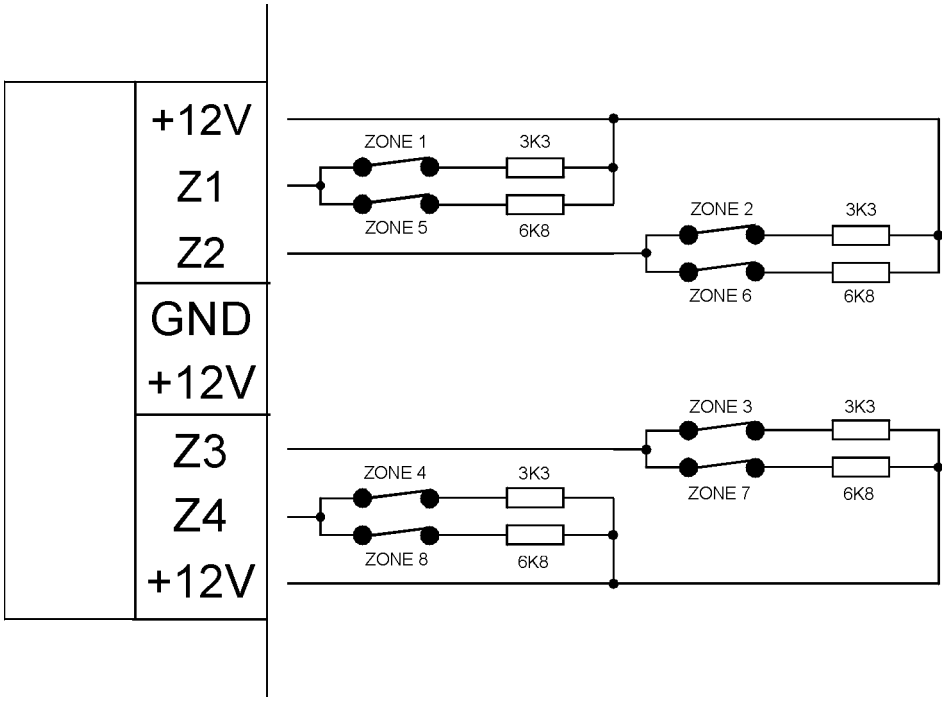


Figure 7: Connections Of Split EOL Resistors For 8 Zones

Connections Of Split EOL Resistors Using N/O Contacts

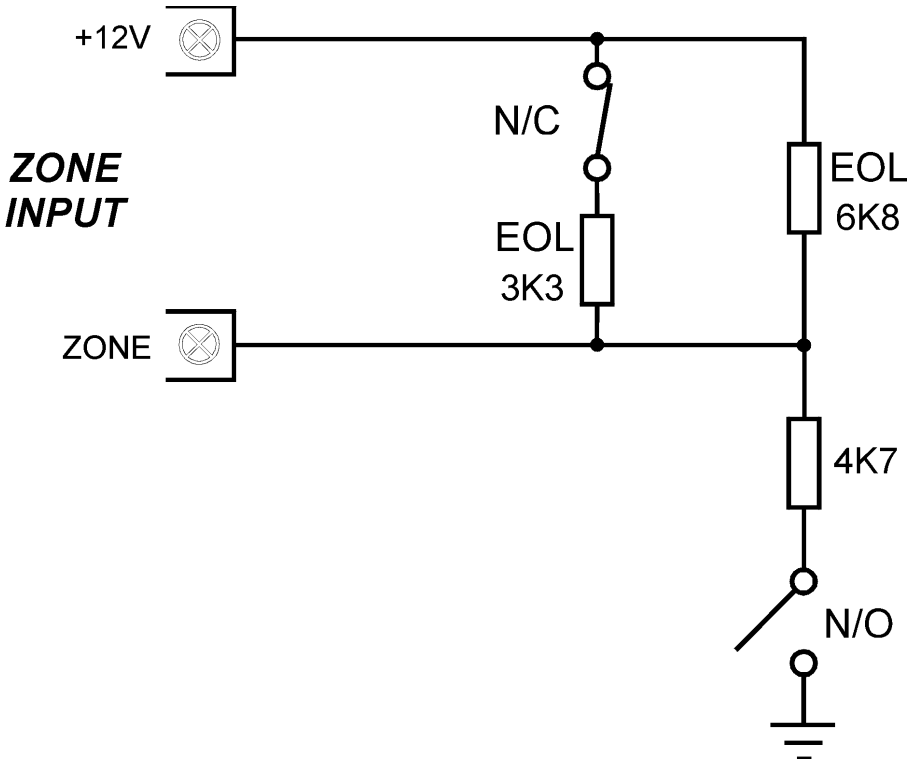


Figure 8: Connections Of Split EOL Resistors Using One N/O Contact

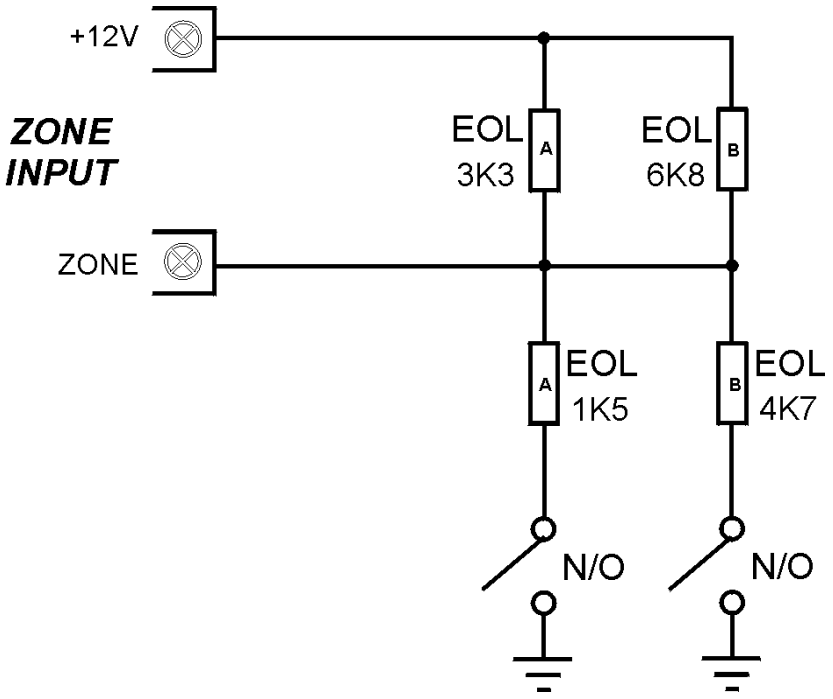


Figure 9: Connections Of Split EOL Using Two N/O Contacts

Zone Programming

Each zone contains seven locations that are divided into three groups. The first 3 locations determine how the zone will operate, the next two locations allow various options for each zone and the last two locations contain the dialler reporting information of each zone.

Zone Operating Information

Zone Type

This location programs the "Zone Type" required (e.g.. Delay-1, Instant, 24 Hour etc).

Zone Pulse Count

This location sets how many times the zone must trigger within the time specified in the "Zone Pulse Count Time".

Zone Pulse Count Time

This parameter sets the time period for the number of times the zone must trigger before activating an alarm.

Zone Options

Zone Options 1

This location controls the zone (e.g.. Lockout Siren, Silent etc).

Zone Options 2

This location controls the zone (e.g.. Isolate In STAY Mode 1, Forced Arming Allowed etc).

Zone Reporting Information

Zone Report Code

If you wish the control panel to transmit zone alarm reports, this location should be programmed as 1. If you do not wish to transmit zone alarm reports, this location should be programmed as a 0.

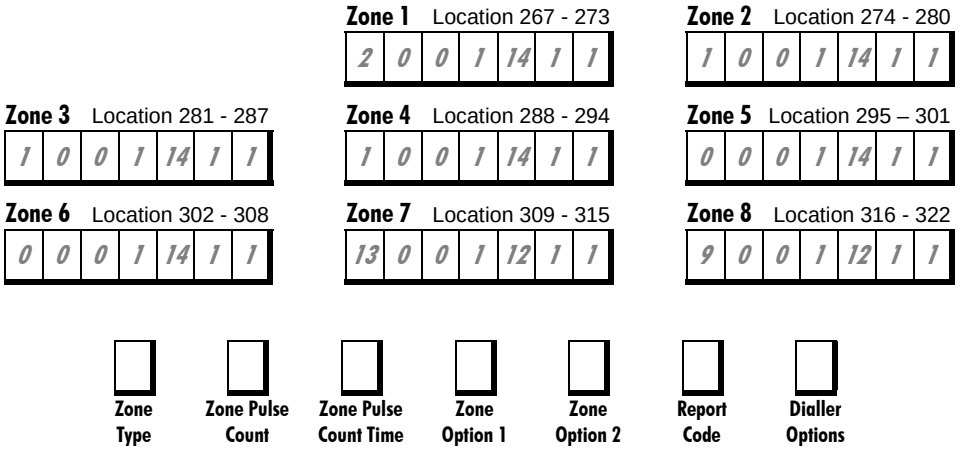
Zone Dialler Options

This location is factory default to report only to receiver 1. You can select each zone to report on receiver 1, receiver 2, both receiver 1 and receiver 2, receiver 2 only when receiver 1 fails or no reporting at all. Select the required dialler option from the table below.

Option	Description
0	No Report Required
1	Receiver 1
2	Receiver 2
4	Receiver 1 and Receiver 2
8	Receiver 2 Only When Receiver 1 Fails

Table 71: Zone Dialler Options

LOCATION 267 - 322



Zones 1 – 6 may be programmed as any zone type, whereas zones 7 and 8 may only be programmed to any 24-hour zone type.

Zone Types

There are sixteen different zone types to choose from. Refer to the table below for the different zone types available.

Zone Type	Description	Zone Type	Description
0	Instant	**8**	24 Hour Hold-Up
1	Handover	**9**	24 Hour Tamper
2	Delay-1	**10**	Reserved
3	Delay-2	**11**	Keyswitch
4	Reserved	**12**	24 Hour Burglary
5	Reserved	**13**	24 Hour Fire
6	24 Hour Medical	**14**	Chime Only
7	24 Hour Panic	**15**	Zone Not Used

Table 72: Zone Types

Instant Zone

0 An Instant zone (Contact ID Event Code 130) will sound the sirens and operate the dialler as soon as it registers as unsealed after the exit timer has expired.

If an Instant zone has not restored at the time the system is disarmed, a zone restore report will be automatically sent to the receiving party.

Handover Zone

1 A Handover zone (Contact ID Event Code 130) will act as an instant zone if it has been triggered by itself. If a handover zone has triggered after a delay zone, the remaining delay time will handover from the delay zone to the handover zone. Handover may be sequential or non sequential. The panel is default with the option of sequential handover. Refer to Option 8 in "LOCATION 426" on page 217 if you require to disable handover to be sequential.

If a Handover zone has not restored at the time the system is disarmed, a zone restore report will be automatically sent to the receiving party.

Delay-1 Zone

2 A Delay-1 zone (Contact ID Event Code 130) will have a delay time determined by the value in Entry Timer 1 on page 204. After entry time has expired, the system will activate into alarm condition.

If a Delay-1 zone has not restored at the time the system is disarmed, a zone restore report will be automatically sent to the receiving party.

Delay-2 Zone

3 A Delay-2 zone (Contact ID Event Code 130) will have a delay time determined by the value in Entry Timer 2 on page 204. After entry time has expired, the system will activate into alarm condition.

If a Delay-2 zone has not restored at the time the system is disarmed, a zone restore report will be automatically sent to the receiving party.

Reserved

4

Reserved

5

24 Hour Medical

6 A 24 Hour Medical zone (Contact ID Event Code 100) is always ready to trigger the dialler, horn speaker, bell and strobe regardless of whether the system is in the armed or disarmed state. A medical report will be transmitted to the base station receiver. A 24 Hour Medical zone will not send a restore report until the zone actually restores.

24 Hour Panic

7 A 24 Hour Panic zone (Contact ID Event Code 120) is always ready to trigger the dialler, horn speaker, bell and strobe regardless of whether the system is in the armed or disarmed state. A panic report will be transmitted to the base station receiver. A 24 Hour Panic zone will not send a restore report until the zone actually restores.

24 Hour Hold-Up

8 A 24 Hour Hold-Up zone (Contact ID Event Code 122) is always ready to trigger the dialler, horn speaker, bell and strobe regardless of whether the system is in the armed or disarmed state. If you require the hold-up alarm to be silent, enable Option 4 – Silent Alarm in Zone Options 1 on page 167. A 24 Hour Hold-Up zone will not send a restore report until the zone actually restores.

24 Hour Tamper

9 A 24 Hour Tamper zone (Contact ID Event Code 137) is always ready to trigger the dialler, horn speaker, bell and strobe regardless of whether the system is in the armed or disarmed state. A 24 Hour Tamper zone will not send a restore report until the zone actually restores.

Reserved

10

Keyswitch Zone

11 A Keyswitch zone is used when you need to connect a keyswitch to operate the system. Refer to Keyswitch Zone Options on page 169 for selecting options such as momentary, toggle etc. User code number 16 will be reported when arming and disarming using this method of operation. Programming the polarity level of user code 16 will also effect the operation of the keyswitch zone. Refer to User Code Priority on page 153 for more information.

24 Hour Burglary Zone

12 A 24 Hour Burglary zone (Contact ID Event Code 133) is always ready to trigger the dialler, horn speaker, bell and strobe regardless of whether the system is in the armed or disarmed state. A 24 Hour Burglary zone will not send a restore report until the zone actually restores.

24 Hour Fire Zone

13 A 24 Hour Fire zone (Contact ID Event Code 110) is always ready to trigger the dialler, horn speaker, bell and strobe regardless of whether the system is in the armed or disarmed state. A distinct fire sound is emitted through the horn speaker to indicate this type of alarm condition. This fire sound is completely different to the burglary sound. A 24 Hour Fire zone will not send a restore report until the zone actually restores.

Chime Zone

14 A Chime zone is not a burglary zone. It can never sound the sirens or trigger the dialler. Its purpose is to map it to a programmable output for an indication of sealed or unsealed state. Refer to Output Event Type - Global Chime on page 198.

Chime zones require EOL resistors and they will register at a remote codepad. These zones do not effect the operation of forced arming.

Zone Not Used

15 If a zone is not used, program it as a zone type of 15. This zone will never sound the sirens or trigger the dialler. An EOL resistor is not required if this zone type is used.

Zone Pulse Count

Zone pulse count is the number of times a zone must be triggered before the zone registers as an alarm. The number of pulses vary between 0 – 15. The zone pulse count value is relative to the time frame (i.e. The number of pulses must be present during a particular time frame. Refer to "Table 74: Zone Pulse Count Times" on page 166 for time frame settings.

Option	Number Of Pulses	Option	Number Of Pulses
0	1	**8**	8
1	1	**9**	9
2	2	**10**	10
3	3	**11**	11
4	4	**12**	12
5	5	**13**	13
6	6	**14**	14
7	7	**15**	15

Table 72: Number Of Pulses

Zones that have been programmed with pulse count which are continuously unsealed for 10 seconds will activate an alarm condition. 24 Hour Fire zones that have been programmed with pulse count which are continuously unsealed for 30 seconds will activate an alarm condition.

Zone Pulse Count Handover

Zone pulse count handover will only operate with zone pulse count time options 8 – 15. Refer to Zone Pulse Count Time on page 166 for more information.

Any zone that registers one trigger pulse will automatically increment any other zone pulse count which has already registered at least one trigger pulse during its respective time. To enable this option, refer to Option 4 in "LOCATION 426" on page 217.

24 Hour zones do not receive any handover pulses from other zones. 24 Hour zones may handover pulses to other zones.

Zone Pulse Count Time

Zone pulse count time is the time frame or period over which the programmed number of pulses must register before an alarm condition is generated.

20 ms Loop Response Time		150 ms Loop Response Time	
Option	**Pulse Count Time**	**Option**	**Pulse Count Time**
0	0.5 Seconds	**8**	20 Seconds
1	1 Second	**9**	30 Seconds
2	2 Seconds	**10**	40 Seconds
3	3 Seconds	**11**	50 Seconds
4	4 Seconds	**12**	60 Seconds
5	5 Seconds	**13**	90 Seconds
6	10 Seconds	**14**	120 Seconds
7	15 Seconds	**15**	200 Seconds

Table 74: Zone Pulse Count Times

For zone pulse count time, options 0 – 7 have a zone loop response time of 20 ms. For zone pulse count time, options 8 – 15 have a zone loop response time of 150 ms. Loop response time is the length of time a zone must be unsealed before it can register as a valid pulse.

Inertia sensors should use options 0 - 7, while PIR detectors should use options 8 – 15.

24 Hour zones do not receive any handover pulses from other zones. 24 Hour zones may handover pulses to other zones.

Zone Options 1

When programming this location, you will notice that there are four options per location. You may select one, two, three or all four of these options, however, only one number needs to be programmed. This number is calculated by adding the option bit numbers together. Program a seven (7) if you require options 1, 2 and 4 simultaneously (i.e. 1 + 2 + 4 = 7).

Option	Description
1	Lockout Siren/Lockout Dialler
2	Delay Alarm Reporting
4	Silent Alarm
8	Sensor Watch

Table 74: Zone Options 1

Lockout Siren & Lockout Dialler

1 Lockout means one activation per arming cycle (i.e. A zone programmed for "Lockout" can only cause the sirens or dialler to operate once).

When the system is next armed, the zone can cause the sirens and dialler to operate once more. Restore signals will be transmitted when the system has been disarmed.

The *Solution 862* control panel performs lockout different to most other control panels in that only the first zone to trigger an alarm condition will be locked out. All other zones that are triggered during the same siren run time will reset when the sirens reset. This prevents an intruder from triggering all zones then waiting for the sirens to stop before re-entering the premises.

Example

All zones are programmed for both lockout siren and dialler. Zone 1 is triggered followed by all other zones causing the sirens to sound and the dialler to report to the base station receiver. Zone 1 will be the only zone that stops reporting to the base station receiver because of the first zone to trigger is locked out. The remaining zones will continue to report if they are triggered again.

Refer to Swinger Shutdown Count For Siren on page 173 to set the number of times the siren will be allowed to activate before it will be locked out and Swinger Shutdown Count For Dialler on page 174 to set the number of times the dialler will activate before lockout will take effect.

Delay Alarm Reporting

2 This option will allow the reporting of alarms on selected zones to be delayed to allow the user to enter their code to cancel alarms that are not required to report. All sounding devices (e.g.: horn speaker, strobe and bell outputs) will operate as soon as the alarm condition occurs, but the dialler will not operate until the delay time in “LOCATION 406 – 407” on page 205 has expired.

Silent Alarm

4 A zone programmed to be silent will not trigger the horn speaker, bell, strobe or EDMSAT outputs. The dialler and all other programmable outputs will function as per their particular programming.

Sensor Watch

8 Sensor watch gives the control panel the ability to recognise that detection devices may have stopped working. This is a feature that monitors the operation of a zone over a programmed time period. Refer to "LOCATION 408 - 409" on page 206 for programming sensor watch time.

This value determines how many 24 hour periods a zone may remain continuously sealed before it registers as a sensor watch fault. The number of hours required to fulfil these 24 hour periods is only calculated while the system is in the disarmed state. Every time the system is armed in the AWAY Mode, STAY Mode 1 or STAY Mode 2 the sensor watch timer pauses calculating. The sensor watch timer will continue calculating the next time the system has been disarmed.

Example

If the sensor watch time is programmed for two days in a situation where a premises is armed for twelve hours and disarmed for twelve hours each day, it will take four days before a zone can register as a faulty sensor watch zone.

Keyswitch Zone Options

When you select a zone to be a keyswitch input, then the following table relates to the options available to that keyswitch zone. These keyswitch zone options replace Zone Options 1 only for the zones that have been programmed to operate as a keyswitch zone. Keyswitch zones will report as user code 16.

Option	Description
0	Latching Arm and Disarm In AWAY Mode
1	Latching Arm In AWAY Mode
2	Latching Disarm From AWAY Mode, STAY Mode 1 Or STAY Mode 2
4	Latching Arm and Disarm In STAY Mode 1
5	Latching Arm In STAY Mode 1
6	Latching Disarm From STAY Mode 1 Or STAY Mode 2
8	Momentary Arm and Disarm In AWAY Mode
9	Momentary Arm In AWAY Mode
10	Momentary Disarm From AWAY Mode, STAY Mode 1 Or STAY Mode 2
12	Momentary Arm and Disarm In STAY Mode 1
13	Momentary Arm In STAY Mode 1
14	Momentary Disarm From STAY Mode 1 Or STAY Mode 2

Table 75: Keyswitch Zone Options

Latching Arm and Disarm In AWAY Mode

0 If this option has been selected, the system will either arm or disarm from AWAY Mode when using the latching keyswitch input.

Latching Arm In AWAY Mode

1 If this option has been selected, the system will arm in AWAY Mode when using the latching keyswitch input. Disarming the system will not be permitted via the keyswitch zone if this option has been selected.

Latching Disarm From AWAY Mode, STAY Mode 1 Or STAY Mode 2

2 If this option has been selected, the system will disarm from AWAY Mode, STAY Mode 1 or STAY Mode 2 when using the latching keyswitch input. Arming the system will not be permitted via the keyswitch zone if this option has been selected.

Latching Arm and Disarm In STAY Mode 1

4 If this option has been selected, the system will arm or disarm in STAY Mode 1 when using the latching keyswitch input. Arming and disarming the system in AWAY Mode will not be permitted via the keyswitch zone if this option has been selected.

Latching Arm In STAY Mode 1

5 If this option has been selected, the system will arm in STAY Mode 1 when using the latching keyswitch input. Arming the system in AWAY Mode or disarming the system will not be permitted via the keyswitch zone if this option has been selected.

Latching Disarm From STAY Mode 1 Or STAY Mode 2

6 If this option has been selected, the system will only disarm from STAY Mode 1 or STAY Mode 2 when using the latching keyswitch input. Arming the system in STAY Mode 1, STAY Mode 2 or arming and disarming the system in AWAY Mode will not be permitted via the keyswitch zone if this option has been selected.

Momentary Arm and Disarm In AWAY Mode

8 If this option has been selected, the system will either arm or disarm from AWAY Mode when using the momentary keyswitch input.

Momentary Arm In AWAY Mode

9 If this option has been selected, the system will arm in AWAY Mode when using the momentary keyswitch input. Disarming the system will not be permitted via the keyswitch zone if this option has been selected.

Momentary Disarm From AWAY Mode, STAY Mode 1 Or STAY Mode 2

10 If this option has been selected, the system will disarm from either AWAY Mode, STAY Mode 1 or STAY Mode 2 when using the momentary keyswitch input. Arming the system will not be permitted via the keyswitch zone if this option has been selected.

Momentary Arm and Disarm In STAY Mode 1

12 If this option has been selected, the system will arm or disarm in STAY Mode 1 when using the momentary keyswitch input. Arming and disarming the system in AWAY Mode will not be permitted via the keyswitch zone if this option has been selected.

Momentary Arm In STAY Mode 1

13 If this option has been selected, the system will arm in STAY Mode 1 when using the momentary keyswitch input. Arming the system in AWAY Mode or disarming the system will not be permitted via the keyswitch zone if this option has been selected.

Momentary Disarm From STAY Mode 1 Or STAY Mode 2

14 If this option has been selected, the system will only disarm the system from STAY Mode 1 or STAY Mode 2 when using the momentary keyswitch input. Arming the system in STAY Mode 1, STAY Mode 2 or arming and disarming the system from AWAY Mode will not be permitted via the keyswitch zone if this option has been selected.

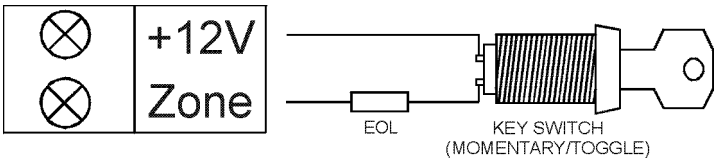


Figure 10: Wiring Diagram For Keyswitch Zone

Zone Options 2

When programming this location, you will notice that there are four options per location. You may select one, two, three or all four of these options, however, only one number needs to be programmed. This number is calculated by adding the option bit numbers together. Program a seven (7) if you require options 1, 2 and 4 simultaneously (i.e. 1 + 2 + 4 = 7).

Option	Description
1	Isolate In STAY Mode 1
2	Zone Isolation Allowed
4	Forced Arming Allowed
8	Zone Restore Report

Table 76: Zone Options 2

Isolate In STAY Mode 1

1 If this option has been selected, it will allow the zone to be automatically isolated when the system has been armed in STAY Mode 1.

If this option is not selected, when the system has been armed in STAY Mode 1, the zone will activate an alarm when triggered as it normally would in AWAY Mode.

Refer to Entry Guard Timer For STAY Mode on page 205 if you wish to program a global entry time for ALL zones except for 24 hour zone types when armed in STAY Mode 1 (i.e. The entry guard timer will override the delay time programmed for a delay zone). If the entry guard timer has been programmed as "0" each zone will act as per its programmed zone type.

Refer to Arming The System In STAY Mode 1 on page 54 for more information.

Zone Isolation Allowed

2 If this option has been selected, it will allow the system operator to isolate the zone before arming the system. If this option is not selected, the zone can not be manually isolated. When a zone has been manually isolated, a zone bypass report (Contact ID Event Code 570) will be sent. Refer to Isolating Zones on page 60 for more information.

When isolating 24 hour zone types, the 24 hour zone will automatically send a zone bypass report at the time the zone is selected to be isolated. All non 24 hour zone types will only send a bypass report at the time the system is armed.

If you require the system not to report zone bypass reports, program “LOCATION 325 - 326” on page 176 as zeros.

Forced Arming Allowed

4 If this option has been selected, it will allow the system to be armed with the zone unsealed. If this option is not selected, the system will not allow the user code holder to arm the system until the zone in question has been sealed or manually isolated. Refer to Isolating Zones on page 60 for more information.

Zone Restore Report

8 If this option bit has been selected, the zone will send restore reports as soon as the zone has restored. If this option bit has not been selected, the zone will not send restore reports after the zone has restored.

If a non 24 hour zone has not restored at the time the system is disarmed, the system will automatically send a zone restore report for that zone. All 24 hour zone types will only send a zone restore report at the time the zone has restored.

Zone Reporting Information

Zone Report Code

If you wish the control panel to transmit zone alarm reports, this location should be programmed as 1. If you do not wish to transmit zone alarm reports, this location should be programmed as a 0.

Zone Dialler Options

This location is factory default to report only to receiver 1. You can select each zone to report on receiver 1, receiver 2, both receiver 1 and receiver 2, receiver 2 only when receiver 1 fails or no reporting at all. Select the required dialler option from the table below.

Option	Description
0	No Report Required
1	Receiver 1
2	Receiver 2
4	Receiver 1 and Receiver 2
8	Receiver 2 Only When Receiver 1 Fails

Table 77: Zone Dialler Options

Swinger Shutdown Count For Siren

LOCATION 323 3

Location	Description
323	Swinger Shutdown Count For Siren (0-15)

Table 78: Swinger Shutdown Count For Siren Location

This location determines the number of times the sirens can be triggered before any lockout options will take effect. A minimum of one zone must be programmed for lockout siren for this location to be effective. Refer to Zone Options 1 on page 167 to program zones for lockout siren.

Only alarms triggered from zone inputs will increment the swinger shutdown counter. This means alarms such as codepad panic, access denied and any other system alarms will not effect the swinger shutdown count.

While the sirens are operating, the counter for the sirens is only incremented by the first zone that causes the alarm. Any other zones that are triggered during siren run time will not effect the counter. While the dialler is on line, its counter is only incremented by the first zone that causes the alarm. Any other zones that are triggered while the dialler is on line will not effect the counter.

When the swinger shutdown count (As programmed in "LOCATION 323") has been reached, all zones that have been triggered will be locked out according to their individual lockout settings.

Example

All eight zones have been programmed for lockout siren with a swinger shutdown count of 3. If zone 1 triggers an alarm, the swinger shutdown count will decrement by one after the end of siren run time to a swinger shutdown count of 2.

After the siren run time has reset from the previous alarm, zone 2 triggers an alarm and reactivates the sirens. After the sirens have reset, the swinger shutdown count has decremented again from 2 to 1.

If zone 3 also triggers an alarm after the sirens have reset from zone 2, the swinger shutdown count has decremented from 1 to 0, therefore locking out all three zones from sounding the sirens again until the system has been reset.

However, at this point in time, the swinger shutdown count for sirens has again a lockout count of 3 and the process of swinger shutdown for the remaining zones begin again until all zones have been locked out.

Swinger Shutdown Count For Dialler

LOCATION 324 6

Location	Description
324	Swinger Shutdown Count For Dialler (0-15)

Table 79: Swinger Shutdown Count For Dialler Location

This location determines the number of times the dialler can be triggered before any lockout options will take effect. A minimum of one zone must be programmed for lockout dialler for this location to be effective. Refer to Zone Options 1 on page 167 to program zones for lockout dialler.

Only alarms triggered from zone inputs will increment the swinger shutdown counter. This means alarms such as codepad panic, code retries and any other system alarms will not effect the swinger shutdown count.

While the sirens are operating, the counter for the dialler is only incremented by the first zone that causes the alarm. Any other zones that are triggered during siren time will not effect the counter. While the dialler is on line, its counter is only incremented by the first zone that causes the alarm. Any other zones that are triggered while the dialler is on line will not effect the counter.

When the swinger shutdown count (As programmed in "LOCATION 324") has been reached, all zones that have been triggered will be locked out according to their individual lockout settings.

If "Lockout Dialler" has been enabled for any zone, the last restore signal will not be transmitted until the system has been disarmed.

Example

All eight zones have been programmed for lockout dialler with a swinger shutdown count of 6. If zone 1 triggers an alarm, the swinger shutdown count will decrement by one at the time the control panel makes the call to a swinger shutdown count of 5.

If zone 1 re-triggers the dialler, the swinger shutdown count will be decremented by one to a swinger shutdown count of 4. If zone 1 re-triggers the dialler 3 more times, the swinger shutdown count will be 1.

If zone 2 triggers an alarm, the swinger shutdown count will be decremented by one to a swinger shutdown count of zero, therefore, locking out zone 2 from activating the dialler again until the system has been reset. However, at this point in time, the swinger shutdown count for the dialler has again a lockout count of 6 and the process of swinger shutdown for the remaining zones including zone 1 begin again until all zones have been locked out.

System Reporting Information

This section includes the following;

- *Zone Status – Bypass Reports*
- *Zone Status – Trouble Reports*
- *Zone Status – Sensor Watch Reports*
- *Zone Status – Alarm Restore Code*
- *Zone Status Reporting Options*
- *Open/Close Reports*
- *Open/Close Reporting Options*
- *Codepad Duress Report*
- *Codepad Panic Report*
- *Codepad Fire Report*
- *Codepad Medical Report*
- *Codepad Reporting Options*
- *System Status – AC Fail Report*
- *System Status – AC Fail Restore Report*
- *System Status - Low Battery Report*
- *System Status - Low Battery Restore Report*
- *System Status - Access Denied*
- *System Status Reporting Options*
- *Test Reporting Time*
- *Test Reporting Dialler Options*

Reporting Information

This section covers features that are involved with the basic house keeping of the system. This includes monitoring of the zones - whether they are isolated from the system or more importantly that they are actually operating, the status of both the AC mains and DC power to the system and codepad generated alarms activated by the user.

Zone Status – Bypass Reports

LOCATION 325 - 326 9 8

Location	Description
325	Zone Bypass Report
326	Zone Bypass Restore Report

Table 80: Zone Status - Bypass Report Locations

A zone is bypassed when it is manually isolated. Refer to Isolating Zones on page 60 for information on isolating zones. A "Zone Bypass" report (Contact ID Event Code 570) will be transmitted at the end of exit time for any zone that has been manually isolated. 24-hour zones will send a “Zone Bypass” report at the time the zone has been selected to be isolated.

A "Zone Bypass Restore" report will be transmitted when the system has been disarmed. All bypassed zones are automatically cleared when the system has been disarmed.

The bypass code parameter is used as the expansion digit in 4+2 Formats. It has no effect on Contact ID Format as a zone bypass will always be reported on event code 570.

If "Zone Bypass" reports are not required, program "LOCATION 325 - 326" with a zero.

Zone Status – Trouble Reports

LOCATION 327 – 328

2 3

Location	Description
327	Zone Trouble Report
328	Zone Trouble Restore Report

Table 81: Zone Status - Trouble Report Locations

A zone is in trouble when it is unsealed at the end of exit time. A "Sensor Trouble" report (Contact ID Event Code 380) will be transmitted to indicate that one or more zones have been automatically isolated by the system. 24-hour zones that are unsealed at the end of exit time will not transmit a "Sensor Trouble" report as the restore for that zone is still outstanding.

A "Sensor Trouble" restore report will be transmitted for burglary zones when the zone reseals or when the system is next disarmed (which ever happens first). A 24-hour zone will only transmit a restore signal when it has resealed.

The trouble code parameter is used as the expansion digit in 4+2 Format. It has no effect on Contact ID Format as a "Sensor Trouble" report will always be reported on event code 380.

If "Sensor Trouble" reports are not required, program "LOCATION 327 – 328" with a zero.

Zone Status – Sensor Watch Reports

LOCATION 329 - 330 45

Location	Description
329	Sensor Watch Report
330	Sensor Watch Restore Report

Table 82: Zone Status – Sensor Watch Report Locations

A "Self Test Failure" report (Contact ID Event Code 307) will be transmitted to the base station receiver when a zone has not been triggered during the Sensor Watch Time programmed in "LOCATION 408 - 409" on page 206. This report will continue to be transmitted (according to the frequency of the sensor watch time) until the fault has been rectified.

To clear the fault and stop any further reporting, the zone that registered the fault must be unsealed and resealed again. Refer to "LOCATION 408 - 409" on page 206 to set the number of days a zone may remain sealed before registering as a fault. Refer to Zone Options 1 on page 167 to program zones to be monitored by the sensor watch feature.

If "Self Test Failure" reports are not required, program "LOCATION 329 - 330" with a zero.

Zone Status – Alarm Restore Code

LOCATION 331 14

If you wish the control panel to transmit zone alarm restore reports, this location should be programmed as 14. If you do not wish to transmit zone restore reports, this location should be programmed as a zero.

“LOCATION 332” will be ignored when programming the alarm restore code and is global for all zones. A zone restore report will only report to the receiving party that the zone has been allocated to (e.g.: Receiver 1 or Receiver 2 etc).

Zone Status Reporting Options

LOCATION 332 1

Option	Description
0	No Report Required
1	Receiver 1
2	Receiver 2
4	Receiver 1 and Receiver 2
8	Receiver 2 Only When Receiver 1 Fails

Table 83: Zone Status Reporting Options Location

This location is factory default to report only to receiver 1. You can select whether the zone status reports will report on, receiver 1, receiver 2, both receiver 1 and receiver 2, receiver 2 only when receiver 1 fails or no reporting at all.

Open/Close Reports

LOCATION 333 - 334

11 12

Location	Description
333	Opening Report
334	Closing Report

Table 84: Open/Close Reporting Locations

An "Opening" report (Contact ID Event Code 401) will be transmitted to the base station receiver when the system has been disarmed from AWAY Mode. A "Closing" report (Contact ID Event Code 401) is transmitted at the end of exit time when the system has been armed in AWAY Mode.

If an expanded format has been selected, this code will be used as the expansion code and the user number that armed or disarmed the system will follow in the same transmission.

Refer to Option 2 in "LOCATION 178" on page 146 for programming "Open/Close" reports in STAY Mode. To program "Open/Close" reports only after a previous alarm, refer to Option 1 in "LOCATION 178" on page 146.

If you do not require "Open/Close" reports, program "LOCATION 333 - 334" with zero.

Open/Close Reporting Options

LOCATION 335

1

Option	Description
0	No Report Required
1	Receiver 1
2	Receiver 2
4	Receiver 1 and Receiver 2
8	Receiver 2 Only When Receiver 1 Fails

Table 85: Open/Close Reporting Options Location

This location is factory default to report only to receiver 1. You can select whether the open/close reports will report on receiver 1, receiver 2, both receiver 1 and receiver 2, receiver 2 only when receiver 1 fails or no reporting at all.

Codepad Duress Report

LOCATION 336 6

Location	Description
336	Codepad Duress Report

Table 86: Codepad Duress Report Location

A "Duress" report (Contact ID Event Code 121) will be transmitted to the base station receiver when the 9 button is added to the end of any valid user code being used to disarm the system. This alarm will always be silent. A duress alarm can be triggered during exit time (i.e. If the system has been armed and then disarmed by adding the 9 button to the end of the user code before exit time has expired, a "Duress" report will be transmitted). Adding 9 to the end of a user code when arming the system will not cause a duress alarm.

Refer to Option 2 in “LOCATION 430” on page 221 if you wish to add the 3 button the end of the user code being used to disarm the system in a duress situation.

Restore reports are not transmitted for this event. If a "Duress" report is not required, program "LOCATION 336" with a zero.

Codepad Panic Report

LOCATION 337 - 338 7 15

Location	Description
337	Codepad Panic Reporting Code (Tens Digit)
338	Codepad Panic Reporting Code (Units Digit)

Table 87: Codepad Panic Report Locations

A "Panic Alarm" report (Contact ID Event Code 120) will be transmitted to the base station receiver when either the two outside buttons 1 and 3 or STAY and AWAY are pressed simultaneously. This is an audible alarm. Refer to Option 1 in "LOCATION 425" on page 216 if you require codepad panic to be silent.

Restore reports are not transmitted for this event. If a "Panic" report is not required, program "LOCATION 337 - 338" with a zero.

Codepad Fire Report

LOCATION 339 - 340 7 14

Location	Description
339	Codepad Fire Reporting Code (Tens Digit)
340	Codepad Fire Reporting Code (Units Digit)

Table 88: Codepad Fire Report Locations

A "Fire Alarm" report (Contact ID Event Code 110) will be transmitted to the base station receiver when the 4 and 6 buttons are pressed simultaneously. This is an audible alarm. Refer to Option 2 in "LOCATION 425" on page 216 if you require codepad fire to be silent. A distinct fire sound is emitted through the horn speaker to indicate this type of alarm condition. The fire sound is different to the burglary sound.

Restore reports are not transmitted for this event. If a "Fire" report is not required, program "LOCATION 339 - 340" with a zero.

Codepad Medical Report

LOCATION 341 - 342 7 13

Location	Description
341	Codepad Medical Reporting Code (Tens Digit)
342	Codepad Medical Reporting Code (Units Digit)

Table 89: Codepad Medical Report Locations

A "Medical" report (Contact ID Event Code 100) will be transmitted to the base station receiver when the 7 and 9 buttons are pressed simultaneously. This is an audible alarm. Refer to Option 4 in "LOCATION 425" on page 216 if you require codepad medical to be silent.

Restore reports are not transmitted for this event. If a "Medical" report is not required, program "LOCATION 341 - 342" with a zero.

Codepad Reporting Options

LOCATION 343 1

Option	Description
0	No Report Required
1	Receiver 1
2	Receiver 2
4	Receiver 1 and Receiver 2
8	Receiver 2 Only When Receiver 1 Fails

Table 90: Codepad Reporting Options Location

This location is factory default to report only to receiver 1. You can select whether the codepad reporting options will report on receiver 1, receiver 2, both receiver 1 and receiver 2, receiver 2 only when receiver 1 fails or no reporting at all.

System Status – Fuse Fail Report

LOCATION 344 - 345 10 3

Location	Description
344	System Status – Fuse Fail Reporting Code (Tens Digit)
345	System Status – Fuse Fail Reporting Code (Units Digit)

Table 91: System Status – Fuse Fail Report Locations

A system trouble report (Contact ID Event Code 300) will be transmitted when either the codepad fuse or the accessories fuse has blown. A delay of approximately 10 seconds will be between from when the fuse has blown and when the system will report the event.

System Status – Fuse Fail Restore Report

LOCATION 346 - 347 10 8

Location	Description
346	System Status – Fuse Fail Restore Reporting Code (Tens Digit)
347	System Status – Fuse Fail Restore Reporting Code (Units Digit)

Table 92: System Status – Fuse Fail Restore Report Locations

A system trouble restore report (Contact ID Event Code 300) will be transmitted when either the codepad fuse or the accessories fuse has been replaced. A delay of approximately 10 seconds will be between from when the fuse has been replaced and when the system will report the event.

System Status – AC Fail Report

LOCATION 348 - 349

10 2

Location	Description
348	System Status – AC Fail Reporting Code (Tens Digit)
349	System Status – AC Fail Reporting Code (Units Digit)

Table 93: System Status – AC Fail Report Locations

An "AC Loss" report (Contact ID Event Code 301) will be transmitted to the base station receiver when the AC mains supply has been disconnected for two minutes. If you require an "AC Loss" report to be transmitted to the base station receiver when the AC mains supply has been disconnected for 1 hour, enable Option 1 in "LOCATION 426" on page 217. If you wish to ignore AC fail, enable Option 2 in "LOCATION 426" on page 217.

If an "AC Loss" report is not required, program "LOCATION 348 - 349" with a zero.

System Status – AC Fail Restore Report

LOCATION 350 - 351

10 7

Location	Description
350	System Status – AC Fail Restore Reporting Code (Tens Digit)
351	System Status – AC Fail Restore Reporting Code (Units Digit)

Table 94: System Status – AC Fail Restore Report Locations

A restore signal will be transmitted when the AC mains supply has been restored continuously for more than two minutes.

If an "AC Loss" restore report is not required, program "LOCATION 350 - 351" with a zero.

System Status - Low Battery Report

LOCATION 352 - 353 10 1

Location	Description
352	System Status – Low Battery Reporting Code (Tens Digit)
353	System Status – Low Battery Reporting Code (Units Digit)

Table 95: System Status – Low Battery Report Locations

A "Battery Test Failure" report (Contact ID Event Code 309) will be transmitted to the base station receiver when the systems battery voltage falls below 10.5 volts or when a dynamic battery test detects a low capacity battery.

The control panel continually monitors the battery voltage. Refer to Fault Descriptions on page 64 for more information. A dynamic battery test is performed every time the system has been armed as well as every four hours from power up of the control panel.

If a "Low Battery" report is not required, program "LOCATION 352 - 353" with a zero.

Outputs 1 – 4 will NOT operate whilst the control panel detects a low battery.

System Status - Low Battery Restore Report

LOCATION 354 - 355 10 6

Location	Description
354	System Status – Low Battery Restore Report (Tens Digit)
355	System Status – Low Battery Restore Report (Units Digit)

Table 96: System Status – Low Battery Restore Report Locations

A "Low Battery" restore report will be transmitted if the back up battery has been restored the next time the system has been armed, or when the next dynamic battery test reports the battery test is OK.

If a "Low Battery Restore" report is not required, program "LOCATION 354 - 355" with a zero.

LOCATION 356 - 358 6 7 12

Location	Description
356	Code Retries (0–15)
357	System Status – Access Denied Reporting Code (Tens Digit)
358	System Status – Access Denied Reporting Code (Units Digit)

Table 97: System Status – Access Denied Locations

An "Access Denied" report (Contact ID Event Code 421) will be transmitted to the base station receiver when the number of incorrect code attempts equals the number programmed in "LOCATION 356". This is an audible alarm. Refer to Option 8 in "LOCATION 425" on page 216 if you require this alarm to be silent.

Restore signals for this event are not transmitted. If an "Access Denied" report is not required, program "LOCATION 357 - 358" with a zero.

Code Retries

Code retries restricts the amount of times an invalid user code can be used in an attempt to operate the system. This location sets the number of incorrect code attempts that will cause an alarm condition. When the number of incorrect code attempts equals the number programmed in this location, the system will carry out the following;

1. Activate the sirens, internal screamers and strobes connected to the control panel. Refer to Option 8 in “LOCATION 425” on page 216 if you require access denied to be silent.

2. Shutdown all codepads that are connected to the control panel and lock them out for the time period programmed in “LOCATION 410” on page 206.

3. Transmit an “Access Denied” (Contact ID Event Code 421) report to the base station receiver.

Each time the system is armed or disarmed, the counter will be reset. The number of attempts can be anywhere between 1-15. If you program a zero into “LOCATION 356”, the code attempts are unlimited and neither of the three points listed above will take place. This function works when the system is in the armed or disarmed state.

System Status Reporting Options

LOCATION 359 1

Option	Description
0	No Report Required
1	Receiver 1
2	Receiver 2
4	Receiver 1 and Receiver 2
8	Receiver 2 Only When Receiver 1 Fails

Table 98: System Status Reporting Options Location

This location is factory default to report only to receiver 1. You can select whether the system status reporting options will report on receiver 1, receiver 2, both receiver 1 and receiver 2, receiver 2 only when receiver 1 fails or no reporting at all.

Test Reporting Time

LOCATION 360 - 366 0000 71 0

Location	Description
360	Actual Hour Of The Day (Tens Digit)
361	Actual Hour Of The Day (Units Digit)
362	Actual Minute Of The Day (Tens Digit)
363	Actual Minute Of The Day (Units Digit)
364	Test Report Code (Tens Digit)
365	Test Report Code (Units Digit)
366	Repeat Interval In Days

Table 99: Test Reporting Time Locations

A "Test" report (Contact ID Event Code 602) is a specific signal that is transmitted to the base station receiver and is normally used to test the dialling and reporting functions of the control panel. Test reports will not be transmitted if the Subscriber ID Number is 0000.

When programming test reports, the control panel needs to know the hour and minute of the day the report is required, as well as how often to transmit the report. Test reports are reported on a daily basis ranging from every day to every fifteen days. Refer to "Installer Code Functions" on page 76 to set the first test report.

If you do not require "Test" reports, program the repeat interval in "LOCATION 366" as zero.

Example

If you wish to send test reports once every seven days at 11:35 PM, you would program “LOCATION 360 - 366” as follows:

2335 71 7

Test Reporting Dialler Options

LOCATION 367 1

Option	Description
0	No Report Required
1	Receiver 1
2	Receiver 2
4	Receiver 1 and Receiver 2
8	Receiver 2 Only When Receiver 1 Fails

Table 100: Test Reporting Options Location

This location is factory default to report only to receiver 1. You can select whether the test reporting options will report on receiver 1, receiver 2, both receiver 1 and receiver 2, receiver 2 only when receiver 1 fails or no reporting at all.

Programmable Outputs

This section includes the following;

- *Outputs*
- *Output Defaults*
- *Redirecting Outputs To The Codepad Buzzer*
- *Output Event Types*
- *Output Polarity*
- *Timing Of Outputs*
- *Pulsing Polarities*
- *One Shot Polarities*

Outputs

The *Solution 862* control panel has four fully programmable outputs on the main PCB and one other programmable output that operates the codepad buzzer. These four outputs are factory default to operate as horn speaker, fire alarm verification, strobe and an internal screamer.

Outputs 1 – 4 will NOT operate whilst the control panel detects a low battery.

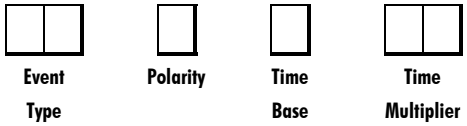
Programmable outputs require four parameters to be programmed in order to operate correctly.

Event Type: When To Operate

Polarity: How To Operate

Time Base: How Long To Operate For

Time Multiplier: How Often To Operate



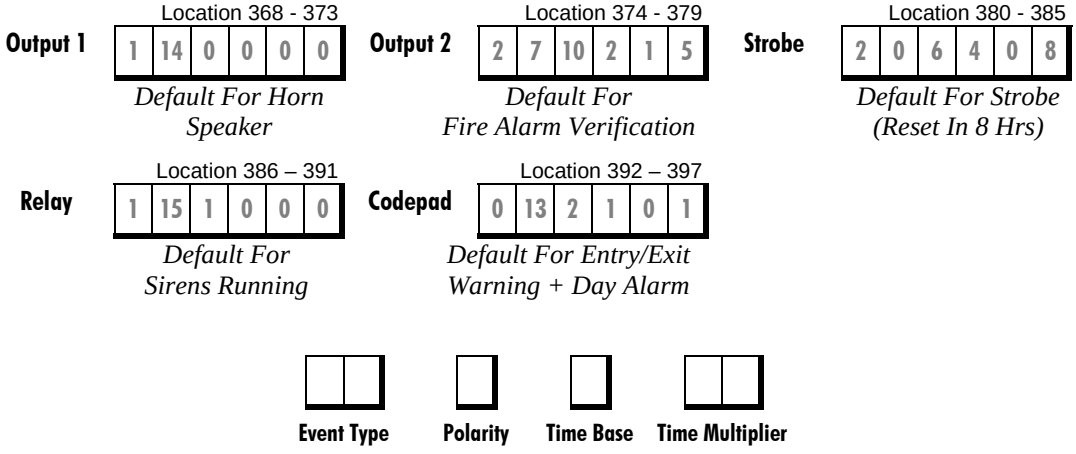
When To Operate Is selected from the output event types listed on page 192. Each digit should be entered into the two corresponding locations for the output event type required.

How To Operate Is selected from "Table 101: Event Type Polarities" on page 199. This determines whether the output remains operating for the duration of the event, pulses for the duration, operates once only (one shot) or latches on.

How Long To Operate For Is determined by a time base and a multiplier. Refer to "Timing Of Outputs" on page 201 for further information.

How Often To Operate For Is determined by a time base and a multiplier. Refer to "Timing Of Outputs" on page 201 for further information.

Output Defaults



Redirecting Outputs To The Codepad Buzzer

Multiple output event types can be directed to the codepad buzzer so that it may be used to indicate any number of events.

This is achieved by selecting an output and programming it for the required output event type. When you are satisfied that the output is functioning correctly, change the first digit of the output event type (i.e. The tens digit) by adding the value 8.

Example

`30` **Communications Failure**
This event will operate when the dialler has made all possible attempts to reach the base station receiver. The output will reset when the first "Kiss-Off" is received. This output event type is not applicable for domestic reporting.

To redirect the above output event type to operate a codepad buzzer, program the output event type as below:

`11 0` **Communications Failure**
This event will operate when the dialler has made all possible attempts to reach the base station receiver. The output will reset when the first "Kiss-Off" is received. This output event type is not applicable for domestic reporting.

The codepad buzzer will now operate instead of the output that has been programmed. The output is no longer functional and cannot be used for any other output event type.

Output Event Types

There are approximately seventy five different output event types to choose from. Two numbers designate each output event type. These two numbers need to be programmed into the appropriate locations of the output being used to indicate when the output should operate.

All reset times are in reference to polarity 1 and 8. Reset times will vary depending on the polarity used.

00 EDMSAT - Satellite Siren (Output 1 Only)
This output controls all functions of an EDMSAT satellite siren (SS914). The option of speaker indication beeps will not operate via the EDMSAT for remote operations. No polarity is required to be programmed for this output event type.

01 System Armed
This output will operate when the system is armed in AWAY Mode, STAY Mode 1 or STAY Mode 2. The output will reset when the system has been disarmed.

02 System Disarmed
This output will operate when the system is in the disarmed state. The output will reset as soon as the system becomes armed.

03 Armed In STAY Mode
This output will operate when the system has been armed in STAY Mode 1 or STAY Mode 2. The output will reset when the system is disarmed.

04 Armed In AWAY Mode
This output will operate when the system has been armed in AWAY Mode. The output will reset when the system is disarmed.

05 Auto Arm Pre-Arming Alert Time
This output will operate during the time period before the control panel will automatically arm in AWAY Mode or STAY Mode 1. Once the control panel has automatically armed in AWAY Mode or STAY Mode 1, the output will reset. To program the pre-arming alert time, refer to “LOCATION 413” on page 208.

06 Exit Warning With All Zones Sealed Or Entry Warning
This output will operate during exit time when the control panel has been armed in AWAY Mode, STAY Mode 1 or STAY Mode 2 if all zones are sealed. This output event type will reset once exit time has expired.

The next time this output event type will operate will be during entry time and will reset once entry time has expired or the system has been disarmed. This output event type will also operate if a zone has triggered when the system has been armed in STAY Mode 1 or STAY Mode 2 only if the Entry Guard Timer For STAY Mode has been programmed in "LOCATION 404 - 405" on page 205.

07 Exit Warning
This output operates during exit time when the system has been armed in AWAY Mode, STAY Mode 1 or STAY Mode 2. The output will reset once exit time has expired.

0 8 **Exit Warning Finished**
This output operates when the exit time has expired when the system has been armed in AWAY Mode, STAY Mode 1 or STAY Mode 2. The output will reset when the system has been disarmed.

0 9 **Kiss-Off After Exit Time**
This output will operate after the first successful transmission to the base station receiver when exit time has expired. The output will reset when the system has been disarmed.

0 11 **Entry Warning**
This output will operate when either Entry Timer 1, Entry Timer 2 or Entry Guard Timer For STAY Mode are operating. The output will reset when the entry time expires.

0 12 **Entry Warning + Day Alarm Resetting**
This output combines both Entry Warning and Day Alarm Resetting so that either of these two events will activate the output.

If the output has been triggered by either Entry Timer 1, Entry Timer 2, or Entry Guard Timer For STAY Mode, the output will reset once the entry timer has expired or the system has been disarmed.

If a zone programmed for day alarm has triggered during the disarmed state, the output will reset when the zone has resealed. Day alarm may be turned on and off by holding down the 4 button. Refer to Day Alarm Zones on page 156 for programming zones to operate for day alarm.

0 13 **Exit Warning + Entry Warning + Day Alarm Resetting**
This output combines exit warning, entry warning and day alarm so that any of these three events will activate the output.

This output will activate once the system has been armed in AWAY Mode, STAY Mode 1 or STAY Mode 2 irrespective of any zones being sealed or unsealed until exit time expires.

The next time the output will activate will be during entry time and will reset once entry time has expired or the system has been disarmed. This output will also operate when the Entry Guard Timer For STAY Mode is timing.

If a zone programmed for day alarm has triggered during the disarmed state, the output will reset when the zone has resealed. Day alarm may be turned on and off by holding down the 4 button. Refer to Day Alarm Zones on page 156 for programming zones to operate for day alarm.

0 14 **Day Alarm Resetting**
This output will operate when a zone programmed for day alarm has been triggered. The output will reset when the day alarm zone has resealed. Day alarm may be turned on and off by holding down the 4 button. Refer to Day Alarm Zones on page 156 for programming zones to operate for day alarm.

0 15 **Day Alarm Latching**
This output will operate when a zone programmed for day alarm has been triggered. The output will reset when the AWAY button has been pressed. Day alarm may be turned on and off by holding down the 4 button. Refer to Day Alarm Zones on page 156 for programming zones to operate for day alarm.

10 Day Alarm Enabled

This output will operate as soon as day alarm has been enabled. The output will reset when day alarm has been turned off. Refer to Day Alarm Zones on page 156 for programming zones to operate for day alarm.

Day alarm can be turned on and off by holding down the 4 button. Three beeps indicates that day alarm has been turned on, two beeps indicates that day alarm has been turned off. Refer to Hold Down Functions on page 107 for further information on day alarm.

11 Telephone Line Fail

This output will operate when the in-built telephone line fault module detects that the telephone line has been disconnected for a period of approximately 40 seconds. The output will reset once the telephone line has been restored continuously for more than 40 seconds. This output will not operate unless Option 1 in "LOCATION 176" on page 141 has been enabled.

12 Kiss-Off Received

This output will operate after the control panel has successfully transmitted to the receiving party.

13 Fuse Fail

This output will operate when either the 1 Amp codepad fuse or the 1 Amp accessories fuse fails. The output will reset once the faulty fuse has been replaced.

14 AC Fail

This output will operate as soon as the AC mains has failed. The output will reset as soon as the AC mains has restored. This output will operate regardless of Option 2 in "LOCATION 426" on page 217 being set.

15 Low Battery

This output will operate when a dynamic battery test detects that the battery has failed or the battery voltage has fallen below 10.5 volts. The dynamic battery test is performed every four hours from when the system has been powered up or every time the system has been armed in AWAY Mode, STAY Mode 1 or STAY Mode 2.

This output will reset only after a dynamic battery test reports the backup battery has restored.

16 Horn Speaker Monitor Fail

If Option 2 – Enable Monitoring Of Horn Speaker in "LOCATION 424" on page 215 has been selected, this output will operate when the horn speaker has been disconnected. The output will reset when the horn speaker has been reconnected.

17 Sensor Watch Alarm

This output will operate when the sensor watch count has been reached. Refer to Zone Options 1 on page 167 for more information on programming zones for sensor watch. Refer to "LOCATION 408 - 409" on page 206 for setting how many days before a zone can register as a faulty sensor watch zone.

18 Codepad Medical Alarm

This output will operate when a codepad medical alarm has been activated by pressing the 7 and 9 buttons simultaneously on the remote codepad. This output will reset once a valid user code has been entered at the remote codepad.

19 Codepad Fire Alarm
This output will operate when a codepad medical alarm has been activated by pressing the 4 and 6 buttons on the remote codepad simultaneously. This output will reset once a valid user code has been entered at the remote codepad.

1[10] Codepad Panic Alarm
This output will operate when a codepad panic alarm (audible or silent) has been activated by pressing the 1 and 3 buttons or the [STAY] and [AWAY] buttons on the remote codepad simultaneously. This output will reset once a valid user code has been entered at the remote codepad.

1[11] Codepad Duress Alarm
This output will operate when a duress alarm has been activated by adding a 9 to the end of the user code being used to disarm the system. This output will reset the next time the system has been armed.

1[12] Codepad Tamper – Access Denied
This output will operate when the wrong code has been entered more times than allowed. Refer to "LOCATION 356" on page 185 for setting the number of incorrect attempts that may be allowed. This output will reset once a valid user code has been entered.

1[14] Horn Speaker (Output 1 Only)
This output will operate only on Output 1 and should be programmed whenever an 8 ohm horn speaker is required. A maximum of two horn speakers may be used. Refer to "LOCATION 411" on page 207 for setting the siren run time and "LOCATION 412" on page 207 for setting the siren sound rate.

If you require monitoring of the horn speaker, refer to Option 2 in "LOCATION 424" on page 215.

1[15] Sirens Running
This output will operate for the duration of the siren run time programmed in "LOCATION 411" on page 207. When the sirens have been activated, this output will reset once the siren run time has expired. The relay output (Output 4) is factory default for this operation.

20 Strobe Operating
This output will operate when an alarm condition occurs and will reset once a valid user code has been entered. The strobe output (Output 3) is factory default for strobe operation and is programmed to automatically reset after 8 hours.

21 Silent Alarm
This output will operate when any zone programmed to be a silent alarm has triggered. The output will reset when the siren run time expires, an audible alarm has triggered, or a valid user code has been entered.

22 Alarm When In STAY Mode
This output will operate whenever an audible or silent zone alarm has triggered when the system has been armed in STAY Mode 1 or STAY Mode 2. The output will reset when the system has been disarmed.

23 Alarm When In AWAY Mode

This output will operate whenever an audible or silent zone alarm has triggered when the system has been armed in AWAY Mode. The output will reset when the system has been disarmed.

24 Mimic System Fault

This output will operate without any time delays as soon as any system fault occurs including if the AC mains supply has failed. The output will reset as soon as the system fault or the AC mains supply has restored.

25 Fire Alarm Resetting

This output will operate when a 24 hour fire zone is triggered. The output will reset once a valid user code has been entered or when siren run time expires.

26 Fire Alarm Latching

This output will operate when a 24 hour fire zone has triggered and will reset when the system has been armed or disarmed.

27 Fire Alarm Verification

This feature is used on some commercial fire control panels to reduce false alarms on smoke detectors. It is conceptually very similar to zone pulse count as used in some motion detectors. Basically, a fire zone is allotted a pulse count of 3 pulses over a period of 3 minutes.

If the smoke detector trips, the voltage to the smoke detector is disconnected for 15 seconds and then reapplied. No alarm has registered.

If within 3 minutes of the first trigger the unit triggers again, no alarm will be registered and the voltage to the smoke detector will again be disconnected for 15 seconds and then reapplied.

If a third trigger is detected within 3 minutes of the first trigger, (i.e. 3 pulses in 3 minutes) a fire alarm will be registered. Power to the smoke detector will be maintained to facilitate unit identification via the detector memory.

This output should be connected to the negative side of any fire/smoke detector. To configure an output for this feature, use the following settings.

EVENT TYPE = 2,7 POLARITY = 10

TIMEBASE = 2 MULTIPLIER = 15

The zone that the fire/smoke detector is connected to should be programmed as follows:

ZONE TYPE = 13 ZONE PULSE COUNT = 3

ZONE PULSE COUNT TIME = 15

28 **Remote Control 1** 29 **Remote Control 2**

2[10] **Remote Control 3**

These outputs can be remotely activated (Turned "On" or "Off") via the following methods:

1. Remote Codepad - Refer to the Master Code Functions - Turning Outputs On/Off on page 102 for further information.

2. Remotely Via Alarm Link Software - Refer to your Alarm Link Instruction Manual for further information.

2[11] **Radio Control Output 1**

This output will operate when the button marked DOOR on the 4 channel hand held transmitter is activated when the system is armed or disarmed.

2[12] **Radio Control Output 2**

This output will operate when the button marked AUX on the 4 channel hand held transmitter is activated when the system is armed or disarmed.

2[13] **Radio Control Output 1 – Not In AWAY Mode**

This output will operate when the button marked DOOR on the 4 channel hand held transmitter is activated when the system is disarmed or armed in STAY Mode 1 or STAY Mode 2. The output will not operate when the system is armed in AWAY Mode

2[14] **Radio Control Output 2 – Not In AWAY Mode**

This output will operate when the button marked AUX on the 4 channel hand held transmitter is activated when the system is disarmed or armed in STAY Mode 1 or STAY Mode 2. The output will not operate when the system is armed in AWAY Mode.

2[15] **Communications Failure After 3 Unsuccessful Calls**

This output will operate when the communication dialler has made 3 unsuccessful calls to the base station receiver. The output will reset when all messages have been transmitted (i.e. When the buffer is empty or when all possible attempts have been made).

30 **Communications Failure**

This output will operate when the communication dialler has made all possible attempts to reach the base station receiver. The output will reset when the first "Kiss-Off" has been received. This output will not operate for domestic formats.

31 **Dialler Disabled**

This output will operate as long as Option 1 in "LOCATION 177" on page 145 has been disabled. The output will reset once Option 1 – Enable Dialler Reporting Functions in "LOCATION 177" on page 145 has been enabled.

32 **Dialler Active**

This output will operate when the communication dialler is on-line. The output will reset when the communication dialler has released the telephone line.

33 **Ring Detect**

This output will operate when an incoming call has been detected by the control panel. The output will reset when the ringing has stopped or when the call has been answered.

35 **Mimic Zone 1**
36 **Mimic Zone 2**
37 **Mimic Zone 3**
38 **Mimic Zone 4**
39 **Mimic Zone 5**
3 10 **Mimic Zone 6**
3 11 **Mimic Zone 7**
3 12 **Mimic Zone 8**

These output types will mimic the zone inputs. The output will operate when the zone is unsealed and will reset when the zone is sealed. They will operate regardless of the zone type chosen (i.e. A zone "Not Used" can still operate a mimic output). This feature operates when the system is armed or disarmed.

45 **Global Chime**

This output will operate when any zones programmed as "Chime" have triggered. The output will reset when the zone has resealed. Refer to Zone Types on page 162 for more information.

46 **Zone Not Sealed**

This output will operate whenever a burglary zone is unsealed. Chime zones will not operate this output event type.

47 **Zone Not Sealed After Exit Time**

This output will operate at the end of exit time if a burglary zone is unsealed. The output will reset when all zones are sealed or the system has been disarmed. Chime zones will not operate this output event type.

49 **AC Mains 60 Hz Or 50 Hz**

This output will activate when the AC mains supply frequency is at 60 Hz. The output will reset once the AC mains supply has returned to 50 Hz.

Output Polarity

There are fifteen different polarities to choose from. Each polarity is designated by a number. This number needs to be programmed into the appropriate location of the output being used to indicate how the output should operate.

Option	Polarity	Option	Polarity
0	Output Not Used		
1	Normally Open, Going Low	**8**	Normally Low, Going Open
2	Normally Open, Pulsing Low	**9**	Normally Low, Pulsing Open
3	Normally Open, One Shot Low	**10**	Normally Low, One Shot Open
4	Normally Open, One Shot Low (Retrigger)	**11**	Normally Low, One Shot Open (Retrigger)
5	Normally Open, One Shot Low (Can Reset)	**12**	Normally Low, One Shot Open (Can Reset)
6	Normally Open, One Shot Low (Alarm)	**13**	Normally Low, One Shot Open (Alarm)
7	Normally Open, Latching Low	**14**	Normally Low, Latching Open

Table 101: Event Type Polarities

Output Not Used

0 If an output is not required for use, the polarity should be programmed as zero.

Normally Open, Going Low

1 This polarity is normally open circuit and will switch to zero volts when the event occurs. The output will switch back to open circuit when the event has restored. Time parameters are not applicable to this polarity.

Normally Open, Pulsing Low

2 This polarity is normally open circuit and will switch to pulsing zero volts when the event occurs. The output will switch back to open circuit when the event has restored. Time parameters vary the "On" time of the pulse.

Normally Open, One Shot Low

3 This one shot polarity is normally open circuit and will switch to zero volts when the event occurs. The output will switch back to open circuit when the time parameter setting has expired. This one shot time setting will always run its full duration and cannot be manually reset.

Normally Open, One Shot Low With Retrigger

4 This one shot polarity is normally open circuit and will switch to zero volts when the event occurs. Every time the event occurs, it will restart the one shot timer. The output will switch back to open circuit once the one shot time has expired.

This polarity is ideally suited for lighting control. A PIR can be used to trigger an output for turning on lights. While ever there is movement, the PIR will keep re-triggering the output and lengthen the time the lights will remain switched on.

Normally Open, One Shot Low With Reset

5 This one shot polarity is normally open circuit and will switch to zero volts when the event occurs. The output will switch back to open circuit when the one shot time has expired or when the event has returned to normal. This means the operation of the output can be shortened regardless of the time parameter programmed.

Normally Open, One Shot Low With Alarm

6 This one shot polarity is normally open circuit and will switch to zero volts when the event occurs. The output will switch back to open circuit once the one shot time has expired, when the event has returned to normal or when the system has been disarmed.

This polarity is ideally suited for the operation of strobe lights as they can be programmed (Up to 99 hours) to reset and prevent them from burning out or becoming annoying to others from prolonged operation.

Normally Open, Latching Low

7 This polarity is normally open circuit and will switch to zero volts when the event occurs. The output will switch back to open circuit once the 7 button on the remote codepad is held down until two beeps are heard. Time parameters are not applicable to this polarity.

Normally Low, Going Open

8 This polarity is normally zero volts and will switch to open circuit when the event occurs. The output will switch back to zero volts when the event has restored. Time parameters are not applicable to this polarity.

Normally Low, Pulsing Open

9 This polarity is normally zero volts and will switch to pulsing open circuit when the event occurs. The output will switch back to zero volts when the event has restored. Time parameters vary the "Off" time of the pulse.

Normally Low, One Shot Open

10 This one shot polarity is normally zero volts and will switch to open circuit when the event occurs. The output will switch back to zero volts when the time parameter has expired. This one shot time setting will always run its full duration and cannot be manually reset.

Normally Low, One Shot Open With Retrigger

11 This one shot polarity is normally zero volts and will switch to open circuit when the event occurs. Every time the event occurs, it will restart the one shot timer. The output will switch back to zero volts once the one shot time has expired.

Normally Low, One Shot Open With Reset

12 This one shot polarity is normally zero volts and will switch to open circuit when the event occurs. The output will switch back to zero volts when the one shot time has expired or when the event has returned to normal. This means the one shot timer can be shortened regardless of the time setting.

Normally Low, One Shot Open With Alarm

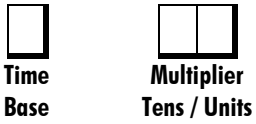
13 This one shot polarity is normally zero volts and will switch to open circuit when the event occurs. The output will switch back to zero volts when the one shot time has expired, when the event has returned to normal or when the system has been disarmed. This means that the one shot timer can be shortened regardless of the time setting.

Normally Low, Latching Open

14 This polarity is normally zero volts and will switch to open circuit when the event occurs. The output will switch back to zero volts once the 7 button on the remote codepad has been held down until two beeps are heard. Time parameters are not applicable to this polarity.

Timing Of Outputs

The timing of outputs is calculated by the time base and a multiplier. These two values play different roles depending on the polarity selected. When programming outputs to pulse, both the "On" and "Off" times can be set. One shot polarities can be programmed to operate between 200 ms up to 99 hours in duration.



The maximum value that can be programmed in the two multiplier locations is 9 9.

Option	Time Base
1	200 ms
2	1 Second
3	1 Minute (60 Seconds)
4	1 Hour (60 Minutes)

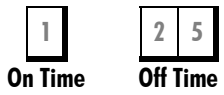
Table 103: Time Base Settings

The time base settings can be set to only one of the values listed in "Table 103: Time Base Settings". The multiplier value is a two digit decimal number from 00-99. For greater accuracy, use 60 seconds for 1 minute intervals and use 60 minutes for one hour intervals.

Pulsing Polarities

When calculating pulsing polarities both the "On" and "Off" times need to be programmed. The duration or "On" time of an output is determined by selecting only one of the time base options from "Table 103: Time Base Settings". This means there are only four "On" times to choose from.

The "Off" time is calculated as a multiple of the "On" time by choosing a decimal number between 00 and 99. If an output is required to operate for 200 ms every five seconds, program the time settings as follows;



ON Time	OFF Time	Increments	Tolerance
200 ms	200 ms - 19.8 ms	200 ms	+/- 200 ms
1 Sec	1 Sec - 99 Sec's	1 Sec	+/- 1 Sec
1 Min	1 Min - 99 Min's	1 Min	+/- 1 Min
1 Hour	1 Hour - 99 Hours	1 Hour	+/- 1 Hour

Table 104: Pulsing Time Settings

One Shot Polarities

The duration or "On" time of an output is determined by the product of the time base and the multiplier.

If an output is required to operate for five seconds, program the time settings as follows;

The "On" time is calculated by multiplying the time base setting (1 second) by the multiplier value (05).

(i.e. 1 x 05 = 5 seconds)

On Time	Increments	Tolerance
200 ms - 19.8 Sec's	200 ms	+/- 200 ms
1 Sec - 99 Sec's	1 Sec	+/- 1 Sec
1 Min - 99 Min's	1 Min	+/- 1 Min
1 Hour - 99 Hours	1 Hour	+/- 1 Hour

Table 105: One Shot Time Settings

System Event Timers

This section includes the following;

- *Entry Timer 1*
- *Entry Timer 2*
- *Exit Time*
- *Entry Guard Timer For STAY Mode*
- *Delay Alarm Reporting Time*
- *Sensor Watch Time*
- *Codepad Lockout Time*
- *Siren Run Time*
- *Siren Sound Rate*
- *Auto Arming Pre-Alert Timer*
- *Auto Arming Time*
- *Auto Disarming Time*
- *Kiss-Off Wait Time*
- *System Time*
- *System Date*

System Event Timers

This section covers the features that involve timing. Features such as entry and exit times, sensor watch time, siren run time and system date and time along with a host of other timers are discussed extensively in this section.

Programming Entry/Exit Timers

There are two locations to be programmed for Entry Timer 1, Entry Timer 2, Exit Time For AWAY Mode and Entry Guard Time For STAY Mode.

The first location of the timer is for programming increments of 1 second. The second location of the timer is for programming increments of 16 seconds. By adding these two locations together will give the total time required.

Example If you require the entry time to expire after 18 seconds, you would need to program "LOCATION 398" as 2 (i.e. 2 x 1 second = 2 seconds) and "LOCATION 399" as 1 (i.e. 1 x 16 seconds = 16 seconds). This would give you the total time of 18 seconds (i.e. 2 + 16 seconds = 18 seconds.

Entry Timer 1

LOCATION 398 - 399 (Defaulted To 20 Seconds) 41

Location	Description
398	Increments Of 1 Second (0 – 15 Sec's)
399	Increments Of 16 Seconds (0 – 240 Sec's)

Table 106: Entry Timer 1 Locations

Entry time can be programmed between 0 and 255 seconds in increments of one second. Entry Timer 1 is the delay time used by the zone type – Delay-1. Refer to Zone Types on page 162 for more information.

Entry Timer 2

LOCATION 400 - 401 (Defaulted To 40 Seconds) 82

Location	Description
400	Increments Of 1 Second (0 - 15 Sec's)
401	Increments Of 16 Seconds (0 –240 Sec's)

Table 107: Entry Timer 2 Locations

Entry time can be programmed between 0 and 255 seconds in increments of one second. Entry Timer 2 is the delay time used by the zone type – Delay-2. Refer to Zone Types on page 162 for more information.

Exit Time

LOCATION 402 – 403 (Defaulted To 60 Seconds) 12 3

Location	Description
402	Increments Of 1 Second (0 - 15 Sec's)
403	Increments Of 16 Seconds (0 –240 Sec's)

Table 108: Exit Time Locations

Exit time can be programmed between 0 and 255 seconds in increments of one second. When arming the system in AWAY Mode, the remote codepad will beep during exit time until the remaining 10 seconds where the codepad will give you one continuous beep to inform you that the end of exit time is approaching.

The remote codepad will always give one short beep at the end of exit time when arming in STAY Mode 1 or STAY Mode 2.

Entry Guard Timer For STAY Mode

LOCATION 404 - 405 (Defaulted To 00 Seconds) 0 0

Location	Description
404	Increments Of 1 Second (0 - 15 Sec's)
405	Increments Of 16 Seconds (0 –240 Sec's)

Table 109: Entry Guard Timer For STAY Mode Locations

"Entry Guard Timer For STAY Mode" is the delay time used for ALL zones except 24 hour burglary and 24 hour fire zones when the system is armed in STAY Mode 1 or STAY Mode 2. Each zone including delay zones will have the entry delay as programmed in "LOCATION 404 - 405" (i.e. The entry guard timer will override the delay time programmed for a delay zone). If the entry guard timer has been programmed as "0" each zone will act as per its programmed zone type.

Delay Alarm Reporting Time

LOCATION 406 – 407 (Defaulted To 00 Seconds) 0 0

Location	Description
406	Increments Of 1 Second (0 - 15 Sec's)
407	Increments Of 16 Seconds (0 –240 Sec's)

Table 110: Delay Alarm Reporting Time Locations

These locations programs the time in seconds that a delayed report waits dormant in the dial buffer before reporting to the receiving party. If a user code holder resets the alarm condition within this time frame, the control panel will clear the dialler buffer and prevent the alarm from reporting to the receiving party.

Sensor Watch Time

LOCATION 408 - 409 0 0

Location	Description
408	Increments Of Days (Tens Digit)
409	Increments Of Days (Units Digit)

Table 111: Sensor Watch Time Locations

The time set in these two locations determine how many days (0-99) a zone may remain sealed before registering as a fault. This feature is only active when the system is in the disarmed state. If a zone programmed for sensor watch has not become unsealed and reset during this time, the FAULT indicator will illuminate. Refer to Fault Descriptions on page 64 for further information on sensor watch faults. Refer to Zone Options 1 on page 167 for programming zones for sensor watch.

The sensor watch time counter is only active whilst the control panel is disarmed. Therefore, if the system is only disarmed for 8 hours a day and the sensor watch time is programmed for 1 day, a zone that is programmed for sensor watch will register a sensor watch fault if not triggered during the disarmed state within 3 days.

This feature would be useful in a situation where someone has moved objects in the view of the detector, blocking out the detector from picking up movement.

Codepad Lockout Time

LOCATION 410 0

Location	Description
410	Increments Of 1 Minute (0 - 15 Minutes)

Table 112: Codepad Lockout Time Locations

All codepads will be locked out for the specified time programmed if an invalid code has been entered more times than allowed by the code retry attempts programmed in "LOCATION 356" on page 185. If the Codepad Lockout Time is programmed as zero, no codepad lockout will occur.

Siren Run Time

LOCATION 411 (Defaulted To 5 Minutes) 5

Location	Description
411	Increments Of 1 Minute (0 – 15)

Table 113: Siren Run Time Location

The siren run time determines how long the horn speaker will activate during an alarm condition. The siren run time can be programmed between 0 - 15 minutes (+/- 1 minute).

Siren Sound Rate

LOCATION 412 7

Location	Description
412	Siren Sound Rate (0 = SLOWEST 15 = FASTEST)

Table 114: Siren Sound Rate Location

The siren sound rate varies the frequency of the siren tone. Programming the siren sound rate as a zero is the slowest and fifteen is the fastest. The siren sound rate does not change the frequency rate for the fire alarm tone.

Auto Arming Pre-Alert Timer

LOCATION 413 1

Location	Description
413	Increments Of 5 Minutes (0 – 75 Minutes)

Table 115: Auto Arming Pre-Alert Timer Location

This location sets the time period that will warn you before the control panel will automatically arm in AWAY Mode. The codepad will beep once every second until the pre-alert timer has expired, after this time, the system will automatically arm itself in AWAY Mode. If you require the system to automatically arm in STAY Mode 1, enable Option 4 in "LOCATION 428" on page 219.

Once the control panel has automatically armed in AWAY Mode or STAY Mode 1, exit time will commence. If a valid user code is entered during the pre-alert time, the auto arming time as programmed in "LOCATION 414 - 417" will extend by one hour.

If you require a programmable output to operate during the auto arming pre-alert time, refer to Output Event Type – Auto Arm Pre-Arming Alert Time on page 192.

Auto Arming Time

LOCATION 414 - 417 0000

Location	Description
414	Actual Hour Of The Day (Tens Digit)
415	Actual Hour Of The Day (Units Digit)
416	Actual Minute Of The Day (Tens Digit)
417	Actual Minute Of The Day (Units Digit)

Table 116: Auto Arming Time Locations

These locations are used to program the actual time of the day that the system will automatically arm itself in AWAY Mode. This time must be set in 24 hour format (i.e. 10:30 PM would be programmed as 2230). Refer to Option 4 in "LOCATION 428" on page 219 if you require the system to arm in STAY Mode 1.

If forced arming has been disabled for any zone, the feature of automatic arming will operate regardless of any zones being unsealed. Refer to Zone Options 2 on page 171 for more information on programming zones for forced arming.

User code 16 will report when the feature of automatic arming is used.

Auto Disarming Time

LOCATION 418 - 421 0 0 0 0

Location	Description
418	Actual Hour Of The Day (Tens Digit)
419	Actual Hour Of The Day (Units Digit)
420	Actual Minute Of The Day (Tens Digit)
421	Actual Minute Of The Day (Units Digit)

Table 117: Auto Disarming Time Locations

These locations are used to program the actual time of the day that the system will automatically disarm itself from AWAY Mode, STAY Mode 1 or STAY Mode 2. This time must be set in 24 hour format (i.e. 10:30 PM would be programmed as 2230).

User code 16 will report when the feature of automatic arming is used.

V1.00 – V1.07 The system failed to automatically disarm if the system was not programmed to automatically arm. To solve the problem, we suggest that you program the automatic arming time as 25:00 hours if you only require the control panel to disarm.

Kiss-Off Wait Time

LOCATION 422 3

Location	Description
422	Increments Of 500 ms (500 ms – 8 Sec's)

Table 118: Kiss-Off Wait Time Location

This location sets the time that the control panel will wait for acknowledgment before resending the report. This applies only to Contact ID Format and 4 + 2 Express Formats.

Reserved

LOCATION 423 0

Location	Description
423	Reserved

Table 119: Reserved Location

System Time

LOCATION 901 – 904 0 0 0 0

Location	Description
901	Current Hour In 24 Hour Time (Tens Digit)
902	Current Hour In 24 Hour Time (Units Digit)
903	Current Minute (Tens Digit)
904	Current Minute (Units Digit)

Table 120: System Time Locations

The *Solution 862* control panel has a real time 24 hour clock that needs to be set during installation. This time must be set in 24 hour format HHMM (i.e. 10:30 PM would be programmed as 2230). Every time the system has been powered down, the system time will need to be reset.

System Date

LOCATION 905 – 910 010101

Location	Description
905	Day Of The Month (Tens Digit)
906	Day Of The Month (Units Digit)
907	Month Of The Year (Tens Digit)
908	Month Of The Year (Units Digit)
909	Year (Tens Digit)
910	Year (Units Digit)

Table 121: System Date Locations

The *Solution 862* control panel has a real time 12 month calendar that needs to be set during installation. This time must be set using the format DDMMYY (i.e. If the date that is required to be set is the 1 July 1997, you would then program 010797). Every time the system has been powered down, the system date will need to be reset.

Setting The Date and Time

The Master Code holder is allowed to set the date and time as follows:

How To Set The New Date and Time

1. Enter your [MASTER CODE] followed by 6 and the [AWAY] button.
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Enter the day, month, year, hour and minute using the (DD, MM, YY, HH, MM) format (i.e. DD = Day of the month, MM = Month of the year, YY = Current year, HH = Hour of the day, MM = Minute of the day).

Please note that when programming the hour of the day, you will need to use 24:00 hour format.

3. Press the [AWAY] button when finished.
Two beeps will be heard and the STAY and AWAY indicators will extinguish. If a long beeps is heard, an error was made when entering the date and time.

Example

If the date and time needs to be set for the 1st January 1997 at 10:30 PM, program the date and time as follows;

2 5 8 0 + 6 + [AWAY]

0 + 1 + 0 + 1 + 9 + 7 + 2 + 2 + 3 + 0 + [AWAY]

System and Consumer Options

This section includes the following;

- *System Options 1*
- *System Options 2*
- *System Options 3*
- *System Options 4*
- *Consumer Options 1*
- *Consumer Options 2*
- *Consumer Options 3*
- *Radio Input Options*

Programming Option Bits

When programming these locations, you will notice that there are four options per location. You may select one, two, three or all four of these options, however, only one number needs to be programmed. This number is calculated by adding the option bit numbers together. Program a seven (7) if you require options 1, 2 and 4 simultaneously (i.e. 1 + 2 + 4 = 7).

Example

If at "LOCATION 424" you want options 1, 2 and 4, add the numbers together and the total is the number to be programmed. In this example, the number to be programmed is 7 (i.e. 1 + 2 + 4 = 7).

Option	Description
1	EDM Smart Lockout Allowed
2	Horn Speaker Monitor
4	Strobe Indication For Radio Arm/Disarm
8	Horn Speaker Beeps For Radio Arm/Disarm

Table 122: Example - Programming Option Bits

System Options 1

LOCATION 424 1

Option	Description
1	EDM Smart Lockout Allowed
2	Horn Speaker Monitor
4	Strobe Indications For Radio Arm/Disarm
8	Horn Speaker Beeps For Radio Arm/Disarm

Table 123: System Options 1

EDM Smart Lockout Allowed

1 This feature allows the control panel to remove any zones that are programmed for lockout dialler from the lockout list while the sirens are running. This feature allows a monitoring station to receive zone alarm reports from previously locked out zones during siren time. Refer to Zone Options 1 on page 167 for information on programming zones for lockout dialler and lockout siren.

Refer to Swinger Shutdown Count For Dialler on page 174 to program the number of times the zone can report before being locked out.

Horn Speaker Monitor

2 If this option has been selected, the control panel will detect when the horn speaker has been disconnected from the speaker terminals. The FAULT indicator will illuminate when the horn speaker has been disconnected and will extinguish when the horn speaker has been reconnected. If an output is required to operate when the horn speaker has been disconnected, refer to Output Event Type – Horn Speaker Monitor Fail on page 194 for more information.

Strobe Indications For Radio Arm/Disarm

4 This option will allow the strobe to indicate when the system is armed and disarmed when remotely operating the system via the Solution Wireless On/Off Interface (WE800).

No Of Seconds	System Status
3 Seconds	System Disarmed
6 Seconds	System Armed In AWAY Mode
6 Seconds	System Armed In STAY Mode 1

Table 124: Strobe Indications For Remote Operations

Horn Speaker Beeps For Radio Arm/Disarm

8 This option will allow the horn speaker to indicate when the system is armed and disarmed when remotely operating the system via the Solution Wireless On/Off Interface (WE800).

No Of Beeps	System Status
1	System Disarmed
2	System Armed In AWAY Mode
1 Two Tone Beep	System Armed In STAY Mode 1

Table 125: Horn Speaker Beeps For Remote Operations

LOCATION 425 0

Option	Description
1	Codepad Panic To Be Silent
2	Codepad Fire To Be Silent
4	Codepad Medical To Be Silent
8	Access Denied (Code Retries) To Be Silent

Table 126: System Options 2

Codepad Panic To Be Silent

1 If this option has been selected, a codepad panic alarm or radio remote panic alarm will not operate the horn speaker, the bell or the strobe outputs. If this option is not selected, all three outputs will operate after a codepad panic alarm has been activated when the 1 and 3 buttons or the [STAY] and [AWAY] buttons on the remote codepad are pressed simultaneously. Selecting this option does not effect the operation of the communication dialler.

If you wish to disable the reporting of the codepad panic alarm, program “LOCATION 337 - 338” on page 180 as zero.

Codepad Fire To Be Silent

2 If this option has been selected, a codepad fire alarm will not operate the horn speaker, the bell or the strobe outputs. If this option is not selected, all three outputs will operate after a codepad fire alarm has been activated when the 4 and 6 buttons on the remote codepad are pressed simultaneously. Selecting this option does not effect the operation of the communication dialler.

If you wish to disable the reporting of the codepad fire alarm, program “LOCATION 339 - 340” on page 181 as zero.

Codepad Medical To Be Silent

4 If this option has been selected, a codepad medical alarm will not operate the horn speaker, the bell or the strobe outputs. If this option is not selected, all three outputs will operate after a codepad fire alarm has been activated when the 7 and 9 buttons on the remote codepad are pressed simultaneously. Selecting this option does not effect the operation of the communication dialler.

If you wish to disable the reporting of the codepad medical alarm, program “LOCATION 341 - 342” on page 181 as zero.

Access Denied (Code Retries) To Be Silent

8 If this option has been selected, a codepad tamper alarm will not operate the horn speaker, bell or the strobe outputs. If this option is not selected, all three outputs will operate after a codepad tamper alarm has occurred.

Refer to "LOCATION 356" on page 185 to set the number of invalid code retries before an alarm condition occurs. Selecting this option does not effect the operation of the communication dialler. If you wish to disable the reporting of access denied reports program “LOCATION 357 - 358” as zero.

System Options 3

LOCATION 426 8

Option	Description
1	AC Fail After 1 Hour (Disabled = After 2 Minutes)
2	Ignore AC Mains Fail Indication
4	Pulse Count Handover
8	Handover Delay To Be Sequential

Table 127: System Options 3

AC Fail After 1 Hour (Disabled = After 2 Minutes)

1 If this option has been selected, the MAINS indicator will begin to flash as soon as the AC mains supply becomes disconnected. An "AC Loss" signal (Contact ID Event Code 301) will be transmitted to the base station receiver after the AC mains supply has been disconnected continuously for more than 60 minutes.

If this option has not been selected, the MAINS indicator will begin to flash and an "AC Loss" signal (Contact ID Event Code 301) will be transmitted to the base station receiver after the AC mains power has been disconnected continuously for 2 minutes.

The MAINS indicator will cease to flash once the AC mains supply has been restored for more than two minutes.

An “AC Loss Restore” report will be transmitted to the base station receiver after the AC mains supply has been restored continuously for more than 2 minutes irrespective of this option being set.

Ignore AC Fail

2 If this option has been selected, the MAINS indicator will not flash, nor will the codepad beep once every minute when the AC mains has been disconnected from the control panel. If you require a programmable output to operate when the AC mains has failed, refer to Output Event Type – AC Fail on page 194.

If this option has been selected, an “AC Loss” report (Contact ID Event Code 301) will still report to the base station receiver unless disabled in “LOCATION 348 - 349” on page 183.

Zone Pulse Count Handover

4 If this option has been selected, any zone pulse count readings will handover and accumulate to any zone that is triggered during the same arming cycle. Zone pulse count handover will only operate with zone pulse count options 8-15. Refer to Zone Pulse Count on page 165 and Zone Pulse Count Time on page 166 for more information.

24-hour zones do not receive any handover pulses from other zones. 24-hour zones can handover pulses to other zones.

Handover Delay To Be Sequential

8 If this option has been selected, handover delay will be sequential (i.e. In numerical order from lowest to highest). If the sequence is broken before the entry time expires, an alarm will occur. If this option has not been selected, handover delay will follow the entry path provided that a delay zone has been triggered first. Refer to Handover Zone on page 162 for more information.

System Options 4

LOCATION 427 0

Option	Description
1	Panel To Power Up Disarmed (If Power Reset)
2	Arm/Disarm Tracking On Power Up
4	Internal Crystal To Keep Time
8	Keyswitch Interface, Night Arm Station Or RE005 Installed

Table 128: System Options 4

Panel To Power Up Disarmed

1 If this option has been selected, the control panel will power up in the disarmed state once the battery and AC mains have been reconnected after the system has been powered down.

If this option is not selected, the system will always power up armed in AWAY Mode.

Arm/Disarm Tracking On Power Up

2 If enabled, the control panel will keep its current armed status in non-volatile memory. If for any reason the control panel is restarted due to a power failure, the control panel will return to the armed or disarmed status that the control panel was in before the power failed.

Example

If the system was disarmed prior to the system being powered down, when the system is powered back up, the system will return to the disarmed state.

Internal Crystal To Keep Time

4 If this option has been selected, it will force the control panel not to use the mains frequency as a time base to keep time. The control panel will use the internal crystal (XTAL) to keep track of time. This option is useful in countries that do not have a constant mains frequency.

Keyswitch Interface, Night Arm Station Or RE005 Installed

8 This option must be selected when using the Radio Key/Keyswitch Interface (CC813), 2 Channel Radio Interface (RE005), or the Night Arm Station (CP105). This option allows the control panel to be operated using either of these three accessories. User Code 16 will be used when reporting open/close reports via any of these accessories.

Consumer Options 1

LOCATION 428 0

Option	Description
1	Test Reports Only When Armed
2	Test Report After Siren Reset
4	Auto Arm In STAY Mode 1
8	STAY Indicator To Display Day Alarm Status

Table 129: Consumer Options 1

Test Reports Only When Armed

1 If this option has been selected, test reports (Contact ID Event Code 602) will only be sent when the system has been armed in AWAY Mode, STAY Mode 1 or STAY Mode 2. It is no longer necessary to send a test report as well as an opening and closing report every day.

During the working week, most commercial premises would be open and therefore a test report is not necessary, as open and close reports would be sent at the time programmed. If you wish to manually send a test report, hold down the 9 button until two beeps are heard.

Refer to Test Reporting Time on page 187 to set the test report time required. To set the first test report, refer to the Installer Code Function - Set The Number Of Days Until The First Test Report on page 77.

Test Report After Siren Reset

2 Selecting this option will force the control panel to send a test report after the siren has reset. This can be used to indicate to the monitoring station that the control panel itself has not been tampered with during the alarm period.

Auto Arm In STAY Mode 1

4 If automatic arming in STAY Mode 1 is preferred to automatic arming in AWAY Mode, this option will need to be selected.

Refer to “LOCATION 414 - 417” on page 208 to program the time that the control panel will automatically arm itself and “LOCATION 413” on page 208 to set the auto arming pre-alert time.

STAY Indicator To Display Day Alarm Status

8 If this option has been selected, the STAY indicator will be used to display when day alarm has been enabled. The STAY indicator will flash once every 3 seconds while day alarm is active.

Refer to “LOCATION 265” on page 156 for programming zones to operate for day alarm operation.

Day alarm can be turned on and off by holding down the 4 button for 2 seconds. Three beeps indicate day alarm is turned on and two beeps indicate day alarm is turned off. Refer to Day Alarm Operation on page 157 for more information.

LOCATION 429 2

Option	Description
1	Codepad Display Extinguish After 60 Seconds
2	Single Button Arming Allowed (AWAY/STAY Mode 1 & 2)
4	Single Button Disarming Allowed (STAY Mode 1 & 2)
8	Alarm Memory Reset On Disarm

Table 130: Consumer Options 2

Codepad Display Extinguish After 60 Seconds

1 If this option has been selected, all indicators on the remote codepad display will extinguish if a button is not pressed for 60 seconds. The indicators will illuminate when there is an alarm (except a silent alarm), when a button is pressed on the codepad, when the AC mains fail beeps, or if the entry timer has been activated.

Single Button Arming Allowed (AWAY Mode/STAY Mode 1 & 2)

2 If this option has been selected, the hold down functions for arming in AWAY Mode, STAY Mode 1 and STAY Mode 2 will be functional. Refer to Hold Down Functions on page 107 for more information.

Single Button Disarming Allowed (STAY Mode 1 & 2)

4 This option will only operate when Option 2 in this location has also been selected. This option will allow hold down functions for disarming from STAY Mode 1 and STAY Mode 2. Refer to Hold Down Functions on page 107 for more information.

Alarm Memory Reset On Disarm

8 This option allows the memory of alarm events to be cleared from the remote codepad when the system has been disarmed. If this option has not been selected, the system will need to be armed and disarmed again to clear alarm memory from the remote codepad.

Consumer Options 3

LOCATION 430 5

Option	Description
1	Codepad Fault Beeps Allowed
2	Use Digit 3 For Codepad Duress Instead Of Digit 9
4	Alarms Activate Sirens and Strobe Outputs In STAY Mode 1 & 2
8	Reserved

Table 131: Consumer Options 3

Codepad Fault Alarm Beeps

1 If this option has been enabled, the codepad will flash the FAULT indicator and beep once every minute until acknowledged when a system fault has occurred. To acknowledge a new fault and stop the codepad from beeping once every minute, simply press the AWAY button.

If this option has not been enabled, the codepad will only flash the FAULT indicator when a new fault has occurred, but will not cause the codepad to beep once every minute until the fault has been acknowledged or rectified.

Use Digit 3 For Codepad Duress Instead Of Digit 9

2 This option if selected, will allow the customer to use the digit 3 after entering their code to disarm the system to activate a duress alarm.

Alarms Activate Sirens & Strobe Ouputs In STAY Mode 1 & 2

4 This option will need to be selected if audible alarms are required when the system has been armed in STAY Mode 1 or STAY Mode 2.

Reserved

8

LOCATION 431 0

Option	Description
1	Radio Receiver (WE800)
2	Latching Keyswitch Input
3	Momentary Keyswitch Input
4	Reserved

Table 132: Radio Input Options

Radio Receiver (WE800)

1 This option needs to be selected when using the optional 304 Mhz RF Receiver (WE800) for remote operations using radio remote hand held transmitters.

Latching Keyswitch Input

2 This option allows you to connect a latching keyswitch to the JP3 terminals D and GND to remotely arm and disarm the system in AWAY Mode.

Momentary Keyswitch Input

4 This option allows you to connect a momentary keyswitch to the JP3 terminals D and GND to remotely arm and disarm the system in AWAY Mode.

Optional Equipment

This section includes the following;

- *2 Channel/4 Channel Hand Held Transmitters 304 Mhz (RE012/RE013)*
- *304 Mhz RF Receiver (WE800)*
- *2 Channel Radio Interface (RE005)*
- *EDMSAT - Satellite Siren (SS914)*
- *Programming Key (CC891)*
- *Alarm Link Software (CC816)*
- *CP5 Eight Zone LED Codepad (CP508)*
- *CP5 Eight Zone LCD Codepad (CP508L)*
- *Night Arm Station (CP105)*
- *Phone Controller (CC911)*
- *Hand Held Dialler Tester (DD901)*
- *Cellular Diallers*
- *PS100 Power Supply Module (PS100)*
- *TF008 Plug Pack (TF008)*
- *Solution Codepad Mimic Board (CC820)*
- *2 Wire Smoke Detector Interface (FA101)*
- *Radio Key/Keyswitch Interface (CC813)*

Optional Equipment

EDM manufactures numerous accessories that can be used in conjunction with the *Solution 862* control panel. These optional pieces of equipment will enhance certain features thus making the system extremely flexible.

2 Channel/4 Channel Hand Held Transmitters 304 Mhz (RE012/RE013)

These hand held radio transmitters can be used in conjunction with the 304 Mhz RF Receiver (WE800) to remotely operate the system. Both hand held transmitters have the ability to remotely arm and disarm the system in AWAY Mode or STAY Mode 1 and activate remote panic alarms. The 4 channel hand held transmitter has the added ability to operate outputs such as garage doors, swimming pool pumps or outside lights etc.

304 Mhz RF Receiver (WE800)

This interface was designed to allow the use of up to eight radio user codes (9 – 16). This is useful if you require the system to be radio controlled and you would like to give your customer total control via a radio hand held remote transmitter.

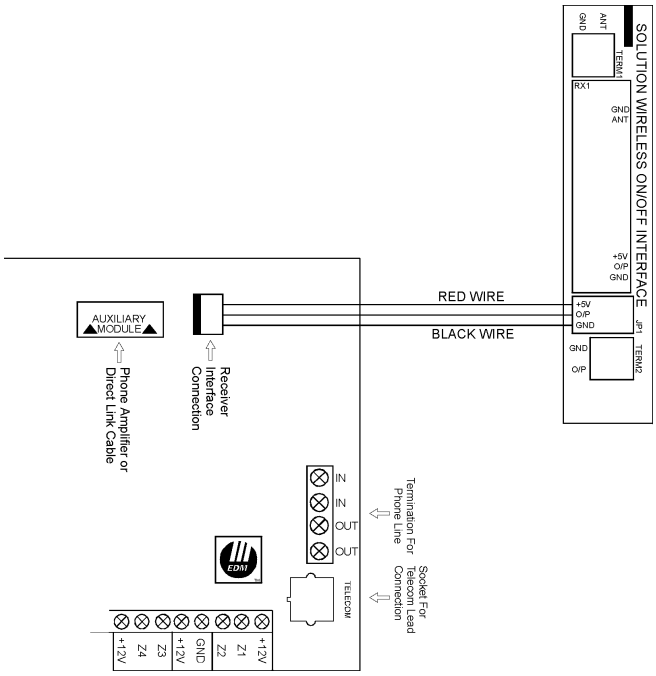


Figure 11: Solution Wireless ON/OFF Interface (WE800)

2 Channel Radio Interface (RE005)

The EDM 2 channel radio interface has been designed to allow customers to remotely operate Solution control panels and control two on-board relays. The interface may also be used as a stand alone receiver, independent of a Solution control panel and used solely for remote control of external devices connected to the two on-board relays.

The interface's operating frequency is 304 Mhz with the ability to store up to 120 radio remote codes. When connecting the interface to a Solution control panel, there is only a three wire connection in parallel to the codepad and Option 8 in "LOCATION 427" on page 218 needs to be programmed.

EDMSAT - Satellite Siren (SS914)

The EDMSAT Satellite Siren is a totally self contained unit incorporating a high powered siren and a weatherproof strobe. A 1.2 AH sealed lead acid battery needs to be fitted. The EDMSAT requires only two wires for operation on which the charging of the battery and triggering of the siren and strobe are carried out. This is done by pulse code modulating (PCM) the charging voltage. Any attempt to tamper with the wiring or to substitute an alternative power source across the wiring will disrupt the data transmission and the EDMSAT will activate immediately. When the EDMSAT carries out a battery test, the unit will sound for two seconds if the battery test fails. Refer to the Output Event Type – EDMSAT - Satellite Siren on page 192 when programming a programmable output for the satellite siren.

Hand Held Programmer (CC814)

The hand held programmer is used to program the locations in the *Solution 862* control panel. The unit displays the actual location number and the data value currently programmed. It comes complete with a one metre connecting cable and a socket for an external programming key. Refer to Programming With The Hand Held Programmer on page 25 for more information.

Programming Key (CC891)

The programming key is a unique device that will store all programming information programmed in your control panel once copied to the programming key. The programming key can hold all your common configuration data such as monitoring station telephone numbers and zone reporting channels etc.

Alarm Link Software (CC816)

This software package is designed to be used for programming the *Solution 862* control panel by either the direct connect method or the remote connect method via the telephone line. All options and features can be accessed using this software as well as maintaining history and service reports. Refer to "LOCATION 180" on page 117 or 148 to enable this feature. Refer to Alarm Link Software on page 114 for more information on the remote connect methods.

CP5 Eight Zone LED Codepad (CP508)

This codepad is designed to operate with the *Solution* range of control panels. This codepad provides indications for up to 8 zones.

CP5 Eight Zone LCD Codepad (CP508L)

This codepad is designed to operate with the *Solution* range of control panels with a fixed icon display. This codepad provides indications for up to 8 zones.

Night Arm Station (CP105)

The night arm station incorporates a panic button and is designed to allow system operation from a bedroom or sitting room to arm and disarm the system in STAY Mode 1. Refer to Option 8 in “LOCATION 427” on page 218 to enable the night arm station to operate with the system.

Phone Controller (CC911)

The phone controller operates at a frequency of 1400 Hz and allows the user to remotely arm the system in AWAY Mode via the telephone. This phone controller can also be used to acknowledge a phone call from the control panel when the system is set up for domestic dialling.

Hand Held Dialler Tester (DD901)

The hand held dialler tester simulates a base station for testing of the control panel's dialling functions. It communicates in most formats.

Cellular Diallers

The cellular dialler when connected to the control panel will transmit alarm information via the cellular phone network to the base station receiver when a land telephone line is not present or has been tampered with.

PS100 Power Supply Module (PS100)

The PS100 Power Supply Module has been designed for applications requiring 13.8 volts DC at currents of up to 1 Amp and must be used in conjunction with the TF008 - 18 volt AC plug pack.

The unit comes complete with our standard, fully short circuit proof, power out and battery charging terminals as well as a DC LED indicator and AC mains fail output. For situations requiring an uninterrupted power source, a rechargeable sealed lead-acid battery can be connected. In the event of an AC mains failure, the power supply will switch to battery power without interrupting the load being supplied.

TF008 Plug Pack (TF008)

The TF008 plug packs have been designed to be used with the EDM control panels and the PS100 Power Supply Module. The plug pack includes built in thermal fuses which under overload or fault conditions will blow and eliminate any possible fire threat due to excessive heat build up inside the casing.

The TF008 plug pack incorporates a three wire flying lead that enables a mains earth connection to be made between the equipment and the plug pack. This connection may be required for lightning protection on equipment that is connected to phone lines or for safety reasons such as earthing of metal enclosures.

Solution Codepad Mimic Board (CC820)

The Solution Codepad Mimic Board (CC820) has been designed to allow you to have a separate output indicator for each indicator found on the remote codepad. This will be useful to remotely display system status information.

2 Wire Smoke Detector Interface (FA101)

The 2 Wire Smoke Detector Interface (FA101) has been designed to allow high quality 2 wire, 24 volt DC smoke detectors to be easily connected to the Solution range of control panels. The interface provides the 24 volts required to power the smoke detector and also provides a relay output that is used to trigger the control panel. Multiple detectors may be connected to the same interface.

Radio Key/Keyswitch Interface (CC813)

This interface was designed to allow simple interfacing of a momentary keyswitch or radio equipment for remote control operations to operate the control panel.

If the R/K terminal is used, a number of momentary keyswitches may be connected in parallel for multiple arm/disarm locations. The ON and OFF terminals can be used to directly interface to any access control system.

The HOME terminal will force the system to arm and disarm in STAY Mode 1.

There is also a PANIC terminal that allows the customer to issue a panic alarm from a remote keyswitch or hand held radio transmitter.

This is handy if you require your system to be radio controlled and you would like to give your customer total control via a hand held radio remote.

Terminals and Descriptions

This section includes the following;

- *Terminal Definitions and Descriptions*
- *Glossary Of Terms*
- *Solution 862 Wiring Diagram*
- *Solution 862 Component Overlay*
- *Telecom Connection Diagrams*

Terminal Definitions and Descriptions

Terminal	Description
EARTH	This terminal should be connected to the green wire on the TF008 Plug Pack that is internally connected to the mains earth. Extensive lightning protection has been built into the control panel and this terminal will have to be connected correctly if you are to take the best advantage of the protection provided.
18V AC	These two terminals are plug on type, and are the termination point for the TF008 Plug Pack. The voltage of the plug pack being used must be 18 - 22 volts AC and rated at 1.3 Amps minimum for correct operation.
+BATTERY **-BATTERY**	The + BATTERY connects to the red positive terminal of the battery and the - BATTERY connects to the black negative terminal of the battery. The battery should be a 12 volt sealed lead acid rechargeable type with a capacity of between 1.2 AH - 6.5 AH. The back-up battery is protected by a 3 Amp fuse. The charging globe which is situated above the 3 Amp fuse will always be illuminated until the battery is 100% charged.
GND **+12V** **CLK** **DATA**	This group of terminals are the connection points for your system codepads. All system codepads should connect in a parallel configuration back to these terminals. The only factor restricting the number of codepads that can be connected is the available power and its distribution. Each codepad has a maximum power requirement of 60 mA with all indicators illuminated, therefore this should be taken into consideration when calculating your available continuous power. The total continuous external load on the system should not exceed 1 Amp maximum.
STR **OUT 1** **+COM**	This group of terminals are the output interface terminals. They can be configured to any combination of the functions available via the system programming options. They can be used for a variety of functions with incredible flexibility. All outputs have a common terminal that is positive 12 volts and each output is capable of sinking a maximum of 400 mA. Output 1 is defaulted to operate a horn speaker. The outputs are protected by EDM's unique Integrated Protection System, [IPS]. This makes them extremely tolerant to abuse or incorrect wiring. It should be noted that each output is open collector and will not source any current but can sink a maximum of 400 mA per output.
COMM **N/O**	These relay contacts are fully programmable as with the strobe and output 1. The relay is factory defaulted as an alarm output (Sirens Running - Event Type 1,15). The N/O contact is the connection point for the positive side of a DC siren such as a piezo screamer. The negative side of the DC siren needs to be connected to the GND terminal. A link (JP2) is provided on the PCB for connecting the COM terminal to either GND or 12V. This link should be connected to +12V as shown in "Figure 12: Solution 862 Wiring Diagram" on page 234. The relay is rated at 1 Amp/30 V DC.
+12V **Z4** **Z3**	These terminals are zones three and four. Their common terminal is +12V. All normally closed contacts are to be wired in series with the EOL resistor and where normally open contacts are to be wired in parallel with the EOL resistor. The function of the zones and their response times are programmable via the system programming options. If split EOL has been programmed, this will enable 24 hour zones or keyswitch zones to be connected in parallel to zones three and four to act as zones seven and eight.
+12V **GND**	These two terminals are for power to detectors and other equipment. They are fuse protected by a 1 amp fuse.
Z2 **Z1** **+12V**	These terminals are zones one and two. Their common terminal is +12V. All normally closed contacts are to be wired in series with the EOL resistor and where normally open contacts are to be wired in parallel with the EOL resistor. The function of the zones and their response times are programmable via the system programming options. If split EOL has been programmed, this will enable 24 hour zones or keyswitch zones to be connected in parallel to zones one and two to act as zones five and six

Glossary Of Terms

Term	Description
Alarm Condition	Is when your alarm system is armed and one of the detection devices are violated. A 24 hour zone (e.g.. Smoke detector) may trigger when your system is armed or disarmed.
Answering Machine Bypass	Answering machine bypass has been incorporated so that it is possible to make a connection with the control panel for remote arming or remote programming operations when there is an answering machine or facsimile machine on the same telephone line.
Armed (System ON)	When the system is in a state ready to accept alarms.
Automatic Arming	Automatic arming allows the system to automatically arm at the same time each day in AWAY Mode or STAY Mode 1.
Automatic Disarming	Automatic disarming allows the system to automatically disarm at the same time each day in AWAY Mode or STAY Mode 1.
AWAY or #	This is the button on your codepad used to execute any given command.
AWAY Mode	Is the mode used to arm your system when you leave your premises.
Codepad	The codepad allows you to perform all functions such as arming, disarming and programming of your alarm system.
Day Alarm	Day alarm allows a combination of zones to be monitored while the system is in the disarmed state.
Detectors	Are devices connected to your alarm system used to cause an alarm condition. Some common forms of detection devices are; passive infrared, smoke, photo electric beams, reed switches and vibration sensors.
Dialler	Is a device that is used for communicating to a monitoring station, mobile phone or pocket pager etc.
Disarmed	Is when your system is in a state that will not accept alarms except for 24 hour zones.
Dual Reporting	Dual reporting allows your control panel to transmit alarm signals in two different reporting formats (EG: The control panel may transmit to a monitoring station as well as a mobile phone etc or even to two different monitoring stations).
Dynamic Battery Testing	Is a feature used to monitor and test the condition of your backup battery.
EDMSAT (Satellite Siren)	Is a self contained siren unit complete with flashing blue strobe light and a backup battery. It offers a higher level of security for your alarm system.
Entry Time or Entry Delay	Is the time allowed after entering your premises, to disarm your system before an alarm occurs.
Entry Warning	Is the beeping from your codepad during entry time to remind you to disarm your system.

Term	Description
Exit Time or Exit Delay	Is the amount of time you have to leave your premises after you have armed your system.
External Equipment	Is any device connected to your system such as detectors, codepads and sirens.
Forced Arming	Is a situation where your alarm system is permitted to be armed when one or more zones are unsealed.
Handover Delay	When your system is armed and zone one is violated, the entry delay starts timing. If zone two is then violated the entry delay time is handed over to zone two and so on through zones three and four. This is known as sequential hand over delay.
Hand Held Radio Remote Control	Hand held radio transmitters can be used to arm and disarm your system or cause a panic alarm.
Lockout Dialler	Lockout dialler means that the dialler will only activate once per zone per arming cycle.
Lockout Siren	Lockout siren means that the sirens will only activate once per zone per arming cycle.
Master Code	Is a numerical code used for arming and disarming the system as well as allowing access to all functions that are programmable through the codepad.
Monitoring Station	Is a secure location where a digital receiver monitors numerous alarm systems and deciphers their alarm transmission reports so that the operator can advise the appropriate authorities to take immediate action.
Panic	This is a type of alarm raised by you to indicate to the monitoring station that there is an emergency situation at your premises.
Phone Controller	Is a device used for arming your system via the telephone line. It is also used to acknowledge domestic alarm reports.
Radio Remote User Codes	A radio user code that is used to arm and disarm the system remotely via hand held transmitters in AWAY Mode or STAY Mode 1. Remote panic alarms are also allowed.
Sealed	Refers to a zones status. If a zone is sealed, the detection devices are not violated and the zone indicator will be extinguished (i.e. a reed switch is closed or a detector is on stand by waiting for an intrusion).
Sensor Watch	Sensor watch gives the control panel the ability to recognise that detection devices may have stopped working. This is a feature that monitors the operation of a zone over a programmed time period.
Silent Alarm	When programming your system, it is possible to have an individual zone for silent alarm. This means that when the zone is violated your alarm system will communicate with the monitoring station without sounding the sirens. This can only be programmed by your installer.

Term	Description
STAY Mode 1	Is a condition that automatically isolates certain zones when your system is armed in STAY Mode 1. These zones can only be programmed by your installer.
STAY Mode 2	Is a condition that automatically isolates certain zones when your system is armed in STAY Mode 2. These zones are programmed by the Master Code holder.
Telco Arming Sequence	Telco arming is a feature that automatically diverts your telephone number to another telephone when the system is armed in AWAY Mode - same as using call forwarding.
Telco Disarm Sequence	Telco disarm automatically un-diverts your telephone upon disarming your system.
Unsealed	Refers to zone status. If a zone is unsealed, the detection devices are violated and the zone indicator will be illuminated (i.e. a reed switch is open or a detector has noted an intrusion).
User Code	A numerical code that is used to arm and disarm the system in AWAY Mode, STAY Mode 1 or STAY Mode 2.
Zones	A monitored input used to trigger an alarm condition. A zone may be set up only to activate an alarm when the system is armed or to operate irrespective of the system being armed or disarmed.
24 Hour Zone	A monitored input where tamper switches and emergency switches may be connected. If at any time, (whether your system is armed or disarmed) one of these switches is violated, an alarm condition will be generated.

Solution 862 Wiring Diagram

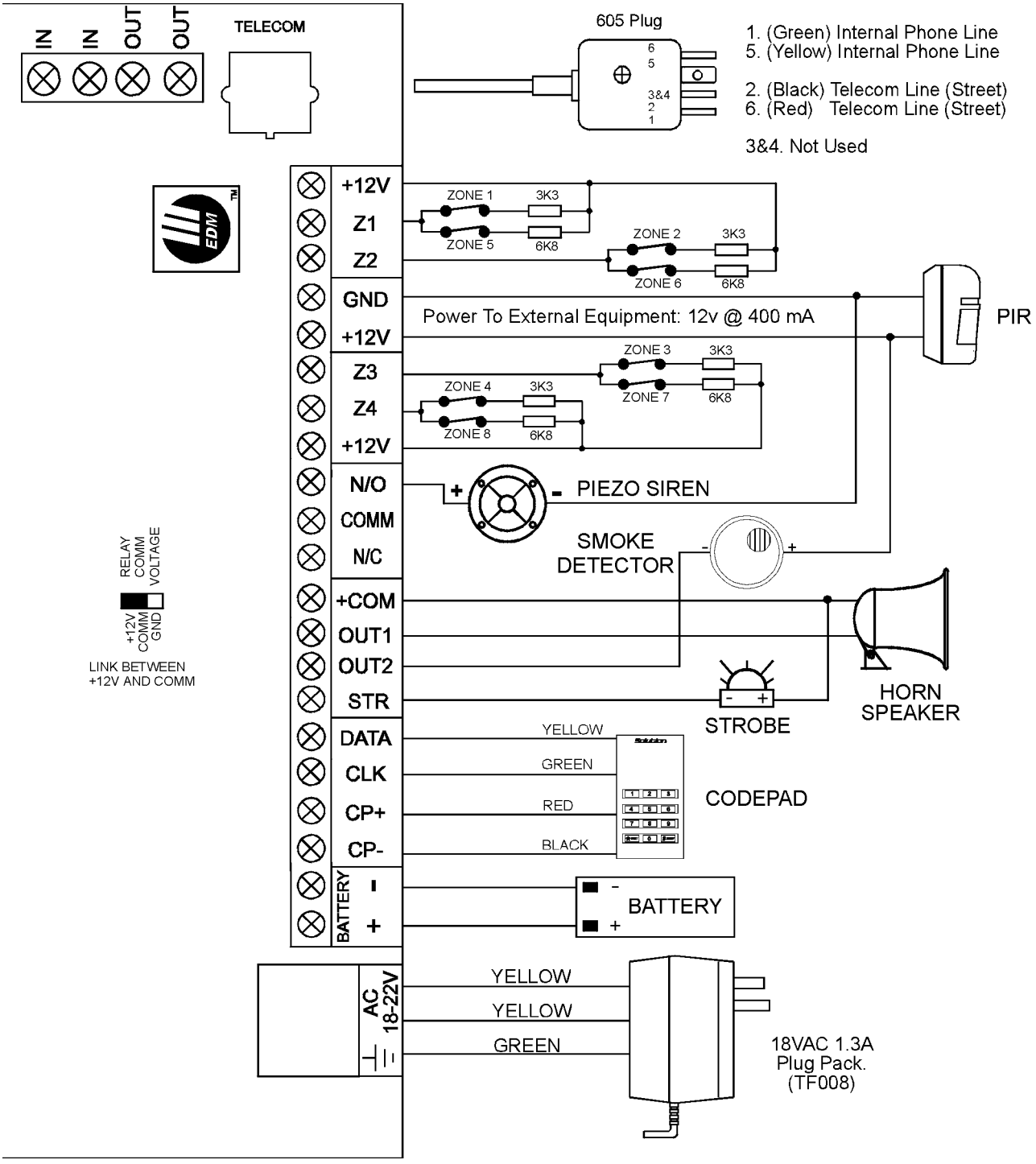


Figure 12: Solution 862 Wiring Diagram

Solution 862 Component Overlay

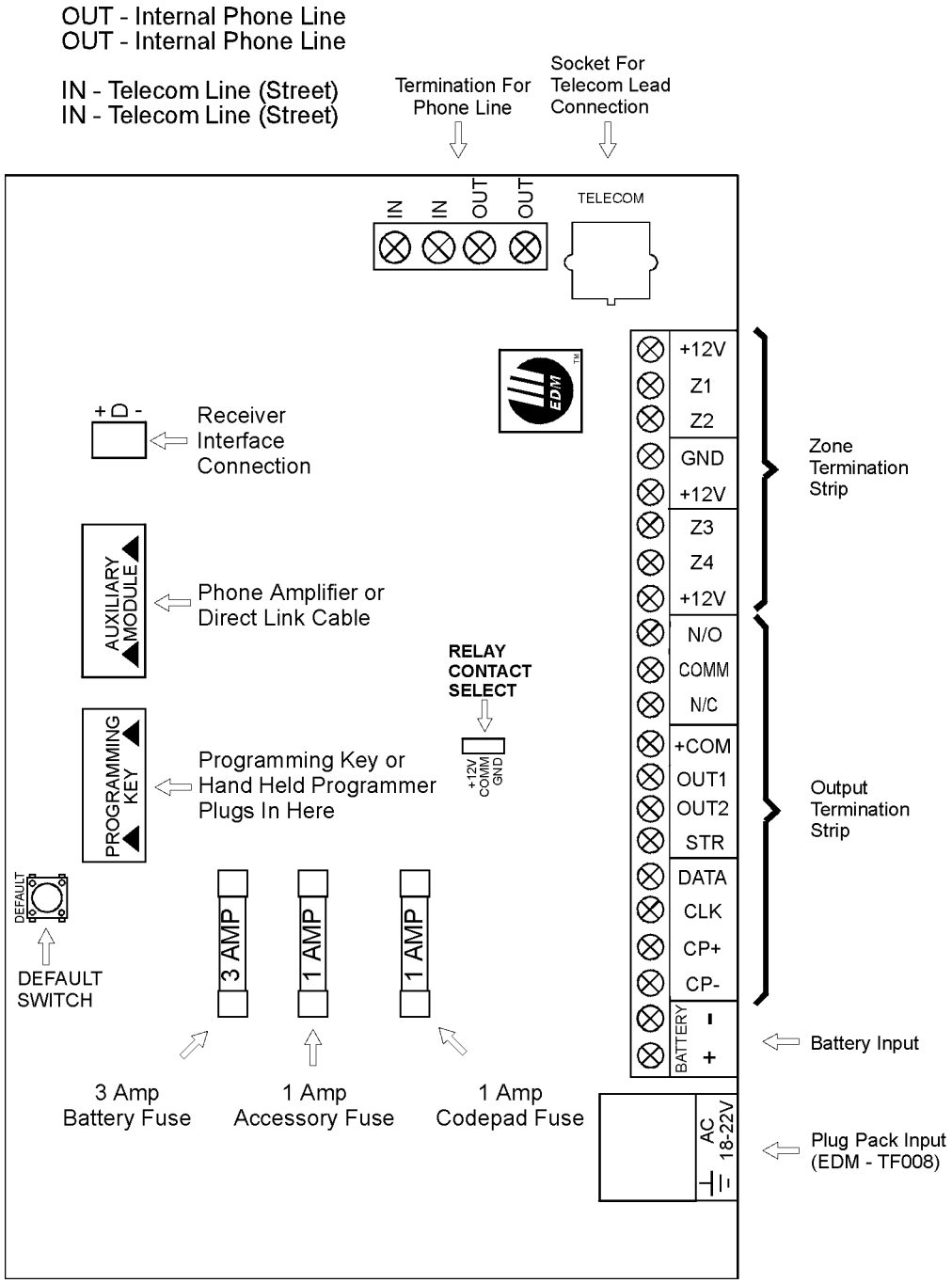
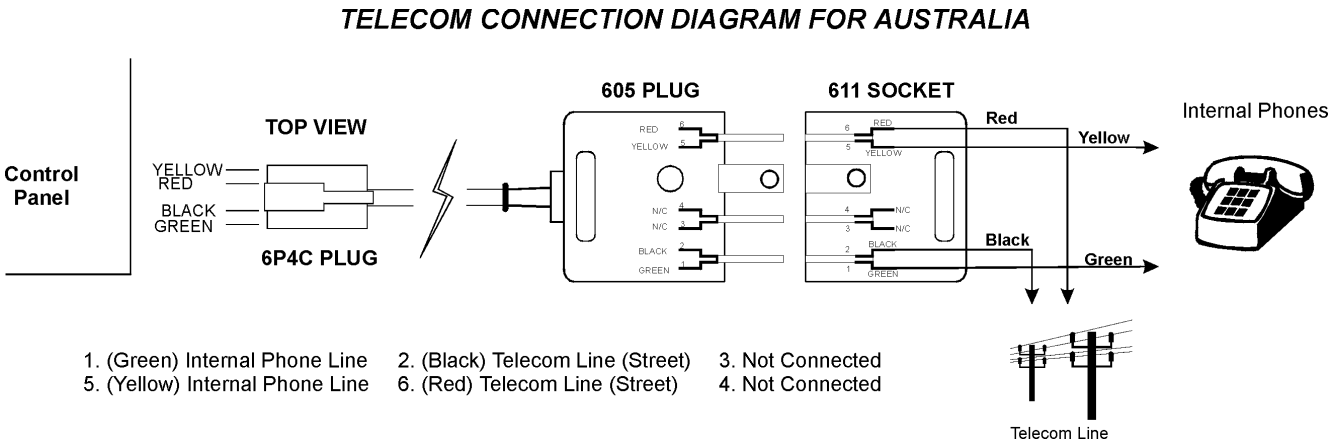
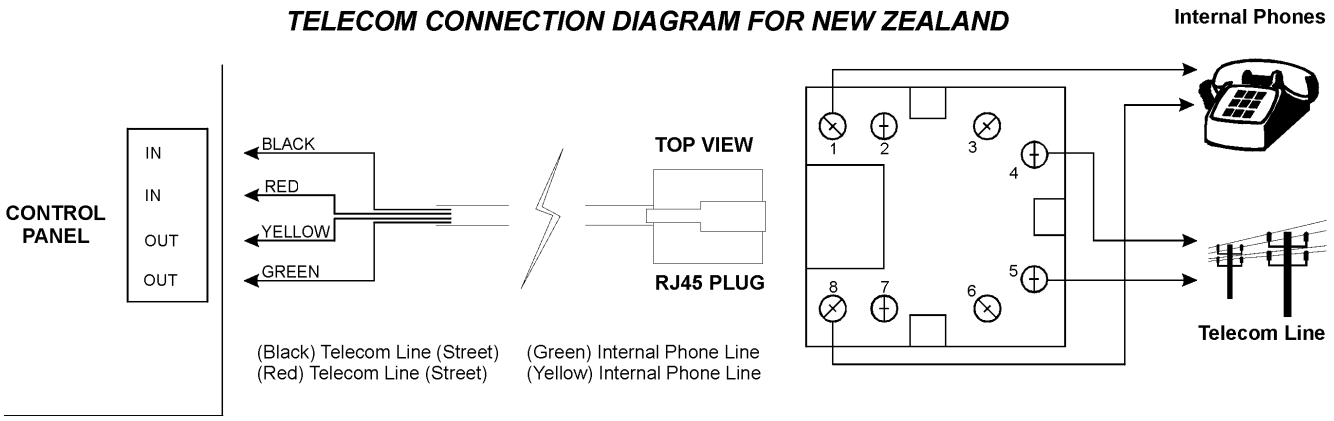


Figure 14: Solution 862 Component Overlay

Telecom Connection Diagrams





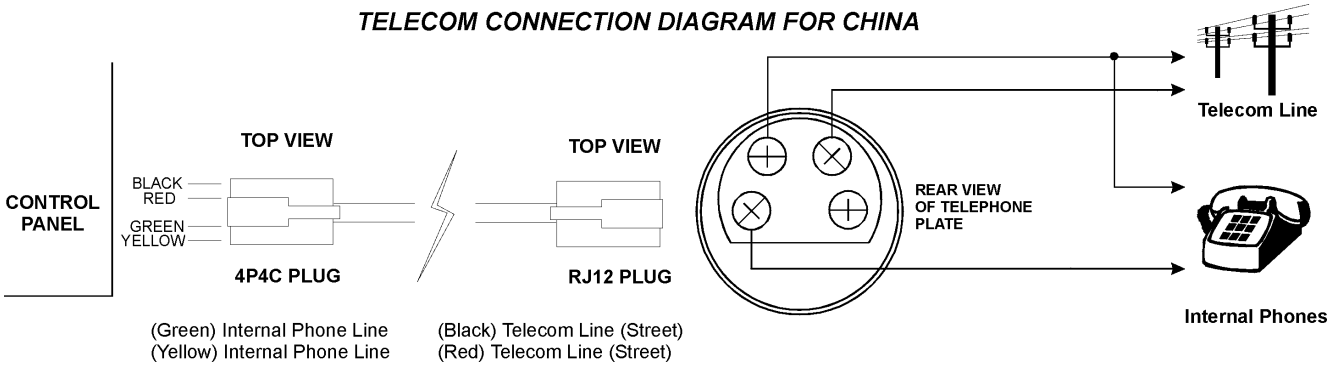


Figure 15: Telecom Connection Diagrams For Solution 862

Appendices

This section includes the following;

- *Telephone Anti-Jamming*
- *Test Reports Only When Armed*

Appendix A

Telephone Anti-Jamming

There are many companies today importing American designed products that claim to have Anti-Jamming and believe it or not, they push this feature as if it were a major break through in control panel technology. Well this in fact is not the case at all as most control panels have some sort of Anti-Jamming feature. We can go as far back as the early 1980's where even the 678 diallers incorporated a form of Anti-Jamming as a standard programmable option.

The important thing to note is that as most American designed products are primarily aimed at their local market and telephone networks, when they are imported to Australia their anti-jamming function does not perform as it should.

To clear up just what anti-jamming is and how it works needs some understanding of Telephone Networks. In America either of the two parties (i.e. the one who initiated the call or the one receiving the call) can clear the line by placing the hand piece back on the hook. If you pick up the hand piece again, dial tone will be received and you will be able to make a new call immediately. This is not so here in Australia.

In Australia, only the calling party can immediately terminate the call. If you receive a call from someone and hang up on them, picking the hand piece back up again to make a new call only reconnects you to the original caller. It will not be possible to make another call until the original caller hangs up or you hang up phone for ninety seconds or longer. So you see Australia is very different and needs a special form of anti-jamming to suit our telephone network.

There are control panels on the market that after making a few call attempts which fail simply hang up and wait for ninety seconds or so, in an attempt to clear the jamming incoming call. This may work in some instances where the caller is not a genuine burglar and is not deliberately trying to jam the control panel. With this simple method of hanging up for ninety seconds we have not only delayed the alarm signal for this time but also the time taken for the original failed call attempts which could easily total 4 minutes. This is bad enough in its own right but even more disturbing is the fact that the initial failed call attempts allow for the establishment of an audio connection between the would be burglar and the control panel. Anyone with a little knowledge of alarm systems will be able to actually trick the dialler into thinking it is talking to a base station thus actually clearing the alarm signal. Pretty frightening when you thought the control panel you were using and recommending to your customers is supposed to have anti-jamming.

At Electronics Design and Manufacturing Pty Limited we take anti-jamming very seriously and have in fact devoted a great deal of time and money researching this problem. Our engineers have come up with the best possible anti-jamming procedure known and patented accordingly {Patent Number 571994}.

Our procedure is very simple and effective because we never answer the burglar’s phone call and the Telecom Network will automatically clear an unanswered call in approximately ninety seconds. This time will be even shorter if the call is originated through the Mobile-Net Network where it will most likely be in the case of a true burglary.

Once the control panel detects that the phone line has stopped ringing it immediately loops the line and makes its call therefore transmitting its alarm message successfully. The line is also automatically disconnected from the telephones within the protected premises immediately on an alarm condition by the control panel to further confuse the burglar and eliminate the possibility of the burglar answering the call. As you can see, our method of anti-jamming will in the worst possible case delay the alarm signal by ninety seconds but even more importantly will never allow for an audio connection between the burglar and the control panel.

All dialling products produced by Electronics Design and Manufacturing Pty Limited have incorporated this true anti-jamming feature as standard since 1985 and we do not consider it as an option but a must in any professional security system.

True anti-jamming can only be found in products produced by Electronics Design and Manufacturing Pty Limited and any other manufacturer can only offer second best due to our patent on this very unique and effective procedure.

Appendix B

Test Reports Only When Armed

The *Solution 862* control panel allows for test reports to be transmitted to the base station receiver to verify that the dialler functional. So what you might say, as most alarm diallers allow you to do this.

The one problem with this is that installations that report opening and closing reports will generally also transmit a test report each day. This call is unnecessary, as a successful opening and closing report means that the dialler is functioning correctly.

The *Solution 862* control panel allows you to save time and money by providing test reports only while the system is in the armed state.

Program "LOCATION 428" on page 219 with Option 1 (Send test reports only if the system is armed), and then set the test report time to be in the middle of the day. During Monday to Friday when the premises are generally open and the system disarmed a test report will not be transmitted. However, on the weekend, the premises will be closed and the system armed, so a test report will be transmitted at the programmed time thus verifying the operation of the dialler.

At first glance this may not seem to be a big deal but lets do a few sums and you will see just where savings can be made.

Let us assume that the customer wants, needs or has test reports programmed for once a day as well as opening and closing reports. This means that at least three phone calls will be made each week day and one call on Saturday and one call on Sunday.

By using the *Solution 862* control panel you will be able to eliminate five calls per week. This means that over one week you will save your customer $1.25 and over one year you will save them $65.00.

Not a bad saving, and remember these figures are for local calls only.

Turning the table slightly, a control room with lets say 1000 customers sending the above mentioned reports, can expect to receive some 884,000 phone calls ($221,000 assuming local calls) just for reporting opening, closing and test reports over a 12 month period.

If you use the *Solution 862* control panel, you can effectively cut the calls to 624,000 per year (at a value of $156,000 assuming local calls), a saving of $65,000. If we now assume that for each call one line is printed on the logging printer, and that one page is filled per 60 calls. You will be able to save 4333 sheets of paper per year and at approximately $45 per box this becomes a considerable saving.

As you can see using the *Solution 862* control panel will save you money, your customer money and will help conserve our natural resources, in fact, the only people who don't like this feature is Telecom.

Specifications

This section includes the following;

- *Warranty Statement*
- *Specifications*
- *Software Version Number*
- *Advice To Users*
- *New Zealand Telepermit Notes*

Warranty Statement

Electronics Design and Manufacturing Pty Limited warrants this product to be free from defects in material and workmanship for a period of three years from the date of manufacture as indicated by the date stamp and /or the serial number on the product.

Defective units returned by the purchaser at their own expense during this period will be repaired or replaced at the option of the manufacturer. The repair or replacement will be free of charge provided that the defects were not incurred during shipping or handling, or the damage was not due to causes beyond the control of Electronics Design and Manufacturing Pty Limited, such as lightning, excessive voltage, mechanical shock or damage arising out of abuse, alteration or improper application of the equipment.

Year 2000 Compliance

This notice is to confirm that all Solution 862 control panels are not susceptible to, or can be corrupted by the "Year 2000 Millennium Bug".

To date, all Solution products that incorporate time keeping functions employ a rotating 100 year calendar. This means that the Solution products do not use the century in any time keeping algorithms, only the year within the century.

Specifications

Temperature Range:	0 – 45 Degrees Celsius
Humidity	10% - 95%
Power Source:	TF008 Plug Pack – 240 Volt / 18 Volt AC @ 1.3 Amp
Stand-By Current:	65 mA
Current Draw In Alarm Condition:	115 mA
Current Draw With No Alarm and Codepad Fitted:	105 mA
Back-Up Battery:	Ah / 12 Volt DC Rechargeable Sealed Lead Acid Battery
Dimensions:	306 mm x 262 mm x 84 mm (Packed In Carton)
Weight:	2.5 Kg
Supplier Code:	N771
New Zealand Telepermit:	PTC 211/98/084
Malaysia Approval Number:	Pending

Software Version Number

LOCATION 999 `1.00`

When using the Hand Held Programmer (CC814), you have the ability to display the software version number of the control panel. Refer to Command 999 - Display Panel Type Or Software Version Number on page 40 for more information.

Advice To Users

The Austel permit that has been issued for this product is subject to the following conditions.

- The *Solution 862* Control Panel may only be powered by an EDM TF008 Plug Pack (Approval Number Q92128).

New Zealand Telepermit Notes

- 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 at 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 and do not report a fault if the telephone performance is satisfactory.

- This device is equipped with pulse dialling while the Telecom standard is DTMF tone dialling. There is no guarantee that Telecom lines will always continue to support pulse dialling.

  Use of dialling, when this equipment is connected to the same line as other equipment, may give rise to bell tinkle or noise and may also cause a false answer condition. Should such problems occur, the user should NOT contact the Telecom Faults Service.

- This equipment is set up to carry out test calls at pre-determined times. Such test calls will interrupt any other calls that may be set up on the line at the same time. The timing set for such test calls should be discussed with the installer.

  The timing set for test calls from this equipment may be subject to drift. If this proves to be inconvenient and your calls are interrupted, then the problem of timing should be discussed with the equipment installer. The matter should NOT be reported as a fault to Telecom Faults Service.

- This equipment shall not be set up to make automatic calls to the Telecom 111 Emergency Service.

  This equipment should not be used under any circumstances that may constitute a nuisance to other Telecom customers.

- In the event of any problem with this device, the systems battery, AC mains supply and telephone line should be disconnected. The user is to then arrange with the supplier of the device to make the necessary repairs.

  Should the matter be reported to Telecom as a wiring fault and the fault be proven to be due to this product, a call-out charge will be incurred.

Programming Sheets

Location 000 – 015 Page 131

Primary Telephone Number For Receiver 1

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Location 016 – 031 Page 131

Secondary Telephone Number For Receiver 1

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Location 032 Page 132

Handshake Tone For Receiver 1

1 = HI-LO Handshake (Contact ID)
2 = 1400 Hz (TX @ 1900 Hz)
3 = Reserved
4 = No Handshake Required
5 = Pager

1

Location 033 Page 133

Transmission Format For Receiver 1

1 = Contact ID
2 = 4 + 2 Express
3 = FSK 300 Baud
4 = Domestic
5 = Basic Pager
6 = Reserved
7 = Reserved
8 = Reserved

1

Location 034 – 039 Page 133

Subscriber ID Number For Receiver 1

0	0	0	0	0	0

Location 040 – 055 Page 133

Primary Telephone Number For Receiver 2

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Location 056 – 071 Page 134

Secondary Telephone Number For Receiver 2

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Location 072 Page 136

Handshake Tone For Receiver 2

1 = HI-LO Handshake (Contact ID)
2 = 1400 Hz (TX @ 1900 Hz)
3 = 2300 Hz (Low Speed Sescoa)
4 = No Handshake Required
5 = Pager

1

Location 073 Page 136

Transmission Format For Receiver 2

1 = Contact ID
2 = 4 + 2 Express
3 = FSK 300 Baud
4 = Domestic
5 = Basic Pager
6 = Reserved
7 = Reserved
8 = Reserved

1

Location 074 – 079 Page 136

Subscriber ID Number For Receiver 2

0	0	0	0	0	0

Location 080 Page 137

Dialling Format

1 = Australian DTMF (5 Digits/Second)
2 = Australian Decadic
3 = Alternate DTMF & Decadic (AUST)
4 = International DTMF
5 = Reversed Decadic
6 = Alternate DTMF & Reversed Decadic

1

Location 081 – 112 Page 137

Reserved

Location 113 –142 Page 138

Telco Arming Sequence

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Location 143 – 158 Page 139

Telco Disarming Sequence

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Location 159 – 174 Page 139

Call Back Telephone Number

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Location 175 Page 140

Ring Count

0 = Panel Will Not Answer
1 – 13 = No Of Rings Until Panel Answers
14 = Answering Machine Bypass 2
15 = Answering Machine Bypass 1

8

Location 176 Page 141

Telephone Line Fault Options

1 = Display FAULT Indicator When Telephone Line Fails
2 = Sound Alarm When System Is Armed
4 = Sound Alarm When System Is Disarmed
8 = Reserved

0

Location 177 Page 145

Dialler Options 1

1 = Dialler Reporting Functions Allowed
2 = Remote Arming Via The Telephone Allowed
4 = Answering Machine Bypass Only When Armed
8 = Use Bell 103 For FSK Format (Disabled – CCITT V21)

9

Location 178 Page 146

Dialler Options 2

1 = Open/Close Reports Only If Previous Alarm
2 = Open/Close Reports For STAY Mode 1 and STAY Mode 2
4 = Delay Siren Until Transmission Complete
8 = Extend Time To Wait For Handshake From 30 Seconds To 55 Seconds

0

Location 179 Page 147

Dialler Options 3

1 = Set DTMF Dialling Pulses To 1 Digit/Second
2 = Reserved
4 = Change Decadic Dialling To 60/40
8 = Reserved

0

Location 180 Page 117/148

Alarm Link Options

1 = Upload/Download Allowed
2 = Call Back Phone Number Required For Upload/Download
4 = Exit Upload/Download Connection On Alarm
8 = External Modem Module (CC811) Required For Upload/Download

3

Location 181 – 184 Page 150

Installer Code

1	2	3	4

Location 185 – 264 Page 151

User Codes

	Location					
User Code 1	185 - 189	2	5	8	0	10
User Code 2	190 - 194	15	15	15	15	2
User Code 3	195 - 199	15	15	15	15	2
User Code 4	200 - 204	15	15	15	15	2
User Code 5	205 - 209	15	15	15	15	2
User Code 6	210 - 214	15	15	15	15	2
User Code 7	215 - 219	15	15	15	15	2
User Code 8	220 - 224	0	15	15	15	3
Radio Code 9	225 - 229	15	15	15	15	2
Radio Code 10	230 - 234	15	15	15	15	2
Radio Code 11	235 - 239	15	15	15	15	2
Radio Code 12	240 - 244	15	15	15	15	2
Radio Code 13	245 - 249	15	15	15	15	2
Radio Code 14	250 - 254	15	15	15	15	2
Radio Code 15	255 - 259	15	15	15	15	2
Radio Code 16	260 - 264	15	15	15	15	2

15	15	15	15	0
User Code				**Priority**

Priority	Description	Priority	Description
0	Arm/Disarm	**6**	Arm/Disarm + Code To Isolate + Open/Close Report
1	Arm Only	**8**	Arm/Disarm + Master Code Functions
2	Arm/Disarm + Open/Close Report	**10**	Arm/Disarm + Master Code Functions + Open/Close Report
3	Arm Only + Close Report	**12**	Arm/Disarm + Master Code Functions + Code To Isolate
4	Arm/Disarm + Code To Isolate	**14**	Arm/Disarm + Master Code Functions + Code To Isolate + Open/Close Report

Table 133: User Code Priority Levels

Location 265 Page 156

Day Alarm Zones

1 = Zone 1
2 = Zone 2
4 = Zone 3
8 = Zone 4

0

Location 266 Page 158

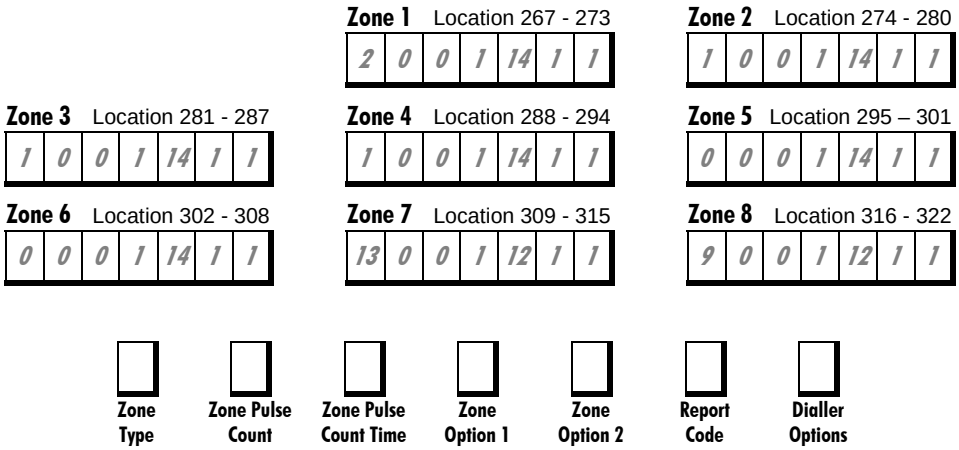
EOL Resistor Value

0 = No End Of Line Resistor
1 = 1K
2 = 1K5
3 = 2K2
4 = 3K3
5 = 3K9
6 = 4K7
7 = 5K6
8 = 6K8
9 = 10K
10 = 12K
11 = 22K
12 = Reserved
13 = Reserved
14 = Reserved
15 = Split EOL (3K3/6K8) – Six Burglary Zones and Two 24 Hour Zones

15

Location 267 – 322 Page 161

Zones



Zone Types

There are fifteen different zone types to choose from. Each zone contains eight locations. Zones 1 to 6 are fully programmable whereas zones 7 and 8 may only be programmed to any 24 hour zone type.

Zone Type	Description	Zone Type	Description
0	Instant	**8**	24 Hour Hold-Up
1	Handover	**9**	24 Hour Tamper
2	Delay-1	**10**	Reserved
3	Delay-2	**11**	Keyswitch
4	Reserved	**12**	24 Hour Burglary
5	Reserved	**13**	24 Hour Fire
6	24 Hour Medical	**14**	Chime Only
7	24 Hour Panic	**15**	Zone Not Used

Table 134: Available Zone Types

Zone Pulse Count Settings

The pulse count settings for each zone can be programmed between 0 - 15.

Zone Pulse Count Time

Zone pulse count time is the time frame or period over which the number of pulses must register.

20 ms Loop Response Time Zone Pulse Count Time		150 ms Loop Response Time Zone Pulse Count Time	
0	0.5 Second	**8**	20 Seconds
1	1 Second	**9**	30 Seconds
2	2 Seconds	**10**	40 Seconds
3	3 Seconds	**11**	50 Seconds
4	4 Seconds	**12**	60 Seconds
5	5 Seconds	**13**	90 Seconds
6	10 Seconds	**14**	120 Seconds
7	15 Seconds	**15**	200 Seconds

Table 135: Zone Pulse Count Time Options

Zone Options 1

Option	Description
1	Lockout Siren/Lockout Dialler
2	Delay Alarm Reporting
4	Silent Alarm
8	Sensor Watch

Table 136: Zone Options 1

Zone Options 2

Option	Description
1	Isolated In STAY Mode 1
2	Zone Isolation Allowed
4	Forced Arming Allowed
8	Enable Zone Restore Report

Table 137: Zone Options 2

Zone Dialler Options

Option	Description
0	No Report Required
1	Receiver 1
2	Receiver 2
4	Receiver 1 + 2
8	Receiver 2 Only When Receiver 1 Fails

Table 138: Zone Dialler Options

Zone Descriptions

Use this table as a reference to indicate what each zone is connected to.

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

Table 139: Zone Descriptions

Location 323 — Page 173
Swinger Shutdown Count For Siren
3

Location 324 — Page 174
Swinger Shutdown Count For Dialler
6

Location 325 – 326 — Page 176
Zone Status - Bypass Reports
Location 325 Zone Bypass Report
Location 326 Zone Bypass Restore Report
9 8

Location 327 – 328 — Page 177
Zone Status - Trouble Reports
Location 327 Zone Trouble Report
Location 328 Zone Trouble Restore Report
2 3

Location 329 – 330 — Page 178
Zone Status - Sensor Watch Reports
Location 329 Sensor Watch Report
Location 330 Sensor Watch Restore Report
4 5

Location 331 — Page 178
Zone Status - Alarm Restore Code
14

Location 332 — Page 178
Zone Status Reporting Options
0 = No Report Required
1 = Receiver 1
2 = Receiver 2
4 = Receiver 1 + 2
8 = Receiver 2 Only When Receiver 1 Fails
1

Location 333 – 334 — Page 179
Open/Close Reports
Location 333 Opening Report
Location 334 Closing Report
11 12

Location 335 — Page 179
Open/Close Reporting Options
0 = No Report Required
1 = Receiver 1
2 = Receiver 2
4 = Receiver 1 + 2
8 = Receiver 2 Only When Receiver 1 Fails
1

Location 336 — Page 180
Codepad Duress Report
6

Location 337 – 338 — Page 180
Codepad Panic Report
7 15

Location 339 – 340 — Page 181
Codepad Fire Report
7 14

Location 341 – 342 — Page 181
Codepad Medical Report
7 13

Location 343 — Page 182
Codepad Reporting Options
0 = No Report Required
1 = Receiver 1
2 = Receiver 2
4 = Receiver 1 + 2
8 = Receiver 2 Only When Receiver 1 Fails
1

Location 344 – 345 Page 182

System Status – Fuse Fail Report

10	3

Location 346 – 347 Page 182

System Status – Fuse Fail Restore Report

10	8

Location 348 – 349 Page 183

System Status – AC Fail Report

10	2

Location 350 – 351 Page 183

System Status - AC Fail Restore Report

10	7

Location 352 – 353 Page 184

System Status - Low Battery Report

10	1

Location 354 – 355 Page 185

System Status - Low Battery Restore Report

10	6

Location 356 – 358 Page 185

System Status – Access Denied

Location	
356	Code Retries
357	Reporting Code – Tens Digit
358	Reporting Code – Units Digit

6	7	12

Location 359 Page 186

System Status Reporting Options

0 = No Report Required
1 = Receiver 1
2 = Receiver 2
4 = Receiver 1 + 2
8 = Receiver 2 Only When Receiver 1 Fails

1

Location 360 – 366 Page 186

Test Reporting Time

Location	
360	Actual Hour Of The Day (Tens Digit)
361	Actual Hour Of The Day (Units Digit)
362	Actual Minute Of The Day (Tens Digit)
363	Actual Minute Of The Day (Units Digit)
364	Test Report Code (Tens Digit)
365	Test Report Code (Units Digit)
366	Repeat Interval In Days

0	0	0	0	7	1	0

Location 367 Page 187

Test Reporting Dialler Options

0 = No Report Required
1 = Receiver 1
2 = Receiver 2
4 = Receiver 1 + 2
8 = Receiver 2 Only When Receiver 1 Fails

1

Location 368 – 397 Page 190

Output Configurations

Output 1 Location 368 - 373

1	14	0	0	0	0

Default For Horn Speaker

Output 2 Location 374 - 379

2	7	10	2	1	5

Default For Fire Alarm Verification

Strobe Location 380 - 385

2	0	6	4	0	8

Default For Strobe (Reset In 8 Hrs)

Relay Location 386 – 391

1	15	1	0	0	0

Default For Sirens Running

Codepad Location 392 – 397

0	13	2	1	0	1

Default For Entry/Exit Warning + Day Alarm

Event Type	**Polarity**	**Time Base**	**Time Multiplier**

Location 398 – 399 — Page 204

Entry Timer 1

Location 398	Increments Of 1 Second (0 - 15 Sec's)	4
Location 399	Increments Of 16 Seconds (0 - 240 Sec's)	1

Location 400 – 401 — Page 204

Entry Timer 2

Location 400	Increments Of 1 Second (0 - 15 Sec's)	8
Location 401	Increments Of 16 Seconds (0 - 240 Sec's)	2

Location 402 – 403 — Page 205

Exit Time

Location 402	Increments Of 1 Second (0 - 15 Sec's)	12
Location 403	Increments Of 16 Seconds (0 - 240 Sec's)	3

Location 404 – 405 — Page 205

Entry Guard Time For STAY Mode

Location 404	Increments Of 1 Second (0 - 15 Sec's)	0
Location 405	Increments Of 16 Seconds (0 - 240 Sec's)	0

Location 406 – 407 — Page 205

Delay Alarm Reporting Time

Location 406	Increments Of 1 Second (0 - 15 Sec's)	0
Location 407	Increments Of 16 Seconds (0 - 240 Sec's)	0

Location 408 – 409 — Page 206

Sensor Watch Time

Location 408	Increments Of Days (Tens Digit)	0
Location 409	Increments Of Days (Units Digit)	0

Location 410 — Page 206

Codepad Lockout Time

Location 410 — Increments Of 10 Seconds — 0

Location 411 — Page 207

Siren Run Time

Location 411 — Increments Of 1 Minute (0 – 15 Min's) — 5

Location 412 — Page 207

Siren Sound Rate (Slow <-Sound-> Fast) — 7

Location 413 — Page 208

Auto Arming Pre-Alert Time

Location 413 — Increments Of 5 Minutes — 1

Location 414 – 417 — Page 208

Auto Arming Time

Location 414	Hour Of The Day (Tens Digit)	0
Location 415	Hour Of The Day (Units Digit)	0
Location 416	Minute Of The Day (Tens Digit)	0
Location 417	Minute Of The Day (Units Digit)	0

Location 418 – 421 — Page 209

Auto Disarming Time

Location 418	Hour Of The Day (Tens Digit)	0
Location 419	Hour Of The Day (Units Digit)	0
Location 420	Minute Of The Day (Tens Digit)	0
Location 421	Minute Of The Day (Units Digit)	0

Location 422 — Page 209

Kiss-Off Wait Time

Location 422 — Increments Of 500 ms (500 ms – 8 Sec's) — 3

Location 423 — Page 209

Reserved — 0

Location 424 — Page 215

System Options 1

1 = EDM Smart Lockout Allowed
2 = Horn Speaker Monitor
4 = Strobe Indications For Radio Arm/Disarm
8 = Horn Speaker Beeps For Radio Arm/Disarm

[1]

Location 425 — Page 216

System Options 2

1 = Codepad Panic To Be Silent
2 = Codepad Fire To Be Silent
4 = Codepad Medical To Be Silent
8 = Access Denied To Be Silent

[0]

Location 426 — Page 217

System Options 3

1 = AC Fail After 1 Hour (Disabled = After 2 Minutes)
2 = Ignore AC Fail
4 = Pulse Count Handover Allowed
8 = Handover Delay To Be Sequential

[8]

Location 427 — Page 218

System Options 4

1 = Panel To Power Up In The Disarmed (If Power Reset)
2 = Arm/Disarm Tracking On Power Up
4 = Internal Crystal To Keep Time
8 = Keyswitch Interface, Night Arm Station Or RE005 Installed

[0]

Location 428 — Page 219

Consumer Options 1

1 = Test Reports Only When Armed
2 = Test Report After Siren Reset
4 = Auto Arm In STAY Mode 1
8 = STAY Indicator To Display Day Alarm Status

[0]

Location 429 — Page 220

Consumer Options 2

1 = Codepad Display Extinguish After 60 Seconds
2 = Single Button Arming In Allowed (AWAY/STAY Mode 1 & 2)
4 = Single Button Disarming Allowed (STAY Mode 1 & 2)
8 = Alarm Memory Reset On Disarm

[2]

Location 430 — Page 221

Consumer Options 3

1 = Codepad Fault Alarm Beeps Allowed
2 = Use Digit 3 For Codepad Duress Instead Of Digit 9
4 = Alarms Activate Siren & Strobe Outputs In STAY Mode 1 & 2
8 = Reserved

[5]

Location 431 — Page 222

Radio Input Options

1 = Radio Receiver (WE800)
2 = Latching Keyswitch Input
3 = Momentary Keyswitch Input
4 = Reserved

[0]

Location 748 - 749 — Page 142

Ring Burst Count

Location 748 Increments Of 5 ms
Location 749 Increments Of 80 ms

[4] [6]

Location 900 — Page 41

Disable Factory Default

0 = Defaulting Enabled
15 = Defaulting Disabled

[0]

Location 901 – 904 — Page 210

System Time

Location 901 Hour Of The Day (Tens Digit)
Location 902 Hour Of The Day (Units Digit)
Location 903 Minute Of The Day (Tens Digit)
Location 904 Minute Of The Day (Units Digit)

[0] [0] [0] [0]

Location 905 – 910 — Page 211

System Date

Location 905 Day Of The Month (Tens Digit)
Location 906 Day Of The Month (Units Digit)
Location 907 Month Of The Year (Tens Digit)
Location 908 Month Of The Year (Units Digit)
Location 909 Year (Tens Digit)
Location 910 Year (Units Digit)

[0] [1] [0] [1] [0] [1]

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