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Solution 6 + 6 *Wireless - AE* *Installation Manual*

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Solution 6+6 Wireless - AE

Installation Manual

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Introduction

Introduction

Congratulations on selecting the *Solution 6+6 Wireless - AE* 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 control panel.

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 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 has proven 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 manual to all levels of readers.

As *Solution* control panels have continued to advance over the years, they have become very powerful and extensive. Some 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. Some of the more technical explanations have been confined to special sections in the back of the book.

Quick Start

The following steps will enable you to use the *Solution 6+6 Wireless - AE* control panel with the default values as set at the factory.

1. Connect AC plug pack to the control panel.
2. All zone indicators on the remote codepad will illuminate momentarily and then extinguish. The MAINS indicator will remain on as will the AWAY indicator. The unit is now in the armed state.
3. The lead acid back-up battery should now be connected.
4. Enter the default Master Code **2580** followed by the **AWAY** button to disarm the system. The AWAY indicator will extinguish. The control panel is now in the disarmed state. Installer's Programming Mode can now be accessed.
5. Enter the default Installer Code **1234** followed by the **AWAY** button to access Installer's Programming Mode. The STAY and AWAY indicator's will now flash simultaneously. Refer to "LOCATION 56 - 59" on page 70 for the locations of the factory default Installer's Code.
6. Enter the primary and secondary telephone numbers followed by the Subscriber ID Number.
7. Set the time for the test report if this option is required. Any other programming changes required can also be made, otherwise the programmed factory default settings will be used.
8. Enter command **960** followed by the **AWAY** button to exit Installer's Programming Mode. The control panel will return to the disarmed state and is now ready for use. Refer to "Installer's Programming Commands" on page 18 for further commands that can be performed during access of Installer's Programming Mode.
9. If the FAULT indicator on the remote codepad has illuminated or is flashing, a system fault has occurred. To clear any system fault that may have occurred, refer to page 33 for further information on system faults.
10. **This step is optional however its use is recommended.** Using the Master Code, set the date and time. Refer to "Master Code Functions" on page 44 for more information on setting the date and time.

The factory default settings allow the control panel to communicate in Contact ID format operating six zones. For further information on the factory default settings, refer to the "Programming Sheets" on page 143.

Zone No	Zone Type
1	Delay
2 & 3	Handover
4 & 5	Instant
6	24 Hour

Table 1: Zone Defaults

Programming

This section includes the following topics;

- *Programming*
- *Using The Remote Codepad*
- *Using The Hand Held Programmer*
- *Using The Programming Key*
- *Programming Option Bits*
- *Installer's Programming Commands*
- *How To Default The Control Panel*

Programming

The programming options of this system 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 altered 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.

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

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

There are two programming modes. The Installer's Programming Mode and the Operators Programming Mode. Both programming modes have individual access codes and these two codes must always be programmed differently. The Master Code, as well as being able to arm and disarm the system gives access to the Operators Programming Mode. The Installer's Code only gives access to the Installer's Programming Mode and does NOT arm and disarm the system.

Programming of the *Solution 6+6 Wireless - AE* control panel can be carried out via any of the following four methods.

- ☐ Remote Codepad
- ☐ Hand Held Programmer (CC814)
- ☐ Programming Key (CC891)
- ☐ Alarm Link Software (CC816)

Using The Remote Codepad

The control panel must be in the disarmed state with no flashing zone alarm memories to access Installer's Programming Mode. This can be achieved by entering the **MASTER CODE** followed by the **AWAY** button. The factory default Master Code is **2580**.

To access the Installer's Programming Mode, enter the four digit **INSTALLER CODE** followed by the **AWAY** button. The factory default Installer Code is **1234**. Three beeps will be heard and both the AWAY and STAY indicators will flash simultaneously. If a long beep is heard, check the control panel for alarm memory. The combination of the MAINS and ZONE indicators will indicate the data stored in the first location of the Primary Telephone Number (LOCATION 000).

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 2: Zone Indicators When Programming

Example

To move to a particular programming location, enter the location number required followed by the **AWAY** button. The data of the new location will now be displayed.

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 via the zone LED indicators.

If you press the **STAY** button without previously entering a location number, the system will step back one location. To change data in the current location, enter the new value followed by the **STAY** button. This will store the new data into the location and still leave you positioned at the same location.

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

To exit the Installer's Programming Mode, enter command **960** followed by the **AWAY** button. Two beeps will be heard and the system will return to normal.

Note: The valid address range for a Solution 6+6 Wireless - AE control panel is 000 to 213.

Using The Hand Held Programmer

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

To connect the hand held programmer, locate the connections marked PROGRAMMING KEY. This point can be found on the right hand side of the *Solution 6+6 Wireless - AE* printed circuit board. Observe the triangular markings on the printed circuit board and line them up with the markings on the hand held programmers connecting socket.

When the hand held programmer is correctly plugged onto the printed circuit board, one beep will be heard and the 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 displays.

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

Example

To access the Installer's Programming Mode, enter the INSTALLER CODE followed by the # button. The default Installer Code is factory set to **1234**. Three beeps will be heard and the display will show the current data stored in "LOCATION 000".

To move to a particular programming location, enter the location number required followed by the # button. The data of the new location will now be displayed.

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 via the zone LED indicators.

If you press the * button without previously entering a location number, the system will step back one location. To change data at the current location, enter the new value followed by the * button. This will store the new data into the location and still leave you positioned at the same location.

To proceed to the next location, press the # button. The next locations data 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 normal.

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

Using The Programming Key

The Programming Key (CC891) is a unique device that will allow you to easily program your control panel. Inserting the programming key 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, configure your control panel as per your requirements before inserting the programming key.

To copy the system data onto your new programming key, enter command **962** followed by the **AWAY** button. Refer to page 20 for more details on Command 962.

Exit the Installer's Programming Mode by entering command **960** followed by the **AWAY** button, wait two seconds for the activity LED to return to its normal blinking state and then remove the programming key. This 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 altering 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 alter data in the programming key without the same location being altered in the control panels memory.

Note: Connecting a programming key to the control panel when the keys memory is blank will corrupt the control panel's memory unless the Installer's Programming Mode has been entered first. If this happens then the control panel will need to be returned to Electronics Design & Manufacturing Pty Limited where a service fee will be charged to unlock the 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 needs to be programmed. This number is calculated by adding the option bit numbers together.

Example

If at "LOCATION 178" 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 (1+2+4=7).

Option	Description
1	Enable Dialler Reporting Functions
2	Enable Remote Arming Via The Telephone
4	Enable Upload/Download
8	Terminate Upload/Download Session On Alarm

Note: The correct programming key for use with the *Solution 6+6 Wireless - AE* is part number (CC891).

Installer's Programming Commands

There are several commands that can be invoked to perform the functions listed in the table below. These commands only operate when you have accessed Installer's Programming Mode. To invoke the command, enter the corresponding numerical code followed by the **AWAY** button.

Command	Function
958	Enable and Disable Zone Status Mode
959	Test Programming Key
960	Exit Installer's Programming Mode
961	Set Defaults For Contact ID Format (Factory Settings)
962	Copy The Panel Memory To The Programming Key
963	Copy The Programming Key Data To The Panel Memory
964	Erase Programming Key
965	Set Up Domestic Dialling Format
966	Enable and Disable Automatic Stepping Of Locations During Programming
999	This Command Displays The Control Panel's "Software Version Number" Using The Hand Held Programmer

Table 3: Programming Commands

Command 958 - Enable/Disable Zone Status Mode

This function enables and disables the zone status display mode. When the hand held programmer is used, the zones will be displayed on the seven segment displays from left to right. If there is a dash illuminated on the display, that zone is unsealed and if the display is blank, the zone is sealed.

The third (or centre) display shows either the number 4 or number 6. The number 4 constantly illuminated indicates that zones one to four are being displayed. The number 6 constantly illuminated indicates that zones five and six are being displayed. The number 4 flashing indicates that tamper zones one to four are being displayed. The number 6 flashing indicates that tamper zones five and six are being displayed.

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

To Enable Zone Status Mode

1. Enter command **958** followed by the **#** button.
Two beeps will be heard.

To Disable Zone Status Mode

1. Enter command **958** followed by the **#** button.
Two beeps will be heard.

Example

A " - " in the display indicates the zone is triggered. A blank display indicates the zone is normal.

- - **4** - - indicates that zones 1, 2, 3 and 4 are triggered.
A flashing "4" indicates tamper zones 1, 2, 3 and 4 are being displayed.

- - **6** - - indicates that zones 5 and 6 are triggered.
A flashing "6" indicates tamper zones 5 and 6 are being displayed.

Note: Tamper zones report to the base station receiver as zones 9, 10, 11, 12, 13 and 14.

Command 959 - Test Programming Key

This command causes a test to be carried out on the programming key. This 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 has failed and two beeps indicates a successful test. If the programming key is removed before the test is completed or the programming key fails, the data of the programming key will be corrupted. Remember, do not remove the programming key while the activity LED is illuminated constantly or pulsing rapidly.

If the programming key has become corrupt, use “Command 964 - Erase Programming Key” on page 21 to clear any corrupt data within the programming key.

To Test The Programming Key

1. Enter the Installer's Programming Mode.
2. Connect the programming key onto the pins marked PROGRAMMING KEY on the control panel.
3. Enter command **959** followed by the **#** button. Two beeps will be heard and the programming key has now been tested.
4. Enter command **960** followed by the **#** button to exit the Installer's Programming Mode.
5. Now disconnect the programming key from the control panel.

To Test The Programming Key With The Hand Held Programmer

1. Before connecting the hand held programmer, make sure that the switch on the hand held programmer is in the EXT position.
2. Enter the Installer's Programming Mode.
3. Plug the programming key onto the pins marked EXTERNAL KEY on the hand held programmer.
4. Enter command **962** followed by the **#** button. Two beeps will be heard and the programming key on the hand held programmer has now been tested.
5. Enter command **960** followed by the **#** button to exit the Installer's Programming Mode.
6. Leave the switch on the hand held programmer in the EXT position and disconnect the external programming key.

Command 960 - Exit Installer's Programming Mode

This command is used to exit the Installer's Programming Mode after you complete your programming alterations. This is achieved by entering the command **960** followed by the **#** button. Two beeps will be heard and the control panel will return to normal. This command can be performed at any programming stage and from any location.

Command 961 - Reset To Factory Default Settings

This command will set the control panel back to the factory default settings. Refer to the default values shown throughout this installation manual or the Programming Sheets on page 143. This is achieved by entering the command **961** followed by the **#** button. Three beeps will be heard.

Command 962 - Copy Control Panel Memory To Programming Key

This command is used to copy the control panel's memory to the programming key.

To Copy The Control Panel's Memory To The Programming Key

1. Enter the Installer's Programming Mode.
2. Connect the programming key to the pins marked PROGRAMMING KEY on the control panel.
3. Enter command **962** followed by the **#** button. Two beeps will be heard and the control panel's programming information will now be copied into the programming key.
4. Enter command **960** followed by the **#** button to exit the Installer's Programming Mode.
5. Now disconnect the programming key from the control panel.

To Copy The Control Panel's Memory To The Hand Held Programmer's External Programming Key

1. Before connecting the hand held programmer, make sure that the switch on the hand held programmer is in the EXT position.
2. Enter the Installer's Programming Mode.
3. Plug the programming key onto the pins marked EXTERNAL KEY on the hand held programmer.
4. Enter command **962** followed by the **#** button. Two beeps will be heard and the control panel's programming information will now be copied into the external programming key.
5. Enter command **960** followed by the **#** button to exit the Installer's Programming Mode.
6. Leave the switch on the hand held programmer in the EXT position and disconnect the external programming key.

Command 963 - Copy Programming Key Memory To Control Panel

This command is used to copy programmed information from the programming key to the control panel's memory.

To Copy The Programming Key To The Control Panel's Memory

1. Enter the Installer's Programming Mode.
2. Connect the programming key onto the pins marked PROGRAMMING KEY on the control panel.
3. Enter command **963** followed by the **#** button. Two beeps will be heard and the programming keys data will now be copied into the control panel's memory.
4. Enter command **960** followed by the **#** button to exit the Installer's Programming Mode.
5. Now disconnect the programming key from the control panel.

To Copy The Hand Held Programmer's External Programming Key To The Control Panel's Memory

1. Before connecting the hand held programmer, make sure that the switch on the hand held programmer is in the EXT position.
2. Enter the Installer's Programming Mode.
3. Plug the programming key onto the pins marked EXTERNAL KEY on the hand held programmer.
4. Enter command **963** followed by the **#** button. Two beeps will be heard and the programming keys data will now be copied into the control panel's memory.
5. Enter command **960** followed by the **#** button to exit the Installer's Programming Mode.
6. Leave the switch on the hand held programmer in the EXT position and disconnect the external programming key.

Command 964 - Erase Programming Key

This command erases all data from the programming key.

To Erase The Programming Key

1. Enter the Installer's Programming Mode.
2. Connect the programming key onto the pins marked PROGRAMMING KEY on the control panel.
3. Enter command **964** followed by the **#** button. Two beeps will be heard and the programming keys data has now been deleted.
4. Enter command **960** followed by the **#** button to exit the Installer's Programming Mode.
5. Now disconnect the programming key from the control panel.

To Erase The Hand Held Programmer's External Programming Key

1. Before connecting the hand held programmer, make sure that the switch on the hand held programmer is in the EXT position.
2. Enter the Installer's Programming Mode.
3. Plug the programming key onto the pins marked EXTERNAL KEY on the hand held programmer.
4. Enter command **964** followed by the **#** button. Two beeps will be heard and the programming keys data has now been deleted.
5. Enter command **960** followed by the **#** button to exit the Installer's Programming Mode.
6. Leave the switch on the hand held programmer in the EXT position and disconnect the external programming key.

Command 965 - Set Up Domestic Dialling Format

Command **965** has been added to make programming of domestic dialling a one step operation. Refer to page 62 for more information on Domestic Dialling Format. When Installer's Programming Mode has been entered, enter command **965** followed by the **#** button. This will automatically set the following locations as below. No other locations will be altered when the command **965** has been issued. Refer to "Master Code Functions" on page 44 for programming Domestic Phone Numbers.

<i>Location</i>	<i>Description</i>	<i>Setting</i>
LOCATION 49	Handshake	2 (1400 Hz)
LOCATION 50	Transmission Format	11 (Domestic)
LOCATION 52 - 55	Subscriber ID Number	0, 0, 0, 1
LOCATION 104 - 108	Zone 1	2, 0, 0, 0, 1 (Delay)
LOCATION 109 - 113	Zone 2	1, 0, 0, 0, 1 (Handover)
LOCATION 114 - 118	Zone 3	1, 0, 0, 0, 1 (Handover)
LOCATION 119 - 123	Zone 4	0, 0, 0, 0, 1 (Instant)
LOCATION 124 - 128	Zone 5	0, 0, 0, 0, 1 (Instant)
LOCATION 129 - 133	Zone 6	12, 0, 0, 0, 1 (24 Hour)
LOCATION 134	Report Options 1	0 (Not Used)
LOCATION 135	Report Options 2	3 (Enable Panic/Duress Reports)
LOCATION 136	Report Options 3	0 (Not Used)

Table 4: Command 965 Defaults

Command 966 - Enable/Disable Automatic Stepping Of Locations

This feature enables or disables the automatic stepping of locations when programming. 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 then auto step mode 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 extinguished, the auto step mode is disabled. The next programming location will need to be manually selected. As you can see from the examples below, auto step mode is a very useful feature when programming successive locations.

To Enter Automatic Stepping Of Locations

1. Enter command **966** followed by the **#** button.
Two beeps will be heard.

To Disable Automatic Stepping Of Locations

1. Enter command **966** followed by the **#** button.
Two beeps will be heard.

Example

(Auto step enabled)

To enter the primary telephone number “02 pause 9 672 1777” with auto step enabled (ie. Decimal point illuminated).

Enter **O** followed by the **#** button.

(This will put you at “LOCATION 000” being the beginning of the Primary Telephone Number).

1 O + * + 2 + * + 1 3 + * + 9 + * + 6 + * + 7 + * + 2 + * + 1
+ * + 7 + * + 7 + * + 7 + * + O + *

Example

(Auto step disabled)

To enter the primary telephone number “02 pause 9 672 1777” with auto step disabled (ie. Decimal point extinguished).

Enter **O** followed by the **#** button.

(This will put you at “LOCATION 000” being the beginning of the Primary Telephone Number).

1 O + * + # + 2 + * + # + 1 3 + * + # + 9 + * + # + 6 + * + #
+ 7 + * + # + 2 + * + # + 1 + * + # + 7 + * + # + 7 + * + # +
7 + * + O + *

Command 999 - Display Software Version Number

This command will only display the control panel’s “Software Version Number” when used with the hand held programmer.

Enter command **999** followed by the **#** button to display the “Software Version Number”. Two beeps will be heard.
Press the **#** button to exit this command.

How To Default The Control Panel

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

Defaulting The Control Panel

1. Disconnect the battery from the control panel.
2. Disconnect the AC mains from the control panel.
3. Hold down and continue to hold down the DEFAULT button located at the top of the printed circuit board.
4. Reconnect the AC mains.
5. Wait between 3 - 5 seconds before releasing the DEFAULT button.
You will hear the relay on the control panel click once and two beeps will be heard on the remote codepad. The control panel will now need to be disarmed by using the default Master Code (2580).

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

Note: If you follow the above procedure to default the control panel and you hear the relay clicks four times, defaulting the control panel has been disabled. The control panel will need to be returned to Electronics Design & Manufacturing Pty Limited for exchange where a service fee will be charged to unlock the control panel's memory.

Factory Default Disable

LOCATION 900



The *Solution 6+6 Wireless - AE* control panel has a feature that prevents the control panel from being manually defaulted via the default button or by using the programming key.

Any number between 0 - 14 will allow defaulting of the control panel. If 15 has been programmed in this location, defaulting will not operate and the Installer Code **MUST** be used for further programming. If the Installer Code is not known, the unit will need to be returned to Electronics Design & Manufacturing Pty Limited for exchange. A nominal fee applies for this service.

**Warning: Electronics Design & Manufacturing Pty Limited
does not recommend the use of this feature**

If this option is required, a special programming procedure has been introduced to eliminate any possibility of accidentally setting this option. The default button on the PCB **must be held down** when programming this location.

The following steps show how to prevent manual defaulting of the control panel.

1. Connect the hand held programmer on to the pins provided on the PCB.
2. Disarm the system.
3. Access Installer's Programming Mode.
4. Go to "LOCATION 900".
5. Hold down the default button.
6. Program a 15 into "LOCATION 900".
7. Release the default button.
8. Exit Installer's Programming Mode.

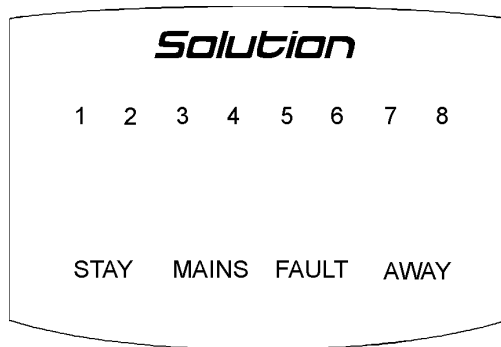
System Indicators and Operations

This section includes the following topics;

- *The Codepad*
- *ZONE Indicators*
- *AWAY Indicator*
- *STAY Indicator*
- *MAINS Indicator*
- *FAULT Indicator*
- *AUDIBLE Indicators*
- *Arming In AWAY Mode*
- *Disarming From AWAY Mode*
- *Arming In STAY Mode*
- *Disarming From STAY Mode*
- *Codepad Duress Alarm*
- *Codepad Panic Alarm*
- *Codepad Fire Alarm*
- *Codepad Medical Alarm*
- *Isolating Zones*
- *Fault Descriptions*

System Indicators and Operations

The Codepad



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 which 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.

Figure 1: CP-5 Remote Codepad Display

Zone Indicators

The zone indicators are used to show the status of the zones. The following table lists the various circumstances that the indicators will display (**ie.** Zone sealed, zone unsealed).

<i>Zone Indicator Status</i>	<i>Definition</i>
On	Zone Is Unsealed
Off	Zone Is Sealed
Flashing Very Fast (0.1 sec on - 0.1 sec off)	Tamper Zone Is In Alarm Condition
Flashing Fast (0.25 sec on - 0.25 sec off)	Burglary Zone Is In Alarm Condition
Flashing Slow (1 sec on - 1 sec off)	Zone Is Manually Isolated
Flashing Very Slow (2 sec on - 1 sec off)	Tamper Zone In The Unsealed State

Table 5: Zone Indicators

AWAY Indicator

The AWAY indicator is used to inform you that the system is armed in the AWAY mode.

<i>Indicator</i>	<i>Definition</i>
On	System Is Armed In The AWAY Mode
Off	System Is Not Armed In The AWAY Mode

Table 6: AWAY Indicator Functions

STAY Indicator

The STAY indicator is used to indicate that the system is armed in the STAY mode.

<i>Indicator</i>	<i>Definition</i>
On	System Is Armed In The STAY Mode
Off	System Is Not Armed In The STAY Mode
Flashing	System Is In ISOLATE Mode Or STAY Mode Zones Are Being Set

Table 7: STAY Indicator Functions

MAINS Indicator

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

<i>Indicator</i>	<i>Definition</i>
On	AC Mains Power Normal
Flashing	AC Mains Power Failure

Table 8: MAINS Indicator Functions

FAULT Indicator

The FAULT indicator is used to indicate that the system has detected a fault. Refer to “Fault Descriptions” on page 33 for more details on system faults.

<i>Indicator</i>	<i>Definition</i>
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 9: FAULT Indicator Functions

Audible Indicators

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

<i>Indicator</i>	<i>Definition</i>
One Short Beep	A Button On The Codepad Has Been Pressed
Two Short Beeps	The System Has Accepted Your Code
Three Short Beeps	The Requested Function Has Been Executed
One Long Beep	Indicates End Of Exit Time Or The Requested Operation Has Been Denied Or Aborted
One Short Beep Every Second	Walk Test Mode Is Currently Active
One Short Beep Every Minute	There Is A System Fault Waiting To Be Acknowledged

Table 10: Audible Indications

System Operations

This section covers all aspects of operating the control panel from a remote codepad. Operations such as arming, disarming and isolating zones are discussed extensively in this chapter.

Arming In AWAY Mode

There are two methods for arming your system in the AWAY mode. Method one is standard and will always operate. Method two is optional and needs to be enabled in “LOCATION 185” on page 116.

Method One

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 begin.



Method Two

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 begin. Refer to Option 2 in “LOCATION 185” on page 116 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. The zone will become an active part of the system again as soon as the zone has sealed (**ie.** If a window is opened during exit time, the window will not be an active part of the system until the window has closed. Opening the window after this time will cause an alarm condition).

The feature of arming the system when a zone is not sealed is known as forced arming. To enable forced arming, Option 1 in “LOCATION 180” on page 111 will need to be enabled.

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

Disarming From AWAY Mode

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. A flashing zone indicator represents a previous alarm on that zone.



Arming In STAY Mode

STAY mode is when the system has been armed with particular zones automatically isolated. These zones must be programmed by the installer at the time of installation.

When there is a need to arm only the perimeter of the building, this mode is extremely handy. It automatically disables the interior detection zones allowing for movement within the protected area while at the same time arming the perimeter zones.

There are two methods for arming your system in STAY mode. Method one is standard and will always operate. Method two is optional and needs to be enabled in “LOCATION 185” on page 116.

Method One

To Arm The System In STAY Mode

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

Any zones that have been programmed for STAY mode will be automatically isolated and their respective indicators will begin to flash until exit time expires. At the end of exit time the zone indicators will extinguish.



Method Two

To Arm The System In STAY Mode

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

Any zones that have been programmed for STAY mode will be automatically isolated and their respective indicators will begin to flash until exit time expires. At the end of exit time the zone indicators will extinguish. Refer to Option 2 in “LOCATION 185” on page 116 to enable “Single Button Arming In STAY Mode”.



If a zone is not sealed at the end of exit time the zone will be automatically isolated. The zone will become an active part of the system again as soon as the zone has sealed (**ie.** If a window is opened during exit time, the window will not be an active part of the system until the window has closed. Opening the window after this time will cause an alarm condition).

The feature of arming the system when a zone is not sealed is known as forced arming. To enable forced arming, Option 1 in “LOCATION 180” on page 111 will need to be enabled.

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

Disarming From STAY Mode

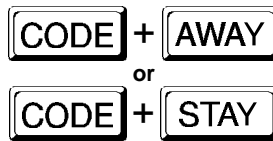
There are two methods for disarming your system from STAY mode. Method one is standard and will always operate. Method two is optional and needs to be enabled in “LOCATION 185” on page 116.

Note: Method two will not operate unless “Single Button Arming In AWAY Mode + STAY Mode” has also been enabled.

Method One

To Disarm The System From STAY Mode

1. Enter your **CODE** followed by the **AWAY** button.
Two beeps will be heard and the STAY indicator will extinguish. A flashing zone indicator represents a previous alarm on that zone.



Method Two

A flashing zone indicator represents a previous alarm on that zone. If this is the case or if the entry guard timer has been triggered, a valid user code will need to be used to disarm the system. To enable method two, Option 4 in “LOCATION 185” on page 116 will need to be enabled.

To Disarm The System From STAY Mode

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



Codepad Duress Alarm

A codepad duress alarm can be used as a hold up alarm. This will occur when the number **9** is added to the end of any valid user code that is being used to disarm the system. A duress alarm is always silent and can only be made use of if your system is reporting back to a monitoring station or a numeric pager.

CODE + **9** + **AWAY**

Codepad Panic Alarm

A codepad panic alarm will occur when either the **1** and **3** buttons or the **STAY** and **AWAY** buttons are pressed simultaneously. This is an audible alarm. Refer to Option 4 in “LOCATION 181” on page 112 to enable codepad panic to be silent.

1 **3** or **STAY** **AWAY**

Codepad Fire Alarm

A codepad fire alarm will be triggered when the **4** and **6** buttons on the codepad are pressed simultaneously. This is an audible alarm.

4 **6**

Codepad Medical Alarm

A codepad medical alarm will occur when the **7** and **9** buttons on the codepad are pressed simultaneously. This is an audible alarm.

7 **9**

Note: To disable both the reporting and the audible alarms for ALL of the above codepad alarm events, the following will need to be programmed.

In “LOCATION 135” on page 85, “Option 2 - Enable Panic, Medical and Fire Reports” will need to be disabled. In “LOCATION 181” on page 112, “Option 4 - Enable Codepad Panic To Be Silent” will need to be enabled.

Isolating Zones

When a zone is isolated, access is allowed into that zone at all times. Isolating zones is performed by one of two methods. One method requires the use of a valid user code 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 71 for further details.

Twenty four hour zone types and zones not used cannot be isolated. If isolation of these zones is attempted a long beep will be heard.

Code Only To Isolate

To Isolate Zones

1. Press the **STAY** button.
2. Enter a valid **USER CODE**.
3. Press the **STAY** button. Three beeps will be heard.
4. Enter the **ZONE NUMBER** required to be isolated ¹.
5. Press the **STAY** button.
6. Enter the next **ZONE NUMBER** required to be isolated ¹.
7. Press the **STAY** button.
8. Press the **AWAY** button when finished. Two beeps will be heard.

Isolated zones will now continue to flash until the system has been next disarmed. The system is ready to be armed.

¹ As each zone is isolated, the corresponding zone indicator will begin to flash. If a mistake is made, press the zone number that was incorrectly entered. This zone is now no longer isolated and the zone indicator will stop flashing.

STAY + **USER CODE** + **STAY** + **ZONE NUMBER** + **STAY**
 + **ZONE NUMBER** + **STAY** + **AWAY**

Standard Isolating

To Isolate Zones

1. Press the **STAY** button.
2. Press the **STAY** button again. Three beeps will be heard.
3. Enter the **ZONE NUMBER** required to be isolated ¹.
4. Press the **STAY** button.
5. Enter the next **ZONE NUMBER** required to be isolated ¹.
6. Press the **STAY** button.
7. Press the **AWAY** button when finished. Two beeps will be heard.

Isolated zones will now continue to flash until the system is next disarmed. The system is ready to be armed.

¹ As each zone is isolated, the corresponding zone indicator will begin to flash slowly. If a mistake is made, press the zone number that was incorrectly entered. This zone is now no longer isolated, and the zone indicator will stop flashing.

STAY + **STAY** + **ZONE NUMBER** + **STAY**
 + **ZONE NUMBER** + **STAY** + **AWAY**

Fault Descriptions

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 has been disconnected. There is no need to determine this type of system fault. Pressing the **AWAY** button for two seconds will acknowledge the AC mains fault and will stop the codepad beeping once every minute.

To Determine The Type Of Fault

Method One: Enter your **MASTER CODE** followed by **5** and the **AWAY** button. Two beeps will be heard and the STAY and AWAY indicators will begin to flash in unison with the FAULT indicator.

One or more zone indicators (1-8) will illuminate indicating the type of system fault that has occurred.

Method Two: Hold down the **5** button 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 indicating the type of system fault that has occurred.

To Acknowledge The Fault

To acknowledge the fault, press the **AWAY** button. The FAULT indicator will remain illuminated and the STAY and AWAY indicators will extinguish. The codepad will cease its once a minute beep.

System Faults

1 Low Battery

A low battery fault will register when the systems battery 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.

2 Date and Time

This fault will occur if the date and time has never been set or if the power to the control panel has been removed. This fault will not cause the FAULT indicator on the codepad to illuminate. This fault will only be indicated when you determine the type of fault explained under “Fault Descriptions” on page 33. This fault will clear after the date and time has been programmed. Refer to “Master Code Functions” for further information on setting the date and time. **Programming the date and time is not mandatory.**

3 Sensor Watch

A sensor watch fault will register because one or more detection devices programmed for sensor watch when the control panel is in the disarmed state has not triggered during the programmed time period. After “Fault Analysis” mode has been entered, holding down the **5** button again will indicate which zone has triggered the sensor watch fault. This fault will clear after the zone(s) which have been indicated have been unsealed and resealed. Refer to “LOCATION 172-173” on page 103 for further details regarding setting the sensor watch time. Refer to “Zone Options” on page 76 for programming zones for sensor watch.

4 Horn Speaker Monitor

The horn speaker 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 180” on page 111 to enable monitoring of the horn speaker.

5 Reserved

6 E² Fault

An E² 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.

7 Zone Transmitter Low Battery

A zone transmitter low battery fault will register when any of the remote zone transmitters has registered a low battery. This will cause the FAULT indicator to flash and the offending transmitter will have its ZONE indicator artificially illuminated. Once the transmitters battery has been replaced and the zone has been triggered in either the armed or disarmed state, the FAULT indicator will extinguish.

8 Communications Failure

A communications failure fault will register if the control panel was unsuccessful in calling the receiving party. This is after the control panel has exhausted its maximum number of attempts. If option 1 in “LOCATION 178” is enabled and no telephone numbers have been programmed, the communications failure fault will occur.

AC Mains Failure

If the AC mains is disconnected for two minutes, the MAINS indicator will flash and the codepad will beep once every minute. To stop the codepad from beeping once every minute, press the **AWAY** button. This fault will clear after the MAINS has been re-connected. If enabled, the panel will send an “AC Restore” signal after the mains has been reconnected for two minutes.

Remote Radio Transmitter Operation

The control panel has the ability to be remotely operated using a Hand Held 2 Channel Radio Transmitter. The radio transmitter has 2 buttons, each of which can perform various functions such as arming and disarming of the system. These functions are described below in detail.

When using the radio transmitter to operate the control panel, audible indications can be provided through the horn speakers. This will allow you to operate the system from outside the building with confidence. To enable this function, you must program Option 8; "Allow Horn Speaker Beeps For Radio Remote Control Operation" in "LOCATION 180".

The following table lists the number of indication beeps that will be heard via the horn speaker.

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

Table 11: Horn Speaker Indication Beeps

Before any of these features will operate, you will need to teach the control panel the radio transmitters code. Refer to "Changing Or Deleting Remote Radio User Codes" on page 46 for more information.

Arming Via Transmitter In AWAY Mode

1. Press button one on the transmitter for two seconds.
Two beeps will be heard on the remote codepad and the AWAY indicator will illuminate. Exit Time will now begin.
If horn speaker indication beeps have been enabled, two beeps will be heard from the horn speakers.

Disarming Via Transmitter From AWAY Mode

1. Press button one on the transmitter for two seconds.
Two beeps will be heard on the remote codepad and the AWAY indicator will now extinguish. If horn speaker indication beeps have been enabled, one beep will be heard from the horn speakers.

Note: If you need to disarm the system via the transmitter, you will need to wait at least 6 seconds after arming the system. Failing to do so will cause the control panel to arm in STAY mode.

Arming Via Transmitter In STAY Mode

1. Press button one on the transmitter for two seconds.
Two beeps will be heard on the remote codepad and the AWAY indicator will now illuminate. If horn speaker indication beeps have been enabled, two beeps will be heard from the horn speakers.
2. Press button one on the transmitter a second time for two seconds before 6 seconds has expired after arming the system in AWAY mode.

Four beeps will be heard on the remote codepad and the STAY indicator will now illuminate. If horn speaker indication beeps have been enabled, a two-tone beep will be heard from the horn speakers.

Note: If you fail to press button 1 within 6 seconds after arming the system, the system will then disarm and one beep will be heard from the horn speakers.

Disarming Via Transmitter From STAY Mode

1. Press button one on the transmitter for two seconds.
Two beeps will be heard on the remote codepad and the STAY indicator will now extinguish. If horn speaker indication beeps have been enabled, one beep will be heard from the horn speakers.

Panic Alarm Via Transmitter

1. Press button two on the transmitter for three seconds.
The panic alarm will now be activated.

To disable the panic alarm via the transmitter and remote codepad, both Option 4 in “LOCATION 181” on page 112 and Option 2 in “LOCATION 135” on page 85 will need to be disabled.

Turning An Output On Via Transmitter

1. Press button two on the transmitter for one second.
The programmed output will now activate.

Note: Pressing button two on the transmitter for more than one second may activate the remote panic alarm.

Turning An Output Off Via Transmitter

1. Press button two on the transmitter for one second.
The programmed output will now de-activate.

Note: Pressing button two on the transmitter for more than one second may activate the remote panic alarm.

System Functions

This section includes the following topics:

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

System Functions

This section deals with the more advanced features that are required for testing and regular maintenance of the system. Features such as Installer Code Functions, Master Code Functions, User 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.

The **INSTALLER CODE** is entered followed by a **FUNCTION** digit then the **AWAY** button to enter you into a particular mode.

INSTALLER CODE + **FUNCTION** + **AWAY**

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

Function	Description
0	Fault Analysis Mode
1	Enable/Disable Wireless Zones
2	Set Number Of Days Until The First Test Report
3	Event Memory Recall Mode
4	Walk Test Mode
5	EDMSAT Satellite Siren Service Mode
6	Initiate A Modem Call
7	Turning Telephone Monitor Mode On and Off
8	<i>Reserved</i>
9	Send A Test Report

Table 12: Installer Code Functions

0 Fault Analysis Mode

There are various system faults that can be detected by the control panel. When any of these are present, the FAULT indicator will begin to flash and the codepad will beep once every minute.

To Enter Fault Analysis Mode

1. Enter your **INSTALLER CODE** followed by **0** and the **AWAY** button.
Two beeps will be heard and the STAY and AWAY indicators will begin to flash in unison with the FAULT indicator. One or more of the zone indicators (1-8) will also illuminate to indicate the type of fault reported. Refer to "Fault Descriptions" on page 33 for further details.
2. Press the **AWAY** button to exit Fault Analysis Mode.

INSTALLER CODE + **0** + **AWAY**

1 Enable/Disable Wireless Zones

The control panel has the ability to accept wireless zone inputs on any or all of the 6 parent zones. This means that it is possible to connect wireless PIRs, reed switches and smoke detectors directly to the control panel. The tamper zones will always need to be hard wired to the control panel as there is no wireless facility for them.

To Enable A Wireless Zone

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 **ZONE NUMBER** of the parent zone (1-6) that you wish to make into a wireless zone followed by the **AWAY** button. Two beeps will be heard and the codepad will show the zone number you have selected via the zone indicators.
3. **TRANSMIT** a signal by triggering the transmitter which is connected to the relevant zone so that the control panel can learn the transmitters ID code. Two beeps will be heard and the STAY and AWAY indicators will extinguish to indicate that it has successfully learnt the transmitters code.

If the transmitter's ID code is already allocated to another zone, the control panel will ignore the transmission and will wait for a new code to be sent.

INSTALLER CODE + **1** + **AWAY** + **ZONE NUMBER** + **AWAY** + **TRANSMIT**

To Disable A Wireless Zone

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 **ZONE NUMBER** of the wireless zone you wish to disable followed by the **AWAY** button.
Two beeps will be heard.
3. Now press the **STAY** button.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

INSTALLER CODE + **1** + **AWAY** + **ZONE NUMBER** + **AWAY** + **STAY**

2 Set Number Of Days Until The First Test Report

If test reports are required, "LOCATION 137-139" on page 87 will need to be programmed. After this has been carried out, test reports need to be initiated by setting the first report. If the number of days until the first test report is not set, the test report will be transmitted in the number of days as programmed in the repeat interval in "LOCATION 137-139" on page 87.

To Set The First Test Report

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.
2. Enter the **No. OF DAYS** to wait (1-99) until the first test report is required.
3. Press the **AWAY** button to exit this function.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

INSTALLER CODE + **2** + **AWAY** + **No. OF DAYS** + **AWAY**

Note: Test reports will not be transmitted if the Subscriber ID Number is 0000. The number of days remaining will decrement by one at 2400 hours as set in "LOCATION 901-904" on page 106.

3 Event Memory Recall Mode

This feature 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 STAY and AWAY modes. This function helps with trouble shooting system faults. The alarm memory events are displayed via the codepad indicators.

To Enter The Event Memory Recall Mode

1. Enter your **INSTALLER CODE** followed by **3** and the **AWAY** button.
Three beeps will be heard.

The events will be played back via the zone indicators on the codepad in reverse chronological order.

INSTALLER CODE + **3** + **AWAY**

If the control panel is programmed for partitioning, only ten events for each of the two areas will be indicated.

Example

If the events were as follows:

<i>Event No</i>	<i>Event</i>
1	System Armed
2	Alarm Zone 3
3	Tamper Alarm Zone 4
4	System Disarmed

Table 13: Example Events For Event Memory Recall

The event memory playback will report as follows:

<i>Event No</i>	<i>Indicator</i>	<i>Event</i>
4	All Indicators Off Except MAINS Indicator	System Disarmed
3	Zone 4 Indicator Illuminates and Flashes Very Fast	Tamper Zone 4 Alarm
2	Zone 3 Indicator Illuminates	Zone 3 Alarm
1	AWAY Indicator Illuminates	Zone Armed in AWAY Mode

Table 14: Example Event Playback For Event Memory Recall

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

Note: To distinguish between burglary zone alarms and tamper zone alarms when using event memory recall, tamper zones flash very fast and burglary zones stay illuminated.

4 Walk Test Mode

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 32 for further information.

To Enter Walk Test Mode

1. Enter your **INSTALLER CODE** followed by **4** 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 the walk test mode.
2. Unseal and seal the zones to be tested.
The codepad will sound a long beep while the horn speaker will sound a short beep every time a zone is sealed or unsealed.
3. Press the **AWAY** button to exit this mode.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

INSTALLER CODE + **4** + **AWAY**

5 Satellite Siren Service Mode

If an EDMSAT is connected to OUTPUT 1, this mode will allow you to perform service work on the satellite siren without triggering the siren or the strobe. The unit will return to its normal working state the next time the system has been armed.

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**

6 Initiate A Modem Call

This function will cause the control panel to dial the “Callback Telephone Number” programmed in “LOCATION 32 - 47” on page 66 in an attempt to link up with the remote computer. The remote computer will need to be running the Alarm Link Software (CC816) and will need to be set to “Waiting For An Incoming Call”. If no “Callback Telephone Number” is programmed, entering this function will have no effect.

To Call The Remote Upload/Download Computer:

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

INSTALLER CODE + **6** + **AWAY**

7 Turning Telephone Monitor Mode On and Off

Telephone monitor mode allows the 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 when telephone monitor mode has been turned on regardless of whether the system is in Installer's Programming Mode or normal operating mode. The first five zone indicators are used to display the progressive steps for the transmission to the base station receiver.

Zone LED	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 15: Telephone Monitor Mode Indicators

To Turn Telephone Monitor Mode On

1. Enter your **INSTALLER CODE** followed by **7** and the **AWAY** button.
Three beeps will be heard.

INSTALLER CODE + **7** + **AWAY**

To Turn Telephone Monitor Mode Off

1. Enter your **INSTALLER CODE** followed by **7** and the **AWAY** button.
Two beeps will be heard.

INSTALLER CODE + **7** + **AWAY**

8 Reserved

9 Send A Test Report

This feature is used to test the dialling and reporting capabilities of the control panel without causing the siren(s) to sound. This feature is only applicable if your control panel has a communications dialler enabled in "LOCATION 178" on page 108.

To Send A Test Report

1. Enter your **INSTALLER CODE** followed by **9** and the **AWAY** button.
Two beeps will be heard.

INSTALLER CODE + **9** + **AWAY**

Note: If the Subscriber ID Number in "LOCATION 52 - 55" on page 67 is set to 0000 then no test report will be transmitted. Refer to "Test Reports" on page 87 for more information.

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 while the system is in the disarmed state.

Note: The default Master Code is **2580** and is known as User 1. It is possible for the system to have multiple Master Codes. Refer to “User Code Priority” on page 71 for more information.

MASTER CODE + **FUNCTION** + **AWAY**

Function	Description
0	Arming and Disarming Both Areas At The Same Time - Partitioned Systems Only
1	Changing and Deleting User Codes/Remote Radio User Codes
2	Changing Domestic Phone Numbers
3	Event Memory Recall Mode - 10 Events For Each Area If Partitioned
4	Walk Test Mode
5	Fault Analysis Mode
6	Setting The Date and Time
7	Turning Day Alarm On and Off
8	Reset Latching Outputs
9	Initiate A Modem Call

Table 16: Master Code Functions

0 Arming and Disarming Both Areas At The Same Time

This option allows the user to arm and disarm both areas at the same time when the system has been partitioned.

Both areas will arm or disarm to follow the state of the area that the code was entered from (**ie.** If you disarm an area, the other area will disarm or if you arm an area, the other area will arm as well).

This allows the user to ensure that both areas will be armed by pressing one extra button rather than entering a code at both area codepads.

This process can be carried out from either the “CP-5 Area Addressable (CP500A)” codepads or the “CP-5 Master Partitioned (CP500P)” codepads. Refer to “LOCATION 185” on page 116 to enable this feature.

To Arm Or Disarm Both Areas At The Same Time

1. Enter your **MASTER CODE** followed by **0** and the **AWAY** button.
Two beeps will be heard.

MASTER CODE + **0** + **AWAY**

1 Changing Or Deleting User Codes

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

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 alter followed by the **AWAY** button.
Two beeps will be heard and the corresponding zone indicator will illuminate. Refer to “Table 17: Zone Indicators Showing Relative User Numbers” on page 45.
3. Enter the digits required for the **NEW CODE** followed by the **AWAY** button. Two beeps will be heard.

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**

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 17: Zone Indicators Showing Relative User Numbers” on page 45.
3. Now press the **STAY** button. Two beeps will be heard and the user code has now been deleted.

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**

Note: When changing or deleting user codes, the code change mode will automatically terminate if a button is not pressed within sixty seconds. Pressing the **AWAY** button will also terminate the session at anytime. One long beep indicates the code entered already exists or an incorrect user number was selected.

Zone Indicators Showing Relative User Numbers

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 17: Zone Indicators Showing Relative User Numbers.

1 Changing Or Deleting Remote Radio User Codes

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

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 alter followed by the **AWAY** button.
Two beeps will be heard and the corresponding zone indicator will illuminate. Refer to "Remote Radio User Allocations" on page 123.
3. Now press the **TRANSMIT** button on the transmitter.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

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

MASTER CODE + **1** + **AWAY**
 + **USER NUMBER** + **AWAY** + **TRANSMIT**

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 "Remote Radio User Allocations" on page 123.
3. Now press the **STAY** button to delete the remote radio code.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

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

MASTER CODE + **1** + **AWAY**
 + **USER NUMBER** + **AWAY** + **STAY**

Note: When changing or deleting user codes, the code change mode will automatically terminate if a button is not pressed within sixty seconds. Pressing the **AWAY** button will also terminate the session at anytime. One long beep indicates the code entered already exists or an incorrect user number was selected.

Zone Indicators Showing Relative Remote Radio User Numbers

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 18: Zone Indicators Showing Relative Remote Radio User Numbers

2 Changing Domestic Phone Numbers

This option allows the Master Code holder to view and program the required telephone numbers that the control panel will call in the event of an alarm. For a more detailed description, refer to “Domestic Reporting” on page 62.

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 phone numbers already programmed, they will be displayed one digit at a time via the zone indicators on the codepad. Refer to “Table 19: Indicators For Changing Phone Numbers” for the indicators and their meanings.

If there are no previous programmed phone numbers, 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 the required phone number (Each digit will be displayed as it is entered).
3. After each phone number, press the **STAY** button before entering the next phone number. This separates the end of the first phone number and the beginning of the next.
4. After the last phone number has been entered, press the **AWAY** button.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

MASTER CODE + **2** + **AWAY** + **PHONE No. 1** + **STAY** + **PHONE No. 2**
+ **STAY** + **PHONE No. 3** + **AWAY**

5. Refer to “Disabling Domestic Dialling Via The Master Code” on page 62 for information on how to disable “Domestic Dialling” using the Master Code.

Indicators For Changing Phone Numbers

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
1	✓								
2		✓							
3			✓						
4				✓					
5					✓				
6						✓			
7							✓		
8								✓	
9	✓							✓	
0									✓
Number Separator				✓					✓

Table 19: Indicators For Changing Phone Numbers

3 Event Memory Recall Mode

This feature allows you to playback the last forty events that have occurred to the system. If the system has been partitioned, only 10 events will be displayed for each of the two areas.

The event memory recall mode reports all alarms and arming or disarming of the system in the STAY and AWAY modes. This function helps with trouble shooting of the system. The events are displayed via the codepad zone indicators.

To Enter Event Memory Recall Mode

1. Enter your **MASTER CODE** followed by **3** and the **AWAY** button.
Three beeps will be heard.

The events will be played back via the zone indicators on the codepad in reverse chronological order.

MASTER CODE + **3** + **AWAY**

Example

If the events were as follows:

Event No	Event
1	System Armed
2	Alarm Zone 3
3	Tamper Alarm Zone 4
4	System Disarmed

Table 20: Event Memory Recall - Example Events

The event memory playback will report as follows:

Event No	Indicator	Event
4	All Indicators Off Except MAINS Indicator	System Disarmed
3	Zone 4 Indicator Illuminates and Flashes Fast	Tamper Zone 4 Alarm
2	Zone 3 Indicator Illuminates	Zone 3 Alarm
1	AWAY Indicator Illuminates	Zone Armed In AWAY Mode

Table 21: Event Memory Recall - Example Event Playback

Each event is indicated by one beep and an illuminated indicator. Resetting a 24 hour alarm in the disarmed state is indicated by one beep only. After the last event has been played back, two beeps will be heard to indicate the end of playback. The “Event Memory Recall” mode can be terminated at any time by pressing the **AWAY** button.

4 Walk Test Mode

Walk test mode allows you to test detection devices to ensure that they are functioning correctly. This should be performed on a weekly basis.

Before activating walk test mode, isolate any zones that are not required. Refer to “Isolating Zones” on page 32 for more information.

To Enter Walk Test Mode

1. Enter your **MASTER CODE** followed by **4** 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 the walk test mode.
2. Unseal and seal the zones to be tested.
Every time a zone is sealed or unsealed, the horn speaker will sound a single beep while the codepad will give one long beep.
3. Press the **AWAY** button to exit this mode.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

MASTER CODE + **4** + **AWAY**

5 Fault Analysis Mode

There are various system faults that can be detected by the control panel. When any of these are present, the FAULT indicator will begin to flash and the codepad will beep once every minute.

Entering Fault Analysis Mode

1. Enter your **MASTER CODE** followed by **5** and the **AWAY** button.
Two beeps will be heard and 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 system fault. Refer to “Fault Descriptions” on page 33 for further details.
2. Press the **AWAY** button to exit Fault Analysis Mode.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

MASTER CODE + **5** + **AWAY**

Zone Indicator	Description
1	Low Battery
2	Date and Time
3	Sensor Watch
4	Horn Speaker Disconnected
5	<i>Reserved</i>
6	E ² Fault
7	Zone Transmitter Low Battery
8	Communications Failure

Table 22: Fault Types

6 Setting The Date and Time

This function is to be used when the date and time needs to be altered. The time needs to be entered in 24 hour format.

To Enter 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.
3. Press the **AWAY** button when finished.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

MASTER CODE + **6** + **AWAY**

Example

If the date and time needs to be set for the 1st January 1995 at 10:00 PM, program the date and time as follows;

MASTER CODE + **6** + **AWAY**
+ **0** + **1** + **0** + **1** + **9** + **5** + **2** + **2** + **0** + **0** + **AWAY**

7 Turning Day Alarm On and Off

This option will allow you to activate and deactivate the day alarm mode. This mode can be used to monitor zones when the system is disarmed. Refer to "LOCATION 101" on page 82 for programming zones to be monitored by day alarm.

To Turn Day Alarm On

1. Enter your **MASTER CODE** followed by **7** and the **AWAY** button.
Three beeps will be heard and day alarm will now be active.

To Turn Day Alarm Off

1. Enter your **MASTER CODE** followed by **7** and the **AWAY** button.
Two beeps will be heard and day alarm will now be deactivated.

MASTER CODE + **7** + **AWAY**

8 Reset Latching Outputs

This option will reset any device that has been programmed to remain on once it has been activated. This could be a door bell that is required to keep ringing until someone has acknowledged it.

Reset Latching Outputs

1. Enter your **MASTER CODE** followed by **8** and the **AWAY** button.
Three beeps will be heard.

MASTER CODE + **8** + **AWAY**

9 *Initiate A Modem Call*

This function will force the control panel to dial the “Callback Telephone Number” programmed in “LOCATION 32-47” in an attempt to connect to the remote Upload/Download computer.

To Initiate A Modem Call

1. Enter your **MASTER CODE** followed by **9** and the **AWAY** button.
Two beeps will be heard.

MASTER CODE + **9** + **AWAY**

User Code Functions - Partitioned Systems Only

USER CODE + **FUNCTION** + **AWAY**

Function	Description
0	Arming and Disarming Both Areas At The Same Time - Partitioned Systems Only

Table 23: User Code Functions

0 *Arming and Disarming Both Areas At The Same Time*

This option allows you to arm and disarm both areas at the same time when the system has been partitioned.

Both areas will arm or disarm to follow the state of the area that the code was entered from (**ie.** If you disarm an area, the other area will disarm or if you arm an area, the other area will arm as well).

This allows the user to ensure that both areas will be armed by pressing one extra button rather than entering a user code at each area codepad.

This process can be carried out from either the “CP-5 Area Addressable (CP500A)” codepads or the “CP-5 Master Partitioned (CP500P)” codepads. Refer to “LOCATION 185” on page 116 to enable this feature.

To Arm Or Disarm Both Areas

1. Enter your **USER CODE** followed by **0** and the **AWAY** button.
Two beeps will be heard.

USER CODE + **0** + **AWAY**

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 functions available are listed below.

Arm The System In AWAY Mode

Holding the **AWAY** button down until two beeps are heard will arm the system in the AWAY mode. Refer to Option 2 in “LOCATION 185” on page 116 for setting this feature.

If the system is configured for partitioning, holding the **AWAY** button down for two seconds on an “CP-5 Area Addressable (CP500A)” codepad will arm only the area that the codepad is allocated to in AWAY mode. This function does not operate on a “CP-5 Master Partitioned (CP500P)” codepad.

* *Arm The System In STAY Mode*

Holding the **STAY** button down until two beeps are heard will arm the system in the STAY mode. Refer to Option 2 in “LOCATION 185” on page 116 for setting this feature.

If there has not been an alarm during the armed cycle, holding the **STAY** button down again until another two beeps are heard will disarm the system.

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

If the system is configured for partitioning, holding the **STAY** button down for two seconds on an “CP-5 Area Addressable (CP500A)” codepad will arm only the area that the codepad is allocated to in STAY mode. This function does not operate on a “CP-5 Master Partitioned (CP500P)” codepad.

1 *Horn Speaker Test*

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.

2 *Bell Test*

Holding the **2** button down until two beeps are heard will sound the internal sirens 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 the horn speaker for a two second burst followed by the strobe connected to the satellite siren.

3 *Strobe Test*

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.

To Turn Strobe Test ‘On’

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

To Turn Strobe Test ‘Off’

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

4 *Turning Day Alarm On and Off*

Holding the **4** button down will turn day alarm on or off.

To Turn Day Alarm On

1. Hold down the **4** button until three beeps are heard.

To Turn Day Alarm Off

1. Hold down the **4** button until two beeps are heard.

5 *Fault Analysis Mode*

There are various system faults that can be detected by the control panel. When any of these are present, the FAULT indicator will begin to flash and the codepad will beep once every minute.

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 also illuminate to indicate the type of fault that has occurred. Refer to “Fault Descriptions” on page 33 for a more detailed description.

To exit “Fault Analysis” mode, press the **AWAY** button. Two beeps will be heard.

<i>Zone Indicator</i>	<i>Description</i>
1	Low Battery
2	Date and Time
3	Sensor Watch
4	Horn Speaker Disconnected
5	<i>Reserved</i>
6	E ² Fault
7	Zone Transmitter Low Battery
8	Communications Failure

Table 24: Fault Types

6 *Initiate A Modem Call*

Holding the **6** button down until two beeps are heard will force the control panel to dial the “Callback Telephone Number” programmed in “LOCATION 32 - 47” on page 66 in an attempt to connect to the remote computer.

The remote computer will need to be running the Alarm Link Software (CC816) and will need to be set to “Waiting For An Incoming Call”. If no “Callback Telephone Number” is programmed, entering this function will have no effect.

7 *Reset Latching Outputs*

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 “Polarity” on page 97 for further information.

8 Codepad ID and Beeper Tone Change

Holding the **8** button down for two seconds performs two functions.

The first function is to indicate the area number that the codepad belongs to if the control panel has been partitioned.

The second function changes the tone of the codepad buzzer. There are fifty different tones to choose from between 1500 Hz and 5000 Hz and are specific to each codepad. In a multiple codepad installation, each codepad can have a different tone.

Function 1 - Determining The Area Number.

1. Hold the **8** button down until two beeps are heard.
2. Release the **8** button.
A zone indicator will illuminate.
Z1 = Area One Codepad.
Z2 = Area Two Codepad.
Z7 = Master Partitioned Codepad.
If no zone indicator illuminates, the codepad cannot be used in partitioning.
3. Press the **AWAY** button when finished.

Function 2 - Changing 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.

If the codepad is a “CP-5 Area Addressable (CP500A)” codepad, or a “CP-5 Master Partitioned (CP500P)” codepad, two beeps will be heard indicating the area that the codepad belongs to as described in Function 1. Shortly after hearing the two beeps, the tone of the buzzer will start to increase in pitch (Ranges from 1500 Hz - 5000 Hz).

2. Release the **8** button when the desired tone is reached.
3. Press the **AWAY** button when finished.

9 Initiate A Test Report

Holding the **9** button down until two beeps are heard will transmit a test report which 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 the dialler hybrid fitted and Option 1 in “LOCATION 178” enabled on page 108.

Remote Operations

This section includes the following topics;

- *Remote Arming Via The Telephone*
- *Uploading & Downloading Via Alarm Link Software*
- *Remote Connect*
- *Point ID Codes*
- *Remote Connect Without Callback Verification*
- *Remote Connect With Callback Verification*

Remote Operations

This section covers all aspects of operating and programming the control panel other than by a system codepad or hand held programmer. There are a number of methods that can be used via a telephone line to gain access to the control panel. These methods will prove to be time saving and easy to perform.

Remote Arming Via The Telephone

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

Operation

To Remotely Arm Your System Via The Telephone

1. Call the telephone number that your control panel is connected to.
2. When the control panel answers the call, a short jingle will be heard. Wait for a short pause in the tones and then hold the phone controller to the mouth piece 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.
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 been armed.
4. Hang up the telephone and the system will remain armed.

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

If the control panel does not answer the call, this means that the system may already be armed or remote functions have not been enabled. Refer to "LOCATION 178" on page 108 to enable "Remote Arming Via The Telephone".

Note: Where both remote arming and Upload/Download 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.

Uploading & Downloading Via Alarm Link Software

The *Solution 6+6 Wireless - AE* control panel can be remotely programmed or controlled via an IBM compatible personal computer using the Alarm Link Software (CC816) version 2.62 or greater. 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.

Remote Connect

The remote connect feature allows you to establish a connection through the telephone network from your IBM PC or compatible to the 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.

Note: The Installer Code, the Subscriber ID Number and the control panel software version number, must match the Installer Code, Subscriber ID Number and the control panel software version number in the Alarm Link Software database.

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.

“LOCATIONS 32-47” will need to have the “Callback Telephone Number” programmed and Option Bit 4 - Upload/Download in “LOCATION 178” will need to be disabled. The control panel has now been set so that the client has control for when a remote connection can be established.

Holding down the **6** button will cause the control panel to dial the remote computer to establish a link.

Remote Connect Without Callback Verification

Remote connect without callback verification can be handy where you have a need to perform Upload/Download functions from multiple locations. It should be noted that by using this feature you are reducing the security of the control panels data.

“LOCATIONS 32-47” should be cleared and Option Bit 4 - Upload/Download in “LOCATION 178” will need to be enabled. The control panel will now allow a connection on the first call without calling the remote computer back to make contact.

Remote Connect With Callback Verification

Remote connect with callback 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 which needs to match that of the control panel. Secondly, the control panel will call back the programmed “Callback Telephone Number” to establish the valid connection. This “Callback Telephone Number” is the telephone number of the phone line that the remote computer is connected to.

“LOCATIONS 32-47” must be programmed with the “Callback Telephone Number” and Option Bit 4 - Upload/Download in “LOCATION 178” will need to be enabled.

Reporting Formats

This section includes the following topics;

- *Contact ID*
- *Securitel*
- *Point ID Codes*
- *Domestic Reporting*
- *Programming for Domestic Reporting*
- *Basic Pager*

Reporting Formats

When making use of the *Solution 6+6 Wireless - AE* control panel's dialling and communicating features, there are a number of different reporting formats available. The control panel is factory set to communicate to a base station receiver in the Contact ID format.

Contact ID Format

This format can identify hundreds of protection zones by their unique zone (Contact ID Number) and provides a single digit event qualifier and a three digit specifically defined event code which quickly identifies the condition being reported.

<i>Subscriber ID</i>	<i>Qualifier</i>	<i>Event Code</i>	<i>Group No</i>	<i>Point ID No</i>
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 25: Contact ID Breakdown

In general, Contact ID reporting with the *Solution 6+6 Wireless - AE* control panel is very simple as the Point ID codes have been predefined. Refer to "Table 27: Point ID Codes" on page 61 for more information.

The base station software usually only has the ability to identify a zone going into alarm by its Point ID Number and usually pays little attention to the event code.

Securitel

The control panel can communicate to base stations via the Securitel Network using an EDMSTU (CS800). Not all messages can be transmitted via securitel as they can via a dialler transmitting in Contact ID Format. Refer to "Table 26: Securitel Reporting Messages" below for the messages that are transmitted via securitel.

<i>Event</i>	<i>Location</i>	<i>Page No</i>
Alarms and Restores	104 - 151	74
Bypass (See Note Below)	152 - 153	86
Trouble (See Note Below)	154 - 155	84
Open/Close	180 - 181	86
AC Fail	168 - 171	86
Low Battery	172 - 175	86
Codepad Panic	160 - 163	85
Duress	156 - 159	85
Codepad Tamper	164 - 167	85

Table 26: Securitel Reporting Messages

Securitel and Partitioning

The EDMSTU was not designed to send individual Open/Close reports for each area via the Securitel Network. It will however send first to open and last to close reports if Option 2 in "LOCATION 179" on page 109 is enabled.

Note: Bypass and Trouble reports are not sent separately. They are sent as one combined Isolate report.

Point ID Codes

<i>Point ID</i>	<i>Event Description</i>	<i>Event Code</i>	<i>Explanation</i>	<i>Page</i>
Zone Specific 1, 2, 3, 4, 5	Burglary Zones 1 - 5	130	Burglary	81
Zone Specific 6	24 Hour Burglary Zone	133	24 Hour	81
Zone Specific 9, 10, 11, 12, 13, 14	Tamper Zones 1 - 6	137	Zone Tamper	81
User Specific 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16	Open/Close	401	Opening - User # Closing - User #	86
User Specific 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16	Open/Close In Partitioning	402	Opening - Group - User # Closing - Group - User #	120
030	AC Mains Fail	301	AC Power	86
031	Low Battery	309	Battery Test Failure	86
040	Duress	121	Duress	85
041	Codepad Panic	120	Panic	85
046	Codepad Fire	110	Fire	85
045	Codepad Medical	100	Medical	85
042	Code Retry Limit Exceeded	421	Access Denied	85
044	Test Report	602	TEST - Periodic	87
Zone Specific 1, 2, 3, 4, 5, 6	Sensor Watch	307	Sensor Self - Test Failure	86
Zone Specific 9, 10, 11, 12, 13, 14	Sensor Trouble	383	Sensor Tamper Trouble	84
Zone Specific 1, 2, 3, 4, 5, 6	Trouble	380	Sensor Trouble	84
Zone Specific 1, 2, 3, 4, 5, 6	Bypass	570	Zone Bypass	84

Table 27: Point ID Codes

“Table 27: Point ID Codes” shows the different Point ID Codes and Event Codes that are transmitted to the base station receiver when using Contact ID Format. All event codes are fixed and will always send the same code as there are no programming locations made available to alter these.

Domestic Reporting

Programming Considerations When Domestic Dialling

The primary and secondary telephone number locations which are normally used for base station reporting can be added together making provision to store up to 32 different digits. The 32 data locations are now used to store any number of telephone numbers and subject to the length of each of the phone numbers it is possible to store 3 or more different phone numbers for domestic dialling.

A four second pause may be inserted anywhere in the phone numbers by programming the number "13". These pauses can only be programmed by the installer as the end user has no access to this function.

Programming Domestic Phone Numbers

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" on page 22 for further information.

After command 965 has been carried out, follow the steps below for entering the telephone numbers.

1. Ensure the system is disarmed.
2. Ensure that there are no alarm memories present. (Zone indicator's flashing fast).
3. Enter your **MASTER CODE** followed by **2** and the **AWAY** button.
Three beeps will be heard and the STAY and AWAY indicator's will flash simultaneously.

If one long beep is heard, entry has been denied and you should check if you are using a Master Code and that Domestic Dialling Format has been selected in "LOCATION 50" on page 67.

After successful entry, the codepad will begin to display any previously programmed telephone numbers one digit at a time via the zone indicator's. The first number will be displayed for two seconds and then a beep will be heard as the next number is displayed. You may watch as all stored numbers are displayed before programming new numbers, or start to program a new phone number by simply entering the first digit of the new number.

After all digits in the first phone number have been entered, press the **STAY** button. This will separate the end of the first phone number and the beginning of the next. You may now enter a second, third and fourth phone number if required by following the above procedure. When you press the **STAY** button to separate the phone numbers, the number '14' is inserted which uses up one location.

MASTER CODE + **2** + **AWAY** + **PHONE No. 1** + **STAY**
 + **PHONE No. 2** + **STAY** + **PHONE No. 3** + **AWAY**

Note: If there is more than one phone number programmed and you wish to change one of them, you will need to reprogram all of the stored phone numbers as well as the new number.

After the last digit of the last phone number has been programmed, exit the mode by pressing the **AWAY** button.

If at any time you wish to view the stored numbers, enter the **MASTER CODE** followed by the **2** and the **AWAY** button. Three beeps will be heard and the numbers will be displayed. When finished, the first digit of the first number will be displayed. If no buttons are pressed within 10 seconds, the mode will terminate automatically or you can press the **AWAY** button to manually terminate.

Disabling Domestic Dialling Via The Master Code

If at any time the user wishes to stop domestic dialling for any reason (eg. They are moving house and they do not wish the system to continue calling their work place or mobile phone etc), they can enter the **MASTER CODE** followed by **2** and then the **AWAY** button, the **STAY** button and the **AWAY** button to disable domestic dialling.

MASTER CODE + **2** + **AWAY** + **STAY** + **AWAY**

Domestic Reporting Function

When the *Solution 6+6 Wireless - AE* control panel has been triggered, it will commence dialling the first programmed telephone number. If a busy or engaged tone is detected, the control panel will hang up and commence dialling the second telephone number (if one is programmed). The first call will however be counted as 1 unsuccessful dialling attempt.

The calling procedure can be aborted at any time by entering a user code at the remote codepad.

Note: A maximum of 6 calls per alarm event will be made. This count includes any unsuccessful calls. The counter will be reset if the zone retriggers and a further 6 attempts will be made. The control panel will stop dialling after it has received a “Kiss Off” acknowledge tone or after it has made 6 attempts or 3 successful calls.

If a busy tone is not detected, the control panel will assume that the phone has been answered and will begin sending its transmission. The transmission consists of a siren tone followed by a unit identification beep. The identification beep allows the customer to verify which control panel has made the call if more than one control panel is reporting to the same phone number.

Example

Home and office reporting to holiday house. The number of beeps is programmed in “LOCATION 55” on page 67. The unit identification beep is programmable between 1 and 15 thus allowing you to distinguish between 15 different control panels dialling the same telephone number. Therefore, if a control panel is programmed with a Subscriber ID Number of 6527, the unit identification will be 7, and 7 beeps will be heard.

Once the call has been received, if it is not acknowledged using the phone controller or by pressing the ***** button on a touch tone telephone, the control panel will continue sending its transmission for a period of 2 minutes. It will then hang up and commence dialling the next phone number. If the call has been acknowledged, the control panel will hang up and no further calls will be made for that event.

For most situations, alarm indications are all that is required. For this reason when programming the control panel, you should set the AC Fail, Low Battery, Test Report, Trouble, Code Tamper and Opening and Closing report codes to zero (0).

Installer’s Programming Command 965 can be used to set up domestic dialling options quickly and easily.

If any of the above events are allowed to trigger the dialler, then the above sequence of events will occur.

Basic Pager

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

To use this feature you must program the handshake tone “LOCATION 49” to 5 and program the transmission format “LOCATION 50” to 12 for Basic Pager format. The primary and secondary telephone numbers should be programmed with the pager’s direct phone number. The Subscriber ID Number in “LOCATION 52 - 55” should be programmed accordingly to identify the calling control panel.

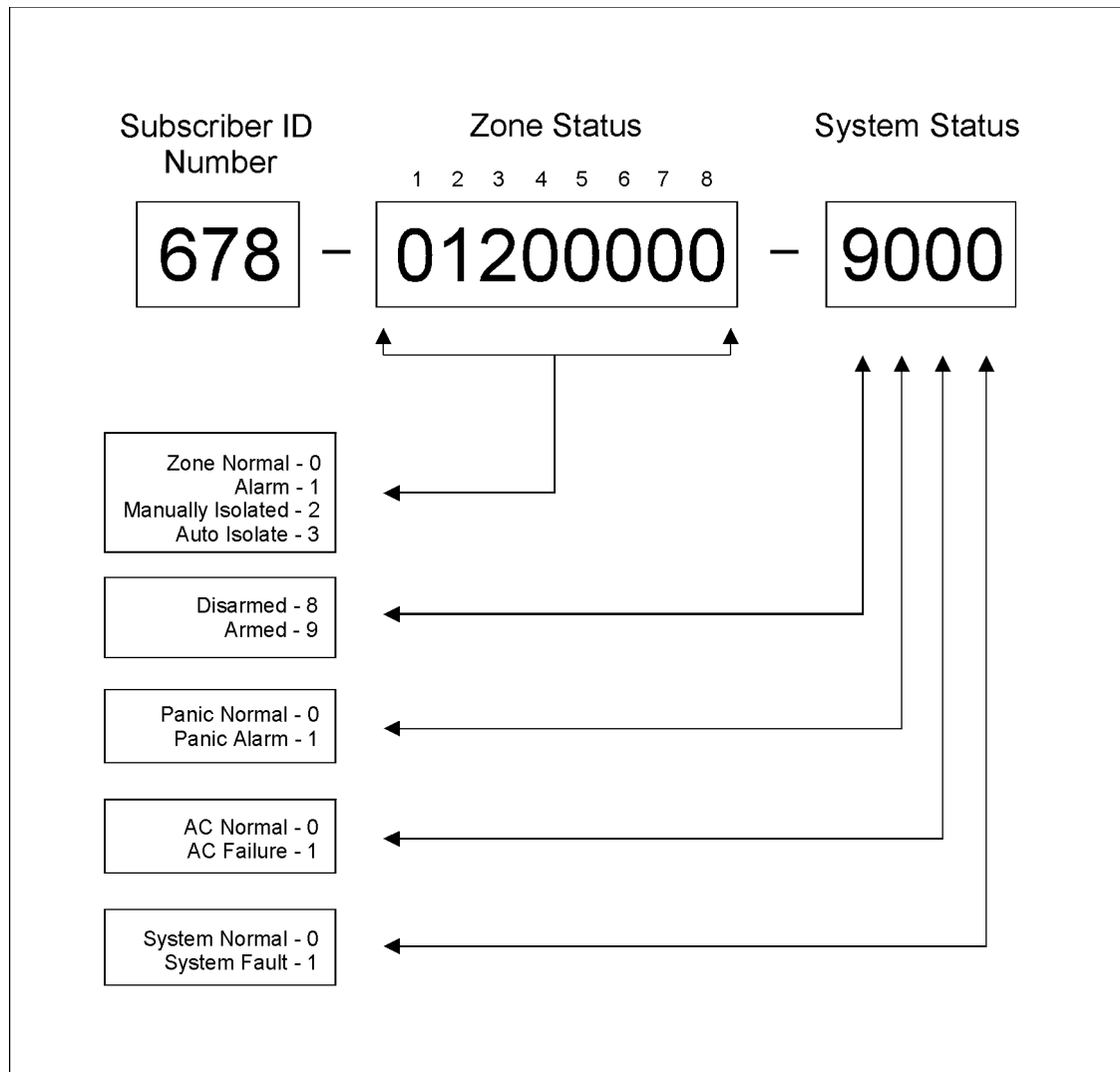


Figure 2: Basic Pager Display

The example in “Figure 2: 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.

Base Station Information

This section includes the following topics;

- *Primary Telephone Number*
- *Secondary Telephone Number*
- *Callback Telephone Number*
- *Dialling Format*
- *Handshake Tone*
- *Transmission Format*
- *Transmission Speed*
- *Subscriber ID Number*
- *Ring Count*

Base Station Information

This section outlines the programming information required to set up the *Solution 6+6 Wireless - AE* control panel when communicating with base station receivers. Typically these parameters specify the telephone numbers to call, the transmission formats and handshake tones.

<i>Digit Required</i>	<i>Number To Program</i>	<i>Digit Required</i>	<i>Number To Program</i>
0	10	8	8
1	1	9	9
2	2	Stop	0
3	3	*	11
4	4	#	12
5	5	Pause	13
6	6	Break	14
7	7		

Table 28: Dialling Digits

Primary Telephone Number

LOCATION 0 - 15

OOOOOOOOOOOOOOOOOO

This number will be called three times in an attempt to contact the base station receiver. If unsuccessful, the secondary number will then be called three times as well. This procedure will be repeated only once again after ten minutes if the first six attempts were unsuccessful (**ie.** Maximum of twelve call attempts).

Note: Substitute '10' for zeros, as a '0' indicates end of the phone number.

A zero is used to indicate the end of the telephone number. Therefore, the dialling sequence will be terminated when a zero appears. Entering the value '13' will initiate a 4 second pause in the dialling sequence.

Secondary Telephone Number

LOCATION 16 - 31

OOOOOOOOOOOOOOOOOO

Refer to the "Primary Telephone Number" for programming details.

Callback Telephone Number

LOCATION 32 - 47

OOOOOOOOOOOOOOOOOO

This location contains the telephone number that will be called if remote programming functions are required when using the Alarm Link Software (CC816) version 2.62 or higher. When triggered, the control panel will dial this phone number to establish a communications link with the remote computer.

Dialling Format

LOCATION 48

1

<i>No</i>	<i>Dialling Format</i>	<i>No</i>	<i>Dialling Format</i>
1	Australian DTMF (Touch Tone)	4	International DTMF (Touch Tone)
2	Australian Decadic	5	Reversed Decadic (10 minus 1)
3	Alternating DTMF & Australian Decadic	6	Alternating DTMF & Reversed Decadic

Table 29: Dialling Formats

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 version if the system 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 the Telephone Anti-Jamming feature.

Handshake Tone**LOCATION 49****1**

No	Handshake Tones	No	Handshake Tones
1	Hi Lo Handshake (Contact ID)	4	No Handshake
2	1400 Hz Lo Speed (Ademco Tx At 1900Hz)	5	Pager Handshake
3	2300 Hz Lo Speed (Sescoa Tx At 1800 Hz)		

Table 30: Handshake Tones

This location sets the type of handshake required before data transmissions to the base station receiver will begin.

1. Hi Lo handshake tone is required when the control panel needs to communicate in Contact ID Format.
2. 1400 Hz handshake tone is required when the control panel needs to communicate in Ademco Lo Speed Format or Domestic Dialling Format.
3. 2300 Hz handshake tone is required when the control panel needs to communicate in Sescoa Lo Speed Format.
4. No handshake tone is not recommended.
5. Pager handshake tone is required when the control panel needs to communicate in Basic Pager Format.

Transmission Format**LOCATION 50****1**

No	Transmission Format	No	Transmission Format
1	Contact ID (Refer To Page 60)	7	Reserved
2	Reserved	8	Reserved
3	Reserved	9	Reserved
4	Reserved	10	Reserved
5	Reserved	11	Domestic (Refer To Page 62)
6	Reserved	12	Basic Pager (Refer To Page 64)

Table 31: Transmission Formats

Enter the desired transmission format here. This location selects the format that data will be transmitted in. This could be to a base station receiver, mobile phone or a basic pager.

Reserved**LOCATION 51****O****Subscriber ID Number****LOCATION 52 - 55****OOOO**

This code (Also used for Area 2 when partitioned) is transmitted to the base station receiver to identify the calling control panel.

Enter the desired Subscriber ID Number in the four locations provided. For Basic Pager Format, "LOCATION 52" is ignored and the first digit of the Subscriber ID Number required must go in "LOCATION 53". When using Domestic Dialling Format, the number of identification beeps will be the number that is programmed in "LOCATION 55". This gives the ability to identify between 15 different control panels calling the same telephone number.

LOCATION 60**8**

This location sets the number of rings before answering an incoming call. This should be set at an acceptable level bearing in mind one ring is “ring, ring/ring, ring” and that a ring count of 10 (20 rings) represents approximately 60 seconds. This location only has an effect if remote arming or Upload/Download is selected. If this location is programmed with a zero, then answering of incoming calls will be disabled irrespective of any programmed options.

Answering Machine Bypass

Answering machine bypass has been incorporated so that it is possible for you 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 large amounts of traffic on the telephone line (eg. 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, then hang up. If you call the control panel again within 45 seconds, the control panel will answer the call on the first ring and a connection will be established. This will prevent the answering machine or facsimile from answering the call. Refer to “LOCATION 184” on page 115 to enable “Answering Machine Bypass To Operate Only When 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 before hanging up. Wait a minimum of 6-8 seconds and then call the control panel again. The control panel will answer on the first ring. If you don’t wait the 6-8 seconds then the panel will not answer the call. Refer to “LOCATION 184” on page 115 to enable “Answering Machine Bypass To Operate Only When Armed”.

Note: You should set the ring count on the answering machine or fax machine to be higher than two rings. Four or six rings would be preferred.

Access Codes

This section includes the following topics;

- *User Codes*
- *User Codes 1-8*
- *User Codes 9-16*
- *User Code Priority Level*
- *Code Retries*

Access Codes

This section describes access codes that may be used to operate the control panel as well as to assign privileges and system functions for each user code holder. Two types of user codes exist within the system, the Installer Code and the User Codes. Each of these codes allows specific access and operation to the varied functions of the control panel.

Installer Code

LOCATION 56 - 59

1 2 3 4

This code is used to access the Installer's Programming Mode and can be one to four digits long. However, after power up, this code may be used to disarm the control panel if it is the first code used. The next time this code is used, access to Installer's Programming Mode will be gained.

User Codes 1-8

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 44.

User codes can be between one and four digits long. User codes 1-8 can have different priority levels allocated to them. The priority level controls the behaviour of the user code, allowing it to arm only or to arm and disarm etc. These priority levels can only be set by the installer.

2580 **8**
(Priority Level)

There are 16 user codes available that can be altered or deleted at any time by a Master Code holder. Refer to "Master Code Functions" for changing and deleting user codes on page 45.

User Codes 9-16

The control panel has the ability to be remotely armed and disarmed via remote radio transmitters. Up to eight remote users may be allocated for radio operation. Before the control panel will accept radio On/Off signals, you must teach the control panel which transmitter is used for each user code. User Codes 9-16 can not have any priority level allotted to them and they simply act as only arm/disarm codes.

Refer to "Remote Radio User Allocations" on page 123 to assign each remote radio user to the area's required if the control panel has been partitioned.

Teaching Radio User Codes

Teaching radio user codes can be performed by using the Master Code Function number one. Refer to "Changing Or Deleting Remote Radio User Codes" on page 46 for more information.

User Code Priority Level

There are seven different priority levels that can be allocated to user codes 1-8. Each level allows or restricts the functions that different users can perform.

Note: Once user code priority levels 4, 6 and 12 have been allocated 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 and 12 will be able to isolate zones using the method “Code To Isolate”.

Priority Level	Description
0	Arming & Disarming
1	Arming Only
2	Patrolman Code
4	Arming/Disarming + Code To Isolate
6	Patrolman Code + Code To Isolate
8	Arming/Disarming + Master Code Functions
12	Arming/Disarming + Master Code Functions + Code To Isolate

Table 32: Priority Selections

0 Arming & Disarming

This priority level allows the user code holder to arm and disarm the system.

1 Arming Only

This priority level allows the user code holder to arm the system but not disarm it. Resetting an alarm which has occurred during the disarmed state (**ie.** A 24 hour alarm) is allowed.

2 Patrolman Code

A Patrolman Code will allow you to issue a user code which will only disarm the system after an alarm has occurred. This will prevent unauthorised use of the code. A Patrolman Code can always arm the system. This code is designed to work in conjunction with Open/Close reports to gain maximum benefit. Refer to “LOCATION 179” on page 109 for programming Open/Close reports to be transmitted only after an alarm has occurred.

4 Arming/Disarming Allowed + Code To Isolate

This priority level allows arming and disarming of the control panel. Isolating of zones will only be allowed by using the method “Code To Isolate” once this priority level has been set. Refer to “Isolating Zones” on page 32.

6 Patrolman Code + Code To Isolate

This priority level allows the Patrolman Code to disarm the system once an alarm has occurred. Isolating zones will only be allowed by using the method “Code To Isolate” once this priority level has been set. A Patrolman Code can always arm the system.

8 Arming/Disarming + Master Code Functions

This priority level allows arming and disarming of the control panel and the ability to carry out any of the Master Code Functions described on page 44. More than one user code can be allocated to this priority level.

12 Arming/Disarming + Master Code Functions + Code To Isolate

This priority level allows arming and disarming of the control panel and the ability to carry out any of the Master Code Functions described on page 44. More than one user code can be allocated to this priority level. Isolating zones will only be allowed by using the method “Code To Isolate” once this priority level has been set.

LOCATION 61-65 2580	User 1 8	LOCATION 81-85 15 15 15 15	User 5 0
LOCATION 66-70 15 15 15 15	User 2 0	LOCATION 86-90 15 15 15 15	User 6 0
LOCATION 71-75 15 15 15 15	User 3 0	LOCATION 91-95 15 15 15 15	User 7 0
LOCATION 76-80 15 15 15 15	User 4 0	LOCATION 96-100 0 15 15 15	User 8 1

Priority Level	Arm	Disarm	Patrolman Code	Standard Isolating	Master Code Functions	Code To Isolate
0	✓	✓		✓		
1	✓			✓		
2	✓		✓	✓		
4	✓	✓				✓
6	✓		✓			✓
8	✓	✓		✓	✓	
12	✓	✓			✓	✓

Table 33: Priority Levels

User code 32 is used to report events carried out via any of the following methods.

- Arming and disarming via remote radio control via either a keyswitch zone or Radio Key/Keyswitch Interface (CC813) being used.
- Arming and disarming via Alarm Link Software (CC816).
- Arming remotely over the telephone.
- Single button arming/disarming in AWAY mode or STAY mode.

Note: If any user code is programmed with a priority which allows the “Code to Isolate” method, Isolating zones via the “Standard Isolating” method will be disabled for all users.

Code Retries

LOCATION 102

6

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 control panel will carry out the following;

1. Activate the sirens and strobe connected to the control panel. Refer to “LOCATION 181” on page 112 to enable “Access Denied To Be Silent”.
2. Shutdown all codepads (Including “CP-5 Area Addressable (CP500A)” codepads or “CP-5 Master Partitioned (CP500P)” codepads) that are connected and lock them out for the time period programmed in “LOCATION 174” on page 104.
3. Send an “Access Denied” report to the base station receiver. Refer to “LOCATION 135” on page 85 to enable or disable this option.

Each time the control panel is armed or disarmed, the counter is reset. The number of attempts can be programmed between 1 - 15. If you program zero into this location, the code attempts are unlimited and the three points listed above will not take place. This function works when the control panel is in the armed or disarmed state.

Zone Programming

This section includes the following topics;

- *Zone Programming*
- *Tamper Zones*
- *Zone Types*
- *Zone Options*
- *Keyswitch Zone Options*
- *Wiring Diagrams For Keyswitch Zones*
- *Zone Pulse Count Handover*
- *Zone Pulse Count Time*
- *EOL Resistor Value*
- *Day Alarm Resetting*
- *Day Alarm Latching*

Zone Programming

Each zone contains five locations. The first four locations determine how the zone operates and the last location contains the dialler reporting information.

Zone Operation Information

Zone Type	This location sets the type of zone required (eg. Delay 1, Instant etc).
Zone Options	This location controls the zone options (eg. Lockout Siren, Silent etc).
Zone Pulse Count	This location sets how many times the zone must be triggered within the time frame specified in the next parameter "Zone Pulse Count Time" before registering an alarm condition.
Zone Pulse Count Time	This parameter sets the time frame for the number of pulses to occur in before causing an alarm.

Zone Reporting Options

This location represents the dialling information for each zone when transmitting to the base station receiver. Options 1 and 2 may be added together to enable the control panel to transmit zone alarm reports and zone restore reports to the base station receiver.

Report Option	Description
0	Disable Zone Reporting
1	Enable Zone Alarm Report
2	Enable Zone Restore Report



Note: This control panel has the ability of having zones 1-6 either wireless or hard wired. For wireless zone operation, refer to "Enable/Disable Wireless Zones" on page 39 for more information.

Tamper Zones

Tamper zones are fixed 24 hour zones. Tamper zones are not programmable like burglary zones.

Tamper zones when unsealed, in either the armed or disarmed state, will cause an alarm. This alarm condition will be displayed on the codepad by the relevant zone indicator flashing very quickly (0.1 sec On / 0.1 sec Off).

If you arm the system with a tamper zone unsealed, the zone indicator of that zone will flash (2 sec On / 1 sec Off) to indicate that the zone has been left open. Burglary (parent) zones which are left open when the system is armed will be indicated by constantly illuminated zone indicators.

Tamper zones will be displayed on the codepad by their corresponding zone indicator (eg. If a tamper zone 1 becomes unsealed, the codepad will then display zone 1). **If an alarm occurs on a burglary zone as well as it's parallel tamper zone in the same arming cycle, only the burglary (parent) zone will be indicated on the codepad. Event Memory Recall Mode will however show that two alarms had occurred. Individual reports will be sent via the dialler for all alarm events.**

Tamper zones when reporting to the base station receiver report as zones 9 - 14. This is done to enable the monitoring station to tell the difference between burglary and tamper zones. Refer to "Point ID Codes" on page 59.

If a burglary (parent) zone is programmed to be silent or lockout dialler/lockout siren, the tamper zone which is connected in parallel to that burglary (parent) zone will also become silent or lockout dialler/lockout siren.

Zone Types

There are thirteen different zone types to choose from. Each zone has the ability to be programmed as any of the types listed below.

Zone Type	Description	Zone Type	Description
0	Instant	8	Delay 1 + Isolated In STAY Mode
1	Handover	9	Delay 2 + Isolated In STAY Mode
2	Delay 1	10	Reserved
3	Delay 2	11	Keyswitch
4	Reserved	12	24 Hour Burglary
5	Reserved	13	24 Hour Fire
6	Instant + Isolated In STAY Mode	14	Chime Only (Follow Me)
7	Handover + Isolated In STAY Mode	15	Zone Not Used

Table 34: Zone Types

0 Instant Zone

An instant zone will sound the sirens and operate the dialler as soon as it registers as unsealed after the exit time has expired.

1 Handover Zone

A handover zone will act as an instant zone if it is triggered by itself. If it is triggered after a delay zone, the remaining delay time will handover from that zone to the handover zone. Handover may be sequential or random. Handover of zones are defaulted to be sequential. Refer to “System Options 2” on page 112 for more information.

2 Delay 1 Zone

A delay 1 zone will have a delay time determined by the value in “Entry Timer 1” as found on page 102.

3 Delay 2 Zone

A delay 2 zone will have a delay time determined by the value in “Entry Timer 2” as found on page 102.

6 Instant + Isolated In STAY Mode

This zone will act as an instant zone when armed in AWAY mode, but will be automatically isolated when the system is armed in STAY mode.

7 Handover + Isolated In STAY Mode

This zone will act as a handover zone when armed in AWAY mode, but will be automatically isolated when the system is armed in STAY mode.

8 Delay 1 + Isolated In STAY Mode

This zone will act as a delay 1 zone when armed in AWAY mode, but will be automatically isolated when the system is armed in STAY mode.

9 Delay 2 + Isolated In STAY Mode

This zone will act as a delay 2 zone when armed in AWAY mode, but will be automatically isolated when the system is armed in STAY mode.

11 Keyswitch Zone

A keyswitch zone is used when you need to connect a keyswitch to operate the system. Refer to “Keyswitch Zones Options” on page 78 for selecting options such as momentary, toggle etc.

Note: If tamper zones have been enabled, the tamper zone connected in parallel to the keyswitch zone in a non-partitioned system, will not trigger. All other tamper zones will work normally.

12 24 Hour Burglary Zone

A 24 hour burglary zone is always ready to trigger the horn speaker, bell and strobe regardless of whether the system is in the armed or disarmed state.

13 24 Hour Fire Zone

A 24 hour fire zone is always ready to trigger the 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.

14 Chime Zone (Follow Me)

A chime only 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 being sealed or unsealed. Chime zones require EOL resistors and they will register at the remote codepad. These zones do not effect forced arming. Refer to Event Type “4,5” on page 95 for programming an output if required. **If tamper zones are enabled, the tamper zone connected in parallel to any chime zone will not operate.**

15 Zone Not Used

If a zone is not used, program the zone type as a fifteen (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 Options

Zone Option	Description
1	Lockout Siren
2	Lockout Dialler
4	Silent Alarm
8	Sensor Watch

Table 35: Zone Options

1&2 Lockout Siren & Lockout Dialler

Lockout means one activation per arming cycle (**ie.** 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 or dialler to operate once more. As can be seen by “Table 35: Zone Options”, the sirens can be locked out but still leave the dialler to send all reports to the base station receiver by programming Zone Option 1. Programming Zone Option 2 will lockout the dialler but leave the sirens to be reset. Programming Zone Option 3 (ie. 1+2=3), will lockout both the sirens and dialler. Restore signals are sent when the system is disarmed.

The control panel performs lockout different to most other 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 principle**. The remaining zones will continue to report if they are triggered again.

Note: Refer to “Swinger Shutdown” on page 105 to determine the amount of times the siren and dialler can be triggered before any lockout options will take effect.

4 *Silent Alarm*

A zone programmed to be silent will not trigger the HORN SPEAKER, RELAY, STROBE or EDMSAT outputs. The dialler and all other programmable outputs will function as per their particular programming.

8 *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 the zone over a programmed time period.

Refer to “LOCATION 172-173” on page 103 to determine 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 control panel is in the disarmed state. Every time the control panel is armed, the counter pauses calculating. It continues calculating the next time the system is disarmed.

Example

If sensor watch is set for 2 in a situation where the 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, the following table relates to the options available to that keyswitch input.

Keyswitch Zone Option	Description
0	Arm and Disarm
1	Arm Only
2	Disarm Only
4	Enabled = Arm and/or Disarm In STAY Mode Disabled = Arm and/or Disarm In AWAY Mode
8	Enabled = Keyswitch Is Momentary Operation Disabled = Keyswitch Is Toggle Operation

Table 36: Keyswitch Zone Options

Note: Options 1 and 2 should not be used together as they are direct opposites.

0 Arm/Disarm

If this option is selected, when the keyswitch zone has been triggered, it will either arm or disarm the system by using either a momentary or toggle keyswitch.

1 Arm Only

If this option is selected, when the keyswitch zone has been triggered, it will arm the system. Disarming the system will not be possible via the keyswitch zone if this option has been enabled.

2 Disarm Only

If this option is selected, when the keyswitch zone has been triggered, it will disarm the system. Arming the system will not be possible via the keyswitch zone if this option has been enabled.

4 Arm/Disarm In STAY Mode Or AWAY Mode

This option allows you to select whether the system will arm and/or disarm in AWAY mode or STAY mode when operated from the keyswitch zone.

If this option has been enabled, operating the keyswitch zone will cause the system to arm and/or disarm in STAY mode. If this option is not enabled, the system will arm and/or disarm in AWAY mode.

8 Momentary Or Toggle Operations

This option allows you to select whether or not the keyswitch zone input is to be operated in momentary or toggle mode.

If this option has been enabled, the keyswitch zone will operate as a momentary switch input. If this option is not enabled, the keyswitch zone will operate as a toggle switch input.

Any or all of these options may be set by simply adding the number of options together and programming the correct number (**Eg.** If options 0, 4 and 8 are required, a 12 should be programmed (0+4+8=12)).

When arming and disarming the system using the keyswitch zone input, the control panel can provide an audible feedback via the horn speakers. Refer to “Table 37: Audible Feedback Via Horn Speaker Using A Keyswitch Zone” for the number of beeps to be heard when using a keyswitch zone. If the system is dialling to a base station receiver with open and close reports enabled, the keyswitch zone will report open and close reports as user code number 32.

Event	Number Of Beeps
Disarmed	1 Beep
Armed In AWAY Mode	2 Beeps
Armed In STAY Mode	1 Two-Tone Beep

Table 37: Audible Feedback Via Horn Speaker Using A Keyswitch Zone

Keyswitch Zone Options When Used In Partitioning Mode

It is possible to use the keyswitch input zone when the control panel has been partitioned. By connecting the keyswitch to the parent zone (**ie.** 3K3 EOL), the keyswitch input will function for Area 1. Connecting the keyswitch to the tamper zone (**ie.** 6K8 EOL) will cause the keyswitch to function for Area 2. When a zone is set to keyswitch type, it is no longer possible to map the keyswitch zone to a zone indicator on the codepad.

Wiring Diagrams For Keyswitch Zones

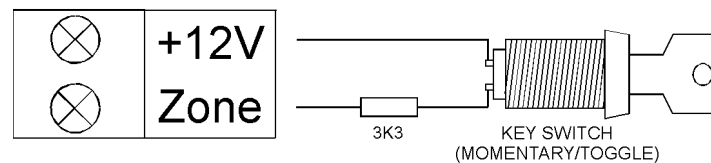


Figure 3: Wiring Diagram For Keyswitch Zone

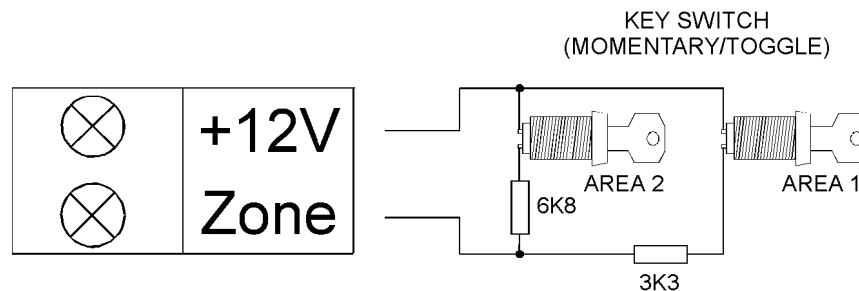


Figure 4: Wiring Diagram For Keyswitch Zone In Partitioning

Note 1: When choosing an EOL resistor value other than the default 3K3 for a non-partitioned system, the keyswitch zone must still use a 3K3 EOL resistor as shown in “Figure 3: Wiring Diagram For Keyswitch Zone”. The keyswitch zone will not operate with any other resistor value.

Note 2: When using a keyswitch zone in partitioning, to enable arming/disarming of Area 2, there is no need to enable split EOL resistors when not using tamper zones. Simply wire the zone as shown in “Figure 4: Wiring Diagram For Keyswitch Zone In Partitioning”.

Zone Pulse Count

Zone pulse count is the number of times a zone must be triggered before it registers as an alarm. The number of pulses vary between 0 to 15. The pulse count value is relative to a time frame (**ie.** The number of pulses must be present during a particular time frame). Refer to “Table 39: Zone Pulse Count Times” on page 80 for time frame settings.

No	Number Of Pulses	No	Number Of Pulses
0	None	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 38: Number Of Pulses

Note: A pulse count of zero disables both the pulse count and pulse count time. The zone will cause an alarm as soon as it becomes unsealed. The loop response time in this instance defaults to 150 ms.

Zone pulse count does not effect the LED indicators on a codepad. The triggering of a zone will always illuminate the respective indicator but an alarm condition will not occur until the total number of pulses has been reached.

A zone programmed as a day alarm zone is not effected by any zone pulse count setting (**ie.** Zone pulse count is only relevant when the system is in the armed state except for 24 hour zone types).

Zone Pulse Count Handover

Any zone which registers one trigger pulse will automatically increment any other zones pulse count which has already registered at least one trigger pulse during its respective time frame in the same arming cycle. To enable this option, refer to “LOCATION 182” on page 113 for further details.

Note: 24 hour zones with pulse count setting will not handover any trigger pulse on that zone to another zone when this option has been enabled.

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.

Option	20 ms Loop Response Time Pulse Count Time	Option	150 ms Loop Response Time Pulse Count Time
0	0.5 Seconds	8	20 Seconds
1	1 Seconds	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 39: Zone Pulse Count Times

For zone pulse count time options 0-7, the zone loop response time is 20 ms and for the zone pulse count time options 8-15 the zone loop response time is 150 ms. Loop response is the length of time a zone must be triggered before it can register as unsealed or as a valid pulse.

Inertia sensors should use zone pulse count times 0-7, while PIR's should use the zone pulse count times 8-15.

Note: Zones which trigger for more than 10 seconds continuously will be considered unsealed and cause an alarm condition irrespective of any zone pulse count or zone time settings.

Zone
TypeZone
OptionZone
PulseZone Pulse
Count TimeZone Report
Option*Zones*

Zone 1	LOCATION 104-108 20003	Zone 2	LOCATION 109-113 10003	Zone 3	LOCATION 114-118 10003
Zone 4	LOCATION 119-123 00003	Zone 5	LOCATION 124-128 00003	Zone 6	LOCATION 129-133 120003

Zone Type	Description	Zone Type	Description
0	Instant	8	Delay 1 + Isolated In STAY Mode
1	Handover	9	Delay 2 + Isolated In STAY Mode
2	Delay 1	10	Reserved
3	Delay 2	11	Keyswitch
4	Reserved	12	24 Hour Burglary
5	Reserved	13	24 Hour Fire
6	Instant + Isolated In STAY Mode	14	Chime Only (Follow Me)
7	Handover + Isolated In STAY Mode	15	Zone Not Used

Table 40: Zone Types

EOL Resistor Value**4****LOCATION 103**

Option	Resistor Value	Option	Resistor Value
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)	12	Reserved
5	3K9 (Orange, White, Red)	13	Reserved
6	4K7 (Yellow, Violet, Red)	14	Reserved
7	5K6 (Green, Blue, Red)	15	Split EOL For 6 Tamper Zones (3K3, 6K8)
8	6K8 (Blue, Grey, Black, Brown)		

Table 41: EOL Resistor Values

The control panel has the ability to be programmed for different values of EOL resistors. This is a global parameter and will effect all six zones simultaneously. It gives the ability to fit the control panel into an existing installation without having to change the EOL resistors. This feature also increases the security of the system as there is twelve possible EOL resistor values that can be used. This makes it extremely difficult for anyone to tamper with the control panel.

If split EOL resistors has been selected, the control panel will look for twelve EOL resistors consisting of 6 x 3K3 and 6 x 6K8. Each zone input needs to be terminated with a 3K3 and a 6K8 resistor connected in parallel. The primary zones 1-6 require the 3K3 ohm resistor. The tamper zones 1-6 require the 6K8 ohm resistor

Note: It is not recommended to use split EOL with normally open contacts. If you are unsure of any resistor value, use a multimeter set on the ohms range for resistor value identification.

Caution should be exercised when using split EOL resistors to create 6 tamper 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 the parent zone and its associated tamper zone.

LOCATION 101

Option	Day Alarm Zones
1	Zone 1
2	Zone 2
4	Zone 3
8	Zone 4

Table 42: Day Alarm Zones 1-4

Day alarm enables a combination of zones to be monitored when 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. Refer to event types “0,14” and “0,15” on page 92 for further information when programming an output to operate with day alarm.

When the system is in the armed state, day alarm zones activate the sirens and dialler just as non day alarm zones do. When day alarm is activated, it ignores any zone pulse count settings that are programmed for that zone (**ie.** Zone pulse count is only relevant when the system is in the armed state).

Day Alarm Resetting

An output that is programmed as day alarm resetting will operate when a zone selected for day alarm is triggered. The output will reset when the zone returns to normal. This can only occur if the system is disarmed.

Day Alarm Latching

An output that is programmed as day alarm latching will operate when any zone selected for day alarm is triggered. The output will reset when the **AWAY** button is pressed. This can only occur if the system is disarmed. If the codepad buzzer is programmed to operate when a day alarm zone is triggered, all relevant zone indicators will flash while the codepad beeps once a second until the **AWAY** button is pressed.

Day Alarm Operation

Day alarm is turned on and off by one of two methods:

Method One: Enter the **MASTER CODE** followed by **7** and the **AWAY** button. Refer to “Master Code Functions” on page 44 for more details.

Method Two: Hold down the number **4** button. Refer to “Hold Down Functions” on page 52 for more details.

Three beeps means day alarm is turned on, two beeps means day alarm is turned off. If a zone has been programmed for day alarm, it can be isolated in the normal way so that it does not register as a day alarm zone. Only zones 1 to 4 can be programmed as day alarm zones.

Monitoring of zones 1-6 or tamper zones 1-6 can also be achieved by programming an output to mimic a zone. Refer to “Mimic Zone” on page 95 for further details.

No Of Beeps	Status
2	Day Alarm Turned Off
3	Day Alarm Turned On

Table 43: On/Off Indication Beeps For Day Alarm

Day Alarm In Partitioning

Day alarm operates independently for each area when the control panel is partitioned. Any area can turn day alarm on or off without effecting the other area. Refer to “Day Alarm Operation” on page 82 for further information on how to turn day alarm on and off.

Reporting Options

This section includes the following topics;

- *Report Options 1*
- *Report Options 2*
- *Report Options 3*
- *Test Reports*

Reporting Options

This section covers features that are involved with the reporting of the control panel. Monitoring of zones whether they are isolated from the system or more importantly that they are actually operating as well as monitoring the status of both AC and DC power to the control panel.

Report Options 1

LOCATION 134

15

Option	Description
1	Enable Zone Bypass Reports
2	Enable Zone Bypass Restore Reports
4	Enable Zone Trouble Reports
8	Enable Zone Trouble Restore Reports

Table 44: Report Option 1

1 Enable Zone Bypass Reports

A zone is bypassed when it is manually isolated. A “Zone Bypass” report (Contact ID Event Code 570) will be transmitted at the end of exit time for zones that have been manually isolated. 24 hour zones cannot be manually isolated, therefore they will never transmit bypass reports.

2 Enable Zone Bypass Restore Reports

A “Bypass Restore” report will be transmitted when the system has been disarmed. If the bypass restore code is not programmed, it can be assumed that the control panel will transmit a bypass restore report when an opening report is transmitted. All bypassed zones are automatically cleared when the system is disarmed.

4 Enable Zone Trouble Reports

A zone is in trouble when a zone 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 will not cause a trouble alarm as the restore for the previous alarm is still outstanding.

Note: If this option has been enabled, when a tamper zone is in trouble, a “Sensor Tamper Trouble” signal (Contact ID Event Code 383) will be transmitted to indicate that one or more tamper zones have been automatically isolated by the system.

8 Enable Zone Trouble Restore Report

A “Trouble Restore” reports will be transmitted when the zone reseals or when the system is disarmed (which ever happens first). A 24 hour zone will only restore when it reseals.

LOCATION 135

15

Option	Description
1	Enable Duress Reports
2	Enable Panic, Medical & Fire Reports
4	Enable Access Denied Reports
8	Enable Test Reports

Table 45: Report Options 2

1 *Enable Duress Reports*

A “Duress” signal (Contact ID Event Code 121) will be transmitted to the base station receiver or numeric pager when the number **9** is added to the end of any valid user code being used to disarm the system. This alarm will always be silent. A codepad duress alarm can be triggered during exit time (**ie.** If the system is armed then disarmed by adding the number **9** before exit time has expired, a duress report will be transmitted). Adding the number **9** to the end of a code when arming the system will not cause a codepad duress alarm.

2 *Enable Panic, Medical & Fire Reports*

A “Panic” alarm signal (Contact ID Event Code 120) will be transmitted to the base station receiver or numeric pager when either the **1** and **3** buttons or **STAY** and **AWAY** buttons are pressed simultaneously. This will cause an audible panic alarm to be triggered. Refer to “LOCATION 181” on page 112 if this is required to be silent. If Installer’s Programming Mode has been entered and a panic alarm is triggered, the programming mode will be terminated as the panic alarm has priority.

A “Fire” alarm signal (Contact ID Event Code 110) will be transmitted to the base station receiver or numeric pager when the **4** and **6** buttons on the codepad are pressed simultaneously. This is an audible alarm. If Installer’s Programming Mode has been entered and a fire alarm is triggered, the programming mode will be terminated as the fire alarm has priority.

A “Medical” alarm signal (Contact ID Event Code 100) will be transmitted to the base station receiver or numeric pager when the **7** and **9** buttons on the codepad are pressed simultaneously. This is an audible alarm. If Installer’s Programming Mode has been entered and a medical alarm is triggered, the programming mode will be terminated as the medical alarm has priority.

When this option is disabled, Codepad Medical and Codepad Fire alarms will not activate the sounding devices connected to the control panel.

4 *Enable Access Denied Reports*

An “Access Denied” signal (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 102” on page 104. This is an audible alarm. Refer to “LOCATION 181” on page 112 if you require this event to be silent.

An incorrect code attempt may consist of any of the following commands;

- Arming
- Disarming
- Changing User Codes
- etc.

8 *Enable Test Reports*

A “Test” report is a specific signal (Contact ID Event Code 602) 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.

LOCATION 136

15

Option	Description
1	Enable AC Mains Fail Reports
2	Enable Low Battery Reports
4	Enable Sensor Watch Reports
8	Enable Opening/Closing Reports

Table 46: Report Options 3

1 *Enable AC Mains Fail Reports*

An “AC Loss” signal (Contact ID Event Code 301) will be transmitted to the base station receiver when the AC mains supply has been disconnected for two minutes. A restore signal will be transmitted when the AC mains has been restored for two minutes. Refer to “LOCATION 183” on page 114 to enable an “AC Loss” signal to be transmitted to the base station receiver when the AC mains supply has been disconnected for 1 hour.

2 *Enable Low Battery Reports*

A “Battery Test Failure” signal (Contact ID Event Code 309) will be transmitted to the base station receiver when the backup 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. If this voltage falls below 10.5 volts for a period of 60 seconds, a low battery fault will be registered.

A dynamic battery test is performed every time the system (or an area) is armed, as well as every four hours from power up.

A restore signal will be transmitted the next time the system is armed and the dynamic battery test has passed or the four hourly dynamic battery test detects that the battery voltage has been restored.

4 *Enable Sensor Watch Reports*

A “Self Test Failure” report (Contact ID Event Code 307) will be transmitted to the base station receiver when a zone programmed for sensor watch has not been triggered during the sensor watch time. 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 faulted zone must be unsealed and resealed. Refer to “LOCATION 172-173” on page 103 for setting how many days a zone may remain sealed before registering as a fault.

8 *Enable Opening/Closing Reports*

An “Opening” report is transmitted to the base station receiver when the system is disarmed from the AWAY mode. A “Closing” report is transmitted at the end of exit time when the system is armed in the AWAY mode.

Refer to “LOCATION 179” on page 109 for Open/Close reports in STAY mode. To enable Open/Close reports only after a previous alarm, refer to “LOCATION 179” on page 109.

Test Reports**LOCATION 137-139****O** **OO**
(Repeat) (Hours)

<i>Location</i>	<i>Description</i>
137	Repeat Interval In Days
138	Actual Required Hour Of The Day (Tens Digit)
139	Actual Required Hour Of The Day (Units Digit)

Table 47: Test Report Locations

A “Test” report is a specific signal (Contact ID Event Code 602) that is transmitted to the base station receiver and is normally used to test the dialling and reporting function 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 time of the day the report is required as well as how often to transmit the report. Test reports are transmitted on a daily basis ranging from every day to every 15 days. Refer to “Installer Code Functions” on page 38 to set the first test report.

Note: Test reports will not report if the time set to report is programmed as 2400 hours or 0000 hours.

If test reports are only required when the system is armed, refer to “LOCATION 184” on page 115 to enable “Send Test Reports Only When The System Is Armed”.

Programmable Outputs

This section includes the following topics;

- *Event Types*
- *Polarity*
- *Timing*
- *Pulsing Polarities*
- *One Shot Polarities*

Programmable Outputs

The control panel has three fully programmable outputs on the main PCB and one other programmable output which operates the codepad buzzer. These three outputs are factory defaulted to operate a horn speaker, strobe and an internal screamer.

Programmable outputs require four parameters to be programmed in order to operate correctly.

Parameter 1	<i>When to operate.</i>
Parameter 2	<i>How to operate.</i>
Parameter 3	<i>How long to operate for.</i>
Parameter 4	<i>How often to operate.</i>



Event Type
(When)



Polarity
(How)



Time
(Base)



Time
(Multiplier)

When to operate: is selected from the output event types listed on page 91. Each digit should be entered into the two corresponding locations for the output required.

How to operate: is selected from “Table 48: Event Type Polarities” on page 97. 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” on page 98 for further details.

How often: to operate for is determined by a time base and a multiplier. Refer to “Timing” on page 98 for further details.

Redirecting Outputs To The Codepad Buzzer

Multiple event types can be redirected 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 event type. When you are satisfied that the output is functioning correctly, change the first digit of the event type (**ie.** The tens digit) by adding the value “8”.

Example

3,0 Communications Failure

This event will operate when the dialler has made all possible attempts to reach the base station receiver. It will reset when the first kiss off is received. This event type is not applicable to domestic reporting.

To redirect the above event type to operate a codepad buzzer, program the event type of the output as below:

11,0 Communications Failure

This event will operate when the dialler has made all possible attempts to reach the base station receiver. It will reset when the first kiss off is received. This event type is not applicable to domestic reporting.

The codepad buzzer will now operate instead of the selected output. This output is no longer functional and cannot be used for any other event type.

Event Types

There are approximately sixty different event types to choose from. Each event type is designated by two numbers. These numbers need to be programmed into the appropriate locations of the output being used to indicate **when** the output should operate.

Note: All reset times are in reference to polarity 1 and 8. Reset times will vary depending on the polarity used.

- O,0 EDMSAT Satellite Siren (Output 1 Only)**
This event controls all functions of an EDMSAT satellite siren (SS914). The option of speaker indication beeps will not operate via the EDMSAT for remote operations.
- O,0 EDMSTU Securitel Unit (Strobe Output Only)**
This event controls all functions of an EDMSTU (CS800) securitel unit.
- O,1 System Armed**
This event will operate when the system is armed in the AWAY mode or STAY mode. It will reset when the system is disarmed. When the system has been partitioned, this event will operate when **both** areas are armed in either AWAY or STAY mode.
- O,2 System Disarmed**
This event will operate when the system is in the disarmed state. It will reset when the system becomes armed. When the system has been partitioned, this event will operate when **both** areas are disarmed.
- O,3 Armed In STAY Mode**
This event will operate when the system is armed in STAY mode and will reset when the system is next disarmed. When the system has been partitioned, this event will operate when **either** area is armed in the STAY mode.
- O,4 Armed In AWAY Mode**
This event will operate when the system is armed in AWAY mode and will reset when the system is next disarmed. When the system has been partitioned, this event will operate when **either** area is armed in the AWAY mode.
- O,6 Exit Warning With All Zones Sealed Or Entry Warning**
This event will operate during exit time if all zones are sealed and will reset at the end of exit time. The next time it will operate will be during entry time and it will reset at the end of entry time. When the system has been partitioned, this event will only operate the codepad for the specific area concerned.
- O,7 Exit Warning**
This event operates while the exit timer is timing when the system is armed in either AWAY mode or STAY mode. It will reset at the end of exit time. When the system has been partitioned, this event will only operate the codepad for the specific area concerned.
- O,8 Exit Warning Finished**
This event operates when the exit timer times out after the system is armed in either AWAY mode or STAY mode. It will reset when the system is disarmed. When the system has been partitioned, this event will only operate the codepad for the specific area concerned.
- O,9 Kiss Off After End Of Exit Time**
This event will operate after the first successful transmission to the base station receiver at the end of exit time. It will reset the next time the system is disarmed.
- O,¹¹ Entry Warning**
This event operates when either of the two entry timers are timing. It will reset when the entry time expires or when an alarm occurs. When the system has been partitioned, this event will only operate the codepad for the specific area concerned. This output will also operate when the “Entry Guard Timer” has triggered in STAY mode.

- 0,12 Entry Warning + Day Alarm (Resetting)**
This event type combines both day alarm and entry warning so that either of these events will cause the output to operate. It will reset when the entry time expires or when an alarm occurs. This output will also operate when the “Entry Guard Timer” has triggered in STAY mode.
- 0,14 Day Alarm Resetting**
This event operates when a day alarm zone has triggered. It will reset when the zone returns to normal. This can only occur when the system is disarmed. When the system has been partitioned, this event will only operate the codepad for the specific area concerned.
- 0,15 Day Alarm Latching**
This event will operate whenever a zone selected as day alarm has triggered. It will reset when the **AWAY** button is pressed. This can only occur if the system is disarmed. When the system has been partitioned, this event will only operate the codepad for the specific area concerned.
- 1,0 Day Alarm Enabled**
This event will operate as soon as day alarm is enabled. It will reset when day alarm is turned off. Refer to “Day Alarm Operation” on page 82 for further information on how to turn day alarm on and off.
- 1,4 AC Fail**
This event will operate as soon as the AC mains has failed without any time delays. It will reset as soon as the AC mains has returned again without any time delays.
- 1,5 Low Battery**
This event will operate after a dynamic battery test detects the battery has failed or if the battery voltage falls below 10.5 volts for more than 60 seconds. This will reset only after a dynamic battery test reports the battery as being normal.
- 1,6 Horn Speaker Monitor Fail**
This event will operate if the horn speaker has been disconnected. It will reset when the horn speaker has been reconnected. Refer to “LOCATION 180” on page 111 to enable monitoring of the horn speaker.
- 1,7 Sensor Watch Fault**
This event will operate when the zone(s) programmed for “Sensor Watch” have not triggered during the programmed time period whilst the system is in the disarmed state. Refer to “LOCATION 172-173” on page 103 to set the number of days. Refer to “Zone Options” on page 76 to enable each zone for sensor watch.
- 1,8 Codepad Medical Alarm**
This event will operate when a medical alarm (audible) is initiated from the codepad and will reset the next time the system is armed or disarmed. Refer to “Codepad Medical Alarm” on page 31 to initiate a medical alarm from the codepad.
- 1,9 Codepad Fire Alarm**
This event will operate when a fire alarm (audible) is initiated from the codepad and will reset the next time the system is armed or disarmed. Refer to “Codepad Fire Alarm” on page 31 to initiate a fire alarm from the codepad.
- 1,10 Codepad Panic**
This event will operate when a panic alarm (audible or silent) is initiated from the codepad and will reset the next time the system is armed or disarmed. Refer to “Codepad Panic Alarm” on page 31 to initiate a panic alarm from the codepad. Refer to “LOCATION 181” on page 112 to enable codepad panic to be silent.
- 1,11 Codepad Duress**
This event will operate when a duress alarm is initiated from the codepad and will reset the next time the system is armed. Refer to “Codepad Duress Alarm” on page 31 on how to initiate a duress report from the codepad.
- 1,12 Codepad Tamper**
This event will operate when the code retry number has been reached and will reset when the system is next armed or disarmed. Refer to “LOCATION 102” on page 104 to set the number of code retries.

1, ¹³

Speaker Beeps

This event will function during all remote radio/keyswitch operations allowing you to fit a buzzer or light to provide status indication for the end user. "LOCATION 226" for horn speaker beeps does not need to be set for this output event type to operate. Disarmed = 1 Beep, Armed in AWAY mode = 2 Beeps, Armed in STAY mode = 1 Two-Tone Beep.

1, ¹⁴

Horn Speaker (Output 1 Only)

This event only operates on OUTPUT 1 and should be programmed whenever an 8 ohm horn speaker is required. Refer to "LOCATION 175" on page 105 for setting the siren run time and "LOCATION 176" on page 105 for setting the siren sound rate. To enable monitoring of the horn speaker, refer to "LOCATION 180" on page 111.

1, ¹⁵

Sirens Running

This event will operate while the sirens are running and will reset when the siren run time expires.

2,0

Strobe Operating

This event will operate when an alarm occurs and will reset when a valid user code has been entered.

2,1

Silent Alarm

This event will operate whenever a silent alarm zone has triggered. It will reset when the siren run time expires or an audible alarm has triggered. Refer to "Zone Options" on page 76 for programming a zone to be silent.

2,2

Alarm When In STAY Mode

This event will operate whenever an audible or silent alarm zone has triggered when the system is armed in the STAY mode. It will reset when the system has been disarmed.

2,3

Alarm When In AWAY Mode

This event will operate whenever an audible or silent alarm zone has triggered when the system is armed in the AWAY mode. It will reset when the system has been disarmed.

2,4

Mimic System Fault

This event will operate as soon as any system fault occurs including if the AC mains has failed without any time delays. It will reset as soon as the system fault or the AC mains has returned without any time delays.

2,5

Fire Alarm Resetting

This event will operate when a 24 hour fire zone is triggered. It will reset when siren run time expires.

2,6

Fire Alarm Latching

This event will operate when a 24 hour fire zone is triggered and will reset when the control panel is armed or disarmed.

2,7 Fire Alarm Verification

This feature is used on some commercial fire 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, then the voltage to the smoke detector is disconnected for 15 seconds then reapplied. No alarm is 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 another trigger is detected within 3 minutes of the first trigger, (**ie** 3 pulses in 3 minutes) then a fire alarm is registered. Power to the detector will be maintained to facilitate unit identification via detector memory.

To configure an output for this feature use the following settings.

EVENT TYPE = 2,7 POLARITY = 10 TIME BASE = 2 MULTIPLIER = 15

The zone which the fire/smoke sensor is connected to should be programmed as follows.

ZONE TYPE = 13 OPTION = 0 PULSE = 3 TIME = 14

This output should be connected to the negative side of any fire/smoke detection devices.

2,8 Remote Control 1 Via Alarm Link Software

2,9 Remote Control 2 Via Alarm Link Software

2,10 Remote Control 3 Via Alarm Link Software

These three output event types can be remotely operated via the Alarm Link Software (CC816).

2,11 Radio Control Output

This output event type will operate when the remote radio user presses button 2 once. This output will operate when the control panel is either disarmed or armed in the AWAY mode or STAY mode. If the control panel has been partitioned, any remote radio user from either area can activate this output event type.

2,13 Radio Control Output Only When Disarmed

This output event type will operate when the remote radio user presses button 2 once. This output will only operate when the control panel is disarmed. If the control panel has been partitioned, both areas will need to be disarmed before this event type will activate. Any remote radio user from either area can activate this output event type.

2,15 Communications Failure After 3 Unsuccessful Calls

This event will operate when the control panel has made 3 unsuccessful calls. It will reset when **all** messages have been transmitted (**ie**. When the buffer is empty or when all possible attempts have been made).

3,0 Communications Failure

This event will operate when the control panel has made all possible attempts to reach the base station receiver. It will reset when the first kiss off is received. **This event type is not applicable to domestic reporting.**

3,1 Dialler Disabled

This event will operate as long as the dialler has been disabled and will reset when the dialler has been enabled again. Option 1 in "LOCATION 178" will need to be disabled for this event type to operate.

3,2 Dialler Active

This event will operate when the dialler is on line and will reset when the dialler releases the line.

3,3 Ring Detect

This event will operate when an incoming call has been detected. It will reset when the ringing stops or when the call is answered.

3,5	Mimic Zone 1	3,¹³	Mimic Tamper Zone 1
3,6	Mimic Zone 2	3,¹⁴	Mimic Tamper Zone 2
3,7	Mimic Zone 3	3,¹⁵	Mimic Tamper Zone 3
3,8	Mimic Zone 4	4,0	Mimic Tamper Zone 4
3,9	Mimic Zone 5	4,1	Mimic Tamper Zone 5
3,¹⁰	Mimic Zone 6	4,2	Mimic Tamper Zone 6

These event types mimic the zone inputs. They operate when the zone is unsealed and will reset when the zone is sealed. They will operate regardless of the zone type chosen (ie. A zone programmed as “Not Used” can still operate a mimic output). This feature operates when the system is either armed or disarmed.

4,5 Global Chime Only

This event will operate when any zone programmed as “Chime Only” has triggered. It will reset when the zone reseals. Refer to “Chime Zone” on page 76 for programming zones to be “Chime Only”.

4,6 Zone Not Sealed

This event will operate whenever a burglary zone is in the unsealed state. Chime zones and isolated zones do not operate this event type.

4,7 Zone Not Sealed After Exit Time

This event will operate if any burglary or fire zone remains unsealed at the end of exit time when arming the system in either the AWAY mode or STAY mode. It will reset as soon as all zones are sealed or when the system has been disarmed. Chime zones will not operate this event type.

4,¹⁰ Area 1 Has Zone Unsealed

This event will operate if any zone in Area 1 is unsealed when the system is armed or disarmed.

4,¹¹ Area 2 Has Zone Unsealed

This event will operate if any zone in Area 2 is unsealed when the system is armed or disarmed.

4,¹⁴ Sirens Running + Speaker Beeps

This event type will operate while the sirens are running and will reset when the siren run time expires. If the control panel has been set up for remote radio users, the output will beep to indicate that the system has been armed or disarmed in either the AWAY mode or STAY mode.

4,¹⁵ Strobe Operating + Speaker Beeps

This event type will operate when an alarm occurs and will reset when a valid user code has been entered. If the control panel has been set up for remote radio users, the output will beep to indicate that the system has been armed or disarmed in either the AWAY mode or STAY mode.

5,0 Remote Radio Zone Low Battery Alarm

This event will operate when any of the remote radio zone transmitters has detected a low capacity battery.

5,2 Area 1 In Alarm

This event will operate when an alarm condition has occurred in Area 1. The alarm condition may occur at any time when a 24 hour alarm is activated, or when a zone is activated when Area 1 has been armed in either AWAY mode or STAY mode. An alarm condition in Area 2 will not effect this event type.

5,3 Area 2 In Alarm

This event will operate when an alarm condition has occurred in Area 2. The alarm condition may occur at any time when a 24 hour alarm is activated, or when a zone is activated when Area 2 has been armed in either AWAY mode or STAY mode. An alarm condition in Area 1 will not effect this event type.

5,6 Area 1 Is Armed

5,¹⁰

Area 1 Is Disarmed

Event type 5,6 will operate when Area 1 has been armed in either AWAY mode or STAY mode. Event type 5,10 will operate when Area 1 has been disarmed.

5,7**Area 2 Is Armed**

Event type 5,7 will operate when Area 2 has been armed in either AWAY mode or STAY mode. Event type 5,11 will operate when Area 2 has been disarmed.

5,¹¹**Area 2 Is Disarmed****5,¹⁴****Any Areas Armed**

Event type 5,14 will operate when either Area 1 or Area 2 has been armed in AWAY mode or STAY mode. It will reset when both areas are disarmed.

5,¹⁵**Any Areas Disarmed**

Event type 5,15 will operate when either Area 1 or Area 2 has been disarmed. It will reset when both areas are armed in either AWAY mode or STAY mode.

6,0**Area 1 Codepad Data****6,1****Area 2 Codepad Data**

Event types 6,0 and 6,1 will transmit data to the particular “CP-5 Area Addressable (CP500A)” codepads intended for use in partitioning. The codepads will display all indicators relevant to their own area. This gives the impression to the user that they are the only ones operating the system. Refer to “Codepad Connections For Partitioning” on page 124 for more information.

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.

<i>Polarity</i>	<i>Description</i>	<i>Polarity</i>	<i>Description</i>
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 48: Event Type Polarities

0

Output Not Used

If an output is not required for use, the polarity should be programmed as zero. This is the only location that stops an output from working.

1

Normally Open, Going Low

This polarity is normally open circuit and will switch to zero volts when the event occurs. It will switch back to open circuit when the event restores. Time parameters are not applicable to this polarity.

2

Normally Open, Pulsing Low

This polarity is normally open circuit and will switch to pulsing zero volts when the event occurs. It will switch back to open circuit when the event restores.

3

Normally Open, One Shot Low

This one shot polarity is normally open circuit and will switch to zero volts when the event occurs. It will switch back to open circuit when the time parameter setting has expired. This one shot time setting will always run its full duration. It cannot be manually reset.

4

Normally Open, One Shot Low With Retrigger

This one shot polarity is normally open circuit and will switch to zero volts when the event occurs. Each time the output type is retriggered, it will **lengthen** the time of the one shot timer. It will switch back to open circuit when the one shot time has expired.

This polarity is ideally suited for lighting control. A PIR detector can be used to trigger an output for turning on lights. While ever there is movement, the PIR detector will keep re-triggering the output and lengthen the time the lights will remain switched on.

5

Normally Open, One Shot Low With Reset

This one shot polarity is normally open circuit and will switch to zero volts when the event occurs. It will switch back to open circuit when the one shot time has expired, or when the event has returned to normal. This means that the one shot timer can be **shortened** regardless of the time setting.

6

Normally Open, One Shot Low With Alarm

This one shot polarity is normally open circuit and will switch to zero volts when the event occurs. It will switch back to open circuit when the one shot time has expired, when the event has returned to normal or when the system is disarmed. This means that the one shot polarity can be **shortened** regardless of the time setting. This polarity is ideally suited for operating strobe lights as they can be timed (up to 99 hours) to reset and prevent them from burning out and becoming annoying from prolonged operation.

7

Normally Open, Latching Low

This polarity is normally open circuit and will switch to zero volts when the event occurs. It will only switch back to open circuit when the **7** button on the remote codepad is held down for two seconds. Time parameters are not applicable to this polarity.

8

Normally Low, Going Open

This polarity is normally zero volts and will switch to open circuit when the event occurs. It will switch back to zero volts when the event restores. Time parameters are not applicable to this polarity.

9**Normally Low, Pulsing Open**

This polarity is normally zero volts and will switch to pulsing open circuit when the event occurs. It will switch back to zero volts when the event restores.

10**Normally Low, One Shot Open**

This one shot polarity is normally zero volts and will switch to open circuit when the event occurs. It will switch back to zero volts when the time parameter setting has expired. This one shot time setting will always run its full duration. It cannot be manually reset.

11**Normally Low, One Shot Open With Retrigger**

This one shot polarity is normally zero volts and will switch to open circuit when the event occurs. Each time the output is retriggered, it will **lengthen** the time of the one shot timer. It will switch back to zero volts when the one shot time has expired.

12**Normally Low, One Shot Open With Reset**

This one shot polarity is normally zero volts and will switch to open circuit when the event occurs. It will switch back to zero volts when the one shot time has expired, or when the event has returned to normal. This means that the one shot polarity can be **shortened** regardless of the time setting.

13**Normally Low, One Shot Open With Alarm**

This one shot polarity is normally zero volts and will switch to open circuit when the event occurs. It will switch back to zero volts when the one shot time has expired, when the event has returned to normal or when the system is disarmed. This means that the one shot polarity can be **shortened** regardless of the time setting.

14**Normally Low, Latching Open**

This polarity is normally zero volts and will switch to open circuit when the event occurs. It will switch back to zero volts when the **7** button on the remote codepad is held down for two seconds. Time parameters are not applicable to this polarity.

Timing

The timing of outputs is calculated by the time base setting and a multiplier. These two values play different roles depending on the polarity type selected. When programming pulsing outputs, both the 'On' and 'Off' times can be set. One shot polarities can be timed between 200 ms up to 99 hours in duration.

A

Time Base
Option 1-4

AA

Multiplier
Tens Units

The maximum value that can be programmed in the multiplier locations is 9,9.

No	Time Base
1	200 ms
2	1 Second
3	1 Minute (60 Seconds)
4	1 Hour (60 Minutes)

Table 49: Time Base Settings

The time base settings can be set to only **one** of the values listed in Table 49: Time Base Settings. This is not like other options where more than one option can be selected.

The multiplier value is a two digit decimal number between 00-99. For greater accuracy, use 60 seconds for 1 minute intervals and 60 minutes for one hour intervals.

Pulsing Polarities

When calculating pulsing polarities, both the “On” and “Off” times need to be set. The duration or “On” time of an output is determined by selecting only **one** of the time bases from “Table 49: Time Base Settings” on page 98. This means there is 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.

Example

If an output is required to operate for 200 ms every five seconds, program the time settings as follows;

1 On time **25** Off time

ON Time	OFF Time	Increments	Tolerance
200 ms	200 ms - 19.8 secs	200 ms	± 200 ms
1 sec	1 sec - 99 secs	1 sec	± 1 sec
1 min	1 min - 99 mins	1 min	± 1 min
1 hour	1 hour - 99 hours	1 hour	± 1 hour

Table 50: 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.

Example

If an output is required to operate for five seconds, program the time settings as follows;

2 Time base **05** Multiplier

The “On” time is calculated by multiplying the time base setting (1 Second) by the multiplier value (05).
(ie. 1 x 5 = 5 seconds).

On Time	Increments	Tolerance
200 ms - 19.8 secs	200 ms	± 200 ms
1 sec - 99 secs	1 sec	± 1 sec
1 min - 99 mins	1 min	± 1 min
1 hour - 99 hours	1 hour	± 1 hour

Table 51: One Shot Time Settings

Output Configurations

LOCATION 140-145 **Output 1** (Horn Speaker)

1 **14** **0** **00**
Event Type Polarity Time

LOCATION 146-151 **Output 2** (Strobe)

20 **1** **0** **00**
Event Type Polarity Time

LOCATION 152-157 **Output 3** (Relay)

1 **15** **1** **00**
Event Type Polarity Time

LOCATION 158-163 **Output 4** (Codepad Buzzer)

0 **12** **2** **1** **01**
Event Type Polarity Time

System Event Timers

This section includes the following topics;

- *Entry Time*
- *Exit Time*
- *Entry Guard Time For STAY Mode*
- *Sensor Watch Time*
- *Code Retries*
- *Codepad Lockout Time*
- *Siren Run Time*
- *Siren Sound Rate*
- *Swinger Shutdown Count*

System Event Timers

This section covers the features that involve timing. Features such as entry and exit times, sensor watch time and siren run time along with a host of other times are discussed extensively in this section.

How To Program Entry/Exit Timers

There are two locations to be programmed for Entry Timer 1, Entry Timer 2, Exit Time and the Entry Guard Timer For STAY Mode. The first location of the timer is for programming increments of between 0-15 seconds. 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.

Entry Time

The control panel has two separate entry timers. Entry time can be programmed between 0 and 255 seconds (4.25 minutes) in increments of one second. These will prove to be helpful when using the system when partitioned or in any installation that requires different entry times.

Entry Timer 1

LOCATION 164-165 - (10 Seconds Default)



Location	Description
164	1 Second Increments For Entry Timer 1
165	16 Second Increments For Entry Timer 1

Table 52: Entry Timer 1 Locations

Entry Timer 2

LOCATION 166-167 - (20 Seconds Default)



Location	Description
166	1 Second Increments For Entry Timer 2
167	16 Second Increments For Entry Timer 2

Table 53: Entry Timer 2 Locations

Exit Time

Exit time can be programmed to be between 0 and 255 seconds in one second steps. The remote codepad will always give a long beep at the end of exit time.

Exit Time

LOCATION 168-169 - (60 Seconds Default)



Location	Description
168	1 Second Increments For AWAY Exit Timer
169	16 Second Increments For AWAY Exit Timer

Table 54: Exit Time Locations

Entry Guard Time For STAY Mode

LOCATION 170-171 - (60 Seconds Default)

123

Location	Description
170	1 Second Increments For Entry Guard
171	16 Second Increments For Entry Guard

Table 55: Entry Guard Locations

The 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.

Each zone including delay zones will have the entry delay as programmed in “LOCATION 170-171” (ie. The delay time programmed for a delay zone will be overridden by the entry guard time). If the entry guard timer is programmed as ‘0’, each zone will act as per its programmed zone type.

Sensor Watch Time

LOCATION 172-173

00

Location	Description
172	Number Of Days (Tens Digit)
173	Number Of Days (Units Digit)

Table 56: Sensor Watch Locations

The time set in these two locations determines how many days (0-99) a zone may remain sealed before registering as a system fault. This feature is only active while the system is in the disarmed state. If a zone programmed for sensor watch has not triggered and reset during this time, the FAULT indicator will illuminate. Refer to “Fault Descriptions” on page 33 for further details on system faults.

Note: An output (if programmed) may also be triggered when the sensor watch count has been reached.

Codepad Lockout

Placing a codepad outside the protected area allows anyone to access the codepad and attempt to break the user code without being detected. Programming other than zero in “LOCATION 102” will allow the control panel to be activated in alarm condition once the invalid attempts programmed has been reached.

You can further enhance your security by programming “Codepad Lockout Time” on page 104 which will then disable the remote codepad for the set period of time to further discourage any unauthorised entry.

Code Retries

LOCATION 102

6

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 control panel will carry out the following;

1. Activate the sirens and strobe connected to the control panel. Refer to “LOCATION 181” on page 112 to enable “Access Denied To Be Silent”.
2. Shutdown all codepads (Including “CP-5 Area Addressable (CP500A)” codepads or “CP-5 Master Partitioned (CP500P)” codepads) that are connected and lock them out for the time period programmed in “LOCATION 174” on page 104.
3. Send an “Access Denied” report to the base station receiver. Refer to “LOCATION 135” on page 85 to enable or disable this option.

Each time the control panel is armed or disarmed, the counter is reset. The number of attempts can be programmed between 1 - 15. If you program zero into this location, the code attempts are unlimited and the three points listed above will not take place. This function works when the control panel is in the armed or disarmed state.

Codepad Lockout Time

LOCATION 174

O

Location	Description
174	10 Second Increments

Table 57: Codepad Lockout Time

All codepads will be locked out for the time programmed in this location if the wrong code has been entered more times than allowed by the code retry attempts set in “LOCATION 102” on page 104. If this location is programmed as ‘zero’ then no lockout will occur. **MAXIMUM SETTING IS: 15 x 10 sec’s = 150 seconds.**

Siren Settings

A horn speaker can only be connected to the OUT 1 terminal to generate the siren sound on an alarm or fire condition. The output would have to firstly be programmed for the appropriate event type of “1,14” for horn speaker operation.

Siren Run Time

LOCATION 175 - (10 Minutes Default)

10

Location	Description
175	Siren Run Time In 1 Minute Increments

Table 58: Siren Run Time

The siren run time determines how long the horn speaker will operate during an alarm condition. This siren run time can be programmed between zero to fifteen minutes (+/- 1 minute).

Siren Sound Rate

LOCATION 176

7

Location	Description
176	Siren Sound Rate

Table 59: Siren Sound Rate

The siren sound rate varies the frequency of the siren tone. Zero is the slowest sound rate and fifteen is the fastest sound rate.

Swinger Shutdown Count

Swinger shutdown determines the amount of times the sirens, strobe and dialler can be triggered before any lockout options will take effect. A minimum of one zone must be programmed to lockout siren or lockout dialler for swinger shutdown to be effective.

Only alarms triggered from zone inputs will increment the swinger shutdown counter. This means alarms such as panic, code retries and any other system alarms will not effect the swinger shutdown count.

Note: The control panel calculates swinger shutdown for the siren and dialler separately.

When 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. When the swinger shutdown count (As programmed in “LOCATION 177”) has been reached, **all** zones with lockout siren that have been triggered will be locked out.

When the dialler is on line, its counter is incremented by all zones that cause an alarm. When the swinger shutdown count (As programmed in “LOCATION 177”) has been reached, the last zone to be triggered will be locked out.

To program zones for “Lockout Siren” or “Lockout Dialler, refer to “Zone Options” on page 76.

Swinger Shutdown Count

LOCATION 177

0

Location	Description
177	Swinger Shutdown Count 0-15

Table 60: Swinger Shutdown Count

LOCATION 901-904

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 25: Time Locations

The control panel has a real time 24 hour clock that can be set during installation and changed whenever the time needs updating such as daylight saving etc. It is not mandatory, but if the time settings are not correct, all reporting log functions and test reports will not operate correctly. When in “Fault Analysis Mode”, zone 2 will appear on the codepad if the time has not been programmed. Refer to “Hold Down Functions” on page 52 for more information.

Setting The Date and Time

The date and time can be programmed whenever the system is powered up, or after a programming key has been used to program the control panel.

To Enter A 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.
3. Press the **AWAY** button when finished.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

MASTER CODE + **6** + **AWAY**

Option Bits

This section includes the following topics:

- *Dialler Options 1*
- *Dialler Options 2*
- *Ring Count*
- *System Options 1*
- *System Options 2*
- *System Options 3*
- *Consumer Options 1*
- *Consumer Options 2*

Option Bits

When programming these locations you will notice that there are four options. You may select one, two, three or all four of these options, however only one number needs to be entered. This number is calculated by adding the option bit numbers together. Enter a seven (7) if you require options 1, 2 and 4 simultaneously (**ie.** $1+2+4=7$).

Dialler Options 1

LOCATION 178

5

Option	Description
1	Enable Dialler Reporting Functions
2	Enable Remote Arming Via The Telephone
4	Enable Remote Connect Via Alarm Link Software (CC816)
8	Terminate Alarm Link Session On Alarm

Table 61: Dialler Options 1

1 Enable Dialler Reporting Functions

If this option is 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 option as long as a dialler hybrid has been fitted.

Disable Dialler Reporting Functions

If this option is not selected, the dialler will not operate. Remote programming via Alarm Link Software (CC816) and telephone remote arming will remain operational regardless of this option as long as a dialler hybrid has been fitted.

2 Enable Remote Arming Via The Telephone

If this option is selected, you can remotely arm your control panel via any standard telephone. Whether “Dialler Reporting Functions” in “LOCATION 178” is enabled or disabled, it will have no effect on telephone remote arming. Forced arming is automatically assumed when this feature is being used. Refer to page 56 for more information on “Remote Arming Via The Telephone”.

4 Enable Remote Connect Via Alarm Link Software

This option will need to be enabled if you require to use the Alarm Link Software 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 page 57 for more information on “Uploading & Downloading Via Alarm Link Software”.

Whether the Dialler Reporting Functions - Option Bit 1 in “LOCATION 178” is enabled or disabled, it will have no effect on Upload/Download functions using the Alarm Link Software.

8 Terminate Alarm Link Session On Alarm

If the control panel is communicating with a remote computer via the Alarm Link Software and an alarm has registered, the Alarm Link session will be terminated and display the message “Dialler Has Pending Report - Session Closed”. The relevant alarm message from the control panel 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 is not selected and an alarm has registered, the Alarm Link Software will prompt the operator with a “Terminate Or Continue” message.

LOCATION 179



Option	Description
1	Send Open/Close Report Only If A Previous Alarm Has Occurred
2	Enable First To Open, Last To Close Reporting (Partitioning Only)
4	Send Open/Close Reports When In STAY Mode
8	Delay Siren Until Alarm Transmission Is Complete

Table 62: Dialler Options 2

1 *Send Open/Close Report Only If A Previous Alarm Has Occurred*

This option will need to have Open/Close reports enabled in “LOCATION 136” on page 86 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. A closing report will be transmitted when the system is next armed in AWAY mode.

This feature can also be used in conjunction with a Patrolman Code. Refer to page 71 for more details on Patrolman Code. **If the control panel has been partitioned, only the area that the alarm had occurred will transmit the Open/Close report after an alarm.**

2 *Enable First To Open, Last To Close Reporting*

This option needs to be selected if only one Open/Close report is required when the control panel is configured for partitioning. Rather than having individual Open/Close reports for each area, a closing report will be transmitted when both areas have been armed and an opening report will be transmitted as soon as either area has been disarmed.

4 *Send Open/Close Reports When In STAY Mode*

If Open/Close reports are required when the system is armed in STAY mode, this option will need to be selected.

8 *Delay Siren Until Alarm Transmission Is Complete*

The sirens will not sound until the base station receiver has transmitted a “Kiss Off” back to the control panel. If multiple messages are transmitted, the sirens will start after the last “Kiss Off”. If the transmission is unsuccessful and a “Kiss Off” is not received, the sirens will sound after the third call attempt. 24 hour alarms are not effected by this option. The sirens will always sound immediately upon a 24 hour alarm.

LOCATION 60**8**

This location sets the number of rings before answering an incoming call. This should be set at an acceptable level bearing in mind one ring is “ring, ring/ring, ring” and that a ring count of 10 (20 rings) represents approximately 60 seconds. This location only has an effect if remote arming or Upload/Download is selected via the programming options. If this location is programmed with a zero, then answering of incoming calls will be disabled irrespective of any programmed options.

Answering Machine Bypass

Answering machine bypass has been incorporated so that it is possible for you 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 large amounts of traffic on the telephone line (**eg.** 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, then hang up. If you call the control panel again within 45 seconds, the control panel will answer the call on the first ring and a connection will be established. This will prevent the answering machine or facsimile from answering the call. Refer to “LOCATION 184” on page 115 to enable “Answering Machine Bypass To Operate Only When 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 before hanging up. Wait a minimum of 6-8 seconds and then call the control panel again. The control panel will answer on the first ring. If you don’t wait the 6-8 seconds then the panel will not answer the call. Refer to “LOCATION 184” on page 115 to enable “Answering Machine Bypass To Operate Only When Armed”.

Note: You should set the ring count on the answering machine or fax machine to be higher than two rings. Four or six rings would be preferred.

LOCATION 180

1

<i>Option</i>	<i>Description</i>
1	Enable Forced Arming
2	Enable EDM Smart Lockout
4	Enable Monitoring Of Horn Speaker
8	Allow Horn Speaker Beeps For Remote Radio Control Operation

Table 63: System Options 1

1 *Enable Forced Arming*

If this option has been selected, the system can be armed with zones unsealed. If this option is not selected, all zones must be sealed before the system can be armed. This feature will be ignored when the system is being remotely armed via the telephone. An attempt to arm the system with forced arming disabled will clear any alarm memories present, but arming will not be permitted.

2 *Enable EDM Smart Lockout*

This feature allows the control panel to remove any zones programmed for “Lockout Dialler” from the lockout list only when the sirens are operating. This feature allows a base station receiver to receive alarm reports from previously locked out zones during siren run time.

4 *Enable Monitoring Of Horn Speaker*

If this option is selected, the control panel will detect if 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 a programmable output is required to operate when the horn speaker has been disconnected, refer to event type “1,6” on page 92.

8 *Allow Horn Speaker Beeps For Remote Radio Control Operation*

This feature will enable horn speaker beeps to be heard when the system has been armed or disarmed via a hand held remote radio control unit. These speaker beeps will also sound when a keyswitch zone, Radio Key/Keyswitch Interface (CC813) or the Wireless Interface Board (WE801) is being used.

<i>No Of Beeps</i>	<i>System Status</i>
1	System Disarmed
2	System Armed In AWAY Mode
1 Two-Tone Beep	System Armed In STAY Mode

Table 64: Horn Speaker Beeps

LOCATION 181

2

Option	Description
1	Enable Radio Key/Keyswitch Interface Or Night Arm Station
2	Enable Handover Delay To Be Sequential
4	Enable Codepad Panic To Be Silent
8	Enable Access Denied To Be Silent

Table 65: System Options 2

1 *Enable Radio Key/Keyswitch Interface Or Night Arm Station.*

This option must be enabled when using the Radio Key/Keyswitch Interface or the Night Arm Station. This option allows the control panel to be operated using either of these two accessories.

2 *Enable Handover Delay To Be Sequential*

If this option has been enabled, handover delay will be sequential (**ie.** In numerical order from lowest to highest). If the sequence is broken before the entry time expires, an alarm will occur. If this option is not enabled, handover delay will follow your entry path provided that a delay zone has been triggered first.

4 *Enable Codepad Panic To Be Silent*

If this option is selected, a codepad panic alarm will not operate the horn speaker, the bell or the strobe output. If not selected, all three outputs will operate after a codepad panic alarm has been activated. Selecting this option does not effect the operation of the dialler. Refer to “LOCATION 135” on page 85 if you wish to disable codepad panic reports.

Note: If codepad panic reports are disabled in “LOCATION 135”, both the audible and dialling reports for codepad fire and codepad medical alarms will also be disabled.

8 *Enable Access Denied To Be Silent*

If this option has been enabled, exceeding the number of incorrect code attempts will not operate the horn speaker, the bell or the strobe outputs. If not selected, all three outputs will operate after a codepad tamper alarm has been activated.

Refer to “LOCATION 102” on page 104 for programming the code retry count. Selecting this option does not effect the operation of the dialler. Refer to “LOCATION 135” on page 85 if “Access Denied” reports are required to be disabled.

LOCATION 182



<i>Option</i>	<i>Description</i>
1	Enable Main Codepad To Display Data For Area #1
2	Enable Resetting Of Sirens From Both Areas
4	Ignore AC Fail
8	Enable Handover Of Zone Pulse Count

Table 66: System Options 3

1 *Main Codepad To Display Data For Area #1*

This option is only applicable when the control panel has been partitioned. If this option is selected, the main DATA terminal will display information that is relevant only to Area 1. A “CP-5 Area Addressable (CP500A)” codepad would be used in this instance.

If this option is not selected, the “CP-5 Master Partitioned (CP500P)” codepad will need to be used because information for both areas will be displayed.

2 *Enable Resetting Of Sirens From Both Areas*

This option is only applicable when the system has been partitioned. If this option is selected, any valid user code from either of the two areas will be able to stop the sirens from sounding and the strobe from flashing (horn speaker, bell and strobe outputs only). This option does not allow a user code holder allocated from one area to disarm the other area.

4 *Ignore AC Fail*

If this option is selected, the AC mains fail indicator will be ignored and the flashing of the MAINS indicator after the AC mains power has been disconnected will not take place. However, if the AC mains fail report has not been disabled, the “AC Loss” report and the “AC Loss Restore” report will continue to report to the base station receiver.

If this option is not selected, the AC mains fail will be indicated via flashing of the MAINS indicator. After the AC mains power has been continuously disconnected for two minutes, an “AC Loss” signal will be transmitted.

The MAINS indicator will stop flashing after the AC mains power has been restored. An AC mains fail restore report will be transmitted to the base station receiver after the AC mains has been restored for two minutes.

8 *Enable Handover Of Zone Pulse Count*

If this option has been enabled, any zone pulse count readings will handover and accumulate to any zone that has been triggered during the same arming cycle. Pulse count handover will not accumulate from one area to another when the system has been partitioned.

Note: 24 hour zones and tamper zones will not handover any pulse count to another zone.

LOCATION 183



Option	Description
1	Enable AC Fail In 1 Hour
2	Extend Time To Wait For Handshake From 30 Seconds To 1 Minute
4	Enable Control Panel To Power Up In The Disarmed State
8	Enable Remote Radio Zone Low Battery Reports

Table 67: System Options 4

1 *Enable AC Fail In 1 Hour*

If this option is selected, AC mains fail will be indicated via the flashing of the MAINS indicator after the AC mains power has been disconnected for 60 minutes continuously. If this option is not selected, the AC mains fail will be indicated via flashing of the MAINS indicator after the AC mains power has been disconnected for 2 minutes continuously.

The MAINS indicator will stop flashing after the AC mains power has been restored. An AC mains fail restore report will be transmitted to the base station receiver after the AC mains has been restored for more than two minutes.

2 *Extend Time To Wait For Handshake From 30 Seconds To 1 Minute*

When the control panel calls the base station receiver to report an event, the control panel usually waits for 30 seconds for the base station receiver. This is normally sufficient. However, if the medium used to establish the call is a mobile phone, then the switching time required to establish a telephone connection to the base station receiver may take longer. If this is the case, selecting this option will force the control panel to wait an additional 30 seconds for the handshake tone, thus extending the total time to wait for the handshake to 1 minute.

4 *Enable Control Panel To Power Up In The Disarmed State*

If this option has been enabled, the control panel will start up in the disarmed state when power has been disconnected and returned. Normally, if power has been disconnected from the control panel, you would be required to disarm the control panel by entering a user code before entering Installer's Programming Mode. When the control panel has powered up with this option enabled, four beeps will be heard and the control panel will be disarmed.

8 *Enable Remote Radio Zone Low Battery Reports*

When a remote radio zone sends a transmission to the control panel, the battery status report will also be transmitted. If this option is enabled, then "Transmitter Low Battery" and "Transmitter Low Battery Restore" reports will be transmitted by the communication dialler.

LOCATION 184

2

Option	Description
1	Send Test Reports Only When The System Is Armed
2	Enable Operation Of Sirens & Strobe In STAY Mode
4	Enable Answering Machine Bypass To Operate Only When Armed
8	Enable Codepad Extinguish Mode

Table 68: Consumer Options 1

1 *Send Test Reports Only When The System Is Armed*

If this option has been enabled, test reports will only be transmitted when the control panel is armed. It is no longer necessary to send a test report as well as an opening and closing report everyday. If this option is not enabled, test reports will be transmitted irrespective to the control panel being armed or disarmed.

Example

During the working week most commercial premises would be open and therefore a test is not necessary as "Open" and "Close" reports would have been transmitted at the programmed time. On the weekend however, the control panel would be armed and test reports would then be transmitted at the time programmed.

2 *Enable Operation Of Sirens & Strobe In STAY Mode*

This option will need to be enabled if audible alarms are required when the control panel is armed in STAY mode.

4 *Enable Answering Machine Bypass To Operate Only When Armed*

This option needs to be enabled only if the answering machine bypass feature is required to operate when the system is armed. 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.

8 *Enable Codepad Extinguish Mode*

If this option has been enabled, all indicators on remote codepads will extinguish if a button is not pressed for 60 seconds. They will only illuminate when there is an alarm (except a silent alarm), when a button is pressed, when the AC mains fail beeps, or if the entry timer is activated.

Consumer Options 2

LOCATION 185



Option	Description
1	Enable “User Code + 0 + AWAY” Function To Arm/Disarm BOTH Areas At The Same Time
2	Enable Single Button Arming In AWAY and STAY Modes
4	Enable Single Button Disarming From STAY Mode
8	Enable Alarm Memory Reset On Disarm

Table 69: Consumer Options 2

1 Enable “User Code + 0 + AWAY” Function To Arm/Disarm BOTH Areas At The Same Time

If this option has been enabled, it will allow a user code holder that has been allocated to both areas to be able to arm or disarm both areas at the same time without the need to enter the user code at each area codepad. Both areas will arm or disarm to follow the state of the area that the code was entered from (**ie.** If you disarm an area, the other area will disarm or if you arm an area, the other area will arm as well).

Refer to “Master Code Functions” on page 44 and “User Code Functions on page 51 for more information.

2 Enable Single Button Arming In AWAY and STAY Modes

If this option has been enabled, the “Hold Down Functions” for arming in both the AWAY mode and STAY mode will be functional. Refer to “Hold Down Functions” on page 52 for more details.

4 Enable Single Button Disarming From STAY Mode

If this option has been enabled, the “Hold Down Functions” for disarming from STAY mode will be functional. Refer to “Hold Down Functions” on page 52 for more details.

Note: Option 2 will need to be enabled for option 4 to operate. Option 4 will not operate unless Option 2 has been enabled.

8 Enable Alarm Memory Reset On Disarm

If this option has been enabled, alarm memories will be cleared from the remote codepad at the time of disarming the control panel. If this option is not enabled, alarm memories will be cleared from the codepad when the system has been armed.

System Options 5

LOCATION 214



Option	Description
1	Enable Internal Crystal To Keep Time
2	Reserved
4	Reserved
8	Reserved

Table 70: System Options 5

1 Enable Internal Crystal To Keep Time

If this option has been enabled, 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.

Partitioning

This section includes the following topics:

- *Partitioning*
- *Master Partitioned Codepad Indicators*
- *Operating Codepads In Partitioning*
- *Securitel and Partitioning*
- *Open/Close Reports*
- *Subscriber ID Number*
- *Zone Allocations*
- *Tamper Zone Allocations*
- *User Code Allocations*
- *Remote Radio User Allocations*
- *Codepad Connections For Partitioning*

Partitioning

Partitioning allows a single control panel to act as if it were two separate control panels. There is a “CP-5 Master Partitioned (CP500P)” codepad that has indicators to show the status of both areas. If you wish to give each area a separate codepad, the “CP-5 Area Addressable (CP500A)” codepads can be used. This will give the user the impression that they are the only user of the system.

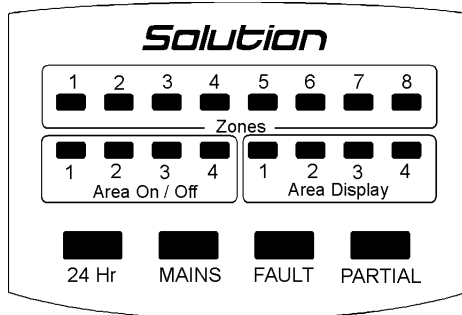


Figure 5: Master Partitioned Codepad

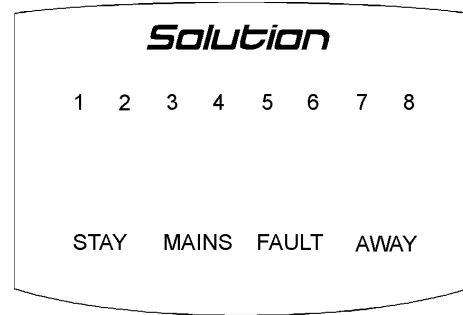


Figure 6: Area Addressable Codepad

If the control panel has been partitioned, a maximum of two areas are available. Each area can have a maximum of 6 zones. Common zones may be shared between areas to a maximum of 6 zones.

Note: The “CP-5 Master Partitioned (CP500P)” codepad has provision for 4 separate areas, however, only 2 areas can be used when using the *Solution 6+6 Wireless - AE* control panel.

Master Partitioned Codepad Indicators

The indicators on the “CP-5 Master Partitioned (CP500P)” codepad are configured in four groups. Following is a description of what the indicators show.

1 Zone Indicators

Indicators (1-8) show the status of each zone. These zones belong to the area that has the AREA DISPLAY indicator illuminated (**ie.** If an indicator is illuminated, that zone is unsealed and if the indicator is not illuminated, that zone is sealed).

2 Area ON/OFF Indicators

The group of four AREA ON/OFF indicators show the status of each area (**ie.** If an indicator is illuminated, that area has been armed and if the indicator is not illuminated, that area is disarmed).

3 Area Display Indicators

A group of four AREA DISPLAY indicators show which area the zones belong to that are currently being displayed.

4 Status Indicators

A group of four indicators show the following:

AUX Indicator

This indicator displays when the control panel is using the telephone line communicating to the receiving party. This AUX indicator will flash in conjunction with the PARTIAL indicator to indicate successful entry into any programming mode. For example, this will occur when entering the Installer’s Programming Mode.

MAINS Indicator

This indicator displays the status of the AC mains power supply (**ie.** If the indicator is illuminated, the AC mains power supply is normal and if the indicator is flashing, the AC mains power supply has been disconnected).

FAULT Indicator

This indicator displays the status of the systems fault register (**ie.** If the indicator is flashing the system has detected a fault which has not yet been acknowledged. If the indicator is illuminated, the fault has been acknowledged and if the indicator is not illuminated, the system has no faults).

Refer to “Fault Descriptions” on page 33 for further information on the different system faults that may occur.

PARTIAL Indicator

This indicates whether an area has been armed in STAY mode (**ie.** If the PARTIAL indicator is illuminated an area has been armed in STAY mode and if the PARTIAL indicator is not illuminated, no areas have been armed in STAY mode).

Whilst isolating zones, the PARTIAL indicator flashes to indicate that you are in isolate mode.

This PARTIAL indicator will flash in conjunction with the AUX indicator to indicate successful entry into any programming mode. For example, this will occur when entering the Installer’s Programming Mode.

Operating Codepads In Partitioning

Operating From An “CP-5 Area Addressable (CP500A)” Codepad

If you have a partitioned system using the “CP-5 Area Addressable (CP500A)” codepads, the operating procedure is exactly the same as described throughout this manual. Refer to “Hold Down Functions” on page 52 to determine which area a particular codepad belongs to.

Note: Failure to set the required area dip switch settings on the back of the remote “CP-5 Area Addressable (CP500A)” codepads will stop the codepad from functioning correctly. Refer to “Codepad Connections For Partitioning” on page 124 for correct wiring and dip switch settings.

Operating From A “CP-5 Master Partitioned (CP500P)” Codepad

If you have a partitioned system with a “CP-5 Master Partitioned (CP500P)” codepad installed, the operating procedure is the same as described throughout this manual with one exception. All operations are relative to the area whose AREA DISPLAY indicator that is illuminated at the time.

Example

If AREA DISPLAY indicator number 2 is illuminated, all operations performed will effect only Area 2. To perform any operations in another area, you will have to move the AREA DISPLAY illuminator to the desired area.

To Move From One Area To The Next

1. Press the **AWAY** button.
The area display indicator will move to the next area.
2. Press the **AWAY** button again.
The area display indicator will move to the next area.

Securitel and Partitioning

The EDMSTU was not designed to send individual Open/Close reports for each area via the Securitel Network. It will however send a first to open and last to close reports if Option 2 in “LOCATION 179” on page 109 is enabled.

Open/Close Reports

The following options are related to Open/Close reports. You can select one, two or all four options to suit your application.

Dialler Options 2

LOCATION 179



Option	Description
1	Send Open/Close Report Only If A Previous Alarm Has Occurred
2	Enable First To Open, Last To Close Reporting (Partitioning Only)
4	Send Open/Close Reports When In STAY Mode
8	Delay Siren Until Alarm Transmission Is Complete

Table 71: Dialler Options 2

1 Send Open/Close Report Only If A Previous Alarm Has Occurred

This option will need to have Open/Close reports enabled in “LOCATION 136” on page 86 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

This feature can also be used in conjunction with a Patrolman Code. Refer to page 71 for more details on Patrolman Code.

2 Enable First To Open, Last To Close Reporting

This option needs to be selected if only one Open/Close report is required when the control panel has been partitioned. Rather than having individual Open/Close reports for each area, a closing report will be transmitted when both areas have been armed and an opening report will be transmitted as soon as either area has been disarmed.

4 Send Open/Close Reports When In STAY Mode

If Open/Close reports are required when the system is armed in STAY mode, this option will need to be enabled.

8 Delay Siren Until Alarm Transmission Is Complete

The sirens will not sound until the base station receiver has transmitted a “Kiss Off” back to the control panel. If multiple messages are transmitted, the sirens will start after the last “Kiss Off”. If the transmission is unsuccessful and a “Kiss Off” is not received, the sirens will sound after the third call attempt. 24 hour alarms are not effected by this option. The sirens will always sound immediately upon a 24 hour alarm.

Subscriber ID Number

LOCATION 52 - 55

OOOO

This code (Also used for Area 2 when the control panel has been partitioned) is transmitted to the base station receiver to identify the calling control panel.

Enter the desired Subscriber ID Number in the four locations provided. For Basic Pager Format, “LOCATION 52” is ignored and the first digit of the Subscriber ID Number required must go in “LOCATION 53”. When using Domestic Dialling Format, the number of identification beeps will be the number that is programmed in “LOCATION 55”. This gives the ability to identify between 15 different control panels calling the same telephone number.

Zone Allocations

Each of the two areas can have up to six zones allocated to it. The six locations for each area represent zone indicators one to six on the remote codepad.

Any of the zone inputs, both burglary (parent) zones 1 to 6 and tamper zones 1 to 6 (tamper zones are represented as zones 9 to 14) can be mapped to any area to appear as any zone on the remote codepad (**ie.** Any zone from 1 to 6 can be common to both areas as required). Common zones report to the base station on group zero. Zones that are specific to one area will report on the corresponding group number. The group number indicates which area number that the zone reports on.

Zone Allocations For Area 1

LOCATION 186-191

OOOOOO

Location	Description
186	Area 1 Zone 1 Indicator
187	Area 1 Zone 2 Indicator
188	Area 1 Zone 3 Indicator
189	Area 1 Zone 4 Indicator
190	Area 1 Zone 5 Indicator
191	Area 1 Zone 6 Indicator

Table 72: Area 1 Zone Indicators

Zone Allocations For Area 2

LOCATION 192-197

OOOOOO

Location	Description
192	Area 2 Zone 1 Indicator
193	Area 2 Zone 2 Indicator
194	Area 2 Zone 3 Indicator
195	Area 2 Zone 4 Indicator
196	Area 2 Zone 5 Indicator
197	Area 2 Zone 6 Indicator

Table 73: Area 2 Zone Indicators

Example

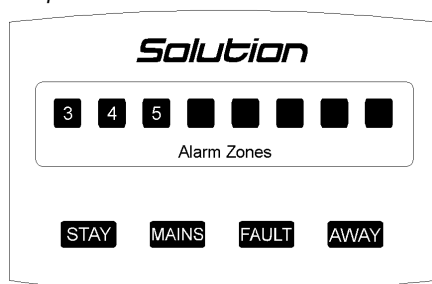


Figure 7: CP-5 Area Addressable Codepad (CP500A)

LOCATION 186-191

Area 1 Zone Allocations

345000

In this example, burglary zones 3, 4 and 5 have been mapped to Area 1 to appear as zones 1, 2 and 3. Programming the same zone number into more than one area indicates that the zone will operate as a common zone.

Example

If zone 2 is allocated to Area 1 and Area 2, it becomes a common zone to Area 1 and Area 2. Zone 2 will not be in the armed state until both Area 1 and Area 2 have been armed. Any number of zones can be mapped to any combination of the two areas to act as common zones.

Tamper Zone Allocations

When programming Area Zone Allocations, Tamper Zones 1 - 6 if enabled, need to be programmed as zones 9 - 14 for either Area 1 and/or Area 2 to appear on any zone on the codepad. ***In partitioning only, tamper zones will be indicated when triggered, in the same manner as burglary zones.***

Example:

LOCATION 186 - 191
Area 1 Zone Allocations

1 2 3 9 10 11

LOCATION 192 - 197
Area 2 Zone Allocations

12 13 14 4 5 6

In this example, tamper zones 1, 2 and 3 (which are represented by zones 9, 10 and 11) have been mapped to Area 1 to display as zones 4, 5 and 6. This means that tamper zones 1, 2 and 3 will be indicated on the Area 1 codepad using zone indicators 4, 5 and 6.

Tamper zones 4, 5 and 6 (which are represented by zones 12, 13 and 14) have been mapped to Area 2 to display as zones 1, 2 and 3. This means that tamper zones 4, 5 and 6 will be indicated on the Area 2 codepad using zone indicators 1, 2 and 3.

User Code Allocations

“LOCATIONS 198 - 205” are provided for assigning each user code holder to particular areas. Any number between 1 and 3 can be programmed to indicate which areas are to be operated by the relevant user code holder. Multiple user codes can be allocated to the same areas. Select the areas required and add the option values together (eg. A value of three (1 + 2) will allow the user access to both areas).

Option	Area
1	Area 1
2	Area 2

Table 74: Available Areas

Refer to “User Codes” on page 69 for programming of the actual codes.

Area Allocations For User 1

LOCATION 198



Area Allocations For User 2

LOCATION 199



Area Allocations For User 3

LOCATION 200



Area Allocations For User 4

LOCATION 201



Area Allocations For User 5

LOCATION 202



Area Allocations For User 6

LOCATION 203



Area Allocations For User 7

LOCATION 204



Area Allocations For User 8

LOCATION 205



Remote Radio User Allocations

“LOCATIONS 206 - 213” are provided for assigning each remote radio user code to particular areas. Any number between 1 and 3 can be programmed to indicate which areas are to be operated by the relevant radio user. Multiple remote radio user codes can be allocated to the same area. Select the areas required and add the option values together (eg. A value of three (1 + 2) will allow the user access to both areas).

Option	Area
1	Area 1
2	Area 2

Table 75: Available Areas

Refer to “Changing Or Deleting Remote Radio User Codes” on page 46 for programming of the actual codes.

Area Allocations For User 9	
LOCATION 206	<input type="radio"/>
Area Allocations For User 10	
LOCATION 207	<input type="radio"/>
Area Allocations For User 11	
LOCATION 208	<input type="radio"/>
Area Allocations For User 12	
LOCATION 209	<input type="radio"/>
Area Allocations For User 13	
LOCATION 210	<input type="radio"/>
Area Allocations For User 14	
LOCATION 211	<input type="radio"/>
Area Allocations For User 15	
LOCATION 212	<input type="radio"/>
Area Allocations For User 16	
LOCATION 213	<input type="radio"/>

Note: If a remote radio user has been allocated to both areas, both areas will arm or disarm upon activation using their hand held transmitter.

Codepad Connections For Partitioning

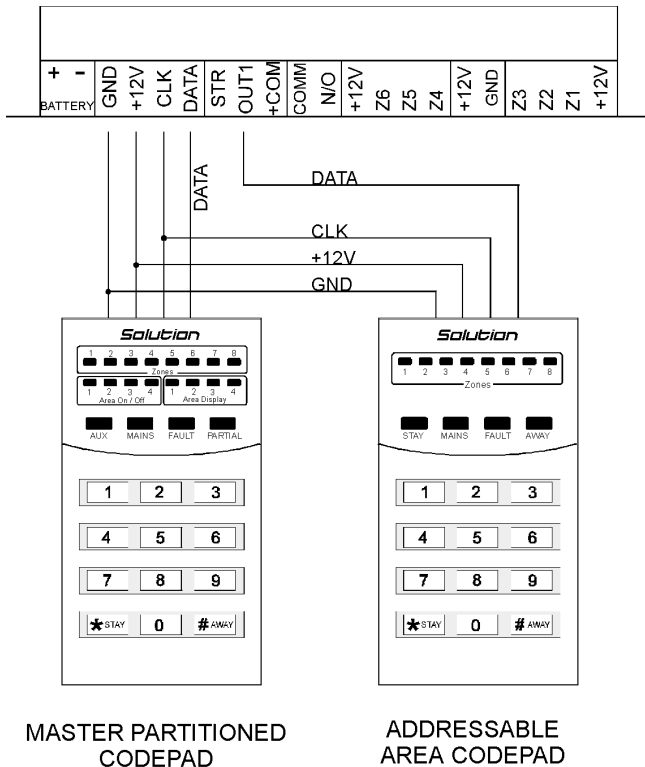


Figure 8: Connections For “Master Partitioned (CP500P)” Codepad and “CP-5 Area Addressable (CP500A)” Codepad

If the “CP-5 Area Addressable (CP500A)” codepad is assigned to **Area 1**, DIP Switch 1 on the back of the remote codepad will need to be in the “ON” position. The following locations for Output 1 will need to be programmed.

[LOCATION 140 = 6, 141 = 0]

If the “CP-5 Area Addressable (CP500A)” codepad is assigned to **Area 2**, DIP Switch 2 on the back of the remote codepad will need to be in the “ON” position. The following locations for Output 1 will need to be programmed

[LOCATION 140 = 6, 141 = 1]

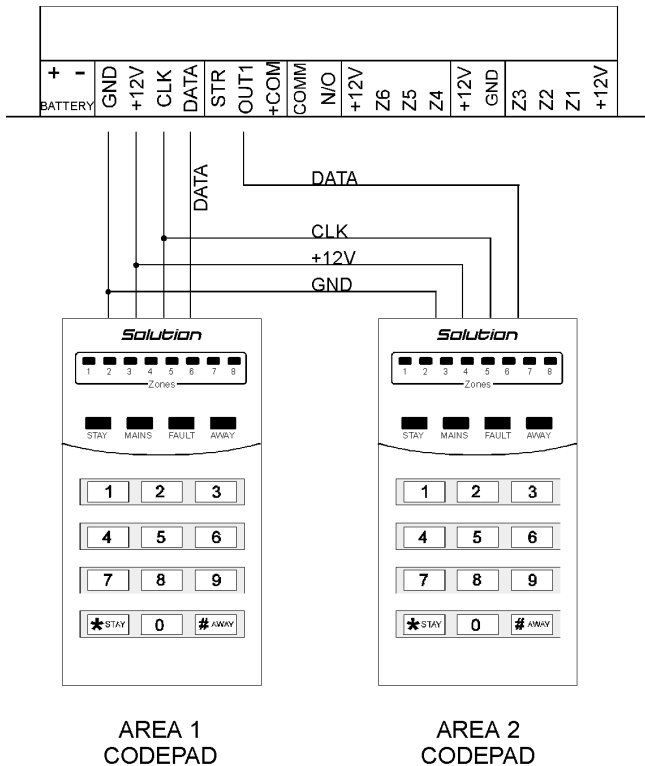


Figure 9: Connections For Two “CP-5 Area Addressable (CP500A)” Codepads

The following DIP Switch settings and locations must be programmed for the two “CP-5 Area Addressable (CP500A)” codepads to function correctly.

AREA 1 CODEPAD

DIP Switch 1 on the back of the remote codepad will need to be in the “ON” position. The following location will also need to be programmed.

[LOCATION 182, Option bit 1 must be enabled]

AREA 2 CODEPAD - (Output 1)

DIP Switch 2 on the back of the remote codepad will need to be in the “ON” position. The following locations for Output 1 will need to be programmed.

[LOCATION 140 = 6, 141 = 1]

Optional Equipment

This section includes the following topics:

- *CP-5 Remote Codepad (CP508)*
- *CP-5 Area Addressable Codepad (CP500A)*
- *CP-5 Master Partitioned Codepad (CP500P)*
- *Night Arm Station (CP105)*
- *Phone Controller (CC911)*
- *Hand Held Dialler Tester (DD901)*
- *Telephone Line Fault Monitor (CC659)*
- *Hand Held Programmer*
- *Programming Key (CC891)*
- *Cellular Dialler (CD900)*
- *PS100 Power Supply Module (PS100)*
- *TF008 Plug Pack (TF008)*
- *Radio Key/Keyswitch Interface (CC813)*
- *304 MHz RF Receiver (WE801)*

Optional Equipment

EDM manufactures numerous accessories that can be used in conjunction with the control panel. These optional pieces of equipment will enhance certain features thus making the system extremely flexible.

CP-5 Remote Codepad (CP508)

This codepad is designed to operate with the *Solution* range of control panels. It provides indications for up to 8 zones. This codepad cannot be used with any system when the system has been partitioned.

CP-5 Area Addressable Codepad (CP500A)

This codepad is designed to operate with the *Solution* range control panels. The codepad provides indications for up to 8 zones. This codepad is designed to be used in any system that has been partitioned. These codepads have dip switches on the PCB to indicate which area in partitioning that the codepad belongs to. Refer to "Codepad Connections For Partitioning" on page 124 for further details on how to connect these codepads.

CP-5 Master Partitioned Codepad (CP500P)

This codepad is designed to operate with the *Solution* range control panels. The codepad provides indications for up to 8 zones. This codepad is designed to be used in any system that has been partitioned. These codepads allow the user to toggle from one area to another without the need to go to each area codepad. Refer to "Codepad Connections For Partitioning" on page 124 for further details on how to connect these codepads.

Night Arm Station (CP105)

The night arm station incorporates a panic button and is designed to allow operation from a bedroom or sitting room to arm and disarm the system in the STAY mode.

Phone Controller (CC911)

The phone controller operates at a frequency of 1400 Hz and allows the user to remotely arm the control panel in AWAY mode via the telephone. The phone controller can also be used to acknowledge a phone call from the control panel when the system is set up for "Domestic Dialling Format".

Hand Held Dialler Tester (DD901)

The hand held dialler tester simulates a base station receiver for testing of the control panel's dialling functions. It communicates in most formats.

Telephone Line Fault Monitor (CC659)

The telephone line fault monitor allows the control panel to switch from line A to line B once line A has been cut or disconnected. This telephone line fault monitor powers itself from the phone line and is ideal for switching to cellular diallers.

Hand Held Programmer (CC814)

This hand held programmer can be used to program the locations in the control panel. It comes complete with a one metre connecting cable and a socket for an external programming key.

Cellular Dialler (CD900)

The cellular dialler when connected to the control panel will transmit alarm information via the cellular phone network to the control room when a land line is not present or has been tampered with.

Programming Key (CC891)

The programming key is a unique device that can store all your control panel's programming information. The programming key can hold all your common configuration data such as monitoring station telephone numbers etc. When used to program your control panel, more than 90% of all programming can be accomplished in five seconds. All that you are required to do is adjust the client number or whatever data is unique to the particular installation. If you are a contractor working for multiple monitoring stations then you would have several programming keys, each one programmed uniquely for each particular monitoring station. This will save you time and reduce the possibility of programming errors. As you can see the programming key is a very useful device.

EDMSAT - Satellite Siren (SS914)

The EDMSAT 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 unit will alarm immediately. When the EDMSAT carries out a battery test, the unit will sound for two seconds if the battery test fails.

EDMSTU - Securitel (CS800)

This EDMSTU (Securitel Interface) has been designed to operate in conjunction with the control panel using a serial connection. This means that all alarm information can be transmitted from the control panel to the EDMSTU using only 3 wires. The EDMSTU provides full serial reporting of alarms, opening and closing reports, isolations and user ID information. Line integrity is also monitored by the monitoring control room.

Alarm Link Software (CC816)

This software package is designed to be used to remotely program the control panel via the telephone line. All options and features can be accessed via this software as well as maintaining history and service reports. Refer to "LOCATION 178" on page 108 for enabling this feature.

PS100 Power Supply Module (PS100)

The PS100 power supply module has been designed for applications requiring 13.8 volts 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 available LED indicator and AC mains fail output. For situations requiring an uninterrupted power source, a rechargeable sealed lead-acid battery can be fitted. In the event of a mains failure, the power supply will switch to battery power without interrupting the load being supplied.

TF008 Plug Pack (TF008)

The TF008 plug pack has been designed to be used with the control panel 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 unit 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.

304 MHz RF Receiver (WE801)

This interface was designed to allow the use of up to eight additional radio user codes and six wireless zones. The zones may consist of the following wireless devices;

- AE Wireless Passive Infrared Detector (WT016)
- AE Wireless Reed Switch (WT003)
- AE Wireless Smoke Detector (WT015)

This is handy 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. The range of the receiver can be anywhere up to 300 ft or 100 metres. An extra 20 meters range may be gained by adding a external wire to the WT003, WT015 and WT016 devices.

Radio Key/Keyswitch Interface (CC813)

This interface was designed to allow simple interfacing of a changeover or momentary key switch, radio equipment for remote control or an access control system.

If the R/K terminal is used, only a momentary key switch is required and any number of key switches may be paralleled for multiple arm/disarm sites. The arm and disarm terminals can be used to directly interface to any access control system.

There is also a STAY mode terminal which will force the system into STAY mode from the disarmed state. This is handy if you require your system to be radio controlled and you would like to give your customer total control via a radio hand held remote.

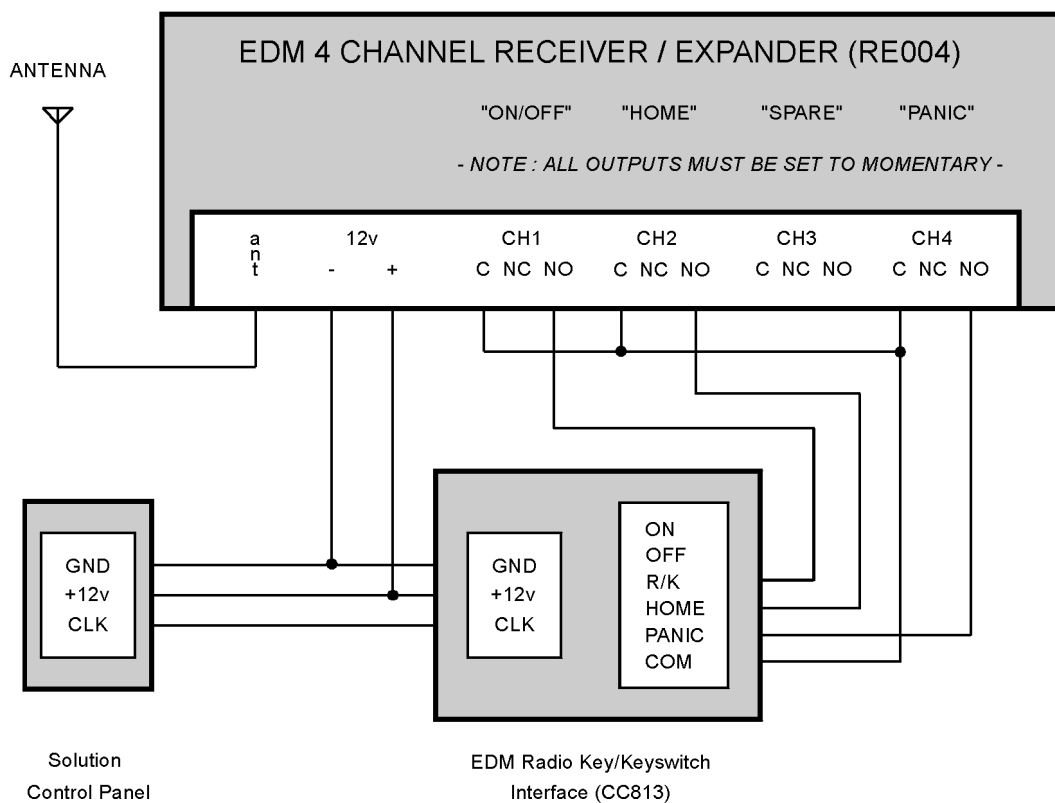
Horn speaker beeps may be used to indicate when the control panel has been remotely armed or disarmed in the AWAY mode or STAY mode via the Radio Key/Keyswitch Interface. These speaker beeps will also activate when a keyswitch zone is being used. Refer to "LOCATION 180" on page 111 if this option requires to be enabled.

<i>No Of Beeps</i>	<i>System Status</i>
1	System Disarmed
2	System Armed In AWAY Mode
1 Two-Tone Beep	System Armed In STAY Mode

Table 76: Horn Speaker Beeps

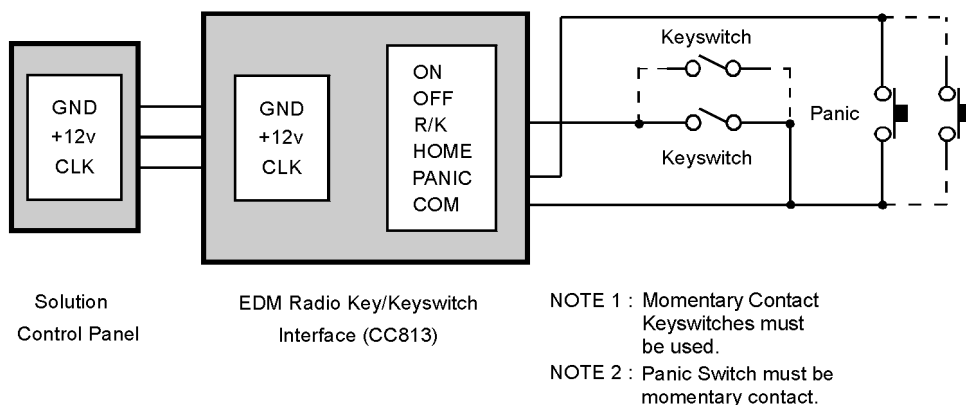
A panic alarm can also be generated via this interface. As you can see the Radio Key/Keyswitch Interface allows you the flexibility to perform quite a number of functions cheaply and easily.

Radio Key: On / Off - Home - Panic



NOTE:
R/K BEEPS MUST BE ENABLED (IF REQUIRED)
LOCATION 180 MUST CONTAIN "8"

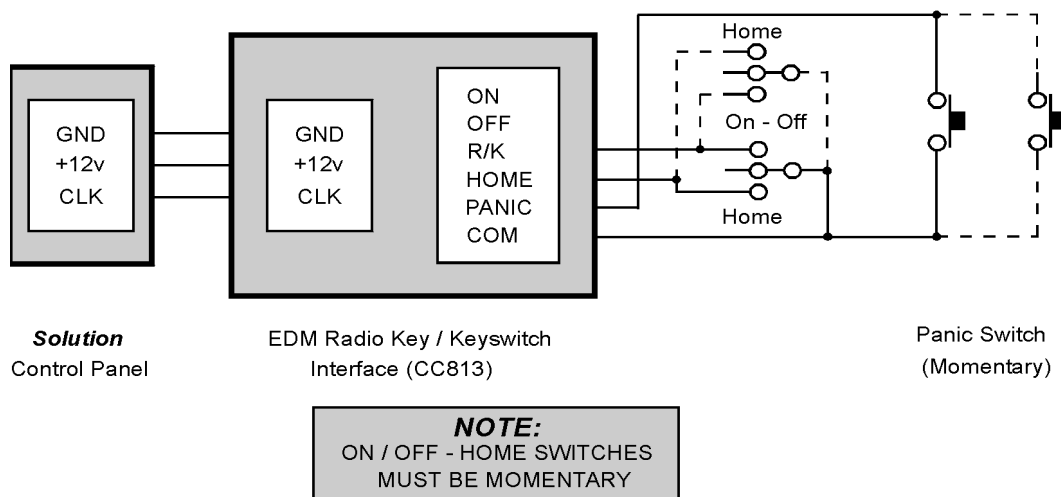
Keyswitch: On / Off



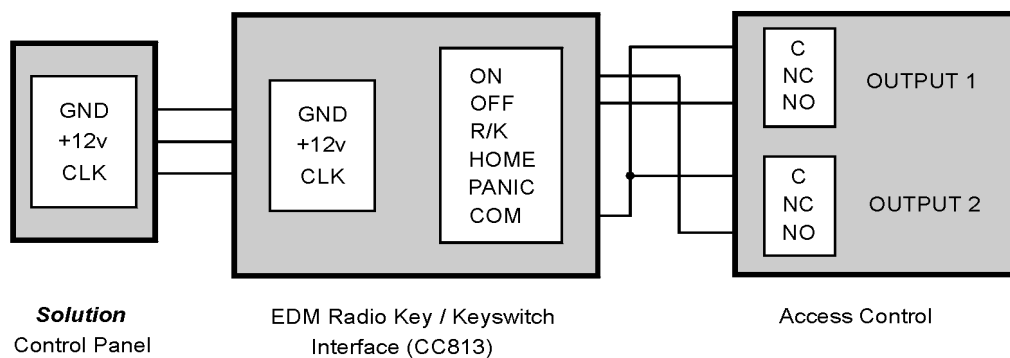
NOTE:
ENABLE KEYSWITCH INTERFACE MODULE
LOCATION 181 MUST CONTAIN "1"

Figure 10: Radio Key / Keyswitch Interface Connection Diagram

Keyswitch: On / Off - Panic



Access Control: On / Off



Radio Key: On / Off

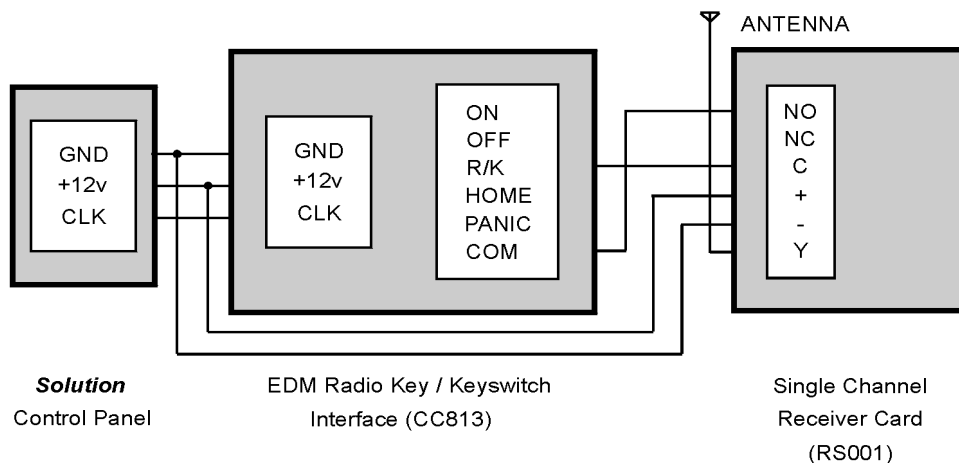


Figure 11: Radio Key / Keyswitch Interface Connection Diagram

Terminal Definitions and Descriptions

Terminal Definitions and Descriptions

Term	Definition
EARTH	This terminal should be connected to the green wire on the transformer which is internally connected to 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 plug pack. The voltage of the plug pack to be used must be 18-22 volts AC at 1.3 amps minimum for correct operation.
+ BATTERY - BATTERY	The + BATTERY connects to the red or positive terminal of the battery and the - BATTERY connects to the black or negative terminal of the battery. The battery used should be rated at 12 Volt sealed lead acid rechargeable type with a capacity of between 1.2 AH - 6.5 AH. The battery is protected by a 3 amp fuse.
GND +12V CLK DATA	This group of terminals are the connection points for the remote codepads. All remote 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 remote 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 control panel should not exceed 400 mA maximum.
STR OUT 1 + COM	<p>This group of terminals is protected by a solid state IPS system, giving them incredible tolerance against short circuits.</p> <p>The STR terminal is fully programmable the same as OUT 1 and the Relay Output. The STR terminal is the connection point for the negative side of a strobe light. The positive side of the strobe is connected to the + COM terminal. The STR output is normally open circuit going low and is capable of sinking up to 400 mA.</p> <p>OUT 1 is factory defaulted as a Horn Speaker Output to drive reflex horn speakers with the common terminal being the + COM. There are fifteen different sounds available for the horn speaker. Refer to "Siren Sound Rate" on page 105. A maximum of two 8 ohm horn speakers may be connected in parallel between OUT 1 and + COM terminals.</p>
COMM N/O (30v 1A Max)	These relay contacts are fully programmable and are factory defaulted as an alarm output. The N/O contact is the connection point for the POSITIVE side of a DC siren such as a piezo screamer. The GND contact is the NEGATIVE connection for the screamer. A link (JP2) is provided on the PCB for connecting the COMM terminal to either GND or 12V. This link should be connected to +12V as shown in the Wiring Diagram on page 133.
12V Z6 Z5 Z4	These terminals are for zones four, five and six as well as their common terminal 12V. All normally closed contacts are to be wired in series with the EOL resistor, where all normally open contacts are to be wired in parallel with the EOL resistor. At factory default, zones four and five function as burglary zones and zone six functions as a 24 hour burglary zone.
GND 12V	These two terminals have been ideally positioned between the zone wiring to enable easy powering of detectors and other equipment. They will be the connection point for detector power and are fuse protected by a 1 Amp 2 AG fuse.
Z3 Z2 Z1 12V	These terminals are for zones one, two and three as well as their common terminal 12V. All normally closed contacts are to be wired in series with the EOL resistor, where all normally open contacts are to be wired in parallel with the EOL resistor. At factory default, zones one, two and three function as burglary zones with zone one programmed to be the entry zone.

Solution 6 + 6 Wireless - AE Wiring Diagram

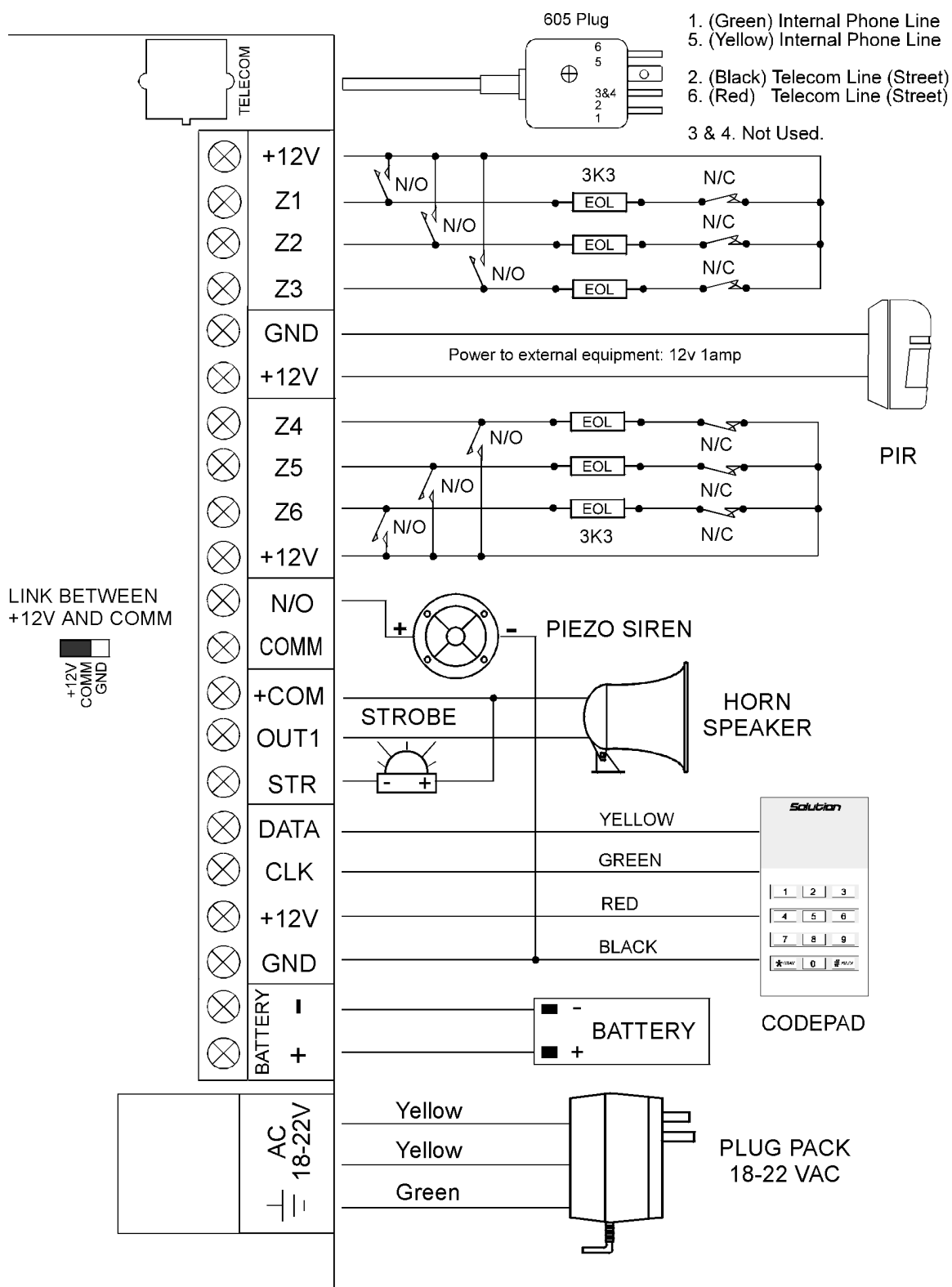
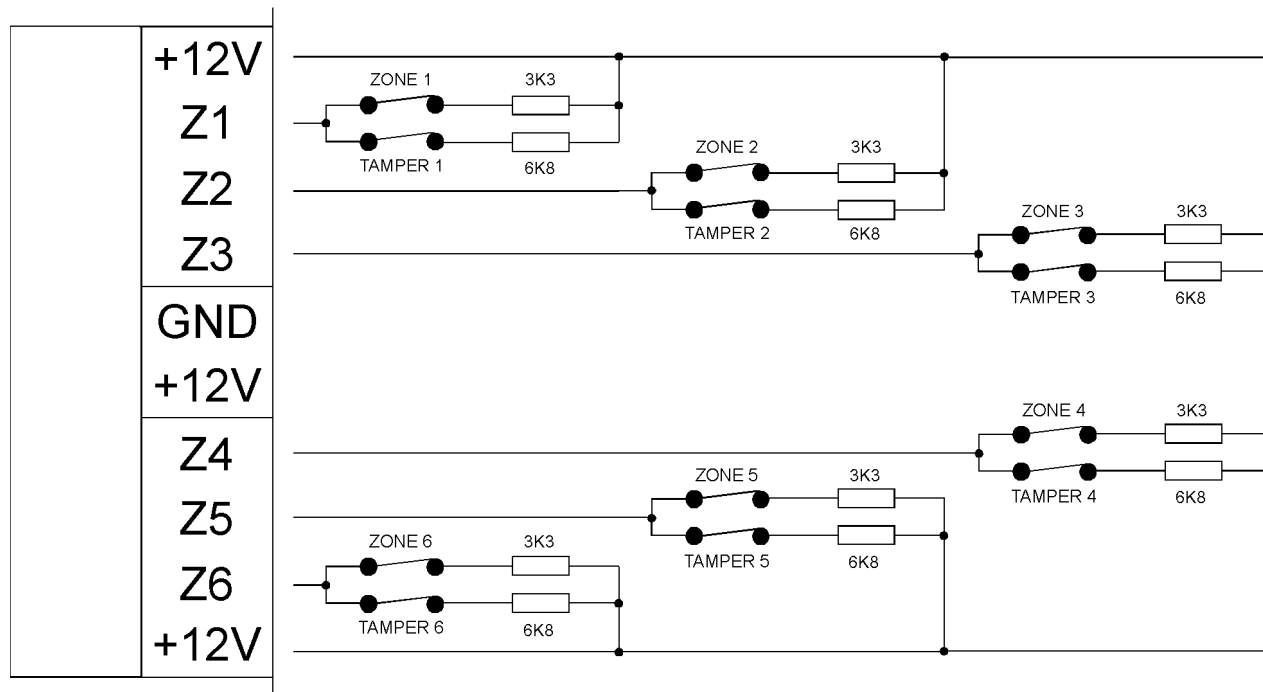


Figure 12: Solution 6+6 Wireless - AE Wiring Diagram

Connections Of Split EOL Resistors For Tamper Operation

Normal/Tamper zone
(3K3/6K8) configuration
using N/C switches.



If N/O switches are used both
zones will trip if either of the
N/O switches are closed

Figure 13: Connection Of Split EOL Resistors For Tamper Zones

Solution 6 + 6 Wireless - AE PCB Layout

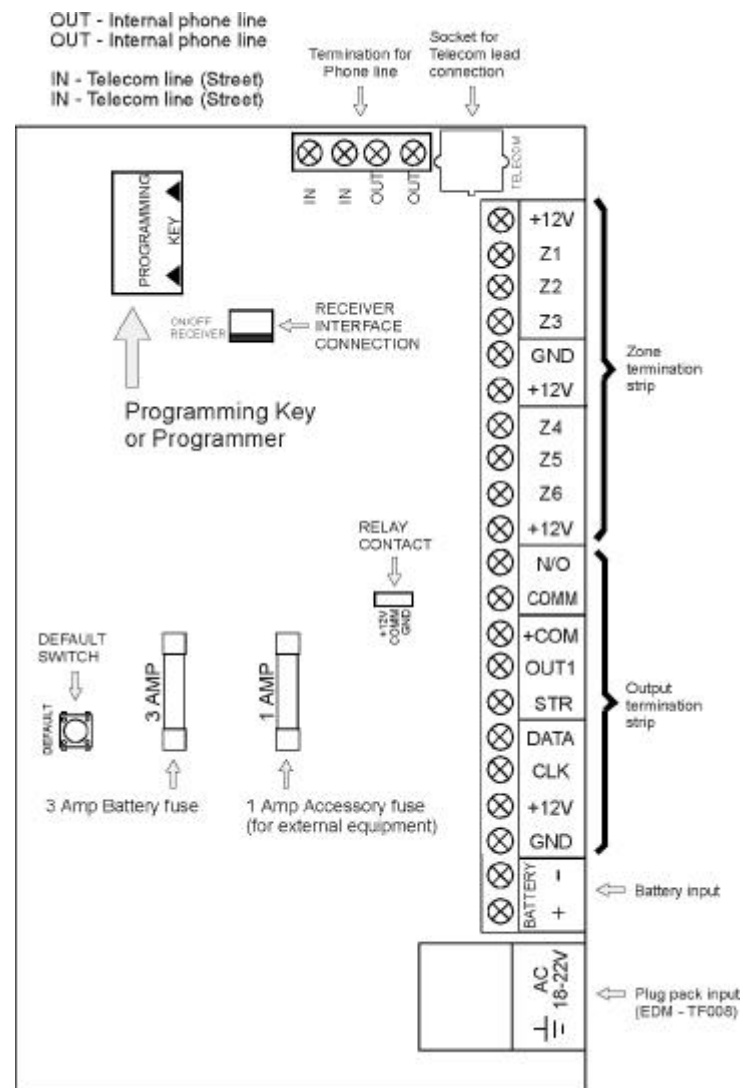


Figure 14: Solution 6+6 Wireless - AE PCB Layout

Connection Diagram For Radio Receiver

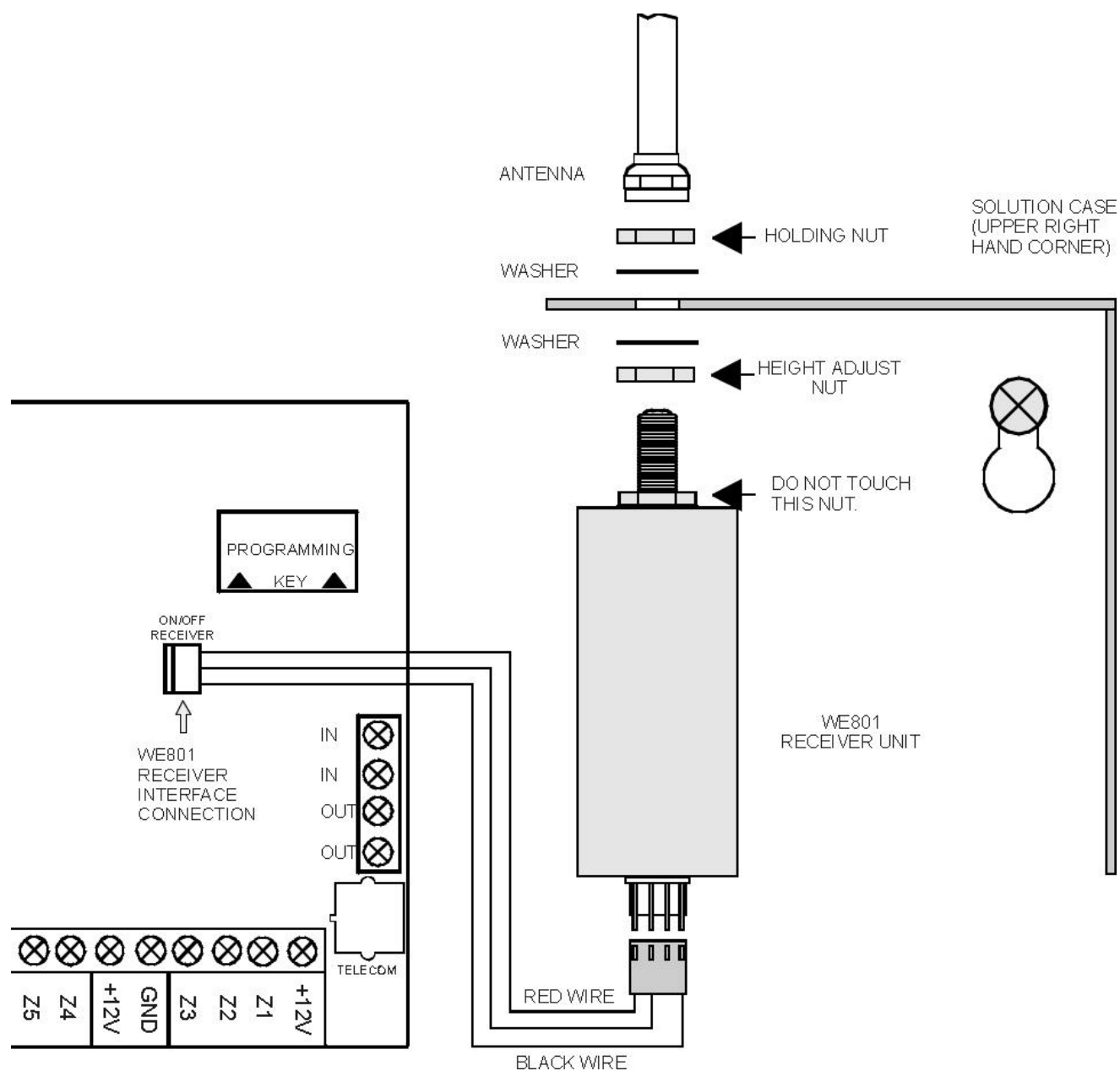
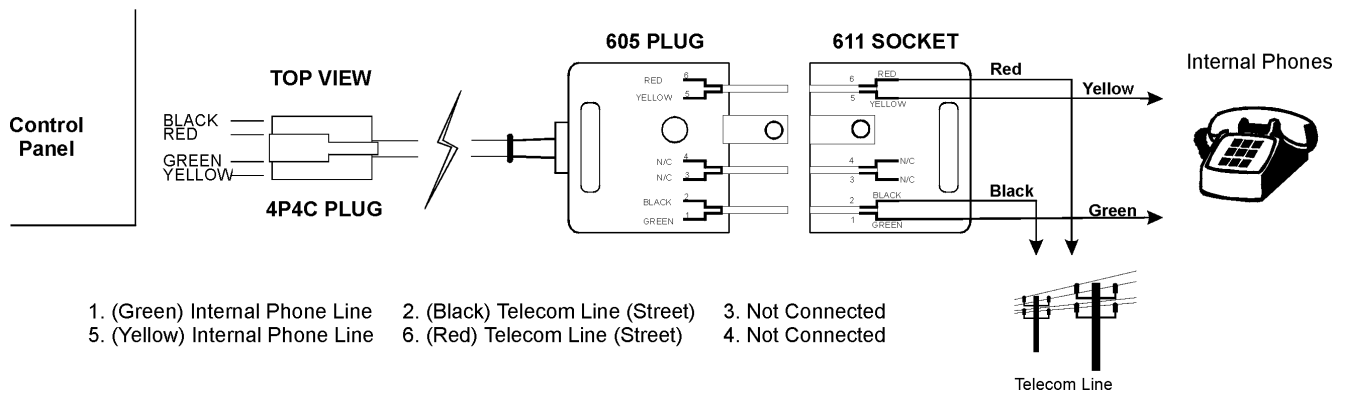


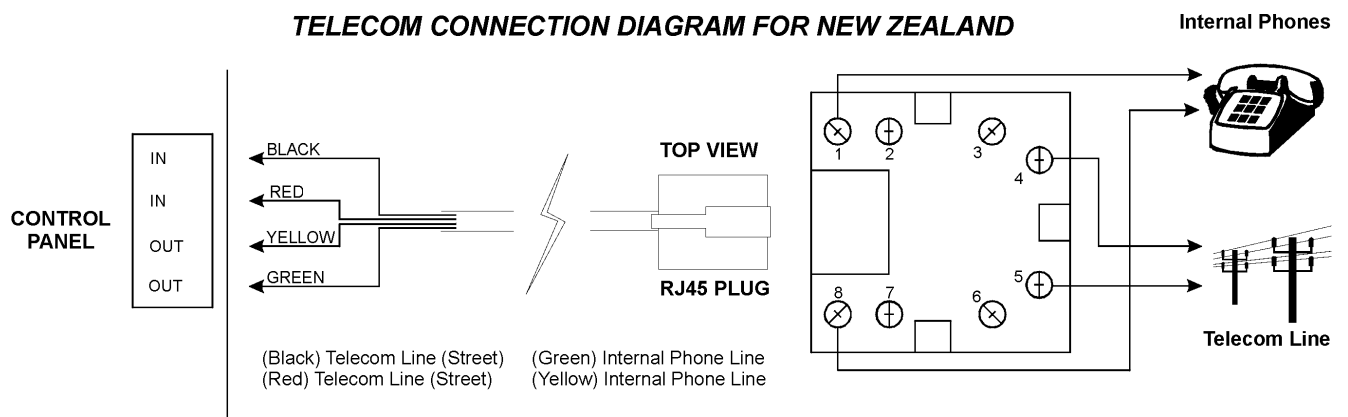
Figure 15: Connection Diagram For Radio Receiver

Telephone Connection Diagram

TELECOM CONNECTION DIAGRAM FOR AUSTRALIA



TELECOM CONNECTION DIAGRAM FOR NEW ZEALAND



TELECOM CONNECTION DIAGRAM FOR CHINA

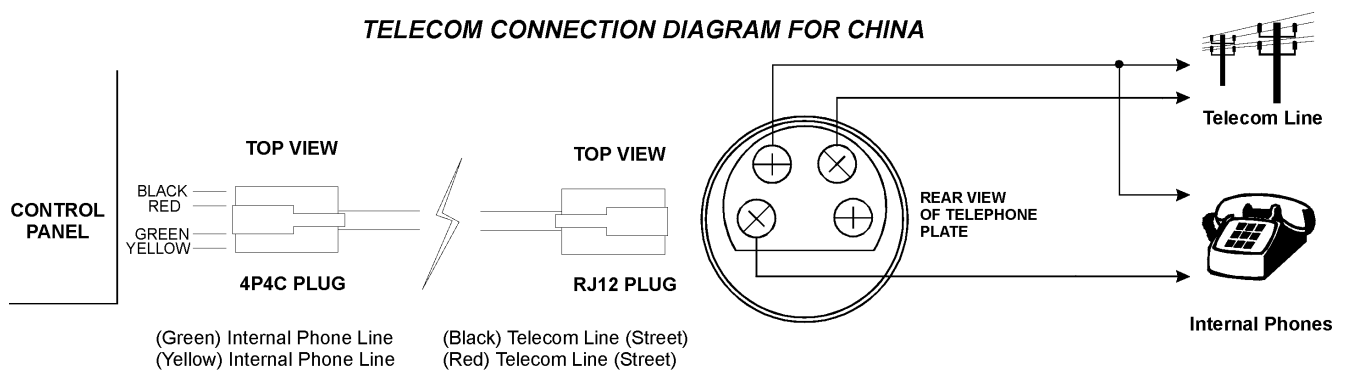


Figure 16: Wiring Diagram For Telephone Connection

Appendices

This section includes the following topics:

- *Telephone Anti-Jamming*
- *Test Reports Only When Armed*
- *New Zealand Telepermit Notes*

Appendix A

Telephone Anti-Jamming

There are many companies today importing American designed products which claim to incorporate the Anti-Jamming feature. Believe it or not, they push this feature as if it were a major break through in control panel technology. In fact this is not the case at all. 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 most American designed products are primarily aimed at their local market and telephone networks. When these products are imported into Australia their anti-jamming feature 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 (**ie.** 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** the case 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 the phone for ninety seconds or longer. As you can 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 a period of ninety seconds 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, 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 & 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 burglars 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 phones 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 & Manufacturing Pty Limited have incorporated this true anti-jamming feature as standard and we do not consider it as an option but a must in any professional security system.

Appendix B

Test Reports Only When Armed

The *Solution 6+6 Wireless - AE* control panel allows for test reports to be sent to the base station receiver to verify that the dialler is functional. So what! you might say, as most alarm diallers allow you to do this.

The one problem with this is that installations which report opening and closing's will generally also send a test report each day. This call is unnecessary, as a successful opening and closing report means that the dialler is functioning.

The *Solution 6+6 Wireless - AE* control panel allows you to save time and money by providing test reporting only while the control panel is in the armed state.

Program "LOCATION 184" on page 115 with Option 1 (Send Test Reports Only When 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 is disarmed, a test report will not be transmitted. On the weekend, generally the premises will be closed and the control panel armed so a test report will be sent at the programmed time and 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 on Sunday.

By using a *Solution 6+6 Wireless - AE* control panel you will be able to eliminate five calls per week. This means that over one week you will save your customer \$1.20 and over one year you will save them \$62.40.

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 (\$212,160 assuming local calls) just for reporting opening, closing and test reports over a 12 month period.

If you install a *Solution 6+6 Wireless - AE* control panel, you can effectively cut the calls to 624,000 per year (at a value of \$149,760 assuming local calls), a saving of \$62,400. 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 \$45.00 per box this becomes a considerable saving.

As you can seem, using the *Solution 6+6 Wireless - AE* 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.

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 which could constitute a nuisance to other Telecom customers.
- Immediately disconnect this equipment should it become physically damages 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.

Programming Sheets

Location 00 - 15

Primary Telephone Number

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Location 16 - 31

Secondary Telephone Number

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Location 32 - 47

Callback Telephone Number

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Location 48

Dialling Format

1 = Australian DTMF

2 = Australian Decadic

3 = Alternate DTMF & Decadic (Aus.)

4 = International DTMF

5 = Reversed Decadic

6 = Alternate DTMF & Reverse Decadic

1

Location 49

Handshake Tone

1 = Hi-Lo Handshake (Contact ID)

2 = 1400 Hz (Ademco TX @ 1900 Hz)

3 = 2300 Hz (Sescoa TX @ 1800 Hz)

4 = No Handshake Required

5 = Pager

1

Location 50

Transmission Format

1 = Contact ID

2 = Reserved

3 = Reserved

4 = Reserved

5 = Reserved

6 = Reserved

7 = Reserved

8 = Reserved

9 = Reserved

10 = Reserved

11 = Domestic

12 = Basic Pager

13 = Reserved

14 = Reserved

15 = Reserved

1

Location 51

Reserved

0

Location 52 - 55

Subscriber ID Number

0	0	0	0
---	---	---	---

Location 56 - 59

Installer Code

1	2	3	4
---	---	---	---

Location 60

Ring Count

15 = Answering Machine Bypass 1

14 = Answering Machine Bypass 2

8

Location 61 - 100

User Codes

User Code #1

Location 61 - 65

2	5	8	0	8
---	---	---	---	---

User Code #2

Location 66 - 70

15	15	15	15	0
----	----	----	----	---

User Code #3

Location 71 - 75

15	15	15	15	0
----	----	----	----	---

User Code #4

Location 76 - 80

15	15	15	15	0
----	----	----	----	---

User Code #5

Location 81 - 85

15	15	15	15	0
----	----	----	----	---

User Code #6

Location 86 - 90

15	15	15	15	0
----	----	----	----	---

User Code #7

Location 91 - 95

15	15	15	15	0
----	----	----	----	---

User Code #8

Location 96 - 100

0	15	15	15	1
---	----	----	----	---

Location 101

Day Alarm Mask

1 = Zone 1

2 = Zone 2

4 = Zone 3

8 = Zone 4

1

Location 102

Code Retries

6

Location 103

EOL Resistor Value

1 = 1KW

2 = 1K5W

3 = 2K2W

4 = 3K3W

5 = 3K9W

6 = 4K7W

7 = 5K6W

8 = 6K8W

9 = 10KW

10 = 12KW

11 = 22KW

12 = Reserved

13 = Reserved

14 = Reserved

15 = Split EOL For 6 Tampers

4

Location 104 - 133

Zones

Zone #1	Location 104 - 108	Zone #3	Location 114 - 118	Zone #5	Location 124 - 128															
	<table><tr><td>2</td><td>0</td><td>0</td><td>0</td><td>3</td></tr></table>	2	0	0	0	3		<table><tr><td>1</td><td>0</td><td>0</td><td>0</td><td>3</td></tr></table>	1	0	0	0	3		<table><tr><td>0</td><td>0</td><td>0</td><td>0</td><td>3</td></tr></table>	0	0	0	0	3
2	0	0	0	3																
1	0	0	0	3																
0	0	0	0	3																
Zone #2	Location 109 - 113	Zone #4	Location 119 - 123	Zone #6	Location 129 - 133															
	<table><tr><td>1</td><td>0</td><td>0</td><td>0</td><td>3</td></tr></table>	1	0	0	0	3		<table><tr><td>0</td><td>0</td><td>0</td><td>0</td><td>3</td></tr></table>	0	0	0	0	3		<table><tr><td>12</td><td>0</td><td>0</td><td>0</td><td>3</td></tr></table>	12	0	0	0	3
1	0	0	0	3																
0	0	0	0	3																
12	0	0	0	3																

<table><tr><td></td></tr></table>		<table><tr><td></td></tr></table>		<table><tr><td></td></tr></table>		<table><tr><td></td></tr></table>		<table><tr><td></td></tr></table>		Report Option	1 = Enable Alarm Report	4 = Reserved
Type	Option	Pulse	Time	Report Option	2 = Enable Restore Report	8 = Reserved						

Location 134

Report Options 1

- 1 = Enable Zone Bypass Reports
- 2 = Enable Zone Bypass Restore Reports
- 4 = Enable Zone Trouble Reports
- 8 = Enable Zone Trouble Restore Reports

15

Location 135

Report Options 2

- 1 = Enable Duress Reports
- 2 = Enable Panic, Medical and Fire Reports
- 4 = Enable Access Denied Reports
- 8 = Enable Test Reports

15

Location 136

Report Options 3

- 1 = Enable AC Mains Fail Report
- 2 = Enable Low Battery Reports
- 4 = Enable Sensor Watch Reports
- 8 = Enable Opening/Closing Reports

15

Location 137 - 139

Test Reporting Time (Repeat Days, Hours Tens, Hours Units)

0	0	0
---	---	---

Location 140 - 163

Output Configurations

Output #1	Location 140 - 145	Strobe	Location 146 - 151												
	<table><tr><td>1</td><td>14</td><td>0</td><td>0</td><td>0</td><td>0</td></tr></table>	1	14	0	0	0	0		<table><tr><td>2</td><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td></tr></table>	2	0	1	0	0	0
1	14	0	0	0	0										
2	0	1	0	0	0										
Relay	Location 152 - 157	Console	Location 158 - 163												
	<table><tr><td>1</td><td>15</td><td>1</td><td>0</td><td>0</td><td>0</td></tr></table>	1	15	1	0	0	0		<table><tr><td>0</td><td>12</td><td>2</td><td>1</td><td>0</td><td>1</td></tr></table>	0	12	2	1	0	1
1	15	1	0	0	0										
0	12	2	1	0	1										
<table><tr><td></td><td></td></tr></table>			<table><tr><td></td></tr></table>		<table><tr><td></td></tr></table>		<table><tr><td></td><td></td></tr></table>								
Event Type (when)	Polarity (how)	Time (base)	Time (multiplier)												

Location 164 - 165

Entry Timer 1 (Seconds, 16 Seconds)

10	0
----	---

Location 166 - 167

Entry Timer 2 (Seconds, 16 Seconds)

4	1
---	---

Location 168 - 169

Exit Timer (Seconds, 16 Seconds)

12	3
----	---

Location 170 - 171

Entry Guard Timer (Seconds, 16 Seconds)

12 3

Location 172 - 173

Sensor Watch Time (Days)

0 0

Location 174

Codepad Lockout Time (10 Second)

0

Location 175

Siren Run Time (Minutes)

10

Location 176

Siren Sound Rate (Slow < -Sound- > Fast)

7

Location 177

Swinger Shutdown Count

0

Location 178

Dialler Options 1

1 = Enable Dialler Reporting Functions
 2 = Enable Remote Arming Via The Telephone
 4 = Enable Remote Connect Via Alarm Link Software
 8 = Terminate "Upload/Download" Session On Alarm

5

Location 179

Dialler Options 2

1 = Send Open/Close Reports Only If A Previous Alarm Has Occurred
 2 = Enable First To Open, Last To Close Reporting (Partitioning Only)
 4 = Send Open/Close Reports When In STAY Mode
 8 = Delay Siren Until Transmission Is Complete

0

Location 180

System Options 1

1 = Enable Forced Arming
 2 = Enable EDM Smart Lockout
 4 = Enable Monitoring Of Horn Speaker
 8 = Allow Horn Speaker Beeps For Radio Remote Control Operation

1

Location 181

System Options 2

1 = Enable Radio Key/Keyswitch Interface or Night Arm Station
 2 = Enable Handover Delay To Be Sequential
 4 = Enable Codepad Panic To Be Silent
 8 = Enable Access Denied To Be Silent

2

Location 182

System Options 3

1 = Enable Main Codepad To Display Data For Area #1
 2 = Enable Resetting Of Sirens From Both Areas
 4 = Ignore AC Fail
 8 = Enable Handover Of Zone Pulse Count

0

Location 183

System Options 4

1 = Enable AC Fail In 1 hour
 2 = Extend Time To Wait For Handshake From 30 Seconds To 1 Minute
 4 = Enable Control Panel To Power Up In The Disarmed State
 8 = Enable Remote Radio Zone Low Battery Reports

0

Location 184

Consumer Options 1

1 = Send Test Reports Only When The System Is Armed
 2 = Enable Operation Of Siren & Strobe In STAY Mode
 4 = Enable Answering Machine Bypass To Work Only When The System Is Armed
 8 = Enable Codepad Extinguish Mode

2

Location 185

Consumer Options 2

1 = Enable "User Code + 0 + AWAY" Function To Arm/Disarm BOTH Areas At The Same Time
 2 = Enable Single Button Arming In AWAY and STAY Modes
 4 = Enable Single Button Disarming From STAY Mode
 8 = Enable Alarm Memory Reset On disarm

0

Location 186 - 191

Area 1 Zone Allocations

0 0 0 0 0 0

Location 192 - 197

Area 2 Zone Allocations

0	0	0	0	0	0
---	---	---	---	---	---

Location 198 - 205

Area/User Allocations

Location 198	Location 199	Location 200	Location 201
Areas For User # 1 <input type="text" value="0"/>	Areas For User # 2 <input type="text" value="0"/>	Areas For User # 3 <input type="text" value="0"/>	Areas For User # 4 <input type="text" value="0"/>
Location 202	Location 203	Location 204	Location 205
Areas For User # 5 <input type="text" value="0"/>	Areas For User # 6 <input type="text" value="0"/>	Areas For User # 7 <input type="text" value="0"/>	Areas For User # 8 <input type="text" value="0"/>

Location 206 - 213

Radio User Allocations

Location 206	Location 207	Location 208	Location 209
Areas For User # 9 <input type="text" value="0"/>	Areas For User # 10 <input type="text" value="0"/>	Areas For User # 11 <input type="text" value="0"/>	Areas For User # 12 <input type="text" value="0"/>
Location 210	Location 211	Location 212	Location 213
Areas For User # 13 <input type="text" value="0"/>	Areas For User # 14 <input type="text" value="0"/>	Areas For User # 15 <input type="text" value="0"/>	Areas For User # 16 <input type="text" value="0"/>

Location 214

System Options 5

1 = Enable Internal Crystal To Keep Time
2 = Reserved
4 = Reserved
8 = Reserved

Location 900

Disable Factory Default

0 = Defaulting Enabled
15 = Defaulting Disabled

Specifications

This section includes the following topics:

- *Warranty Statement*
- *Specifications*
- *Software Version*

Warranty Statement

Electronics Design & Manufacturing Pty Limited warrants this product to be free from defects in material and workmanship for a period of two 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 & Manufacturing Pty Limited, such as lightning, excessive voltage, mechanical shock or damage arising out of abuse, alteration or improper application of the equipment. A full fault report must be provided either to Electronics Design & Manufacturing Pty Limited or one of its authorised agents. Forms are available on request.

Specifications

Temperature Range:	0 to 45 Degrees Celsius
Humidity:	10 % to 95 %
Power Source:	Plug Pack
	240 volt 18 volt AC 1.3 Amp
Stand-By Current:	65 mA
Back-Up Battery:	6.5 Ah 12 volt DC Rechargeable Sealed Lead Acid.
Weight:	2.5 Kg
Dimensions:	306 mm x 262 mm x 84 mm (Packed in Carton)
Austel Approval Number:	A96/03/0096
New Zealand Telepermit:	PTC 211/96/007

Software Version Number

LOCATION 999

1. 01

“LOCATION 999” will display the software version number of the control panel. This can only be carried from the hand held programmer. The software version number cannot be displayed from a remote codepad.

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